

UNCLASSIFIED

AD NUMBER

AD372031

CLASSIFICATION CHANGES

TO: unclassified

FROM: confidential

LIMITATION CHANGES

TO:
Approved for public release, distribution
unlimited

FROM:
Controlling DoD Organization: US Army
Combat Developments Command, Fort Belvoir,
VA 22060.

AUTHORITY

Army Concept Team in Vietnam notice dtd 13
Sep 1973; Army Concept Team in Vietnam
notice dtd 13 Sep 1973

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ARMY CONCEPT TEAM IN VIETNAM
APO San Francisco 96243

372031

ANNEX H TO FINAL REPORT, HELICOPTER COMMAND POST (U)

COMPARISON OF THE AN/ASC-6 AIRBORNE COMMUNICATION FACILITY WITH THE AN/ARC-122 AIRBORNE COMMUNICATION COMMAND PACKAGE (U)

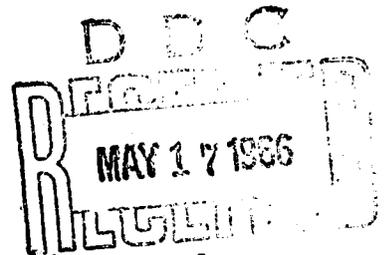
JRATA Project No. 1A-102.0

31 March 1966

Approved By:

Merrill G. Hatch

MERRILL G. HATCH
Colonel, Artillery
Chief



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ARMY CONCEPT TEAM IN VIETNAM
APO San Francisco 96243

ACTIV-LCD

31 March 1966

COMPARISON OF THE AN/ASC-6 AIRBORNE COMMUNICATION FACILITY WITH THE AN/ARC-122 AIRBORNE COMMUNICATION COMMAND PACKAGE (U)

1. (U) ABSTRACT

The comparison of the AN/ASC-6 with AN/ARC-122 was conducted as an informal evaluation by the Army Concept Team in Vietnam during December 1965 and January 1966. Its purpose was to determine if the best features of each set should be recommended to the USACDC as a combination to meet the Small Development Requirement (SDR) for an airborne communication facility.

The AN/ASC-6 was developed for use by Vietnamese Army commanders and their American advisors, whereas the AN/ARC-122 was developed to meet the requirements of the 11th Air Assault Division (1st Cavalry Division, Airmobile). It was found during the comparison that, primarily, variation in command and control concepts of the users was the reason for differences in the equipment configurations.

It is recommended in this annex that neither current version of the airborne command post, nor a combination of the best features of each, be type classified (other than limited production) at this time. Also, it is recommended that the Airborne Communication Facility proposed as USAMC Task Number 1E6-40306-D486-11 be approved and development of the equipment be expedited.

2. (U) REFERENCES

a. Final Report, Heliborne Command Post (U), JRATA Project No. 1A-102.0, 31 March 1965.

b. Instruction Manual, Communications Central, AN/ASC-6, prepared by US Army Electronics Command, Fort Monmouth, New Jersey, 28 October 1965.

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c. DA Message, DA 738806, subject: Communications Central AN/ASC-6, DTG 022143Z November 1965.

d. AMC Technical Committee, Subcommittee on Electronics Letter, AMCRD-DE, subject: Initiation of Task No. 1E6-40306-D486-11, code 6.41-03.06.1, titled "Airborne Communication Facility" (U), undated, with EXHIBIT (DD Form 1498) (included as appendix).

e. USACDC Letter, SWCA- subject: USACDC Evaluation of the Army Concept Team in Vietnam Test Report: Heliborne Command Post (U)

3. (U) AUTHORITY

Letter, AGAM-P (M) (17 July 1964) ACSFOR, DA, 31 July 1964, subject: Army Troop Test Program in Vietnam (U), as amended.

4. (U) PURPOSE

The purpose in comparing the Airborne Communication Facility, AN/ASC-6 modified, with the 1st Cavalry Division (Airmobile) Airborne Communication Command Package, AN/ARC-122, was to determine if the best features of each should be recommended to the USACDC as a combination to meet the Small Development Requirement (SDR) for an airborne communication facility.

5. (U) BACKGROUND

Reference 1a reported the evaluation by the Army Concept Team in Vietnam (ACTIV) of the Heliborne Command Post (HCP) which, with minor modification, became the AN/ASC-6 and was fabricated in limited quantity for use in Vietnam. Detailed description and operating instructions for the AN/ASC-6 are given in reference 1b.

The initial 15 HCP's fabricated by the Lexington Army Depot were well received and 15 additional HCP's were obtained. Twenty-one additional HCP's have been requisitioned. Because 1 set has been lost in combat, the total number of AN/ASC-6's on hand and on requisition is 50.

