DEPARTMENT OF THE ARMY
HEADQUARTERS, 8TH AVIATION BATTALION (CARRIER)
8TH INFANTRY DIVISION
APO New York 09185

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SUBJECT: Employment of Army Aviation within the 8th Infantry Division

1. The attached paper is provided to all Brigade and Battalion level commanders as an information document to supplement existing DA publications and is designed as a "quick overview" that consolidates salient doctrine and employment concepts to be used within this Division until such time as the Avn Bn SOP is published. (ECD 1 Oct 78)

2. This information is in keeping with V Corps Doctrine and much of it has been extracted from the Corps Field SOP.

3. Those paragraphs annotated with asterisks should be considered by all commanders for inclusion in unit field SOP's. All other information should prove helpful in the development and up date of General Defense planning and unit training programs.

4. Questions and/or requests for additional information are solicited. Contact 8th Aviation Battalion, 2354-768/825.

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SUBJECT: Employment of Army Aviation within the 8th Infantry Division

1. PURPOSE: To present the concept of employing attack, scout, C and C, and mine dispensing helicopters in support of the 8th Infantry Division, from which SOP, GDP, and supporting logistical plans may be developed.

2. TERMINOLOGY:

A. Forward assembly area: contains an aviation unit's operational aircraft and crews, command post/operations center, maintenance contact teams, aidmen, and forward area refuel/rearm elements. (All other elements are kept at rear bases where major maintenance is accomplished). Assembly areas should be accessible to main supply routes, and should offer good camouflage. An excellent location for assembly areas is in or near towns or villages, which offer hard stand for easy-movement of aircraft, and structures which help conceal the unique outline and heat signature of helicopters. Assembly areas should be located far enough to the rear to be beyond the reach of medium artillery fire, usually no futher forward than the brigade rear area. Typical forward assembly areas strengths within the Corps, assuming a 70% aircraft operational ready (OR) rate, are shown below. Equipment and personnel normally remaining in the rear are depicted on the right side of the chart.

	FORWARD ASSEMBLY AREA							REAR AREA			
UNIT	AIRCRAFT	NUMBER OF PERSONNEL	VEHICLES	TOE FARES (4 pt)	FARRP CAP	MAINT CAP AIRCRAFT	NOBM DISPERSION (Sqkm)	AIRCRAFT	NUMBER OF PERSONNEL	VEHICLES	AC MAINT CAPABILITY
HHC, Corps Avn Gp	0	40-50	7-9	0	0	NA	1	0	31-41	2-4	NA
Corps Avn Maint Bn	DS/GS Contact Tms as Required							5	563	53	DS/GS
HHC Corps Avn Bn	2	83	11	0	0	NA	1				
Corps Avn Co	14	65-66	22	2	1	ORG	2	6	5-6		NA
HHC, Div Avn Bn	0	105-130	57-59	4	3	NA	2	0	25-46	5-7	NA
Cbt Spt Co (Avn Bn)	29	125-130	25-27	0	0	DS CT	2	12	53-58	2-4	DS
Maint Co (Avn Bn	DS/GS Contact Tms as Required							1	177	34	DS/GS
Atk Hel Co (Avn Bn)	25	125-150	35-38	4	3	DS CT	3	12	71-96	3-6	DS
Aslt Hel Co	16	125-150	25-30	4	2	DS CT	3	7	25-50	2-7	DS
Aslt Spt Hel Co	9	95-110	12-14	3	2	DS CT	3	7	78-93	2-4	DS

B. Forward Area Refuel/Rearm Point (FARRP): A forward site selected by the aviation commander for the purpose of refueling and rearming aircraft. FARRP's are established, where needed, to decrease aircraft turn around time, thereby increasing time on station in support of ground maneuver units. A FARE (Forward Area Refueling Equipment) consists of a pump, filter, separator, and hoses and connections for up to four refuel points. Air delivered blivits or vehicle tankers are the most common fuel sources. In addition to at least one FARE, the FARRP will also contain ammunition appropriate to the type of aircraft using it. FARRP's should contain at least sufficient fuel and ammunition for one turnaround of the unit/element it is supporting. As with assembly areas, consideration should be given to using manmade structures such as tunnels, buildings, and bridges to protect and camouflage FARRP operations. Since the aviation unit can provide only very limited firepower at the FARRP location, security is provided by selecting an area with good camouflage and little likelyhood of contact with the enemy. Since a FARRP is established in or near the forward assembly area, additional FARRP's should normally be considered only when the distance from the assembly area to the final employment area (battle positions for attack helicopters) exceeds 30 kilometers. Additional FARRP locations may also be necessary to reduce detection of a forward assembly area which is not displacing on a regular basis. These additional FARRP's should be located 17 to 25 km from the employment area to:

(1) Remain outside medium artillery range.

