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Continental
Air Defense Command

HISTORICAL SUMMARY

JULY 1956 - JUNE 1957

SUPPORTING DOCUMENTS
VOLUME TWO
DOCUMENTS 74 THROUGH 176

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NAVAL FORCES CONAD

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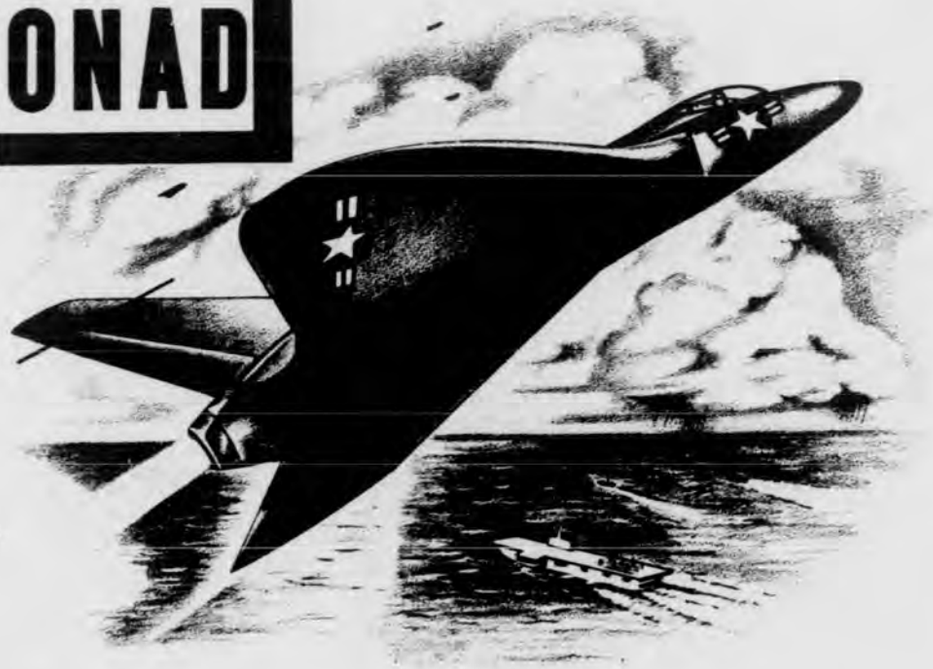
NAVFORCONAD INSTRUCTION 03320.1B



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NAVFORCONAD INSTRUCTION 03320.1B

From: Commander Naval Forces, Continental Air Defense Command
To: Distribution List

Subj: Operations of naval augmentation aircraft in continental air defense

Ref: (a) NSDP 1-56
(b) OPNAV INST 05410.3A
(c) CINCONAD Regulation 55-5

Encl: (1) Instructions for operations of naval augmentation aircraft in continental air defense

1. Purpose. To provide a single source of information and instructions for naval air augmentation forces which participate in continental air defense under the operational control of CINCONAD.

2. Cancellation. COMNAVFORCONAD INSTRUCTION 03320.1A dated 1 August 1956 is hereby superseded and cancelled.

3. Background Information. In the event of the likelihood of, or actual air attack on North America, CINCONAD has been directed by the JCS to assume operational control of those forces made temporarily available from other commands (augmentation forces). Naval augmentation forces consist of ships, aircraft and facilities which have primary missions other than continental air defense, but which are assigned tasks in continental air defense under CINCONAD in case of emergency. COMNAVFORCONAD, under the direction of CINCONAD, coordinates plans for introduction of naval augmentation forces into CONAD with appropriate naval commanders. This instruction concerns only the operation of naval augmentation aircraft in continental air defense, and is intended to provide information on CONAD operating procedures excerpted from pertinent CONAD directives and USAF Air Defense Command directives which have been designated by CINCONAD as applicable to continental air defense operations. (CINCONAD is responsible for determining the best procedures and methods for conducting the tactical air battle). For convenience and more detailed reference, the sources of the above mentioned excerpts are indicated at the beginning of paragraphs concerned. It is to be noted that the information contained herein is not directive to naval air augmentation units until they are placed under the operational control of CINCONAD.

4. Action. The Naval Regional Component Commanders will supplement this instruction with applicable extracts from directives issued by the CONAD Regional and CONAD Division Commanders in their areas of responsibility. In this connection, the Naval Deputies at the CONAD Divisions will furnish their respective Naval Regional Component Commanders data from their

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Divisions on frequency assignments, SARP's, etc., for this purpose. All directives thus compiled will be bound together as a "Naval Air Augmentation Information Folder" for distribution to Navy and Marine Corps Air Augmentation Units within the geographical areas for which the respective Naval Regional Component Commanders are responsible. Normally, Naval Air Augmentation Units will require only the folder issued for the CONAD region in which they are located. Naval commands which have potential augmentation aircraft units in more than one CONAD region may require folders for each CONAD region concerned. All holders are invited to advise COMNAVFORCONAD or his appropriate subordinate commander or deputy of recommendations for changes or improvements to this Instruction or those issued in support of it.

5. Applicability. References (a) and (b) set forth the policy of the Chief of Naval Operations in all matters concerning naval participation in continental air defense. This Instruction is promulgated pursuant to these references, and to reference (c) which requires each Service furnishing augmentation forces to provide such forces with appropriate augmentation folders.

Irwin Chase

IRWIN CHASE
Chief of Staff

Distribution:
LIST II, CAT A
COMDTMARCORPS -2
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Enclosure (1) [redacted] 74

NAVFORCONADINST 03320.1
15 June 1957

INSTRUCTIONS FOR NAVAL AUGMENTATION AIRCRAFT IN CONTINENTAL AIR DEFENSE

TABLE OF CONTENTS PAGE

Enclosure (1)

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[redacted] 74

NAVFORCONADINST 03320.1B
15 June 1957

PART I

CONCEPT OF OPERATIONS

101. General

a. In an emergency, units of the Operating Forces of the Navy which may be in port or temporarily based ashore, units of the Reserve Fleets, and facilities (including aircraft) of the Naval Shore Establishment not regularly allocated to continental air defense, but having air defense capabilities, shall provide maximum practicable assistance, consistent with primary missions, to appropriate CONAD commands.

b. The temporary employment of naval elements in port, temporarily based ashore, or ashore, under emergency conditions in continental air defense will be planned and coordinated by the cognizant naval component commanders of CONAD, in consultation with the commander concerned. Determination of the requirement for naval air augmentation forces is the responsibility of CINCONAD. Determination of the availability of forces and facilities for such employment is the responsibility of the naval commander concerned.

c. Maximum participation in air defense exercises is desired.

102. Essential Principles

a. Mutual Understanding

Manifestly, in this joint effort where several naval commands combine to support the Continental Air Defense Command, responsibilities will merge upon occasion and will become difficult to define. Other complexities will arise in the development of this mission. Accordingly, success will be dependent upon purposeful cooperation.

b. Advance Preparation

The basic premise that the initiative of attack is left to the enemy is recognized. It is mandatory, with the acceptance of this premise, that swift defense measures be available at all times to repel an incoming attack. The forces having a primary mission of air defense must be maintained in a ready status, and in addition, all forces having an air defense capability must be thoroughly familiar with the procedures which will enable them to be utilized rapidly and effectively in repelling an air attack.

c. Local Area Coordination

Coordination between subordinate commands of Continental Air Defense Command, and appropriate Navy and Marine commands must be detailed, continuous and accurately defined. The following factors shall be carefully weighed:

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(1) Air attack may occur without warning. Subordinate Navy and Marine commands are directed to take swift and positive defensive action to meet such an attack. Therefore, planning and coordination at the level of the CONAD Division and corresponding Navy and Marine commands is vital.

(2) Standardization of air defense matters is imperative since the Continental Air Defense Command coordinates the diversified Army, Navy, Marine, and Air Force elements. Accordingly, subordinate Navy and Marine commands should not effect any major new procedure, or other major official action concerning air defense matters until approved by Continental Air Defense Command and the Navy and Marine command concerned. This restriction is not to be construed to preclude effective liaison between commands--on the contrary--coordination and liaison is encouraged.

103. Command and Operational Control

Source: CONAD Regulation 21-1 and OPNAVINST 05410.3A

a. Basic Principles.

(1) The mission of air defense is functional, carried out on a geographical basis.

(2) Service component commanders under CINCONAD provide, equip, administer, and train combat ready forces.

(3) Specified CONAD commanders under CINCONAD are responsible for combat operations.

(4) Operational control of all forces made available for air defense will be vested in the specified CONAD commander at each echelon of command.

(5) Authority will be decentralized to the greatest extent compatible with the optimum effective control and application of the total defense force available.

b. Accordingly, operational control of all forces made available for air defense will be exercised exclusively through a CONAD operational chain from CINCONAD through the lowest CONAD agency directing the tactical employment of combat forces. The CONAD structure will be maintained as a separate entity, responsible only to CINCONAD for the fulfillment of missions and tasks assigned by CINCONAD.

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104. Definitions

a. Operational Control. Those functions of command involving the composition of subordinate forces, the assignment of tasks, the designation of objectives and the authoritative direction necessary to accomplish the air defense mission. Specifically, it includes:

(1) The responsibility to determine the best procedures and methods for conducting the tactical air battle, for exercising the operation of all assigned forces and for directing the engagement and disengagement of weapons.

(2) The authority to centralize operational control of all air defense forces assigned, attached or otherwise made available, including the assignment of individual antiaircraft batteries to designated targets. Operational control does not include such matters as administration, discipline, internal organization, and unit training.

b. CONAD Region: A geographical subdivision of the CONAD air defense area. (Example: Western CONAD Region).

c. CONAD Forces, CONAD Region: Forces made available for air defense within the Region area of responsibility.

d. CONAD Division: A geographical subdivision of a CONAD Region, and those CONAD Forces within the Division area. (Example: 9th CONAD Division).

e. CONAD Region Operations Center: The central intelligence, communications and operations center within a CONAD Region, established for the purpose of coordinating the combat effort of all forces available for air defense of the CONAD Region. This facility serves as the Command Post of the CONAD Region Commander.

f. CONAD Division Control Center: The central intelligence, communications, and operations center within a CONAD Division, established for the purpose of supervising and coordinating the combat effort of all aircraft, antiaircraft, guided missiles, and air warning and control activities made available to the CONAD Division Commander for air defense. This facility serves as the Command Post of the CONAD Division Commander.

g. CONAD Direction Center: A specified subordinate joint information, communications and operations center within a CONAD Division, established for the purpose of coordinating and supervising air surveillance and identification activities within an assigned area, and of exercising tactical direction of all combat weapons assigned by the

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CONAD Division Commander for the purpose of intercepting and destroying hostile aircraft and missiles. A joint center at which the ADC Direction Center and Army Air Defense Command Antiaircraft Operations Center are co-located.

h. CONAD Region Commander: A senior officer designated by CINCONAD to exercise over CONAD Forces within the CONAD Region those functions of command outlined in paragraph a, above, as delegated by CINCONAD.

i. CONAD Division Commander: A senior officer designated by CINCONAD to exercise over CONAD Forces within the CONAD Division those functions of command outlined in paragraph a, above, as delegated by the appropriate CONAD Region Commander.

j. CONAD Forces: Forces operationally responsible to CINCONAD for air defense.

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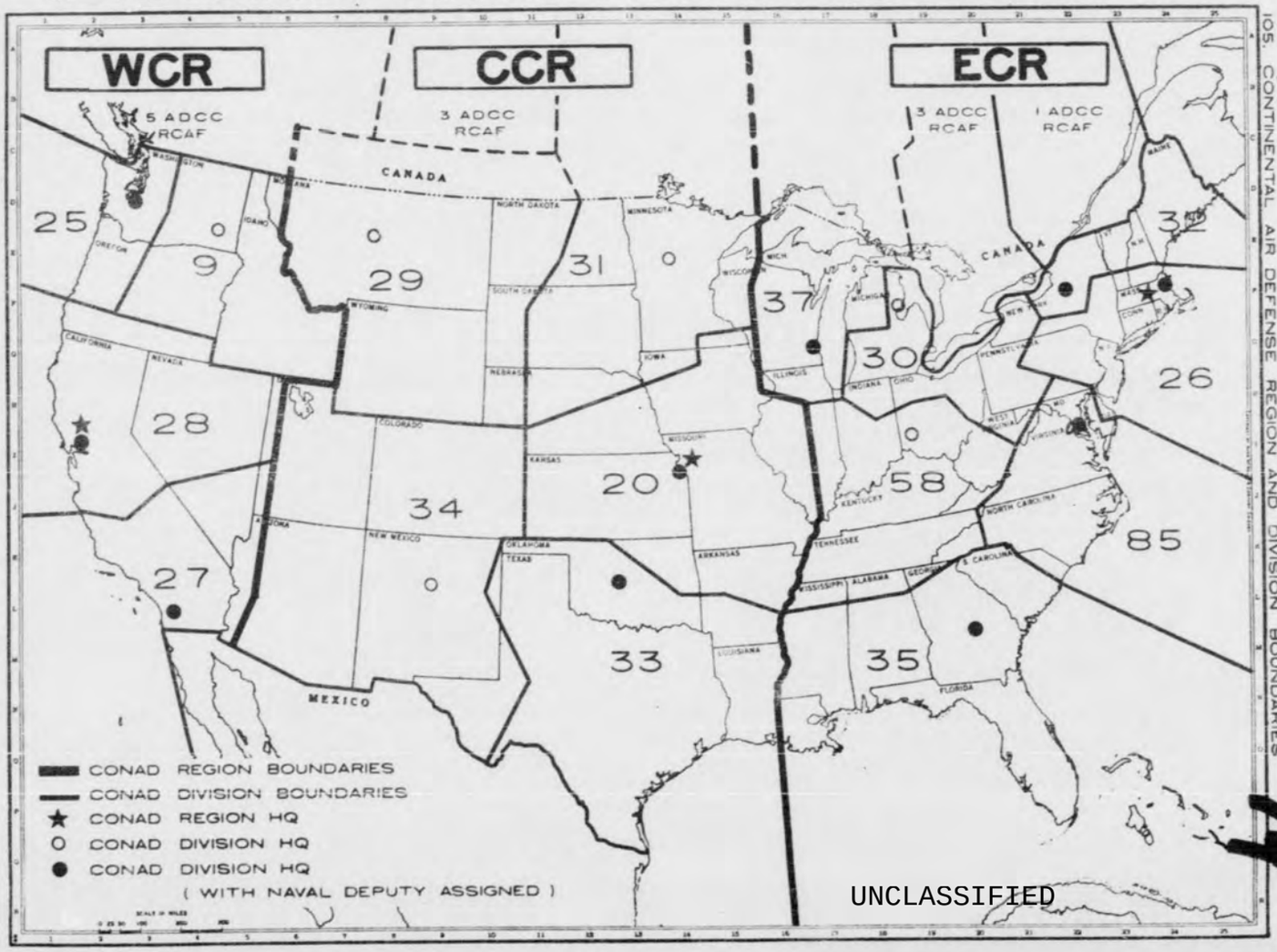
UNITED STATES-CANADA . . . AIR DEFENSE BOUNDARIES



105. CONTINENTAL AIR DEFENSE REGION AND DIVISION BOUNDARIES

I-5

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PART II

NAVAL AIR OPERATIONS

201. General. The effective employment of supporting forces depends to a great extent on a thorough understanding of methods and procedures utilized by the forces responsible for carrying out the primary mission. The procedures utilized in interceptor defense operations which concern naval interceptor aircraft will be those existing standing operating procedures utilized by naval aviation units unless otherwise specified.

202. Operational Control of Naval Air Augmentation Forces

Source: OPNAVINST 05410.3A

a. Naval forces, when allocated to the appropriate CONAD Commander, shall insofar as air defense operational procedures are concerned, come under the operational control of the CONAD Division Commander in whose sector the forces are located.

b. In the event of the likelihood of or actual air attack on North America, CINCONAD will assume operational control of those forces specifically made temporarily available from other commands (augmentation forces). Operational control over such forces will be relinquished when the likelihood of the threat has dissipated or when the attack is ended. In the event the commander who made the forces available to CINCONAD considers that a primary mission requires the return of the forces to their permanent command assignments, an appropriate request will be made to CINCONAD. If such request is not granted next recourse is to the Joint Chiefs of Staff.

c. Commanders making augmentation forces available may place restrictions on the deployments of those forces in the event they are required for their primary naval missions. The CONAD Division Controller or GCI controller may land aircraft at other than home bases in emergencies or for reasons of flight safety. Landings at other than home bases for replenishment of fuel and ammunition is not considered redeployment.

203. Allocation of Naval Air Augmentation Forces

a. In the event of a no-warning attack or Warning RED, requests for naval interceptors submitted directly via active scramble lines to naval units from the CONAD Direction Center need not be referred to higher authority. Time is of the utmost importance and the local Navy or Marine commander must immediately place in effect plans for transferring operational control of available fighter interceptor aircraft if needed by the cognizant CONAD commander. (See paragraph 401b for procedures on initial allocation of Navy and Marine forces).

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b. In the event of Warning YELLOW, transfer of operational control to CONAD of available fighter interceptor aircraft will be accomplished if needed and requested by the cognizant CONAD Division commander. However, before transferring operational control of such forces to CONAD, the naval commander concerned must first make the decision as to whether or not such allocation and transfer of operational control would reduce his capability to carry out an assigned naval mission of higher priority. (See Part III for definitions of states of preparedness and warnings).

204. Logistic Support of Naval Air Augmentation Forces shall be provided through normal naval channels. COMNAVFORCONAD has no logistic support organization; however, when naval augmentation forces are under the operational control of CINCONAD, logistic requirements will be affected by the operational requirements laid down by CINCONAD. COMNAVFORCONAD may then provide a liaison function between CONAD and naval forces.

205. Training. Policy for participation in air defense training is contained in OPNAV Instruction 05410.3A and the Naval Basic Defense Plan 1-56. The Naval Basic Defense Plan 1-56 and OPNAV Instruction 05410.3A provide for active participation by augmentation forces in the planning for and conduct of air defense exercises.

206. Identification Zone Procedures. In accordance with OPNAVINST 3722.5.

207. Identification of Navy Tactical Flights during Periods of Security Control of Air Traffic (SCAT). During periods of SCAT, Navy tactical flights, other than those flights operating with the AC&W (GCI) system for continental air defense, will use the appropriate code word for identification. Reference COMEASTSEAFRONINST 03320.3 and COMWESTSEAFRONINST 003320.1.

208. States of Alert for Interceptor Aircraft

Source: CONAD Regulation 55-14

a. General. This paragraph defines the various states of alert for interceptor aircraft employed in the air defense of the continental United States. These states of alert apply to fighter units engaged in air defense training or active air defense operations under the operational control of CINCONAD.

b. States of Alert for Interceptors and Surface-to-Air Weapons.

(1) Battle Stations. A degree of preparedness that requires an interceptor or fire unit to be capable of immediately initiating a tactical scramble or an effective engagement.

[redacted]

[redacted]

(2) 5-Minute Alert: A degree of preparedness that requires an interceptor or fire unit to be capable of accomplishing a tactical scramble or an effective engagement within five minutes of receipt of an alert, warning or order.

(3) 15-Minute Alert: A degree of preparedness that requires an interceptor or fire unit to be capable of coming to "Battle Station" alert within fifteen minutes of receipt of an alert, warning or order.

(4) 30-Minute Alert: A degree of preparedness that requires an interceptor or fire unit to be capable of coming to "Battle Station" alert within thirty minutes of receipt of an alert, warning or order.

(5) 1-Hour Alert: A degree of preparedness that requires an interceptor or fire unit to be capable of coming to "Battle Station" alert within one hour of receipt of an alert, warning or order.

(6) 3-Hour Alert: A degree of preparedness that requires an interceptor or fire unit to be capable of coming to "Battle Station" alert within three hours of receipt of an alert, warning or order.

(7) Released: A status that indicates that an interceptor or fire unit has been released from an air defense commitment.

209. Criteria for Determining Combat Ready Pilots, Radar Operators and Combat Ready Aircraft

a. General. The purpose of this paragraph is to establish a guide for determining criteria whereby appropriate unit commanders may designate combat ready pilots, radar operators and aircraft, qualified to stand alert, participating in air defense operations. The following criteria apply to all pilots, radar operators, whether or not assigned to a tactical unit, and fighter-interceptor aircraft available for air defense.

b. Combat Ready Personnel

(1) In fighter-interceptor aircraft (without airborne intercept radar).

(a) Pilot has accomplished the following in unit equipped aircraft or in aircraft of similar series or type.

1. Flown a total of 40 hours.

2. Completed night familiarization in aircraft.

[redacted]

[redacted]

3. Participated in three successful ground-controlled interceptions.

4. Demonstrated the ability to fly instruments to include GCA, radio range orientation, and ADF.

5. Possess a current instrument card.

6. Completed aerial gunnery qualification or is considered qualified by squadron commander.

(b) Has been certified as qualified or combat ready by the squadron commander.

(2) In fighter-interceptor aircraft (with airborne intercept radar).

(a) Pilot:

1. Has met the requirements established in paragraph 209b(1) above, and completed ten night interceptions using airborne intercept radar. Five intercepts will be made on a target aircraft which has navigation lights ON and five on a blacked-out target aircraft.

2. Has demonstrated knowledge of the use of the gunsight in assigned aircraft.

(b) Has been certified as qualified or combat ready by the squadron commander.

(c) Radar Observer:

1. Has completed a course of instruction in AI equipped aircraft at an appropriate school or has demonstrated ability comparable to that of a graduate of such a school.

2. Has been certified as qualified or combat ready by the squadron commander.

c. Combat Alert Personnel

(1) Prior to being scheduled for combat alert duty in fighter-interceptor aircraft, as much as is practicable of the requirements in paragraph b will be complied with. However, the status of syllabus training and particular ability of the pilot involved will be the basis on which the squadron commander will certify the individual pilot as being qualified to participate.

[redacted]

[redacted]

(2) Paragraph b(2)(b) will apply insofar as it pertains to the utilization of radar observers.

(3) Squadron commanders are authorized to grant waivers of the requirements contained in this paragraph where deemed advisable for accomplishment of the mission.

d. Combat Ready Fighter-Interceptor Aircraft

(1) A fighter-interceptor aircraft without airborne intercept radar will be reported combat ready when:

(a) The aircraft is in commission, and

(b) Has the following equipment installed and operational:

1. All guns and/or rocket pods (boresighted and system harmonized) with full ammunition.

2. Gunsight (computing feature operational, where applicable).

3. Oxygen system.

4. UHF transmitter and receiver.

5. Radio compass.

6. All primary flight instruments.

7. All engine instruments.

8. Pressurization system.

(2) A fighter-interceptor aircraft with airborne intercept radar will be reported combat ready when, in addition to the items listed in paragraph d(1), the aircraft has the following equipment installed and operational:

(a) Airborne intercept radar equipment fully operational.

(b) Intercommunication system (where applicable).

(c) Afterburner (where so equipped).

210. Rules of Engagement and Recognition Procedures for Interception in Air Defense

Source: CONAD Regulation 55-6 and OPNAV Instruction 3320.5B

[redacted]

[redacted]

a. General. CONAD Regulation 55-6 applies to all Navy and Marine aviation augmentation forces when under the operational control of CINCONAD. Pertinent portions are quoted below:

OPERATIONS

Rules of Engagement and Recognition Procedures for Interceptors in Air Defense

1. Purpose and Scope. This Regulation provides instructions for interception, identification, and engagement of hostile aerial targets within the boundaries of the continental United States, Alaska, and the coastal Air Defense Identification Zones (ADIZ's), where the Commander-in-Chief, Continental Air Defense Command (CINCONAD) exercises operational control of air defense forces.

2. Concept. These Rules of Engagement are based upon agreements between the Department of State and the Department of Defense. They are predicated upon the concept of centralized operational control of all air defense weapons by the CINCONAD with maximum decentralization of tactical authority, as the development of the air battle dictates.

3. Responsibilities.

a. It is the responsibility of commanders at all echelons of this command (CONAD) to insure that all persons concerned with the contents of this regulation be fully aware of its provisions and understand the extent of their authority.

b. Commanders have the responsibility to insure that training and proficiency of personnel are such that, within the capabilities of available equipment, hostile aircraft are prevented from reaching their targets and, at the same time, friendly aircraft are not inadvertently engaged.

c. Nothing in these instructions shall be construed as preventing any responsible commander from taking such action as may be necessary to defend his command when subjected to a hostile attack.

d. Interceptor aircrews will gain maximum proficiency in recognition of multi-engine and jet aircraft, civil and military, of the United States, Canada, Great Britain, Western European nations, the U.S.S.R., Soviet Satellite nations, and Nationalist and Communist China. Recognition also includes national markings of these countries on all aircraft.

4. Determination of Hostile Aircraft.

(b) (1) [redacted]

[redacted]

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NAVFORCOMADINST 03320.1B
15 June 1957

(b) (1) [redacted]

(b) (1) [redacted]

(b) (1) [redacted]

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NAVFORCONADINST 03320.1B
15 June 1977

(b) (1) [redacted]

5. Engagement of Hostile Aircraft.

a. Engagement is any action or series of actions by air defense weapons to effect the control of hostile aircraft. Such actions as are consistent with the tactical situation will, in each case, include visual signals (ANNEX B), radio communications, warning bursts by fighter interceptors, and similar measures. In the event none of these are, or likely to be, successful in producing the desired results, destruction of the hostile aircraft will be undertaken.

b. Authority to engage hostile aircraft.

(b) (1) [redacted]

(b) (1) [redacted]

6. Identification and Engagement of Aircraft over Canada.

a. Air defense aircraft under the control of this command may overfly the Canadian border when such action is required for identification purposes provided it is not possible for Canadian military aircraft to accomplish the identification. Overflight of the Canadian border will be conducted in accordance with the provisions of current directives governing tactical overflight of the United States-Canadian border (ADCR 55-35). Any engagement by fighter interceptors over Canadian territory will be conducted in accordance with rules of engagement promulgated by RCAF/ADC 'Air Staff Instructions,' (ASI 2/5).

b. Cross-border agreements are being finalized between this command and RCAF/ADC for the employment of surface-to-air weapons over Canadian territory. Until these agreements are issued, the following procedures will exist:

(1) Operational control of the following surface-to-air weapons defenses will, in all cases, be exercised by or <u>through</u> the CONAD division commander:

[redacted]

[redacted]

(a) Sault Ste, Marie, Michigan - 37th CONAD Division.

(b) Port Huron, Michigan - 30th CONAD Division.

(c) Detroit, Michigan - 30th CONAD Division.

(d) Niagara Falls-Buffalo, N.Y. - 30th CONAD Division.

(e) Loring AFB, Maine - 32d CONAD Division

(2) Prior to ordering or authorizing the engagement of any aircraft within air space over Canadian territory, the CONAD division commander will obtain the concurrence of the division/sector commander authorized to exercise operational control within the air space in which the engagement will occur, as listed below:

(a) 30th CONAD Division - Hq #3 ADCC/RCAF.

(b) 32d CONAD Division - Hq #1 or Hq #2 ADCC/RCAF, depending on area concerned.

(c) The area of responsibility of the 37th CONAD division commander includes an area in Canada. Air defense actions taken in this Canadian air space will be on the authority of the AOC ADC (Canada) and will be conducted in accordance with procedures and instructions laid down by the AOC.

b. Interception and Recognition Procedures.

1. General. All fighter interceptors engaged in air defense activities in defense of the continental United States, Alaska, and the coastal ADIZ's where CINCONAD exercises operational control of air defense forces will be governed by the following procedures:

a. All aircraft which are classified as being 'significant-unknown' by the ACGW system, under established CONAD identification criteria, will be intercepted for more positive identification to determine their absolute identity except as in the instances noted below.

b. Practice intercepts will not be conducted against known civilian aircraft.

c. Interceptors will fly no closer to the intercepted aircraft than is necessary for positive visual recognition.

d. VFR interception patterns will be as outlined in current directives governing day-visual interceptions.

[redacted]

[redacted]

e. At night, or during conditions of restricted visibility, interceptions conducted for identification purposes by aircraft equipped with all-weather fire control systems will be in accordance with paragraph 103.b. of ADCM 55-5, 15 October 1956, 'Standard Tactics for Air Defense Operation.' Intercepts conducted for identification purposes by aircraft not equipped with all-weather fire control systems will be in accordance with paragraph f. below.

f. Fighter-interceptor pilots will keep the direction center directors advised of conditions of marginal visibility, and:

(1) When visibility at interception altitude is less than two miles, but more than one mile, the interception will be completed only when the fighter interceptor is under direct control, or has AI contact with the intercept target.

(2) When the visibility is less than one mile, interception will be completed only when the fighter interceptor has AI contact with the intercept target.

(3) Under exceptional circumstances, in which identification is deemed mandatory, the CONAD division commander may waive the limitations imposed in (1) and (2) above.

g. When more than one fighter interceptor is employed on an interception, only one pilot will effect recognition. The remaining aircraft will maintain surveillance from a position where attack could be made against the intercepted target. One such surveillance aircraft will, where possible, record the recognition particulars as transmitted by the pilot effecting recognition.

h. The fighter-interceptor pilot effecting recognition, or the other member of the element, will immediately report the number, type, nationality, ownership, etc., and any unusual behavior of the intercepted target to the direction center director as outlined in ADCM 55-5, paragraph 103.b.(2)(c). Aircraft serial numbers will be obtained and reported only when considered necessary by the director to effect identification, and the fighter-interceptor pilot is so notified.

i. If the intercepted aircraft is positively identified as friendly, the fighter interceptors will withdraw immediately unless previous arrangements have been made for simulated attacks against the intercepted aircraft.

j. If the intercepted aircraft cannot be positively identified as friendly, the interceptor will maintain surveillance and await further instructions from the direction center director. If, during this period, the aircraft is declared hostile or commits a hostile act, the aircraft will be engaged.

[redacted]

[redacted]

k. Every effort will be made by fighter-interceptor pilots to prevent startling intercepted aircraft crews or passengers. The effect desired is one which assures personnel in the intercepted aircraft that the fighter interceptor is making routine investigation in the interest of conducting properly the mission of this command.

l. The direction center director, when unable to identify an aircraft through information passed by the interceptor, will immediately notify the appropriate CONAD division control center giving all pertinent information."

c. Day Visual Interception. The interception pattern for day visual interception outlined on page II-12 of this Instruction may be used as a guide by Navy and Marine personnel participating in air defense operations.

211. Standard Briefing Procedures

a. General. This paragraph prescribes standard briefing procedures to be used for briefing Navy and Marine interceptor pilots and crew members prior to training missions and when going on alert duty. Unit commanders will be responsible for a proper and detailed briefing for each flight. Briefings will include briefing of new members placed on alert status as well as those assigned to training missions.

b. Briefing Personnel. The flight leader will conduct the briefing. He will be assisted by intelligence, communications, ordnance, and aerology officers, and specialists deemed applicable to the mission.

c. Presentation. The following is the briefing sequence for the interceptor units under jurisdiction of the Continental Air Defense Command:

(1) General Information

(a) Number of aircraft and type of formation.

(b) Designation of flight leaders, and secondary flight leader.

(c) Start engine, take-off, join up, and rendezvous point.

(d) Communication channels and call signs, radio security, navigational aids, recognition signals, and authentication procedure.

(e) Ammunition load and how to be used.

(2) Target Data

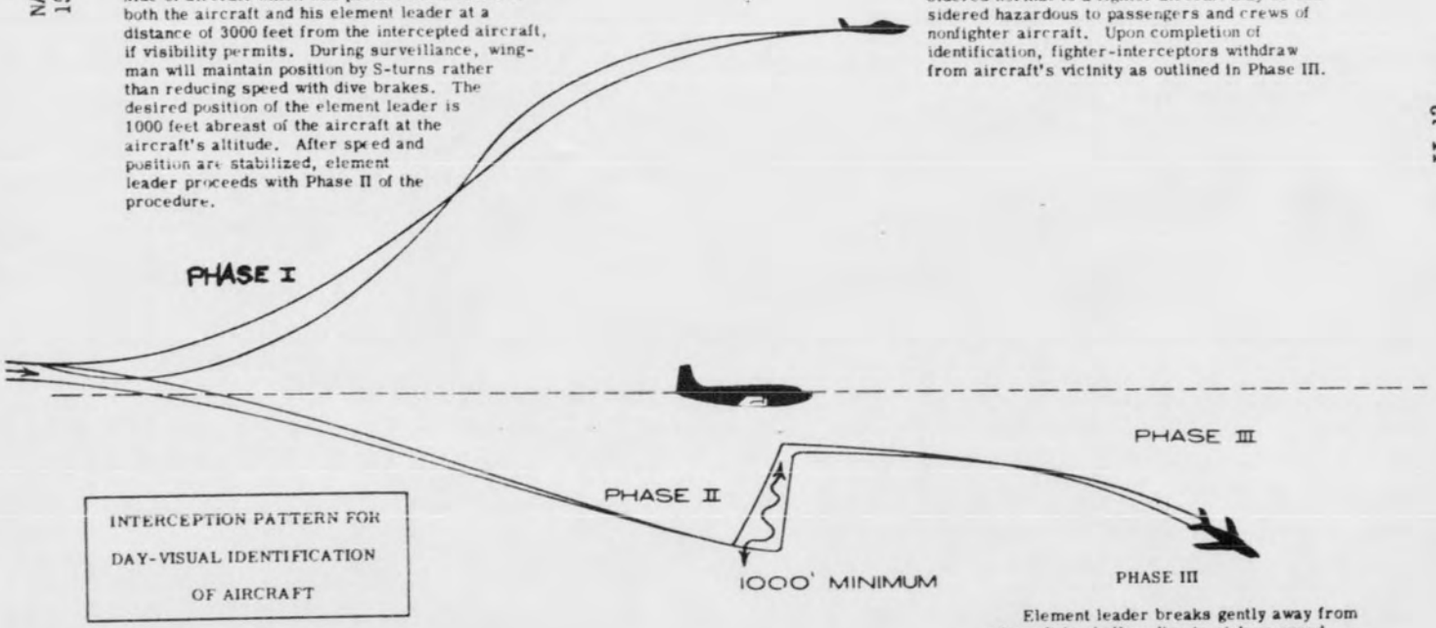
[redacted]

PHASE I

Intercepting aircraft approach intercepted aircraft from astern. Element leader reduces throttle and extends dive brakes. Wingman continues to the opposite side of the intercepted aircraft from the leader and climbs to 4000 feet above target aircraft altitude for the purpose of maintaining surveillance, using economical power setting. Should weather ceiling not permit surveillance from this position, wingman will assume a position on either side of aircraft which will permit observation of both the aircraft and his element leader at a distance of 3000 feet from the intercepted aircraft, if visibility permits. During surveillance, wingman will maintain position by S-turns rather than reducing speed with dive brakes. The desired position of the element leader is 1000 feet abreast of the aircraft at the aircraft's altitude. After speed and position are stabilized, element leader proceeds with Phase II of the procedure.

PHASE II

Wingman continues surveillance. Element leader begins gentle closure on aircraft at same level until no closer than absolutely necessary to obtain information needed. As he gives identification information to director, wingman copies information for mission report. Element leader uses every precaution to avoid startling intercepted aircrew or passengers, keeping constantly in mind that maneuvers considered normal to a fighter aircraft may be considered hazardous to passengers and crews of nonfighter aircraft. Upon completion of identification, fighter-interceptors withdraw from aircraft's vicinity as outlined in Phase III.



INTERCEPTION PATTERN FOR DAY-VISUAL IDENTIFICATION OF AIRCRAFT

PHASE III

Element leader breaks gently away from aircraft in shallow dive to pick up speed. Wingman stays well clear of intercepted aircraft and joins leader.

(a) Type and/or description of target.

(b) Means of identification.

(c) Method of attack and tactics.

(d) After firing.

1. Armament and camera switches off.

2. Rendezvous.

3. Let-down and turn-around procedures.

(3) Weather Data

(a) Local weather forecast.

(b) Weather at target.

(c) All possible alternates and emergency plan.

(4) Operating Data

(a) Fuel.

(b) Oxygen.

(c) Personal equipment.

(5) Emergency Data

(a) Emergency and safety procedures.

(b) Review of all SOPs on type of mission being flown.

212. Control Procedures - Fighter/Interceptor Aircraft

Source: USAF ADC Manual 55-5

a. Purpose. This paragraph presents standing operation procedures for the control of fighter-interceptor aircraft during air defense operations.

b. Control Responsibilities. The responsibility for fighter-interceptor aircraft control during active air defense missions will be governed by the following:

[redacted]

(1) AC&W (GCI) squadron commanders will be responsible for aircraft control beginning with the time contact is made under direct control and will continue until the pilot assumes control in the attack phase. On relinquishment of control by the pilot at the termination of the attack, control responsibility is again vested in the AC&W (GCI) squadron commander until the pilot is authorized by the director to change to tower frequency or other navigational aids in the control zone.

(2) Fighter-interceptor pilots may assume control at any time in accord with their responsibilities as pilots or aircraft commanders by notifying the direction center or other facility directly concerned with the pilots' actions.

c. Standardization of Terms Controller and Director. To standardize the terms "controller" and "director", the following definitions apply:

(1) Controller: Any aircraft controller performing duty at an air defense wing, air defense division, or higher headquarters.

(2) Director: Any aircraft controller performing duty at an AC&W (GCI) squadron or subordinate unit.

d. Definitions

(1) Airborne Aircraft:

(a) Element: Two aircraft when such aircraft are a part of a flight of four aircraft.

(b) Flight: Any number of aircraft in one formation when such aircraft are a part of a squadron formation.

(2) Seaward Limits: Extent of control limits over ocean areas determined by radar and/or communication limits between the fighter-interceptor and the controlling agency.

(3) Scramble: An order issued by an authorized person instructing one or more fighter-interceptor aircraft to become airborne in the least possible time. The scramble phase begins upon the issuance of the scramble order and terminates upon the assumption of direct or remote control by the directing agency.

(a) VFR: A scramble ordered under conditions when weather is not a factor at the scramble base.

(b) IFR: A scramble ordered under conditions when weather penetration control procedures must be observed.

[redacted]

(c) Mandatory Scramble: A scramble ordered by the air defense division commander when the weather at the scramble base is below the prescribed minimums.

(4) Interception: Visual or electronic contact with an airborne object by interceptor aircraft as a result of a flight path pre-planned to make such contact in the shortest practical time consistent with acceptable tactics.

(5) Active Air Defense Mission: An intercept action in the interest of national security.

(6) IFR Recovery: A recovery will be considered to be IFR when the weather at the base of intended recovery is 10,000 feet ceiling or less, or ten miles visibility or less, or there is precipitation or other obstruction to vision.

(7) VFR Recovery: A recovery will be considered to be VFR when the weather at the base of intended recovery is greater than 10,000 feet ceiling and visibility is greater than ten miles.

NOTE: Fighter aircraft penetrating a cloud deck or other obstruction to vision will be governed by IFR procedures.

(8) Recovery Base: A base at which the following turnaround facilities are available:

(a) A runway of sufficient length to allow the landing and take-off of fighter—interceptor aircraft.

(b) Fuel.

(c) Starter unit.

(d) Minor maintenance facilities.

(e) A scramble and recovery procedure.

(f) Oxygen.

(g) Armament.

(h) Radar surveillance over ascents and descents.

[redacted]

(9) Emergency Recovery Base: Any landing field where fighter-interceptor aircraft can land safely. Radar surveillance is desired.

(10) Pounce: The condition that exists when the pilot of the fighter-interceptor has reached a position from which a successful attack can be launched.

(11) Weapons Assignment Director: The director designated to assign targets and weapons to the duty directors and effect coordination between the duty directors and the recovery director to insure an orderly attack and recovery.

(12) Recovery Director: The director designated to assume control of interceptors for recovery during periods of increased air defense activity or when weather conditions warrant.

(13) Trailer Aircraft: An aircraft designated to maintain airborne surveillance of hostile, unknown friendly or other airborne objects to insure constant surveillance and air intelligence.

(14) Relay Aircraft: Any aircraft assigned the responsibility of relaying voice radio transmissions.

(15) Attack Vector: The final vector given to a fighter-interceptor which will place him in a position from which an attack can be made.

(16) Recognition: The visual act, by the pilot for obtaining descriptive information of an unknown airborne object and passing the information to the director. Pilots do not have an identification function except in the event of an unknown committing a hostile act. Initial and subsequent identification will be made by AC&W (GCI) squadrons possessing that function except for the possible hostile act referred to above.

(17) AI Equipped: Aircraft is equipped with airborne intercept radar.

e. General

(1) Airborne Flight Designations

(a) Voice call signs for Navy and Marine fighter squadrons are assigned by JANAP 119(B). Normally individual pilots are locally assigned numerical designators

[redacted]

[redacted]

which, together with the squadron call sign, identify the individual pilot. It is recommended that these individual pilot designations be furnished to the associated AC&W (GCI) squadron.

Example: BIG SHOT 22 (Pilot No. 22 of VMF 114)

(b) When a flight of four is split into two elements the call sign of each two plane section will be the designation of the section leaders.

Example: Four Score 2 (consisting of 2, 12, 8, 16) splits into two sections

Four Score 2 - 1st Section
Four Score 8 - 2nd Section

(2) Weather

(a) The AC&W (GCI) squadron maintains accurate weather information on weather conditions affecting a specific aircraft or flight of aircraft participating in air defense missions. Winds aloft information will be made available for the intercept area.

f. Scramble Procedures

(1) VFR

(a) Upon the decision to order a scramble, the senior director of the direction center will notify the operations clearance desk or designated officer at the naval facility at which the naval augmentation fighter-interceptor squadron is based, giving the following:

1. "Scramble"

2. Number and type of aircraft desired.

3. Initial vector or check point.

4. Altitude.

5. Climb desired (Buster-Gait-Saunter, etc.)

6. Directing agency with whom initial radio contact will be made

[redacted]

[redacted]

7. VHF or UHF channel (for initial contact with directing agency).

Example: SCRAMBLE
2 FJ-2s
VECTOR 335
ANGELS 20
BUSTER
CALL IDAHO
ON BUTTON 10

(b) Upon receipt of scramble order, the operations clearance desk or designated officer at the Naval facility at which the naval augmentation fighter-interceptor squadron is based will:

1. Acknowledge receipt of scramble order giving initials of person receiving it.

Example: WILCO
AT THREE THREE
JULIETT PAPA

2. Insure receipt of scramble order by the ground crew and pilots, and log same.

3. Notify control tower concerned if direct communication does not exist between the direction center and control tower.

4. Notify the base aerology unit of the scramble.

(c) The fighter-interceptor squadron will immediately inform the appropriate direction center of the flight designator, the airborne time of the lead aircraft, the number of aircraft airborne, the initials of sender, and the time the message is given:

Example: 1. ELECTRIC CHAIR ONE
2. AIRBORNE THREE SEVEN
3. WITH 4 CHICKENS
4. JULIETT PAPA AT THREE SEVEN

(2) IFR

(a) Upon the decision to order a scramble, the senior director of the direction center will order a scramble in accordance with IFR procedures (SARPS-

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[redacted]

Scramble and Recovery Procedures), notifying the control tower simultaneously with the fighter-interceptor alert center.

(b) Upon receipt of scramble order, the person receiving the order at the operations desk of the fighter-interceptor unit will:

1. Acknowledge receipt of the scramble order.

2. Insure receipt of scramble order by the pilots and log it.

3. Notify the control tower concerned if direct communication does not exist between the tower and the direction center.

4. Notify the base aerological unit of the scramble.

(c) The fighter-interceptor squadron will immediately inform the appropriate direction center of the airborne time of the scrambled aircraft, and numerical designation, initials of sender, and the time the message is given.

(d) When in radar contact with fighter-interceptor aircraft, directors will provide adequate separation from other radar observed aircraft in accordance with SARPS Agreement.

1. Separation standards will be as follows:

a. En Route. Where radar controlled horizontal separation is to be utilized between terminal areas in lieu of vertical separation, control procedures will be so exercised as to avoid aircraft separation less than five nautical miles in any direction when under positive radar control at ranges greater than forty nautical miles. This is not applicable to elements within a formation.

B. Terminal Control Areas. A horizontal separation of not less than three nautical miles in all directions will be maintained between aircraft operating within the control area at ranges less than forty nautical miles under positive terminal area radar control.

[redacted]

[redacted]

(3) Fighter-interceptor pilots, upon receipt of scramble orders, will:

(a) Become airborne as soon as possible.

(b) Comply with scramble procedures outlined in local operational agreements.

(c) Change to designated frequency immediately upon leaving local control zone and contact the directing station. (Advise control tower of frequency change).

(d) Upon initial contact with the direction center give position, heading, altitude, and number of aircraft.

(e) Proceed to accomplish the mission as directed.

(f) Flight leaders and individual pilots operating aircraft under direction center control will advise the direction center prior to encountering and/or immediately after leaving IFR or restricted visibility conditions.

(4) In the event of an abort of one of the aircraft scrambled, the remaining aircraft will continue on the mission.

(5) The responsible commander will be responsible for the establishment of weather recovery minima, day and night, based on local conditions, and experience level of personnel for each type of interceptor aircraft possessed. These minima will take into consideration the fluctuation of ceilings and the reduction of slant range visibilities under conditions of indefinite ceilings and precipitation. When weather conditions are below the established minima, a mandatory scramble may also be ordered when runway or taxi conditions are such that the base is deemed unsafe for take-off and landing.

g. Direct Control

(1) Director exercising direct control will:

(a) Be thoroughly familiar with the capabilities and limitations of radar, fighters, and antiaircraft weapons which are or may be utilized for air defense within the subsector.

(b) Know all local terrain features and prominent check points within his normal control area.

[redacted]

(c) Know all available procedures for fighter recovery and/or emergency assistance.

(d) Be prepared to establish radio contact with the fighter-interceptor aircraft as soon as possible after the aircraft becomes airborne.

(e) Notify the senior director when he has radio contact and has identified the fighter-interceptor aircraft on the PPI scope.

(f) Issue necessary instructions to the fighter-interceptor pilot(s), using R/T procedures prescribed by ACP-165 as required to accomplish the mission.

(g) Know the AAA procedures and rules of engagement as they apply to his subsector.

(h) Keep the fighter-interceptor pilot briefed by providing him with information available concerning his specific mission or target to include:

1. The position of the target in relation to the fighter-interceptor aircraft as the interception progresses (clock code and range and passing from starboard to port).

   NOTE: When conducting a collision course interception, "angle off" will be given in degrees off nose of interceptor aircraft using point directly in front of interceptor as zero degrees.

2. The target heading, approximate number of aircraft, altitude, and speed, type of interception being conducted, and any changes noted.

3. The appearance, fade, or reappearance of the interceptor or target on the radar scope.

4. During the initial and final phases (prior to Judy if equipped with airborne intercept radar) of the interception, advise the pilot as to the type of attack being made, i.e., quarter, beam, stern, etc., and if necessary terminate the interception and reposition the interceptor prior to the merging of the blips on the PPI unless visual or radar contact is made.

[redacted]

5. Any evasive action or ECM activity being used by the target aircraft.

6. Limitations:

   a. When conducting interceptions utilizing airborne intercept equipment during periods of restricted visibility at intercept altitude, the interception will be terminated prior to the merging of blips on the PPI scope.

   b. When conducting an interception for the identification of an unknown aircraft, utilizing radar equipped aircraft, procedures for non-radar equipped interceptions will apply.

   c. When utilizing radar equipment, no interception will be conducted where the fighter aircraft approaches the target forward of 120 degrees from the stern of the target.

   d. Under conditions of emergency or against hostile aircraft, the limitations listed above will not apply.

7. Position the fighter-interceptor aircraft for tactical advantage.

8. Keep the fighter-interceptor pilot advised of the presence of other radar observed aircraft in his immediate proximity.

9. Keep advised of the current "What State" of the fighter-interceptor aircraft.

10. Provide radar surveillance for navigational assistance in the form of position reports and/or "pigeons" when applicable, or when necessary direct the fighter-interceptor aircraft to such a position that the air traffic control facilities concerned can assume control.

11. Keep the senior director informed of the progress of tactical action.

12. Monitor weather conditions and advise pilots when weather conditions are expected to affect flight.

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13. Know the communications procedures during jamming or loss of a specific frequency by either the fighter or direction center.

(2) The fighter-interceptor pilot(s) will:

(a) Use R/T procedure as prescribed by ACP-165.

(b) Follow instructions received from the director and repeat all portions directive in nature.

(c) Report when "steady" on all headings, "level" at assigned altitudes and, when required, "speed set".

(d) Keep the director advised of any unusual weather phenomena.

(e) When possible, keep the director informed regarding any malfunction of the fighter-interceptor aircraft.

(f) Keep the director advised of restricted visibilities at intercept altitude.

(g) When answering "What State" give fuel in pounds or gallons, as applicable.

(h) When the target is sighted, a "tally-ho" report will be made immediately to the director. Other data concerning the raid will be reported as soon as operationally feasible.

(i) Report to the director when the intercept mission has been completed, or when forced to detach, and state the reason.

(j) Request a "steer" for base, if required, and inform the director when the base is in sight or when leaving the assigned tactical frequency.

(k) Report any sightings of unusual, suspicious, or strange aircraft.

(l) Inform director when leaving the assigned tactical frequency.

(m) Follow instructions received from the director during IFR recovery, in accordance with local scramble and recovery procedures. These instructions may be overridden upon a declaration of

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emergency or when the pilot, considering all aspects of the situation, determines that the best interests of safety will be served by deviating from these instructions.

(3) The fighter-interceptor pilot and director will be prepared to authenticate all transmissions.

h. Remote Control

(1) Employment. During remote control conditions the director transmits to the fighter-interceptor personnel information on the enemy forces to include their position, heading, speed, and altitude at frequent intervals. Pilots will navigate to the area of the target and make contact visually or by radar. Remote control is most effective when the aircrews are able to fix their own position at any time. It is possible to operate interceptors under remote control when visual references to the ground cannot be maintained. This will require aircrews to dead reckon, using radio or radar aids if available, from their last known position to the indicated location of the hostile force. It is probable that situations could develop which might cause a combination of both remote and direct control procedures to be employed. Remote control as specified herein corresponds to Air Force "broadcast control".

(2) Conditions of Employment. Remote control techniques will be used when direct control is ineffective due to:

(a) High density raid conditions when as many fighter-interceptor aircraft as possible must be dispatched, and when direct control methods are insufficient to deal with the threat. When intercept action can be completed visually, an unlimited number of fighter-interceptor aircraft can be employed through the use of remote control procedures. Consequently, such procedures permit control under certain conditions when direct control procedures are ineffective or impossible, or when an enemy employs "mass attack" or other saturation tactics.

(b) Permanent echoes, fade areas, malfunction, electronic countermeasures, and other enemy activity.

(c) During periods of radar equipment failure or when remote control procedures are employed, information

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[redacted]

obtained from display boards, DF, or passive detection bearings or fixes, ground observer crops and security units will be used to the maximum extent for dead reckoning.

(3) Responsibilities

(a) The air defense division control center is responsible for initiating and terminating employment of remote control procedures. Authority to accomplish this function may be delegated to the AC&W (GCI) squadron commanders.

(4) Procedure

(a) When using remote control procedures, the transmitting facility will pass the following target information in the clear directly to fighter-interceptor pilots without requiring acknowledgment. Prior establishment of radar or radio contact with the fighter-interceptor aircraft is not required. The director will transmit:

1. Call sign(s) of the fighter-interceptor aircraft (when appropriate).

2. Call sign of the transmitting facility.

3. Target designation when more than one target is being intercepted.

4. Position of the target in miles and general bearing from a prominent geographical landmark, navigational aid, etc.

5. Heading, altitude, speed, and depth of the target.

6. Estimated number of aircraft in the target.

7. Any additional pertinent information the director deems necessary.

(b) Target information will be transmitted at frequent intervals to advise fighter-interceptor pilots of changes in the target data.

(c) Upon being advised that remote control is in effect, the flight leader will:

[redacted]

[redacted]

1. Orient himself.

2. Maintain radio silence unless otherwise directed.

3. Navigate so as to engage the target.

4. Notify the appropriate transmitting agency when in contact with the target.

5. Notify the appropriate transmitting agency when required to break away and return to base of intended landing, when such notification does not interfere with other operations.