At the time of the ACTIV HCP final report, the HCP had been used only in support of ARVN operations and the conclusions and recommendations of the report and the radio configuration of the equipment were based solely on ARVN and ARVN advisor requirements. Since then, with the influx and participation of US and Free World Military Assistance Forces (FWMAF) in combat operations in Vietnam, it has become apparent that few modifications to the AN/ASC-6 are necessary to adapt it to concepts of operations employed by these forces. These modifications are discussed in paragraph 6.

The 1st Cavalry Division (Airmobile) brought the AN/ARC-122,

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Airborne Communication Command Package, to Vietnam from the 11th Air Assault Division tests in the CONUS, where experimentation under maneuver conditions permitted refinement of the package to meet requirements of the using commanders. The AN/ARC-122 was designed to provide commanders, down to and including battalion level, with greater flexibility and mobility in command control.

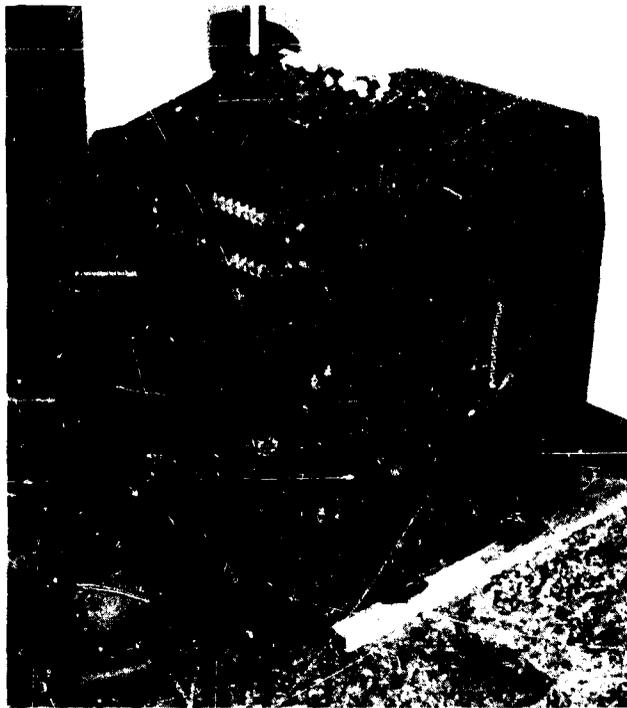
In response to a Chief, ACTIV query, the Department of the Army indicated, in reference 1c, that the AN/ASC-6 is not being considered for type classification at this time and that the AN/ASC-6 described in reference 1b has been modified by substituting one AN/ARC-54 for one of the AN/ARC-44 radios and by wiring the aircraft VHF FM and UHF AM into the console for accessibility to command post personnel. Reference 1b included information that the 1st Cavalry Division AN/ARC-122 is being considered for limited production classification with inclusion of UHF AM capability, either by adding a radio or by wiring-in the aircraft UHF AM set.