(2) Reduce the possibility of attack by enemy patrols or bypassed forces.

(3) Optimize the ability of friendly ADA to provide protection against enemy air attack. (Regardless of how well camouflaged the FARRP location is, the helicopters in the FARRP will be easily observed from above, and will be a prime target for enemy high performance aircraft).

(4) Optimize the distance the refuel/rearm vehicles have to move forward compared to the helicopters ability to move rapidly to the rear. (This is the most significant reason for establishing FARRP's 17 to 25 kilometers from the aircraft employment area.) The helicopter uses slow Nap-of-the-earth, NOE, flight to the FARRP. At contour or low level flight, the helicopter will average three kilometers a minute, meaning it can return 17 kilometers in about six minutes or 25 kilometers in about nine. (See para 6h). Vehicles moving forward over congested or contested roads, possibly interfering with more critical movement by combat vehicles, may take 30 minutes or more to move the same 10 kilometers the helicopters can cover in three or four minutes. The further forward the FARRP is, the more difficult it is to put it in position, the more likely contact with the enemy becomes, and more time is required before the vehicles can be resupplied and shifted to another position. This is not usually warranted to save only a few minutes of flight time for the returning helicopters .

C. Holding Area: A site, offering good cover and concealment, between the assembly area and the final destination for tactical operations. The holding area is usually associated with attack helicopters, being the area where attack helicopters wait for the scout helicoters to develop the situation and select battle positions. Aircraft do not normally shut down in a holding area and they are occupied only for short periods of time. If long delays are expected, aircraft should return to the assembly area.

D. Battle Positions: Positions used by attack helicopters for target engagement. The team leader/platoon commander designates team/platoon battle positions, but individual aircraft commanders select the actual firing position within the battle position.

E. Helicopter Landing Zone: A specified ground area for landing to embark or disembark troops and/or cargo.

F. Field Site: A common Air Traffic Control (ATC) term denoting a helicopter is going to land at an unprepared site in support of tactical training or operations. The helicopter(s) may be landing at a landing zone, assembly area, FARRP, CP, or any other tactical site.

G. Division Instrumented Airfield or Heliport: Usually a field site in the vicinity of the Division rear, although it may be an existing airfield or heliport which is occupied for temporary use. Its primary purpose in this Division is to provide for an instrumented facility to guide A/C into the Division sector during periods of adverse weather. Personnel and equipment for tower operations, approach control, ground control approach radar, and terminal navigation aids are provided by supporting Air Traffic Control (ATC) units augmented by Divisional pathfinders. The Division Flight Coordination Center (FCC) is usually co-located with this facility, provided necessary communications can be established from this location to the DAME and Aviation Battalion CP.

H. Attack Helicopter Companies: Considered to be maneuver units, rather than fire support assets, and addressed in paragraph 3 of orders and plans. FM 17-50 Attack Helicopter Operations designates them aerial maneuver units to denote their ability to dominate terrain, but not retain it. Other reasons for considering them maneuver units are:

(1) They must maneuver to place direct fire on a target. Because at Nap-of-the-earth (NOE) altitudes they occupy virtually the same terrain as other maneuver units, their routes must be coordinated to avoid interference with other activities. (Ground commanders must be careful not to unduly restrict attack helicopters, however, thereby reducing their responsiveness and flexibility).

(2) Ground commanders must be prepared to provide real estate for attack helicopter units for such locations as assembly areas, holding areas and forward area refuel and rearm points (FARRP's).

(3) Attack helicopter units can be task organized with ground maneuver units to form a combined arms unit. Certain offensive operations may best be accomplished by placing attack helicopters and ground elements under a single commander for planning, rehearsal, and conduct of the operations. In certain circumstances attack helicopters and armored vehicles would make excellent fire and maneuver partners. While task organizing to this degree is not visualized in support of defensive operations, there may be times when an attack helicopter company commander is given command of a sector where the ground unit is disintegrating under enemy pressure, with orders to stop the attacking forces and consolidate the remaining defenders until additional forces arrive or the chain of command is re-established.