6. Be responsible for maintaining his clearance from other aircraft.

(d) The senior controller will be responsible to disseminate to AC&W (GCI) units under his control the following:

1. That remote control is in effect.

2. The call sign of the transmitting facility.

3. Communication channel on which target position reports are being transmitted.

4. Track number of the target(s).

i. Passing Control of Fighter Interceptor Aircraft. To permit interception at the most advantageous position, passing control of fighter-interceptor aircraft may be necessary. This transfer of control will not be restricted by subsector, sector, regional, or international boundaries (Canada). When the weapons assignment director anticipates that it will be necessary to pass control of fighter-interceptor aircraft, the following procedures are prescribed:

(1) The weapons assignment director will:

(a) Call the station which is to assume control, establish the station availability and frequency to be used by the interceptor.

(b) Provide the receiving station with the following information concerning the fighter-interceptor aircraft:

[redacted]

[redacted]

1. Call sign.

2. Position.

3. Number and type of aircraft.

4. Heading.

5. Altitude.

6. Fuel and ammunition.

7. Mission data (when applicable).

8. Desired base for a landing.

9. IFF mode.

(2) The director will:

(a) Inform the fighter-interceptor pilot of the following:

1. Call sign of new directing agency.

2. Necessary directions for positioning as specified by the director who is assuming control.

3. The radio frequency to be used for communication with agency assuming control.

4. Standby to reassume control if necessary. Care will be exercised to provide continuity of control.

(3) The director assuming control of the fighter-interceptor will:

(a) Advise the transferring agency of any instructions which will efficiently and expeditiously accomplish the transfer of control for the fighter-interceptor pilot.

NOTE: Failure to have radar contact will not prevent the acceptance of control, although radar contact is desired. If no radar contact can be effected, the assuming director will so inform the interceptor pilot.

(b) Monitor the designated radio frequency to be used for control.

[redacted]

[redacted]

(c) Notify the original station when control has positively been assumed.

(d) If unable to establish radio contact on designated frequency(s), contact will be attempted on GCI common. If no contact is effected, the director will inform the original station that he was unable to establish contact.

(e) A station having control of fighter-interceptor aircraft will retain control until the station receiving control has notified that control has positively been assumed. No facility will attempt to contact a fighter-interceptor under the control of another facility before coordinating with the controlling facility.

(4) The flight leader of the fighter-interceptor aircraft being transferred will:

(a) Execute the transferring director's instructions.

(b) Initiate radio contact on designated frequency(s).

(c) Report his heading, altitude, fuel status, and other pertinent flight information to the new directing agency. If unable to establish radio contact on designated frequency(s), attempt contact on GCI common. If no contact is effected within two minutes, reestablish contact with the former director and inform him of the condition.

j. Scramble and Recovery.

(1) The CONAD division commander is responsible for the coordination with CAA and all interested agencies of all scramble and recovery procedures at all bases in his sector of responsibility where interceptor aircraft are based.

(2) Each direction center is responsible for coordinating and implementing scramble and recovery procedures prescribed for each recovery base, alternative recovery base and emergency recovery base within the station's surveillance area. But if the air activity is extremely heavy or under conditions of adverse weather, weapons assignment director and recovery director may be designated by the senior director in order that the maximum combat potential of the interceptor may be realized. The recovery director

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will be used to relieve other directors of responsibility for the interceptors in recovery. The weapons assignment director will direct the interceptors to the point where the duty directors will best be able to take over control. Duty directors will return the aircraft to the point where they can be turned over to the recovery director to start their approach and let-down procedures.

(3) When the ascent of interceptor aircraft is to be controlled by the weapons assignment director, the following procedures will apply:

(a) He will be seated at the weapons assignment scope equipped with video mapper when feasible and in full view of the status and plotting boards.

(b) Upon scrambling interceptor aircraft he will:

1. Monitor designated radio frequency.

2. Monitor ascents in order to furnish proper assignment to the recovery director in the event of an abort.

3. Maintain control of the interceptor aircraft until a duty director is assigned to take over control for commitment.

4. Furnish the duty director with:

a. Number and type of aircraft scrambled.

b. Flight Designator.

c. Heading, altitude and/or control point.

d. Frequency assigned.

e. IFF mode.

5. Keep the senior director informed of the current air situation and recovery of interceptors.

(4) When the recovery of interceptor aircraft is to be controlled by the recovery director, the following procedures will apply:.

(a) He will be seated at the recovery scope equipped with video mapper when feasible.

[redacted]

[redacted]

(b) He will control all aborting aircraft and be available for recovery control passed from the duty directors and weapons assignment director.

(c) He will issue to his interceptors the necessary instructions to insure a safe recovery in the least possible time.

(d) He will determine the desired base(s) for recovery.

(e) He will ascertain that necessary letdown clearances are received and that the appropriate terminal landing system is prepared to accept his aircraft.

(f) He will inform the weapons assignment director of any condition which might affect the safety of his aircraft or the success of the over-all recovery effort.

(5) IFR Recovery: In the event the current or forecast weather indicates that an IFR Recovery is necessary, the recovery director will:

(a) Issue weather advisory to the interceptors and state that an IFR Recovery will be made.

(b) Recover interceptors low on fuel first.

(c) Ascertain that necessary ARTC let-down clearances are received and that appropriate terminal landing system is prepared to accept his aircraft.

(6) Procedures for Establishing Alternates: In the event the current weather for the intended recovery base is less than specified minima for which no alternate is required or the forecast trend indicates the probability of any of these conditions, the recovery director in coordination with the forecaster will:

(a) Request weather data from the control center flight weather forecaster on available alternates.

(b) Select the most suitable alternate recovery base from the information available. Civilian airfields will be used if necessary.

(c) Advise pilot of weather at intended and alternate base and request his decision as to which base he desires to recover his flight.

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(d) Advise the weapons assignment director of weather data received and direct the recovery at the base selected by flight leader.

(e) Inform the interceptor operations center of the action being taken.

(f) Notify traffic control agencies when appropriate.

(g) Alert rescue agencies when appropriate.

(h) Know the current weather and forecast trend for the base of intended landing. The base weather station, where landing is intended, will be contacted to obtain the latest current weather and a forecast for arrival time of fighters.

(i) Keep the weapons assignment director informed of action being taken.

(7) VFR Recovery. In the event of a VFR Recovery the following procedures will apply:

(a) The recovery director will notify the weapons assignment director and the senior controller at the control center of the intended recovery, stating the recovery base.

(b) The senior controller will notify the flight weather forecaster of the intended VFR recovery.

(c) If the forecaster indicates that the recovery base will remain VFR, no further action is required by the senior controller. However, if the forecast indicates the probability of IFR conditions, the procedures for IFR recoveries will apply.

k. Employment of Trailer Aircraft. Fighter-interceptor aircraft or other suitable aircraft will trail all hostiles, unknowns, fakers, and other aircraft designated by the air defense division commander to insure continued surveillance. In order to assume a trailer mission, fighter-interceptors may be diverted or detached from their assigned mission or scrambled from an alert status. Such operation may be required within or adjacent to those areas where radar coverage either does not exist, is unreliable, or is saturated by intense aerial activity, ECM, or weather. Employment of trailer aircraft will normally be initiated by the senior controller; however, senior directors will request permission to employ trailer aircraft from the senior controller when they anticipate a break in surveillance. Under emergency conditions a senior director may designate fighter-interceptors as trailers,

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but he will notify the senior controller of his action as soon as possible. When a pilot has been advised that he is assigned a trailer mission, he will be responsible for reporting the position of a designated aircraft, formation, or raid as instructed until he detaches. The trailer aircraft pilot normally will be responsible for his own navigation. If IFF is available, it may be used to track the trailer aircraft.

(1) The senior controller will:

(a) Determine the number of trailer aircraft to be used.

(b) Notify direction center(s), CAA and Flight Service Center agencies, as applicable, and adjacent control center(s) concerned that trailer aircraft are being employed, including necessary information concerning the trailer aircraft and aircraft being trailed.

(2) The senior director will:

(a) Normally request from the senior controller permission to employ trailer aircraft when applicable.

(b) Commit trailer aircraft under emergency conditions and notify the senior controller as soon as possible.

(c) Notify the senior controller of the radio frequency and call sign used by the trailer aircraft when applicable.

(d) Notify adjacent direction centers when trailer aircraft are being employed, including necessary information concerning the trailer aircraft and aircraft being trailed.

(e) Assign trailer aircraft to duty director.

(f) Insure the fighter-interceptor aircraft employed to intercept the hostile raid are aware of the presence of trailer aircraft.

(g) Insure that trailer aircraft pilots are informed when approaching areas defended by ground-to-air weapons.

(3) The duty director will:

[redacted]

[redacted]

(a) Brief the trailer aircraft on the following:

1. Nature of the mission.

2. Track number to be used when reporting the position of the trailer aircraft.

3. Give the name and location of recovery air bases when applicable or requested.

(b) Notify the senior director of the radio frequency and call sign used by the trailer aircraft.

(c) Provide navigational assistance when needed.

(d) Inform trailer aircraft when it is no longer under serveillance.

(4) Trailer aircraft pilot will:

(a) Orient himself as quickly as possible with the aid of the direction center.

(b) Maintain a position so as to monitor the trailed aircraft and remain out of gun range.

(c) Employ IFF as directed.

(d) Continue to trail until necessary to detach or until relieved by the director.

(e) Give position reports when so directed (in the clear) at frequent intervals as follows:

1. Call sign of trailer aircraft.

2. Track number and position of target in miles and general bearing from a prominent geographical landmark.

3. Type and number of aircraft trailed as necessary.

4. Heading, altitude, speed, and depth of target as necessary.

5. Any additional information necessary.

(5) When employing aircraft as trailers to maintain surveillance, it is possible that the trailer aircraft will

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[redacted]

proceed beyond the range of radio communication of all AC&W (GCI) stations. In this event continuity of communications will be maintained by the trailer aircraft reporting track position reports through the nearest CAA or FSC communication facility. CAA or FSC facility will in turn pass the information through existing communications facilities back to designated AC&W (GCI) units.

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PART III

AIR DEFENSE WARNING, EMERGENCIES AND STATES OF PREPAREDNESS

301. General. This Section is for the information and guidance of Navy and Marine aviation augmentation forces when under the temporary operational control of CINCONAD, and has directive force only upon those units actually under the operational control of CINCONAD. It has been distributed to all Navy and Marine units possessing an air defense capability so that such forces will be able to augment CONAD effectively in an emergency if made available.

302. Definitions

Source: CONAD Regulation 55-3

a. States of Preparedness, States of Readiness and Increased Intelligence Watch

(1) The states of preparedness defined in this section are used by the Continental Air Defense Command to specify preparedness conditions for forces under the operational control of CINCONAD. ADC squadrons have a primary air defense mission and thus have standard operating procedures to implement the various states of preparedness as the states are ordered. CINCONAD has no procedure for Naval augmentation forces to indicate how the states of preparedness are to be implemented. The following five terms, insofar as Naval Commands are concerned, are purely advisory. These terms, however, may affect Naval augmentation aircraft and pilots when under the operational control of CINCONAD. The setting of a condition of preparedness will generally result in ordering a state of alert for aircraft and pilots (see paragraph 200 for States of Alert for Interceptor Aircraft).

(2) Notice that the various states of preparedness when being assumed within the Air Defense Command, may be transmitted to Naval units for information. At any degree of preparedness higher than "Normal", the CONAD Division Commander may initiate requests to the CONAD Region Commander for increased availability of Naval air augmentation forces. Such requests will be evaluated and decided upon in coordination with the Naval commander controlling those forces.

(a) Increased Intelligence Watch. A condition of command alertness directed by the Commander in Chief CONAD, when closer scrutiny and evaluation of intelligence is required. Will be transmitted by COC CONAD to CNO.

[redacted]

[redacted]

(b) Normal Readiness. A degree of preparedness specified in current operation orders whereby measures are taken to provide sustained air defense potential.

(c) Increased Readiness. Any degree of preparedness greater than Normal Preparedness but less than Air Defense Readiness whereby measures are instituted to provide increased air defense potential against an unknown or doubtful threat. May be instituted by CONAD Division Commanders, or higher authority as required by the tactical situation.

(d) Air Defense Readiness. The maximum degree of preparedness whereby all available forces are placed in a state of immediate air combat readiness for relatively short periods of time may be instituted initially by CONAD Division Commanders, or higher authority as required by the tactical situation.

(e) (b) (1) [redacted]

b. Conditions of Air Defense Warning

(1) (b) (1) [redacted]

They are applicable to all Naval air augmentation aircraft which have been or will be made available by Naval commanders for employment by CONAD Divisions in air defense.

(2) The conditions of Air Defense Warnings, their definitions, and significance are as follows:

(a) Air Defense Warning YELLOW. Attack by hostile aircraft is probable. (b) (1) [redacted]
(b) (1) [redacted]

[redacted]

[redacted]

1. (b) (1) [redacted]

2. Transfer of operational control of Navy and Marine augmentation fighter aircraft may be accomplished, if needed, by coordination between the Naval Commander controlling the forces and the CONAD Division Commander.

(b) Air Defense Warning RED. Attack by hostile aircraft is imminent or is taking place; (b) (1) [redacted] (b) (1) [redacted]

1. Assume operational control of those naval forces specifically made available by the cognizant naval commander.

(c) Air Defense Warning WHITE. Attack by hostile aircraft is improbable (all clear); (b) (1) [redacted] (b) (1) [redacted]

c. Special Security Control Measures

(1) CINCONAD has the responsibility for initiating special security measures for the control of electronic emissions (CONELRAD), illumination (CONILLUM), and security control of air traffic (SCAT) when, in his opinion, the threat of air attack warrants such action.

(2) The declaration of an Air Defense Emergency constitutes legal authority to initiate such controls.

(3) These controls will be ordered under the following conditions of warning:

(a) Air Defense Warning WHITE - SCAT

(b) Air Defense Warning YELLOW - CONILLUM

- CONELRAD

303. Exercise and Test Procedures.* Simulated, readiness, air defense warnings and emergencies used during tests and exercises will be announced by use of the following nicknames and associated definitions:-

* Included in this Instruction for information purposes only. Naval air augmentation units should not be notified of this state since it is not intended to notify organizations beyond CONAD Division level.

[redacted]

[redacted]

a. (b) (1) [redacted]

b. (b) (1) [redacted]

c. (b) (1) [redacted]

d. (b) (1) [redacted]

e. Lemon Juice - Simulated Air Defense Warning Yellow

f. Apple Jack - Simulated Air Defense Warning Red

g. Snow Man - Simulated Air Defense Warning White

h. Fade Out - End of Exercise

Accomplishment of those actions required by actual states of preparedness, warnings, and emergencies which cannot be realistically performed will be simulated.

[redacted]

[redacted] 74

PART IV

REPORTS

401. General. The following reports are the only reports required by COMNAVFORCONAD concerning Navy and Marine Air Augmentation Units.

a. Navy and Marine Air Augmentation Status Report

(1) This is a monthly report reflecting the combat readiness of Navy and Marine aircraft units, both Regular and Reserve, having jet aircraft with an air defense capability.

(2) COMNAVEASTCONAD, COMNAVWESTCONAD, and COMNAVCENCONAD are assigned the responsibility for consolidation and submission of this report to COMNAVFORCONAD by the 15th calendar day of each month. Subject report will be consolidated for each CONAD Region by the Navy regional commander concerned and submitted via Naval speedletter classified Confidential. COMWESTSEAFRON, CINCLANTFLT, as appropriate, will be included as information addressees for subject report. This report will in no way commit the forces listed but will be used to aid in the formulation of estimates by which COMNAVFORCONAD may keep CINCONAD informed as to the combat readiness, size and location of Navy/Marine air augmentation forces.

(3) The following items of information and format will be used:
ALFA - Squadron designation or aircraft operating unit concerned. (Example: VF-119; VA-20; NARTU, JAX, etc. Reserve squadrons will be identified by location only.
BRAVO - Squadron or unit location.
CHARLIE - Number of combat ready aircraft by type.
Note: This shall include all assigned squadron aircraft which are configured to accomplish air defense missions. Do not include non-combat types such as TV's, or propeller types (See paragraph 209).
DELTA - Number of crews combat ready.
Note: Number of pilots, or pilot/radar operator teams, who are considered qualified by their commanding officers to perform air defense missions. (See paragraph 209).
ECHO - Approximate number of hours flown during the month in air defense exercises or training missions.
Note: This figure should include Navy controlled practice intercepts as well as those conducted by CONAD units.

b. Interceptor Status Report

(1) This is a report submitted to the appropriate CONAD Division by Naval air units making aircraft available to the division

[redacted]

[redacted]

for commitment during exercises or emergencies. It will be submitted at the time the aircraft reported are made available and at such intervals as required by the CONAD Commander and will contain the following information:

(a) Unit and unit location

(b) Number and type of aircraft made available.

(c) Number of pilots combat ready.

(d) Remarks: Any other local information required by the CONAD Division Commander.

(2) This report will be submitted to the CONAD Division Commander concerned via existing telephonic communications. Where those units possess a full period circuit between the Navy or Marine command and the air defense direction center or air defense control center subject report will be called in daily over this circuit.

Examples: (1) CNAVANTRA calls in daily the information required to the 741st AC&W Squadron in San Antonio, Texas for further transmission to the 33rd CONAD Division; (2) COMFAIRJAX reports the required information direct daily to the 35th CONAD Division Control Center; (3) COMFAIRALAMEDA reports required information direct daily to the 28th CONAD Division Control Center.

(a) For those units not possessing full period circuits, the report outlined in paragraph 401a will suffice. During an emergency or air defense exercise where engineered circuits for these units are called up, this report will be made as outlined above.

c. Debriefing Personnel. Navy and Marine Air Combat Intelligence officers debriefing pilot personnel upon completion of an active air defense mission will forward pertinent intelligence data to the appropriate CONAD Command by the most expeditious means available, using CONAD Form 10. (Reference CONAD Regulation 55-10).

d. Hells Bells Report. An alerting term used to identify intelligence information of an extremely urgent nature which has been collected by pilots and radar observers while airborne and immediately reported via radio to the ground receiving station.

(1) Hells Bells Intelligence Information. That combat intelligence information collected by pilots and radar observers

[redacted]

[redacted]

while airborne which is of sufficient importance to justify immediate transmission. It may include, but is not limited to, the essential elements of information (EEIs) contained in the current operation order or those EEIs disseminated during the air battle. Only extremely important and urgent new intelligence information justifies the use of Hells Bells.

(2) Pilots will transmit Hells Bells intelligence information by radio to their controlling radar station or to any CONAD ground station. If the intelligence information cannot be transmitted by radio while airborne, the pilot will report this information to unit intelligence upon landing. In the event that a landing is made at an installation not under control or supervision of CONAD, the intelligence information will be transmitted by the pilot to the nearest CONAD unit by the most expeditious military or commercial means available.

[redacted]

[redacted]

PART V

COMMUNICATIONS INSTRUCTIONS FOR NAVAL AUGMENTATION AIRCRAFT

501. General

a. Communications will be in accordance with appropriate Joint and Allied Publications, NWPs, NWIPs, and DNC 5A except as specifically noted herein.

b. It will not be necessary for naval augmentation forces to hold CONAD Region or Division Regulations, CEI, or other directives governing communications except required authentication tables noted in Paragraph 503 and other local instructions noted herein. This directive includes all communications instructions issued by CINCONAD and applicable to naval augmentation forces. Subordinate NAVFORCONAD Commanders will include in the "Naval Air Augmentation Information Folder" local frequency plans, voice call sign assignments, and other special communications instructions issued by CONAD Region and Division Commanders.

c. All time shall be ZULU (GCT).

502. Control of Electromagnetic Radiations (CONELRAD)

In accordance with the CONELRAD Plans of Sea Frontier Commanders and District Commandants.

503. Authentication, Recognition and Identification.

a. Authentication

(1) Authentication instructions are contained in ACP 122 and the AFSAG/AFSAL series.

(2) Authentication of airborne aircraft by ground stations will be accomplished by use of current KAC-1.

(3) Authentication of ground stations by other surface stations will be accomplished by use of current "CONAD Point-to-Point Authentication Tables", furnished to naval units by the appropriate CONAD Region Commander.

b. Recognition

(1) IFF

[redacted]

[redacted]

(a) IFF equipment will normally be operated in accordance with JANAP 160.

(b) Chief of Naval Operations message 131605Z of October 1955 promulgated IFF assignments and instructions for their use.

(c) All aircraft under control of GCI show IFF Mode assigned by director or air controller. All aircraft in formation, except the flight leader, will turn the master control to "standby." The flight leader will turn the master control to "normal" and the mode switch to the assigned position. When an aircraft leaves the formation, the pilot will turn the master control to "normal" and the mode switch to the assigned position.

(d) Ground interrogator responsor units will transmit on center frequency of 1030 mcs (Channel 6) and will receive on a center frequency of 1090 mcs (Channel 9). Airborne transponders will transmit on a center frequency of 1090 mcs (Channel 9) and will receive on a center frequency of 1030 mcs (Channel 6).

(e) Special Mark X IFF code words for tactical operation of the Mark X IFF are contained in Chapter 5, JANAP 160.

(2) Recognition of Unidentified Aircraft by Naval Augmentation Fighters

(a) Conventional type bomber aircraft. Upon intercepting conventional bomber aircraft the fighter pilots may challenge the bomber for recognition purposes by flying alongside the bomber on a steady course. Correct Aldis lamp response by the bomber aircraft in accordance with ACP 156 may be used to classify the aircraft as friendly. Fighter aircraft may receipt for Aldis lamp response by rocking the aircraft wings.

(b) Jet type bomber aircraft. Upon intercepting jet type bomber aircraft, fighter pilots may further challenge the bomber for recognition purposes by flying alongside the bomber on a steady course. The fighter pilot will then contact the bomber on UHF radio and challenge using KAC-1 procedures. Correct answer to the voice challenge by the bomber may be used to classify the aircraft as friendly.

[redacted]

[redacted]

Note: Applicable portions of ACP 156 and KAC-1 may be made available to fighter pilots in extract form to eliminate the necessity for carrying bulky tables in the fighter aircraft.

(3) Aircraft Approach Instructions

In accordance with ACP 151(A), subordinate NAVFORCONAD Commanders will include special local instructions for IFR approach and recovery procedures in the "Naval Air Augmentation Information Folder."

c. Identification

(1) Communications for identification of Navy carrier-based aircraft operating in Atlantic ADIZs shall be in accordance with the effective edition of COMEASTSEAFRON Instruction 02380.1 and implementing directives. Communications for identification of Navy carrier-based aircraft operating in Pacific ADIZs shall be in accordance with the effective edition of COMWESTSEAFRON Instruction 02380.1 and implementing directives.

(2) Identification of Navy tactical flights during SCATER in accordance with paragraph 207, Part II and COMEASTSEAFRON Instruction 003320.3 and COMWESTSEAFRON Instruction 003320.2A.

504. Cryptographic Instructions

Encrypted communications between CONAD/ADC Commands and naval augmentation forces will be in joint crypto systems held in accordance with KAC-1.

505. Interference, Jamming, and Imitative Deception

Naval units under the operational control of CINCONAD will make the tactical ECM report required by paragraphs 610 and 611, NWP 33, to the CONAD Commander exercising operational control. They will also send the "Strategic Active ECM Reports" required by paragraph 632, NWP 33, to the commanders of the appropriate joint air defense division, as well as to the naval commands listed.

506. Voice Call Signs

Voice call signs for naval augmentation units as given in JANAP 119(C). Voice call signs for ADC units with which naval augmentation forces may operate will be included in the "Naval Air Augmentation Information Folder."

[redacted]

[redacted]

507. Frequencies

a. Frequency assignments in accordance with JANAP 195 and NWP 16.

b. Basic aircraft UHF and VHF channelization in accordance with effective USAF/USN Radio Facilities Charts. Subordinate NAVFORCONAD Commanders will provide local frequency plans, including assignments of tactical UHF and VHF channels to naval augmentation aircraft, in the "Naval Air Augmentation Information Folder."

c. Naval aircraft will make initial contact with GCI stations on USAF/USN GCI common (364.2) for purposes of obtaining frequency.

508. Aircraft Weather Reports

Pilot weather reports will be made in the standard "BOWWAVE" sequence given in ACP 165.

509. Aircraft Communications

a. Use R/T procedures in accordance with ACP 125 and 165.

b. On "Scrambling"

(1) When scrambling on an active air defense mission pilots need not file a flight clearance DD Form 175. When scrambling on training missions under control of an AC&W (GCI) squadron pilots need not file a flight clearance DD Form 175, provided all aircraft involved have fully operational radio equipment for two-way communications and navigational purposes.

(2) Communications on Scrambling will be in accordance with paragraph 212.f.

c. During Interception

(1) Direct Control

Communications in accordance with paragraph 212g.

(2) Remote Control

Communications in accordance with paragraph 212h.

(3) Passing Control

Communications in accordance with paragraph 212i.

[redacted]

[redacted] 74

(4) Trailer Aircraft

Communications in accordance with paragraph 212k.

510. Search and Rescue

Communications in accordance with ACP 135.

511. Landline Communications

A network of telephone and teletype circuits connects the Air Defense Command with naval commands, augmentation aircraft bases, and radar sites. Special circuits are also installed to Army AAOC for the control and coordination of naval antiaircraft gunfire while ships are in port. Subordinate NAVFORCONAD Commanders will include a tabulation or schematic presentation of these landline circuits as applicable in Instructions and Notices issued in accordance with paragraph 501b. Tabulations of all landline communications circuits are included in the effective NAVFORCONAD Instruction 2030.1.

[redacted]

74

NAVFORCONADINST 03320.1B
15 June 1957

RECORD OF CHANGES AND CORRECTIONS

Changes to this Instruction will be promulgated with identifying consecutive change number whether by message or letter. Holders will record the change, the date of entry and the signature, rank or rate, and organization of the person making change.

CHANGE NO.	DATE ENTERED	ENTERED BY

[redacted] filled i COPY OF INCOMING CLA FIED MESSAGE

(Reproduction of this message in whole or in part is prohibited without approval of CONAD Adjutant)

SEE CRYPTO SECTION BEFORE DECLASSIFYING 27 June 57

READING FILE

CONO32
WRA035
FP RJEDEH
DE RJEPHQ 122
P 2716192
FM HEDUSAF WASH DC
TO CINCONAD ENT AFD COLO

ACTION: COOP
INFO: COOPO
17-8050

5/2 75

PRIORITY

[redacted] FROM AFODC 57662
THIS IS AN EXECUTIVE AGENCY MESSAGE. REFERENCE YOUR LETTER, SUBJECT: REQUEST FOR APPROVAL OF NIKE DEPLOYMENT PLAN FOR FY 1959, DATED 5 JUNE 1957. PROPOSALS TO INITIATE PIECEMEAL CONSIDERATION OF YOUR AID DEFENSE REQUIREMENTS HAVE BEEN DISCOURAGED HERETOFOR TO ASSURE AN ORDERLY AND OBJECTIVE PROGRESSION TOWARD WHAT IS DETERMINED TO BE AN OPTIMUM AIR DEFENSE POSTURE THROUGH CURRENT EVALUATION OF CADOP 56-65. HOWEVER, IN VIEW OF URGENCY FOR APPROVAL OF FY 59 PROGRAMS TO ENABLE APPROPRIATE FUNDING ACTION, THE REQUIREMENT FOR SEPARATE JCS CONSIDERATION OF SERVICE PROGRAMS

PAGE TWO RJEPHQ 122
FOR FY 59 NOW IS RECOGNIZED. ALL AIR DEFENSE PROGRAMS WHICH YOU RECOMMEN FOR THE FY 59 PERIOD SHOULD CONSIDERED TO GETHER RATHER THAN BY INDIVIDUAL PROGRAM REQUIREMENTS. ACCORDINGLY, IT IS REQUESTED THAT OTHER RECOMMENDED PROGRAMS AS APPROVED BY YOU FOR THE FY 59 PERIOD BE SUBMITTED FOR REFERRAL TO THE JCS TOGETHER WITH THE RECOMMENDED NIKE DEPLOYMENTS ALREADY RECEIVED.
BT
27/1834Z JUN RJEPHQ

DID YOUA--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B E CRYPTION--PHYSICALLY REMOVE ALL INTERNAL REFERENCE BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION.

READING FILE

[redacted] 4 COPIES

CONAD SECYT FORM 16 MAR 57

[redacted] filled in)

0 4 / -

[redacted]

AG [illegible]
[illegible] 4
PREC: ROUTINE
DTG: 24[illegible]Z
FM CG[illegible] USAFTA[illegible]OC-F/2
TO COMDR ADC

[redacted] ITE: 55[illegible]4. THE FOLLOWING ACTION TAKE BY THIS HQS IS QUOTED FOR YOUR INFORMATION AND GUIDANCE. BY HQS USAF AUG CURR, THE US ARMY IS REQUESTED TO TAKE ACTION TO REMOVE FROM USAF BASES ALL AA GUNS NOT BEING REPLACED BY NIKE IN THE APPROVED 61 BATTALION PROGRAM. FURTHER, THE ARMY IS REQUESTED TO CANCEL ANY PLANS OR PROGRAMS WHICH CALL FOR USING AA GUNS IN AIR DEFENSE OF USAF BASES. THE ARMY WAS ADVISED THAT THE AIR FORCE IS CONCERNED ABOUT THE FAST, LOW-ALTITUDE THREAT USING ATOMIC WEAPONS, BECAUSE THE USAF HAS RELIED, TRADITIONALLY, ON THE ARMY TO ASSIT IN AIR DEFENSE THROUGH THE PROVISION OF ANTIAIRCRAFT ARTILLERY FOR LOW ALTITUDE DEFENSE OF SPECIFIC TARGETS. THE AIR FORCE REQUEST RECOMMENDATIONS FROM THE ARMY CONCERNING THIS PROBLEM
BT
24/1549Z AUG

[redacted]

[redacted] 77

	PRECEDENCE	TYPE MSG (CHANG)	ACCOUNTING SYMBOL	ORIG OR REFER TO	CLASSIFICATION OF REFERENCE
ACTION	DEFERRED	BOOK / MSGID / SERIAL	AF	COOOP 1053	
INFO	DEFERRED			10 Apr 57	
FROM:	CINCONAD				SPECIAL INSTRUCTIONS

TO: P CSUSA CANAIRDEF OTTAWA ONT CANADA

INFO: P AIG CANAIRCOMFOR RCAF STA ST HUBERT QUE CANADA

CUNR [illegible] 650

[redacted] from COOP 1053

CANUSRCOMITTY. On 10 April the following message was transmitted to Info Addressee: Subj: Possible budgetary curtailments the following actions involving CONAD forces have been directed: (A) Effective 1 April AAA will deactivate seven 90 mm Gun Battalions at Washington-Baltimore (2), Philadelphia (1), New York (1), Detroit (1), Chicago (1) and San Francisco (1). (B) Effective 15 April AAA will inactivate three 75 mm Gun Battalions at Castle (1), March (1) and Carswell (1). (C) As of 1 April contiguous AEW&C operations have been reduced to 8 hours per day per station. Press release not presently authorized. Unquote. AEW&C operations have subsequently been increased to 14 hours per day on six stations.

Col. Seibert
2130
22 Apr 57

daf

DATE	TIME
22	2330Z
MONTH	YEAR
Apr	57

SYMBOL	COOOP
TYPED NAME AND TITLE	COL SEIBERT/2130/daf
PHONE	2130
SECURITY CLASSIFICATION	[redacted]

M/Rs To advise CANAIRDEF and CANAIRCOMFOR of current operational situation resulting from budget action. CANAIRCOMFOR was [illegible] of original message.

ADDRESSEE IS AUTHORIZED TO RECEIVE THE INFORMATION CONTAINED IN THIS COMMUNICATION & IT IS RELEASABLE TO CANADA.

PAGE NO 1 NR OF PAGES 1

DD FORM 1 MAY 55 173 REPLACES DD FORM 173 1 OCT 50 WHICH WILL BE USED UNTIL EXHAUSTED

[redacted]

78

JOINT MESSAGEFORM

PRECEDENCE	TYPE MSG (CHK)			ACCOUNTING SYMBOL	ORIG OR REFERS TO	CLASSIFICATION OF REFERENCE
	BOOK	MULTI	SINGLE			
ACTION ROUTINE		X		AF		
INFO ROUTINE						
FROM: CINCONAD						

SPECIAL INSTRUCTIONS

TO: CONCPECR STEWART AFB NEWBURGH N Y

CONCFWCR HAMILTON AFB CALIF

COMCPCCR GRANDVIEW AFB MO

INFO: CGUSARADCOM ENT AFB COLO (COURIER)

[redacted] from COOOP

Effective 150001 April, local time, the following USARADCOM units are removed from CONAD operational control due to inactivation: PARA (A) AAA Battalions (90 mm Gun): 14 and 601, Washington-Baltimore; 19, Philadelphia; 98, New York; 99, Detroit; 734, Chicago; and 752, San Francisco. PARA (B) AAA Battalions (75 mm Gun): 52, Castle; 451, March; 546, Carswell. PARA. The inactivation of subject units and related matters remain classified until the information is released by this headquarters to the press. It is planned to make the news release prior to 15 April 57.

DOWNGRADED TO CONFIDENTIAL GDS DATE TIME GROUP 09 1800Z Apr 57

SYMBOL	DATE	TIME
COOOP	09	1800 Z
	MONTH	YEAR
	Apr	57

SIGNATURE

WRITER: TYPED NAME AND TITLE (Signature if required) COL. SKIBERT/daf

PHONE 2130 PAGE NO. 1 NR. OF PAGES 1

SECURITY CLASSIFICATION

RELEASER: TYPED (or stamped) NAME AND TITLE [redacted] W. LEBOUX CDR, USN

[redacted]

UNCLASSIFIED

[redacted] 79

PRECEDENCE	TYPE MSG (Check)	ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION D. FERRED	ROUTINE / PRIORITY / IMMEDIATE	AF		
INFO				

SPECIAL INSTRUCTIONS

FROM: CINCONAD

COK:D Ltr
302.12 X 502

TO: AOC CANAIRDEF RCAF STA ST HUBERT QUE CANADA

[redacted] From COOGP

CANUS&CURITY. Due to budgetary curtailments the following actions involving CONAD Forces have been directed: (A) Effective 15 April AAA will deactivate seven 90 mm Gun Battalions at Washington-Baltimore (2), Philadelphia (1), New York (1), Detroit (1), Chicago (1) and San Francisco (1). (B) Effective 15 April AAA will inactivate three 75 mm Gun Battalions at Castle (1), March (1) and Carswell (1). (C) As of 1 April contiguous AADCD operations have been reduced to 8 hours per day per station. Press release not presently authorized.

DATE	TIME
10	2000 Z
MONTH Apr	YEAR 57

SYMBOL: COOGP

SIGNATURE: [redacted] LEDOUX

TYPED NAME AND TITLE: COL. Seibert/dcf

[redacted] DR, USN
Asst Adjutant

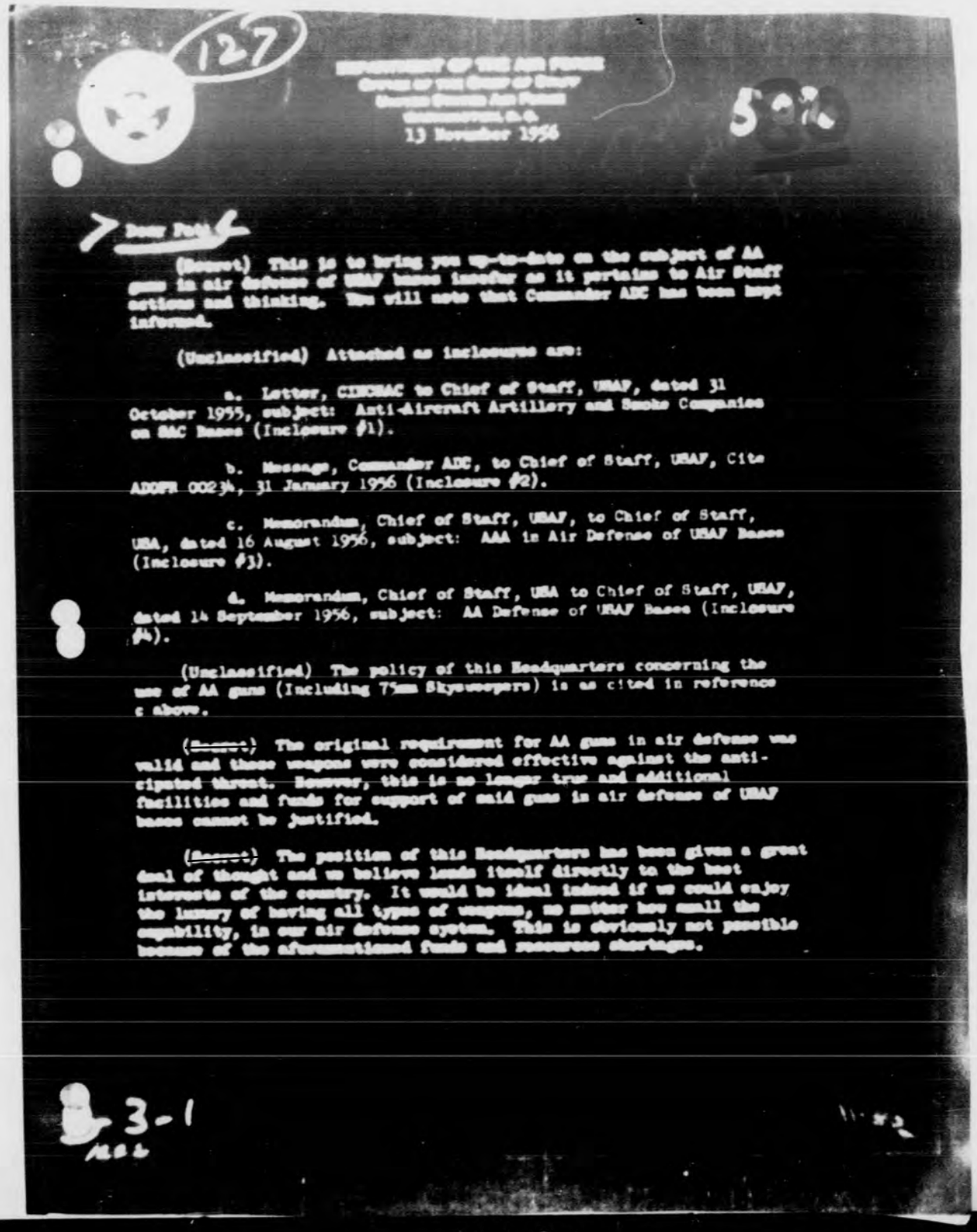
PHONE 2139 | PAGE NR 1 | NR. OF PAGES 1

SECURITY CLASSIFICATION

WRITER

READING FILE

DD FORM 1 MAY 55 173 REPLACES DA FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED



127

13 November 1956

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(Secret) This is to bring you up-to-date on the subject of AA guns in air defense of USAF bases insofar as it pertains to Air Staff actions and thinking. You will note that Commander ADC has been kept informed.

(Unclassified) Attached as inclosures are:

a. Letter, CINCSAC to Chief of Staff, USAF, dated 31 October 1955, subject: Anti-Aircraft Artillery and Smoke Companies on SAC Bases (Inclosure #1).

b. Message, Commander ADC, to Chief of Staff, USAF, Cite ADOPR 00234, 31 January 1956 (Inclosure #2).

c. Memorandum, Chief of Staff, USAF, to Chief of Staff, USA, dated 16 August 1956, subject: AAA in Air Defense of USAF Bases (Inclosure #3).

d. Memorandum, Chief of Staff, USA to Chief of Staff, USAF, dated 14 September 1956, subject: AA Defense of USAF Bases (Inclosure #4).

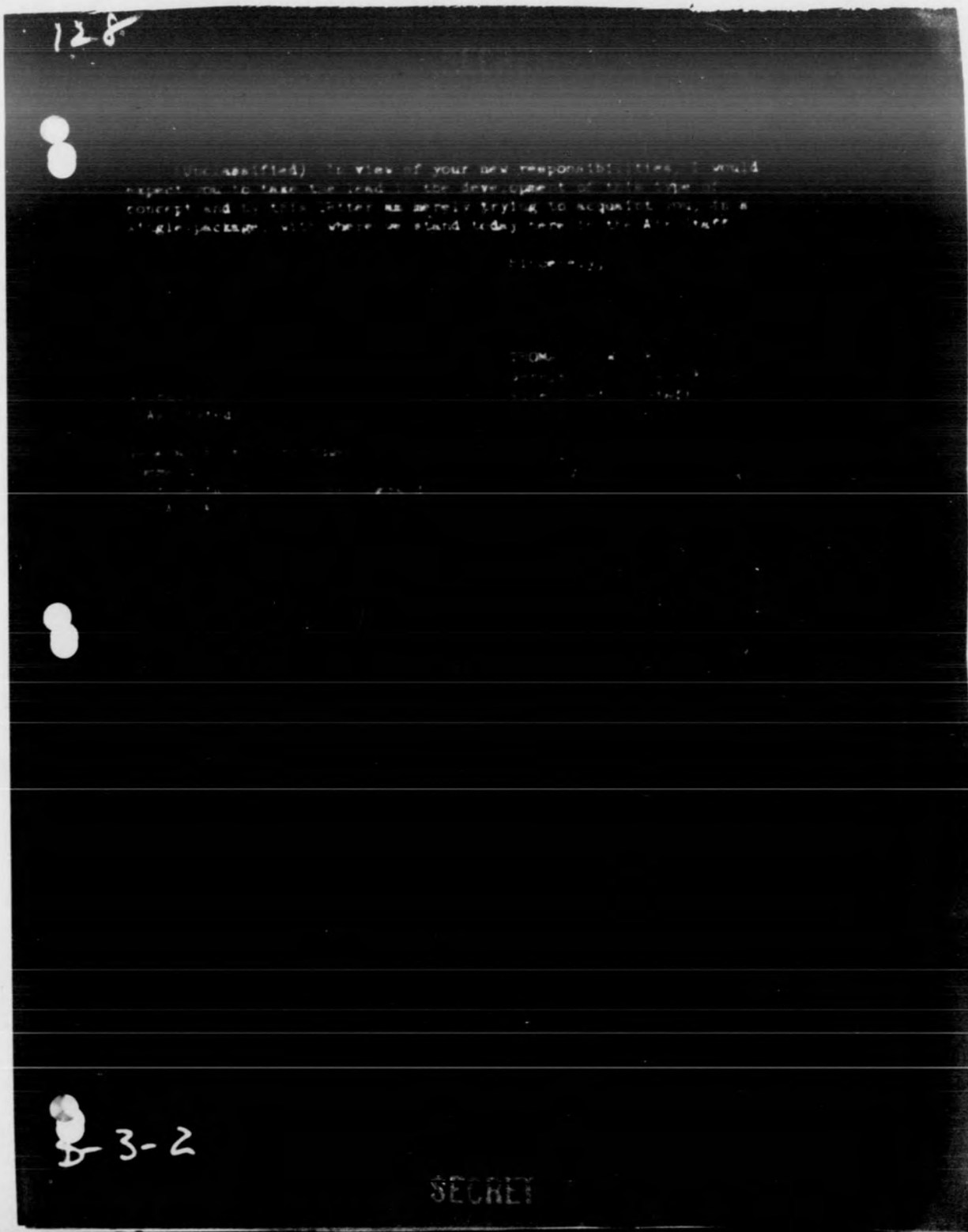
8

(Unclassified) The policy of this Headquarters concerning the use of AA guns (Including 75mm Skysweepers) is as cited in reference c above.

(Secret) The original requirement for AA guns in air defense was valid and these weapons were considered effective against the anticipated threat. However, this is no longer true and additional facilities and funds for support of said guns in air defense of USAF bases cannot be justified.

(Secret) The position of this Headquarters has been given a great deal of thought and we believe lends itself directly to the best interests of the country. It would be ideal indeed if we could enjoy the luxury of having all types of weapons, no matter how small the capability, in our air defense system. This is obviously not possible because of the aforementioned funds and resources shortages.

3-1



129

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COPY

[redacted] AIR COMMAND
OFFUTT AIR FORCE BASE
OMAHA, NEBRASKA

31 Oct 1955

C

SUBJECT: (U) Anti-Aircraft Artillery and Smoke Companies on SAC Bases

TO: Chief of Staff
United States Air Force
Washington 25, D.C.

1. In December 1949, the Commander in Chief, Strategic Air Command, requested by personal letter to the Chief of Staff, United States Air Force, that consideration be given to defending Strategic Air Command bases from covert acts.(UNCL)

2. Apparently in response to the proposal set forth above, since no other action was taken in the interim, on 10 March 1950 a letter was received in this headquarters from Headquarters USAF, Subject: "Positioning of Air Defense Units on SAC Bases," with one inclosure (AF Presentation on Air Defense Given JCS). This letter requested our comments and recommended positioning of Anti Aircraft and Fighter Interceptor Units. This headquarters returned a priority list of SAC bases as an inclosure to SAC letter to Director of Plans and Deputy Chief of Operations, Headquarters USAF, 27 April 1950, Subject: "Positioning of Air Defense Units on SAC Bases." This letter stated [redacted]

a. Air defense was vital but that [redacted] of two Strategic Air Command wings on a [redacted] wired facilities to the point that accommodation of Air Defense Units was impossible without additional construction.

b. Fighter interceptors were operationally more desirable than Anti-Aircraft Units and that Anti Aircraft Units, if deployed, should be located off SAC stations to provide a perimeter defense. (SECRET)

3. Subsequent to the exchange of this correspondence and resultant study and negotiations between the Air Staff and the U.S. Army, it was concluded that due to the limited supply of 90mm weapons Strategic Air Command would get Anti-Aircraft Battalions equipped with 40 and 75mm guns. Seven Anti-Aircraft Units would be on SAC bases in the United States and three would be assigned to the United Kingdom for base defense. These units would also be located on-base.(SECRET).

4. During this same period, the Commander, 3rd Air Division, took action for the establishment of Chemical Smoke Companies on bases in the United Kingdom.(CONF).

D-3-4
End 1

[redacted]

UNCLASSIFIED

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copy

5. As a consequence of the foregoing actions, there are now eleven Anti-Aircraft Artillary Battalions assigned to and located on Strategic Air Command bases. Seven of these Anti-Aircraft Battalions are on SAC bases in the United States, four are on SAC bases in the United Kingdom. Seven chemical smoke companies are also located on SAC bases in the United Kingdom (SECRET).

6. Existing programming documents indicate that four additional Anti-Aircraft Battalions are scheduled to be located at SAC bases, three in the United States and four in the United Kingdom. No additional smoke companies are in the current program. (SECRET).

7. Current and programmed AAA units are equipped with 50 caliber machine guns, 40mm and 75 mm guns. Three battalions are scheduled to be augmented by NIKE missiles prior to January [illegible]. A change in equipment for the smoke companies is not programmed at this time (SECRET).

[illegible]

10. Protection provided by AAA Battalions and smoke companies is negligible. Present equipment does not have a capability against modern aircraft. Smoke companies are considered to be especially non-effective against radar, and under visual observing conditions smoke generation would actually assist the enemy in locating his target.(SECRET).

11. Recommend that the following action be taken:

a. That:

(1) All AAA Battalions and smoke companies be removed from SAC bases, world-wide; and

(2) Additional AAA Battalions presently programmed for SAC bases be cancelled; or

SECRET

B-3-5

[redacted]

b. Then:

(1) AAA Battalions assigned to the defense of USAF installations be equipped with weapons having a proven capability against modern aircraft; and

(2) AAA Battalions in defense of USAF bases be assigned and located so as to provide time for the weapon to engage the enemy before he reaches the bomb release line (SECRET)

/s/ CURTIS E. LEMAY
General USAF
Commander in Chief

COPY

COPY

[redacted]

B-3-6

132

[redacted]

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE DIVISION

[redacted] CLASSIFIED MESSAGE

A-PARAPHRASE NOT REQUIRED EXCEPT WHEN TO CATEGORY 3 EXCEPTION APPLICABLE REMOVE ALL UNNECESSARY USE OF DOD WORDS TO DECLASSIFICATION.

PP RJEPHQ
DE RJEDEN 79
P 311753Z ZNJ
FM COMDR ADC ENT AFB COLOSPGS COLO
TO COFS HQ USAF WASH DC

BT

[redacted] ADOPR 80234. REF YOUR PRIORITY WIRE AFOOP-DO-7/2 55389. UNDER THE APPROVED [redacted] BATTALION NIKE DEPLOYMENT PLAN FOUR AIR FORCE BASES WITHIN THE CONTINENTAL UNITED STATES ARE SKED FOR NIKE UNITS. THESE ARE LORING, FAIRCHILD, TRAVIS AND ELLSWORTH. THESE BASES PRESENTLY HAVE SKYSWEEPER BATTALIONS ON THEM. CONVERSION IS TO COMMENCE TO NIKE IN EARLY 1957. IN THE INTEREST OF DEPT OF DEF ECONOMY THE SKYSWEEPER UNITS AT THE ABOVE BASES SHOULD REMAIN; HOWEVER, PRESSURE SHOULD BE APPLIED TO INSURE THAT CONVERSION IS MADE TO NIKE AT THE EARLIEST POSSIBLE DATE. AFTER NIKE IS INSTALLED AT THE ABOVE BASES NO GUN UNITS SHOULD REMAIN.

SKYSWEEPER UNITS ARE ALSO LOCATED AT CASTLE, MARCH AND CARSWELL. THESE BASES ARE NOT SKED TO RECEIVE NIKE UNITS UNDER THE 61 BATTALION PROGRAM AND THIS COMD CONCURS IN THEIR REMOVAL.

BT
31/1804Z JAN RJEDEN

SMD C&C COPY

ACTION: OOP
INFO : OPD, CDC
DAF IN: 968836 (31 Jan 56)

W/Hz

[redacted] COPY NO.

3-7

[redacted]

UNCLASSIFIED

133

Aug 14, 1956

MEMORANDUM FOR CHIEF OF STAFF, [redacted]

SUBJECT: (UNCLASSIFIED) AAA in Air Defense of USAF Bases

1. (C) The enemy air threat to our USAF bases has changed considerably in the past five years. These changes in threat necessitate continuous review of the weapons to be used in air defense in order to preclude retaining weapons with inadequate capabilities. During the most recent reviews, the deficiencies of AA guns became quite apparent.

2. (S) Presently there are a number of AA gun battalions located in air defense of USAF bases. A thorough study of all AA guns in the present United States inventory was accomplished and they appeared wholly deficient to cope with the threat. The cost of retaining these weapons is felt to be disproportionate to the air defense obtained. The Air Force is unable and unwilling to spend any additional funds in direct or indirect support of these battalions.

3. (S) Request the Army take action to remove from USAF bases all AA guns not being replaced by NIKE in the approved 61 Bn program. Request also that any plans or programs which call for using subject AA guns in air defense of USAF bases be cancelled.

4. (S) Although we recommend removal of present marginal antiaircraft weapons, the Air Force is concerned about the [illegible] low-altitude threat using atomic weapons. Traditionally, the USAF has relied on the Army to assist in air defense through the provision of antiaircraft artillery for low-altitude defense of specific targets. The Air Force would appreciate recommendations from the Army leading toward more adequate protection than presently available weapons provide.

/s/ Thomas D. White

/s/ THOMAS D. WHITE
General, U.S. Air Force
Vice Chief of Staff

8-3-8
Encl 3

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DEPARTMENT OF THE ARMY
Office of the Deputy Chief of Staff for Military Operations
Washington 25, D.C.

14 September 1956

MEMORANDUM FOR: CHIEF OF STAFF, U.S. AIR FORCE

SUBJECT: AAA Air Defense of the USAF Bases (U)

1. References: Memorandum from the Chief of Staff, USAF, Same subject, dated 16 August 1956.

2. Assuming that your reference to "AA Guns" includes SKYSWEEPERS as well as 90mm and 120mm guns, the Army does not agree that they appear wholly deficient to cope with the threat. The Army would point out, however, that "AA Guns" in general have a limited capability to meet the potential threat. Until replaced by surface-to-air missiles, the "AA Guns" are the only available weapons as a deterrent to free approaches to defended areas at altitudes up to about 25,000 feet.