6. (C) DESCRIPTION OF EQUIPMENT

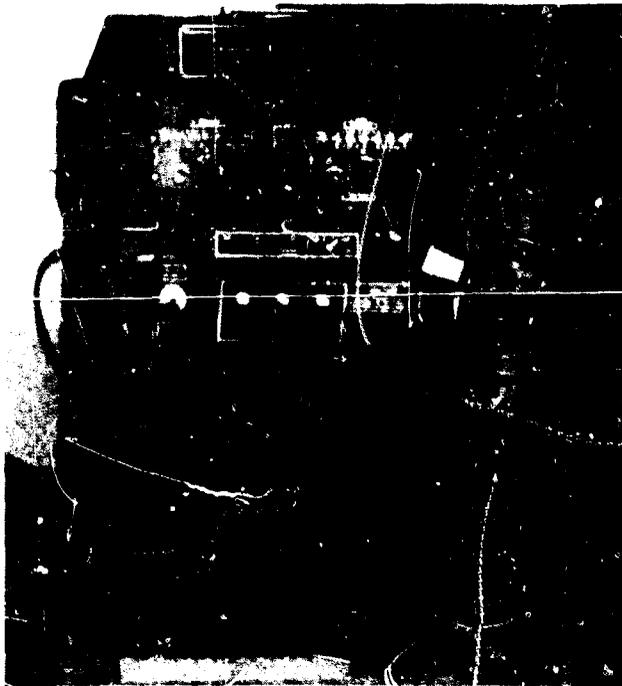
a. AN/ASC-6

The AN/ASC-6 console is 32½ inches long, 17½ inches wide, 32½ inches high (figure 1). Including its components, the console weighs approximately 180 pounds, not including the HF SSB receiver/transmitter (91 pounds), which is installed in the cargo compartment. The console contains three radio sets: two AN/ARC-44's (now being replaced by the newer and improved AN/ARC-54's) which provide FM channels 1 and 2, and one AN/ARC-51, UHF AM. It also contains two AN/ARC-44 (or 54) dynamotors and a storage compartment for headsets H-101/U and detachable cables. The front panel contains four color-coded operator stations, each with interphone and radio channel selectors and headset connecting cords. In addition, the front panel contains the FM-1 control panel above operator station 1 and FM-2 control panel above operator station 2. The sloping top of the console includes a control panel containing controls for the UHF AN/ARC-51; VHF AN/ARC-73A; HF SSB AN/ARC-102, and an eight-day clock. The upper portion of the pilot panel, on back of the console (figure 2), contains a power light and operator stations 5 and 6 with intercom, radio channel selectors, and headset connections. Also on the back of the console are the main switch, four circuit breakers, three antenna connectors, the AN/ARC-102 connector, and the radio junction box (covered). A new modification to the console is the wired-in aircraft UHF AM and VHF FM which makes these radios available to the operator positions. A further modification permits the inclusion of an additional (second) UHF AM, AN/ARC-51 in the console. This is considered to be desirable when the AN/ASC-6 is installed in the CV-2 (Caribou) aircraft, but is not contemplated for its use in the UH-1B or D helicopter. A limited quantity of installation kits for the CV-2 have been requested with the order for 21 AN/ASC-6's.

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(U) FIGURE H-1. Front/left side/top of Heliborne Command Post Console, AN/ASC-6.



(U) FIGURE H-2. Rear of Heliborne Command Post Console, AN/ASC-6.

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Antennas are mounted on UH-1 helicopters as follows: the HF SSB long wire is installed alongside the helicopter fuselage; VHF FM whips are mounted one on each side of the helicopter with bases attached to the skids and upper elements fastened to the aircraft frame just forward of the cargo doors; and VHF and UHF antennas are mounted on the underside of the tail boom in a single housing.