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I. Attack Helicopter Platoon/Team. The terms attack helicopter platoon or attack helicopter team are synonymous to the degree that both provide a normal operational mix of three OH-58's and five AH-1's, and have the same firepower capability. The difference is the internal organization of the attack helicopter company. If the TOE specifies three attack helicopter platoons (7 AH-1's each) and one pure scout platoon (12 OH-58's) the operational attack helicopters and scouts are task organized into an attack helicopter team for combat operations. If the TOE specifies three attack helicopter platoons (7 AH-1's and 4 OH-58's each) the attack helicopter platoon is already task organized for combat. USAREUR is currently organized with three integrated platoons. ARCSA III MTOE's specify four pure platoons. The 8th Infantry Division has one attack company organized in each way on a test basis. Charlie Company has three integrated platoons, and Bravo company has 3 attack and one pure scout platoon.

3. EMPLOYMENT OF AVIATION ELEMENTS WITHIN THE DIVISION:

A. Attack Helicopter Units: (AH-1S, OH-58, UH-1H)

(1) Attack Helicopter units are aerial maneuver units, which should be employed as part of the combined arms team, ideally suited for situations requiring rapid reaction, when ground forces are inadequate or restricted by terrain.

(2) Attack helicopter units are best employed against armor or mechanized formations on the move. Maximum advantage should be taken of their standoff capability. (Tow COBRAS can engage targets out to 3,750 meters with TOW missiles and can place suppressive rocket fire out to 5,000 meters).

(3) Scouts of the attack helicopter company, whether a pure platoon or integrated into the three attack platoons, are indispensable to the security and employment of the attack helicopter. These scouts should not be tasked for independent missions.

(4) Attack helicopter units are normally employed in company strength, in mass if maximum destruction is needed in a short time, or utilizing the one-third rule (one platoon engaging, one platoon refueling/rearming and one platoon enroute) if sustained firepower is required.

(5) The supported unit commander should expect a lag time of approximately 45-60 minutes from the time an attack helicopter platoon departs the battle position, refuels and rearms, and returns to the battle position.

(6) Responsiveness of attack helicopters to the ground commander's request for support is dependent on the coordination accomplished prior to the start of hostilities. If assembly areas, FARRP's, battle positions and routes have been established in advance to support the ground commander's battle plan, and the aviators have trained in these areas, response time will be minimum. If scout pilots must determine these after receipt of the mission, the time to place missiles on the target will be greatly increased.

(7) In support of covering force operations, attack helicopters are normally committed after the enemy situation has been developed and the major enemy thrust has been identified. The attack helicopter units are then committed in the sector of the greatest enemy threat.

(8) Attack helicopter units may fight the same in the MBA as in the CFA employed as integral parts of the combined arms teams, or they may be kept in ready reserve poised for employment as an independent force against an enemy who has either by passed or penetrated MBA forces.

(9) The attack helicopter is least effective, and most vulnerable, when attacking prepared defensive positions protected by air defense weapons.

(10) In support of offensive operations attack helicopters are best utilized when attacking by passed forces that are moving, attacking forces withdrawing or counterattacking, or supporting an exploitation or pursuit. The attack helicopters are integrated into the ground commanders plan, and move forward by bounds.

(11) Attack helicopter units offer a responsive counter to rear area threats. Because of their limited range, attack helicopter weapons other than the TOW missile and 2.75" rockets are considered self-defense weapons. In the friendly units rear area, however, the lack of enemy ADA will normally allow all attack helicopter weapons systems to be directed against the enemy force.

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B. Aero-Scout Elements: (OH-58)

(1) The only aviation units, within the Corps, with a true aero-scout mission are the aero-scout platoons of the division aviation battalion's Combat Support Companies and the ACR's Support Troop (Air).

(2) The aero-scout platoon is an extremely flexible element, capable of performing reconnaissance, screening, and survey missions; providing real time intelligence. Aero-scout pilots should be proficient at adjustment of indirect fires and requesting TAC Air.

(3) Because of its flexibility, the aero-scout platoon is seldom committed as a platoon. Aero-scouts are normally performing multiple missions with sections, and even individual aircraft, responding to separate taskings and separate command relationships. One section may be performing route reconnaissance for deploying brigades (DS), while another section may be screening a flank for the G-2 (OPCON).

C. Aerial Mine Dispensing Operations: (M-56 equipped aircraft are not organic to the Division at this time, and must be requested from Corps).

(1) The M-56 system may be used to lay tactical, point, and interdiction minefields.

(2) Aerial mine laying capable aircraft are requested through aviation channels, but are employed by supported engineer units. Plotting and forwarding overlays of aerial delivered minefields, as part of the barrier plan, is an engineer responsibility.