3. The requirements for the Army to provide AA defenses are established either through JCS action or by commanders of unified commands. The Army has deployed AA units only to fulfill assigned missions in accordance with priorities established by air defense commanders. Therefore, no unilateral action can be taken by Department of the Army to withdraw Army AA units fulfilling such missions on USAF bases. There are no additional deployments of AA gun or SKYSWEEPER units now programmed for USAF bases.

4. The Army's ultimate objective is the complete conversion of all "AA Gun" units to surface-to-air missile units. In fact, the D-day force objectives initially submitted by the Army in the force tabs of JSOP-60 provided for complete conversion of existing "AA Guns" to surface-to-air missile units by 1 July 1960. However, as you know, service divergencies developed during the deliberations on JSOP-60 and a compromise was reached that required the Army to retain the "AA Guns." By the end of FY 57, four (4) out of seven (7) USAF bases currently defended by SKYSWEEPER in the CONUS will be converted to NIKE. Many other bases in the CONUS will be within the envelope of protection afforded by other FY 57 NIKE deployments in and around centers of population and industry.

5. The Department of the Army is also concerned about the fast enemy bomber, attacking at low altitudes with atomic weapons. A significant portion of our research and development effort is being placed in

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the NORAD program which is aimed at a solution of this problem. The first draft which should be operational by late 1979. The Department of the Army would be pleased to discuss the problem of low level AA defense in greater detail at your convenience.

6. In furtherance of your expressed interest to improve the Army's antiaircraft capability it is requested that Department of the Air Force assistance be given to expedite CINCONAD development of the CONAD Requirements Plan. Army requirements for this force, which includes complete AA defense by surface-to-air missile units, were furnished to CINCONAD by Commanding General, Army Antiaircraft Command Headquarters on 4 June 1956 and to the Department of the Air Force (As Executive Agent for CINCONAD) by the Department of the Army, by memorandum dated 16 August 1956.

7. Finally, in order to insure a sound basis for Army air defense planning, it is requested that the Department of the Army be furnished with up-to-date priority list for surface-to-air missile defense of USAF installations world-wide.

/s/ C. D. EDDLEMAN
Lieutenant General, GS
Deputy Chief of Staff
for Military Operations

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UNCLASSIFI

B-3-10X

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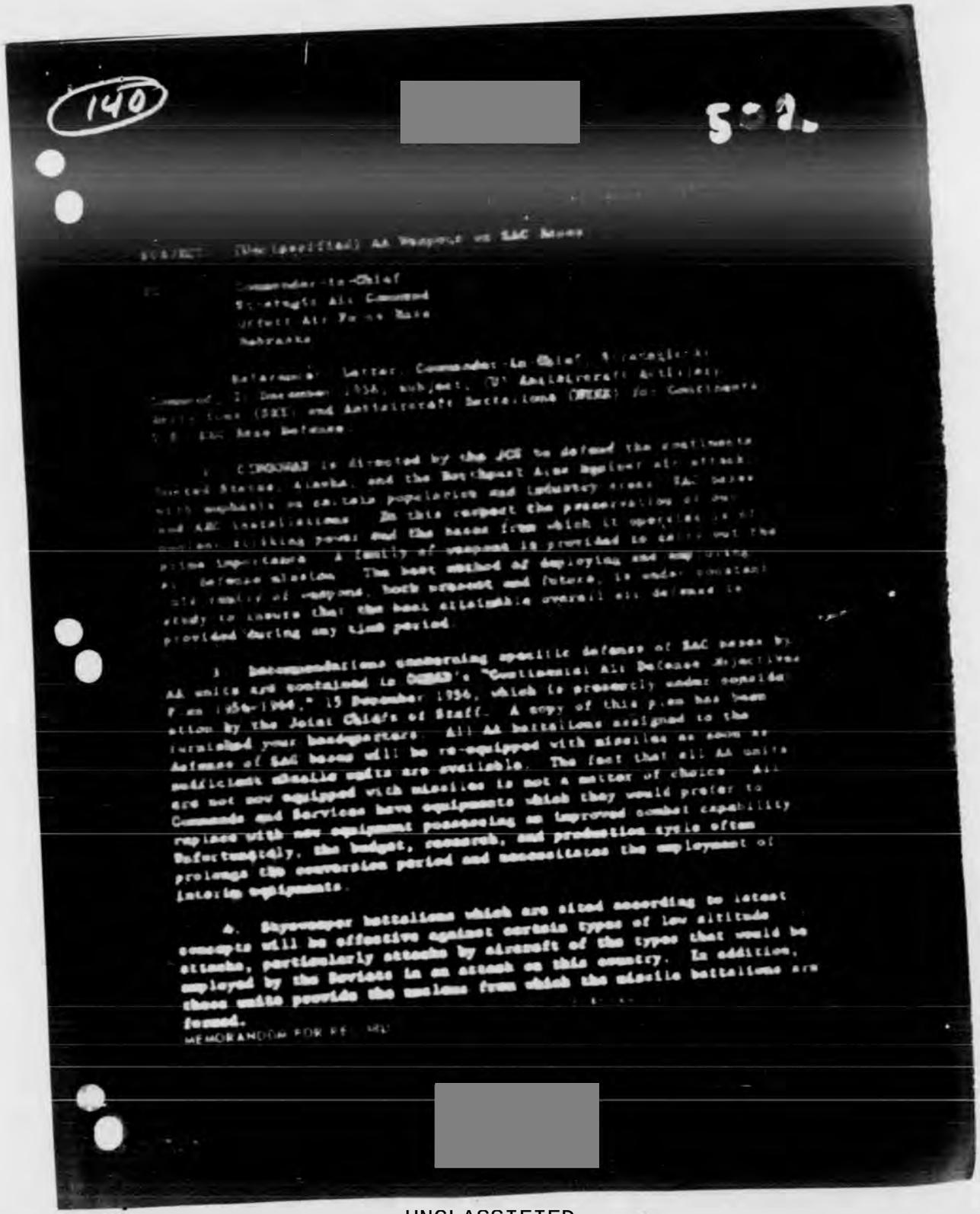

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5-2.

SUBJECT: [Unclassified] AA Weapons vs SAC Bases

[illegible]-in-Chief
Strategic Air Command
Offutt Air Force Base
Nebraska

Reference: Letter, Commander-in-Chief, Strategic Air Command, 1 December 1954, subject: "Antiaircraft Artillery Search Lights (SRE) and Antiaircraft Searchlights (AMREE) for Continental U. S. SAC Base Defense."

1. CINCSAC is directed by the JCS to defend the continental United States, Alaska, and the Northeast Area against air attack with emphasis on certain population and industrial areas, SAC bases and AEC installations. In this respect the preservation of our nuclear striking power and the bases from which it operates is of prime importance. A family of weapons is provided to carry out the air defense mission. The best method of deploying and employing the family of weapons, both present and future, is under constant study to insure that the best attainable overall air defense is provided during any time period.

2. Recommendations concerning specific defense of SAC bases by AA units are contained in CINCSAC's "Continental Air Defense Objectives Plan 1956-1964," 15 December 1954, which is presently under consideration by the Joint Chiefs of Staff. A copy of this plan has been furnished your headquarters. All AA battalions assigned to the defense of SAC bases will be re-equipped with missiles as soon as sufficient missile units are available. The fact that all AA units are not now equipped with missiles is not a matter of choice. All Commands and Services have equipments which they would prefer to replace with new equipment possessing an improved combat capability. Unfortunately, the budget, research, and production cycle often prolongs the conversion period and necessitates the employment of interim equipments.

4. Skyscraper battalions which are sited according to latest concepts will be effective against certain types of low altitude attacks, particularly attacks by aircraft of the types that would be employed by the Soviets in an attack on this country. In addition, these units provide the nucleus from which the missile battalions are formed.

MEMORANDUM FOR RE: [redacted]

[redacted]

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[redacted]

5. The first four Skyweeper units located on SAC bases will be converted in accordance with the following schedule:

SAC Base	Present AA Unit		Conversion
Fairchild AFB	Skyweeper	Nike	operational Feb 57
Travis AFB	Skyweeper	Nike	operational Mar 57
Loring AFB	Skyweeper	Nike	operational Apr 57
Ellsworth AFB	Skyweeper	Nike	operational Aug 57

Everything possible will be done by this command to expedite the conversion of all AA gun units to missile units. Particular emphasis will be placed on the earliest practicable conversion of these units at SI single Air Command installations. In the meantime, presently assigned Skyweeper battalions should be retained pending their replacement by suitable guided missile units. This position has previously been recommended to Headquarters, United States Air Force

[redacted]

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HEADQUARTERS STRA
OFFUTT AIR
NEBR

[redacted]

1968-- A DECADE OF SECURITY THROUGH GLOBAL AIR POWER --1968

[redacted]

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[redacted] Antiaircraft Artillery [redacted] on Antiaircraft
[redacted] for Continental U.S. SAC Base Defense

[redacted] assistance is solicited in any way [redacted]

[redacted]

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A-481-13

RBA021
OO RJEDEN
DE RJEPHQ 156
O 132155Z
FM HQ USAF WASH DC
TO RJEDEN/CINCONAD ENT AFB COLO
INFO ZEN/CNO WASH DC
ZEN/CS USA WASH DC
BT
//S E C R E T//FROM AFOPD 58608
THIS IS AN EXECUTIVE AGENCY MESSAGE. THE JOINT CHIEFS OF STAFF HAVE BEEN REQUESTED BY THE DOD TO DETERMINE AT THIS TIME THE REQUIREMENTS FOR SURFACE TO AIR MISSILES IN ALASKA WITH RESPECT TO REQUIREMENTS FOR BOTH TALOS AND NIKE. UNDER CINCONAD'S TERMS OF REFERENCE SUCH DETERMINATION OF REQUIREMENTS WITH RESULTANT RECOMMENDATION TO THE JOINT CHIEFS OF STAFF IS A CINCONAD FUNCTION. IN ORDER TO PROPERLY CONSIDER THIS PROBLEM, CINCONAD'S REQUIREMENT. FOR SURFACE TO AIR MISSILES FOR USE IN THE AIR DEFENSE SYSTEM OF ALASKA IS REQUIRED AS A MATTER OF URGENCY. IT IS REQUESTED THAT CINCONAD'S REQUIREMENTS IN THIS REGARD TO

13 NOV 56

PAGE TWO RJEPHQ 156
INCLUDE ANY OTHER IMPLICATIONS WITH RESPECT TO CONTROL OR OTHER WEAPONS SYSTEMS REACH THIS HQ NO LATER THAN 14 NOV 56.
BT
13/2240Z NOV RJEPHQ

A--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION.

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[redacted]

UNCLASSIFIED

XG-2397

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16 NOV 1955

AFDHVC

Lt General Frank F. Everest
Deputy Chief of Staff, Operations
Headquarters USAF
Washington 25, D. C.

Dear Hank,

We have just heard of the Army bid for responsibility of world-wide air defense. The basis for this is apparently reduced cost and NOT the kill capability or whether or not intercept is before the BRL.

An officer of this headquarters recently returned from a trip to the Pentagon. He stated that there were at least 11 committees, to his knowledge, which were dealing with various and sundry aspects of air defense problems.

There are certain air defense concepts which my bosses and I feel are irrefutable:

(1) You can't catch a bomber with another bomber. Speed differential in air defense is essential.

(2) Aircraft range in excess of the control capability (air or ground environment) has no advantage.

(3) There is no basis in fact for assuming intercept capability with the loiter concept.

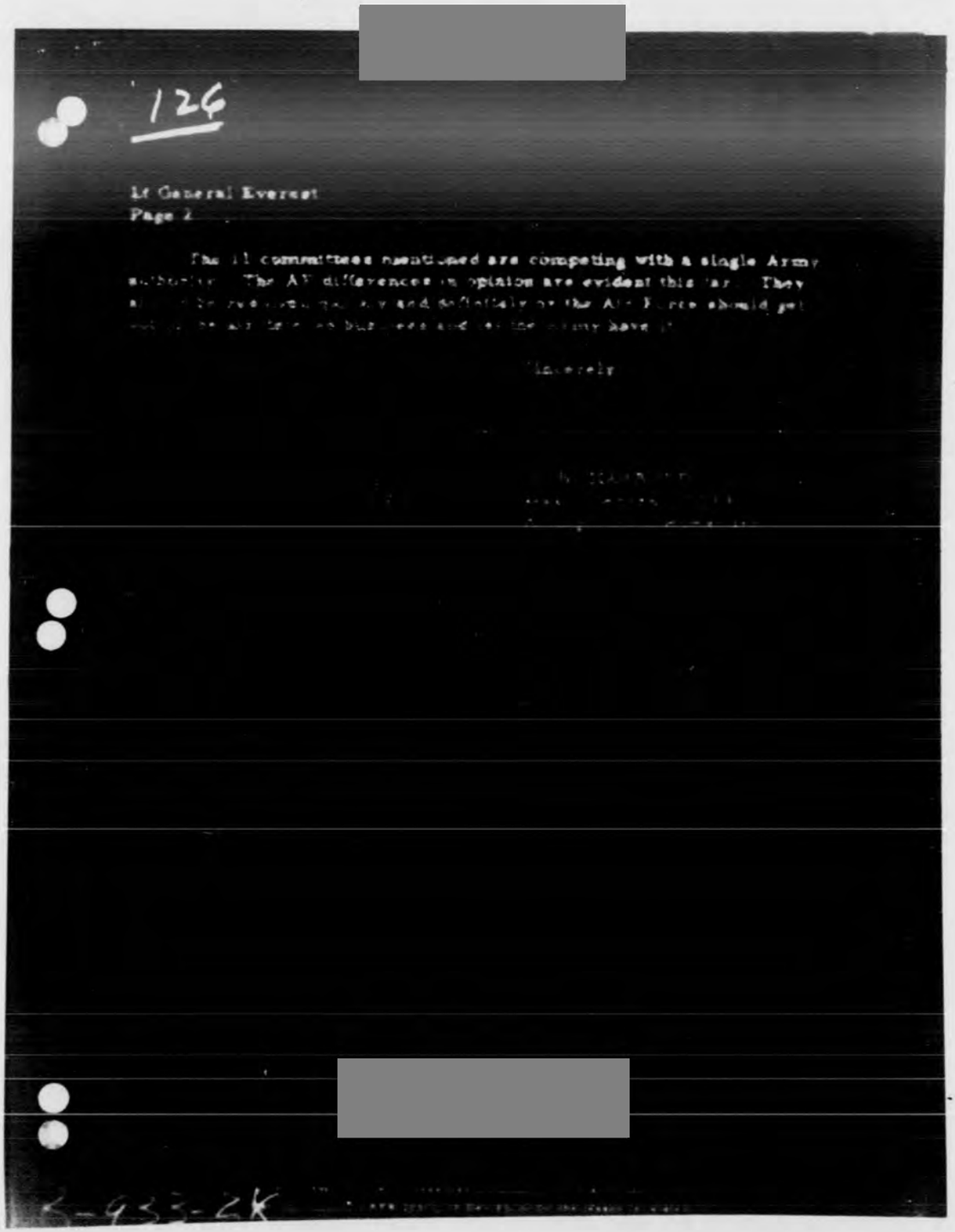
(4) The cost of a long-range interceptor, considering its capability without control, suffers in comparison with a missile.

(5) If the Air Force relinquishes responsibility for ground environment (aircraft control), we relinquish all air space control. Somebody else will tell us when we can fly.

UNCLASSIFIED

This correspondence is classified _____ in accordance with _____, AFR 205-1, 19 Dec 53, or the reason indicated.

B-933-1



126

Lt General Everest
Page 2

The 11 committees mentioned are competing with a single Army
authority. The AF differences in opinion are evident this far. They
[illegible] and officially or the Air Force should get
[illegible] and the Army have it.

Sincerely

[redacted]

[redacted]

S-933-GK

138

[redacted] 502

ADMPR

SUBJECT (U) Interceptor Missile Planning Guide Alaska

TO Commander-in-Chief
Continental Air Defense Command
ATTN DCS/Plans & Operations
Ent Air Force Base
Colorado Springs Colorado

1. Reference your classified message, COMPR 6048, dated 14 November 1958. The following information concerning IM-77 Planning Actions in Alaska, is forwarded in response to referenced message.

a. One IM-77 Squadron of four detachments is presently approved for Alaska with an additional squadron planned.

b. Proposed locations for detachments of the first squadron are

(1) Foreland

(2) Willow

(3) Eater Dome

(4) [redacted]

c. Due to long lead times involved in construction in this area, the earliest estimated operational date for this squadron would be between July and December 1960.

2. In order to meet the operational dates noted in paragraph 1c. above, FY-59 funds are required. Advice from Hq USAF indicates present FY-59 funding does not include these items.

3. Plans considered at Hq USAF for missile defense of Alaska are outlined for your additional information.

a. Alaskan Air Command representatives on the Hq USAF Defense Study Group have stated a requirement exists for two IM-77 squadrons at the earliest practicable date, the first as stated above in FY-60 and the second squadron by FY-61 or 62.

[redacted]

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[redacted]

ADRPR, Hq ADC, Subj: Interceptor Missile Planning Guide: Alaska

b. Deployment of other missiles, such as NIKE, can be accommodated around three major target areas with approximately one battery per target with IM-77 requirements remaining the same as noted above.

c. IM-77 was stated as preferable to NIKE by the Alaskan Air Command members of the USAF Defense Study Group.

FOR THE COMMANDER:

[illegible] A. PARKER
[illegible]
Acting Chief of Staff

MEMORANDUM FOR RECORD: Subj: (U) Interceptor Missile Planning Guide: Alaska [illegible]

Element [illegible] Problem: Ascertain planning & programming [illegible] for Alaska

[illegible] Executive Agent, [illegible] recommendations [illegible] Alaska [illegible] However, [illegible] availability of [illegible] operational dates for Talos [illegible]

The attached letter to [illegible] conveys [illegible] Talos [illegible] and provides the best information available relative to operational [illegible] Talos deployments in Alaska.

[illegible] understand that [illegible] replied to [illegible] should be used in Alaska. [illegible] reply [illegible] receipt of [illegible]

[illegible]: None

[illegible]: None

[redacted]

[redacted]

584

19 NOV 56

AG 15
PP RJEDEN
P 191458Z
FM JCS
TO CINCONAD
INFO CINCAL

[redacted] CITE JCS 913688. THE SEC DEF HAS REQUESTED BY 21 NOV 56, THE RECOMMENDATIONS OF THE JCS AS TO THE DESIRABILITY OF PROCEEDING WITH THE DA APOSTROPHE SIERRA PROGRAM FOR 3 NIKE BATTALIONS IN ALASKA AT THIS TIME AND THE DELETION OF THE PROPOSED DAF FY 1958 CONSTRUCTION PROGRAM FOR 1 TALOS SQUADRON IN ALSAKA . THE DA HAS REQUESTED THE SECDEF IMMEDIATE AUTHORIZATION TO PROCEED WITH THE CONSTRUCTION OF NIKE BRAVO SITES IN ALASKA IN ORDER TO FULLY AND ECONOMICALLY UTILIZE THE SHORT CONSTRUCTION SEASON. THE DAF HAS REQUESTED THAT EFFORT BE MADE TO HAVE NIKE SITES CONSTRUCTED IN ALASKA AS SOON AS FEASABLE, AND THAT SHIPMENT OF NIKE EQUIPMENT TO ALASKA BE DEFERRED UNTIL SITES ARE ABLE TO ACCEPT THEM.
PARA IT IS UNDERSTOOD THAT YOU ARE ACTIVELY CONSIDERING OPERATIONAL REQUIREMENTS FOR THIS AREA AT PRESENT. THE JCS REQUEST YOU SUBMIT AS SOON AS POSSIBLE AND NOT LATER THAN 1 DEC 56, YOUR RECOMMENDATIONS REGARDING THE NUMBER AND LOCATIONS OF NIKE BRAVO AND TALOS UNITS IN ALASKA, FOR WHICH CONSTRUCTION SHOULD BE PROGRAMMED THROUGH FY 58. PARA PENDING RECEIPT AND CONSIDERATIONS OF YOUR RECOMMENDATIONS, THE JCS HAVE ADVISED THE SECDEF THAT THEY CONCUR IN THE DESIRABILITY OF PROCEEDING WITH THE DA APOSTROPHE SIERRA NIKE PROGRAM FOR ALASKA AT THIS TIME, AND DESIRE TO HOLD IN ABEYANCE ANY RECOMMENDATION CONCERNING THE DELETION OF THE PROPOSED DAF FY 1958 CONSTRUCTION PROGRAM FOR TALOS IN ALASKA.

AC PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY BE ENCRYPTION ***

[redacted]

UNCLASSIFIED

[redacted]

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[illegible]

[illegible]

SUBJECT: [illegible]

TO: [illegible]

1. The attached [illegible] Thule, [illegible] requirements [illegible]

2. This Headquarters concurs in the conclusions outlined in paragraphs 7a and 7b of the attached study and recommends that special consideration be given the 7th AAA Group by [illegible] and its pertinent subordinate agencies relative to the readiness conditions of AA units in Thule, Greenland as follows:

a. 90mm Gun Defense

(1) 75% of the fire units on ten (10) minute readiness.

(2) 25% of the fire units on two (2) hour readiness.

b. 75mm Gun Defense

(1) 2/3 of the fire units on ten (10) minute readiness.

(2) 1/3 of the fire units on two (2) hour readiness.

3. Separate action will be taken by this Headquarters relative to minimum manning recommendations by the 7th AAA Group.

FOR THE COMMANDER:

Dupe

ROBERT E. MOORE
CWO, W-3, USA
Asst Adj Gen

1 Incl
Staff Study - Weapons
Readiness & Min Manning
Requirements, w/4 Incl,
w/12 Annexes

UNCLASSIFIED

[redacted]

[redacted]

85

ADOAA-3 O&T 370.2 (29 Jan 57) 1st Ind (S)
SUBJECT: AA Weapons Readiness, Thule Air Base (U)

HEADQUARTERS ARMY ANTIAIRCRAFT COMMAND, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander-In-Chief, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. The attached staff study is forwarded with comments and recommendations relative to AA weapons readiness as follows:

a. A comparison of conditions existing at Thule and other CONUS AA defenses indicates the necessity of maintaining a higher state of readiness in the Thule AA defense than is required by CONAD Regulation 55-8, 31 May 1956.

b. The current state of readiness (all AA units on a ten minute state of readiness), apparently imposed by the 64th Air Division, is considered by this headquarters as constituting an unrealistic requirement.

2. This headquarters concurs in the recommendations contained in paragraph 2, basic communication, and recommends the immediate implementation of the readiness conditions outlined therein.

FOR THE COMMANDER:

1 Incl
n/c

Copy furnished:
CG, 1st AAFC (w/c incl)

[redacted]

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AAC [illegible] 361, Hq 1st Antiaircraft Regional Command, 29 Jan 57, Subj: (Unclassified) [illegible] Weapons Readiness, Thule Air Base

2nd Ind

COOGP-T

Headquarters Continental Air Defense Command, [illegible]nt Air Force Base, Colorado Springs, Colorado

TO: Commander, Northeast Air Command, APO 862, New York, New York

1. Forwarded as a matter pertaining to your command.

2. CONAD Regulation 55-8, dated 1 March 1957, delegates to COMNEAC the authority to establish status of alert for air defense weapons in Greenland.

3. It is requested that you advise this headquarters of action taken relative to paragraph 2, basic correspondence.

FOR THE COMMANDER-IN-CHIEF:

HARVEY T. ALNESS
Major General, USAF
DCS/Plans & Operations

1 Incl
n/c

[redacted]

[redacted]

86

ADCAA-T PMO

Command Arrangement for AAA Units, [redacted] Greenland (U)

20 Aug 56
Maj Semmens/2239/dj

CM
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01
Signal
AO

03 PMO

1. DA 907382, 27 Jul 56, is quoted: "Reference JCS 906695 addressed to CINCONAD cite DA 907382. Referenced message revised the unified command plan to include assigning the responsibility for defense of Alaska and the northeast area against air attack to CINCONAD and directed the disestablishment of the U.S. Northeast Command by one addressee to initiate planning to effect required changes. After participating in such studies undertaken by CONAD, submit recommendations concerning the Army position, with particular reference to command arrangements in the northeast area, to DCSOPS."

2. By DA 907879, 6 Aug 56, CO USARAL and CO First Army were required to submit comments to DA by 16 Aug 56 relative to placing AAA units in Alaska and NE under command of ARAACOM.

3. The following AAA units are located in affected areas.

Alaska

Elmendorf AFB, Ft Richardson

68th AAA Gp
500th AAA Det (OPM)
96th AAA Bn (90mm) * FY 59
867th AAA Bn (75mm)

Ladd AFB

4th AAA Gp
510th AAA Det (OPM)
93d AAA Bn (120mm) * FY 60 (May be deactivated in FY 59 and replaced by activated unit.)
C Btry, 450th AAA Bn (75mm)

Eielson AFB

502d AAA Bn (120mm) * FY 59
450th AAA Bn (-) (75mm)

Northeast Command

Thule

7th AAA Gp
356th AAA Det (OPM)
549th AAA Bn (90mm) * FY 60
42fth AAA Btry (75mm (Sep)
429th AAA btry (75mm) (Sep)

4. Information herein is furnished as a basis for preliminary planning by addressees. CINCONAD has not yet been able to schedule planning conferences and it appears likely that an Army position may be required by DA without benefit of CONAD participation.

[redacted]

[redacted]

86

ADOAA-3 P&O 20 August 1956
SUBJECT: Command Arrangement for AAA Units, Alaska & Greenland (U)

5. Preliminary and unofficial information received from CINCONAD indicates that operational control of all air defense units in Alaska will be delegated to CINCAL and that a Joint Air Division or Joint Air Defense Force will be activated in the Northeast area and will exercise operational control of air defense units in this area.

6. Comments are requested regarding the suggested command arrangement for AAA units in Alaska and Northeast.

7. AG is requested to compile packages of command directives for each of the AAA units in Alaska and the Northeast in order that necessary guidance can be furnished to these units should the decision be made to place these units under command of ARAACOM.

/s/ R. W. HAIN, Colonel, GS
ACofS, G3

[redacted]

[redacted]

[redacted]

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ROUTINE X AF X

CIRCULAR

CINCSAC OFFUTT AFB NEBR

INFO: COMNORAD ENT AFB COLORADO SPRINGS COLO (COURIER)

COMAIRDEFCOM ENT AFB COLORADO SPRINGS COLO (COURIER)

[redacted] COOR XO3%

This message in three parts. Part one. This headquarters is in the process of re-examining present and programmed air defenses in various areas. Among those under study is the Thule Air Defense System. The defense of this base at the present time consists of two 75mm Skysweeper batteries and one 90mm gun battalion together with a complement of manned interceptor aircraft. The surveillance system consists of three T/10 radars and one FPS3 radar. Future plans call for the replacement of the 90mm gun battalion with a Nike Hercules missile battalion in FY 1960. Under existing priorities, Hawk missile increments, for low altitude coverage, cannot be expected until well after 1961. Interceptor aircraft will be retained for the foreseeable future. Part two. Many factors exist

COOR%

Maj J. F. Hamilton
2397

[redacted]

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J. W. LEDOUX
LCDR, USN
Asst Adjutant

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July 1957

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CINCONAD

which degrade the operational effectiveness of the air defense system at Thule. These include lack of early warning, terrain restrictions on the deployment of defense weapons, poor low altitude coverage, and adverse weather conditions. Another major consideration in the defense system for Thule is the tremendous costs of construction and the maintenance of facilities, which is several times that required for similar installations elsewhere. In view of these factors, future air defense programming for Thule is being reanalyzed on the following basis: Is the present and future value of this base to the Strategic Air Command commensurate to the costs required to provide and maintain an effective air defense system? Part three. To assist in this evaluation, it is requested that you furnish this headquarters the following information: (1) The tactical value which you place on Thule at the present time; (2) the tactical value and comparative importance to other similar SAC installations, which you place on Thule for the period 1960 through 1965; and (3) any other plans the Strategic Air Command may have for utilization of Thule Air Base.

CINCONAD
DCS
SECRETARIAT
Assistant
Administrative
Protocol
INFO SERVICES
DCS/ T&E
Systems
Plans & Rqt
Flight Matters
DCS/ I
Call & Time
Plans & Procedures
Operations
DCS/ P&O
Plans & Pgm
Programs
Plans Analysis
Combat Ops Cntrl
Ops Analysis
CONADC
COMNAVFORCONAD
CG AAAA COMD
RCAF LIAISON

Maj J.F. Hamilton
2397
11 July 1957

tsm

MEMORANDUM FOR RECORD: Self-explanatory.

GOCP2 2 2

[redacted]

Air Marshal C. R. Slemon
Chief of the Air Staff
Royal Canadian Air Force Headquarters
Ottawa 4, Ontario, Canada

88

Dear Air Marshal Slemon:

As you know, the CONAD organization, pursuant to its air defense mission, is charged with the responsibility of determining and recommending to the United States' Joint Chiefs of Staff requirements for forces, air defense weapons and equipments necessary to accomplish this mission. These requirements are contained in CADCP 56-66, a copy of which has been forwarded to your headquarters.

Due primarily to budgetary difficulties, it now appears that the goals established for 30 June 1957 will not, in all cases, be attained. Although the situation discussed herein directly affects only United States air defense forces, it is considered appropriate that it be brought to your attention at this time, in that it has a direct impact on our mutual responsibilities.

Reduction of AAA units and curtailment of AEW&C operations were outlined in my message CCOOP X057 of 26 April.

Our land-based prime radar programs will be met in Alaska and the 64th CONAD Division area, however, within the continental United States, we will be 14 sites short of our objective of 133. The majority of the sites which are being deferred were programmed for the Gulf Coast-Mexican Border area.

Numerically, we will essentially meet our manned interceptor program, with 76 assigned squadrons of the 77 programmed. However, as you are aware, we have been having considerable difficulty in attaining a full combat capability with the F-102. Since 15 of our squadrons will be F-102 equipped at the end of the fiscal year (30 June 1957), we must live with a temporary reduction in fighter-interceptor potential

COI/CR File

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until a satisfactory solution to the armament problem is attained.

In the surface-to-air missile field we will have 61 operational NIKE battalions on site, as scheduled. However, the US Army component has been forced to make a reduction in programmed 90-120 mm gun battalions from 56 to 42, and of Skysweeper battalions from 6 to 3. All force reductions, again, have been within the continental United States; the 64th CONAD Division and Alaska are unaffected.

Most of the shortcomings outlined above are temporary in nature. Construction on the 14 radar sites is now scheduled for Fiscal Year 58, starting 1 July 1957. A solution to the F-102 armament problem appears imminent. Although it is probable that the AAA gun reductions will be permanent, the NIKE program is proceeding on schedule. AEW&C operations will return to normal by 1 July and, in fact, should exceed CONAD objectives.

I shall endeavor to keep you informed of any material changes in the status of our forces, particularly in those areas of mutual interest.

Sincerely,

E. E. PARTRIDGE
General, USAF
Commander-in-Chief

[redacted]

[redacted]

COPY

89

ADFRQ-C 2911

SUBJECT: (UNCLASSIFIED) U.S. Gap Filler Program

TO: Air Officer Commanding
RCAF Air Defense Command
ATTN: Group Captain Weiser
RCAF Station
St Hubert, Quebec, Canada

1. Reference Radar Improvement Conference on 9 October 1956 at Headquarters RCAF. The following information on the U.S. Gap Filler Radar Program on the border of the U.S. and Canada is submitted as requested of Col Gravette, Hq ADC, USAF.

2. Site surveys have been completed on all locations as listed. At present 214 site surveys have been completed of the total 235 gap fillers required in this program. If any of the remaining 21 are sited along the border, we will furnish you with a revised list.

3. Following are U.S. gap fillers on border of U.S. and Canada:

Site No.	Location	Coordinates		Beneficial Occupancy Date
P-46A	Ana Cortes, Wash.	48°-27'	122°-37'	Dec 56
P-46B	Concrete, Wash.	48°-31'	121°-35'	Dec 57
P-6B	Mazama, Wash.	48°-44'	120°-40'	Nov 57
P-6A	Okanogan, Wash.	48°-31'	119°-56'	Nov 57
P-60B	Northport, Wash.	48°-54'	117°-52'	Nov 57
P-60A	Ione, Wash.	48°-32'	117°-09'	Nov 56
P-11A	Porthill, Idaho	48°-59'	116°-28'	Jan 56
P-11C	Moyie Springs, Idaho	48°-45'	116°-13'	Oct 56
P-11B	Eureka, Mont.	48°-51'	115°-07'	Nov 56
P-24A	Browning, Mont.	48°-52'	113°-10'	Nov 56
P-24C	Sweet Grass, Mont.	48°-56'	111°-58'	Sept 56
P-25A	Galata, Mont.	48°-56'	111°-19'	Sept 56
P-25B	Hogeland, Mont.	48°-52'	108°-35'	Sept 56
P-26A	Whitewater, Mont.	48°-48'	107°-32'	Sept 56
P-26D	Whitetail, Mont.	48°-56'	105°-15'	Sept 56
P-28A	Niobe, N. D.	48°-38'	102°-18'	Nov 56
P-28B	----------	47°-05'	100°-32'	-------
P-29A	Sheyenne, N. D.	47°-49'	99°-23'	Nov 56
P-29B	Crafton, N. D.	48°-23'	97°-22'	Dec 56

[redacted]

[redacted]

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ADPRQ-C, ADC Hq, Subj: (UNCLASSIFIED) U.S. Gap Filler Program (Cont'd)

Site No.	Location	Coordinates		Beneficial Occupancy Date
P-29D	Middle River, Minn.	48°-32'	96°-01'	Oct 57
SM-132A	Big Falls, Minn.	48°-11'	93°-47'	Oct 58
P-69A	Franklin, Minn.	47°-33'	92°-25'	Oct 57
P-17B	Bagley, Minn.	47°-36'	95°-25'	Sept 57
P-69C	Askov, Minn.	46°-14'	92°-44'	Jan 57
P-16A	Painesdale, Mich.	47°-02'	88°-41'	Oct 57
P-66A	Grand Marais, Mich.	46°-32'	86°-02'	Aug 57
P-19A	Norway, Mich.	45°-47'	87°-52'	Aug 57
P-34A	Petoskey, Mich.	45°-19'	84°-53'	Nov 56
P-67A	Midland, Mich.	43°-38'	84°-25'	Nov 56
P-20A	Burnside, Mich.	43°-10'	83°-03'	Nov 56
P-20B	Emery, Mich.	42°-21'	83°-39'	------
P-20C	Marblehead, Ohio	41°-32'	82°-44'	------
P-62A	Thompson, Ohio	41°-41'	81°-06'	Aug 57
P-21B	Charlotte Center, N. Y.	42°-18'	79°-18'	May 57
P-21A	Brockport, N. Y.	43°-11'	77°-56'	Nov 56
P-49A	Suttons Corner, N. Y.	43°-21'	76°-21'	Jan 57
P-49B	Oswegatchie, N. Y.	44°-10'	75°-07'	July 57
P-14CC	Bangor, N. Y.	44°-49'	74°-22'	-------
P-80A	Eagle Lake, Me.	46°-57'	68°-52'	-------
P-80B	Bridgewater, Me.	46°-25'	68°-01'	Mar 57
P-65A	Topsfield, Me.	45°-23'	67°-47'	-------

FOR THE COMMANDER:

[redacted]

[redacted]

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ADOCE-EQ

28 SEP 1956

SUBJECT: (Unclassified) Proposed Deferral of ADC Gap Filler Radars

TO: Director of Requirements
Headquarters USAF
Washington 25, D. C.

1. References: USAF message, AFOOP-OC-F/355694, classified Secret, dated 31 August 56.

2. The above reference is a proposal to defer a number of gap filler radar facilities in order that additional funds can be made available in the 1957 MCP.

3. This headquarters has studied the above referenced proposal in detail and the following are the results of this study.

4. The gap filler facilities listed below, that have been recommended for deferral by your headquarters, are stations that support the configuration of the perimeter area associated with the ADIZ in the Central U.S. This headquarters desires to retain these stations in the MCP for which they are currently funded. The deletion of the following facilities would seriously affect the low altitude capability of the Central U. S. double perimeter and ADIZ function which is a vital entity within the air defense system.

P-47B	SM-133B
P-68A	SM-134A
P-68B	SM-143A
P-71A	SM-143B
P-71C	SM-144A
SM-133A	

5. The following gap filler facilities are recommended for deferral and are contained in your message referenced above.

P-31B	P-70B
P-31D	P-71B
P-42A	P-81A
P-43A	P-82A
P-53A	P-82B
P-68C	P-82C
P-70A	SM-134C

The facility P-81B, as noted in your message, is no longer part of the gap filler program. This station was deleted from the requirement earlier this year.

[redacted]

[redacted]

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Hq ADC, ADOCE-EG, Subj: (U) Proposed Deferral of ADC Gap Filler Radars

6. In addition to the above recommended facilities for deferral, this headquarters further submits the following facilities for the same category, in order that the desired goal of the gap filler deferral can be realized.

P-20C
P-30F
P-66A
P-67B
P-78A
M-88A
M-88B
M-89A
M-91A
M-91B
M-91C
M-130B

7. In addition to recommending the deferral of 26 gap filler facilities, your headquarters also recommended the deferral of SM-134, Hastings, Nebraska, and TM-184, Valentine, Texas. Headquarters USAF message to all AFIR's, reference AFVIE-C 47442, dated 29 August 56, indicated, in part, that SM-134 would not be considered for deferral. SM-134 makes up part of the Central U. S. double perimeter and ADIZ configuration and is in the category expressed in paragraph 4 above.

8. In recent correspondence, to AFOAC, this headquarters requested approval to relocate TM-184 from its present programmed position to a location, yet to be determined, in the Utah-Colorado-Wyoming area. The above referenced correspondence explains the concept behind this requirement. The subject of the correspondence is "Radar Coverage Deficiencies in Utah-Colorado-Wyoming", classified Secret, dated

9. It must be noted, at this time, that the integration of the Anti-Aircraft missile master (FSC-1) into the Continental Air Defense system requires an operational ground environment that possesses the same deployment criteria as the ADC gap filler radar program. The end result of the missile master integration into CONAD will require either an adjustment of existing gap filler deployment or a requirement for additional gap filler radars, or both. It is anticipated, at this early date, that a readjustment of existing programmed gap filler facilities will satisfy the FSC-1 requirement.

10. Request this headquarters be advised of the action taken on the above proposal at earliest possible date. It is further requested this headquarters be advised as to the FY-MYP these facilities will be funded in, such that timely readjustment of the gap filler program within this command can be initiated by this headquarters.

FOR THE COMMANDER:

[redacted]

[redacted]

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ADOCE-EG, HQ ADC, 28 Sep 56, Subj: (U) Proposed Deferral of ADC Gap Filler Radars

ADOCE-EG

2nd Ind 8 Nov 56

HQ AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Commander-in-Chief, Continental Air Defense Command, Ent AFB, Colorado Springs, Colorado

Request Headquarters ADC be provided with a study of the ground environment requirements generated by the integration of the Anti-Aircraft Missile Master and the NIKE program into the Continental Air Defense system. This study is needed by this headquarters for forwarding to Headquarters USAF.

FOR THE COMMANDER:

MEMO FOR RECORD: USAF has requested this Hq to forward a study of the ground environment requirements generated by the integration of the Anti-Aircraft Missile Master and the NIKE program into the Continental Air Defense System. We are requesting this study from CONAD for forwarding to USAF. Diary item not rqrd. No info cys furn. Comeback rqrd for COMM file.

s/t Maj B. C. DeLosier

Maj B. C. DeLosier/ar /s/
2644
7 Nov 56

4

[redacted]

[redacted]

COPY

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Bsc Ltr from ADC, subj: (UNCLASSIFIED) Proposed Deferral of ADC Gap Filler Radars, dtd 28 Sep 56.

AFOOP-OC-F/3 1st Ind

Department of the Air Force, Hq USAF, Washington 25, D. C.

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. ~~(SECRET)~~ This Headquarters concurs in the deferral of Gap Filler Radars in accordance with your recommendations. Action is being taken to defer the following sites from the 1957 program:

P-31B	P-43A	P-70A	P-81A
P-31D	P-53A	P-70B	P-82A
P-42A	P-68C	P-71B	P-82B
P-82C	P-66A	M-68B	SM-134C
P-67B	M-89A	P-20C	P-78A
M-91A	P-30F	P-88A	M-91B
M-91C	M-130B		

2. ~~(SECRET)~~ It is further directed that you prepare and submit to this Headquarters a study of the ground environment requirements that are generated by the integration of the Anti-Aircraft Missile Master and the NIKE program into the Continental Air Defense System. It is extremely important that this study be available to the Air Staff at the earliest possible date.

BY ORDER OF THE CHIEF OF STAFF:

[redacted]

[redacted]

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FM HEDUSAF WASHDC
TO RJEDMH/CINCSAC OFFUTT AFB OMAHA NEBR
INFO RJEDHEH/CINCONAD ENT AFB COLO
RJEXCR/CINCEAC PEPPERRELL AFB NFLD
BT
CONFIDENTIAL FROM AFOOP-OC-F/3 57981
REFERENCE CINCONAD MESSAGE COELC 60358, 18 OCTOBER 1956 AND NEAC MESSAGE, NEODC 5048, 16 OCTOBER. SUBJECT DEACTIVATION OF N-33, ETAH, GREENLAND. THIS HEADQUARTERS CONCURS WITH NEAC PROPOSAL SUBJECT TO CONSIDERATION OF YOUR VIEWS. SHORT TIME AVAILABLE PRIOR TO DARKNESS REQUIRES ACTION IMMEDIATE FUTURE IF DEACTIVATION IS TO BE ECONOMICALLY COMPLETED THIS FALL. REQUEST YOUR COMMENTS.
BT
29/2155Z Oct RJEPHQ

29 Oct 56

[redacted]

YG-[illegible]

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[redacted]

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AENNSQ-C, Hq ADC, 3[illegible] Nov 56, Subj: (U) NIKE Radar Improvement

CINCPAN 1st End 14 Dec 56

By Coordination: Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. Generally the concept of air defense for the Northeast Area is the same as the concept for the main U.S.-Canada combat zone, i.e., an air defense system utilizing area and local defense weapons in their normal roles. That part of the Northeast Area located in Canada will eventually be an extension of the main U.S.-Canada combat zone. It is desirable, although not mandatory, that no additional radars (over those programmed) be installed in the Northeast Area. Therefore it may not be possible to fully exploit the range capabilities of area defense weapons although the requirement for identification by manned interceptors will continue throughout the foreseeable future.

2. Following are the specific targets to be defended in the Northeast Area and the desired weapon deployment:

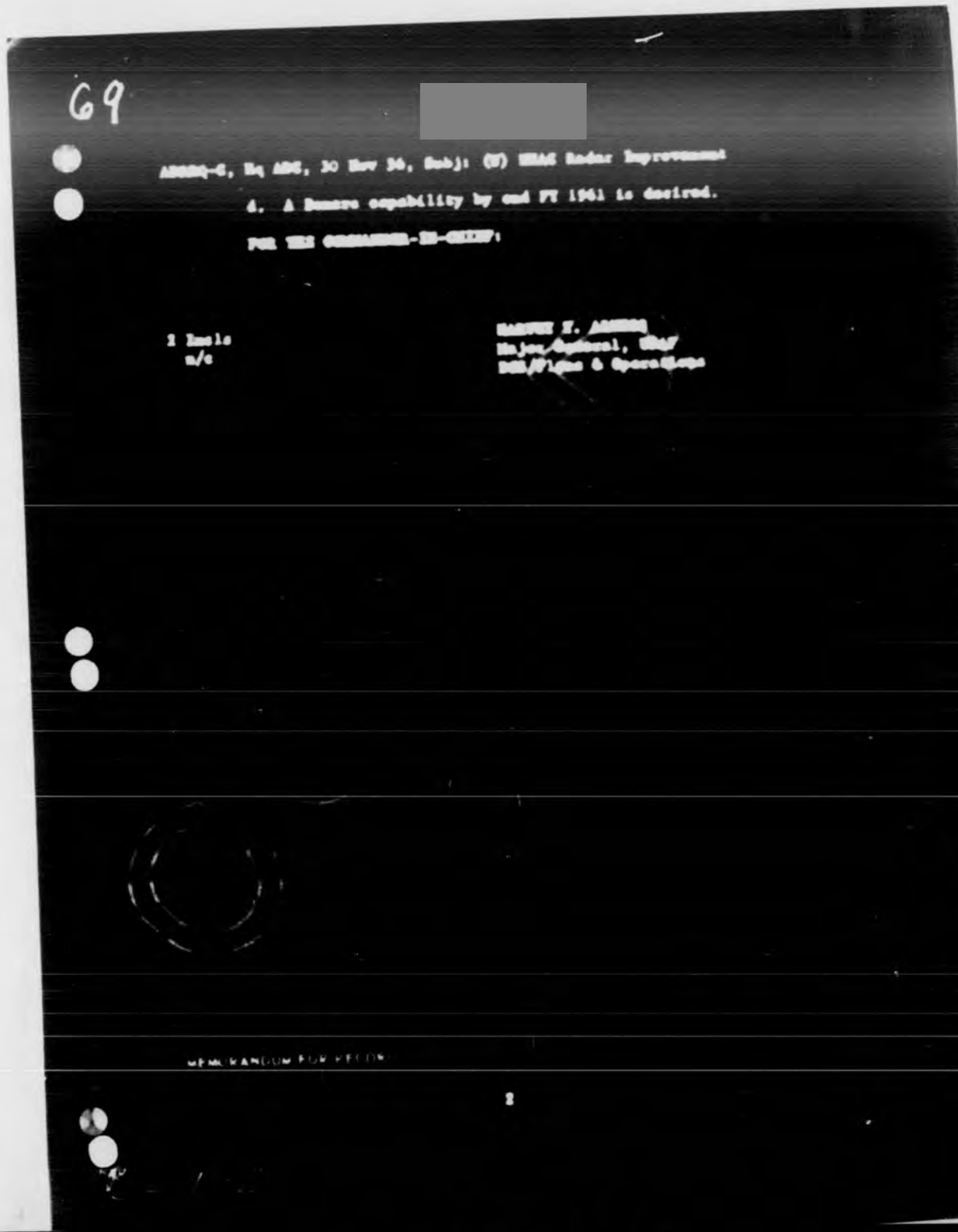
Bermuda	1 FIS	1 AA Unit	2 Bomarc Fits
Goose	1 FIS	1 AA Unit	2 Bomarc Fits
Thule	1 FIS	1 AA Unit	
Sondestrom		1 AA Unit	
Frobisher		1 AA Unit	

3. Following comments pertain to paragraph 2 above:

a. An AA unit is defined as a Nike battalion or Talos equivalent (normally Bomarc detachment).

b. AA Units are expected to be in place by not later than end FY 1960.

c. The FIS at Goose Bay will be phased out by end FY 1960. The two remaining squadrons will operate from Thule, Goose and Bermuda as the situation warrants, i.e., flights or full squadrons at these bases in accordance with the number of unknowns, air traffic, etc. In the post-1960 period the squadron at Thule may be phased out although an interceptor control capability should remain in this area.



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[redacted]

AFOOOQ-C, Hq ADC, 30 Nov 56, Subj: (U) WRAS Radar Improvement

4. A Remove capability by end FY 1961 is desired.

FOR THE COMMANDER-IN-CHIEF:

1 Encls
n/c

[redacted]
Major General, USAF
DCS/Plans & Operations

[redacted] MEMORANDUM FOR RECORD

2

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AIR DEFENSE COMMAND

ADDMJ-S

30 NOV 56

SUBJECT: (U) NIKE Radar Improvement

TO: Commander-in-Chief
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. Reference Inclosures 1 and 2. Request a clarification of the concept of air defense in NIKE, i.e., point defense or area defense.

2. Specifically we need the following information:

a. Location of NIKE bases, type of defenses planned for these bases and the time period these bases should be defended.

b. Location of FIM bases and the time period the FIM should occupy these bases.

3. This information is requested as soon as possible so that we can determine the ground environment required in NIKE.

FOR THE COMMANDER:

2 Incls
1. NIKE ltr, Subj: Radar Improvement in NIKE, 21 Aug 56 (SECRET)
2. Memo for CONAD Plans Div, 9 Nov 56 (CONF)

B-1-3X

JOINT MESSAGEFORM

[redacted]

READING FILE

94

PRECEDENCE	TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFER TO	CLASSIFICATION OF REFERENCE
	BOOK	MULTI	SINGLE			
ACTION ROUTINE					AFOOP-OC-F/3	
INFO ROUTINE		X		AF	52557	SECRET

FROM: CINCONAD

SPECIAL INSTRUCTIONS

CC

TO: CHIEF OF STAFF USAF WASH D C
CINCAL ELMENDORF AFB ANCHORAGE ALASKA

INFO: COMAAC ELMENDORF AFB ANCHORAGE ALASKA
COMDR ADC ENT AFB COLO (COURIER)
CG USARADCOM ENT AFB COLO (COURIER)

[redacted] FROM COOPR XD23. Chief of Staff, USAF, as Executive Agent for CONAD. Reference is made to SECRET message from Chief of Staff USAF to CINCONAD, AFOOP-OC-F/3 52557, requesting the air defense require-ments for the Alaskan Theater. This message in two parts. Part one. Following radar requirements exist in Alaska: A. Reduction from twenty-one to eighteen prime radars in view of deletion of radars at Cold Bay and Sitkinak and deferment of Gulkana radar. B. Six gap filler radars for West Wall including Mulgrave Hill as first priority. Part Two. Requirement exists for co-location of ADDC's and AAOC's in Fairbanks area and in Anchorage area. Letter follows.

DATE	TIME
16 MONTH MAY	0930 YEAR 1957

SYMBOL	SIGNATURE
COOPR	
TYPED NAME AND TITLE (Signature, if required)	TYPED (or stamped) NAME AND TITLE
Cdr James C. Huddleston	
PHONE 2397	READING FILE
SECURITY CLASSIF [redacted]	

WRIT

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DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

[redacted] COPY OF INCOMING CLASSIFIED MESSAGE

This message in whole or in part is prohibited without approval of CONAD

SEE CRYPTO SECTION BEFORE DECLASSIFYING

95

ACTION COPY

Action: Coord
Info: Control Secretariat
Surgeon 8 Sept 57

X7-5062

[redacted]

...THE AIR DEFENSE AND EARLY
...AND CHINIAK ACU
...INIAK WILL BE MASKED BY
... ( ) NEITHER SITKINAK NOR
...INSTRATIONS UP THE COOK
...TCH-OUT, SITKINAK AND
...-UP PROTECTION ONLY FOR
...AJOR JUSTIFICATION FOR THE
... ALASKAN AIR COMMAND ACU
...ITUDE CAPABILITY FURTHER SOUTH

...THIS HEADQUARTERS RECOMMENDS
...AIR FORCE PROGRAM AS SOON AS
...OF FUNDS. SITKINAK CONSTRUCTION
...COMMUNICATIONS AND ELECTRONICS
...IS COMPLETED; NO COMMUNICATION
...YOUR HEADQUARTERS ACCEPT
...SYSTEM FOR THE PERIOD
...ATION, THIS HEADQUARTERS WILL
...THE TRANSFER OF CHINIAK TO THE
...L OF THE SITKINAK SITE.
...CONTRACTORS PREPARATIONS FOR
...OF CONTRACTOR SUPPLIES AND
...ITES FOR SITES DEPARTS
...THE ABOVE.

...TO CATEGORY D ENCRYPTION--
...ALL ...BY DATE-TIME GROUP PRIOR
TO ...CLASSIFICATION.