b. AN/ARC-122

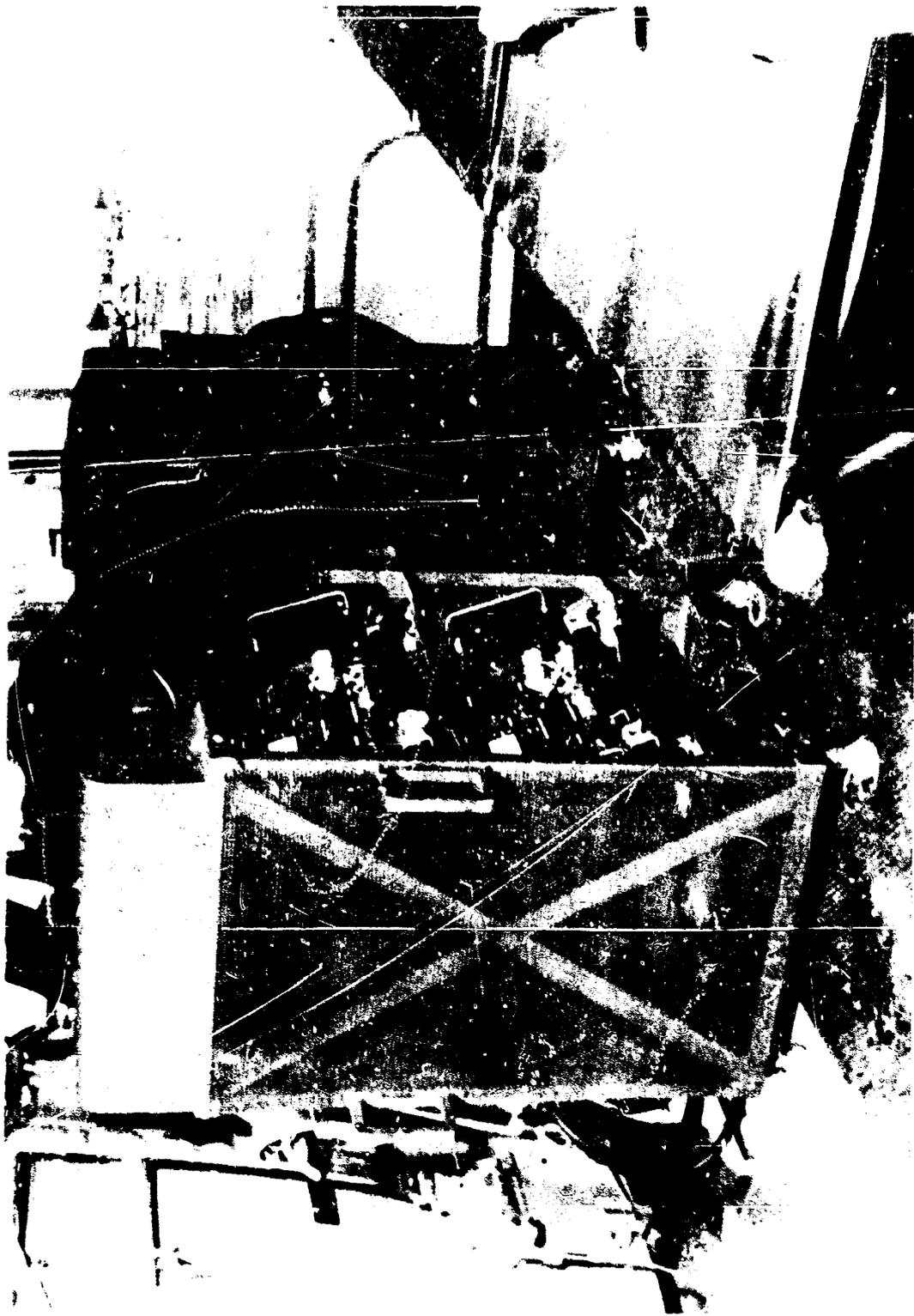
The AN/ARC-122 consists of either a single or double console configuration, depending upon requirements of the using commanders (figure 3). The two consoles are identical. Each houses two AN/VRC-46 radios and three operator stations, one of which is located on the rear of the console to provide the pilot or co-pilot access to intercom and console radios. Reference 1a states that the AN/ARC-122 is being considered for limited production classification, but not without addition of UHF capability, either by adding an AN/ARC-51 radio or wiring-in the aircraft AN/ARC-51. Such action will make four channels of VHF FM and one channel of UHF AM available to the six operator stations. At present only the pilot and co-pilot have access to the aircraft radios (UHF AM, VHF AM, and HF SSB, when included). The AN/ARC-122 console does not include or provide controls for HF SSB communication. However, HF SSB is normally included in UH-1D models and can be added to B models, if required, as aircraft radios. (UH-1B and D helicopters coming off the production line after July 1965 include HF SSB.) Facilities are provided in the rear of each console to interconnect the consoles, thus allowing any operating station to monitor all radios and to intercommunicate with any or all other operating stations. Consoles are mounted behind the pilot and co-pilot in the UH-1B helicopter and secured to the locking receptacles on the floor of the aircraft. The VHF FM antennas (center-fed whips) are mounted horizontally under the belly in line with and between the aircraft skids. The aircraft 28-volt dc power system provides power for all radios. A panel of three circuit breakers is located on the rear of each console to protect against overload of radios and the intercom system. When the double console configuration is used, automatic retransmission capability using two VHF FM communication channels is available. (Two AN/VRC-46's with autoretransmission constitute an AN/VRC-49.) This permits the Airborne Communication Command Package to function as an airborne radio relay for ground stations that are unable to communicate with each other.

See figures 4 and 5 for comparisons of equipment.

7. (C) DISCUSSION

As the evaluation was operationally rather than technically oriented, the bulk of this discussion was derived from interviews with commanders and staff officer personnel. Those interviewed were the Signal Officer, 12th Aviation Group; Signal Officer, 1st Cavalry Division

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(U) FIGURE H-3. Airborne Communicator Command Package, AN/ARC-122 (Dual).

Weight of Console	160 pounds (less HF SSB, 91 pounds in cargo compartment)	530 pounds, including antennas and cabling
Size	32½ x 17½ x 33½ inches	Approximately twice the size of the AN/ASC-6
Aircraft Modification	Yes, wiring	No
Installation Time (2 men)	Five minutes (after aircraft has been modified)	Twenty minutes
Operator Stations	Six	Six
Radio Channels		
UHF	Two (one integral to console; the other, aircraft radio wired-into console)	One (aircraft radio wired-in)
VHF AM	One (provision in console for substitution for UHF AM)	None
VHF FM	Three (includes aircraft radio wired-in)	Four (integral to console) (two when facility is used as radio relay)
HF SSB	One (in cargo compartment with controls in console)	None

(U) FIGURE H-4. Comparison of AN/ASC-6 and AN/ARC-122 consoles.