(3) Preplanned aerial delivered minefields should be planned in depth by major subordinate commands (MSC). MSC engineers will recommend minefield locations for maneuver units, and assist them with planning. MSC G3/S3's will approve/disapprove requests for preplanned minefields. If approved, MSC G3/S3's will forward requests for aerial mine laying capable aircraft through aviation channels.

(4) Immediate minefield requests will be forwarded through operational channels to the G3/S3 having control of the aerial mine laying capable aircraft.

*(5) Request for aerial mine dispensing aircraft will include:

(a) Start point/end point (8 digit coordinates) of minefield.

(b) Azimuth from start point to end point.

(c) Length of minefield (meters).

(d) Width of minefield (meters-each aircraft provides minefield width of 20 meters).

(e) Requested density of mines.

(f) Request time of emplacement.

(g) Enemy location (6 digit coordinates).

(h) Frequency and call sign of supported units.

(6) Because aircraft dispensing aerial mines must fly 50 to 100 feet above the ground while dispensing the mines, terrain masking must be carefully analyzed if less than 5,000 meters exist between an enemy possessing ADA, and the proposed minefield.

*(7) Supported units will mark the start point of the minefield with a panel or light. The end point will also be marked if mines must not be dropped beyond it.

*(8) Whenever possible, the supported unit will provide radio communications at the proposed minefield location to effect final coordination with the aircraft.

(9) Aerial mine laying aircraft should fly decoy runs in addition to the actual dispensing runs, to deceive the enemy as to the location of actual minefields. In addition, consideration should be given to using other aircraft to simulate minefields as a deception measure. (While it is not intended for mine dispensing aircraft to be within engagement ranges when dispensing, or simulating dispensing aerial mines, it is quite possible they will be observed by long range surveillance devices).

5. COMMAND AND CONTROL OF AVIATION ASSETS:

A. The normal command relationship of 8th Infantry Division units is OPCON.

(1) OPCON involves the functions of command, except administration, discipline, internal organization and unit training.

(2) When an aviation unit/element is placed OPCON to a ground maneuver unit, the unit receiving the OPCON receives the operational aviation assets of the aviation unit/element, but incurs no logistical responsibility.

(3) The aviation unit commander of the unit that is OPCON will position his forward support facilities to best support the unit receiving the OPCON.

(4) The commander to whom the aviation unit/element is OPCON may retain tactical control of the entire unit/element, or may delegate tactical control of all or part of the aviation assets to a subordinate unit.

(5) When an aviation company is OPCON, liaison for planning and coordination will normally be accomplished by the aviation company commander. This liaison should be face to face coordination, (i.e. an attack helicopter company OPCON to a heavily engaged brigade). The aviation commander will ensure communications are maintained with the supported unit commander.

(6) When an aviation platoon/team or element is OPCON, liaison for planning will be accomplished by air to ground communications. The aviation platoon/team commander, or senior aviator will maintain communications with the supported unit.

B. Communication Nets: Aviation units capitalizing on their ability to move great distances and influence the action must be able to quickly enter the appropriate communication net of the supported unit to effect coordination and/or receive instructions. Mission requests for aviation support should contain the frequency and call sign of the supported unit. If contact is not established on the frequency contained within the mission request, contact should be attempted as specified below. After action reports will be transmitted on the same frequency unless otherwise directed by the supported unit.

* (1) Aviation units/elements supporting on-going tactical operations will establish contact on the supported units command/operations net. Since these aviation units/elements directly influence the action, the supported unit commander will normally direct their actions, in conjunction with other forces, on the command/operations net.

*(2) Aviation units/elements with an intelligence mission (reconnaissance, screening, etc.) will establish contact on the supported unit's INTEL net.

*(3) Aviation units/elements with a logistical mission (resupply, administrative air movements, etc.) will establish contact on the supported unit's ADMIN/LOG net.

C. Fire Support Coordination:

(1) Scout helicopters provide an excellent platform from which to adjust artillery and/or direct close air support missions. Scout helicopters will be OPCON to DIVARTY on a routine basis.

(2) Scout helicopter pilots will also be proficient at requesting and adjusting artillery fires, and requesting close air support.

(3) Reinforcing by fire: While an attack helicopter company is normally tactically employed under brigade control, the attack helicopter platoons/teams will engage in a battalion task force area. Unless the supported brigade commander specifies a command relationship to a subordinate commander, the attack helicopters will reinforce by fire. The commander in whose area the attack helicopters are engaging has responsibility only for target designation.