// ...COPY OF THIS ... HAS BEEN DELIVERED TO COC //

See Fairfield X7-5196 outgoing message

ACTION COPY

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COPY 1 OF 5

[redacted] filled . . COPY OF INCOMING CLASSIFIED MESSAGE

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PP RUEPNG RUEDWA SEE CRYPTOSECTION BEFORE DECLASSIFYING

DE RJHDAT 40

P 1902502

FM CINCNORAD ELMENDORF AFB

TO RUEPNG/COMFAIRALASKA

INFO ZEN/CINCAL ELMENDORF AFB ALASKA

RUEWDH/CINCONAD ENT AFB, COLO

T

[redacted] FROM CINCNORAD. NOT APPROP. THIS MESSAGE IS

FINAL PHASE. PART I. [illegible] BOARDS THIS HEADQUARTERS 02

0752Z E APRIL AND CONCLUDE [illegible] COOP 010 APRIL. [illegible]

QUARTERS PROPOSES TO STOP CONSTRUCTION AT SITKINAK AND [illegible]

RADAR SITES AND TWO MID-COURSE WHITE ALICE LINKS. BY CONTR

CONDURS PROVIDED THERE IS NO MAJOR OBJECTIONS. [illegible]

CONTRACTORS SUPPLY EQUIP WITH MATERIAL FOR THE STEWART-NORTON

WHITE ALICE PROJECT IS CONSIDERED TO LEAVE ZI 11APRIL. [illegible]

OF PROPOSAL IN PART I BY MEANS MESSAGE TO INCLUDE [illegible]

L GOVERNMENT. PART III. ALCOM CONCUR WITH ABOVE.

HT

D/03052 APR RJHDAT

A--PARAPHRASE NOT REQUIRED. [illegible] TO CINCNORAD. [illegible]

PHYSICALLY REMOVED FROM ENCLOSURE [illegible] DATE-TIME GROUP

TO DECLASSIFICATION.

//ADVANCE COPY OF [illegible] HAS BEEN DELIVERED TO C//

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CONAD HIST FILE
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COPY 3 OF 4 COPIES

CONAD SECYT FORM 16 MAR 57
(8420)

[redacted] (When filled in)

[redacted]

97

AFOCP

SUBJECT: [redacted] Deletion of Sitkinak (I-12) and Chiniak (I-1) AC&W Stations from the Alaskan Air Command Program

TO: Commander
Alaskan Air Command
APO 942
Seattle, Washington

1. (CONFIDENTIAL) References:

a. [redacted] message from AAC, OP 24303 dated 4 April 1957.

b. SECRET message from CINCAL, CINCAL A013 dated 6 April 1957.

c. [redacted] message from CINCAL, AFDAC 57113 dated 7 April 1957.

d. [redacted] message from AAC, OP 24340 dated 10 April 1957.

e. CONFIDENTIAL message from CSAF to AAC, AFOCP-C 54722 dated 11 April 1957.

f. UNCLASSIFIED message from CSAF to AFIN, Alaska, AFOCP-C 46250 dated 11 April 1957.

g. UNCLASSIFIED message from CSAF to AFOCP, ARDC, Chief, Electronics Defense System Division, AF, AFOCP-C/L 54029 dated 12 April 1957.

2. [redacted] By references c, f and g, you and other agencies (AAC) were advised of certain actions in connection with the deletion of Sitkinak and Chiniak from the CSAF program. These actions were expeditiously handled in order to fully realize significant savings in money, personnel and equipment. This correspondence serves as follow-up confirmation to the decision and specifically approves your request deleting Sitkinak and Chiniak from the program.

3. [redacted] As a result of this deletion the following actions are being implemented:

a. Changes to official CSAF documents (PC, TD, TC, OPO, etc).

b. Disposition of some C/E equipment.

c. Proposal to the Department of Navy on the possible transfer of Chiniak.

CSAFAD X7

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[redacted]

Ltr to AAC, Subject: [redacted] Deletion of Sitkinak (P-19) and Chiniak (P-18) AC&W Stations from the Alaskan Air Command Program (Cont'd)

4. (UNCLASSIFIED) Specific questions and instructions covering the many ramifications prompted by this deletion will be handled by the staff agency concerned according to normal procedures.

BY ORDER OF THE CHIEF OF STAFF:

P. J. MAHONEY
Colonel, USAF
Deputy Operations Control Div
Directorate of Operations, DCS/O

cc: AFC
CINCAL
CONAD

[redacted]

[redacted]

COPY

392/12

HEADQUARTERS
8TH AIR DIVISION (AEW&CON) (ADC)
UNITED STATES AIR FORCE
McCLELLAN AIR FORCE BASE, CALIFORNIA

3 October 1956

Lieutenant General Joseph M. Atkinson
Commander, Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

Dear General Atkinson:

This letter represents the monthly progress report of the 8th Air Division for the month of September 1956.

The 552nd AEW&Con Wing accomplished full operational readiness objectives for the month of September, flying 4629 hours of which 3606 hours were devoted to AOC missions. On the East Coast, the 551st AEW&Con Wing continued their approach to operational readiness with 3722 total hours and 2671 hours of AOC mission time.

During the month of October, the West Coast Wing will continue to polish and refine the operation. On the East Coast, the 551st AEW&Con Wing has programmed its full commitment of AOC flying and I anticipate that this commitment will be fulfilled. In view of that fact, the 551st AEW&Con Wing should be considered operationally ready as of 15 October 1956. I have previously advised General Partridge informally that the 552nd AEW&Con Wing has been, for all interests and purposes, operationally ready for the past three months.

With regard to the operational capability of the 551st AEW&Con Wing, I have based my conclusions upon the resources which are currently available to the Wing. While these resources do not constitute the full complement upon which original readiness criteria and operational readiness dates were based, we will still accomplish our objectives. They will be accomplished with only 4 of the 8 nose docks which were originally planned; with field maintenance support still divided between Otis and Idlewild, with only 47% of all authorized 7-level skills and only 14% of the 7-level radar technicians authorized; and above all, by complete disregard for the 40-hour work week.

[redacted]

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While the 552nd AEW&Con Wing is operationally ready, it is accomplishing its mission with 67% of 7-level skills authorized and only 8% of 7-level Radar Maintenance Technicians authorized. Needless to say that although facilities at McClellan are generally better than at Otis, the second is not on a 40 hour work week.

In both Wings our grade structure is equally disproportionate with 44% of our authorized Master Sergeants, 52% Tech Sergeants, 3% Staff Sergeants and 0% all others. This, of course, can be alleviated to a great degree by liberal promotion quotas. However, to get the AEW&C program back into a 40-hour work week concept without diminution of our four station capability the correction of deficiencies which I have highlighted must continue to be aggressively persued.

In terms of detection effectivity, we have sufficient data presently available to substantiate that we are seeing approximately 85% of all traffic while we are on station with an operational weapon. In view of the skepticism which apparently still exists within our own defense family as to AEW&Con effectivity, I believe that it would be well for this figure to be advertised.

As you are probably aware this report was generated two years ago when the 8th Air Division was in the build-up stage. In view of our present status of operational readiness, I suggest this type of letter be discontinued unless you desire otherwise.

Sincerely,

/s/ KENNETH H. GIBSON
Brigadier General, USAF
Commander

[redacted]

[redacted]

3942

DEFENSED

CINCONAD

I AF 8DOCE-T-143, 24 Jul 56 CONFIDENTIAL

CONEN 8TH ADIV MCCLELLAN AFB CALIF

CONFWADF HAMILTON AFB CALIF

CONJEADF STEWART AFB NY

[redacted] COCCO-C 60287

Reference 8th Air Division classified message 8DOCE-T-143, 24 Jul 56. This message is two parts. PART I. For all. CONAD Operations Plan 9-56, 1 Apr 56, is based on a ten thousand feet platform altitude for AEW&Com aircraft to give the minimum effective radar coverage of 125 nautical miles required by present AEW&Com station locations. The final report on Phase II of the OST of the EC-121 aircraft indicates fifteen thousand feet as the best operating altitude for effective medium and low altitude coverage. PART II for 8th Air Division. Various pla[redacted] altitudes and antenna tilts may be utilized as desired by Commander 8th Air Division during your training phase. However

5 Sep 56 2300 Z

COCCO-C

Capt Hartley C. Davey/jb
2930/2863 1 2

SECRET

[redacted]

[redacted] ON BOARD

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[redacted]

CINCONAD

definite procedures concerning optimum altitudes and antenna tilts commensurate with the existing tactical situation and/or weather will be established and adhered to upon becoming operationally ready. Your primary mission of extension of the medium and low level radar coverage to seaward will preclude any additional R&D function being performed by on station aircraft. Any additional flying hours remaining over your mission requirements may be used in developing new techniques and procedures. Desire that you forward any technical studies which might amplify or modify existing test results on the RC-121 aircraft or the AEW&Con program to this headquarters for inclusion in our records.

[redacted]

COPY

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CORRQ-C

302.12

SUBJECT: (UNCLASSIFIED) CONAD Concept for AEW&Con Employment

TO: Director of Requirements
Headquarters USAF
Washington 25, D. C.

2 Aug 54

1. It has been indicated to this headquarters that clarification of CONAD policy concerning AEW&Con employment is desirable, and that the apparent conflict between GOR's 25 and 97 be resolved. Inclosure 1 expresses the policy of this headquarters in planning the characteristics, deployment and employment of AEW&Con forces.

2. With regard to GOR's 25 and 97, this headquarters sees no conflict in the documents. It is to be noted that GOR 25 provides for automatic transmission of data link instructions to interceptors, and a semi-automatic intercept computation. This is a currently valid requirement for the interim system, and is compatible with the "ultimate" system planned by this headquarters. Appropriate revisions to GOR 97 are proposed, Inclosure 2, to provide:

a. Automatic tracking.

b. Increased detection and tracking performance.

c. Latitude in design of automatic navigation systems. As written, Paragraph VII B.4 would deny use of a reasonably secure automatic navigation system which does employ shore stations, but which need not be turned off for SCATER and CONELRAD.

FOR THE COMMANDER-IN-CHIEF:

2 Incls
1. CONAD Concept AEW&Con
2. Changes to GOR 97

Info cy
AFDAP
COMDR ARDC
COMDR 8th AIR DIV

UNCLASSIFIED

[redacted]

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[redacted] Launch for ADMOm

The philosophy followed in the design and construction of the air defense ground environment is that defense capability starts at the target, and is expanded outward to provide time to engage the enemy as far from the target as practicable. The four electronic functions of air defense must be able to be performed anywhere in the Air Defense Combat Zone. It is for this reason that the elements of the system devised to extend the combat zone seaward must have essentially the same characteristics as the land based portion of the system.

ADMOm forces are employed to extend the defense capability seaward from coastal targets to provide an environment that will permit execution of the four functions. In order to do this, capabilities within the ADMOm forces must be identical to those of shore stations. It is to be emphasized that early warning, as such, has no part in the design of the Air Defense Combat Zone, in which the ADC ADMOm forces operate, except insofar as perimeter detection may be considered early warning, initial or supplementary, depending upon whether or not the target is detected by the DEW system.

As the speed of hostile weapons increases, the distance from the target to the perimeter of the ADIZ must increase. Except as defense reaction time is reduced, the time/distance ratio must necessarily remain constant and adequate for defensive action. For this reason, ADMOm and/or other seaward extension elements must move further and further seaward, to the limit of defense weapons range plus reaction time/distance. Current planning in CONAD foresees ADMOm forces providing air defense environment 1,500 miles off shore.

The requirement for identical capability implies computer-processed data for ADMOm as well as for shore-based stations. It is planned to automatically relay ADMOm gathered data to surface computer stations, using the aircraft as a data-gathering source, and as a relay point for computer-generated instructions to interceptors. However, just as land stations are to have an added manual capability for semi-independent operation (SAGE-37), so must the seaward extension elements have a similar capability. This gives rise to the requirement for an airborne computer, preferably fully automatic, although it appears technologically impossible to progress beyond a ruggedized computer for 6-10 years.

At the distances envisioned, line of sight communications are insufficient. HF and/or scatter techniques must also be adapted to this system.

[redacted]

R 271-2

[redacted]

100

[redacted]

1. Paragraph VII B.1. RADAR. The radar should have a detection and tracking range of 250 nautical miles with a kill zone ratio of 75% on a target equivalent in size to an IL28 head-on traveling at Mach 1.5 . Altitude coverage should extend from the surface to 100,000 feet. The radar must be equipped with ANTI equipment to reduce non clutter to permit detection and tracking of aircraft at all times. The radar should provide height data out to the maximum search range and altitude accuracy of plus or minus 500 feet at the maximum range. Range and azimuth resolution should be adequate to discriminate between multiple targets in close formation, with accuracy to plus or minus 2% of range and plus or minus 1° of azimuth.

2. Paragraph VII B.2. DATA TRANSMISSION. It is desired that all data collected by this system normally be relayed automatically to surface stations for processing and use. Provisions for an independent ACI capability should be made, in the event communications with surface stations are unsatisfactory or independent operation is desired. It can be assumed the aircraft will act as a data gathering system as well as a relay point and/or originating source of instruction for data link equipped interceptors. This, therefore, requires line of sight (0-200 miles) and long-range (200-1500 miles) automatic relay equipment for search, IFF and height data relay to a ground station and an air-to-air data link to receive and transmit command control intercept data to interceptor aircraft and/or missiles.

3. Paragraph VII B.3. AUTOMATIC NAVIGATION. Due to the need for constant correct position data, the aircraft must be equipped with automatic navigation equipment. It must not be designed around the existence of ground beacons, LORAN, or other non-secure aids which will be rendered inoperative under SCATTER or CORILLAD action. Navigation accuracy within plus or minus 1 mile is desired.

[redacted]

E-571-3X

WITH FOLLOWING DATE TIME GROUP

101

PRIORITY
ROUTINE
CINCONAD

CG [redacted] USAF WASH DC

INFO: CONAD ENT AFB COLO [illegible]

[redacted] From CONCS X-006.

C of S, USAF as Executive Agent for CONAD. Based upon a USAF directed reduction in the flying hour program for fourth quarter FY 57, the Air Defense Command has reduced the AEW&Con aircraft station coverage to eight hours per day for each station. On the basis that AEW&Con aircraft on station provide useful early warning information, any reduction in early warning coverage within the air surveillance system for air defense of the United States is unacceptable to CONAD. Early warning information provides the basic step for timely air defense actions and some of the most effective counter actions must be taken only on the basis of early warning information. Since some of the AEW&Con stations are not presently covered on a full time basis, action must be taken to increase the

27 2000Z Mar 1957

COORD

Col J R Jeffus/hll
2079

[redacted] 1 2

[illegible]

[redacted]

CINCONAD

early warning coverage rather than reduce it. It is requested that urgent review be made of the resources made available to Headquarters, USAF and then to the Air Defense Command in order that the early warning information from AEW&Com aircraft on station not be reduced. In the event this capability cannot be restored immediately, it is considered that CONAD Terms of Reference require acceptance of the resulting increased calculated risk by the JCS.

101

CINCONAD
SECRETARIAT
ADJUTANT
INFO SERVICES
DCS/C&R
DCS/I
DCS/O
DCS/P&O
COMAAFFORCONAD
CG ARAA COMD
RCAF LIAISON

Col JH Jolfus
20797
27 Mar 57

S/J. W. LeDoux

J. W. LEDOUX
LCDR, USN
Asst Adjutant

[redacted]

2 2

[redacted]

102

Reduction in Early Warning
Radar Coverage

COHCS

COOPC

26 Mar 57
Col J H Jeffus/2130/bll

1. Headquarters, ADC dispatched message ADCOP-C 00813 (attached as Incl #1) on 22 March 1957 to their subordinate units for action. The message directs that the time of coverage of the AEW&Con stations be reduced to 8 hours each. This action was taken in spite of objections by CONAD. The position taken by CONAD was that effective and useful early warning coverage provided by AEW&Con aircraft on station should not be reduced unilaterally by ADC. Apparently an appeal to Headquarters, USAF in this matter was not made.

2. It is important that CONAD take issue with ADC in this matter in view of the Terms of Reference of CINCONAD. The ADC action in effect withdraws resources from CONAD without securing CONAD approval. This action is unacceptable in principle.

3. The attached message (Incl #2) is proposed as a step to secure a review of the ADC decision by bringing the JCS into the picture concerning resources allocation and the threat.

2 Incls:
1. ADC message ADCOP-C 00813
2. Draft message

HARVEY T. ALMEND
Major General, USAF
DCS/Plans & Operations

[redacted]

[redacted] when filled in COPY OF INCOMING CLASSIFIED MESSAGE

[redacted] this message in whole or in part is prohibited without approval of CONAD [illegible]

SEE CRYPTO SECTION BEFORE DECLASSIFYING

103

READING FILE

Action: Coord
Info: OCHCS - COOPS

X7-5802

[illegible]
PP [illegible]
DE [illegible] 134
P [illegible]Z
[illegible] CSAF WASHDC
[illegible] CINCONAD ENT AFB COLO
[illegible] CINCAEREDEFCOM ENT AFB COLO
[illegible] CHIEFS OF STAFF ARMY WASHDC
[illegible] WASHDC

[redacted] FROM ADC 5525. THIS IS AN EXECUTIVE AGENCY MESSAGE.
[illegible] OCHCS X-006 DATED 29 MARCH 1957.
IT IS [illegible] THAT REEXAMINATION BY ADC OF FLYING HOUR
ALLOCATION FOR 4TH QUARTER FY 57 HAS PERMITTED ALLOCATION OF
ADDITIONAL FLYING HOURS FOR THE AEW&C FUNCTION. AEW&C
INCREASE, EFFECTIVE 16 APRIL 1957, SHOULD SUPPORT 6 AEW&C STATIONS
16 HOURS PER DAY AND 2 ADDITIONAL AEW&C STATION 8 HOURS
PER DAY. THE SIGNIFICANCE OF THE AEW&C IN THE CONTIGUOUS
SURVEILLANCE, DETECTION AND CONTROL SYSTEM IS APPRECIATED.
HOWEVER, [illegible] THIS FLYING HOUR ALLOCATION CANNOT BE FURTHER

CONAD MESSAGE FILE
302.12

PAGE TWO RJEDHR 134
INCREASED WITHOUT JEOPARDIZING OTHER PRIORITY FUNCTIONS.
IT IS PLANNED THAT FLYING HOUR ALLOCATION BEGINNING 1 JULY 1957
WILL PERMIT 24 HOUR OPERATION OF 6 STATIONS.
ADDITIONAL FLYING HOUR ALLOCATION SHOULD SUFFICE TO PERMIT
[illegible] AEW&C OPERATION IN CONSIDERATION OF OVER-ALL
PRIORITIES.
BT
29/2151Z APR RJEDHR

A--PARAGRAPH NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--
PHYSICALLY REMOVE ALL INCORRECT REFERENCES BY DATE-TIME GROUP PRIOR
TO DECLASSIFICATION.

READING FILE

COPY 1 OF 5 COPIES

CONAD SECYT FORM 16 (when filled in) [redacted]

JOINT MESSA FORM

[redacted]

PRECEDENCE		TYPE MSG (Check)			ACCOUNTING SYMBOL	TOING OR REFERS TO	CLASSIFICATION OF REFERENCE
		BOOK	MULTI	SINGLE			
ACTION	PRIORITY		X		AF	X	
INFO	[redacted]						

FROM: CGNEB ADC ENT AFB COLO

SPECIAL INSTRUCTIONS

TO: CGNEB 6TH ARIV ARMCOM MCCLELLAN AFB CALIF

INFO: CINCONAD ENT AFB COLO (COURIER)

[redacted] ADOCP-C 01015

Your command is authorized an additional 5,884 flying hours for RB-121 aircraft during 4th Quarter FY 57. It is believed this additional time will provide approximately 16-hour station coverage per day.

DISPATCHED
11 APR 1957
D.C.

DATE 11 | TIME 2115Z
MONTH APR | YEAR 1957

SYMBOL: ADOCP-C

SIGNATURE

WRITER: TYPED NAME AND TITLE (Signature, if required): CAPTAIN WILLARD D INGRAM/djs

PHONE 2402/2403 | PAGE NR. 1 | NR. OF PAGES 1

SECURITY CLASSIFICATION [redacted]

RELEASER: TYPED (or stamped) NAME AND TITLE

H. J. TOSO
Capt, USAF
Ass't Command Au

4-99

DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

COMMANDER-IN-CHIEF, CONAD, ENT AIR FORCE BASE, COLORADO SPRINGS, COLO. (COURIER)

[redacted]

105

COOOP-T, Hq CONAD, 1 Apr 57, Subject: Intercept Capability of Picket Ships and AEW&Con Aircraft

5-4

ADOCO-C 1st Ind 12 APR 1957

Hq Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander-in-Chief, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. The capability of AEW&Con aircraft to conduct interceptions and otherwise control aircraft is considered comparable to the ground GCI sites. This capability is presently limited by the following factors:

a. The 1956 forced reduction in AEW&Con controllers to fully man the ground radar sites. This position has now changed and AEW&Con units are again receiving intercept controllers. Three hundred controllers are authorized, 113 are presently assigned, 187 are projected for assignment by the end of May. Controller capabilities will improve accordingly.

b. The mission of AEW&Con calls for low and medium altitude coverage up to 30,000 feet. Effective control above this altitude can be achieved but only by reducing the low level detection capability.

c. The reduced flying hour program precludes any controller proficiency training until after 1 July 1957.

d. Communications difficulties between interceptors and AEW&Con aircraft. These have been materially reduced during the last few months.

2. AEW&Con experience figures are contained in the AFGC reports on Phase II of Phase V of the OST of the RC-121 C&D aircraft, Project No. AFG/ADA/85-A-2, dated 20 September 1955, and Project No. AFG/ADA/85-A-5, dated 14 August 1956. These reports are available if required.

3. With the Navy handling all Picket Vessels, we believe NAV for CONAD should be requested to furnish the desired information for these units.

FOR THE COMMANDER:

H. J. Toso 6-1-57

[redacted]

H. J. TOSO
Capt, USAF
Asst Command Adj

X7-5382

0535

[redacted]

HEADQUARTERS
AIR DEFENSE COMMAND
[illegible]
ENT AIR FORCE BASE, COLORADO

106

TEL MELROSE 2-5511
EXT 2182

ADOOP-A

16 APR 1957

SUBJECT: (Unclassified) ADC Flying Hour Program, Fourth Quarter FY 1957

TO: Commander-in-Chief
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. Reference is made to your letter dated 29 March 1957, Subject: "Essential Early Warning Coverage".

2. The reduction of AEW&CON flying hours in order to meet the United States Air Force-imposed dollar reduction of 4.2 million for the Air Defense Command in Fourth Quarter FY 1957 must be considered in context with the entire ADC flying hour program. The reduction in flying time imposed is severe in that it must be absorbed in one quarter of this fiscal year. This eliminates the flexibility associated with normal reprogramming action. The Air Defense Command received their proportionate share of the USAF reduction and it is our belief that this USAF reduction was arrived at with a full appreciation of the consequences of such action.

3. In addition to the action affecting the AEW&CON program, the following actions were taken by Air Defense Command:

a. All rotation of fighter squadrons to Yuma were suspended for the remainder of FY 1957.

b. The Radar Calibration Flights were put on a training status. (This provides minimum time to keep the organizations on an operational basis, so that they could resume operations 1 July 1957.)

c. All CRT flying was reduced by 33 1/3% (this includes C-47, B-25, G-45, T-33, etc. This provides each rated pilot slightly over four hours per month).

d. F-102A flying was left as programmed in order to get these tactical squadrons operational at the earliest possible date.

[redacted]

B-1-2

4-106

[redacted] 106

ADOOP-A, SUBJECT: (Unclassified) ADC Flying Hour Program, Fourth Quarter FY 1957

e. The remainder of the fighter squadrons were reduced to 10 hours per aircraft per month for one month and left as programmed for the other two months. (Defense Force Commanders were given the latitude of arranging this time as they see fit and to transfer hours between different types of fighter aircraft.)

4. These required actions are considered by ADC to be acceptable only because funds do not exist to do otherwise.

5. Since the ADC flying hour reduction was implemented on 22 March 1957, we have realized an additional $542,941 as a result of AMC over-billings during FY 1956. The entire amount will be used to supplement the AEW&CON program. Action has been initiated to provide the 8th Air Division with 5,884 additional hours which will increase station coverage to approximately 14 hours per day. Any further increase in AEW&CON operations will have to be provided at the expense of a further reduction in the fighter interceptor program. To provide 24-hour station coverage would require the transfer of a minimum of about 10,000 fighter hours and reduce flying time for fighter pilots to 10 hours a month. During FY 1956, the average was 22 hours per pilot per month. This reduction obviously is unacceptable from a flying safety standpoint and from the loss of combat capability for a period of time after the end of the fiscal year.

6. In view of the above, any relief from this situation must be provided by an additional allotment of flying hours from the United States Air Force to the Air Defense Command. In the event this cannot be accomplished, due to budgetary limitations, it is our informal understanding that Air Force Headquarters will forward your letter to the Joint Chiefs of Staff with a recommendation that a calculated risk be accepted in AEW&CON operations for Fourth Quarter FY 1957.

J. H. ATKINSON
Lieutenant General, USAF
Commander

[redacted]

B-1-3X

106

COOOP

SUBJECT: (Unclassified) ADC Flying Hour Program, Fourth Quarter FY 57

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. Your efforts to restore AEW&Con station coverage, as outlined in your letter of 16 April 1957, subject as above, are appreciated.

2. CONAD message to the Chief of Staff, USAF as Executive Agent for CONAD (C[redacted] 00006, dated 27 March 1957), dealing with the subject of AEW&Con station coverage has not yet been answered. It is hoped that a further allocation of funds for flying hours to ADC which may be applied to AEW&Con aircraft for increased station coverage may yet be made as a result of JCS action on this message.

FOR THE COMMANDER-IN-CHIEF:

MARSHALL S. CARTER
Major General, USA
Chief of Staff

17 Apr 57

B-1-1

302.12

29 MAR

COHCS

SUBJECT: Essential Early Warning Coverage

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado

1. It is understood that ADC has reduced the time AEW&C aircraft are on station to eight hours per day during the remaining quarter of this fiscal year in order to meet partially a USAF directed reduction in the flying hour program previously authorized ADC.

2. A reduction in early warning coverage from that presently provided, to meet the current reduction in flying hour program, is unacceptable to CONAD. On the basis that each AEW&C aircraft on station provides effective and useful early warning information, the time of coverage of each AEW&C station should be increased, not reduced. The determination of the effectiveness of these aircraft for the provision of early warning information is a technical one on which your advice is solicited. The determination of requirements for the AEW&C on station will be made by CONAD on the basis of the effectiveness and the existing threat.

3. Attached is a copy of message just dispatched to Headquarters USAF. Until action on this message is completed, it is considered essential that no reduction in the AEW&C coverage be effected.

FOR THE COMMANDER-IN-CHIEF:

MARSHALL S. CARTER
Major General USA
Chief of Staff

1 Encl
as stated

Hq, USAF

079
7 Mar 57

UNCLASSIFIED

[redacted]

On [illegible] ... conducted from the ... The purpose of the ... between ADC to ... flying hour program. ... proposed to reduce ... remainder of this ... goals was the plan ... to 6 hours per day ... 50% reduction in ... AEW&C aircraft and ... ately $1.7 million. ... CBT flying by 1/3 and ... a reduction of flying ... combat aircraft to 10 hours per aircraft for 1 month out of the next 3 months. Gen Lyon asked for comments from CONAD representatives. These representatives stated that a reduction in effective early warning ... was not acceptable. Gen Lyon then approved ... plan including the reduction of AEW&C station ... The attached letter is to be forwarded as an ... statement of position from CONAD in regard to ...

12

[redacted]

COPY

108

COOOP

SUBJECT: (Unclassified) ADC Flying Hour Program, Fourth Quarter FY 57

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. Your efforts to restore AEW&Con station coverage, as outlined in your letter of 16 April 1957, subject as above, are appreciated.

2. CONAD message to the Chief of Staff, USAF as Executive Agent for CONAD (COHCS X0006, dated 27 March 1957), dealing with the subject of AEW&Con station coverage has not yet been answered. It is hoped that a further allocation of funds for flying hours to ADC which may be applied to AEW&Con aircraft for increased station coverage may yet be made as a result of JCS action on this message.

FOR THE COMMANDER-IN-CHIEF:

Col. Jeffus
2130
17 Apr 57
X7-5483
def

/s/ MARSHALL S. CARTER
Major General, USA
Chief of Staff

M/R: On 27 March 1957 CONAD dispatched message, COHCS X0006, to C/S, USAF as Executive Agent for CONAD, protesting the reduction of AEW&Con station coverage by a reduction of flying hours authorized the AEW&Con units by ADC. This reduction in total hours was directed by USAF without respect to the specific units concerned. This message has not yet been answered by JCS. On 16 Apr 57, by letter from Hq ADC, subject: "(Uncl) ADC Flying Hour Program, Fourth Quarter FY 57", CONAD was notified that sufficient flying hours had been made available to increase the AEW&Con station coverage from 8 hours per day to 14 hours per day. The present letter expresses appreciation for the efforts to restore the AEW&Con aircraft on station and the hope for further allocation of funds to return to full term coverage of such station.

[redacted]

109

HEADQUARTERS
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE
ENT AIR FORCE BASE, COLORADO

ADDHQ-C

TEL: MELROSE 3-5511
EXT 2183

SUBJECT: Presentation on ADC&Con Deployment

TO: Commander-in-Chief
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. This headquarters is of the opinion that the deployment of AD&Con forces in contiguous ocean sectors, as shown in Part II, Section 2, Chart 6 of CONAD Objectives Plan 1956-66, is not optimum, nor does it meet time-distance requirements for the weapons contemplated for the air defense system in the time period concerned.

2. We have devised a method of deployment which appears to offer greater area coverage, sufficient for weapons reaction and control, yet uses no greater force of [illegible] equipments than the numbers listed in CONAD Objectives Plan 1956-66. We should like an opportunity to present this concept to your staff for consideration. It is important that agreement be reached in this matter rather soon, in order that firm force requirements may be transmitted to Headquarters USAF.

3. The formal portion of our presentation will take approximately fifteen minutes. It is suggested that this presentation be made during the latter part of the week of 10 June 1957.

DUPLICATE

109

ADCRQ-C, Hq ADC, [illegible] Subj: Presentation of AEW ... Control Deployment

COORD

1st Ind

Hq Continental Air Defense Command, Mnt AFB, Colorado Spr Ace. Col

TO: Commander, Air Defense Command, Mnt AFB, Colorado Springs, Co

1. The presentation of your proposed plan for deployment for AEW & Control Forces and approval in principle given thereto was made to members of the ADC staff on 19 Jan 1957 by Lt Gen. Topsoott.

2. This proposed plan increases the coverage [illegible] from approximately 400 nautical miles to approximately 600 nautical miles without [illegible] the number of AFMed stations. The adoption of [illegible] dependent on the development and availability of [illegible] The plan is not adaptable to the [illegible] This headquarters concurs in the [illegible] procedures to be applied to adjust [illegible] increase the coverage under review.

FOR THE COMMANDER-IN-CHIEF:

PNL

109

MEMORANDUM FOR RECORD:

1. Comparison of CADOP 65-66 quantitative ground environment requirements and the proposed ADC plan are:

	CADOP	Proposed ADC Plan
WEST COAST	8 Picket Ship Stations	10 AEW&C Stations
	1 Heavy radar (Quadra Cape Isle)	
	6 AEW&C stations	
EAST COAST	11 Picket ship stations	9 AEW&C stations
	2 Blimp stations	
	9 AEW&C stations	
	3 Texas towers	
GULF OF MEXICO	3 AEW&C stations	3 AEW [illegible]
		[illegible] Blimps not coord Navy

2. The proposed ADC plan to increase extend the cont[illegible]er seaward to 800 nm is desirable provided the APS 70 radar and [illegible] aircraft are developed. This can be accomplished with appr[illegible] the same number of AEW&C stations planned in CADOP 65-66. Plan approval of this plan would be contingent upon the develop[illegible] availability of this new equipment and upon its characteris[illegible]en available. Such a plan is consistent with CADOP requiremen[illegible] additional qualitative and quantitative improvements.

[redacted]

110

(BASL) Change to CONAD Ops

CONOP-7 1st Ind 29 MAR

Headquarters Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. The attached proposed change to CONAD Ops Plan 1-56, presented by Headquarters CONAD Forces [illegible] CONAD Region, is forwarded for your study.

2. Reference paragraph 3, [illegible] communication, this Headquarters considers that the pattern of deployment of AWACS aircraft and picket ships should be such as to give priority for early warning information over the aircraft control station during periods of normal preparedness. A system of alternate stations may possibly provide more flexibility in the air surveillance system by utilizing the mobility of the AWACS aircraft and picket vessels to extend or contract the area of contiguous radar cover; to provide for special situations where exceptional early warning requirements may exist; and to permit selective target tracking involving "tracking" procedures.

3. Request your recommendations and any proposed changes to Ops Plan 1-56 be forwarded to this Headquarters.

FOR THE COMMANDER-IN-CHIEF:

1 incl
n/c

HARVEY T. ADAMS
Major General, USAF
DCS/Plans & Operations

[redacted]

110

[redacted]

CFcUP-5

SU/JECT: (Uncl) Change to CONAD Ops Plan 9-56

TO: Commander-in-Chief
Continental Air Defense Command
ent Air Force Base
Colorado Springs, Colorado

1. Reference your classified message ADCCC-E 20684. CONAD OPS PLAN 9-56 charges AEW&Con Wings with the responsibility to extend land/sea based radar at low and medium altitudes and to increase the interceptor combat zone. The RC-121D is not capable of performing the assigned mission and continuing to accept the present AEW&C vehicle under the assumption that it can, will slow development of the required vehicle. It is necessary to develop an interim concept which will best employ the RC-121D by taking advantage of its capabilities and acknowledging its limitations. Therefore, we recommend utilization of the RC-121D further seaward to provide earlier detection and permit more timely commitment of defensive weapons and subsequent engagement by other elements of the air defense system.

2. The considerations which prompted our recommended change in concept are as follows:

a. Although the RC-121D has two HF transmitters, they cannot be operated simultaneously nor can either be used when employing loran to navigate. In effect, transmission is limited to one HF channel which is available for tactical use only 45 minutes of each hour. APGC reports, confirmed by our operational experience to date, cite that a minimum of three HF channels are required to provide effective communications. Investigation reveals the current RC-121D communications capability can be exploited further by development of AEW&Con within line of sight of another element of the contiguous system and telling surveillance data via UHF. Deployment within line of sight of land based radar will:

(1) Unnecessarily saturate the air defense system by duplicating radar coverage at medium and high altitudes.

(2) Negate early warning capability.

b. The present aircraft stabilization system is inadequate due to navigation errors which adversely affect the accuracy of track data. The system will maintain "satisfactory" stabilization with relation to a radar reference point within line of sight. (Reference APGC test report Phase II, Part II, and Lockheed project report 9740.)

[redacted]

110

EFNOP-5, Subject: (U&cl) Transmittal of C.N.A.D Ops Plan 9-56 (Cont'd)

c. The WC-121D aircraft is unable to provide low level track continuity, therefore, unable to fulfill detection and intercept requirements expressed in C.N.A.D OPS PLAN 9-56. (Reference special report on project "Plymouth Rock", two low altitude detections in twenty samples and ADC Test Report, Phase II, Part II, Appendix V, Section C.)

3. Recommend that C.N.A.D OPS PLAN 9-56, as it pertains to mobile elements of the seaward extension, be revised as outlined below and adopted as a tentative plan, pending development of a vehicle which will fulfill the C.N.A.D.en role in the concept of C.N.A.D OPS PLAN 9-56. Radar coverage anticipated from our recommended deployment is depicted in Enclosure #1.

a. Deploy picket ships approximately 200 miles east of the Atlantic Coast and increase their capability to meet the need for controlling our interceptors at their maximum combat range.

b. Deploy WC-121D aircraft in the role of providing early warning seaward of the other contiguous radar elements.

c. WC-121D aircraft surveillance data will be reported to picket ships for filtering and retransmission to associated ADCC's. C.N.A.D transmission to be via voice UHF or video relay, whichever proves most satisfactory. Considering the distance involved, emphasis should be placed upon video relay for reliability of operation.

4. It realize that the basis for the changes in strength, recommended above, are primarily the opinions of the system operators at various levels of this command and cannot be substantiated completely by factual data. Therefore, should the validity of our concepts be questioned, we strongly recommend that a test on the scale of the proposed project "Plymouth Rock" be conducted as soon as possible in order that we may get optimum use of contiguous radar facilities now available.

5. This letter is classified SECRET in accordance with paragraph [illegible], OPNAV 20A-1.

ARTHUR C. AGAN, Jr.
Brigadier General, USAF

for

EUGENE F. CARROLL
Major General, USA

1 Atch
Graphic presentation
of radar coverage

[redacted]

[redacted]

110

A/R For a year, that I am aware of, Eastern has been reluctant to accept the deployment of the AEW&Con. The AEW&Con are between the shore-based radar and the picket ships which are positioned 300 miles out. Their claim is that the AEW&Con cannot provide the low altitude coverage nor the control capability. Western has not expressed any views of this nature and the ADC staff does not agree with Eastern at all. The AEW&Con and picket ships must extend the contiguous coverage (500' and up) to the seaward as far as possible so that when an aircraft is detected, we will have continuous tracking on in. To move the elements as Eastern recommends would, from first glance, leave a large, low altitude gap between the shore radars and picket ships and would in a sense provide an early warning line. This we do not want or need as the navy will provide this early warning line from Argentia to the Azores starting July 57. It is understood that the conclusion referenced in paragraph 2.b. of the letter is erroneous as this problem of positioning has greatly improved since the APGC report which is two years old. The conclusion referenced in paragraph 2.c. is not valid. General Atkinson has requested the report on "Plymouth Rock" be withdrawn as the samples of the test were not adequate. This paper is being forwarded to ADC for their study and ultimate recommendation as to the validity of Eastern's proposal.

[redacted]

UNCLASSIFIED

111 HS

CONFIDENTIAL

MAY 1957

SUBJECT: Priority Flight Clearance for NORAD Operation

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. This headquarters was advised on 1 May 1957 that certain NORAD aircraft could not acquire CAA instrument clearances to fly to and operate in the two northerly patrol stations off the East Coast. It is understood that the U. S. Navy had acquired from CAA a block altitude reservation of a large area for a three-day period, which affected NORAD operation.

2. The timely arrival on station of NORAD aircraft is essential in order to insure the adequate extension of the contiguous coverage. These flights include the WV-2E aircraft and, after 1 July 1957, the New Jersey-type blimp airships. Both types should be recognized as "Active Air Defense Missions". Department of Defense recognition of an adequate priority for this operation is necessary and the CAA be advised to provide timely instrument clearances. The CAA cannot act as an arbitrator where conflicts occur.

3. One complicating factor is noted. Exact station altitudes cannot always be accurately pre-determined in the initial flight plan. For maximum effectiveness of surveillance radar it is sometimes necessary to change altitudes of operation to overcome weather and sea phenomena. This factor must be considered to permit altitude changes without undue delay.

4. It is desired that your headquarters take appropriate action through Headquarters USAF to acquire a Department of Defense priority for the NORAD operation.

FOR THE COMMANDER-IN-CHIEF:

RAYMOND W. ELKINS
Major General, USAF
Director of Plans & Operations

Copy furnished:
CONAD/PO/COMAD

UNCLASSIFIED

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UNCLASSIFIED

III

M/R At approx. [illegible] the 4th Air Division informed ADC that they could not [illegible] clearances to put their aircraft on the two [illegible] surveillance stations which are located roughly [illegible] and 165 miles off Wilmington, N. C. The Navy had [illegible] altitude from 5,000' to 40,000' for a very large area off the east coast effective at 0400 hr. 30 April for a 3-day exercise. CAA discussed with Navy the ADWCon altitude and space [illegible] of the Navy wanted the whole area. CAA is not bound to give any priority to our ADWCon effort and does not recognize these flights as "Active Air Defense Mission". If not corrected now, this may become more serious at a later time. After the first day CONAD Eastern Command, thru liaison with CAA, was able to get clearances to put the ADWCon out on alternate stations 25 miles off the Coast. This was not satisfactory. Mr. Tighe, our CAA Liaison man, talked with Mr. Fred Smith, Chief of the CAA Liaison Branch, Wash. D. C. on this matter. Mr. Tighe does not want the CAA to be in a position to have to arbitrate the use of air space by military; therefore, high authority such as DOD must stipulate a priority. This in an ADC problem.

112

[illegible], 29 Jan 57, Subj: [illegible] ADW Gun Operations

[illegible]

[illegible] Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. This Headquarters concurs in the recommendations outlined in paragraph 3 of the 1st indorsement.

2. CONAD Operations Plan [illegible] is now being revised and will amend the eight hour station complement time in accordance with the proposal referenced in paragraph 1 a of the basic letter. As a consequence, recommend action be taken to vary the station manning time per aircraft between eight and twelve hours.

3. Since the policy of this Headquarters is to maintain an interceptor directing capability in the ADW gun aircraft, your manning and training requirements should be aimed towards this objective.

FOR THE [illegible]:

HARVEY T. ALLISS
Major General, USAF
DCS/Plans & Operations

Major Kilmire
2088
1 May 57
AF-3750
nll

4-235

CONAD XT-[illegible]

112

WDOTR-C, Hq USAF, 29 Jan 57, Subj: (C) AEW&Con Operations

OOOOP-T 2nd Ind

Headquarters, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. This Headquarters concurs in the recommendations outlined in paragraph 3 of the 1st indorsement.

2. CONAD Operations Plan 9-56 is now being revised and will amend the eight hour station keeping time in accordance with the proposal referenced in paragraph 1 e of the basic letter. As a consequence, recommend action be taken to vary the station keeping time per aircraft between eight and twelve hours.

3. Since the policy of this Headquarters is to maintain an interceptor directing capability in the AEW&Con aircraft, your manning and training requirements should be aimed towards this objective.

FOR THE [redacted]

HARVEY T. ALMOND
Major General, USAF
DCS/Plans & Operations

Major Paymire
2088
1 May 57

47-5768
bll

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[redacted]

47-5768-A

112

apparently was not of great concern to them, as only their adjutant signed the letter. The two attached rough sketches show the coverage of the appropriate radars as now employed and as proposed. Considering low and high altitude coverage, we are better off to stay as we are.

[redacted]

113

WDOTS-C, Hq NAIF, 29 Jan 57, Subj: (U) AEW&Con Operations

ADOCD-2 1st Ind 24 APR 1957

Hq Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander-in-Chief, Continental Air Defense Command,
Ent Air Force Base, Colorado Springs, Colorado

1. The proposal by NAIF to move the locations of west coast AEW&Con aircraft and picket vessels is considered feasible. Informal information indicates that radar calibration of the picket ships has revealed a 75 mile high altitude gap in the contiguous system. However, the installation of AN/SPS-17 radars aboard all YAGR's in the picket ship system should correct this high altitude gap. Modification of the west coast picket ships, with an AN/SPS-17 radars, is scheduled to start in September 1957.

2. AEW&Con track reporting through picket ships is not considered practical as a primary method. A secondary method of AEW&Con reporting through picket ships may be convenient and practical during peacetime operations, however, normal wartime operations should be established and used as primary method of communications. The extreme vulnerability of picket ships during wartime automatically precludes their use as a primary relay point. Efficient procedures within the ground radar system will alleviate many of the problems in handling track information. Teletype installation will enable further streamlining of techniques and procedures.

3. The following actions are recommended:

a. Leave the AEW&Con aircraft and picket ships on their present stations. The additional early warning available outweighs the high altitude gap on a calculated risk basis for the next six to nine months.

b. Primary methods of communications should remain direct from AEW&Con to ground radar sites with emphasis being placed on securing better HF radio frequencies. Secondary HF procedures through picket vessels should be considered.

c. AEW&Con station manning should be allowed to vary between eight and twelve hours, depending on aircraft and flight crew capabilities.

d. Emphasis should be placed on AEW&Con controller training comparable with that given controllers in ground radar sites. (Reference ADOR 1-1).

FOR THE [redacted]:

H. I. TOBO
Capt USAF
Asst Command Adj

[redacted]

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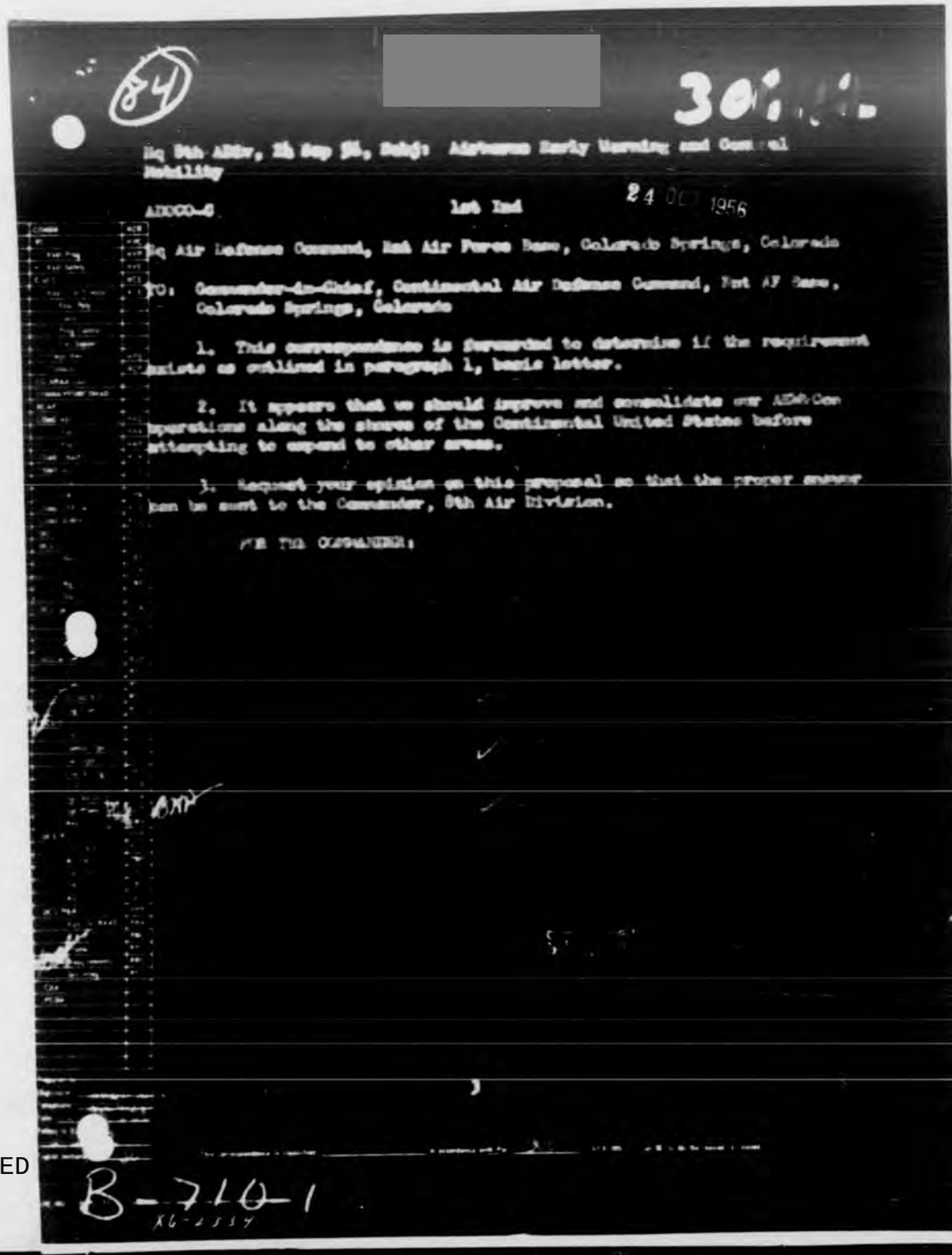

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30[illegible]

Hq 9th AADiv, 24 Sep 56, Subj: Airborne Early Warning and Control Mobility

AADCO-C 1st Ind 24 OCT 1956

Hq Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander-in-Chief, Continental Air Defense Command, Ent AF Base, Colorado Springs, Colorado

1. This correspondence is forwarded to determine if the requirement exists as outlined in paragraph 1, basic letter.

2. It appears that we should improve and consolidate our AADCom operations along the shores of the Continental United States before attempting to expand to other areas.

3. Request your opinion on this proposal so that the proper answer can be sent to the Commander, 9th Air Division.

FOR THE COMMANDER:

B-710-1

XG-2757

85

HEADQUARTERS
8TH AIR DIVISION (AEW & C) (ADC)
McClellan Air Force Base
[redacted], California

24 Sep 56

SUBJECT: Airborne Early Warning and Control Mobility

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. Pursuant to conversation CINCONAD and Commander, 8th Air Division, relative to the acquisition of Air Defense responsibilities in the Northeast Air Command and the Alaskan Air Command into the sphere of CONAD, it appears that the role of AEW&Con should be expanded to include a capability of operation in these regions.

2. The present concept of the AEW&Con operation off the East and West Coasts of the United States does not provide for, or include a mobility concept. However, with the increased CINCONAD area of responsibility, it follows that the AEW&Con coverage should expand accordingly in order to more efficiently support the overall CONAD defense mission.

3. At the present time, the mission directive of the 8th Air Division (AEW&Con) includes:

a. Station patrol to extend the contiguous land base surveillance and control capability.

b. Emergency replacement duty for inactive land based and/or picket ship surveillance and control stations.

c. Augmentation for saturated land based surveillance and control stations.

4. The mission directive does not prohibit AEW&Con from operation in conjunction with the extremity defense elements. I believe, however, that the flexibility and versatility of the AEW&Con Weapon System should be exploited, and the mission directive revised to include a mobility requirement which would permit operation within all CINCONAD areas of responsibility.

[redacted]

[redacted]

86

Hq 9th Air Div (ADC&Con), Subj: Airborne Early Warning and Control Mobility

5. For planning purposes, it can still be anticipated that a fixed facility will be used for day-to-day coastal defense operations. This facility can be utilized for major maintenance and primary support of the mobile forces. In addition, the ADC&Con terminal will provide rotational mission aircraft in support of mobility requirements.

6. I have directed my staff to study the application of mobility to ADC&Con operation. Upon your concurrence with revision of the ADC&Con mission directive to include mobility within any CONAD region, I will submit a mobility plan which will most efficiently support the overall CONAD defense mission.

[redacted]

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B-710-2

DISPOSITION FORM

[redacted]

FILE NO.

SUBJECT [illegible] report (AEW&C Symposium)

TO [illegible] FROM [illegible]DOOP-T DATE 15 July 1957 COMMENT NO. 1
Major Frymire/wdm/2089

1. On 10, 11 and 12 July 1957, the undersigned attended an Airborne Early Warning and Control Symposium at the Lockheed Aircraft Corporation at Burbank, California. Approximately 250 military and civilians attended. The first day was devoted entirely to presentations [illegible]. These presentations were as follows:

a. Welcome - Mr. Robert [illegible]
Chairman of the Board, L.A.C.

b. The "Threat" and Continental Air Defense - Capt. George W. Snider, USN, dq CONAD

c. Air Defense Command's Operating Requirements - Lt. C. A. Lapscott
Hq. ADC

d. DEW Barrier Operations, Atlantic Ocean Area - Lt. Robert Uttenmeyer, COMeASLANT

e. DEW Barrier Operations, Pacific Ocean Area - Comdr. Ustick, COMEARPAC

f. Air Ship Operations - Lt Comdr. Isbackson
COMFAIRMIDWAY

g. "AEW and Air Defense" - R. A. Bailey
L.A.C., Chief Advanced Systems Research Engineer

In addition, there were presentations by the Sacramento Material Area representative on the RC-121 Modernization Program and by a NAVEVCEN representative on "Emergency Evaluation of the WV-2 aircraft and "Evaluation of the Modal Changes to the AN/APS 45 Height Finder.

2. The second day, Mr. Frost of LAC made a presentation on "Lockheed Model 084 AEW&C Aircraft." The balance of the second and third days were devoted to the discussion of some 200 technical and tactical problems which were presented in advance by the various conferees. These discussions were very profitable as the Navy, Air Force, Lockheed and Depot representatives exchanged information which will speed up and correct various technical problems with the EW aircraft.