<u>CHARACTERISTICS</u>	<u>AN/VRC-46</u>	<u>AN/VRC-49</u>	<u>AN/ASC-6</u>	<u>AN/ARC-54</u>
	One	Two	One	One
Receiver/Transmitter				
Frequency	30 to 76 mc	30 to 76 mc	24 to 51.9 mc	30 to 69.95 mc
Channel Spacing	50 kc	50 kc	100 kc	50 kc
Channels	920	920	280	800
Power Output	35 watts	35 watts	8 watts	10 watts
Range (conditional)	40 to 60 miles	40 to 60 miles	Line-of-sight	25 miles
Weight	70 pounds	160 pounds	39 pounds	25 pounds
FM Series	New	New	Old	New

(U) FIGURE H-5. Comparison of VHF FM components of the AN/ASC-6 and the AN/ARC-122

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(Airmobile); the senior advisor to the ARVN 21st Infantry Division; the Commanding Officer, 101st Aviation Company; a member of the 173d Infantry Brigade (Airborne) staff; and representatives from G-3, US Field Force Vietnam. Summaries of their views are presented below.

The Signal Officer, 12th Aviation Group, who monitors distribution and employment of the AN/ASC-6's in the RVN, believes that the current configuration of the AN/ASC-6 HCP is best for the role that it plays in the support of Vietnamese, FVMAF, and US combat forces. He thought that use of airborne radios (AN/ARC-type) in the HCP is an advantage in that the entire package lends itself to avionics support which is well established in the 12th Group. While the ARC-type VHF FM radios do not provide the power output that the VRC-type do (10 watts contrasted with 35 watts), the ARC is adequate in this respect. Although the VRC affords a range of about 40 miles and ARC approximately 25 miles at operational altitudes, the latter was considered adequate for distances involved in combat operations. The AN/ASC-6 with its two VHF FM and one UHF AM radios integral to the console (excluding the HF SSB, 91 pounds, located in the cargo compartment) weighs 180 pounds, as opposed to the dual console AN/ARC-122 with four VHF FM radios which weighs 530 pounds. The 12th Group Signal Officer felt that the 530-pound weight of the dual console AN/ARC-122 was too heavy and that weight should be a primary consideration in the design of a console. By providing HF SSB, the HCP is able to communicate with higher echelon, the Direct Air Support Center (DASC) or Air Support Operations Center (ASOC), which are often located beyond operating ranges of UHF, VHF, and VHF FM radios. Although the AN/ASC-6 is not now being considered for type classification, the 12th Group Signal Officer considers that the current means of obtaining the HCP equipment, i.e., by special project, is satisfactory. Because components of the console are standard items, there is no problem with logistic support of the AN/ASC-6.

The Signal Officer, 1st Cavalry Division felt that there are advantages in using VRC-type VHF FM radios instead of the ARC type:

- 1) The VRC's cover the full frequency spectrum of the ground AN/VRC-12 series radios.
- 2) Ground personnel in the airborne command post are familiar with operation of VRC radios and, since maintenance support is common, it is more readily available. Replacement radios and maintenance are available at any unit in the division.
- 3) The added power is important, especially if the airborne facility is to be used for radio relay. For this use the automatic retransmission capability of the VRC-type also is essential.

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- 4) The console can be left with and maintained by the ground combat unit and used in any helicopter assigned to support that unit.

The 1st Cavalry has seen no need for HF SSB or VHF AM in its airborne command post console and has not included it. The HF SSB normally is installed in UH-1D models and can be easily installed in B models if required. The VHF AM is available to pilot and co-pilot in both models of the UH-1. The entire AN/ARC-122, including antennas and cabling, can be installed in or removed from the UH-1 helicopter in 20 minutes without any modification to the aircraft or its wiring. This means that any UH-1 can be adapted as an airborne command post without losing its versatility for other purposes, except for the time that it is so employed. Mounting of the VHF FM antennas horizontally beneath the helicopter proved advantageous in that interference with communication does not occur from the shielding effect of the fuselage as it does when antennas are mounted vertically on the aircraft skids. Unlike commands using the AN/ASC-6, the 1st Cavalry Division ALO operates not from the airborne command post but from another aircraft in the vicinity of the HCP. He communicates with the commander in the VHF FM command net. Optimum distribution of airborne command posts within the division is four per brigade and one per artillery battalion. The Signal Officer, 1st Cavalry Division was satisfied with Department of the Army's proposed action (reference 1c) to assign limited production classification to the AN/ARC-122. Such action would assure continued logistical support of the equipment.

Impressions were obtained from other users of the AN/ASC-6. The senior advisor to the ARVN 21st Infantry Division indicated satisfaction with the HCP configuration. However, in order to have an additional VHF FM channel for backup, the 13th Aviation Battalion HCP supporting that division was modified by the addition (in brackets) of an AN/PRC-25 radio. An antenna of communications wire, cut to frequency, was wound fore to aft on the skid supports.