(4) The Fire Support Team (FIST) or the forward air controller, habitually associated with the ground unit knows the situation, and can best integrate the fires of the platoon on the most critical targets. Close air support, artillery, attack helicopters, and ground units must be able to place simultaneous, uninterrupted fires on the target. The attack helicopter unit/element commander maneuvers his unit/element to attack the target.

(5) Whenever tactical air or attack helicopters are operating in an area, locating and suppressing enemy ADA is a primary mission for all fire support assets.

6. FLIGHT CLEARANCE AND REPORTING PROCEDURES:

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a. All aircraft will file an appropriate flight plan prior to flight, and will flight follow during flight, using procedures listed below.

b. Flight plans may consist of an 1801 filed with the appropriate Air Traffic Control element or, as a minimum, will consist of aircraft and aircrew mission monitoring in aviation unit operations. When the latter method is used, the aviation unit commander will ensure unit operations has, as a minimum, the name rank, and SSN of each member of the crew by aircraft assignment; the pilot in command (PIC) designated; and the estimated time of return for the aircraft.

c. When carrying passengers aboard Army aircraft, the PIC will ensure that the appropriate ATC facility, aviation unit operations, or the supported ground unit has an accurate passenger manifest.

d. Flight following will be accomplished with the appropriate ATC facility when operating under Instrument Flight Rules (IFR).

e. When not operating under instrument flight rules (IFR), flight following will be accomplished with an ATC facility, aviation unit operations, another aircraft, or the supported unit. To maximize effectiveness, while allowing necessary flexibility in forward areas, the following procedures will be utilized:

(1) Aircraft operating to the rear of the brigade rear area should flight follow with the appropriate Flight Coordination Center (FCC) or Flight Operations Center (FOC) at all times.

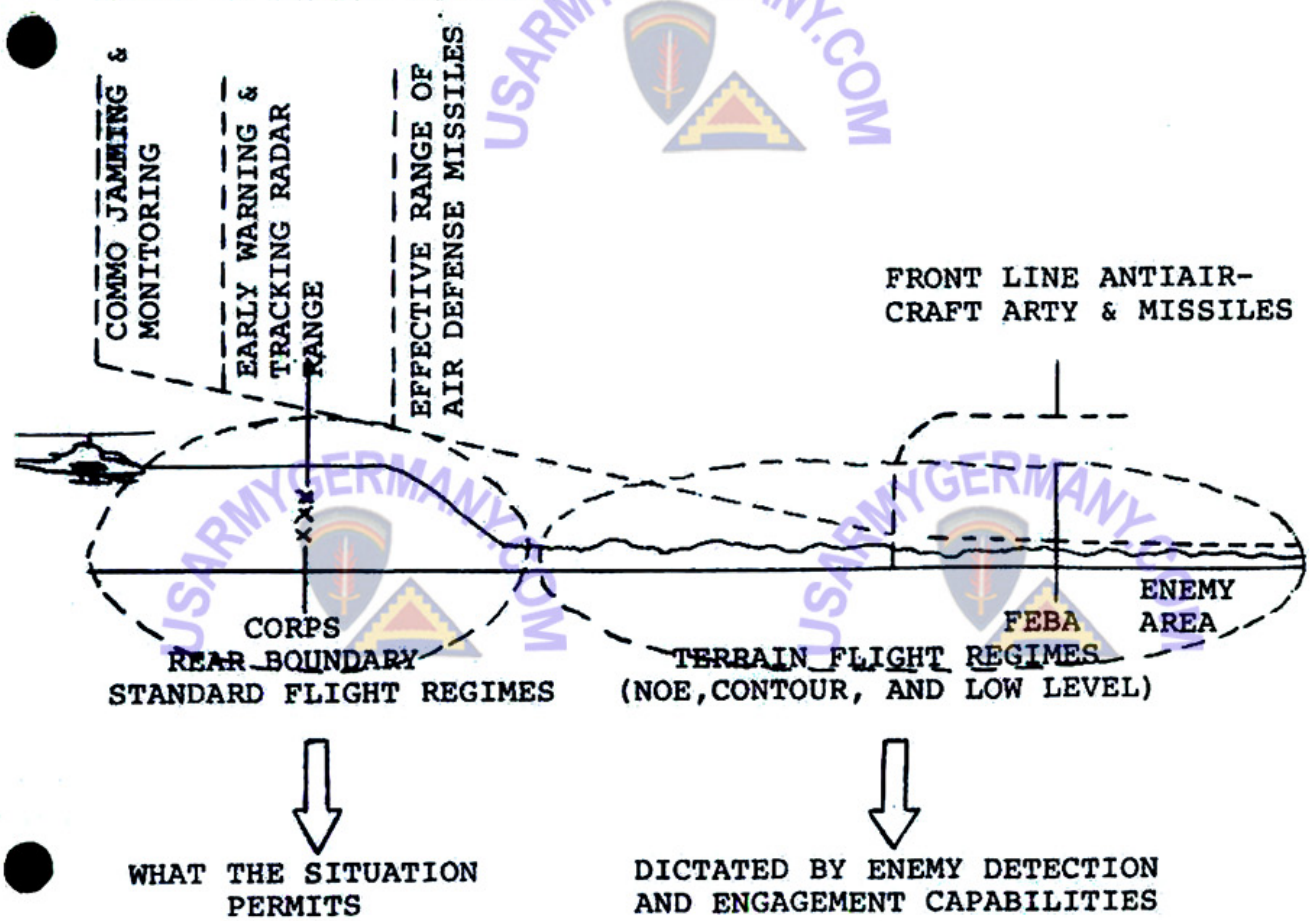
(2) A flight of aircraft operating forward of the brigade rear area should flight follow with the flight leader or his designated representative. At least one aircraft in the flight will monitor the appropriate FCC for advisories.