3. Items of Interest to CONAD:

a. Lockheed Model 084 AEW&C aircraft. The USN appropriated money to permit Lockheed to carry out a study for the development of a new AEW aircraft to meet the needs of the future. This study has been completed and a wooden

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To: COOKE From: COOP-T Comment No. 1

model of the proposed aircraft has been built. This aircraft is known as Lockheed Model 084 (Navy-WLV-1, Air Force CL-344). After considerable study, it was determined that a desirable EW vehicle for the future should have approximately the following characteristics:

163,000 Gross Weight

35,000 Feet on Station Capability

24-Hour Flight Capability

Search Radar Capable of 250 NM Coverage

Height Radar Capable of 100,000 Ft. Coverage

The Model 084, if produced, will have the following characteristics:

Will Weigh 172,000 Lbs. Gross.

Can Operate at 25,000 Ft. on Station

Will Have 14 to 16-Hour Flight Capability (3600 nautical Miles)

APS-70 Radar Will Have 250-Miles Search Capability

Height Radar Will Have 80,000 Ft. Capability

A Crew of 24 Will Operate the Aircraft

Will have Tactical Data System with 254 Simultaneous Track Capacity.

Will be Capable of Conducting 30 Simultaneous Intercepts.

Powered by 4 - T56 Turbo-prop Engines and
2 - J-34 Jet Engines in Podson Wing Tips

Time on Station - 7 Hrs at 25,000 Ft.

Wing Span 151 Ft X 117 Ft Long

Will Have Roto Dome on Top of Aircraft Inclosing a 32 Ft X 6 Ft Antenna

It is understood that the Navy has shelved the idea of purchasing the Model 084 for at least two years. The Navy emphasis has been placed, now, on a carrier-borne EW Aircraft for fleet air protection that the fleet can take with it and not depend on a land-based EW Aircraft. The Model 084 is the present answer as a replacement for the RC-121. The Lockheed sales pitch depicted this aircraft operating off the East Coast at its designed altitude

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To: COMAF From: COOGP-C Comment No. 1

on three stations. The low and high altitude coverage for these three stations would entirely cover the present coverage of our 5 BW and 5 pickets off the East Coast. Utilizing these aircraft, the Picket Ships could be placed further out to sea, thus extending the contiguous coverage and providing a more acceptable early warning condition for coastal interceptor and surface-to-air weapons defenses. The Model 084 with the improved APS-70 radar and with the greatly improved tracking and control capability would be a definite asset to our system.

b. Airship Operation

Presently Navy Squadron ZW-1 consisting of 52 officers, 200 men and 4 ZPG-2W airships are providing coverage on station 6 on alternate days for a 24-hour period. They are based at N.A.S. Lakehurst, which is 180 nautical miles from Station No. 6. These airships are providing a coverage in the middle of the AEW Line and are not capable of providing the coverage that the EC-121 does. This is primarily because the airship operates at about 3000 ft. on station. Informal discussions with Comdr. Jorgenson, COMNAVEASTCONAD revealed that they expected CONAD to establish the requirement to have the airship operate on the southern end of the line which would require the Navy to move the ZW-1 squadron to Weeksville NAS, where they could operate on Station 10. The Chief of Naval Operations has now issued a preliminary order to close up Weeksville about 1 October 1957 as they had no requirement to keep the base open. Comdr. Jorgenson felt that if CONAD wanted ZW-1 on the south end of the line, that a requirement should be submitted, by us, through the JCS to CNO which would probably result in Weeksville being used for ZW-1 operation.

W. D. Frymire

W. D. FRYMIRE
Major USA

[redacted]

[redacted]

116

ADCOO-S, Hqs ADC, 22 May 1957, Subject: Navy AEW&Con Activities

CONAD-T 1st Ind 13 JUN 1957

Hqs Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. Request that your headquarters coordinate with COMNAVFORCONAD to determine the possibilities of accomplishing the recommendations of paragraph 5 of the basis correspondence.

2. Problem areas should be expeditiously resolved because of the early operational date of the Navy LTA units, and appropriate employment plans submitted for inclusion in CONAD Operations Plan 9-57.

FOR THE COMMANDER-IN-CHIEF:

HARVEY T. ALMES
Major General, USAF
DCS/Plans & Operations

CONAD

5-293

[redacted]

116

HEADQUARTERS
AIR DEFENSE COMMAND
ENT AIR FORCE BASE
COLORADO SPRINGS, COLORADO

ADOCO-C 2930

SUBJECT: Navy AEW&Con Activities

TO: Commander-in-Chief
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. The Navy airships are scheduled to phase into the East Coast contiguous radar system on 1 July 1957. These airships are presently training on AEW&Con Station 6. The Navy has indicated that this will be the only station they can cover from the airship base at Lakehurst NAS, New Jersey. Effective 1 July 1957, they will man this station on a sustained basis of 50% of the time required, each month, for continuous coverage.

2. The CONAD requirement that Air Defense Command furnish contiguous radar coverage off each coast makes this not acceptable for the following reasons:

a. The airship operating altitude is from 3,000 to 5,000 feet. This materially reduces the effective low altitude radar range and coverage. It will leave gaps in the system.

b. The airships will essentially hover over the stabilization point. This will increase these gaps when the adjacent AEW&Con aircraft are at the far end of their tracks.

c. AEW&Con aircraft must have a well established southern staging base to effectively operate AEW&Con Station 10 continuously.

d. The airships are not a continuous, 24-hour-a-day, every day system.

3. The requirement of CONAD Operations Plan 9-56, dated 1 April 1956, concurred in by NAVFORCONAD, were that these airships would man Station 10 on the East Coast. Present Navy position is that space on a suitable southern base is not available.

4. We believe that the contiguous radar system can be most effectively covered by:

a. AEW&Con aircraft manning (after 1 July 1957) Stations 2, 4, 6 and 8, from Otis AFB, Massachusetts, without using a staging base.

116

b. Navy airships manning Station 10 from Weeksville NAS, North Carolina. To accomplish this, it might be necessary to switch airship squadrons between Weeksville and Lakehurst.

c. Moving the location of AEW&Con Station 10 north to remove any possible gap in the system, plus reducing the distance from Weeksville NAS.

d. Immediately moving airship training to AEW&Con Station 8. This station is sixty miles further than Station 6 from Lakehurst NAS, New Jersey. Present AEW&Con aircraft operations, although curtailed until 1 July 1957 by a reduction in flying hours, should be utilized on the higher priority stations. Station 6 is second priority, while Station 8 is fourth priority in the AEW&Con system.

5. We recommend the following actions:

a. Request the Navy airships immediately move to Station 8 for training.

b. Request the CNO to move the AEW Airship Squadron to Weeksville NAS, North Carolina.

c. Require the 551st AEW&Con Wing, Otis AFB, Massachusetts, to man Stations 2, 4, 6 and 8 effective 1 July 1957.

d. Move AEW&Con Station 10 north sufficiently to remove any possible gap in the system.

e. Request the Navy to cover Station 10 to the best of their ability by 1 July 1957 or as soon thereafter as possible.

6. The Gurney-Twining agreement of December 1953 and various JCS papers indicate that Navy airships are to become operational in the ADC contiguous radar system. Tentative schedules indicate airships on the West Coast during 1959. To preclude a recurrence of this problem, procedures should be established now to insure Navy airship coverage of AEW&Con Station 1 on the West Coast when they phase into the system.

LOY H. LYNN
Major General, USAF
Vice Commander

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Actin: Coord Info: Cdpo-cocoe

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CONO16NDC134
RR RJEDEN RJUPAG
DE RJEPND 138C
R 152005Z
FM COMCFECR, STEWART AFB NEW YORK
TO RJUPAG/COMDR 8TH AIR DIV MCCLELLAN AFB, CALIF
INFO RJEDEN/CINCONAD ENT AFB COLO SPGS COLM

[redacted] EOP-U 091. REFERENCE YOUR MESSAGES DODOT 82 AND DODOT [redacted] N-AIR AEW SQUADRON NBR 1 (ZW-1) IS SCHEDULED TO BECOME OPERATIONAL AND ASSUME MISSION RESPONSIBILITIES 1 JULY 1957, AND THIS HEADQUARTERS IS RESPONSIBLE FOR PROVIDING ZW-1 ELEMENTS WITH OPERATIONAL TRAINING PRIOR TO OPERATIONAL DATE. CURTAILMENT OF AEW&CON FLYING HOURS AFFORDS EXCELLENT OPERTUNITY TO PROVIDE ZW-1 WITH OPERATIONAL TRAINING IN AIR DEFENSE ENVIRONMENT. BECAUSE OF SLOW CRUISING SPEED, EXCESSIVE ZW-1 ENROUTE TIME FROM LAKEHURST TO STATION NBR 8 WOULD SEIOUSLY CURTAIL THIS TRAINING IF ZW-1 WERE TO MAN STATION NBR 8. THERE-FORE, UTILIZATION OF AVAILABLE AEW

PAGE TWO RJEPND 138C
FORCES AS OUTLINED IN OUR MESSAGE CFEOP-8 007 WILL REMAIN IN EJ5:5 UNTIL AEW BARRIER FULLY MANNED OR ZW-1 INTEGRATED INTO AIR DEFENSE. DURING THIS INTERIM, THERE SHOULD BE NO SIMULTANEOUS MANNING OF SAME STATION BY AEW-ACON AND ZW-1 AS IMPLIED IN YOUR DODO-T-69. THIS HEADQUARTERS IS STUDYING ZW-1 CAPABILITY TO RECOMMEND PLAN FOR UTILIZATION WHEN OPERATIONAL.
DT
15/2040Z MAY RJEPND

A--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY D ENCRYPTION--PHYSICALLY REMOVD ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION.

CONAD HISTORY
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ACT: COOOP
INFO: COOPO

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DE RJEPNB 40
R 101540Z
FM COMTODOR STEWART ARB NY
TO RJEPNY/CINCONAD EIGHT ARB NY
INFO RJEPAW/COMSCADD SOBLE NY
RJEPSW/COMS2CADD SYRACUSE ARB NY
RJEPJW/COMS5CADD ANDREWS AFB WASH D C
RJWPSB/COMDR 8TH AD MCCLELLAN AFB CALIF
RJEPDC/COMDR 551ST AEWAC GP OTIS AFB MASS
ZEN/COMNAVEASTCONAD STEWART AFB NY
UT
/UNCLASSIFIED/CFEOP-6 RE REFERENCE AIR DEFENSE COMMAND FLYING HOUR REDUCTION PROGRAM AND CONAD OPS PLAN 9-56. IT WAS ASSUMED IN THE REFERENCED OPS PLAN THAT NAVAL FORCES WOULD MAN ONE LTA STATION IN THE CONTIGUOUS SYSTEM ON A PARTTIME BASIS IN 1956. IN ORDER TO AUGMENT THE [illegible] COMMITMENT, THIS HEADQUARTERS, IN CONJUNCTION WITH ZW-[illegible] HAS TAKEN ACTION TO USE NAVY LTA. ZW-1 WILL MAN STATION 6 ON ALTERNATE DAYS, IN TRAINING STATUS, REPORTING TO THE AIR DIRECTIVE SYSTEM IN ACCORDANCE WITH COMAIRS 55-1, ADCP 55-22, AND PERTINENT COMMUNICATIONS PUBLICATIONS.
UT
10/1540Z APR RJEPNB

Rec'd

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CONAD [illegible] 119

302.12

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PP RJEPNY RJEDEN
DE RJEPNE 276C
P R 271735Z
FM CONTECR STEWART AFB NY
TO RJEPNY/CON 26 CADD ROSLYN AFS NY
ZEN/CONDR ZU-1 LAKEHURST NAS LAKEHURST NJ
ZEN/CONDR 551ST AEW&CON WG OTIS AFB MASS
INFO RJEDEN/CINCONAD ENT AFB COLO
ZEN/CONEASTCONADREG STEWART AFB NY
ZEN/CONDR EADF STEWART AFB NY

PRIORITY

ACTION: COOOP
INFO: COOPO
X7-8048

BT

[redacted] FEOP-S 101. SUBJECT: AEW&CON STATION MANNING. THIS MESSAGE [illegible] INTERIM MEASURE PENDING REVISION OF CONAD OPS PLAN 9-56 AND JEADF OPS PLAN 10-56, SUBJ: SEAWARD EXTENSION OPERATIONS. THIS MESSAGE IN TWO PARTS. PART I. REFERENCE CONAD OPS PLAN 9-56, ZU-1 WILL BECOME OPERATIONAL AND ASSUME AN AIR DEFENSE COMMITMENT 1 JULY 1957. BEGINNING 01/0400 AND ENDING 24/0400 JULY 57, ZU-1 WILL MAN STATION NBR 6 UP. HOURS ON ALTERNATE DAYS. LIGHTER-THAN-AIR AEW OPERATIONS WILL BE IN ACCORDANCE WITH CURRENT CONAD/CFECR OPERATIONS DIRECTIVES. PART II. THE 551ST AEW&CON WING WILL TAKE COGNIZANCE OF THE ZE-1 COMMITMENT WHEN DEVELOPING THE MONTHLY STATION MANNING SCHEDULE. AVAILABLE ON-STATION HOURS WILL BE FLOWN ON STATIONS 2, RU YU AND 6.

BT
27/1743Z

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CONAD SECTT FORM 16

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OOPT
CP-3325/ald
Ser 00150713
Apr 27 1957

121

[redacted]

From: Chief of Naval Operations
TO: Distribution List

Subj: Continental Defense

Ref: (a) CNO ltr ser 00117933 of 22 Oct 1956
(b) NEDP 1-56

1. Reference (a) reviewed the DER and YAGR requirements for continental defense and anticipated certain actions by the CNO as follows:

a. Transfer 7 DER from the Atlantic to the Pacific in 1957. Included in this group will be the 2 DER (NDT) for use in the Contiguous System.

b. Employ 4 DER (2 each coast) in the Contiguous System from 7/58 to the 1960 period.

c. Increase barrier surface forces in the Pacific to 18 DER from 7/58 to the 1960 period.

d. Increase barrier surface forces in the Atlantic to 14 DER from 7/58 to the 1960 period.

2. A review of the YAGR Program based on operating experience has necessitated a change in the concept of 4 ships manning 3 stations to 2 ships manning 1 station. This will reduce the personnel requirement per ship to a basic 13 officers and 138 men (unaugmented crew). Since no more YAGRS will be procured, the DERs will continue to be used in the Contiguous System until required in the Seaward Extensions of the DEW line.

3. In view of the foregoing, the following actions are required:

a. YAGRs will man stations in the Contiguous System on a 2 ship to 1 station ratio.

b. 8 YAGRs and 2 DERs (Wagner and Van Olivier) will man the 5 stations in the Atlantic Contiguous System.

c. 4 YAGRs and 7 DERs will man the 5 stations in Pacific Contiguous System until July 1958.

[redacted]

[redacted]

OPNAV
OP-312E/ald
Ser 0015077P31
27 April 1957

124

d. 8 YAGRs and 2 DER will man the 5 stations in the Pacific Contiguous System from July 1958 onward.

e. When commissioned, the THOMAS J GARY (DER 326) and MILLS (DER 383) will be retained in the Atlantic for duty in the Seaward Extension of the DEW Line.

f. When commissioned the STEWELL(DER 332), RANSDELL(DER 382), BLAIR (DER 147) and STURTEVANT(DER 329) will be ordered to duty in the Pacific Seaward Extension of the DEW Line.

g. Until about 1960, it is anticipated that force levels will remain as follows:

LOCATION	CONTIGUOUS	DEW LINE
Atlantic	8 YAGRs, 2 DERs	14 DERs
Pacific	8 YAGRs, 2 DERs	18 DERs

h. Redistribution of forces will be contingent upon decisions by higher authority in light of the evaluated threat, technological capability of defense systems and economy.

4. Reference (a) and (b) are modified in accordance with the foregoing.

ARLEIGH BURKE

Distribution:
CINCLANTFLT
CINCPACFLT
COMEASTSEAFRON
COMWESTSEAFRON

Copy to:
COMNAVFORCOMAD

Authenticated:

W.H. LAWTON, CHSHIPCLK, USN

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127

ROUTINE X AF 5POPR-R5537 SECRET

COMDR ADC

COMDR NAGOYA JAPAN SAN FRANCISCO CALIF

[redacted]RSI-C 02222 . 16 Oct 1956

Reference your message 5POPR-R5537. This message in three parts. Part I. The USN is presently recommissioning and equipping 16 Liberty ship class merchant vessels for use as picket ships (YAGRs). This is JCS directed in support of the seaward extension program for the continental air defense system. The 16 YAGRs are all the USN has or expects to have in its inventory. By late 1958 these picket ships will have radar performance of 200 NM line-of-sight detection range and 60,000 ft altitude coverage on a 1 sq meter target. The primary means of ship-shore-ship or ship-ship communications will be HF radio, teletype and voice. The picket ships will have limited weapons control capability but will not have identification or weapon commitment prerogative. The initial cost of each ship is 5.5 million dollars with an annual operating cost of .375 million dollars. Present plans state that 8 ships will be required to man

ADRSI-C 9 Oct 1956

Major James C. Elledge s/t
2162

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COMDR ADC

5 stations 24 hours a day. Part II. The Air Defense Command does not have any HF radars in the inventory. Development and engineering is being conducted on VHF radars for both the ground and airborne elements. The purpose being to acquire frequency diversity, long range detection and feasible over water moving target indicator operation. Part III. It is the opinion of this Headquarters that the RC-121, as airborne early warning equipment, is a minimum satisfactory item. The follow-on aircraft will be satisfactory if they meet design characteristics as stated. The greatest problems are in the electronic gear as opposed to the airframe. Several contractors are working on the improvement of the APS-20 S band search radar and the development of the APS-70 UHF search radar. The cost of a single AEW&C aircraft is 5 million dollars while the annual operating cost is 1.3 million dollars. Present planning calls for 917 aircraft to man one station 24 hours a day.

MEMO FOR RECORD:

1. Subject - Reply to FEAF message 5FOPR-R5537 (Attached)
2. Problem - Collecting and forwarding requested info on picket ships and AEW&C Aircraft.
3. Facts and Discussion - As contained in the attached outgoing message.
4. Conclusion - None involved.
5. Recommendations - None involved.
6. Coordination - Navy as pertains to picket ships; Ops Plans (DCS/O) as pertains to AEW&C aircraft.
7. Remarks - There is no history or future action involved or expected as pertains to Hq. ADC.

[redacted]

[redacted]

123

CWDFL, Hq CFWCR, 31 May 57, Subj: Activation of Picket Ship Stations

CDCOP-T

3d Ind

12 JUL 1957

Hq Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Continental Air Defense Forces, Western CONAD Region, Hamilton Air Force Base, California

1. This Headquarters concurs with the comments and the recommendations contained in the 2d Indorsement.

2. This Headquarters strongly concurs in the need for further extension of contiguous radar coverage off both the east and west coasts. The particular area of extension recommended in your basic letter is of recognized importance in view of the vital target area that would be afforded additional warning and protection. As stated in the 2d Indorsement, requirements for additional forces to extend contiguous coverage are contained in the Continental Air Defense Objectives Plan 1956-1960 (CADOP 56-60). This plan has been submitted to the Joint Chiefs of Staff and is awaiting their action at the present time. Stations 19 and 21 are included in our Ops Plan 9-57, and if additional picket ship forces or other comparable are authorized, full consideration will be given to manning the stations in relation to other extension requirements.

FOR THE COMMANDER-IN-CHIEF:

2 Incl
n/c

[redacted]
Major General, USAF
DCS/Plans & Operations

DUPLICATE

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[redacted]

129

CWDPL, Hq CFACR, 31 May 57, Subj: Activation of Picket Ship Stations

ADCOP-D 2nd Ind

27 JUN 1957

Headquarters Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander-in-Chief, Continental Air Defense Command, Ent Air Force Base, Colorado

1. Sufficient picket ships have been authorized for employment in the seaward extension of the continuous radar system to man five stations off each coast. CADOP 56-66, forwarded to the JCS for approval, states a requirement for nine additional stations, six off the East Coast and three off the West Coast. Pending approval of this stated requirement, and continent thereafter upon the capabilities of the Navy to provide additional picket ships, it is considered that five stations off each coast is the maximum that can be manned for the foreseeable future.

2. The optimum placing of the five stations off the West Coast is contained in CONAD Ops Plan 9-56. Stations 19 or 21 cannot be manned without removing elements from one or more of the above five stations. It is the opinion of this headquarters and COMNAVFORCONAD that this action would create serious gaps in picket ship coverage and that it is more desirable to have continuous coverage from North to South, in the area indicated in Ops Plan 9-56, than it is to have coverage in front of the target areas along the coast only.

3. It is recommended that the five stations, as presently outlined in Ops Plan 9-56, be retained and that consideration for the additional stations be held in abeyance until approval of the requirements contained in CADOP 56-66 is obtained. At this time, consideration for the positioning of the nine additional stations will be made and so reflected in CONAD Ops Plan 9-57.

FOR THE COMMANDER:

ROBERT B. HUGHES
Colonel USAF
Dir, Operational Plans

2 Incls
n/c

128

CWEFL, Hq CPACE. Subject: Activation of Picket Ship Stations, 31 May 57

COOCP-T 1st Ind

Headquarters, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base Colorado Springs, Colorado

1. The recommendations contained in the basic correspondence appear to have merit and are forwarded for your consideration in developing the seaward extension employment plans for inclusion in CONAD operations plan 9-57.

2. For your information, the CADOP Plan 56-60 calls for three additional picket vessels to operate off the West Coast. Request that you coordinate with CONAD/PACONAD on this matter and submit appropriate recommendations to this headquarters.

FOR THE COMMANDER-IN-CHIEF:

2 Incl
1. Overlay (1 cy w/d COOCP-T)
2. Ltr, USS [redacted]
9 Apr 57, w/1st Ind dtd
3 Apr 57 (1 cy w/d COOAV-T)

HARVEY P. ALLRICH
Major General, USAF
DCS/Plans and Operations

34639

[redacted]

123

HEADQUARTERS
CONTINENTAL AIR DEFENSE COMMAND FORCES
WESTERN CONAD REGION
HAMILTON AIR FORCE BASE, CALIFORNIA

31 MAY 1957

C/TPI

SUBJECT: (UNCLAS IFFD) Activation of Picket Ship Stations

TO: Commander-in-Chief
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. Reference is made to CONAD Operations Plan No. 9-56, Seaward Extension to the Contiguous Radar Coverage System, dated 1 April 1956.

2. The present radar coverage provided by land based radar stations P-39 an Clemente and P-15 Santa Rosa extends to sea approximately 160 nautical miles. This coverage does not provide adequate early warning against high flying, high speed jet bombers for the Los Angeles - San Diego area, a primary target complex.

3. During exercise Bald Eagle, conducted in the 27th Continental Air Defense Division area of responsibility, on 6, 7 and 9 April 1957, a picket ship was temporarily located on station 19 (33°50'N - 127°35'W). Inclosed is a report submitted by the USS Scanner covering this station activity giving total detections, ranges and altitudes of tracks picked up during the exercise. The inclosed overlay shows the increased early warning range on the initial B-47 tracks that could be available to the Air Defense System by adequate picket ship allocation.

4. Recommend that picket ship stations 19 (33°50'N - 127°35'W) and 21 (31°47'N - 126°03'W) be activated on a permanent status, in addition to the 5 stations presently operating on the West Coast, to provide optimum surveillance and maximum interception time for the seaward approaches to the southern portion of the CONAD Forces, Western CONAD Region area.

FOR THE COMMANDER:

LYMAN L. LEMNITZER
Lt Col, USA
Adjutant

2 Incls
1. Overlay (Dup)
2. Ltr, USS SCANNER,
9 Apr 57, w/1st Ind dtd
23 Apr 57 (Dup)

[redacted]

[redacted] 123

CNSPL, Sq CPACR, Subject: Activation of Picket Ship Stations, 31 May 57

OOOOP-Y 1st Ind 13 JUN

Headquarters, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. The recommendations contained in the basic correspondence appear to have merit and are forwarded for your consideration in developing the seaward extension employment plans for inclusion in CONAD operations plan 9-57.

2. For your information, the CADOP Plan 56-57 calls for three additional picket vessels to operate off the East Coast. Request that you coordinate with COMNAVFORCONAD on this matter and submit appropriate recommendations to this headquarters.

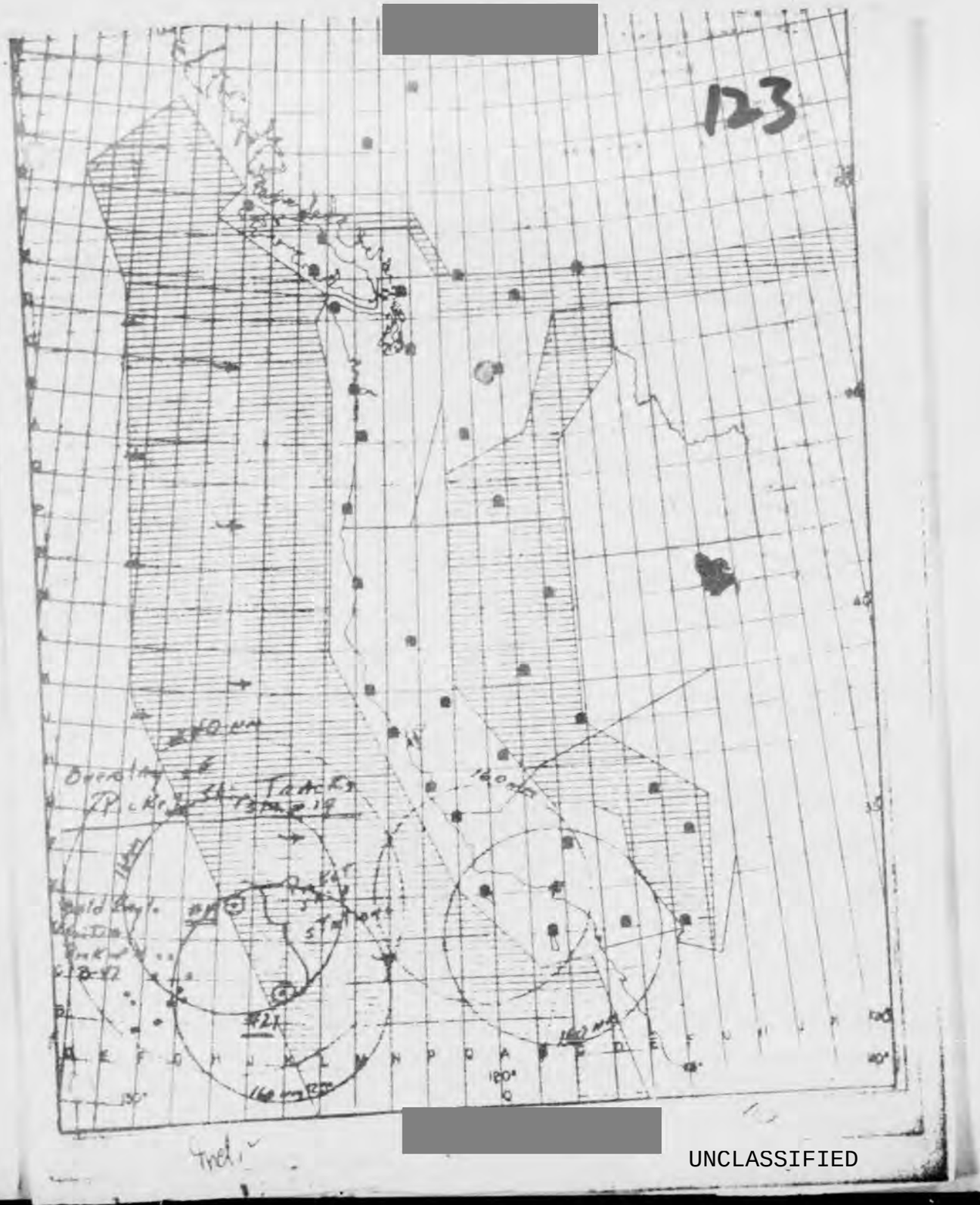
FOR THE COMMANDER-IN-CHIEF:

WALTER T. ALLEN
Major General, USAF
DCS/Plans and Operations

2 Incl
1. Overlay (1 cy w/a 0000P-Y)
2. Ltr, OSD/ [illegible]
9 Apr 57, w/1st Ind dtd 30 Apr 57 (1 cy w/a 0000P-Y)

2

Ex-7-1033


123

YAGRDIV 11/3
A9-3
Ser 002
23 April 1957

123

[redacted]

FIRST ENDORSEMENT on USS [redacted] (DER-[redacted]) Picket Final Summary Report
ser 001 of 9 April 1957

From: Commander YAGR Division Eleven
To: Commander Naval Forces, Western Continental Air Defense Force

Subj: Picket Tour, 5 April - 9 April 1957; final summary report of

1. Forwarded.

2. The demonstrated capability of [redacted] and the 27th COMM Division ACAN site to cooperate effectively in manning an emergency augmentation station is considered noteworthy.

C. BROOKS

Copy to: (with Patrol Report)
CTG (1)
COMTAVFORCOMAIR (2)
COMAIRSOLFORM (1)
CO COMFAIRWESTPAC (2)
COMTAIRFAC (1)
CO, 1 JAADF (4)
CO, 26TH JADD (3)
CO, 6TH AIR DEV (1)
666TH AACW SQUADRON, [redacted] (1)
COMDESRON FIVE (1)
COMFORMIDA SAN [redacted] (2)
USS [redacted] (1)
YAGRDIV SEVEN (1 each)

[redacted]

CW 73-00214

0579

COPY 10 OF 33

123

[redacted]

U.S.S. SCANNER (YAGR-5)
c/o Fleet Post Office
San Francisco, California

YAGR5/A9-5
RSJ:wdb
SER: 001
9 April 1957

From: Commanding Officer
To: Commander Naval Forces, Western Continental Air Defense Command
Via: Commander YAGR Division Eleven

Subj: Picket Tour, 5 April-9 April 1957; final summary report of

Ref: (a) COMNAVWESTCONAD Op-Ord 1-56
(b) COMNAVWESTCONAD REGION Message 290030Z of March, 1957

1. Submitted in accordance with reference (a).

2. Patrol Data:

Station: NINETEEN

Period: 051600Z April to 091411Z April 1957

Times off station: NONE

Total time off station: NONE

% fuel Used: 2.8

% Diesel Used: 1.7

Comments on weather and unusual occurrences:

a. The sea was calm during the period of this report.

b. Heat inversion caused continuous "trapping" which gave second-sweep echoes. At one time the coast of California appeared to be 42 miles distant when actually distance was 310 miles.

3. Surveillance Data:

Total air contacts detected: 122

Total tracks Rpt: 114

Total F/P Rec: NONE

Total F/P Cor. & Rpt: NONE

[redacted]

[redacted]

123

[redacted]

Max. Plot Difference: Not observed

Avg Plot Difference: Not observed

Comments:

a. Eight tracks were detected but not reported per instructions of 27th Air Division. These tracks were being reported to 28th Air Division by picket vessel on station 9.

b. The average initial detection range for 122 contacts was 196.2 miles.

4. AEW Aircraft and Airship Operations:

NONE

Total air contacts AEW & C rpt to picket ships: NONE

Total air contacts correlated: NONE

Total passed to ACWRON as AEW initial contacts: NONE

AEW communications: NONE

5. Radar Performance Data:

	Max Rg.	Max Alt.	Min Alt.	IFF Max Rg.
SPS-12	234 miles	39,000 ft.	4,500 ft.	241 miles
SPS-8A	171 miles	39,000 ft.	4,500 ft.	N.A.

Avg. error for SPS-8A: 1,000 ft.
Avg. Radar Detection Range by alt. bands with number tracks each band:

	Avg. Range	No. Contacts
(a) 0-10,000	135.5 miles	6
(b) 10,000-20,000	145.13 miles	37
(c) 20,000-30,000	161.65 miles	38
(d) 30,000-40,000	169.99 miles	11
(e) 40,000 and above	N.A.	0

Radar Equipment Failures:

NONE

Comments:

a. The SR-8 was inoperative. Repair parts are on order.

[redacted]

[redacted]

6. Air Intercept Data:

No. Intercepts conducted: NONE

Training Intercepts conducted: NONE

Unsuccessful Intercepts: NONE

Comments: A training intercept exercise was scheduled for 3 April. No intercepts were conducted for the following reasons: Control of aircraft was not assumed by this vessel due to the lack of coordination between this vessel and the aircraft and the failure of this vessel to establish positive identification and communications with the aircraft.

7. Air Defense Exercises:

Air Defense Exercise "Bald Eagle" was conducted during the period this vessel was on station. Air Defense Warnings were set as follows:

071018Z--------Lemon Juice
071146Z--------Apple Jack
071351Z--------Snowmen
091158Z--------Apple Jack

At 091411Z this vessel was released from Augmentation Picket Station 19 by the 27th Air Division.

8. Communication Data:

Circuit	Type Emission	Net % Reliability
36	6A3	99%
D3	0.1A. & 6A3	99%
B7	6A3	100%
316 mc	6A3	100%
364.2 mc	6A3	100%

Communication Equipment Failures: NONE

Comments: Communications were considered to be excellent. No tells were delayed due to a circuit outage. CW was used for telling from 052106Z to 060310Z and 070225Z to 070557Z during periods when voice communications were unsatisfactory.

9. General Comments:

a. When released by the 27th Air Division as indicated in para. 7. above, this vessel departed Augmentation Picket Station No. 19 and proceeded to Picket Station No. 9 to assume regular duties.

[redacted]

123

[redacted] felt by this command that overall the exercise was conducted in an excellent and efficient manner. Art Control was extremely cooperative in all phases of the exercise and especially helpful in immediately giving this vessel information concerning the flight plans of aircraft which were detected, but which were not involved in the exercise.

Recommendations:

NONE

H. H. PRUETT

Copy to:

Chief of Naval Operations (Op-34) (1)
Commander Naval Forces, Continental Air Defense Command (2)
Commander Western Sea Frontier (1)
Commander Cruiser/Destroyer Forces, U. S. Pacific Fleet (2)
Commander, Joint Western Air Defense Force (4)
Commander, 28th Joint Air Defense Division (3)
Commander, 27th Joint Air Defense Division (3)
Commander, Escort Squadron Five (1)
Commander, YAGR Division Eleven (1)
YAGR Division Eleven (1)
Commanding Officer, U. S. Naval Communication Station, San Francisco (2)
Commander, Eighth Air Division (CEW & Con), McClellan AFB, California (1)

[redacted]

124

COMMANDER NAVAL FORCES
CONTINENTAL AIR DEFENSE COMMAND
ENT AIR FORCE BASE
COLORADO SPRINGS, COLORADO

[redacted]

FF5-10/31:dm
A4-3
Ser: 038 -57
038

13 MAY 1957

CONFIDENTIAL

From: Commander Naval Forces, Continental Air Defense Command
To: Commander-in-Chief, Continental Air Defense Command (CCOOP-T)

Subj: Intercept Capability of Picket Ships in the Contiguous System

Ref: (a) Verbal Request by Major Reeves of CCOOP-T

1. By reference (a) this command was requested to furnish information on the intercept and control capabilities of picket vessels in the contiguous system.

2. All picket ships have three (3) air controller billets as part of the standard ship's personnel allowance. The officers ocoupying these billets are graduates of Navy GCI schools and are fully qualified to conduct air intercepts before reporting on board. This ship's GCI equipment capability is comparable to that of a shore based station.

3. Due to lack of the availability of aircraft for intercept training while the ships are on station, the proficiency of the controllers undoubtedly decreases somewhat as the time period since their last qualification increases. Measures taken to minimize this include arranging reindoctrination visits to Navy GCI sites and AEW squadrons during the ship's in-port periods where actual intercept training is conducted.

4. Specifically, in answer to reference (a), all picket ships assigned to the seaward extension of the contiguous radar system do have, and maintain, a full GCI capability.

IRWIN CHASE
Chief of Staff

[redacted]

JOINT MESSAGEF[redacted]

125

READING FILE

PRECEDENCE	TYPE MSG (CAPS)			ACCOUNTING SYMBOL	ORIG OR REFERS TO	CLASSIFICATION OF REFERENCE
	BOOK	MULTI	SINGLE			
ACTION DEFERRED		X		AF	302.12	
INFO						SPECIAL INSTRUCTIONS

FROM: CINCONAD

TO: COFS USAF WASH D C

INFO: COMADC ENT AFB COLORADO SPRINGS COLORADO (COURIER)

[redacted] FROM COFSS-F [illegible] C X 0 0 2 2.

COFS USAF AS EXECUTIVE AGENT FOR CONAD. SUBJ: PICKET SHIP COMMUNICATIONS. YOUR MEMO OF 18 MAR 57 TO THE DIR OF NAVAL COMMUNICATIONS HAS BEEN REVIEWED AND AS A RESULT A FIRM REQUIREMENT EXISTS FOR VOICE COMMUNICATIONS BETWEEN AIR DEFENSE SHORE INSTALLATIONS AND PICKET SHIPS. THIS HQ IS AWARE OF NECESSARY LEAD TIME REQUIRED TO PROVIDE FOR THIS FACILITY AND HAS BEEN ADVISED AIR DEFENSE COMMAND. AIR DEFENSE COMMAND WILL UTILIZE AN EXISTING CAPABILITY AS AN INTERIM MEASURE BUT REQUIRES A PICKET SHIP/SHORE VOICE CAPABILITY AS SOON AS PROGRAMMING AND INSTALLATION ACTIONS WILL ALLOW FOR THE PRE-SAGE AND SAGE ERA.

DDI - N/R MEMO FOR RECORD: Mid-56 COMNAVFORCONAD proposed to the CNO that the USN assume full responsibility for all ship/shore comm of picket ships in the contiguous radar coverage of the continental U.S. In late 56 CNO approved the COMNAVFORCONAD proposal. In early 1957 the CNO withdrew his original concurrence to this proposal because of economic considerations. A memo to the CNO from Hq USAF, dated Mar 57, requests CNO to reconsider withdrawing his non-concurrence.

DATE	TIME
22	2020Z
MONTH	YEAR
APRIL	1957

SIGNATURE

COFSS-F

WRITER: TYPED NAME AND TITLE (REQUIRED IF REQUIRED) MAJ W. R. GOODRICH, CH FLGT DIV

PHONE 2039

SECURITY CLASSIFICATION [redacted]

RELEASER: TYPED (OR STAMPED) NAME AND TITLE J. W. LEDOUX LCDR USN Asst Adjutant

READING FILE

DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 48 WHICH WILL BE USED UNTIL EXHAUSTED

[redacted]
COMMANDER NAVAL FORCES
CONTINENTAL AIR DEFENSE COMMAND
ENT AIR FORCE BASE
COLORADO SPRINGS, COLORADO

126
FF5-10/A6
A6/J19
Ser 0071-56
3 July 1956
302.12

REGISTERED MAIL
SECRET

From: Commander Naval Forces, Continental Air Defense Command
To: Chief of Naval Operations

Subj: Contiguous Picket Ship Communications

Ref: (a) CN ltr ser 002127P30 of 24 January 1955
(b) COMNAVFORCONAD ser 0041-55 of 1 March 1955
(c) COMNAVFORCONAD ser 07-56 of 18 January 1956
(d) CINC NAD OpPlan 9-56
(e) COMNAVFORCONAD ser 0045-56 of 24 April 1956

1. Reference (a) provided a communications plan for picket ships operating in the contiguous radar coverage system. CINCONAD's concurrence with this plan, with certain recommendations for changes subsequently implemented by the CNO, was forwarded by reference (b). Reference (c) advised the CNO of CINCONAD plans for adoption of RATT in lieu of HF voice of primary picket to shore telling circuits, with eventual cancellation of the original requirement for a CW back-up circuit. This change was incorporated in reference (d). Reference (e) informed interested naval commands of CINCONAD plans for picket ship-shore communications in SAGE system operations.

2. Picket ship to shore communications have not achieved the reliability required for air defense operations. Examination of the present and planned communications systems raises serious doubt that these systems can be developed or refined to provide the required reliability. It is now recognized that the solution to the picket ship communications problem lies in a radical departure from the present and planned systems.

3. CINCONAD has proposed that the Navy assume full responsibility for the operation of picket ship communications circuits. It is envisioned that the shore termini for these circuits would be at naval radio stations; that the Navy would be responsible for operating the radio circuits, transmitting by landline teletype to appropriate Direction Centers surveillance data recived from picket ships, and transmitting the picket ships messages received from the Direction Centers; that the Air Force would provide landlines from the Direction Centers to the Naval Radio Stations. The proposal would require that picket ship to Direction Center [illegible] circuits be operated with no appreciable delays at the Naval Radio Stations, with either automatic patch-through to landlines or employment of an automatic tape-cutting system for transfer of messages from teletype receivers to teletype transmitters. In addition, CINCONAD requires a voice circuit for command and liaison between Direction Centers and picket ships. In recapitulation the established circuit requirement for each picket ship is as follows:

[redacted]

FPS-10/N5 ltr
A6 F 3
Ser 0071-5

126

a. a. Manmual System (Present)
One RATT Telling Circuit - SIMPLEX
One Voice Command and Liaison Circuit - SIMPLEX

b. SAGE System (See reference(s) for implementation dates)

Two RATT Telling Circuits - Half Duplex (ship to shore)
One RATT Receipting Circuit - Half Duplex (shore to ship)
One Voice Command and Liaison - SIMPLEX
One Voice Emergency and Alternate Telling, Command and Liaison - SIMPLEX

Under both MANUAL and SAGE System operations, it is expected that a CW back-up capability would be retained at the Naval Radio Stations.

4. COMNAVFORCONAD concurs with the desirability of assigning to the Navy responsibility for operating the ship-shore circuits for the following reasons:

a. Naval shore radio stations established with a primary ship to shore communications mission are far better organized, equipped and administered for such operations than are the Direction Centers with which picket ships now communicate.

b. The assignment of responsibility to a single service for maintaining reliable communications will eliminate inter-service difficulties in matters of equipment and operator efficiency.

c. Terminating the picket telling circuits at Naval Radio Stations will offer the Fleet Commanders a ready means for introduction of information from Picket ships into their ocean surveillance systems.

5. It is requested that the CNO give early consideration to these proposals and that a conference be called to discuss them and to determine what action can be taken to implement them or modified plans toward improvement of picket ship communications. It is suggested that COMNAVFORCONAD and the information addressees of this letter be invited to participate in any such discussions.

HUGH H. GOODWIN

[redacted]

COPY

[redacted]

HEADQUARTERS
AIR DEFENSE COMMAND
Ent Air Force Base
Colorado Springs, Colorado

127

ADOCE-CR

SUBJECT: Minutes of Seaward Extension-Emergency Radio Conference - 25 Jul 56

TO: EADF, CADF, WADF, 8th ADiv, Hq AMC, Hq MAAMA

1. Attached are the minutes of the Seaward Extension-Emergency Radio Conference No. 58, held at this headquarters on 18-19 June 1956.

2. If inclosures are withdrawn or not attached, the classification of this correspondence will be cancelled in accordance with paragraph 37b AFR 205-1.

FOR THE COMMANDER:

1 Incl
a/s

Memo for record: Forwarding copies of Minutes of Seaward Extension-Emergency Radio Conference No. 58.

DDI - N/R
Comeback cy req
1 cy Incls for AC file

Maj McDaniel/gk /s/
2778
13 Jul 56

[redacted]

[redacted]

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COMMUNICATIONS CONFERENCE NO. 58

Seaward Extension - Emergency Radio

Minutes of Meeting

I. General

A conference was held at Headquarters ADC, Ent Air Force Base, Colorado, on 18-19 June 1956 to discuss Seaward Extension and Emergency Radio Communications. Problem areas, policy, and corrective action required in these areas were reviewed.

II. Attendance

Brig Gen Neal*	Hq ADC
Lt Col Keyte	" "
Maj McDaniel	" "
Mr. Miller	" "
Cmdr Gordon*	COMNAVFORCONAD
Lt Col Rotz	EADF
Maj Hobbs*	CADF
Maj Breedlove	WADF
Lt Col Gillanders*	8th Air Division
Maj Rogers	" " "
Mr. Hon	Hq AMC
Mr. Taylor	" "
Mr. Edwards	" "
Mr. Long	Hq MAAMA

* Not present for entire conference

III. Emergency Radio

1. The manual concept for an emergency radio system to provide extensive communications between all echelons was explained. The reduced SAGE requirements, consistent with alternate route wire and automatic cut-over was presented.

2. It was agreed that the following Emergency Radio requirements will exist under SAGE.

[redacted]

[redacted]

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FROM	TO	TYPE
Hq USAF	Hq CONAD	1 RATT Duplex
Hq CONAD	SAC	1 RATT Duplex
Hq CONAD	Maxwell	1 RATT Duplex
Hq CONAD	AD Forces	1 RATT Duplex
AD Forces	SAGE Control Centers	1 HF Voice Simplex Net
Control Center	Subordinate Dir. Centers	1 HF Voice Simplex Net
Direction Center	All Subordinate Units to include AC&W, AAOC, Fighter, and other units	1 HF Voice Simplex Net
Fighter Units	Parent Heavy Radar	1 Voice circuit if on separate base. (May be facilities of DC to subordinate unit voice net)

3. Presently installed emergency radio equipment, as well as that programmed in the near future may be retained in the Air Defense Force radio system until higher priority requirements, in accordance with the above concept, exist. At that time, emergency radio requirements over and above the above concept will be reprogrammed to meet these requirements. If no higher priority requirements exist for specific equipment, this average may be retained, at the discretion of the Commander, until such time as it is not economically feasible to maintain said equipment.

IV. Seaward Extension

It was established that the communications requirements to satisfy the operational requirements for Seaward Extension are as follows:

1. Manual Period

Inner AEW&C	-	1 Voice to shore immediately 1 Radio teletype as soon as possible
Picket Ships	-	1 Voice to shore 1 RATT as soon as possible
Outer AEW&C	-	(Same as Inner Row)

2. SAGE

Inner AEW&C	-	1 Voice and 1 RATT
Picket Ship	-	1 Voice and 2 RATT
Outer AEW&C	-	(Same as Inner AEW&C)

3. Conferees were in agreement that immediate requirements exist for RATT from AEW&C to shore stations. (Radio teletype is in the RC-121 modification program for August 57.) 8th Air Division

[redacted]

[redacted]

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127

representatives stated that the only satisfactory equipment which apparently could be commercially procured at the present time (prior to August 57 modification program) is the Durkee Tone Keyer system. Immediate action to step-up the modification program for aircraft and ground system was recommended by conferees.

4. The existing voice telling circuit to AC&W squadrons and CW back-up circuits to Navy Radio Stations will remain the primary means of communications until such time as reliable teletype circuits have been established. At this time, the radio teletype circuits will become primary telling circuits and the voice circuits will become command status circuits; deleting the CW circuit requirements.

5. It was agreed that the shore termini for picket ships and AEW&C aircraft on the East Coast should be centralized at two (2) locations.

a. This approach gives the advantage of consolidating personnel and equipment for more efficient operation.

b. By choosing locations for these stations on or near the beach, signal propagation would be enhanced over that expected through the use of four locations at the inland Direction Centers.

c. This would possibly induce program slippage and a change in external wire requirements.

6. It was agreed that the ADC plans for first class communications facilities at Hamilton, McChord, and Norton on the West Coast, with schemes well toward completion, will provide an adequate shore system in the JWADF area. The conferees could see no advantage in departing from this concept.

7. The possibility of the Navy assuming responsibility for the Picket Ship-to-shore communications was aired. Advantages of such an arrangement could be seen in having the termination of these radio circuits at established Navy Radio Stations, reducing operating difficulties by having Navy personnel communicating with Navy personnel. The communications problems inherent in ship-to-shore communications would be in the hands of people with extensive experience in this type operations. The approach to this proposal included having the Navy utilize existing equipment, if available, and the Air Force furnish the wire circuitry between the Navy radio station and the respective direction center or AC&W site.

[redacted]

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127

V. Proposals

The following proposals came out of this conference:

Proposal #1. The Emergency Radio System, as presented to the conferees, with circuitry outlined in Paragraph III2, should be implemented.

Action: Hq ADC Radio Branch will prepare policy letter to be followed by concept and details of transition from the current system to the SAGE requirements.

Proposal #2. Propose the Navy be requested to operate the shore terminal of the Picket Ship circuits for reasons outlined in paragraph IV 7.

Action: Cmdr Gordon, COMNAVFORCONAD, agreed to draft a letter to CNO setting forth this proposal.

Proposal #3. The conferees recommended that shore terminals for the East Coast be reduced from four (4) at the Inland Direction Centers, to two (2) at or near the beach.

Action: Action being held in abeyance pending outcome of the request for the Navy to assume P.S. terminal responsibility. The outcome will have a bearing on amount of equipment and urgency of the two (2) station scheme.

Proposal #4. Recommend RATT for AEW&C aircraft be obtained prior to currently scheduled August 57 modification program, if at all feasible.

Action: ADMEL will be requested to explore the possibility of stepping up the modification program.

[redacted]

[redacted]

COPY

8 Nov 56

128

ADOCE-CR, Hq ADC, 29 Oct 56, Subj: (U) Navy Assumption of Picket Ship Communications at Shore Stations

COESS-E 1st Ind Maj W.R. Goodrich, jr/2034/s/t/

Hq Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander Naval Forces, Continental Air Defense Command, Ent AFB, Colorado Springs, Colorado

1. Request this headquarters be provided the information requested in paragraph 3 of the basic letter when it becomes available.

2. This indorsement does not contain classified information.

FOR THE COMMANDER-IN-CHIEF:

/s/t/ HASKELL E. NEAL
Brig General, USAF
DCS/Comm and Elect

2034
7 Nov 56

X6-3302

[redacted]

[redacted]

COPY

128

HEADQUARTERS
AIR DEFENSE COMMAND
Ent Air Force Base
Colorado Springs, Colorado

ADOCE-CR

29 Oct 56

SUBJECT: (Unclassified) Navy Assumption of Picket Ship Communications at Shore Stations

TO: Commander-in-Chief
Continental Air Defense Command
ATTN: COMLC
Ent Air Force Base
Colorado Springs, Colorado

1. Reference is made to:

a. COMNAVFORCONAD letter to Chief Naval Operations, file Ser. 0J11-56, Subject: Contiguous Picket Ship Communications, dated 3 July 1956.

b. Chief Naval Operations letter to COMNAVFORCONAD, file Ser. 033J9210, Subject: Contiguous Picket Ship Communications, dated 13 September 1956.

c. Chief Naval Operations letter to Headquarters USAF, file Ser. 004821F30, Subject: Contiguous Radar Coverage Ship/Shore Communications, dated 2 October 1956.

2. The COMNAVFORCONAD letter dated 3 July 1956 proposed that the Navy assume responsibility for shore station radio terminals for picket ship communications, with ADC providing wire circuits required between these shore terminals and respective ADC direction centers. The reply from Chief of Naval Operations, dated 13 September 1956, concurred with the proposal. The letter from Chief of Naval Operations to Headquarters USAF written 2 October 1956 requested AF concurrence and stated that Chief Naval Operations would submit a plan based on this concurrence.

3. Information is needed as soon as possible as to the operational date, locations of shore terminals, and scope of operations.

4. The above data is needed in planning for interim operations and the programming for wire circuits.

5. This correspondence is classified ~~SECRET~~ in accordance with paragraph 30b, AFR 205-1.

FOR THE COMMANDER:

[redacted]

[redacted]

729

302.12

COOCS-CR

SUBJECT: (Unclassified) Picket Ship Communications 2 Aug 56

TO: Commander
Joint Western Air Defense Force
Hamilton Air Force Base
California

1. Reference is made to your letter, file JWDCVC, subject as above, dated 26 January 1956, and subsequent telephone calls from this headquarters pertaining to tests listed therein. Subject correspondence was relayed to COMNAVFORCONAD for comment. Their reply is inclosed.