In discussing the HCP and its employment with members of the 13th Aviation Battalion, the 101st Aviation Company and the 121st Aviation Company, it was learned that during typical operations in which the battalion supports ARVN forces, the HCP now includes the ARVN commander, his senior advisor, an ARVN officer-assistant to the commander, an American officer-assistant to the advisor, the pilot, a co-pilot (usually aviation unit commander or operations officer), a crew chief/gunner, and another gunner. Both UH-1B and UH-1D models are used as HCP's in the 13th Battalion. In all, there are five HCP's: three D models and two B's. One of the D's is normally used in support of the ARVN IV Corps commander. The D model HCP's can operate 2½ hours before refueling; B models only 1 hour and 40 minutes, unless an auxiliary fuel tank is carried. The radio configuration of the AN/ASC-6 HCP's used by the 13th Aviation Battalion is:

- 1) VHF FM channel No. 1--AN/ARC-44 in console--used by ARVN

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commander to communicate with his subordinate commanders equipped with AN/PRC-10 radios.

- 2) VHF FM channel No. 2--AN/ARC-44 in console (modified by inclusion of an 180,000 ohm resistor to make the set compatible with the narrower band AN/PRC-25 radios used by US forces)--used by the senior advisor to communicate with his subordinate advisors on the ground, who are equipped with the AN/PRC-25.
- 3) UHF AM channel--AN/ARC-51 in console--used by senior advisor to communicate with the US Air Force forward air controller (FAC), usually controlling tactical air strikes from an O-1E aircraft.
- 4) UHF AM channel--AN/ARC-51 aircraft radio, not wired-in to console in the 13th Battalion HCP's. This set normally operates in the Army aviation command net, permitting the pilot and/or co-pilot to communicate with leaders of troop carrier helicopter and armed helicopter platoons.
- 5) VHF FM channel--AN/ARC-54 aircraft radio, not wired-in to the console in the 13th Battalion HCP's. This set permits the pilot and co-pilot to monitor the troop carrier air "chatter" net.
- 6) VHF AM channel--AN/ARC-73 aircraft radio, not wired-in to the console in the 13th Battalion HCP's. This set permits monitoring by the pilot and/or co-pilot of the armed helicopter platoon internal radio net. The pilot and co-pilot of the HCP are discouraged from transmitting on this channel because of interference with critical transmissions when the armed helicopters are involved in combat action.
- 7) VHF FM channel--AN/PRC-25. This is the set, previously mentioned, which sometimes is carried in the HCP as a backup for VHF channel No. 2.
- 8) HF SSB channel--AN/ARC-102--aircraft radio, not wired-in to console in the 13th Battalion HCP's. This set is not included in UH-1B helicopters prior to those coming from production after July 1965 but is included in the aircraft avionic configuration of the D models. The 13th Aviation Battalion officers interviewed indicated no need for HF SSB in the HCP.

In discussing the HCP requirements with a representative of the 173d Infantry Brigade (Airborne) staff, it was learned that the 173d had one

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AN/ASC-6 assigned, one on loan from the 12th Aviation Group, and had need for one more, for a total of three. The 173d contains two US infantry battalions with one Australian infantry battalion attached. Also, the 173d desired VHF AM in addition to UHF AM, and so had added an AN/ARC-73 VHF AM radio to the HCP. The VHF AM was needed to communicate with supporting tactical aircraft and FAC who were so equipped. Distances involved for communication within the brigade normally did not exceed 30 miles and the AN/ARC type radios were therefore considered by the 173d to be adequate in range capability.

From discussion with representatives from G-3, US Field Force Vietnam, it was learned that the HCP, from their point of view, was quite adequate. Field Force includes the 1st Cavalry, with its AN/ARC-122's, other US, and ROK forces which are supported by the AN/ASC-6 HCP's. In his previous capacity as an infantry battalion commander in Vietnam, one G3 representative found that three VHF FM channels were needed in the HCP; one for the battalion command net, one for artillery, and one to be used by the ALO and the Army aviation officer. To provide the third VHF FM channel, an AN/PRC-25 was added to the HCP.

From the views expressed above it is apparent that operational concepts for airborne command posts vary according to combat tactics employed, desires of commanders, whether the user or force being supported is US, ARVN, or FWMAF, and the tactical echelon at which the facility is employed. The operational concept and the type of tactical radio communications with which the using force is equipped determine the radio configuration of the facility.

Little modification to the AN/ASC-6 console and its components has been recommended by users since its issue to troops. However, one significant modification that is being made results from the inherent design incompatibility between the AN/ARC-44 (older VHF FM compatible with radios used by the ARVN and ROK forces) and the AN/ARC-54 (new VHF FM compatible with those used by US forces). The AN/ARC-54 will be modified to permit its substitution for all AN/ARC-44's currently in use in the AN/ASC-6 with no degradation of communication when netted with either the old or the new family of VHF FM radios.