*(3) A single aircraft operating forward of the brigade rear area should flight follow with the appropriate FCC if at all possible. If unable, he will flight follow with an aviation unit operations, another aircraft, or the supported unit, in that order.

f. The aviation unit/element commander, or PIC for individual aircraft, will serve as the clearance authority for flights departing a field site under Visual Meteorological Conditions (VMC). Prior to ascending above the coordinating altitude, or filing into Instrument Meteorological Conditions (IMC), clearance must be obtained from the appropriate ATC facility. VMC conditions for tactical operations are 1/2 mile visibility and clear of clouds.

g. All aircraft within the 8th Infantry Division will fly at altitudes not to exceed 200' AGL except when in controlled airspace or on an instrument flight plan (IFR). This will cause some communications problems, however, tactical training will be greatly enhanced for both ground and air personnel.

h. Extreme caution must be taken to avoid enemy detection when operating within 10 km of the FEBA. Likewise, it is essential that aircraft do not compromise the location of friendly ground elements. The following diagram depicts the flight profiles to ensure the above:



*i. For aviators to comply with the above it is essential that all LZs in the 8th Infantry Division sector be coordinated and accurately reported. Specifically this means that all LZs will be reported to the DAVNO/DAME when initially established and each time it is moved or discontinued. The report will include the following:

(a) Six digit coordinate.

(b) Estimated size.

(c) Unit to contact in bound.

(NOTE: Aviation Battalion pathfinders are available to assist in LZ establishment and the training of unit terminal guidance personnel).

*j. Owning unit LZ support is minimal and will consist of the following:

(a) Advising the aircraft of estimated surface wind velocity and direction, LZ markings if any, obstacles to flight, enemy situation, and condition of LZ surface.

(b) Unit terminal guidance personnel may be requested to display panels, smoke or other temporary visual aids (tactical conditions permitting) and admin support such as ground transportation and cargo unloading assistance.

7. DOWNED AIRCREW AND AIRCRAFT RECOVERY PROCEDURES:

A. Downed aircrews:

(1) Providing assistance to downed aircrews (Air Force or Army) is the responsibility of the commander in whose area they are downed.

(2) The aviation battalion commander will be prepared to conduct search and rescue operations in sector.

(3) The aviation battalion commander will establish escape and evasion pick-up points for each operation. These pick-up points should offer camouflage and cover for the downed crews, should be in a relatively secure area, and should offer concealed

routes for recovery helicopters. When aircrews are downed, recovery aircraft will periodically fly the pick-up points, but will land only upon receiving a signal from, or visually sighting the downed crew. These pick-up points will be coordinated with each brigade, Air Force liaison elements at division, forwarded to Corps for inclusion in a master list, and constantly monitored within the DAME. This action will be accomplished on a continuing basis for existing General Defense Plans.

(4) It is the responsibility of each aviation unit commander to ensure each aircrew, assigned or supporting, has the location of escape and evasion pick-up points prior to each operation.

(5) Responsibilities of downed aircrews:

(a) When aircraft must execute emergency landings, pilots should attempt to maneuver the aircraft to a secure location.

(b) Attempt to radio the situation to other aircraft, flight following facility, or supported unit.

(c) Render first aid, as necessary, to other crew members. Attempt to move all crewmembers away from the aircraft to a covered and concealed position. If the enemy situation permits, however, remain in the vicinity of the aircraft until recovery.