2. The shortcomings of the current picket ship communications system are recognized.

a. This headquarters went on record for single sideband equipment in June 1954. Both the Air Force and the Navy are active in the development of this type equipment. QOR 129 (CE-2a-1-62) dated 7 November 1955, outlines the AF requirements in the single sideband field. Collins Radio Corporation has a development contract for airborne, fixed station, and mobile equipment based on this QOR. Models in the above categories are to begin their testing this month. Headquarters USAF has expressed non-concurrence of modification to existing equipment because of the advanced state of the SSB development program.

b. The merits of a CW signal and the utilization of this type emission for telling circuits, recommended in the Navy correspondence, have been considered. The inherent delay between picket ship scope and the ground environment plotting board, and traffic load limitations, makes this type operations less desirable than voice or radio teletype. The current goal is to augment the voice circuit to each picket ship with a radio teletype channel as outlined in CONAD Operations Plan No. 9-56. This radio teletype channel will then become the primary telling circuit.

c. COMNAVFORCONAD has requested Chief, Bureau of Ships, to conduct HF and UHF antenna radiation tests for the Y AGRs. Results of these tests will be forwarded you upon receipt.

[redacted]

[redacted]

COOCE-OR, Hq CONAD, Subj: (U) Picket Ship Communications 129

3. With the limitations of current facilities, it is most important that continued attention be given to maximum utilization of equipment and frequencies.

BY ORDER OF THE COMMANDER-IN-CHIEF:

C. F. HUMPHREYS
Major, USAF
Asst Command Adj

MEMO FOR RECORD: Refer nced correspondence listed communications discrepancies, low power output of P.S., and poor frequencies. SSB and more efficient antennas were recommended as possible solutions. Inclosure #1 is Navy's comnet on difficulties. No info copies furnished.

[redacted]

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129

HEADQUARTERS
JOINT WESTERN AIR DEFENSE FORCE
HAMILTON AIR FORCE BASE
HAMILTON, CALIFORNIA

JWDCVC 26 Jan 1956

SUBJECT: (Unclassified) Picket Ship Communications

TO: Commander-in-Chief
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. The problem of high frequency (HF) communications between Navy picket ships and shore installations has assumed serious proportions. At present JWADF has two ships on station in the 25th Joint Air Defense Division area. By July 1956 this number is programmed to increase to five (5).

2. Numerous tests have been conducted by this headquarters to determine the reliability of HF communications. During these tests many HF frequencies were utilized in the 2, 4, 6, and 8 megacycle spectrum. Results of all tests have been forwarded to your headquarters. A review of these tests indicates that the frequencies used are not entirely the cause of poor communications. Many other shortcomings have become apparent.

3. It is to be noted that during the tests, the shore stations used 400 watt transmitters feeding efficient, long-wire antennas, cut to proper frequencies, whereas, the picket ships employed 100 wat transmitters feeding a whip antenna through a loading coil, or, on occasion, a flat top antenna not engineered to any particular frequency. The resulting power output from the picket ship, under these conditions, would not exceed 30 watts radiated power. Attempts to load higher power of 500 watts into the whip antennas are not satisfactory, and only add to the overall inefficiency, since the loading coils dissipate the radio frequency (RF) energy in the form of heat, and in some cases have destroyed the loading coils.

4. These inefficient antennas also affect the ships' receiving equipment, requiring the receiver operator to use high RF gain position, resulting in extremely high noise levels. It would appear that the Navy is being required to furnish good communications under particularly

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adverse conditions. As a solution to this problem, and unless clear channel frequencies can be assigned in sufficient number, it is recommended that:

a. The new YAGR picket ships and the USAF shore stations be equipped with single sideband (SSB) equipment. The use of SSB techniques would assist in solving the frequency problem, and the quality of reception would be far superior and less affected by atmospherics than our present amplitude modulated system.

b. Efficient antenna systems be engineered and installed on the picket ships. Antennas should be engineered so as to provide maximum loading of ships' transmitting equipment on assigned frequencies.

5. The foregoing shortcomings are called to your attention, since the effectiveness of seaward extension of the combat zone is being seriously hampered by the use of antiquated and outmoded electronic equipment and techniques.

6. This correspondence is classified Secret in accordance with paragraph 25, Air Force Regulation 205-1.

FOR THE COMMANDER:

J. P. CRIM
Major USAF
Asst Adj

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19 July 1956

Hq 25th Div (Def), 25DCK-2-R, Subject: Request for Radioteletype Frequencies

ADOCE-CR (20 June 56) 2nd Ind

HQ AIR DEFENSE COMMAND, Ent AFB, Colorado Springs, Colorado

TO: Commander, Western Air Defense Force, Hamilton AFB, California

1. Headquarters USAF has advised that they are continuing to process the 1.1F1 requirements for Picket Ship Communications.

2. Reference your message WDOCE-R 6C-1661, dtg: 061600Z, July 1956. It is recommended that frequencies 3183 and 4520 KCS be allocated to McChord AFB and a test be conducted to determine if McChord and Hamilton can utilize these frequencies for PS Communications at reduced power.

3. It is noted that 4500 KCS is included in paragraph 2, basic letter, as an authorized RATT frequency. USAF Radio Frequency Authorization RFA-246 authorizes 0.1A1 and 6A3 emission only for this frequency.

4. By 2d Indorsement to ADC letter, Subject: "(U) Frequencies Having Dual Assignment," file ADOCE-CR, 6 April 1956, this headquarters recommended that a frequency plan for picket ship communications and AEW&Com communications be written to include sufficient HF frequencies for these operations.

BY ORDER OF THE COMMANDER:

R.E. PALMER
Major, USAF
Asst Comd Adj

MEMO FOR RECORD: 25th ADiv has asked for additional RATT frequencies for PS Comm. Prior to this, USAF was requested to clear all PS Comm frequencies for 1.1F1 emissions. USAF is in the process of doing this and has cleared four for the McChord area so far and seven for the Hamilton area. 1.1F1 clearance on additional frequencies are expected shortly. Diary item not required.

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Hq 25ADiv 25DCE-C-R Subject: Request for Radioteletype Frequencies

4. A suggested additional allocation for RATT is as follows:

# of Frequencies	Frequency Band
4	8 - 12 MCS
4	6 - 8 MCS
2	4 - 6 MCS
2	2 - 4 MCS

FOR THE COMMANDER:

JOHN SALARSKI
CWO USAF
Asst Adjutant

CC: COMCORTRON 5
Com 635th ACWRON
OIC NAVRADSTA, Bainbridge

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HEADQUARTERS 25TH AIR DIVISION (DEFENSE)
MCCHORD AIR FORCE BASE
WASHINGTON

20 June 1956

SUBJECT: Request for Radioteletype Frequencies

TO: Commander
Joint Western Air Defense Force
Hamilton Air Force Base
California

1. It is requested that special consideration be given to the assignment of additional radioteletype (RATT) frequencies for Picket Ship operation within the 25th Joint Air Division area of responsibility for the following reasons.

a. Of the thirteen (13) frequencies assigned for Picket Ship operation, only four (4) are authorized for radioteletype. Further, none of the four authorized is a clear frequency, so interference is common and is a factor which severely curtails RATT operational efficiency.

b. The fact that the four frequencies are too low for efficient propagation has been reflected as decreased operational efficiency. For the past two months voice communication has averaged between 25% and 35% more efficient than radioteletype despite the fact that higher power and more efficient antennas are used for RATT operation.

2. An examination of skywave utilization charts suggests that the situation will continue to deteriorate during the Summer. The four RATT frequencies authorized are 2624, 3315, 4500, and 4590 KCS. The predicted optimum frequencies for July and August show that for the distance involved frequencies between 8 and 10 MCS are necessary for day operation and 4 to 5 MCS for night.

3. After the month of August, indications are that frequencies between 5 and 8 MCS will be necessary for successful RATT operation.

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THIS DOCUMENT CAN BE OBTAINED FROM THE NORAD

COMMAND HISTORICAL ARCHIVES

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AFOOP-OC-F/3, Hq USAF, 1 Aug 56, Subj: (UNCLASSIFIED) Texas Towers

ADPRQ-C 1st Ind 10 Oct 1956

Hq Air Defense Command, Ent Air Force Base, Colorado Springs, Colo.

TO: Director of Operations, Headquarters USAF, Attn: Operations Control Division, Washington 25, D. C.

1. At the present time, and with presently available and programmed equipment, this headquarters agrees with your findings outlined in paragraph 2, basic letter. On the basis of this alone, we would agree to the deletion of Texas Towers 1 and 5 from the AC&W program entirely. There are, however, other considerations which might influence a decision to retain these stations. For example, the current WSEG ECM study group indicates that a means of combating ECM may be by overlap and/or duplicate coverage in critical areas by radars of widely differing frequency operating ranges. The study being conducted by Sylvania under ARDC cognizance on frequency diversity employment and deployment has similar considerations.

2. In view of the foregoing, we recommend indefinite deferral of the two stations until determination can be made of the requirement for them. If it is found that the system will not suffer, then this headquarters concurs in the deletion of Texas Towers 1 and 5 from the AC&W system.

s/t LOREN G. MCCOLLOM
Colonel, USAF
DCS/Plans & Requirements

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133

AFOOP-OC-F/3

Aug 1, 1956

SUBJECT: (UNCLASSIFIED) Texas Towers

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. (~~SECRET~~) This Headquarters has again reviewed your requirement for Texas Towers #5, Browns Bank, and #1, Cashes Ledge. Funds for these towers were deleted from the FY 57 MCP. This deletion was necessary so that the USAF could fund higher priority projects within our FY 57 budget ceiling. Furthermore, there is no assurance that Texas Towers #1 and #5 will survive FY 58 review.

2. (~~SECRET~~) The results of the review mentioned above indicate that little additional radar cover can be expected from these towers over and beyond that cover that will be provided by radars adjacent to their proposed location. The increase in radar cover that these towers can be expected to provide is at the 5000 foot level and is a very small increase over that which will be provided by other radars. As an example, radar cover from M-102, Barrington, Nova Scotia, and TT #2, Georges Shoal, overlaps at 5000 feet. Additionally, TT #1, Cashes Ledge, is in the radar cover of P-10, North Turo, and TT #2, Georges Shoal.

3. (~~CONFIDENTIAL~~) Our review indicates that Texas Towers #1 and #5 can be deleted from the AC&W Program without seriously affecting coastal radar cover. Desire your Headquarters review the Texas Tower requirements with the view of deleting TT #1 and TT #5 from the program.

BY ORDER OF THE CHIEF OF STAFF:

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29 June 56

C000F-D

SUBJECT: Requirement for Texas Towers I and V

TO: Commander
Joint Eastern Air Defense Force
Stewart Air Force Base
Newburgh, New York

1. Contract awards for Texas Towers I and V are being delayed until at least FY 58 because of the lack of FY 57 funds. It seems pertinent at this time, therefore, to re-examine the requirement for these two units, to determine whether or not they can make a worthwhile contribution to the air defense system in your area. If their potential value is negligible, action must be taken to have them deleted from the air defense program.

2. To assist in the final evaluation of these two towers, it is requested that your headquarters carry out a study on their potential capabilities and forward it to this headquarters as soon as practicable. Points which are of interest and should be included in the study are as follows:

a. The increase in high altitude (30,000') radar coverage and the increase in low altitude (500') coverage which could be provided by these units over that of the other shore-based radars. To provide as factual study as possible, the calibrated, or actual, coverage provided by Texas Tower II should be used to determine the potential coverage of Towers I and V.

b. Overlap coverage at 5,000 ft. in the area under consideration, bearing in mide SAGE requirements.

c. The requirement for multiple coverage with regard to the radar frequency diversity program to combat ECM.

d. The capability of the other seaward elements to provide the required radar coverage in the area under consideration, bearing in mind the potential reliability of each.

e. The vulnerability of these Towers to possible enemy submarine action.

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CONAD, Subject: (U) Requirement for Texas Towers I and V (Cont) 134

3. It is considered that the results of your study, plus the results of the OST on the AEW&Com forces in your area next November, should provide a reasonable basis for future action by this headquarters with regard to the retention or deletion of the requirement for Texas Towers I and V in the air defense program.

BY ORDER OF THE COMMANDER-IN-CHIEF:

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135

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL [illegible]
Washington [illegible], D. C.

CONFIDENTIAL

From: Chief of Naval Operations
To: Chief of Staff, U. S. Air Force

Subj: Navy participation in Project Texas Towers

Refs: (a) CNO conf ltr ser 0[illegible]P31 of 30 Nov 1956

1. Reference (a) informed the U. S. Air Force that it was the intention of the Navy to install an experimental sonar in the aircraft of Texas Tower #4. This decision was made because studies indicated that useful research and development data could be obtained at low cost.

2. Further feasibility studies in connection with the instal[illegible] now show that the cost does not warrant proceeding with the installation. As a result, it has been cancelled.

3. Reference (a) withdrew the requirement for Sky [illegible] observations for 20 men per tower except for Tower #1. [illegible] for Tower #1 is also cancelled.

4. The U. S. Navy Hydrographic Office program will continue [illegible]

THEO. C. [illegible]
[illegible]

Authenticated:

[illegible] R. VARLAND, [illegible]

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136

HEADQUARTERS
25th AIR DIVISION (DEFENSE)
UNITED STATES AIR FORCE
McCHORD AIR FORCE BASE, WASHINGTON

In Reply Refer to: 250DO

7 MAR 1957

SUBJECT: Possible Pacific Ocean Texas Tower Site

TO: Commander
CONAD Force
Western CONAD Region
Hamilton Air Force Base
California

The following information is forwarded for your information and such disposition as you may deem appropriate. "Personnel from Escort Squadron who have been on patrol at station Quaker, our northern picket station, have reported a sizeable underwater plateau fifteen fathoms deep and about two miles in diameter located about twenty miles from the geographical position of Quaker. This underwater plateau named "Cobb's Sea Mountain", can be located on a hydrographic chart just northeast of the Quaker station which is 47° 05N 131° 30W. It was suggested that this site might be investigated as a possible Texas Tower location. Perhaps this information is worthy of being forwarded to higher headquarters for further investigation."

FOR THE COMMANDER:

s/t DEWEY L. VOYLES
WO, W-1 USAF
Asst Adjutant

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250DO, 25th ADD, 7 Mar 57, Subject: Possible Pacific Ocean Texas Tower Site

136

CWDRQ 1st Ind

Hq, CONAD Forces, Western CONAD Region, Hamilton Air Force Base, California

TO: Commander-in-Chief, Continental Air Defense Command, Ent AFB, Colorado Springs, Colorado

1. Forwarded for your consideration.

2. Location of the plateau as indicated in the basic letter is in error, and should read 46° 44' North, 130° 47' West.

3. This headquarters has insufficient information available to determine if a Texas Tower located 300 miles off shore would be more economical to operate and support than would a picket vessel at the same location.

FOR THE COMMANDER:

Copy furnished:

25th CADD

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136

[illegible], 25th ADD, [illegible] Possible Pacific Ocean Texas Tower Site

MAY [illegible]

OCOPA .1 Ind

Hq Continental Air Defense Command, Ent AFB, Colorado Springs, Colo.

TO: Comdr Sec, CONAD (Colo), Western CONAD Region, Hamilton Air Force Base, California

The proposal for a possible Pacific Ocean Texas Tower Site has been reviewed by this Headquarters and component Services. Although there is considerable merit in the suggestion, it is considered infeasible at this time due to shortage of funds and the long lead time involved in programming a Pacific Texas Tower as a replacement for an existing facility.

FOR THE COMMANDER-IN-CHIEF:

HARVEY T. ALNESS
Major General, USAF
DCS/Plans & Operations

[illegible]

Cdr J C Huddleston
2197
13 May 57

CENTRAL FILE

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1 Jan 54

AFDR-AD/C, Hq USAF, Subj: (U) Buoyant Radar Platforms, 29 Mar 57

COOPR-R 2nd Ind

Hq Continental Air Defense Command, Ent AFB, Colorado Springs, Colo.

TO: Commander, Air Defense Command, Ent AFB, Colorado Springs, Colo.

This headquarters has no requirement for the use of floating radar platforms in either the distant early warning line or extension of continuous radar coverage.

FOR THE COMMANDER-IN-CHIEF:

[illegible]
Asst Dep, DCS
Chief of Staff

3(2.12

12 Apr 57

AF-5589

M/R: AFOC asked [illegible]
CINAT's answer self explanatory.

AFDRQ-AD/C

SUBJECT: (U) Buoyant Radar Platform

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. In October 1956 this Headquarters directed ARDC to conduct a detailed study of the feasibility of utilizing floating radar platforms for distant early warning and seaward extension of contiguous radar coverage. Subsequent correspondence received from ARDC advised that Continental Copper and Steel Industries' study of July 1955 determined the feasibility of floating platforms and that additional feasibility studies are not necessary. ARDC was advised that there was no sound basis for conducting engineering design studies of a floating-radar platform, as no operational requirement or plans exist for such a system or subsystem.

2. This Headquarters has no intention of pursuing further development of floating platforms unless a valid command requirement is stated. It is desired that your Headquarters consider the possible applications of floating-radar platforms to air defense and advise whether a requirement exists for their use in distant early warning or extension of contiguous coverage.

3. If it is determined that a requirement does exist for floating-radar platforms, action should be taken in accordance with AFR 57-3.

4. It is desired that your reply be coordinated with the Continental Air Defense Command, as this subject is one which may involve roles and missions, particularly if there is an application in the distant early warning role.

BY ORDER OF THE CHIEF OF STAFF:

MAURICE L. MARTIN
Colonel, USAF
Chief, Air Defense Division
D/Requirements, DCS/O

AFDRQ-AD/C, Hq USAF, Subj: (U) Buoyant Radar Platforms, 29 Mar 57

ADDRQ-C 1st End 17 APR 1957

Hq Air Defense Command, Ent Air Force Base, Colorado Springs, Colo

TO: Commander-in-Chief, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. This headquarters is no longer considering floating platforms for seaward extension of radar coverage. The two primary influencing factors in rejecting floating platforms are:

a. Economic unfeasibility of obtaining low altitude coverage with surface platforms.

b. The capability of the AFS-70 radar for all-altitude coverage within the altitude region of interest to air defense.

2. The Air Defense Command is basing its plans for seaward extension of the combat zone on Airborne Early Warning and Control vehicles only, since this offers the only practical means of achieving the amount and quality of radar and control capability required. This philosophy has been discussed with and approved in principle by operations and requirements personnel in Hq USAF.

3. Your concurrence and/or comments are requested as a basis for reply to Hq USAF.

FOR THE COMMANDER:

302.12

3 Feb 1956

MEMO FOR RECORD

SUBJECT: Moored Seaborne Defense Platform

PROJECT OFFICER: Major Sherman F. Klingbiel

1. The inclosed briefing (Incl. 3) was presented to General Partridge on 16 January 1956. General Partridge disapproved the proposal because he considered that:

a. It is impractical to anchor platforms in deep water.

b. The criticality of aligning tropospheric antennas would not permit their use on moored platforms.

c. The money required for moored platforms could be spent to better advantage on AEW&C aircraft.

2. General Partridge sent a memorandum (Incl. 1) pertinent to this subject to Headquarters ADC Ops. Analysis. Inclosure 2 to this correspondence is a copy of their answer. As of this date, further action has not developed.

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139

MINUTES OF A MEETING

TO DISCUSS DEW LINE OPERATIONS

HELD AT HEADQUARTERS ADC

12 - 13 June 1957

In attendance:

P. D. Bragg, AT&T Co.
R. R. Marsch, AT&T Co.

C. E. Maass, WEC
T. S. Sullivan, WEC
E. A. Voorhees, WEC
R. H. Wollemann, WEC

J. R. Kelley, FEC
J. G. C. Swinney, Jr. FEC

F. L. Smith, CAA
J. V. Tighe, CAA

D. W. Mitchell, DOT

J. F. Morrison, Bell Tel Labs

S/L C. E. Holtby, RCAF ADC Hq
S/L P. V. K. Tripe, RCAF ADC Hq

Lt Col R. E. Holcombe, Hq USAF

Lt Col S. J. Veneziano, DEWPO
Capt C. A. King, DEWPO

Lt Col G. E. Kegin, Hq 11th Air Div
Maj R. N. Flaa, Hq 11th Air Div
Maj R. C. Lebsock, Hq 11th Air Div
Maj K. E. Parker, Hq 11th Air Div
Maj D. A. Shelton, Hq 11th Air Div

Maj W. H. Allen, Jr. AAC
Maj C. V. Walton, AAC

Maj B. Y. Allen, 64th Air Div
Maj R. J. Lloyd, 64th Air Div
Maj H. J. Tiernan, 64th Air Div
Maj M. E. Waufle, 64th Air Div

B/Gen F. F. Urhane, USA, CONAD
Col J. H. Jeffus, CONAD
Col P. H. Long, CONAD
Comdr J. W. Lawyer, CONAD
Lt Col L. W. Hough, Jr., CONAD
Maj J. W. Clancy, CONAD
Maj D. L. Faulkner, CONAD
Maj J. H. Fuss, CONAD
Maj W. R. Goodrich, Jr., CONAD
Maj A. B. Harper, CONAD
Maj M. D. Surratt, CONAD
P. S. Ball, Jr., CONAD

Brig Gen Dolf E. Muehleisen, ADC
Col G. B. Hooker, ADC
Col H. A. Myers, ADC
Col H. R. Volin, ADC
Lt Col C. A. Baril, ADC
Lt Col R. L. Bliss, ADC
Lt Col E. E. Crowell, ADC
Lt Col W. A. Larsen, ADC
Lt Col S. T. O'Dell, ADC
Lt Col R. S. Williams, ADC
Maj R. E. Dunbar, ADC
Maj E. H. Gumble, ADC
Maj B. L. Murphy, ADC
Maj E. J. Schaffer, ADC
Maj C. V. Steed, ADC
Maj F. G. Straut, ADC
S/L M. B. C. Anderson, ADC
1/Lt R. Q. Mauger, ADC
W. F. Blaylock, ADC
J. R. Carrouth, ADC
J. P. Gardinier, ADC
J. C. Gregg, ADC
C. B. Lynes, ADC

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1. Introduction. The meeting was called to order at 0900 hours, 12 June 57, by S/L M.B.C. Andersen, Chairman, who officially welcomed all visitors on behalf of CONAD and ADC staffs. He stated that the original purpose of the meeting was to review DEW Line identification procedures which had been approved on an interim basis by Headquarters USAF and Headquarters RCAF, but that the scope of the agenda had been extended to include a general "shake down" of all aspects of the DEW Line which might affect the operational date. For this reason, all forces and agencies involved were being asked to give short briefings on their own particular areas of DEW Line responsibility.

2. DEWPO Briefing. The first briefing was presented by Lt Col Veneziano, DEWPO. He introduced the other representatives from DEWPO, Western Electric Company and Federal Electric Company, and then gave a brief description of the Line. The Line was built by civilian contractors and in this respect would be different from the Aleutian Chain which is being constructed by the Corps of Engineers. The Line is to be in an "operational state" by 1 July 1957. "Operational state" is defined as follows: The Line will function as an operational system from 1 July exactly as it will after 31 July when it will become an Air Force responsibility. During the 1 July - 31 July period, it will remain the responsibility of WEC, except in the event of an emergency, and both WEC and FEC can make modifications without reference to the Air Force. FEC started operating the Line 15 May 57, equipment has tested out well, communications facilities (a relatively new process) are working extremely well, but there are some deficiencies. The contractor is responsible only for communications to the rearward terminals and other agencies for the rest. All the WEC circuits are in and will be operating by 1 July. The FOX-BIR-X FPIS circuit is noisy and needs modification, but the southern extension of this circuit from BIR-X to Winnipeg and 31 AD will not be in until 1 Aug 57. In theory, the alternate route to UKE and along "pole vault" should provide adequate service from FOX, but "pole vault" is saturated and cannot accept FOX information. Therefore, FOX information will not be available until the BIR-X-Winnipeg Line is in. The communications facilities should be listed by 1 July 57, and WEC will describe later procedures they have worked out with AT&T to do this if ADC approval is given. WEC is working out detailed procedures for FEC to operate the Line and require answers to questions which will be presented by WEC.

3. Western Electric Company DEW Operating Procedures. Mr. Maass of WEC referred to a meeting held at ADC 21 - 22 May 57 for the purpose of providing data for WEC's DEW Line procedures. They still need answers to the following:

a. Data Center Procedures. They need uniform operating procedures which can be used by all stations along the Line. These should include the general responsibilities of the data center as such.

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b. Sub-sector Areas of Responsibility. Where is the division of responsibility between each station?

c. Rearward Surveillance Testing. Should the lines be tested?

d. N6 Operational Tests. Does the CONAD COC want all simulated and actual flight test data from Part I (N6) of the E&ST (POW and BAR Sections)? If not, what portion is required?

b. The following answers were provided.

a. There was considerable discussion over data center procedures but no firm decision. It was finally agreed that ADC would send the interim identification procedures to DEWPO and that DEWPO and WEC would incorporate them into their own operating procedures. When ADC has some firm procedures, these can be sent to DEWPO.

b. It was agreed that the Line should not be divided into sub-sectors, however, cross-telling from one area into another will take place at the intermediate stations.

c. It was agreed that the rearward surveillance circuits should be tested, but Mr. Sullivan of WEC should explain what is involved.

d. It was agreed that the CONAD COC should only receive the actual flight test data from Part I of the E&ST since, even though ID procedures may not be in practice, it would serve to test the rearward circuits from BAR and POW.

5. Manning Status on the Line. Mr. John Kelly of FEC briefed on the status of manning on the Line. There are now 657 people on the Line and 705 will be there by 1 July 57. These people are getting OJT on the Line assisted by WEC. Many WEC mechanics who helped build the Line will be retained by FEC. Eskimos are being trained by Canada for use on the Line, they are excellent workmen on jobs such as cat-skinners and work in their own environment. All military personnel are on the Line.

6. It was brought out in discussion that although the Line will be fully manned, the personnel will still be in training and will have a low operational capability for some time. At the present time, the "radicians" are concentrating more on the technical aspects of the equipment rather than on the operational aspects.

7. Crypto Facilities. Captain King, DEWPO, gave a brief description and current status of crypto facilities for the DEW Line. FEC has the responsibility for operating this equipment and is training personnel at Scott Field. There will be cleared crypto custodians and an alternate at each Main and Alternate Station. Equipment is

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being transported to the Line; without the rotor, it is unclassified. WEC is compiling a list of couriers responsible for getting information to the Line.

8. Mid-Canada Line. S/L Tripe, RCAF ADC, gave a short briefing on the Mid-Canada Line. All sections of the Line should be operating and have communications to the rear by 1 July 57. The Mid-Canada Line Identification Zone (MIDIZ) instructions should be published and distributed by 1 September 57, and at this time the Line should be capable of carrying out a limited identification function.

9. AAC DEW Line Responsibilities. Major Allen, AAC, presented a short briefing on AAC system. Logistics are a local problem of great concern, but will be discussed in private with Colonel Hooker, Headquarters ADC. A summary of Alaskan DEW communications is as follows:

a. BAR to AJAX, 3 FPIS circuits installed.

b. POW to AJAX, primary through White Alice will not be in until 3 March 58. Must use alternate route through BAR - time shared.

c. AMIS circuit from Fairbanks to BAR is in but teletype equipment is not installed in ARTC center.

d. USAF has not requested CAA in Alaska to provide AMIS service and no action has been taken to publish necessary DEW information in appropriate facility handbooks.

10. SAC Tactical Traffic. Major Fuss, CONAD, discussed (as general information) a request from SAC for assistance in passing essential tactical information to any of their aircraft that might be operating in the area of the DEW Line. It was the general consensus of the meeting that this was desirable and that CONAD should work with SAC in developing and testing suitable procedures and establishing priorities on this traffic.

11. Triple Letter Identifiers. Major Frymire, CONAD, explained the letter identifier system as contained in the Proposed Change #2 to the Operations Plan for DEW-MCL. The letter identifiers now used and concurred in by RCAF for its area are:

A - Pacific Command

B - 10th AD, Alaska

C - 11th AD, Alaska

D - Distant Early Warning Line (DEW), Alaska Region

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E - DEW, Northeast Area Region

F - 64th Air Division plus Northeast Area of Hopedale MCL Doppler Section

G - Atlantic Command

H - RCAF-ADC, 5th Air Div plus Dawson Creek MCL Doppler Section

I - Omit

J - RCAF, Stoney Mountain MCL Doppler Section

K - RCAF-ADC, 4 Sector plus Cranberry Portage MCL Doppler Section

L - RCAF-ADC, Bird MCL Doppler Section

M - RCAF-ADC, 3 Sector plus Winisk MCL Doppler Section

N - RCAF-ADC, 1 Sector plus Great Whale River MCL Doppler Section

O - RCAF-ADC, 2 Sector plus Knob Lake MCL Doppler Section

P - Z Appropriate areas in U. S.

Thursday, 13 June 57

12. DEW Identification Procedures: S/L Anderson, ADC, described CONAD's proposed Change #2 to DEW Line Identification Procedures which has been approved for use on an interim basis by USAF and RCAF Headquarters. This change is attached as Inclosure 2. He stated that the reasons for desiring these changes were as follows:

a. Code word and maneuver too complicated for DEW operations and were not self-contained.

b. They were not compatible with operations on the sea flanks.

c. They were expensive in personnel and money and required support of foreign nations, some of which were reluctant to cooperate in the establishment of briefing stations to distribute envelopes.

d. A system had to be established which could be ready by the operational date of the Line.

13. The proposed system required a ground filed flight plan and compulsory reporting by all inbound aircraft to a DEW station. Time

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and distance tolerances for aircraft penetrating the DEWIZ were plus or minus one hour and 100 nautical miles. In addition, pilots had to refer to their ground filed flight plans when confirming or amending their point and time of DEWIZ penetration.

14. There was considerable discussion on two aspects.

a. Should a pilot give out over the air his originally filed point and time of DEWIZ penetration? It was generally agreed that this was not desirable and the procedures have been amended to reflect this position.

b. Should the time and distance tolerance be measured from the ground filed estimate or from the revised position reports received at the DEW Line? The final decision was that the procedures should remain as indicated in Proposed Change #2, i.e., plus or minus 100 NM and 1 hour from the ground filed estimated time and point of DEWIZ penetration.

15. Publication of DEWIZ Regulations. The CAA and DOT were queried as to how soon they could publish the pertinent information concerning the DEWIZ for Canada and Alaska, in appropriate aeronautical publications, so that the identification procedures could be implemented. Mr. Mitchell (DOT) stated that DOT would probably try to publish the DEWIZ Regulations at the same time that the MIDIZ Regulations were published. If the procedures are approved by his department, this action could not take place prior to 1 September 57. Mr. Fred Smith (CAA) stated that the publication of Canadian information in U.S. handbooks would depend on the receipt of this information from Canada.

16. Miscellaneous. Other items discussed were as follows:

a. Search and Rescue. Lt Col Veneziano stated that WEC procedures would make it the responsibility of anyone who gets information to report immediately to the data center, and the controller will get his directions from the COC. Contract personnel will take initial action in emergency if within their capability to assist.

b. Test of Rearward Circuits. Mr. Sullivan of WEC explained the procedures that had been worked out with AT&T to test the completed rearward circuits. These procedures are attached to these minutes as Inclosure 3.

c. Delineation of DEW M&O Contractor and Military Relationship. Policy on this subject is attached as Inclosure 4.

d. Security Annex. Lt Col Holcombe, USAF Headquarters, stated that DEW & MCL Operations Plan does not have security annex. This could be written in about three or four lines by ADC.

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139

17. Summary of Areas Which Affect Operational Date and B&OT of DEW Line.

a. Communications (surveillance)

(1) Link from BIR-X to Winnipeg will not be completed until 1 August 57 and limited testing time will be available prior to 15 August 57.

(2) Pole vault system is crowded and requires higher priority for DEW and other 6Lth circuitry.

(3) AAC "White Alice" circuit from POW via LI2 to Anchorage will not be completed until March 1958, therefore, POW information must be routed by alternate means through BAR (time shared).

(4) All rearward circuits must be tested.

b. AMIS

(1) All AMIS circuits should be ready by 1 July 57. Teletype installation at ARTC Centers at Goose and Fairbanks still to be connected.

(2) Although AMIS communications may be ready, AMIS facilities as such will not be available at Edmonton and Goose Bay by the operational date.

(3) Mr. Fred Smith stated that the problem of terminating the AMIS circuit in the Fairbanks ARTC Center, and the arrangements for obtaining AMIS service to the DEW Line could be accomplished through coordination between AAC and the CAA 5th Region Headquarters in Anchorage.

c. Operations. Identification procedures will be ready, but publication of necessary DEWIZ information by CAA and DOT will not be completed until approximately 1 September 57.

d. Personnel Training. The DEW Line may be fully manned by the operational date, but radicians will be of low efficiency until they have had sufficient experience and training.

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July Lessons Learned Operational Test

140

Employment and Suitability Test of the DEW Line

ADODO ADORQ-5 15 July 57
S/L WSC Anderson/2162/js

1. Recent conferences at this headquarters and New York on the operational and material aspects of the DEW Line have provided sufficient evidence to indicate that the pending FAST of the Line is premature and should be postponed 9 to 12 months.

2. The object of the test is to determine the capability of the DEW System to detect, identify and report aircraft entering or penetrating the DEW Line surveillance area. In other words, it is to be a full-scale test of the operational capability of the whole system.

3. Technically speaking the DEW Line is operational, that is, all radars are working at all sites, all sites are manned, and the communications are working laterally and rearward as far as the contractors' responsibilities are concerned. Operationally, however, the DEW System has a nil capability to perform its assigned mission and will not have this capability for several months. The reasons are as follows:

a. Rearward Communications. The rearward UHF and VHF scatter systems are all in and operating to a reasonable degree, but the landline tie-ins to the CONAD COC have not been completed, in some instances, and have not been tested with the exception of the link from Anchorage, Alaska to Tacoma, Washington. The present status of the rearward circuits is:

(1) DYE to RES-X in, but connection to Northeast "Pole-Vault" System not completed.

(2) FOX to BIR-X in, but landline from BIR-X to Winnipeg will not be completed until at least 1 August 57 and will not be tested by 15 August 57.

(3) PIN and CAM to NEL-X and WAT-X are completed, landline tie-ins are in also, but no testing has been accomplished.

(4) BAR to Anchorage is completed and is connected to Tacoma. Link between Anchorage and Tacoma has been tested and is very unsatisfactory.

In summary, the rearward communications system will require considerable testing and modification before it is suitable for passing surveillance data.

b. Operational Procedures. Identification procedures have been approved as an interim measure and are available to all agencies concerned. These procedures, however, depend on the publication of all pertinent DEW Line information concerning beacons, airfields, frequencies, etc. in appropriate facilities handbooks. The RCAF has given the Department of Transport a target date of 1 October 57 for the publication of this information. Therefore, no air carriers

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can conform to the identification procedures until at least this date. It may be possible to give the required information to SAC to enable them to carry out the E&ST, but this will be a haphazard arrangement as other civil and military air carriers will not be able to conform.

c. AMIS Facilities. AMIS communications circuits are in, but have not been connected to the appropriate ARTC centers. In addition, AMIS facilities in the ARTC centers will not be ready for at least several months. Target date for this is uncertain.

d. Training. Personnel on the Line have had no operational training because of the lack of operational procedures. They will be no better off in this regard by 15 August 57.

e. Logistics. The supply depot at Frobisher has not been completed and target date is uncertain because of the lack of funds. Without this depot, logistic support of the Line will be difficult and costly.

4. It is considered that, in view of the above deficiencies, the E&ST will reveal little that is not known and will prove or disprove nothing. Within the next six months most of the deficiencies could be corrected and checked out so that we could be reasonably sure that the Line was satisfactory in most respects, and was providing the COC's with correct information. It is recommended, therefore, that the attached message be forwarded to USAF requesting that the E&ST be postponed for a period of at least nine months. Informally, other commands and agencies involved have indicated complete concurrence with this recommendation.

ROBERT B. HUGHES
Colonel USAF
Director of Requirements
Ext. 2304 - 2305

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PRIORITY X AF

PRIORITY

CORON AFC [illegible]

CGCS [illegible]

INFO: CINC CONAD [illegible] (DEFENDER)

ADC [illegible]

CGTAC ALASKA ALC [illegible]

CINC AIRS [illegible]

CGMCR AFCC [illegible]

CGMCR 6L AFA ITY (INT) [illegible]

[redacted] ADCRQ-E _____.

[redacted] Recent meetings at this headquarters and WADC have indicated that the pending [illegible] of the DEW Line is premature and should be postponed several months. Technically the Line is operational, that is, all radars are working, all sites are manned and the communications are working laterally and rearward as far as the contractor is concerned. Operationally, however, the DEW System is incapable of performing its mission and will not have this capability for several months. The reasons

16 July 1957

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Colonel USAF
Director of Requirements

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ADCRQ-E 16 July 57 2162 none non

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CONUS ADC HQ AIR DEF

are as follows.

1. Rearward Communications. The lateral and rearward UHF and VHF scatter systems are in and operating to a reasonable degree, but the landline tie-ins to the CONAD COC have not been completed in some instances, and none have been tested with the exception of the link from Anchorage, Alaska to Tacoma. The present status of the rearward circuits is:

a. MIS to RAD-I in, but connection to Pole-Vault will not be completed until approximately 15 August 57.

b. FOX to BIR-I in, but landline from BIR-I to 31 AD will not be completed until at least 1 August 57 and will not be tested by 15 August 57.

c. PIH and CAF to WIL-I and WAT-I are completed and tied in to the landlines, but no testing has been accomplished.

d. BAR to Anchorage is completed and is connected to Tacoma. Link between Anchorage and Tacoma has been tested and is very unsatisfactory.

e. White Alice System will not be completed until approximately 1 March 58, therefore, TOW information must be routed through BAR.

2. Operational Procedures. Identification procedures are available to all agencies concerned, but they are dependent on the publication of pertinent DPW Line information concerning beacons, airfields, frequencies, etc. in appropriate facilities handbooks. Since the Canadian Department of Transport will not

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141

be able to publish this information until approximately 1 October 57, no air carriers will be able to conform to the certification procedure until this date.

3. ARIS Facilities. [redacted] circuits are installed but have not been connected to the NORAD centers at Goose Bay and Fairbanks. In addition, ARIS facilities as such will not be available at Edmonton and Goose Bay for several months.

4. Training. Personnel on the Line have no operational training because of the lack of operational procedures. They will be no better off in this regard by 15 August 57.

5. Logistics. The supply depot at Frobisher has not been completed and target date is uncertain because of lack of funds. Without this depot, logistic support of the line will be difficult and costly.

In view of these deficiencies, the [redacted] will reveal little that is not known and will prove or disprove nothing. Within the next few months most of the deficiencies can be corrected and the system checked out in a satisfactory manner. It is recommended very strongly, therefore, that Part II of the [redacted] be postponed until at least March 1958. Informally, other commands and agencies involved have indicated complete agreement with this recommendation. This headquarters is also in receipt of a message from the AMC CEM Project Officer, Major W. E. Potter, which indicates that he is of the same opinion.

[redacted] is authorized to receive this classified material and the material is releasable to Canada.

[redacted]

3

UNCLASSIFIED

[redacted] (when filled in) COPY OF INC[illegible]G CLASSIFIED MESSAGE

[illegible] TO SECTION BEFORE DECLASSIFYING

READING FILE

142
306

CONDOE
HQAD04
RR RJEDEN
DE RJEPHQ 154
R 032124Z
FM SAFS WASHINGTON DC
TO ZEN/CONAPCS ORLANDO FLA
INFO ZEN/DEWPO 220 CHURCH STREET NEW YORK NEW YORK
ZEN/COMAAC ELMENDORF AFB ALASKA
RJEDEN/CINCONAD ENT AFB COLO

ACTION: COOPE
INFO: COOPO
ZV-6327

[redacted] FROM SAFIS-3B 57856
THIS MESSAGE BECOMES UNCLASSIFIED ON 20 JULY 1957. DEW
LINE ACCEPTTTTTTTTTTTTTTTTTTTTTTTT
REPT ABOVE LINE
LINE ACCEPTANCE CEREMONIES ARE PLANNED AT POINT BARROW, ALASKA,
20 JULY, 1957. AT THIS TIME DEW LINE BECOMES OPERATIONAL.
CEREMONY WILL BE ATTENDED BY GENERAL RAWLINGS, PRESIDENTS OF
AT&T, IT&T, WESTERN ELECTRIC COMPANY, FEDERAL ELECTRIC CO.
AND OTHER DIGNITARIES. CANADA WILL NOT BE REPRESENTED AND
PRESS IS NOT INVITED. DOCUMENTARY STILL AND MOTION PICTURE
COVERAGE IS HIGHLY DESIRED. THIS HQS REQUESTING COVERAGE BY
ALASKAN AIR COMMAND BUT SPACE IS RESERVED ON GENERAL WRAY'S

PAGE TWO RJEPHQ 154
AIRCRAFT DEPARTING SEATTLE 18 JULY FOR ONE MOTION PICTURE
CAMERMAN AND ONE STILL PHOTOGRAPHER TO SUPPLEMENT ALASKAN AIR COMMAND
PHOTOGRAPHIC FLIGHT. REQUEST YOU COORDINATE WITH AAC, DEW LINE
PROJECT OFFICE, 220 CHURCH ST., NEW YORK AND CONTINENTAL AIR
DEFENSE COMMAND TO DETERMINE EXTENT AND TYPE OF DOCUMENTARY COVERAGE REQUIRED. WESTERN ELECTRIC CO WILL MAKE 16MM COLOR MOTION
PICTURE COVERAGE AS PART OF DOCUMENTATION IT HAS MADE SINCE BEGINNING OF PROJECT. THE SIGNIFICANCE OF THE COMPLETION OF PROJECT
AND ITS INTEGRATION INTO CONTINENTAL AIR DEFENSE MAKES CONSIDERATION
OF COLOR COVERAGE DESIRABLE. IT IS PLANNED TO RELEASE BLACK AND
WHITE STILL AND MOTION PICTURES AT LATER DATE AND REQUESTS FOR
COLOR MOTION PICTURE FOOTAGE FOR FUTURE THEATRICAL MOTION PICITURES
ARE ANTICIPATED. LT. [illegible] IS DEW LINE PROJECT OFFICE CONTACT FOR
CEREMONY. TELEPHONE IN NEW YORK IS WORTH [illegible], EXTENSION 728,
HE WILL FURNISH EXACT DEPARTURE TIME AND PLACE OF GEN WRAY'S A/C.
ADVISE SAFIS-3B COVERAGE YOU PLAN TO MAKE.
BT
03/2145Z JUL RJEPHQ

A--PARAPHRASE NOT REQUIRED [illegible] TO CATEGORY B [illegible] CRYPTION--
PHYSICALLY REMOVE ALL INTERNAL REFERENCES TO DATE-TIME GROUP PRIOR
TO DECLASSIFICATION.
//ADVANCE COPY OF THIS MSG HAS BEEN DELIVERED TO COC//

READING FILE

UNCLASSIFIED

[redacted]

CONAD SECYT FORM 15

143

June [illegible], 1957
File: T4-0

MEMORANDUM FOR FILE

At the request of the United States Air Force, a meeting was held June 6, 1957 in Kansas City, Missouri to recommend a test procedure for effectively testing the surveillance circuit of the DEW Line from the DEW Line main stations to CONAD Centers at Colorado Springs and Grandview. The following people were in attendance:

D. W. Ragsdale	AT&T Long Lines Department
R. H. Tuveson	AT&T Long Lines Department
P. A. Tawasi	AT&T Long Lines Department
R. R. Marsch	AT&T Long Lines Department
P. D. Bragg	AT&T Long Lines Department
P. E. Groome	AT&T Long Lines Department
T. S. Sullivan	Western Electric Company - Project 572

The following procedures were finally resolved and recommended after a detailed discussion of circuitry and problem areas:

(1) Two separate type of test messages must be generated by tape only transmission from each of the DEW Line main stations.

(a) The first type will consist of "Modified FOX Type" tape transmitted continuously for 24 hours to the first sequential selector point and stopped there by means of a "pick off" key. The format of this test message will be compatible with operating circuitry with respect to directing code and test message notation in case the message should inadvertently get on the working circuit. This format will consist of the proper directing code for the originating station on the first line, "POW Test", "BAR Test", etc. as appropriate on the second line, and test message continuously transmitted for 24 hours consisting of "The Quick Brown" only repeated line after line. The test will be closed with the closing indicator "Figures, H, Letters". A recapitulation of the results of this test will be held jointly by the Long Lines Department and the Western Electric Company, any trouble cleared and the test repeated if necessary before proceeding to the second type of tests.

143

(b) The second type of test will consist of tape transmission generated at each of the DEW Line main stations and sent through to Colorado Springs and Grandview. These messages will consist of both "Straight" and "Garbled" type of messages to ascertain what degrading quality, if any, they may have on the circuits.

These messages will all bear a directing code on the first line, a notation "POW Test One, Two" etc. on the second line (every message being sequentially numbered to identify it) and the body of the message containing standard surveillance reporting data made up in conformance with the EWOWG Plan. The suffix "Figures, H, Letters" will follow each of the first set of messages which will be inserted on the circuit, one each 5 minutes for a 2 hour period (25 messages).

A recapitulation of the results of these "Straight" messages will again be held between the Long Lines and the Western Electric Company before proceeding to the "Garbled" type message.

A series of messages bearing the same format as those above except that the directing code will be deliberately garbled by substituting "TV" will be transmitted one each 5 minutes for 30 minutes (7 messages). A "drop off" type of message employing the "ZZ" directing code will next be transmitted one every 5 minutes for 30 minutes without pause for recapitulation.

The next two types of messages will consist of paired messages employing the standard format covered under "Straight" transmission, transmitted in pairs, numbered still in sequence, and modified only by substituting "Letters, H, Letters" at the end of the first message of the pair and using the regular directing code for the first and the alternate directing code for the second of the paired messages.

Each pair of messages will be considered as one message (except for sequential numbering) and will be transmitted one each 5 minutes for 30 minutes without recapitulation.

The final paired messages will be exactly as the paired messages above except the alternate directing code will be transmitted on the first and the regular directing code on the second message.

MEMORANDUM FOR FILE 3 June 10, 1957 143

This will complete the testing and an over-all recapitulation or evaluation will again be held.

Representation to permit effective testing of the circuit at pertinent points is recommended as follows:

(1) DEW Line Main Stations - Western Electric Company

(2) Sequential Selector Points - Military Operating Personnel

(3) CONAD - USAF, Long Lines, Mountain States Telephone Company and Western Electric Company

(4) Grandview - USAF, Long Lines and Southwestern Bell Telephone Company

It is recommended that each of the above agencies designate an individual to act in a liaison capacity for effective and speedy coordination of the testing which will probably commence about June 15, 1957.

Completion of the Alaska section first is recommended to prepare this part of the circuit for flight test reports. The remainder of the Line should be tested as soon as equipment is installed at the sequential selector points and rearward commercial circuits are available.

In case technical advise or assistance from the Long Lines Department is required at sequential selector points outside the United States by the maintaining agency in connection with these tests, such requests should be placed on the Defense Communication Manager's Office, Long Lines Department, Kansas City, Missouri. These requests should be anticipated, if possible, in order that proper authorization and clearance may be made. Billing for such services may be billed to the requesting agency.

THOMAS S. SULLIVAN

TSS:PM

Copy to:
R. R. Marsch, Long Lines Department (25 copies)
Capt. C. A. King, DEWPO (5 copies)
T. S. Sullivan (5 copies)
J. R. Perota (10 copies)
EWOWG Communications Book

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON 25, D. C.

144

AFOOP

SUBJECT: DEW M&O Contractor - Air Force Relationship

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. References:

a. Headquarters AMC (MCPRE) letter to Headquarters USAF, 16 April 1957, subject as above.

b. Headquarters ADC letter to Headquarters USAF, 15 February 1957, subject as above.

c. Headquarters AMC (MCPR) letter to Headquarters USAF, 16 January 1957, subject as above, with 1 Inclosure - "Delineation of DEW M&O Contractor & Military Relationship."

2. This Headquarters has reviewed the inclosure to reference c above and the proposals for revisions listed in references a and b. Attached is the approved policy and statement of arrangements concerning this subject.

3. This Headquarters will complete coordination with Headquarters RCAF on this matter and will advise when formal RCAF concurrence has been indicated. Until such time the attached document should be used as a guide. Subsequently, it is desired that the three commands reproduce and distribute the document as appropriate to concerned echelons and agencies to be used as one of the basic documents governing the DEW Line operation.

4. Reference is made to AMC's query (Reference a above) concerning control of personnel of tenant organizations or other personnel visiting DEW Line sites. Guidance on this matter will be forwarded in separate correspondence.

5. Identical letters have been sent to Air Materiel Command and Alaskan Air Command.

BY ORDER OF THE CHIEF OF STAFF:

1 Incl
Delineation of DEW M&O
Contractor & Military
Relationship

CHESLEY G. PETERSON
Colonel USAF
Deputy Chief, Operations Con Div
Directorate of Operations, DCS/O

144

DELINEATION OF DEW M&O CONTRACTOR AND MILITARY RELATIONSHIP

1. Purpose: The purpose of this document is to establish the relationship of military personnel and organizations with the DEW Line Operations and Maintenance Contractor.

2. AMC Responsibilities:

a. During the transition between the construction and operational phase, DEWPO will perform primary contract administration. As soon as is practicable, secondary contract administration will be assigned to AAC for the Western Region and to the 64th Air Division (ADC) for the Eastern Region. Primary authority to administer the contract for the entire line will be assigned to ADC at a date to be agreed upon by ADC and AMC.

b. AMC will have a continuing responsibility for procurement surveillance and contract negotiation as established in ASPR 1-201.4 and 1-401, and as further implemented by AFPI 1-401.

c. AMC (DEWPO) will prepare the FY 58 financial plan and the FY 59 budget estimate as prescribed in Chapter 10, DEW Logistics Plan.

d. AMC will consolidate US and Canadian security instructions to the contractor as they apply to contract administration of the project. Such instructions will be made available to the secondary contract administrators and to Hq USAF.

3. Operating Commands Responsibilities:

a. Over-all Responsibilities:

(1) Control of the warning functions in the assigned regions as outlined in the approved Operations Plan.

(2) Execution of logistic functions as outlined in the Approved Logistics Plan.

(3) ADC and AAC will establish instructions for the contractor and military personnel on the security aspects of the DEW Line operations. The two commands will coordinate these instructions between themselves and AMC to insure uniformity and conformance with Canadian-US agreements on security. Copies of such instructions will be provided Hq USAF.

144

(4) Contract Administration:

(a) The Air Defense Command will be responsible for primary contract administration for the entire line commencing with the date for transfer of administrative responsibility as agreed upon by ADC and AMC.

(b) The Alaskan Air Command will be responsible for secondary contract administration for the Western Region as delegated by the DEWPO, and as delegated by ADC after ADC has assumed contract administration responsibilities.

(c) The 64th Air Division (ADC) will be responsible for secondary contract administration for the Eastern Region as delegated by the DEWPO, and as delegated by ADC after ADC has assumed contract administration responsibilities.

(5) ADC will be responsible for budgeting and funding in accordance with provisions of Chapter 10, DEW Logistics Plan.

(6) The operating commanders will prescribe the relationship between the senior USAF officers at the regional offices and the senior USAF officers at the main stations.

b. Regional Office Responsibilities: Facilities for a regional office will be provided by each regional commander. This office presumably located at the designated support base, will consist of a military section established by the regional commander and a contractor section established by the contractor. The military section of this office will serve as the direct or day-to-day contact with the contractor and provide the medium through which the Air Force will exercise supervision over the contractor. The senior military officer assigned to this Regional Office will represent the Regional Commander in carrying out those assigned functions and responsibilities associated with contract administration, logistical control and support of the system including those functions assigned to the DEW Logistics Office indicated in the DEW Logistics Plan.

c. Main Station Responsibilities: At the Main Station a senior USAF Officer will exercise control over the warning functions and those assigned military responsibilities designated by the Regional Commander and/or as listed in the Operations Plan.

(1) Prosecution of the mission of the DEW Line, as defined in the approved Operations Plan, DEW and MCL's and monitoring operational functions prescribed therein.