A third VHF FM channel and a second UHF AM channel are being provided to console control stations by wiring-in the aircraft VHF FM and UHF AM radios. Aviation unit personnel consulted viewed this modification with disfavor since it enabled HCP staff personnel to control aircraft radios needed by the aircraft crew.

In CONUS a proposed contractual effort to provide engineering development models of an airborne communication facility for service test to satisfy the approved USACDC SDR has been delayed because of insufficient funds. Reference 1d is a recommendation of the Subcommittee on Electronics to the Army Materiel Command Technical Committee to

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provide an airborne communication facility. It proposes developing assemblages of standard airborne communications equipment packaged for ready installation in Army aircraft to be used as airborne command posts or aerial radio stations. The effort would be limited to performing tests and modifications on the existing Airborne Communication Facility, AN/ASC-6 to improve its characteristics for interim use. Coordination would continue with USACDC on methods to satisfy the approved SDR for an airborne communication facility.

As a result of USACDC evaluation of the ACTIV report (reference 1a), USACDC has informed ACSFOR, DA, by reference 1a, that the following actions will be taken:

- 1) As appropriate field manuals are revised, use of the airborne communications facility in counterinsurgency operations will be included.
- 2) Research and development will be continued to meet the approved SDR for an airborne communication facility. The AN/ASC-6 does not meet all requirements of the SDR and is considered to be an interim piece of equipment furnished through limited production to meet immediate user requirements.

8. (U) FINDINGS

a. Varying operational concepts in the RVN precluded satisfying all requirements efficiently with any one known version of the airborne command post.

b. Both versions of the airborne command post were logistically supportable, although neither was type classified.

c. The AN/ARC-122 did not require special wiring modifications in the UH-1 Helicopter, whereas the AN/ASC-6 did. Thus, the latter was limited to installation in those helicopters which were so modified.

d. The configuration of the dual console AN/ARC-122 prevented use of the two gunner's seats located immediately behind the pilot and co-pilot. The AN/ASC-6 configuration permitted retention of these seats.

e. The dual console AN/ARC-122 was capable of automatic re-transmission, enabling it to serve also as a VHF FM radio relay. The AN/ASC-6 did not have this capability.

9. (U) CONCLUSION

Neither version of the airborne command post, nor a combination of the best features of each, should be recommended for type classification

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(other than limited production) at this time.

10. (U) RECOMMENDATIONS

It is recommended that:

a. No type classification action that is not currently underway be taken in regard to either the AN/ASC-6 or the AN/ARC-122.

b. The AN/ARC-122 continue to be considered interim to the new development proposed in reference 1d.

c. The new facility to be developed contain only Standard A components.

d. The development proposal contained in reference 1d be approved and expedited.

APPENDIX TO ANNEX H
INITIATION OF TASK

AMCTC Item 3993

Meeting No. 1-66

HEADQUARTERS
UNITED STATES ARMY MATERIEL COMMAND
WASHINGTON, D. C.

AMCRD-DE

AMSEL-NL-D-8

From: Subcommittee on Electronics

TO: The Army Materiel Command Technical Committee

Subject: Initiation of Task No. 1E6-40306-D486-11, Code 6.41-03.06.1,
titled "Airborne Communication Facility" (U)

1. References:

- a. AR 705-9, 14 May 1965, Appendix, Part I, Section A.
- b. AR 705-5, October 1964, para 19c(1).
- c. AR 705-12, Change 3, 25 November 1964.

2. Discussion and Pertinent Data: See Exhibit.

3. Recommendations:

- a. Task No. 1E6-40306-D486-11, titled "Airborne Communication Facility" (U)", be authorized.
- b. Attached Task Card DD Form 1498 on subject Task be approved.
- c. Task is assigned Security Classification of UNCLASSIFIED.

4. Exhibit:

Exhibit: "Task Card DD Form 1498, Task No. 1E6-40306-D486-11".