(d) If friendly ground elements are available, request assistance from the ground element commander.

(e) If the enemy situation is such that capture of the aircraft is likely, attempt to destroy the aircraft's secure communication devices. Evade to the nearest secure pick-up point. Use emergency survival radios to pinpoint location, and when a friendly aircraft is observed, signal it with the survival vest signaling device appropriate to the enemy situation.

B. Downed Aircraft:

*(1) Providing security for downed aircraft (Air Force or Army) is the responsibility of the commander in whose area the aircraft is downed.

(2) The aviation battalion commander is responsible for coordinating recovery of downed aircraft.

(3) The Corps AVIM Battalion has primary responsibility for recovery of downed aircraft in the Corps sector. The 8th Aviation Battalion will provide back-up support with supporting CH-47 helicopters.

*(4) Destruction of aircraft and associated equipment which is in imminent danger of capture is a command decision. MSC's will coordinate with the Aviation Battalion commander on the decision to destroy aircraft.

8. Additional Consideration and Coordinating procedures.

A. Philosophy of landing zone operations, inflight procedures, and use of C&C and LNO aircraft.

(]) The modern battelfield has little resembelance to the Vietnam era. The use of large LZs, pathfinder vectoring, RPs, ACPs and airmovement-table type planning are things of the past. Army aircraft now work in the ground enviroment and en-route navigation rests on the ability of the aviator to read a map as it does with his ground counterparts in tracked and wheeled vehicles. The ability of the Threat Forces to detect radio signals, beacons, and aircraft signatures dictate that 8th I.D. aircraft use NOE flight and good map reading techniques. The disposition of our forces in West Germany allows us to learn the terrain upon which we are expected to fight. Consequently, commanders must forget the old ideas associated with pre-designated flight routes, rigid LZ procedures, text-book marked LZ's, lengthly pathfinder radio messages, orbiting C&C ships, and numerous aircraft parked in forward areas, CP's etc. 8th I.D. aircraft in forward areas will be held to a minimum and requests for C&C, air transport of cargo, and passenger flights will be tightly controlled.

(2) C&C, LNO and similar missions will be flown at NOE altitudes when within threat detection ranges. (This will also be done during peace time when ATC rules and restrictions permit). LZ's at CP's and TOC's should be thought of as drop off points and temporary landing areas only. 8th I.D. pathfinders and 5th Sig Cmd ATC personnel will man the Div instrumented airfield, Div Main, Div TOC, and Jump TOC drop off points. However, their duties will not be traditional ones used in the past. They will serve as terminal guidance assistance personnel in much the same manner as Bde and TF LZ unit terminal guidance personnel are used. Their duties are to ensure safe ground

operations and to provide pilot advisory services. Specifically, they will acknowledge the fact that aircraft are inbound and inform the ground element, provide the aircrews with suggested landing instructions, wind speed and velocity, hazards to landing, the local enemy situation, and assist with safe and orderly ground movement of aircraft, vehicles, and personnel in and around the drop off areas. Aircraft that must remain for extended periods of time will be ground handled into wood lines, buldings, and appropriately camouflaged by pathfinder team members. No attempt will be made to direct aircraft flight routes or give verbal or visual vectoring assistance (exceptions will be made in peace time when safety considerations are paramount in congested LZ's due to VIP's, non-divisional aircraft, etc). Communications during NOE flight is restricted and terrain and enemy determines how the pilot will maneauver his aircraft to the drop off sites. Occasionally, FM homing, and light signals can be used for navigational assistance. Consequently, drop off points and temporary landing areas should be closer than]-2 KM from the ground unit location. Aircraft habitually using pre-arranged flight routes coupled with occasional signature detection in the same area will compromize ground unit positions. Commanders must minimize the administrative use of aircraft and keep in mind that aircraft flying NOE can be expected to travel only approx. 30 KM per hour. In many cases short trips in forward areas can better be accomplished by ground vehicle. Helicopters offer the advantage of speed only they can fly in contour or low level flight and these envelopes can only be flown in the rear areas no closer than approx 20-25 KM from the FEBA. In most instances it is not the aircraft vulnerability to hostile fire, but the mere detection of the signature that becomes the over riding consideration.