144

(2) Exercise of command over U.S. Military personnel to include discipline, conduct, courtesy, and appearance.

(3) Safeguarding the interests of the United States in all respects.

(4) Performing continuous liaison with sector senior contractor representative and reporting all unresolved irregularities, deficiencies and other unsound practices after all means of resolution have been exhausted.

4. Canadian Military Responsibilities:

a. Over-all Responsibility - Canada will be responsible for military command of the area in which the DEW Line is located in Canada, in accordance with Paragraph 5, Hq USAF letter, dated 14 January 1956, subject, "Decisions Relative to Operation of the DEW Line."

b. Main Station Responsibility - The RCAF Officer at the Main Station will have the following responsibilities at the Main Station and the applicable sector.

(1) Actively assist the senior USAF Officer.

(2) Safeguarding the interests of the Canadian Government in all respects.

5. Contractor Responsibilities:

a. Over-all Responsibility - The M&O contractor is responsible for fulfilling all terms of the contract and those responsibilities and functions designated by the Operations Plan and the Logistic Plan.

b. Regional Office-Over-all Function - The combined Regional Offices of the Air Force and the contractor will serve as a central point of supervision for the operation and maintenance of the system within that region.

c. Main Station Responsibilities - At the Main Station, The Sector Senior Contractor Representative is responsible for the supervision and control of all activities and functions within the sector excepting those specifically delegated to military personnel by the Operations Plan. This includes but is not limited to the following:

(1) Directing the activities of all personnel, excepting the military personnel, within the sector.

144

(2) Implementing approved procedures for the acquisition of and timely lateral and rearward dissemination of all operational information required by the terms of the contract.

(3) Performing all levels of maintenance on equipment and facilities at the DEW locations in accordance with established schedules issued by the contractor, as approved by the Air Force.

(4) Responsibility for all USAF property assigned to the DEW system.

(5) Billeting, messing and other support necessary for all personnel, including military personnel, assigned to the Main Stations and such transients that may be authorized.

(6) Morale and welfare of personnel including ground safety, sports, entertainment, recreation and contractor operated exchanges.

(7) Administration, to include discipline and conduct, of contractor personnel.

(8) Performing continuous liaison with senior USAF officer and reporting all unresolved irregularities, deficiencies, and other unsound practices after all means of resolution have been exhausted.

[redacted]

145

RDIFE, Hq ARDC, 30 Jan 57, Subj: (U) Final Report, DEW System Improvement Plan

COOPR 1st Ind 19 March 1957

Hq Continental Air Defense Command, Ent AFB, Colorado Springs, Colo.

TO: Commander, Air Research and Development Command, P. O. Box 1395, Baltimore 3, Maryland

1. Included herein are the CONAD comments on the final reports concerning DEW System Improvement prepared by the Bell Telephone Laboratories and the Crosley Division, AVCO Manufacturing Corporation.

2. The following specific comments are furnished in compliance with paragraph 2 of the basic communication.

a. The recommendations contained in the Bell Telephone Laboratories' report, insofar as the C-E environment is concerned (specifically, the detection system) present a more realistic and practical approach to improving the DEW Detection System capability than do the recommendations contained in the Crosley (AVCO) report.

b. This command concurs, in principle, with the recommendations contained on pages 10 and 11 of the Bell Telephone Laboratories' report regarding the Detection System Improvement, and pages 11, 12, 13, and 14 regarding the improvement of the DEW Line communications system.

c. This command indorses the philosophy that a balance must be maintained between the respective electronic capabilities of the DEW Line, seaward flanks, and the contiguous system of the North American Continent, consistent with the original DEW Line concept and the threat during the time period in question.

3. It was noted that both reports contain study information concerning the employment of air defense weapons on the DEW Line. While it is presumed that the original contract called for this study phase, it is desired to include herein a CONAD statement of concept with regard to this matter.

a. While the employment of air defense weapons along the DEW Line may have some tactical feasibility, it is believed that political, budgetary and operating considerations at this time override the desirability of such action.

[redacted]

[redacted]

145

RDZPE, Hq ARDC, 3 Jan 57, Subj: (U) Final Report, DEW System Improvement Plan

b. Therefore, the conclusion can be drawn that, with the incorporation of qualitative improvements, the DEW Line will continue to serve as a warning rather than an action line.

FOR THE COMMANDER-IN-CHIEF:

Incl w/d

MARSHALL S. CARTER
Major General, USA
Chief of Staff

[redacted]

[redacted]

145

HEADQUARTERS
AIR RESEARCH AND DEVELOPMENT COMMAND
Post Office Box 1395
Baltimore 3, Maryland

RDZPE Jan 30 1957

SUBJECT: (U) Final Report, DEW System Improvement Plan

TO: Commander-in-Chief
Continental Air Defense
Ent Air Force Base
ATTN: C & E
Colorado

1. One copy of subject report is forwarded for your information and comments. An allied report on DEW System Improvement compiled by AVCO will be forwarded by RADC in the near future.

2. It is requested that comparison comments concerning the above two reports be submitted to this headquarters, Attn: RDZPE no later than 15 March 1957 to allow early initiation of required documentation action.

FOR THE COMMANDER.

1 Incl
Cy No. 4 of Subj Rpt
BTL Rpt No. 26979-W3-231
dtd 31 Oct 56, 1 cy

Charles E. Swanson, L/C
for ROBERT M. HOOKAN
Lt Colonel, USAF
Chief, Electronic Supporting Systems Division

IF INCLOSURES ARE WITHDRAWN (OR NOT ATTACHED)
THE CLASSIFICATION OF THIS CORRESPONDENCE
WILL BE CANCELLED

COPY

[redacted]

[redacted]

145

MEMORANDUM FOR RECORD:

The reports mentioned in the basic communication have been studied by DCS/C&E and DCS/P&O and specific comments on these studies are included as 1st Indorsement hereto. Subject studies will be returned to C&E for retention.

[redacted]

(73)

306

ADUDP-4, Hq ADC, 14 Nov 56, Subj: (U) Implementation of DEW Operational Plan

CODPC 1st Ind 29 NOV 1956

Hq CONAD, Ent AFB, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. Reference paragraph 3, basic letter, the following CONAD policies and guidelines are provided for initial operation of the DEW Line. Such action as is necessary by the ADUSC to amend the Pinetree Canada Line Operational Plan reflecting these policies and guidelines will be taken as soon as possible.

a. Reference para 3a. In view of current plans to incorporate 1AC and NEAC as subordinate commands of ADC, the responsibility for development and supervision of DEW Line operational procedures are hereby delegated to ADC. It is assumed that ADC will delegate responsibility for direct operational control of the regions of the DEW Line as specified in the Operational Plan to 1AC and NEAC. ADC will take such action necessary with Western Electric to provide officer personnel with familiarization training on DEW Line equipment presently located at Wheaton, Illinois. It is suggested that this training not exceed two weeks duration. Procurement and future assignment of these officers to 1AC and NEAC will be coordinated with referenced commands to meet operational requirements as needed.

b. Reference para 3b. ADC with 1AC and NEAC representatives will participate with AFSC in the development of the DEW Line test directive.

c. Reference para 3c. For initial operation of the DEW Line, the Operational Plan is to be amended to reflect the following:

(1) A system of envelopes requiring the use of code words and maneuvers will not be used as a means of identification for aircraft penetrating the DEW Line. Consideration for incorporating this system at some later date may become necessary if operational experience so dictates.

(2) A system of flight plan correlation will be used on the DEW Line with the following procedures utilized by the operating personnel:

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7.4

[redacted]

ADCOMP-4, Hq ADC, 14 Nov 56, Subj: (U) Implementation of DEW Operational Plan (Lock 2nd Event)(C)

(a) Upon detection by the radar and by means of radio communications, the aircraft will be challenged and requested to confirm or revise his DEW Line penetration point and penetration time. The aircraft reporting will be so instructed to repeat his actual penetration time in [redacted] or "later" from the time he [redacted] filed flight plan. [redacted] to minutes right or left of [redacted] penetration, he will then revise the point of estimated penetration which was filed with his flight plan. He will be considered friendly, and point and time of penetration that he originally reported [redacted] filed flight plan.

(b) [redacted] differences of one (1) hour and [redacted] 100 miles will not be [redacted] identification criteria. These [redacted] apply only to flight plan data availability for stations on the DEW line.

(c) Using the identification procedure outlined in para (a) above, all DEW Line penetrations, both friendly and those identified unknown, will be passed to the CONAD Combat Operations Center. Threat evaluation and traffic trends will be determined by the CONAD COC by evaluating all penetrations whether they are friendly or unknown.

4. Reference para 3d. The CONAD COC will develop a system of critical numbers based on unknowns and another system of critical numbers based on total crossings of the line upon attainment of data when the line becomes operational.

5. The Chairman of the [redacted] has been advised of the above policies which require amendment of the Operational Plan. It is requested that all agencies concerned be made cognizant of the desired

MEMORANDUM FOR RECORD

[redacted]

B-520-2

UNCLASSIFIED

75

[redacted]

ADOOP-4, Hq ADC, 14 Nov 56, Subj: (U) Implementation of OPW Operational Plan (1st Ind Cont'd)

changes. CONAD personnel from the Directorates of Operations, Operations Analysis and Combat Operations Center are available to assist the DADOG in amending the Operational Plan.

FOR THE COMMANDER-IN-CHIEF:

HARVEY T. ALBERS
Major General, USAF
DCS/Plans & Operations

[redacted]

5

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B-520-3

COPY

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2602

ADOOP-A

SUBJECT: (Unclassified) Implementation of DEW Operational Plan

TO: Commander
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. The approved DEW-Mid Canada Line Operational Plan has been written and distributed to all interested commands and agencies. This plan, developed under the chairmanship of CONAD and approved by Headquarters USAF and RCAF, is considered directive in nature upon the subordinate agencies of the two Air Forces.

2. The actions required to implement this plan and make the line a living operational system responsive to the needs of CONAD are considerable in number and scope. CONAD through, and in coordination with other Air Forces, commands and agencies is responsible for determining, delegating and supervising the actions necessary to make the entire system operable in the manner designed in the DEW Operational Plan.

3. The Air Defense Command requests direction as to what implementing actions CINCONAD desires ADC to take prior to the operational date of 1 July 1957. Some of the items which require resolution are:

a. Definition of ADC responsibility toward the over-all operation of the DEW line to include delineation of training and manning responsibilities.

b. Conduct and coordination of the operational suitability test of the line to be conducted by APGC between 1 January and 1 July 1957.

c. The planning and implementation of the system of code words to be used in the identification process on the line. This includes departure bases from England, Spain, Azores, Thule, Far East, Hawaii, as well as SAC flights from other locations.

d. The development of a system for critical numbers of unknowns crossing the line.

B-520-4
Incl 1

COPY

77

SUBJECT: (Unclassified) Implementation of DEW Operational Plan

4. The items in paragraph 3, above, must be fully implemented before the DEW line becomes a system for effective early warning. Early guidance on this subject is requested.

Copy for:
Dir of Opns, USAF

/s/ N. B. HARBOLD
Major General, USAF
Acting Vice Commander

B-520-5X

[redacted]

147

AFOOP-OC-F/3, Hq USAF, 11 Mar 57, subject: DEW Line and Mid-Canada Line Operations Plan

1st Ind 11 April 1957

OFFICE OF THE EARLY WARNING OPERATIONS WORKING GROUP, Continental Air Defense Command, Ent AFB, Colorado Springs, Colo.

TO: Chief of Staff, United States Air Force, Washington 25, D.C.

1. Headquarters Continental Air Defense Command believes that the method of identification of aircraft penetrating both the land-based and sea extensions of the DEW Line should be the same.

2. The operators of the sea extensions plan to use a flight plan correlation method of identification. I have been advised that this method is acceptable to CONAD at this time and is similar to the method recommended by CONAD to the EWOWG on 3 January 1957 for the land-based portion of the DEW Line.

3. The Director of Operations of this headquarters has advised me that within a very short time you will receive a letter relative to identification procedures for the land-based portion of the DEW Line and associated conflicting policies. It is hoped that CONAD's letter will clarify the position of CINCONAD on this subject and that resolution of problems involved will be achieved.

4. In view of CONAD's direct interest in the matter discussed in your letter, it is suggested that future communications on the subject of identification procedures and methods relative to the DEW Line be referred to CINCONAD rather than to the Chairman of the EWOWG.

1 Incl
n/c

LUTHER W. HOUGH,
Lt Colonel, USAF
Chairman, EWOWG

[redacted]

[redacted]

DEPARTMENT OF THE AIR FORCE
Office of the Chief of Staff
United States Air Force
Washington 25, D. C.

28 May 1957

148

SUBJECT: (UNCLASSIFIED) DEW Identification Requirements

TO: Commander-in-Chief
Continental Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. [redacted] This is an Executive Agent letter in answer to your letter, subject as above, dated 17 April 1957. This Headquarters concurs with your desire to establish a common identification system for air traffic crossing the Distant Early Warning System, [redacted] does not agree that the flight plan correlation method meets the qualitative requirements for identification in the Distant Early Warning System. However, in view of the short time remaining to implement any identification system, it is believed that your proposal must be adopted as an interim measure and placed in operation as quickly as possible.

2. [redacted] Subsequently, it is desired that you restudy the entire identification problem and take positive action to bring into operation at the earliest practicable date an improved identification system which will be comparable to the detection characteristics established for the DEW Line. In this connection this Headquarters considers as an initial objective an identification system which will have the capability to identify as friendly 90 to 95% of all friendly traffic detected.

3. [redacted] The USAF-RCAF Operations Plan for the Distant Early Warning and Mid-Canada Lines was officially approved on 1 June 1956. This plan is directive upon all Air Force agencies participating in the operation of the land segments of the North American Early Warning Systems. Further, the applicability of this inter-Service agreement is covered in your terms of reference.

4. [redacted] It is considered essential to the realization of the optimum system of the DEW System that timely action be taken to integrate the USAF-RCAF Operations Plan with the plans for the Atlantic and Pacific Seaward Extensions of the DEW System and the Argentia-Azores Seaward Extension of the Mid-Canada Line.

CONAD X7 .....

[redacted]

40933

[redacted]

148

Ltr to CONAD, Subject: (UNCLASSIFIED) IFF/SIF Identification Requirement (Cont'd)

5. (SECRET) Authority to coordinate with appropriate RCAF Commanders to establish procedures for Early Warning Systems is incorporated in your terms of reference.

Jacob E. Smart

JACOB E. SMART
Major General, U. S. Air Force
Assistant Vice Chief of Staff

B

[redacted]

149

[redacted]

CCOOP-T

SUBJECT: DEW Identification Requirements

TO: Commander
Air Defense Command
Ent Air Force Base
Colorado Springs, Colorado

1. Attached for your information is a copy of the Chief of Staff, USAF, letter approving the proposed change #2 to the USAF-RCAF Operations Plan for DEW and Mid-Canada Lines.

2. Priority messages have been sent to Chief Air Staff, Canadian Air Headquarters and to Air Officer Commanding, Air Defense Command (RCAF) informing them of the approval as stated in paragraph 1 above and requesting concurrence in the identification plan in order that fire procedures can be established prior to the Equipment and Suitability Trials scheduled for this summer.

FOR THE COMMANDER-IN-CHIEF:

HARVEY T. ALLCOSS
Major General, USAF
DCS/Plans & Operations

1 Incl:
Cy ltr DCS,
USAF, Subj:
DEW Identn Req.,
dtd 24 May 57

[redacted]

JOINT MESSAGEFORM [redacted]

150

READING FILE

PRECEDENCE	TYPE MSG (CHECK)			ACCOUNTING SYMBOL	ORIG OR REFERS TO	CLASSIFICATION OF REFERENCE
	BOOK	MULTI	SINGLE			
ACTION PRIORITY		X		AF	X	
INFO						

FROM: CINCONAD

SPECIAL INSTRUCTIONS

CONFIDENTIAL
206

TO: CAS CANAIRHED OTTAWA ONTARIO CANADA
ADC CANAIRDEF ST HUBERT QUEBEC

[redacted] rom COOP-T X074 .

CANUSSECURITY. Chief of Staff, USAF, as Executive Agent for CONAD, has approved, as an interim measure, the use of CONAD's identification system(proposed change #2 to the USAF-RCAF Operations Plan for Distant Early Warning and Mid-Canada Lines, dated 1 June 1956) and has authorized this Headquarters to deal directly with appropriate RCAF commanders regarding concurrence in the use of these proposed procedures for the forthcoming Equipment and Suitability Trials of the DEW Line this summer. Since you are in possession of the proposed change #2 to the above referenced operations plan, request your concurrence of the identification plan involved so that firm procedures can be established prior to the EST. Assuming your concurrence, ADC(USAF) plans to convene a meeting of all forces concerned

DATE	TIME
28	1500Z
MONTH: May	YEAR: 1957

WRITER
SYMBOL: COOOP-T
TYPED NAME AND TITLE: Lt Col Matteson/bll
PHONE: 2068
PAGE NO.: 1
NO. OF PAGES: 2
SECURITY CLASSIFICATION

RELEASER
SIGNATURE
TYPED OR PRINTED NAME AND TITLE
J. W. LEDOUX
LCDR, USN
Asst Adjutant

[redacted] READING FILE

DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 JAN 54, WHICH WILL BE USED UNTIL EXHAUSTED

JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY [redacted]

~~CINCONAD~~

150

on 12-13 June 1957 to insure that the interim procedures are familiar to all personnel involved. You will receive an invitation to attend this meeting in the near future.

M/R USAF Hq., as Executive Agent for CONAD, has approved, as an interim measure, CONAD's proposal of 17 April 1957 for a common identification system for air traffic crossings of the land segment of the DEW Line which uses flight plan correlation with compulsory reporting to a surface station. Since this proposal is a change (Change #2) to the "USAF-RCAF Operations Plan for Distant Early Warning and Mid-Canada Lines" dated 1 June 1956, concurrence in the use of the proposed procedures is required from AOC CANAIRDEF and CAS CANAIRMID. This concurrence is assured by RCAF Liaison.

OL		PAGE NR	NR OF PAGES	[redacted]	INITIALS
	COOOP-T	2	2		

DD FORM 1 MAY 55 173-1

☆ U. S. GOVERNMENT PRINTING OFFICE: 1955—952236

[redacted]

151

ADCOP-4, Hq ADC, 14 Nov 56, Subj: (U) Implementation of DEW Operational Plan

COOOP-T

3rd Ind

Headquarters, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

TO: Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. This Headquarters still considers the proposed changes in the identification procedures for the DEW Line essential.

2. Attached for your information is a copy of CONAD's letter to Chief of Staff, USAF, requesting action to expedite acceptance of CONAD's proposed identification system. You will be advised of further developments.

FOR THE COMMANDER-IN-CHIEF:

1 Incl:
cy ltr to CofS, USAF
Subj: (U) DEW Identification
Requirements, dtd
17 Apr 57.

HARVEY T. ALNESS
Major General, USAF
DCS/Plans & Operations

CONAD

[illegible] ADC was directed to present CONAD concepts of identification of [illegible] Line to the JWCG as proposed Plan [illegible] to the USAF Operations Plan [illegible]/WCL, dated 1 June 1 [illegible]. This proposal was not favorably considered [illegible] JWCG, as referred this matter to Chief of Staff, USAF, as Executive Agent for CONAD, for resolution.

Major Fuss
2088
30 Apr 57
X7-2495

[redacted]

[redacted]

151

ADOOP-A, Hq ADC, 14 Nov 56, Subj: (U) Implementation of DEW Operational Plan

ADOOP-D 2nd Ind 14 FEB 1957

Headquarters Air Defense Command, Ent AFB, Colorado Springs, Colorado

TO: Commander-in-Chief, Continental Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado

1. CONAD's first indorsement to the basic letter charged ADC with the responsibility for the development and supervision of DEW Line operational procedures, and outlined changes that must be made to the identification portion of the DEW-MCL Operational Plan.

2. A submission to the JWC to change the identification procedures outlined in the DEW-MCL Plan to coincide with CONAD's desires was not concurred in by the group. If CONAD still considers that the proposed change is necessary and desirable, it is recommended that it be forwarded to Headquarters USAF for action.

FOR THE COMMANDER:

HUGH A. PARKER
Major General, USAF
DCS/Operations

[redacted]

P3

FILE NUMBER 106

8 Feb 1957

Office of the EWOMG

SUBJECT: (U) Minutes, Early Warning Operations Working Group

TO: Commander-in-Chief
Continental Air Defense Command
Attention: DCS/Plans and Operations
Ent Air Force Base
Colorado Springs, Colorado

1. Attached are minutes of the meeting held by the Early Warning Operations Working Group on 31 January and 1 February 1957.

2. It should be noted that the EWOMG did not approve CONAD's proposal to substitute a flight plan correlation system for the envelope system (code word and maneuver) for the identification of aircraft penetrating the DEW Line. CONAD and ADC representatives stated that their commands did not require the use of the envelope system. However, CONAD expressed no objection to the use of this identification means if the resources required for its implementation were provided by Headquarters USAF and/or Headquarters USAF.

3. Reference is made to the discussion concerning the operational concept for Pacific Barrier as it pertains to the "tie-in" with the Aleutian Segment of the DEW Line. Although the Group recognized that this was not an EWOMG responsibility, it was determined that complete communications equipment planning could not be made until CONAD's requirements for a communications "tie-in" of the Pacific Barrier with the Aleutian Segment of the DEW Line were established.

4. Reference is also made to the discussion relative to CONAD's plan to change the double letter identifiers for radar stations on the DEW Line. The DEW Project Office representative stated that the impact of such a change may entail a great deal of rewiring by Western Electric Company. It is therefore recommended that CONAD present its specific requirements to the DEW Project Office for analysis prior to its submission to the EWOMG for consideration.

LUTHER W. HOAGE, JR.
LA Colonel, USAF
Chairman, EWOMG

2 Encls:
1. Minutes EWOMG
31 Jan 57 (8 cys)
2. Minutes EWOMG
1 Feb 57 (8 cys)

MEMORANDUM FOR RECORD

[redacted] en filled.

COPY OF INCOMING CL[redacted]FIED MESSAGE

(Reproduction of this message in whole or in part is prohibited without approval of CONAD Adjutant)

SEE CRYPTO SECTION BEFORE DECLASSIFYING

READING FILE

153

ACTION: COOP
INFO: COOPC
SUSPENSE: 13 Jun 57
17-7489 17-7485

[redacted]

ADO 369 JUNE 10 REFERENCE CONAD COOP-T. XO 74 AND USAF ADC ADCOP-D. O 1552 CONCERNING INTERIM PROCEDURES FOR DEW IDENTIFICATION. NIL REPRESENTATION BYRCAF HQ. RCAF ADC REPRESENTS RCAF THIS MEETING. LETTER OF APPROVAL OF PROCEDURES ON AN INTERIM BASIS BEING SENT BY THIS HQ TO USAF HQ. IDENTIFICATION PROCEDURES USING FLIGHT PLANS DEPENDENT ON AN OPERATIONAL AMIS ORGANIZATION. USAF/RCAF/RCAF CROSS BORDER CIRCUITRY REQUIREMENT FOR RCAF GCI TO USAF AMIS AND RCAF AMIS TO USAF AMIS NOT YETSUBMITTED BY USAF ADC FOR LEASING ACTION. UNTIL RESOLVE COMPLETE DEW PENETRATION FLIGHT PLAN INFORMATION ON FLIGHTS FROM ATLANTIC OVERSEAS AREA WILL NOT BE AVAILABLE AT DEW AND MCL MAY POSE DETRIMENTAL BURDEN. SUGGEST AMIS ASPECTS BE THROUGHLY DESCUSSED AT YOUR MEETING SCHEDULED 12-15 JUNE 1957. ADVISE.
BT
10/2218Z JUN RFEPFZ

AC--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION--NO UNCLASSIFIED REFERENCES IF DATE-TIME GROUP IS QUOTED.

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COPY 3 OF 4 COPIES

CONAD SECYT FORM 5 MAR 57 16 (6420)

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UNCLASSIFIED

[redacted] when filled in) COPY OF INC ING CLASSIFIED MESSAGE

TO SECTION BEFORE DE CLASSIFYING. ZJUK

154

READING FILE

CONAD HIST
306

CONCIC-33-04
RR RJEDEN
DE RJEPHQ
R 052042Z
FM COFS USAF
TO COMDR ADC ENT
COMDR 4TH ADIV PEPPERRAL
COMDR AAC ELLSWORTH
INFO DEWPO 220 CHURCH ST NY NY
CINCONAD ENT AFB COLO

Action: COOPR
Info: COOPO
27-7134

[redacted] FROM AFOOP-OC-F/S CITE 56756,
[redacted] 24 MAY 57. THIS HEADQUARTERS
HAS APPROVED ON INTERIM BASIS CONADS PROPOSED CHANGE NUMBER 2
TO DEW OPERATIONS PLAN WHICH CHANGES IDENTIFICATION METHOD.
DESIRE CHANGE NUMBER 2 BE CONSIDERED IN DEVELOPING COMMANDS
OT
-A--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY D ENCRYPTION--
PHYSICALLY REMOVE ALL INTERNAL REFERENCE BY DATE-TIME GROUP PRIOR
TO DECLASSIFICATION.

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CONAD SECYT FORM NO. 15 (6420) [redacted] when filled in)

[redacted]

155

CONAD'S
PROPOSED CHANGE #2
TO OPERATIONS PLAN FOR
DISTANT EARLY WARNING AND MID-CANADA LINES

1. The following changes are to be made to the USAF-RCAF Operations Plan, "Distant Early Warning and Mid-Canada Line," dated 1 June 1956, to incorporate changes in identification procedures.

a. Section IV.

(1) Page 5, Paragraph 3. Delete present paragraph, insert the following: Identification of all inbound and lateral air traffic entering or operating within the DEWIZ will be accomplished by means of flight plan correlation supported by compulsory reporting of all air traffic to a DEW station. Traffic identified at the DEW Line will be re-identified when penetrating the MCL and the perimeter of the combat zone.

b. Section V.

(1) Amend paragraph 4c to read: CONAD will: Be responsible, in coordination with the appropriate RCAF agency, for the development and supervision of DEW Line operational procedures. This responsibility may be delegated by CONAD to ADC if desirable.

c. Section VII Part "A"

(1) Amend first sentence to read: The identification procedures adopted for the DEW Line utilize flight plan correlation supported by compulsory reporting to a DEW station by all flights entering the DEWIZ.

(2) Page 28, Paragraph 1c. Amend last sentence to read: The air defense information on penetrating "Friendlies"

[redacted]

[redacted]

155

and on "Hostile" and "Unknown" aircraft must be received at CONAD and RCAF ADC CHCs within five (5) minutes of time of identification by the main station.

(3) Page 3. Delete present sub sub para 2.a.(1), insert new sub sub para 2.a.(1). Flight plan: Pilots of flights planning to enter the DEWIZ inbound will include in their flight plans the estimated time and point of penetration of the DEWIZ. All flights of this nature will maintain an altitude of at least 6,000 feet within the DEWIZ (safety of flight permitting) to insure detection by the rotating radar equipment. Prior to entering the DEWIZ the pilot will establish initial radio contact with the nearest DEW station on the appropriate VHF or UHF frequency (HF may be used in an emergency) give a position report and then maintain a listening watch on the assigned frequency until clear of the DEWIZ. When detected by the radar the pilot will be instructed to amend his ground filed flight plan to report his actual time of DEWIZ penetration in minutes "early" or "late" and his point of crossing "east" or "west" from that which he originally indicated. If on schedule he will so state. To be considered friendly the aircraft must:

(a) Establish radio contact and confirm or amend his point and time of DEWIZ penetration with reference to a ground filed flight plan.

(b) Be within plus or minus one (1) hour of the estimated DEWIZ penetration and within lateral limits of plus or minus one hundred (100) miles from that indicated on the ground

[redacted]

[redacted] 155

filed flight plan. Aircraft beyond these limits which may otherwise satisfy the identification criteria, including the use of AFSAL 5104, will be classified as "unknown". This includes aircraft which correlate with known flight plan data but cannot be contacted by radio and to aircraft on which no flight plans are available but have established radio contact. In all instances, however, classifications may be modified or amplified by the DEW Line Data Centers based on the number of unknowns in the sector, other tracks corresponding to the one on which a flight plan is available and other information which may be available at the time.

(4) Page 29 para 2.a.(2). Delete first sentence, add new sentence: Instances will arise when aircraft will depart airfields north of the Line which do not have facilities for filing flight plans.

(5) Page 29 para 2.b. Delete present sub para, insert the following: Lateral Traffic. Flight plans will be filed at the departure base when flight within the DEWIZ is intended. A listening watch on an appropriate frequency will be maintained at all times. These flights will be conducted under radar surveillance and may be identified friendly by flight correlation. Correlation limits for this type of flight will be ten (10) miles and five (5) minutes.

c. Section VIII.

(1) Page 36, paras 1.c.(1) (a) (b) (c) insert word "friendly" before word "unknown" in all three sub sub sub paras.

(2) Page 37, 1.c.(3) (a). Insert word "friendly" before word "unknown."

[redacted]

[redacted]

155

(3) Page 37 [illegible] 4th line, 3rd sentence insert "friendly" before unknowns.

(4) Page 37, para [illegible] (a). Insert "friendly" before "unknown" in first line.

(5) Page 38, para 1.c.(5) (b). Delete last sentence and insert the following: "This information will be transmitted simultaneously to AAC CONAD and RCAF ADC COC's."

(6) Page 47, para 2.b. [illegible]. Delete item "8" and renumber items 9 and 10 to read 8 and 9.

(7) Page 47, para 2.b.(1) d). Delete this sub sub para and insert (d). Aircraft outside correlation limits of initial flight plan estimates but within amended estimates received prior to penetration of the DEWIZ, will be reported as "unknowns." This information will be reported in Item #1 of the Rearward Surveillance report.

(8) Page 48 para 2.b.(2) a). Classification procedures. Delete portions 1 to 9. Insert the following:

1. Upon receipt of the initial track report the data center controller will satisfy himself, by referring to the pre-plotted information, that the track meets acceptable time and distance requirements before requesting the surveillance center to challenge the aircraft and direct the pilot to confirm or revise his ground-filed flight plan. To be acceptable as "friendly" the track must meet the following requirements:

[redacted]

[redacted]

155

a. Track must be similar to pre-plotted track.

b. Must be plotted within 100 miles laterally of pre plotted track.

c. Must be within one hour before or after the pre-plotted track position according to original flight plan.

2. When a track is established as acceptable within these limits, the data center will request the reporting surveillance center to check with the pilot concerning his flight plan. Surveillance stations will forward the results to the data center by voice line.

3. If the track satisfies both the time and distance requirements and the pilot confirms his ground-flight plan, a "friendly" classification may be made.

4. If doubt exists after receipt of the flight plan information, due to pattern of actions, excessive "unknowns" in the sector, or particular flight characteristics of the track, additional information and action may be requested of the pilot before the track will be classified as "friendly."

5. If the track is thought to be a military aircraft, a code word authentication may be requested through the use of AFSAL 5104.

(9) Page 49, Paragraph 6. In all cases, reports on tracks passed to CONAD and RCAF ADC COC's will contain the following letter suffix immediately after Item #1 (Rearward Surveillance report) to indicate the basis for classification as "friendly" or "unknown."

[redacted]

[redacted]

155

Suffix	Basis for Classification
	Friendly
A	Identified by visual means
B	Established by flight plan correlation and position report within 10 miles
C	Established by flight plan correlation and position report within 20 miles
D	Established by flight plan correlation and position report within 30 miles
E	Established by flight plan correlation and position report within 40 miles
F	Established by flight plan correlation and position report within 50 miles
G	Detected aircraft correlates and has position reported between 50 and 100 miles radius of flight plan position.
	Unknown
H	Detected aircraft correlates and has position reported greater than 100 mile radius of flight plan position.
J	Detected aircraft correlates and has position reported greater than 100 miles of ground filed flight plan, but within amended estimates received prior to entering the DEWIZ.
K	Voice report only on previously filed flight plan (This factor may be used with flights from a certain point with intermediate stops and return to original. Because of lack of communication facilities between the original point and the intermediate stops, one flight plan must suffice for entire route.)
L	No ground filed flight plan available but radio contact with aircraft indicates probable friendly aircraft.
M	No radio contact with aircraft, but track correlates with available ground filed flight plan.
N	No flight plan and no radio contact.

[redacted]

[redacted]

155

Additional Phrases

O Voice challenge (APSA1) establishes aircraft identification using authentication.

P IFF is in accordance with policy or instructions.

(10) Page 56, para 3 b (4), delete present sub-para, insert the following: To establish identity of the sub-sectors and to avoid duplication in the numbering of tracks detected, the following letter identifiers and block of track numbers are assigned to the following stations.

AAC Region - D

Station	Dbl Letter Identifier	Block of Track Nos.
POW Sector	DDZ	41-60
LIZ-2 (Sub-Sector)	DDT	1-20
LIZ-3 (Sub-Sector)	DDU	21-40
POW-1 " "	DDV	61-80
POW-2 " "	DDW	81-99
BAR Sector	DGZ	21-40
POW-3 (Sub-Sector)	DGT	1-20
BAR-1	DGU	41-60
BAR-2	DGV	61-80
PIN Sector	DHZ	21-40
BAR-3 (Sub-Sector)	DHT	81-99
BAR-4 " "	DHU	1-20
PIN-1 " "	DHV	41-60
PIN-2 " "	DHW	61-80
CAM (Sector)	DJZ	21-40
PIN-3 (Sub-Sector)	DJT	81-99
PIN-4 " "	DJU	1-20
CAM-1 " "	DJV	41-60
CAM-2 " "	DJW	61-40
CAM-3 " "	DJY	81-99

NEAC Region - E

Station	Dbl-Letter Identifier	Block of Track Nos.
FOX (Sector)	EKZ	41-60
CAM-4	EKT	1-20
CAM-5	EKU	21-40
FOX-1	EKV	61-80
FOX-2	EKW	81-99
FOX-3	EKY	1-20
DYZ Sector	ELZ	61-80
FOX-4 (Sub-Sector)	ELT	21-40
FOX-5	ELU	41-60

(11) Page 75, Chart Doppler Section Designators, Winisk Section, for "T" read "M". Page 76, Great Whale River Section, for "U" read "N". Knob Lake Section, for "W" read "O". Hopedale Section, for "Y" read "F".

[redacted]

[redacted] (when filled in) COPY OF INCOMING CLASSIFIED MESSAGE

SECTION BEFORE DECLASSIFYING.

DE RBEKZC 124
R 262047Z
FM CINCLANTFLT
TO CINCSAC
INFO COFS USAF
CNO
CINCONAD
COMADIV FIVE
COMAF ONE SIX
COMAF TWO
COMAF EITHT
BT

READING FILE

156

Actg. Dir. Coord Div: Coord
X7-5928

[redacted]/CINCSAC 152144Z CITED COOPO 6614. INFO [illegible] ATLANTIC BARRIER DESCRIBES A RHUMBLINE FROM ARGENTIA NFFLD TO LAGES FIELD AZORES. EFF 1 JULY FORCES WILL INCLUDE 4 DER ON FOL STA , 1 4535N 4840W, STA 2 4355N 4320W, STA 3 4220N 3800W, STA 4 4030 , 3300 2, 6 WV-2 AIRCRAFT FLYING RACE TRACK PATTERN ARGENTIA TO LAGES 55 MILES OUT HAND PARALLEL RHUMBLINE THEN RETURN ARGENTIA 55 MILES NORTH AND PARALLEL RHUMBLINE. PRIOR 1 JULY SURVEILLANCE WILL EXTEND 700 .003 -)9,& 4£7.?)8,3 885£ 5- 1 AND 2 MANNED AND 2 AIRCRAFT AIRBORNE. (2) NO COMMUNICATIONS WITH BARRIERS FORCES REQUIRED. (3) DESIRE PENETRATIONS BE REPORTED TO CINCLANTFLT AND CINCONAD ONLY AT LEAST TWO DAYS PRIOR TO PENETRATIONS. POST PENETRATIONS REPORT DESIRED IF ACTUAL TRACK VARIES FROM INTENDED TRACK. (4) NORMAL UNIT STRENGTH DESIRED WITH OCCASIONAL PENETRATION BY SERIES OF SINGLE AIRCRAFT. ANY PENETRATIONS WHATSOEVER WILL BE BENEFICIAL.
BT
2623302 APR RBEKZC

CONAD HIST FILE
307

A--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--PHYSICALLY REMOVD ALL INOERNJL REFERENCES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION.
//ADVANCE COPY OF THIS MSG HAS BEEN DELIVERED TO COC//

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CONAD SECYT [illegible] 15

0664

[redacted] ...en filled in) COPY OF INC... ING CLASSIFIED MESSAGE

...SECTION BEFORE DECLASSIFYING.

READING FILE

157

Z

CONO 006

A-39-03
RR RJEDEN
DE RBEKZC 93
R 021620Z (TDTG 0123532)
FM CINCLANTFLT
TO COMASDEFORLANT
INFO CNT
CINCONAD
COMCFECR
[redacted]

ACTION: COOP
INFO: COPO
I7-8255

[redacted] ...CTIVATED FULL LENGTH BARRIER; ARGENTIA ...S, 4 DER ON STATION.

BT
02/2037Z JUL RBEKZ

A--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION.

READING FILE

[redacted]

CONAD SECYT FORM 5 MAR 67 15 ...hen filled in)

0667

158

UNITED STATES ATLANTIC FLEET
HEADQUARTERS OF THE COMMANDER IN CHIEF
Norfolk 11, Virginia

FF1-2/A4-3
Ser 035
6 JUN 1957

CONFIDENTIAL

From: Commander in Chief U.S. Atlantic Fleet
To: Commander Barrier Atlantic

Subj: Atlantic Barrier Picket Stations, Change in geographic location

Ref: (a) CINCLANTFLT ltr ser 37/049 of 10 May 1957

1. In reference (a) Commander Barrier Atlantic recommended that the locations of the four surface picket stations of the Atlantic Barrier be changed to be positioned coastly on the rhumbline from Argentia to Lajes.

2. This recommendation is approved commencing 1 July 1957. The new locations are shown below.

Station	Locations	
	New	Present
1	43-30N 48-37W	43-55N 48-40W
2	44-00N 43-17W	43-55N 43-20W
3	43-20N 38-00W	Same
4	40-40N 32-53W	40-30N 33-00W

3. As Annex Q of CINCLANTFLT Operation Order 1-58 will not assign geographic positions to the four surface picket stations, Commander Barrier Atlantic is authorized to make minor relocations of these pickets as necessary to accomplish his mission after 1 July 1957.

A.G. WARD
Deputy Chief of Staff

Copy to:
CNR
CINCLANTFLT
CINCPACFLT
CINCSPACELM
CINCAFLANT
CINCUSNAVEUR

Authenticated:
W. J. KING
Flag Secretary

Reading

JOINT MESSAGEFORM

[redacted]

SPACE BELOW RESERVED FOR COMMUNICATION CENTER

139

A PARAPHRASE NOT REQUIRED
TO CATEGORY B ENCRYPTION SECURITY
REMOVE ALL INTERNAL REFERENCES BY DATE
TIME GROUP PRIOR TO RELEASE

READING FILE

PRECEDENCE		TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
		BOOK	MULTI	SINGLE			
ACTION	PRIORITY		X		AF	X	
INFO	PRIORITY						

FROM: CINCONAD

TO: CINCLANT NORFOLK VIRGINIA
CANAIRDEF ST HUBERT QUEBEC CANADA
COMCFSCR STEWART AFB NY
COMCFCOR GRANDVIEW AFB MO
COMCFWCR HAMILTON AFB CAL

INFO: COMDR ADC ENT AFB COLO (COURIER)
COMHAVFORCONAD ENT AFB COLO (COURIER)
COMBARLANT NAVY NO. 103 FLEET P O NY NY

CONAD HIST FILE
302.12

SPECIAL INSTRUCTIONS

MESSAGE TRANSMITTED WITH FOLLOWING DATE TIME GROUP

13-405-26 260235Z

[redacted] FROM COOP-T X059 . CANUSECURITY.

This message in two parts. Part I. The following two-letter identifiers for surveillance track designation by aircraft and surface pickets assigned to the Atlantic AEW Barrier will become effective 1 May 1957:

a. Picket Ships.

GA STATION No. 1 Lat. 45°35'N Long. 48°40'W

DATE	TIME
26	2200Z
MONTH	YEAR
Apr	1957

WRITER: SYMBOL COOP-T; TYPED NAME AND TITLE (Signature, if required) MAJ USAF; PHONE 2088; PAGE NR. 1; NR. OF PAGES 2; SECURITY CLASSIFICATION

RELEASER: SIGNATURE; TYPED (or stamped) NAME AND TITLE J. W. LEDOUX [redacted]

[redacted] UNCLASSIFIED

DD, FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

MESSAGEFORM - CONTINUATION SHEET [redacted]

CINCNAD

159

GB	STATION No. 2	Lat. 43°55'N Long. 43°20'W
GC	STATION No. 3	Lat. 42°20'N Long. 38°00'W
GD	STATION No. 4	Lat. 40°30'N Long. 33°00'W

b. Aircraft.

Aircraft do not orbit a fixed geographical position but fly a race track pattern around the barrier roundline. As the aircraft make contact reports by voice to nearest picket ships for relay, the identifiers for the aircraft are assigned by sequence commencing, at 0001Z each day. Identifiers are:

GG	1st aircraft reporting on station
GH	2nd aircraft reporting on station
GI	3rd aircraft reporting on station
etc.	etc.

c. GE and GF are not assigned but are reserved for future use. Part II for CINCLANT. This confirms procedures recommended in your letter FF1-2/A6, 26/35, dated 13 March 1957.

MAJ WD FRIMIRE
2088
26 Apr 57

SC

CANAIRDEF is authorized to receive classified material and the material is releaseable to Canada.

N/A On reverse side.

DL | PAGE NR 2 | NR [redacted] | INITIALS

COOP-T

DD FORM 1 MAY 55 173-1

☆ U. S. GOVERNMENT PRINTING OFFICE: 1958—482230

0669

M/R By letter, we presented identifier procedure to CINCLANT and asked his consideration to adopt the letter "G", to be used with other letters of the alphabet, in assigning double-letter identifiers to its aircraft and picket ships on AEW Barrier. They concurred in this procedure and proposed to adopt the procedure outlined in this message as of 1 May 57. This message acknowledges this procedure to CINCAL and advises other interested commands.

12d

[redacted]

[redacted]

COPY

CONAD HIST
302.12

160

AG 21
R 1514452 15 Nov 56
FM HQ JEADF STEWART AFB NEWBURGH NY
TO RUEDEN/CINCONAD ENT AFB COLO
[redacted] JEAOCO-OS 007. REFERENCE CONAD SECRET LETTER, SUBJECT: (UNCL) NAVAL EARLY WARNING SEA EXTENSION IN THE ATLANTIC, 26 APRIL 56. ANNEX Q, OPERATIONS ORDER CINCLANTFLT NO. 1-54 AND COMBARLANT OPS ORDERS 1-56. ABOVE REFERENCES CONSTITUTE THIS HEADQUARTERS KNOWLEDGE OF PLANNED ARGENTIA-AZORES BARRIER OPERATION. THIS HEADQUARTERS IS ALSO COGNIZANT OF INTERIM CONCLANTFLT/CONAD BARRIER REPORTING PROCEDURES. BARRIER OPERATIONAL PROGRESS SINCE 26 APRIL 1956 IS NOT KNOWN TO THIS COMMAND. REFERENCES INDICATE THAT CINCONAD IS PROVIDING NECESSARY LIAISON AND GUIDANCE TO CINCLANTFLT IN ORDER THAT HE CAN PROVIDE EARLY WARNING INFORMATION RESPONSIVE TO CONTINENTAL AIR DEFENSE REQUIREMENTS. IN ORDER FOR THE COMMANDER JEADF TO MAKE OPTIMUM USE OF THE "EVALUATED PERTINENT INTELLIGENCE AND INFORMATION" PROVIDED BY CINCLANTFLT AND TO FULFILL HIS PRESENT AND FUTURE RESPONSIBILITIES CERTAIN INFORMATION NOT PROVIDED BY THE ABOVE REFERENCES IS REQUIRED. SPECIFICALLY: (A) WHAT CRITERIA IS CINCLANTFLT USING TO DETERMINE THE CLASSIFICATION OF TRACKS DETECTED: (B) WHAT ACTION IS CINCLANTFLT TAKING TO ATTEMPT IDENTIFICATION OF UNKNOWNS AFTER THEY PASS THROUGH THE BARRIER AND PRIOR TO DETECTION BY CONTIGUOUS RADARS UNDER THE OPERATIONAL CONTROL OF COMMANDER JEADF: (C) WILL CINCLANTFLT PRESCRIBE CONDITIONS OF AIR DEFENSE WARNING BASED ON HOSTILES SUSPECTED HOSTILES, OR UNKNOWN DETECTED WITHIN AREAS IN WHICH HE HAS AIR DEFENSE COGNIZANCE: (D) WILL COMMANDER JEADF BE EXPECTED TO CONDUCT LIAISON WITH CINCLANTFLT IN ORDER TO PROVIDE ASSISTANCE IN DEVELOPING BARRIER SURVEILLANCE AND REPORTING PROCEDURES IN VIEW OF THE JCS DIRECTION OF THE ENTIRE OPERATION: (E) WHEN PLANNED COMMUNICATIONS ARE INSTALLED, WILL COMMANDER JEADF BE EXPECTED TO FURTHER EVALUATE AND IDENTIFY TRACKS REPORTED BY CINCLANTFLT PRIOR TO FORWARDING TO CINCONAD OR IS AUTOMATIC RETRANSMISSION EQUIPMENT AT JEADF PROGRAMMED
BT
15/15362

[redacted]

[redacted] (when filled in) COPY OF INCOMING CLASSIFIED MESSAGE

SEE CRYPTO SECTION BEFORE DECLASSIFYING.

READING FILE

161

CONCOM-10

A-44-03
RR RJEPNB RJEDEN
DE RBEKZC 23
R 022140Z
FM COMASDEFORLANT
TO COMCFECR
INFO ZEN:CINCLANTFLT
CINCONAD
BT

ACTION: COCOP
INFO: COOPO
X7-8258

[redacted]/ATLANTIC AEW/ASW BARRIER OPERATIONS
EXTENDED TO FULL DISTANCE ARGENTIA TO AZORES 1 JULY
BT
03/0215Z JUL RBEKZC

A--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B E CRYPTION--
PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR
TO DECLASSIFICATION.

READING FILE

CONAD SECYT FORM 5 MAR 67 15 (19420)

[redacted] (when filled in)

[redacted] filled in) COPY OF INCOMING CLASSIFIED MESSAGE

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SEE CRYPTO SECTION BEFORE DECLASSIFYING

READING FILE

162

CONSOLIDATED 307

CONN007
HQA002
RR RJEDEN RJEDWP
DE RJEDHQ 173
R 072115Z
FM HQ USAF WASH DC
TO RJEDEN/COMAIRDEFCON ENT AFB COLO
INFO RJEDEN/CONCONAD ENT AFB COLO
RJEDWP/COMAIC WPAFB OHIO
ZEN/ICEDEFFOR KEFLAVIK ICELAND
ZEN/USAF INSTALLATIONS REPRESENTATIVE NR 41
ZEN/CINCLANTFLT NORFOLK VA

ACTION COOPR
INFO COOP - COCO
17- 7427

ZT
[redacted] FROM AFOAC-E/A 56995

REQUEST FINAL SITE SURVEY ACTION BE COMPLETED FOR EASTERN EXTENSION OF DEWLINE. PRESENT PLANNING IS BASED ON FOUR STATION LINE EXTENDING FROM HOLSTEINBORG, GREENLAND ACROSS ICECAP TO IKATEQ WITH A FIFTH STATION ON KANGEK ISLAND. THE LINE OF STATION FROM HOLSTEINBORG TO IKATEQ WILL BE SITED TO PROVIDE BEST POSSIBLE COVERAGE CONSISTENT WITH DEWLINE REQUIREMENTS. THE STATION AT KANGEK WILL PROVIDE HIGH ALTITUDE TIE IN WITH THE SEAWARD EXTENSION TO THE AZORES. METHOD OF OPERATION ENVISIONED IS SIMILAR TO ALEUTIAN SECTOR DEWLINE WITH EXCEPTION KANGEK STATION. COMMUNICATIONS PLANNED ARE: CAPE DYER-

PAGE TWO RJEDHQ 173

HOLSTEINBORG 24-CHANNEL TROPO, HOLSTEINBORG ICECAP STATION "X" 24-CHANNEL TROPO; ICECAP STATION "X"-ICECAP STATION "Y" 24-CHANNEL TROPO; ICECAP STATION "Y"- IKATEQ 24-CHANNEL TROPO; IKATEQ-ICELAND, 24-CHANNEL TROPO TO H-1, IF POSSIBLE, TO H-4 IF NOT POSSIBLE TO H-1 (TERMINATION AT H-4 WILL REQUIRE OVER-BUILD OF PROGRAMMED 4-CHANNEL SYSTEM BETWEEN H-4 AND H-1). KANGEK ISLAND RADAR WILL REPORT VIA PROGRAMMED NAVY FPIS SYSTEM WITH TERMINAL AT FARWELL. FINAL SITE SURVEYS AND PLAN OF OPERATION WILL BE FOR ONE MAIN STATION (45 MEN) AT HOLSTEINBORG, TWO AUXILIARY STATION (30 MEN EACH) AT IKTEQ AND KANGEK, AND TWO AUXILIARY STATIONS (16 MEN EACH) AT ICECAP APPROXIMATE LOCATIONS 48 DEGREES 05 MINUTES WEST 66 DEGREES 10 MINUTES NORTH AND 42 DEGREES 05 MINUTES WEST 65 DEGREES 55 MINUTES NORTH. AN/FPS-30 RADAR WILL BE PRIMARY SEARCH EQUIPMENT. NO CLUTTER (AN/FPS-23) WILL BE USED. SITING WILL CONSIDER 12-CHANNEL TROPO SYSTEMS FROM HOLSTEINBORG TO SONDESTROM AIR BASE AND FROM KANGEK TO NAVY FPIS TERMINAL. CORPS OF ENGINEERS WILL BE DESIGN AND CONSTRUCTION AGENCY AND AMC WILL BE ENGINEER-INSTALLATION AGENCY. AMC WILL PROVIDE NECESSARY ASSISTANCE IN TROPO, MICROWAVE SYSTEMS. COORDINATION WILL BE ACCOMPLISHED WITH ISLAND COMMANDER, GREENLAND HEADQUARTERS, GRONDAL, GREENLAND, PRIOR TO ANY FOA SITE SURVEY. COORDINATION WITH ICELAND DEFENSE FORCE COMMANDER WILL

COPY _____ OF _____ COPIES

READING FILE

CONAD SECYT FORM 16 MAR 67
(6423)

[redacted] hen filled in)

[redacted] en filled in) COPY OF INCOMING CLAS ED MESSAGE

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SEE CRYPTO SECTION BEFORE DECLASSIFYING

162

PAGE THREE RJEPHQ 173
BE EFFECTED PRIOR TO ANY ENTRY INTO ICELAND. EVERY EFFORT WILL BE MADE TO COMPLETE THESE SITE SURVEYS BY 1 SEPTEMBER 1957. THIS IS TO PROVIDE TIME FOR THE NECESSARY DESIGN AND INTER-GOVERNMENTAL AGREEMENTS SO THAT AWARD OF CONSTRUCTION CONTRACTS CAN BD MADE IN EARLY 1958. AUTORITY TO ENTER GREENLAND EFFECTIVE AFTER 1 JULY 1957.
ST
07/2130Z JUN RJEPHQ

ITA--PARAPHRASE NOT REQUIRED EXCEPT P[illegible] TO CATEGORY B ENCRYPTION--PHYSICALLY REMOVE ALL INTERNAL REFERE[illegible]ES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION.