W. SATTER
Secretary, Electronics Subcommittee


WALTER J. HEWITT
Colonel, GS
Chairman, Electronics Subcommittee

Report No. 7609
Electronics Subcommittee Mtg. No. 671
2 December 1965

RESEARCH AND TECHNOLOGY RESUME				1 GOVT ACCESSION	2 AGENCY ACCESSION	REPORT NUMBER (FORM 1)
1 DATE OF RESUME 15 07 65	2 KIND OF RESUME F. Plan(Change)07 04 65	3 SECURITY U REF U	4 REGARDING N/A	5 RELEASE LIMITATION QR	6 DA 6A1874	7 CSCRD-103
10a CURRENT NUMBER/ CODE 6.41.03.06.1 LE640306D48611				10b PRIOR NUMBER CODE No Change		
11 TITLE (U) Airborne Communication Facility						
12 SCIENTIFIC OR TECH AREA Air Facilities; Communications				13 START DATE 01 09 65	14 CRIT. COMPL DATE 31 12 68	15 FUNDING AGENCY N/A
16 PROCURE METHOD N/A	17 CONTRACT GRANT a NUMBER N/A b DATE c TYPE d AMOUNT		18 RESOURCES EST PRIOR FY 65 0 CURRENT FY 66 8		19 PROFESSIONAL MAN-YEARS 0 217	
19 GOVT LAB INSTALLATION ACTIVITY NAME ADDRESS RESP. INDIV TEL			20 PERFORMING ORGANIZATION NAME ADDRESS INVESTIGATORS PRINCIPAL ASSOCIATE TEL TYPE			
21 TECHNOLOGY UTILIZATION Civilian Aviation			22 COORDINATION USATECOM, USACDC			
23 KEYWORDS Airborne communications equipment; Airborne Command Post; Aerial Radio Relay						
24 (U) The development of assemblages of standard airborne communications equipment, packaged for ready installation in Army aircraft, to provide capability for an aircraft to be utilized as an Airborne Command Post or Aerial Radio Relay. The equipment will also be capable of usage on the ground when required. Provision will be made for VHF-FM, HF-SSB, and UHF-AM radio capabilities. VHF (AM) will be substituted for UHF-AM when required by theater doctrine.						
25 (U) Internal effort is required to complete preparation of technical requirements for the facility and prepare related procurement information. Effort will be limited to performing tests and modifications on the existing airborne Command Facility AN/ASC-6 to improve its characteristics for interim use. Coordination will continue with USACDC on methods to satisfy the approved SDR.						
26 (U) The initially proposed contractual effort to result in an engineering development model or models for service test to satisfy the approved SDR has been delayed because of insufficient funds. Type classification cannot be predicted.						
27 COMMUNICATIONS SECURITY a COMSEC OR COMSEC RELATED <input checked="" type="checkbox"/> b NOT RELATED		28		29 OSD CODE DT	30 BUDGET CODE 2	
31 MISSION OBJECTIVE SDR 53b(2)				32 PARTICIPATION		
33 REQUESTING AGENCY		34 SPECIAL EQUIPMENT				
35 EST. FUNDS (in thousands) CPVAL 215		36				

DD FORM 1498

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Report No. 7609

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1. ORIGINATING ACTIVITY (Corporate author) ARMY CONCEPT TEAM IN VIETNAM APO San Francisco 96243		2a. REPORT SECURITY CLASSIFICATION CONFIDENTIAL	
		2b. GROUP Group 4	
3. REPORT TITLE ANNEX H TO FINAL REPORT HELICOPTER COMMAND POST, COMPARISON OF THE AN/ASC-6 AIRBORNE COMMUNICATION FACILITY WITH THE AN/ARC-122 AIRBORNE COMMUNICATION COMMAND PACKAGE (U)			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) ANNEX TO FINAL REPORT - DEC 65 TO JAN 66			
5. AUTHOR(S) (Last name, first name, initial) RICHEY, Thomas, B. Lt Col, SigC			
6. REPORT DATE 31 March 1966	7a. TOTAL NO. OF PAGES 16	7b. NO OF REFS None	
8a. CONTRACT OR GRANT NO.	9a. ORIGINATOR'S REPORT NUMBER(S) None		
b. PROJECT NO.			
c. None	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report) JRATA Project No. 1A-102.0		
d.			
10. AVAILABILITY/LIMITATION NOTICES Qualified requestors may obtain copies of this report from DDC.			
11. SUPPLEMENTARY NOTES None		12. SPONSORING MILITARY ACTIVITY US Army Combat Developments Command Fort Belvoir, Virginia	
13. ABSTRACT The comparison of the AN/ASC-6 with AN/ARC-122 was conducted to determine if the best features of each set should be recommended to the USACDC as a combination to meet the Small Development Requirement (SDR) for an airborne communication facility. (U) The AN/ASC-6 was developed for use by Vietnamese Army commanders and their American advisors, whereas the AN/ARC-122 was developed to meet the requirements of the 11th Air Assault Division (1st Cavalry Division, Airmobile). It was found during the comparison that variation in command and control concepts of the users was the primary reason for differences in the equipment configurations. (U) Neither current version of the airborne command post, nor a combination of the best features of each, should type-classified (other than limited production) at this time. The Airborne Communication Facility proposed as USAMC Task Number 1E6-4030C-D486-11 should be approved and development of the equipment expedited. (U)			

DD FORM 1473
1 JAN 64

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14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT

**Airborne Command Post
Counterinsurgency
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