(3) The burden placed on the aviator is especially challenging. He must be able to read a map down in the trees and select the best covered approach routes to the landing site while avoiding trees, wires, and other hazards in addition to the tasks and actions associated with flying the machine. This can be minimized through proper pre-flight planning and map recon. It is essential that C&C crews know the exact location of drop off points and that these coordinates be constantly updated with the DAME. Pilots must be able to study the map in advance if at all possible. Requests to "quick, fly me to such and such coordinates" must be avoided. The potential for enemy detection increases with altitude and altitude increases with unfamiliarity of the terrain and map. Single pilot operating aircraft compounds NOE difficulty and in peace time is prohibited by regulation, ie., two qualified pilots or one qualified pilot and one qualified observer must be at the controls to perform NOE flight. Aviators conducting NOE flight can use little outside navigational assistance.

Pathfinder equipment and radios are almost useless to them. Pilots have the same map reading problems as the man on the ground and vectors, homing devices, lights, etc, prove equally ineffective.

(4) The Aviation Battalion subscribes to the philosophy that we must train the way we will fight and there fore, the above considerations should be applied in peace time as well. Do not rely on "airborne taxi" service during training if you will not have it during war time. Such flights are mutually degrading to both air and ground training.

B. Attack Helicopter Movement and Air/Ground Coordination.

(1) Attack helicopters will not use LZ's perse and have no interface with terminal guidance or ATC personnel. They will fly into and out FAARPS, holding areas, battle positions, and field sites under the direction and command of their battle captains in flights of teams. Battle captains "flight follow" and relieve their guns of as much administrative burdens as possible so they can concentrate on their weapons systems, navigation, crew and team coordination, target acquisition and engagement, and enemy radar detection equipment. Attack helicopters do not fly independently and only maneauver as directed by their battle captains, consequently it is important to keep in mind that the scout helicopter is an integral part of the TOW Cobra weapon system and commanders should resist tasking them for other missions.

(2) When operating within enemy detection ranges a different consideration is given to their signature than those of other aircraft that must land at drop off points adjacent to friendly ground elements. The over riding consideration for the attack as opposed to C&C and LNO aircraft is one of being able to be hit not just detected (enemy ADA radar can detect rotor blades even masked in the trees). Thus, attack teams will move more rapidly. Their mere detection, while not desired, is not nearly so alarming. They can never land within these ranges, are constantly moving, and never hover over friendly positions. The point here is, attack teams can be employed much more rapidly than other aircraft.

* (3) How quickly the attack teams get into the battle is directly related to how much the battle captain knows and can learn about all of the facets of the enemy situation, friendly situation and dispositions, and the targets that he is requested to destroy. The more information he has, the better he is able to effectively employ the cobras.

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Ground commanders who recieve attack helicopters must be prepared to give the battle captains the following:

(a) Knownenemy positions and suspected penetrations.

(b) Specific enemy vehicle types.

(c) Presence of threat ADA by type.

(d) Front line trace, to include friendly positions, blocking positions, coordinating points, boundry changes and anticipated moves and plans.

(e) Frequencies and call signs of subordinate and adjacent units, to include supporting artillery and mortor units.

(4) Pre-planned engagements will be coordinated by face to face contact between the commander of the ground unit and the attack company commander followed up by an on-site LNO to the ground TOC.

(5) Immediate and unplanned engagements will be coordinated by face to face contact between the commanders and/or battle captains when possible. If time does not permit, the information in para (3) above will be provided via secure radio. Battle captains should be briefed and tasked by the BN/TF commander or S-3 and instructed to contact the company/team as needed.

*(6) The battle captains, LNO's, and/or aviation unit commander will provide the ground unit the following:

(a) Frequencies and call signs.

(b) Expected time of arrival of cobras into the battle positions.

(c) Anticipated locations of holding areas, battle positions, and directions of fire.

(d) Suggested target designations and responsibilities for air and ground weapons.

(e) Type and amount of armament on board.

(f) Limiting factors such as time on station, and effects of weather, conflicts with artillery and planned air strikes, etc.

(g) Up datedintelligence obtained through aviation channels.

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(h) Anticipated approach and departure routes into and out of battle positions and firing positions.

(i) Flight following assistance if beyond the capabilities of ATC and aviation resources.

(j) Downed aviator pick up points.

(k) After action and BDA reports as well as on-going SIT REPS.

CONCLUSION: This paper is in no way intended to replace the Aviation Battalion Field SOP. It is merely compiled as an information document to fill the time gap between now and the publication of the SOP (ECD 1 Oct 78). While it is not a complete or indepth summation of Aviation employment it does present my philosophy and gives the reader an introduction into how Army Aviation will be employed in the 8th I.D. and was written with the specific intent to be used as a hand out for the Aug 78 Commander's Conference.

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