//ADVANCE COPY OF THIS MSG HAS BEEN DELIVERED TO COC//

COPY ____ OF ____ COPIES

CONAD SECYT FORM 6 MAR 57 16 (8420)

[redacted] en filled in)

307
163

[redacted] 3 August 1956

A-785-24

PREC: DEFERRED

STG: 231653A

FM KEACOM

TO IAOF

INFO COFS USAF

CINCONAD

BT

[redacted] CITE NEGAC/85310 REFLTR FR HQ USAF DTD 7 MAY 56 SUBJ (CONF) IMPLEMENTATION OF THE GREENLAND SEGMENT OF THE ATLANTIC EXTENSION DEW LINE. " THE EASTERN TERMINUS OF THIS EXT IN GREELAND IS PROPOSED TO BE AT IKAT EQ. OVERLAP WITH IKATEK AND YOUR H-4 ZZ SITE ON STRAUMFS PENINSULA IS REQR. LOW ALT COVERAGE IN THIS AREA, OVER THE DENMARK STRAIT, IS TO BE PROV BY AEW ACFT OR PICKET SHIPS. FOR PLANNING PURPOSES IN PRELIM SITING OF THE IKAT EQ LOC, REQ THIS HQ BE FURN THE POL INFO RLTV TO THE H-4 AND KEFLAVIK RADAR SITES: GEOGRAPHICAL COORDS AND ALT ABOVE MSL, SKY LINE GRAPH INDICATING NEGATIVE AND POSITIVE SCREENING ANGLES, THE VERTICAL COVERAGE FOR 3 DEG AT

PAGE TWO A-785-24
5K, 10 K, 20 K, 40 K AND 60K FT BASED ON A HEAVY TYPE RADAR WITH ANTENNA TILT AT 0 DEG. WE ARE CALCULATING THE GRETICAL COVERAGE FOR THIS PROJ BASED ON THE CHAR OF THE SENTINEL RADAR, PRESENTLY UNDER DEV, AND RECOM THIS EQP BE USED FOR LOCS REQUIRING THE HEAVY TYPE RADAR. LIGHT RADARS WILL IN ALL PROBABILITY BE ON THE ORDER OF THE AN/FPS-19. UPON COMPL OF OUR PRELIM SITING IN THE IKATEK AREA, THE SAME INFO REQ ON YOUR SITES WILL BE FURN YOU FOR THE IKEAT EQ SITE IF SO DESIRED. REQ YOU ADVISE WHEN THIS INFO ON THE H-4 AND KEFLAVIK RADAR SITES CAN BE MADE AVAL.
BT
23/2023Z AUG

[redacted]

[redacted]

3071647

A-503-15
PREC DEFERRED
DTG 141555Z
FM COMNEACOM PEPPERRELL AFB NFLDN
TO COMDR OB AFB GRIFFISS AFB ROME NY
COMDR MAAMOLSTEAD AFB P AX AF IR NAR 90 CHURCH ST NY NY
INFO COMS WASH DC
CINCONAD ENT AFB COLO
COMDR ADC ENT AFB
COMDR 6621 ABG SONDERSTROM AFB GRNLD
COMDR 6611 AFB NARSARSUAK EOD COF E 346 BROADWAY NY
BT

14 August 1956

/[redacted]CITE FM NEOA-852 1. FLD SIT NG SURVEY FRT. LO FOR RELEAS AND TROOP IN SITS OF GREENLAND EXTENSION DEW LINE. TEAM HAS COMPL SITE SURVEY FOR HOSTEINGORG AND SONDRESTROM AND PORTION OF SIMIUTAK/NARSARSSUAK WITHIN CURTAIS/DISNISH AGREEMENT. FURTHER SURVEY OV SIMIUTAK/NARSARSSAUK, ICECAP AND EAST COAST OF GREENLAND MUST BE DFR UNTIL DANISH CLNC IS REC. TEAM HAS PREP DRAFT REPT OF WORK ACCOMP TO DT. TEAM MBRS ARE RELEASED THIS DT FOR RTN TO RESPECTIVE HQ; EO FRENCH AND WILKINSON TO RAFD; CV AFADO AND RH HENKELTOEOD; WW COTHR ON TO MAAMA. CC ALL IS PREV RELEASED TO MAAMA ON EMERG LV. REQ TEAM MBRS BE HELD ON STANDBY FOR RTN TO THIS HQ UPON 4O-8 HR NOTICE TO

PAGE 2 A-503-15

CONT SURVEY IF EVENT DANISH CLNC IS REC. SEACOND IN GREENLAND WILL BE FAV UNTIL APRX 1 OCT. WE WILL ADVISE YOU IMMED IF DECISION IS MADE TO DFR SURVEY UNTIL NEXT YEAR. FOR AFIR MR J SCHEUREN OFFERED THE SVCS OF M KLINEFELTER AND R PEARL, METCALF AND EDDY PERS AT SONDRESTROM, DURING SURVEY. RE ARNGS BE MADE FOR THEIR SCHD IF SURVEY IS CONT THIS YEAR. FOR AFIR, RAFD AND MAAMA; CAPABILITY AND COOPERATION OF ALL TEAM MBRS WERE OUTSTANDING AND MATERIALLY ASSITED IN SUCCESSFUL COMPL OF THIS PHASE OF SURVEY. REQ SAME IN DIVS BE RTN FOR NEXT PHASE SO THAT WE MAY PROFIT BY THEIR EXPERIENCE
BT
14/1653Z AU PJYXCR

[redacted]

3765

4 SEPT 1956

AG007
A-138-05
PREC: PRIORITY
DTG: 04/1938Z
FM: COM NEACOM PAFB
TO: AFIR WAR 90 CHURCH ST NY
TO: AFIR WAR 90 CHURCH ST NY
COMDR RADC GRIFFISS AFB ROME NY
INFO: COFS USAF
CINCONAD ENT AFB COLO
COMDR ADC ENT AFB COLO
COMDR MAAMA OLMSTEAD AFB PA

BT

[redacted] CITE: NEOAC/E 5331. REFERENCE MY MESSAGE NEOAS

RPTG ABOVE LINE [redacted] CITE: NEOAC/E 5331. REFERENCE MY MESSAGE NEOAC/E 5292. DTD 13 AUG 1956. DANISH APPROVAL RECEIVED TO SURVEY CAPE FARWELL-SIMIUTAK AREA AND EAST COAST OF GREENLAND. SURVEY WILL BE ACCOMPLISHED EMPLOYING USCGC WESTWIND AS BASE CAMP. TRIP WILL REQUIRE APPROXIMATELY 45 DAYS, DEPARTING ST JOHNS HARBOR ON 9 SEP 1956. SINCE ONLY 1 TEAM WILL BE REQUIRED, REQUEST THE FOLLOWING-NAMED PERSONNEL REPORT THIS HQ BY 8 SEP 1956: MR CJ ARADO, C OF E, EOD; MR M KLINEFELTER, METCALF AND EADDY, SONDRESTROM AB, WHO ASSISTED IN PREVIOUS SURVEY PER-VERBAL AGREEMENT BETWEEN CAPTAIN LALLY, THIS HQ AND MR J SCHEUREN, METALF AND EDDY CO; DVD MR E L WILKINSON, RAED. IF THESE PERSONNEL ARE NOT AVAILABLE, REQUEST THEIR COUNTERPARTS FROM ORIGINAL SURVEY OR COMPARABLE REPLACEMENTS. MR W COTHRONIS AT THIS HQ AND WILL BE UTILIZED AS TROPO REPRESENTATIVE. THIS MESSAGE CONSTITUES THEATER CLEARANCE AND MESSAGE NUMBER WILL BE INCLUDED IN ORDERS. YOU WILL PROCURE AMDS FROM AF AT COAT MCGUIRE AFB, NJ.

BT
04/2026Z SEP RJEICR

[redacted]

(78)

168

ROUTINE
ROUTINE
SIMCOMAD

X AF

USAF AFOOC 50229 SECRET
21 Dec 56

CINCLANT NORFOLK VA

INFO: COMDR PEPPERRELL AFB NEWFOUNDLAND

COMDR 64TH AD PEPPERRELL AFB NEWFOUNDLAND

[redacted] from COOCP X014 .

Reference USAF message AFOOC 50229 of 21 December 1956.

This message is three-parts. Part I. On the basis that the eastward extension of the DEW line as outlined in JCS 1899/246 from the [illegible] light of radar information reported to the Lowlead Air Defense System (presumably the AEW Station in Denmark Strait) to the Goldsmith sector of the W. E. via [illegible] will be under the primary membership of CINCLANT for United States interests, (also reference CINCLANT message DDS 0503352 Dec), the following outline plan for operation of the above portion of the DEW line is submitted for your comment. Part II. Proposed outline operational plan. Paragraph 1. Coverage Criteria. Radar surveillance coverage

ALDC

23 2330 Z
Jan 57

COOCP

MEMORANDUM FOR RECORD:
Col. J.E. Jeffus/def
2175 1 3

NAVAL FORM [illegible] reverse side)

UNCLASSIF

79

[redacted]

[illegible] ge [illegible], a message from the [illegible] requested an [illegible] the DEW line extension [illegible] the Iceland [illegible]. This [illegible] the DEW exte[illegible] [illegible] by NORAD as a requirement, but [illegible] the DEW ex[illegible] [illegible] from [illegible]land. [illegible] however, the Iceland-Scotland [illegible].

[illegible] JCS has asked [illegible] for the operational plan for the [illegible] segment, [illegible] an out[illegible] [illegible] Sept. This [illegible] accepted by [illegible]LANT will be forw[illegible] [illegible] with the [illegible] that [illegible] be appointed [illegible] sole agent for detailed planning and implementation with all [illegible] involved. If [illegible] not concur and in turn [illegible] NORAD conduct the planning, then it is planned to request [illegible] reconsider the need for the [illegible]land-Scotland DEW extension, since [illegible] has a requirement for the Greenland-Azores extension instead. Attached hereto is the message [illegible]LANT. Message has been seen [illegible] Captain Chase, C/S [illegible], and Capt. Bollinger.

80

166

proposed that the outline plan covered in Part II be finalized as a concept to be transmitted to the JCS with recommendation that CINCLANT be given responsibility for detailed planning, arrangements and implementation with the various commands and agencies concerned along the Iceland-Scotland segment of the NEW line.

MEMORANDUM FOR RECORD:

CONAD FORM 1 OCT 56 5

81

C/NORAD

criteria should be established to correspond to the criteria set for eastward extension of the DEW line from Argentia to Azores, modified to extent necessary to apply to island areas along the line and modified to obtain compatibility with NATO requirements, if appropriate. Paragraph 2. Exchange of radar information along the Iceland-Scotland segment should be established as follows: a. Full cross-tell capability between adjacent land-based GCI and EW radars. b. Transmission of all radar tracks from picket vessels, airborne early warning stations and gap fillers (if any) to specified GCI radars, preferably to nearest. c. Controller to controller communications for exchange of air defense operational information between adjacent ADCC's. d. Above communications system considered to be compatible with that outlined in referenced message. Paragraph 3. CONAD can use information on penetration of Iceland-Scotland segment as follows: a. Information on penetrations by recognized raids. b. Tracks of identified hostile targets. c. Information of air defense warning conditions along the line. Paragraph 4. Communications to transmit CONAD above information can be provided by one full-time TT circuit from the Iceland Air Defense Control Center to CONAD COC via DEW line communications system. Part III. Subject to your comments, particularly to provisions of paragraphs 1 and 2 of Part II, it is

CCCCF

COPY

82

AGO5
A-1135-21
RR RJEDEN RJFPBW RJEPFF
DE RJEPHQ 169
R 211728Z
FM HEDUSAF WASH DC
TO RJEDEN/CINCONAD ENT AFB COLO
ZEN/USNMR SHAPE PARIS FRANCE
ZEN/CNO/ D/N WASH DC
ZEN/CINCLANT NORFOLK VA
RJFPBW/CINCUSAFE WIESBADEN GERMANY
RJEPFF/COMMATS ANDREWS AFB CP SPRINGS MD
BT

Suspense 27 Dec 56
X6-6856

//S E C R E T//FROM AFODC 50229. THIS AN EXECUTIVE AGENCY MESSAGE, NORFORN. FOR CINCONAD: REFERENCE USNMR MESSAGE ALO 1262, 26 NOVEMBER 1956, NOTAL, CONCERNING FAEROES ISLAND. WE SUPPORT RADAR FACILITY BEING OPERATED BY NAT FORCES. AN OPERATIONAL PLAN SHOULD BE DEVELOPED AS SOON AS POSSIBLE TO REFLECT CONAD NEEDS. PLAN WILL INCLUDE ALL KNOWN AIR DEFENSE COMMUNICATION CHANNEL REQUIREMENTS. MINIMUM APPEARS TO BE COMPLETE CROSS TELLING INCLUDING CONTROLLER TO CONTROLLER CIRCUITRY FROM HOFN RADAR SITE H-3 TO FAEROES, AND SIMILAR COMPLETE CAPABILITY FROM ICELAND AIR DEFENSE FORCE CONTROL CENTER TO CALEDONIAN SECTOR,

PAGE TWO RJEPHQ 169
U.J. FURTHER, IT SEEMS APPROPRIATE THAT PLAN SHOULD INCLUDE MEANS OF COMMUNICATIONS BETWEEN CINCONAD AND SHAPE FOR EXCHANGE OF AIR DEFENSE SITUATION AND/OR EVALUATIONS ON A CONTINUING BASIS. A COPY OF SHAPE CONTROL AND REPORT IN PLAN (COMMUNICATIONS-ELECTRONICS ASPECTS) BEING FORWARDED UNDER SEPARATE COVER. COORDINATE WITH CINCLANT FOR NAVY REQUIREMENTS. CNO CONCURS. A PLAN TOGETHER WITH STATEMENT OF REQUIREMENTS SHOULD BE SUBMITTED NOT LATER THAN 5 FEBRUARY 1957. FOR USNMR SHAPE: WHEN WE ARE IN RECEIPT OF CONAD PLAN YOU WILL BE FURTHER ADVISED. WE ENVISION, HOWEVER, SCATTER CIRCUIT REQUIREMENTS BETWEEN HOFN AND FAEROES WITH FAEROES TERMINAL OPERATED BY NATO.
BT
21/1 15Z DEC RJEPHQ

[redacted]

COPY

167

AG001

A-863-19 19 JAN 57
MM RJEDEN
DE RJEXCR 208
M 191521Z
FM: COMNEACOM PAFB EF
TO: COFS USAF WASH DC
INFO: COMOR AMC WPAFB OHIO
CH DEWPO 220 CHURCH ST NYC
CINCONAD ENT AFB COLO
COMDR ADC ENT AFB COLO
COMDR 64TH ADIV DEF PAFB
BT

Suspense 23 Jan 57
X7-820

//~~S E C R E T~~// FROM NEOPP 5812. REFERENCE PART 5 OUR MESSAGE SECRET NEOPP 5886 DATED 27 NOV 56, AND PARAGRAPH 4 NEAC LETTER SUBJECT (CONF) IMPLEMENTATION OF THE GREENLAND SEGMENT OF THE ATLANTIC EXTENSION-DEW LINE DATED 8 JAN 1957. THIS MESSAGE IN 2 PARTS. PART I. IN ABOVE REFERENCES WE INDICATED THAT WE WOULD SUBMIT TO HQ USAF A PRELIMINARY COST ESTIMATE FOR THE GREENLAND EXTENSION PROJECT. FURTHER STUDY BY THIS HQ, BASE ON INFORMATION RECEIVED FROM DEWPO AND AFIRO, HAS INDICATED THAT SEVERAL DECISIONS OR ASSUMPTIONS MUST BE MADE AND ADDITIONAL FACTS OBTAINED BEFORE A VALID COST ESTIMATE CAN BE MADE. SOME OF THESE ARE: (1) A DECISION MUST BE MADE ON THE METHOD OF

[redacted]

?

[redacted]

COPY

167

PAGE TWO OF A-863-19
IMPLEMENTATION, I. E., THE DEGREE OF PARTICIPATION OF THE C OF E, DEWPO, WECO, AND DANISH AGENCIES. (2) DETAILED SURVEYS MUST BE MADE BEFORE ACCURATE COSTS CAN BE COMPUTED FOR ROAD AND AIRSTRIP CONSTRUCTION, BEACH AND RADAR SITE GRADING, BUILDING AND TOWER FOUNDATION REQUIREMENTS, AND WATER SUPPLY REQUIREMENTS. (3) FURTHER DESIGN STUDIES SHOULD BE MADE RELATIVE TO ICE-CAP HOUSING, INSTALLATION OF TROPOSPHERIC SCATTER COMMUNICATIONS EQUIPMENT ON THE ICE-CAP, AND POSSIVE DETECTION EQUIPMENT. (4) ASSUMPTIONS MUST BE MADE ON THE AVAILABILITY OF SKI-EQUIPPED C-123 AND C-130 TYPE AIRCRAFT FOR SUPPLY OF EQUIPMENT TO ICE-CAP SITES. (5) DECISION MUST BE MADE ON PRIORITY FOR PROJECT. PRIORITY ESTABLISHED WILL GREATLY AFFECT TRANSPORTATION AND PRODUCTION COSTS. PART ROMAN 2. BY SEPARATE LETTER THIS HEADQUARTERS WILL SUBMIT ON OR ABOUT 7 FEB 57 A COST ESTIMATE FOR THE INSTALLATION OF OUR RECOMMENDED PLAN 1A. THIS ESTIMATE WILL BE BASED ON INFORMATION AVAILABLE HERE WITH RESPECT TO COST OF EXISTING ICE CAP AND DEW LINE AUXILIARY SITES AND OTHER RELATED FACTORS. THIS INITIAL ESTIMATE WILL NECESSARILY BE OF LIMITED USE AS THE PROBLEMS OF INSTALLING SITES IN GREENLAND WILL DIFFER FROM THOSE ENCOUNTERED IN INSTALLING EXISTING SITES. IT IS RECOMMENDED, THEREFORE, THAT DEWPO/AFIRD BE REQUESTED TO PREPARE DETAILED COST ESTIMATES WHEN MORE COMPLETE PLANNING DATA AS OUTLINED IN PART ROMAN 1 ABOVE CAN BE MADE AVAILABLE
ET
19/1840Z JAN

[redacted]

[redacted]

MESSAGE TRANSMITTED
WITH FOLLOWING DATE TIME GP
[illegible] 19 1414Z

168

AFODC 50229

Secret

DEFERRED
DEFERRED X AF
CINCONAD

OCPS USAF WASH D C

INFO: CINCLANT NOR FOLK VA

CNO WASH D C

COMNEAC PEPPERRELL AFB NEWFOUNDLAND

COMSAADD PEPPERRELL AFB NEWFOUNDLAND

CINCUSAFE WIESBADEN GARMANY

COMMATS ANDREWS AFB MD

USMMR SHAPE PARIS FRANCE

COMADC ENT AFB COLORADO SPRINGS COLO (COURIER)

COMNAVFORCONAD ENT AFB COLORADO SPRINGS COLO (COURIER)

[redacted] 1034.

Chief of Staff as Executive Agent for CONAD. This is executive agency message. NOFORN. Reference AFODC 50229, CINCLANT has agreed to accept responsibility for development of an operations plan as directed by above referenced message for the extension of the Distant Early Warning Line

2130 15 Mar 57

daf

15 1630 Z Mar 57

COORD

COL. J.R. JEFFUS/daf
2130

[redacted]

J.W. BERKLEY
LCDR, USN
Asst Adjutant

7044-2

CONAD

from Greenland to UK via Iceland and Faroes. Specification of information concerning air traffic across this Line which would be useful to CINCONAD for early warning purposes has already been provided CINCLANT.

168

[redacted]

COOOP 2 2

[redacted]

168

[redacted]

M/E: On 21 Dec 56, JCS (thru USAF) sent Message AFODC 50229 asking CONAD to submit an operational plan for the Iceland & Scotland DEW Line extension.

On 25 Jan 57 CONAD sent Message COOOP KO14 to CINCLANT requesting his concurrence to a proposal that he be responsible for the development of the operational plan as directed by the JCS.

On 27 Feb 57 CINCLANT dispatched a letter to CINCONAD which indicates agreement with the proposal contained in COOOP KO14.

This message to the JCS indicates that CINCLANT will supply the ops plan (responsive to CONAD's needs) for the Iceland-Scotland segment to the JCS in lieu of CONAD. Capt. Bollinger has seen this message and concurs.

[redacted]

47

307

[redacted] X AF [redacted] SECRET

CINCSHAD

COMNAC PEPPERELL AFB NF JOHNS NEWFOUNDLAND

INFO: COMEASTAIR PEPPERELL AFB NF JOHNS NEWFOUNDLAND

[redacted]/NOFORN/FROM COMUS-P X 0001

FOR CAPT LALLY. THIS MESSAGE IS 6 PARTS. PART 1.

FOLLOWING MESSAGE FROM USREP USNMR PARIS, FRANCE,

TRANSMITTED FOR YOUR INFORMATION. QUOTE SECRET NOFORN

TO APCIC REPCD ALO 1368. PARIS RADAR INSTALLATION

APPROVED BY NATO AUTHORITIES AND INCLUDED IN 6 NATO

INFRASTRUCTURE PROGRAM. REPORT NORTH ATLANTIC COUNCIL

APPROVAL OF THIS INSTALLATION AND OTHER SITES IN EARLY

WARNING SYSTEM IN DECEMBER, 1956. SITING PARTY NOW IN

PARIS TO SELECT RADAR SITE AND CONSIDER PROBLEMS

WHICH MAY BE INVOLVED IN FORWARD SCATTER COMMUNICATIONS

SYSTEM. AT PRESENT, ONLY COMMUNICATIONS PLANNED FROM

THIS INSTALLATION TO SHAPE ARE ROUTED THROUGH UTD K. 16 1800Z

CALEDONIAN SECTOR AND STAVANGER. NO SPECIAL REQUIREMENTS Jan 1957

COMUS-P

BT CHL 4 C ADMINistrative

3578 1 3

[redacted] UNCLASSIFIED

88

[redacted] SECRET

CINCUSNAVEUR

HAVE BEEN EXPLAINED BY SACLANT. THE COMMUNICATIONS FOR THE E. V. PLAN ARE INCLUDED IN SHAPE LETTER, AE 3170/136 SLANTEL, DATED 17 JULY 1956, SUBJECT: SHAPE CONTROL AND REPORTING PLAN (COMMUNICATIONS AND ELECTRONICS ASPECTS). 27 COPIES FURNISHED TO DEPARTMENT OF DEFENSE. DESIRE THIS PLAN BE STUDIED AND YOU DETERMINE WHAT TYPE DATA AND FROM WHAT POINT IN THE SYSTEM THIS DATA SHALL BE REQUIRED. IT IS SUGGESTED IN DETERMINING YOUR COMMUNICATIONS REQUIREMENTS THAT YOU DO NOT CONSIDER THE USE OF EXISTING OR PLANNED NATO COMMUNICATIONS FACILITIES OR THE STATIONING OF US PERSONNEL IN THE NAMERS. SHAPE FEELS THAT NATION AUTHORITIES SHALL INSIST THAT ALL FACILITIES BE OPERATED BY NATION NATIONALS. SPECIFICALLY IN REGARDS COMMUNICATIONS, SHAPE REQUESTS COMMENTS ON FOLLOWING: A. WERE YOU PLANNING COMMUNICATION LINKS TO JOIN FAMOUS NAMBA WITH ICELAND THEN TO BERLIN VIA GREENLAND? IF SO, WHAT IS THE NATURE OF THESE LINKS AND THE IMPLEMENTATION SCHEDULE? B. DO YOU REQUIRE CHANNELS FROM MAJOR NEW LINE CONTROLS CENTER TO SHAPE AND SHAPE SUBORDINATE ALE REVERSE SCHEDULE? IF SO, WHAT ARE YOUR VIEWS ON CHANNEL REQUIREMENTS TO AND THE AGENCIES AT WHICH CIRCUITS WILL TERMINATE? UNQUOTE. PART 3. FOLLOWING MESSAGE FROM ARMING, CINCLANT, TRANSMITTED FOR YOUR INFORMATION: QUOTE. SECRET REPORT NEVER USING SHAPE

CSUSN-9 2 [redacted] SECRET

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SECRET

CINCONAD

DTG 261330Z NOV. STATEMENT THAT NO SPECIAL REQUIREMENTS HAVE BEEN EXPRESSED BY SACLANT MAY BE MISLEADING. SACEUR IN SH35374 OF 25 JAN 56 NOTAL INQUIRED IF SACLANT HAD ANY REQUIREMENT WITH RESPECT TO PROPOSED RADAR AND COMMUNICATIONS IN FAEROES. SACLANT IN HIS DTG 071800Z FEB 56 NOTAL CONCURRED IN SACEUR PROPOSAL WITH THE UNDERSTANDING THAT THE FAEROES INSTALLATIONS WOULD EVENTUALLY FALL INTO THE DETECTION AND WARNING SYSTEM OF THE FORWARD DEFENSE CONCEPT WHICH SACLANT HAD PROPOSED IN PARA 7 CHAPTER 18 OF THE ENCLOSURE TO SACLANT SERIAL 846 OF 18 JUL 55 NOTAL. UNQUOTE. PART 3 [illegible]

MESSAGE FROM HQ USAF TRANSMITTED FOR YOUR INFORMATION QUOTE SECRET FROM APODE 86039 THIS AN EXECUTIVE ALERT MESSAGE. REPORN. FOR CINCONAD REFERENCE USAFE MESSAGE ALO 1263 26 NOVEMBER1956. NOTAL CONCERNING FAEROES ICELAND WE SUPPORT RADAR FACILITY BEING OPERATED BY RAF FORCES. AN OPERATIONAL PLAN SHOULD BE DEVELOPED AS SOON AS POSSIBLE TO REFLECT CONAD NEEDS PLAN WILL INCLUDE ALL KNOWN AIR DEFENSE COMMUNICATION CHANNEL REQUIREMENTS WHICH APPEARS TO BE COMPLETE CROSS TELLING INCLUDING COUNTERAIR TO CONTROLLER CIRCUITRY FROM NOFO RADAR SITE S-3 TO FAEROES. AND SIMILAR COMPLETE CAPABILITY FROM ICELAND AIR DEFENSE FORCE CONTROL CENTER TO CALEDONIAN SECTOR U.K. FURTHER, IT SEEMS APPROPRIATE THAT PLAN

COMPR-P

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SECRET

CINCOMAD

SHOULD INCLUDE MEANS OF COMMUNICATIONS BETWEEN CINCOMAD AND SHAPE FOR EXCHANGE OF AIR DEFENSE SITUATION AND/OR EVALUATIONS ON A CONTINUING BASIS. A COPY OF SHAPE CONTROL AND REPORT IN PLAN (COMMUNICATIONS-ELECTRONICS ASPECTS) BEING FORWARDED UNDER SEPARATE COVER. COORDINATE WITH CINCLANT FOR NAVY REQUIREMENTS. CNO CONCURS. A PLAN TOGETHER WITH STATEMENT OF REQUIREMENTS SHOULD BE SUBMITTED NOT LATER THAN 5 FEBRUARY 1957. FOR USNMR SHAPE WHEN WE ARE IN RECEIPT OF COMAD PLAN NOW WILL BE FURTHER ADVISED. WE ENVISION, HOWEVER, SCATTER CIRCUIT REQUIREMENTS BETWEEN HOPE AND PARROTS WITH PARROTS TERMINAL OPERATED BY NATO. UNQUOTE. PART 4. COMMENT ON CINCOMAD PROPOSED PLAN AS REQUESTED IN PARAGRAPH QUOTED IN PART 3 WILL FOLLOW.

COMUSNAVEUR

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THE ATLANTIC COMMAND
HEADQUARTERS OF THE COMMANDER IN CHIEF
NORFOLK 11, Virginia

FTL-2/A16-12
0087/53

27 Feb 1957

REGISTERED MAIL SECRET

From: Commander in Chief Atlantic
To: Commander in Chief Continental Air Defense Command

Subj: Operations of the Atlantic Seaward Extensions of the Distant Early Warning (DEW) Line

Ref: (a) CINCONAD 251746Z Jan 1957
(b) CINCLANT ser 0066/53 of 19 Jul 1956

Encl: (1) Outline Operational Plan for 1960 operations of Atlantic Command extensions of the Distant Early Warning (DEW) Line

1. Reference (a) forwarded certain statements and proposals relative to the 1960 Atlantic seaward extensions of the DEW Line in the locations currently agreed upon by the Joint Chiefs of Staff. I feel that the following comments are germane to this matter.

2. In accordance with the Unified Command Plan, I plan to conduct operations of the seaward extensions of the early warning system to the eastward and south-eastward of Greenland under my unified command and to make these operations responsive, to the maximum extent practicable, to your needs. My interpretation of the demarcation between your responsibility and mine, with regard to the Atlantic extensions of the DEW Line, is that you are responsible for coverage across Baffin Bay and for land based radar operations on Greenland. I am responsible for operation of all national elements of the further extensions into the Atlantic Command area, starting with the waters contiguous to the east coast of Greenland, whether they be sea based, island based, or airborne. Accordingly, I will assign specific tasks in connection with operations of my portions of the extensions to my subordinate commanders, viz: Commander in Chief U.S. Atlantic Forces Azores.

3. In conducting operations in the G-I-UK line, as well as in the Cape Farewell to Azores line, I must bear in mind my own requirements for information necessary in carrying out my mission of defending the United States against attack through the Atlantic Ocean and Caribbean Sea. I am vitally interested, therefore, in surveillance data against enemy submarines and surface forces attempting to break out into the North Atlantic through the Iceland Passages, as well as enemy aircraft

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transitting this region. Thus, I believe that surveillance operations, particularly along the G-I-UK line, must be an integrated AEW/ASW/ Surface surveillance effort that will be responsive both to your requirements and mine.

4. Based upon the foregoing concept, I expect that, by 1960, the Commander in Chief U.S. Atlantic Fleet will have established an operational control center in Iceland subordinate to the Barrier Commander at Argentia for the purpose of exercising operational control of the naval forces operating in the G-I-UK line. The subordinate Barrier Commander will also serve to coordinate operations of the several different elements which will comprise the G-I-UK line. Although provision will be made for direct relay into the CONAD air defense communications system of hostile or unidentified air contacts obtained by land based radars operated by Commander Iceland Defense Force and Commander U.S. Forces Azores, the Commander in Chief U.S. Atlantic Fleet operational control center at Iceland will receive, correlate, and evaluate all air, surface, and sub-surface surveillance data acquired throughout the line and disseminate this data, as appropriate, to interested remote commanders, both national and NATO. I expect that the subordinate Barrier Commander will be located adjacent to Commander Iceland Defense Force to minimize duplication of required facilities and to maximize the latter's ability to defend Iceland. The Chief of Naval Operations has been apprised by me of the logistic requirements and communication facilities that will be required in Iceland to support this commander and an integrated AEW/ASW Barrier in the G-I-UK line.

5. Based upon the foregoing, I propose that we reach agreement on the outline operational plan for the seaward extensions of the DEW line into the Atlantic Command area, attached as enclosure (1), vice that contained in part II of reference (a). In this regard, I consider that the proposal in part III of reference (a) has already been provided for in the Unified Command Plan in that portion which assigns me responsibility for planning for, and operation of, the seaward extensions of the early warning system in my area of responsibility.

/s/ Jerauld Wright

JERAULD WRIGHT

Copy to:
CNO
CINCPAC

[redacted]

[redacted]

[redacted]

C O P Y

OUTLINE OPERATIONAL PLAN FOR

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1960 OPERATIONS OF ATLANTIC COMMAND EXTENSIONS

OF THE DISTANT EARLY WARNING

(DEW) LINE

1. MISSION: Provide early warning of an impending air or other forms of attack on the Continental United States through the Greenland-Iceland-U.K. Passages.

2. ASSUMPTIONS:

a. Land based radars and passive detection equipment on Greenland will be operated on a continuous basis by CINCONAD or by such subordinate commander as is designated by him.

b. Land based radar on the Faeroes will be installed under NATO cognizance, as presently approved by the JCS, through SACEUR infrastructure funding as part of the SHAPE Air Defense System. However, it will function as an integral part of the C-I-UK line and supply data to meet CINCLANT's requirements just as though it were a national installation.

3. COVERAGE CRITERIA: Radar surveillance criteria will be established in accordance with the Agreed Military Characteristics of the Distant Early Warning Line and its extensions as approved by the JCS and as suggested for the Argentia - Azores line in CINCLANT serial 0048/53 of 2 June 1956. Recognition must also be taken of the fact that the JCS have accepted a reduction in detection capability for the second extension from Cape Farewell to Azores to remain within the forces now programmed for the Argentia-Azores barrier.

4. OPERATIONS:

a. Land based radars and passive detection equipment on Iceland will be operated on a continuous basis by CINCLANT through COMICKINFOR for early warning as well as for air defense of Iceland.

b. The land based radar in the Azores will be operated by CINCLANT through COMUSFORAZ for early warning, as well as for air defense purposes.

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c. CINCLANTFLT will maintain the present Barrier Commander at Argentia who will exercise overall operational control of the 29 AEW aircraft and 21 DER ships programmed by the Navy for the Atlantic Seaward Extensions of the DEW line. CINCLANTFLT will provide the Barrier Commander at Argentia with a subordinate operational control center in Iceland, preferably in the same location as COMICKDEFOR, combining it, if practicable, with any Ground Surveillance Control Center established there. The Barrier Commander at Argentia will delegate operational control of sufficient ships to his subordinate at Iceland to establish and maintain one picket station between Iceland and the Faeroes and one between the Faeroes and U.K. In addition, to provide low altitude radar coverage in the Denmark Strait and between Iceland and the U.K., the Barrier Commander at Argentia will maintain a detachment of 10 WV-2 aircraft in Iceland and delegate operational control of these aircraft to his subordinate in Iceland to maintain one AEW station in the Denmark Strait and one between Iceland and the U. K.

d. The Barrier Commander at Argentia will establish and maintain five radar picket ship stations between Cape Farewell and the Azores augmenting their radar coverage with AEW aircraft operating from bases in Argentia and the Azores. This augmentation will be within the limitations imposed by the 19 AEW aircraft available for this line.

5. DATA HANDLING: Collection, correlation, evaluation, and dissemination of radar information in the Atlantic extension should be as follows:

a. Hostile or unidentified air contacts obtained on Greenland by radars operated by CINCONAD will be passed by flash precedence to CINCLANT, CINCLANTFLT, COMICKDEFOR, Barrier Commander at Argentia, and the subordinate Barrier Commander at Iceland.

b. The subordinate Barrier Commander at Iceland will receive all surveillance data acquired by all G-I-UK AEW aircraft and ships directly for correlation. AEW aircraft reports will be relayed by ships or received direct as conditions warrant. Data evaluated as hostile or unidentified will then be forwarded by flash precedence to CINCONAD, CINCLANT, COMICKDEFOR, and the Barrier Commander at Argentia. The Subordinate Barrier Headquarters will also be the collection agency for all data on enemy surface or submarine contacts derived from any source in the G-I-UK area and will pass these to CINCLANT, CINCLANTFLT, and the Barrier Commander at Argentia. The subordinate Barrier Commander at

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Iceland will establish a relay point for interchange of air defense information between North America, British, and SHAPE air defense systems.

e. Hostile or unidentified air contacts obtained by Iceland radars operated by COMICEDEFOR, will be passed by flash precedence to CINCONAD, CINCLANT, CINCLANTFLT, and the subordinate Barrier Commander at Iceland.

d. Radar contacts obtained by the radar in the Faeroes, will be passed by flash precedence to the subordinate Barrier Commander at Iceland.

e. Radar contacts obtained by AEW aircraft and ships in the northern half of the Cape Farewell - Azores line will be passed by the ships to the Barrier Commander at Argentia for preliminary evaluation and further passed to CINCLANTFLT and CINCLANT. Contacts obtained by AEW aircraft and ships in the southern half of the line will be passed directly to CINCLANTFLT and CINCLANT for correlation with contacts in the northern half of the line and, after evaluation as hostile or unidentified, passed to CINCONAD.

f. Hostile or unidentified air contacts obtained by Azores radars operated by COMUSFORAZ will be passed by flash precedence to CINCONAD, CINCLANT, CINCLANTFLT and the Barrier Commander at Argentia.

g. The nearest radar site on Greenland will be used as the point for passing flash reports into the CINCONAD system from reporting sources in the G-I-UK line.

h. Headquarters, Commander CONAD Forces, Eastern CONAD Region will be used as the point for passing flash reports into the CINCONAD system based upon information received from the Cape Farewell to Azores line. An alternate route will bethrough the Barrier Commander at Argentia to the 64th Air Division at Pepperrell AFB.

i. Controller to controller communications from adjacent radar sites for exchange of air defense operational information will be provided for.

6. Information useable to CINCONAD will be provided as stipulated in Part II 3 of CINCONAD 2517462 Jan 1956 in accordance with the foregoing.

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Iceland will establish a relay point for interchange of air defense information between North American, British, and SHAPE air defense systems.

c. Hostile or unidentified air contacts obtained by Iceland radars operated by COMICEDEFOR, will be passed by flash precedence to CINCONAD, CINCLANT, CINCLANTFLT, and the subordinate Barrier Commander at Iceland.

d. Radar contacts obtained by the radar in the Faeroes, will be passed by flash precedence to the subordinate Barrier Commander at Iceland.

e. Radar contacts obtained by ASW aircraft and ships in the northern half of the Cape Farewell - Azores line will be passed by the ships to the Barrier Commander at Argentia for preliminary evaluation and further passed to CINCLANTFLT and CINCLANT. Contacts obtained by ASW aircraft and ships in the southern half of the line will be passed directly to CINCLANTFLT and CINCLANT for correlation with contacts in the northern half of the line and, after evaluation as hostile or unidentified, passed to CINCONAD.

f. Hostile or unidentified air contacts obtained by Azores radars operated by COMUSFORAZ will be passed by flash precedence to CINCONAD, CINCLANT, CINCLANTFLT and the Barrier Commander at Argentia.

g. The nearest radar site on Greenland will be used as the point for passing flash reports into the CINCONAD system from reporting sources in the C-I-UK line.

h. Headquarters, Commander CONAD Forces, Eastern CONAD Region will be used as the point for passing flash reports into the CINCONAD system based upon information received from the Cape Farewell to Azores line. An alternate route will bethrough the Barrier Commander at Argentia to the 64th Air Division at Pepperrell AFB.

i. Controller to controller communications from adjacent radar sites for exchange of air defense operational information will be provided for.

6. Information useable to CINCONAD will be provided as stipulated in Part II 3 of CINCONAD 2517462 Jan 1956 in accordance with the foregoing.

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[redacted]

7. Communications requirements to provide for 5a through 5g, above have already been stated to the Chief of Naval Operations as the Executive Agency for CINCLANT. Facilities to meet 5h are installed.

8. Subject to CINCONAD agreement on the foregoing, CINCLANT will carry out detailed planning, arrangements, and implementation of the concept for those portions of the 1960 Atlantic Extensions of the Distant Early Warning Line which are in the Atlantic Command area of responsibility.

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capability from sea-level to 100000 feet in the 1960 era will depend upon availability of entirely new detection equipment in the barrier elements at that time. In this regard it is also noted that the Agreed Military Characteristics of the Distant Early Warning Line and Its Extensions do not specify attaining these far more stringent requirements until 1965.

4. In addition, the specified system reliability of 95% for 1957, and 100% for 1960 will be difficult to meet. Effectiveness of the over-ocean extensions of the DEW system depends upon surface ships and aircraft rather than upon land installations. Even after technical capability in ships and aircraft is provided, weather, which in the North Atlantic is often extremely severe, materially affects over-all system reliability; and ambient weather will play an important role in determining over-all system reliability in the Atlantic.

5. Commander in Chief Atlantic assumes that all possible steps should be taken to identify aircraft penetrating the line in the line itself. However, it is believed that it will not be practicable to perform the total function there, because picket ships in the line will not have all necessary data and other facilities required for rapid evaluation of contacts. The only naval location where this function can be performed is in the Control and Information Center of Commander in Chief Atlantic Fleet at Norfolk, Virginia.

6. Current planning, based upon past understanding of Commander in Chief Continental Air Defense Command requirements, envisions automatic relay in the future of all unevaluated data received from picket ships in the Argentia to Azores line from Fleet Headquarters in Norfolk to Headquarters, Joint Eastern Air Defense Force, Newburgh, New York. Commander in Chief Continental Air Defense Command new requirements for reporting evaluated "unknown" or "hostile" contacts, together with the need for a second terminal at Pepperrell Air Force Base, Newfoundland, revises planning concepts and communications facilities needed at Norfolk. Commander in Chief Atlantic will submit to the Chief of Naval Operations the additional communications facilities needed to support Commander in Chief Continental Air Defense Command requirements enunciated in references (a) through (c).

7. The desirability of meeting the time limits, set forth in reference (c), for reporting "unknown" and "hostile" surveillance data into the Continental Air Defense System is fully appreciated. All effort will be made to meet these times; but because of plotting, evaluation and communication factors, the time limits now mentioned may be difficult to attain. Again, only experience with operating the line will determine the feasibility of meeting them.

8. As requested in paragraph (7) of reference (c), enclosure (1) is forwarded. In some instances this document is inconsistent with reference (c), particularly with regard to communications circuits planned, since it

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was prepared in advance of the most recent statements of Commander in Chief Continental Air Defense Command requirements. Commander in Chief U.S. Atlantic Fleet will be directed to revise enclosure (1) to bring it as closely as practicable into alignment with requirements of reference (c). Upon completion, copies of the revised plan will be forwarded to Commander in Chief Continental Air Defense Command for coordination. Enclosure (2) is also forwarded for supplementary information relating to the operations of the Argentia to Azores Barrier.

C. K. [redacted]
Chief of Staff

Copy to:
CNO
CINCLANTFLT
COMFAIRCORONAD
COMFAIRWINGLANT

[redacted]

[redacted]

& 7 Dept 1956

FM CINCAL ELMENDORF AFBALASKA
TO CINCONAD ENT AFB COLO
BT
[redacted] FROM CED 5385. SUBJECT IS STATUS OF COMMUNICATIONS BETWEEN ADAK PAREN COMMUNICATIONS TERMINUS OF AEW LINE FROM MIDWAY PAREN AND UMNAK PAREN WESTERN TERMINUS OF DEW LINE EXTENSION AMONG ALEUTIAN CHAIN PAREN PD IN ORDER THAT CINCAL MAY RECEIVE AND PROCESS INFORMATION OBTAINED FROM CONTACTS ON THE AEW BARRIER CMA PARTICULARLY THE NORTHERN PORTION THEREOF CMA ADEQUATE RELIABLE COMMUNICATIONS MUST BE PROVIDED BETWEEN ADAK AND UMNAK PD EXISTING FACILITIES DO NOT MEET CURRENT REQUIREMENTS AND HENCE CANNOT BE CONSIDERED FOR ADDITIONAL REQUIREMENTS PD PROVISION FOR SUITABLE COMMUNICATIONS BETWEEN THESE POINTS WAS AN

PAGE TWO RJKDAG 96B
INTEGRAL PART OF THE CINCAL PROPOSAL TO JCS IN CHANGING WESTERN TERMINUS FROM ADAK TO UMNAK PD ACTUAL PROPOSAL WAS FOR A SUBMARINE CABLE TO LINK THE TWO POINTS PD JCS APPROVAL OF THE CINCAL PLAN DID NOT INCLUDE THE SUBMARINE CABLE PD FOLLOWING POINTS ARE A MATTER OF VITAL CONCERN TO THIS HEADQUARTERS CLN PAREN ALFA PAREN APPARENT LACK OF SPECIFIC PROVISIONS IN CURRENT PLANNING FOR RAPID INTERCHANGE OF OPERATIONAL INFORMATION BETWEEN CINCPAC AEW FORCES ANDALASKAN AIR DEFENSE FORCES PD PAREN BAKER PAREN CINCPACFLT AND SWOWG ARE NOW INDEPENDENTLY PREPARING OPERATIONAL PLANS FOR PACIFIC BARRIER MIDWAY DASH UMNAK AND ALEUTAIN DEW LINE EXTENSION RESPECTIVELY PD INFORMAL ADVICE FROM CINCPACFLT INDICATES PLAN TO OPERATE AS INDEPENDENT SYSTEM PASSING ONLY FILTERED PLOTS TO CINCONAD AND CINCAL VIA SOME AS YET UNDETERMINED ROUTE PD PAREN CHARLIES PAREN NO ACTION APPEARS UNDERWAY TO DETERMINE EITHER COMMUNICATIONS CIRCUIT REQUIREMENTS BETWEEN ADAK AND UMNAK OR KIND OF FACILITY TO PROVIDE THEM PD PAREN DELTA PAREN COMMUNICATIONS FACILITIES HAVING QUALITY AND RELIABILITY REQUIRED TO SUPPORTTWENTY FOUR HOUR A DAY AIR DEFENSE OPERATIONS HAVE A LEAD TIME OF TWO YEARS OR MORE PD CONSIDER EARLY DECISION IN REQUIREMENTS FOR COMMUNIATION CIRCUITRY BETWEEN ADAK AND UMNAK TO BE MOST URGENT PD END.
BT
07/1945Z SEPT RJKDAG

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10 Dec 56

PRIORITY X AF CINCAL CED 8385 SECRET

CINCONAD

CINCPAC PEARL HARBOR

[redacted] from COOPO 6046P

PERSONAL FOR PIERCY FROM ALEXIS. Following message from CINCAL quoted for your information and discussion at CINCPAC Quote /Secret/ from CED 8385. Subject is status of communications between ADAK paren Communications Terminus of AEW Line from Midway paren and UNIAK paren Western Terminus of Dew Line Extension along Aleutian chain paren pd In order that CINCAL may receive and process information obtained from contacts on the AEW Barrier and particularly the Northern portion thereof and adequate reliable communications must be provided between ADAK and UNIAK pd Existing facilities do not meet current requirements and hence cannot be considered for additional requirements pd Provisions for suitable communications 10 Dec 1956

COOPO

M/Gen Harvey T. Alexis, DCS/P&O

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COOPO

between these points was an integral part of the CINCAL proposal to JCS in changing Western Terminus from ADAK to UMNAK pd Actual proposal was for a submarine cable to link the two points pd JCS approval of the CINCAL plan did not include the submarine cable pd Following points are a matter of vital concern to this headquarters cln paren Alfa paren apparent lack of specific provisions in current plannin for rapid interchange of operational information between CINCPAC ATF Forces and Alaskan Air Defense Forces pd Paren Baker Paren CINCPACFLT and KWOWG are now independently preparing Operational Plans for Pacific Barrier Midway dash UMNAK and Aleutian Dew Line Extension respectively pd Informal advice from CINCPACFLT indicates plan to operate as independent system passing only filtered plots to CINCONAD and CINCAL via some as yet undetermined route pd Paren Charlie paren No action appears underway to determine either communications circuit requirements between ADAK and UMNAK or kind of facility to provide them pd Paren Delta paren communications facilities having quality and reliability required to support twenty four hour a day air defense operations have a lead time of two years or more pd

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COOPO

Consider early decision on requirements for communication circuitry between ARAK and WHMAK to be most urgent pd Rad Unquote

COOPO [redacted]

B-582-3K

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10Dec54

PRIORITY X AF CINCAL CED 5496 SECRET

CINCCHAD

CINCPAC PEARL HARBOR

(SECRET) from COOPO 10647 .

PERSONAL FOR PIERCE FROM ALGER. Following message from CINCAL quoted for your information and discussion at CINCPAC: Quote /Secret/ from CED 5496. Personal from Armstrong to Hartridge. Reference my CED 5385 dated 7 Sep 54. CINCPACFLT and USAF agencies continue preparation of independent operational plans for Pacific AEW Barrier and Aleutian Dew Line extension. Provision for rapid interchange of operational information between CINCPAC AEW Forces and Alaskan Air Defense Forces is apparently not being included in current plans. Consider provision of communications link including voice capability between ADAK and WHEAK essential to effective operation of overall system. Strongly recommend action leading to early decision of means 10 2300Z Dec 1954

COOPO

M/Gen Harvey T. Alagon, DCS/P&O
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of providing this facility. End Unquote

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AIR MAIL

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Secret Msg
COHCR 01658 SECRET

CINCONAD

COMDR AMC WPAFB OHIO
COMDR ADES PROJ OFF 220 CHURCH ST NY NY

8 AUG 1956

[redacted]ROM COHCS 1658

For Brig Gen C H Mitchell, AMC, and Brig Gen S T Wray, ADES. The following message Personal from Partridge to Twining is quoted for your information. "Secret) COHCR 01658. Personal to Twining from Partridge. This message in five parts. Part I Reference letter this headquarters, COMLO-2, 11 April 1956, to Chief of Staff, USAF, subject (Uncl) Construction of the Aleutian Chain and Greenland DEW Line Stations and to discussion between Assistant Chief of Staff, Installations, Headquarters USAF, and Assistant Chief of Staff, Installations, Headquarters Air Defense Command, 23 July 1956, on this matter. Part II. The urgency of the requirement for early extension of the DEW

08 1500Z
Aug 1956

COH[redacted]

MAJ W. D. MORRISON, Asst to C/S

[redacted] 2234 1 3

8 Aug 1956

[redacted]

Stuart

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Line has not decreased. Early warning of an air attack will continue to be of primary importance in the conduct of the active air defense of this country; in the successful launching of our nuclear retaliatory forces; and in the implementation of passive defense measures, including those to be taken by Civil Defense agencies. We have been given no assurance of strategic warning through intelligence sources. Therefore, in view of early warning requirements, the information provided by the distant early warning line may well be decisive in case of air attack. This is particularly true in view of the limited dispersal and base hardening planned for Strategic Air Command.

Part III. The land-based portion of the DEW Line from Cape Lisbourne to Cape Dyer only covers a limited portion of the approach routes open to the enemy. Without the completion of the Aleutian and Greenland portions and the further extensions of the line seaward as planned, the value of the Cape Lisbourne to Cape Dyer segment is greatly reduced. In view of the delays already experienced in planning for extending the DEW Line it is imperative that added urgency be placed on actual construction of the extensions. Part IV. It is logical to believe that the [redacted] gained to date by Western Electric Company will insure expeditious completion of the extension at a cost

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significantly less than that which the Corps of Engineers would require to complete the project. Members of this staff have inspected the DEW Line project from time to time and are convinced that Western Electric Company should complete the project. Part V. Comments contained in above-referenced letter are reaffirmed. It is urgent that funds be provided on a priority basis and crash actions pursued to effect the earliest possible operational date for all portions of the DEW Line.

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X AF

AFODC 50229
21 Dec 56

UNCLAS

COFS USAF EXECUTIVE AGENCY FOR CONAD WASH D C

INFO: CNO WASH D C

CINCLANT NORFOLK VA

COMNATS ANDREWS AFB CAMP SPRINGS MD

CINCUSAFE WIESBADEN GERMANY

[redacted] SHAPE PARIS FRANCE

[redacted] from COOOP_____.

Reference SECRET AFODC 50229 dated 21 Dec 56. This is message for JCS thru Executive Agency, NOFORN. Operational concept for Early Warning on Iceland-Scotland line via Faroes has been proposed to CINCLANT. Concept includes proposal that CINCLANT provide detailed planning for U.S. interests, arrangements and implementation with various agencies and commands along this line. Further answer to subject message will be forwarded as soon as CINCLANT provides comments.

M/R USAF, in message AFOAC S/O 51827, has asked if CONAD will meet the suspense date of 5 February 1957 for submission of a detailed operations plan for use of the line between Iceland and Scotland via Faroes as a Distant Early Warning line (as outlined in AFOOC 50229. CONAD has sent a message to CINCLANT, COOOP X014) proposing that CINCLANT be charged with responsibility for detailed planning for this line. Current message to USAF for JCS outlines above position and indicates reply to USAF message will be forwarded later.

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4 2200 Z

COL. JEFFUS/dal /s/t/ [redacted]

Feb 57

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FROM USAF

TO CINCONAD

[redacted] FROM AFOAC-S/O 51827.

Reference AFCDC msg 50229, 21 December 1956 concerning Faeroes Island.

Advise whether or not desired plan will be forwarded by 5 February 1957.

BT
01/2320Z Feb

[redacted]