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198th Infantry Brigade
LZ Bayonet (BT549013), RVN
230800H July 1970

ANNEX A (Intelligence) to OPORD 4-70 (Defense Against Rocket/Mortar Attacks)

Reference: Maps RVN, 1:50,000 series L7014; sheets 6634 I, 6640 II, 6739 II, IV; 6740 III, 6738 I, IV; 6338 III, IV.

1. SUMMARY OF ENEMY ACTIVITY.

a. The Chu Lai Defense Command (CLDC), Landing Zone (LZ's) and Fire Support Bases (FSB's) within the Chu Lai area are vulnerable to rocket attack. Units capable of conducting rocket attacks against the Chu Lai area are the 78th LF Rocket/Artillery Bn, the 402nd MF Sapper Bn and possibly the 409th MF Sapper BN and GK-32 Recoilless Rifle Bn. These units are currently operating in southern Quang Tin Province and northern Quang Ngai Province. The primary mission of the 78th LF Rocket/Artillery Bn is to rocket the Chu Lai area.

b. Current INTSUMS and PERINTREPS.

2. EEI'S AND OIR'S:

a. EEI:

(1) Will the VC/NVA launch rockets against targets in the Chu Lai area? If so, when, where, how and what type?

(2) What are the VC/NVA routes of ingress and egress form the rocket belt?

(3) Where are probable launch areas? Within launch areas, where are the most probable launching sites?

b. OIR:

(1) Are suspected personnel moving into probable launching areas within the rocket belt?

(2) Are there reports of enemy or suspected personnel carrying long cylindrical tubes, resembling stovepipes or canvas cases approximately four (4) to eight (8) feet long?

(3) Are there any sightings of shallow holes or trenches with piled dirt mounds and possibly stakes driven into the ground? (Stakes are used for aiming stakes and dirt mounds for launch ramps).

(4) Are there any reports on sighting of personnel trimming tree tops or tree limbs within the rocket belt?

(5) Are there any indications of heavy trail activity within the rocket belt?

3. ORDERS AND REQUESTS FOR INFORMATION:

a. Orders to attached and subordinate units:

(1) All units report as obtained:

(a) Unusual personnel activity within the rocket belt area.

(b) Sightings of suspected personnel or capture of enemy or civilians carrying componets of the 122mm or 140mm Rockets, launchers or other unknown type rockets.

(c) Sightings of new trails or heavy activity or used trails within the rocket belt.

(d) Sightings of oxcarts, water-buffaloes, bicycles, vehicles, or watercrafts carrying what could be a rocket, or any of its componets.

MISCELLANEOUS:

a. Likely friendly targets for rocket attacks in Chu Lai area:
   - (1) Chu Lai Air Base Runways - BT540063.
   - (2) Aircraft, equipment and storage areas (Hangers) - BT553041.
   - (3) POL Facilities - BT540063.
   - (4) Ammo Storage - BT558045.
   - (5) 23d Division (Americal) Hqs - BT5310.
   - (6) Artillery Pieces and Mechanized Units.

b. Rockets Characteristics and Employment:
   - (1) 140mm Soviet Rocket.
     - (a) Characteristics:
       - 1 Rocket, fin stabilized.
         - a Length overall with fuse - 42.3 inches.
         - b Weight with fuse - 90 pounds.
         - c Range - 10,000 meters.
         - d Warhead - 9.5 pound explosive.
         - e Fuse - instantaneous or delay.
       - 2 Launcher tube:
         - a Length overall - 45 inches.
         - b Weight single tube - 22 pounds.
     - (b) Employment:
       - 1 The 140mm rocket has been used extensively against all types of friendly installations throughout the RVN. Launching positions for the 140mm Rocket are usually prepared after dark with minimum effort by scooping shallow holes and piling the dirt forward to provide launching ramps of the desired elevation. The rocket could be launched from launcher tubes mounted on wooden boards approximately four feet long. However, the rockets can be fired without the benefit of launcher tubes by merely laying them on the dirt piles and firing them.
       - 2 Small aiming stakes are placed at. the front or sides of the rockets to provide directional reference. When surveying is conducted, probably during daylight hours, the only indication before a rocket attack would be nothing more than the emplaced stakes to indicate where the launchers are to be positioned.
       - 3 The consistency of the number of 140mm Rocket launchers employed against a given target is unknown, however, on 27 Feb 67, as many as 134 launchers were employed in the Da Nang attack. In other cases there will be as few as two or three launchers emplaced and fired.
   - (2) 122mm Soviet Rocket:
     - (a) Characteristics:
       - 1 Rocket, fin stabalized.
         - a Length - 6.2 feet
         - b Weight - 101 pounds
         - c Maximum range - 11,000 meters (elevation 45°).
         - d Minimum range - 6,000 meters (elevation 10°).
         - e Warhead - 15 pounds explosive.
         - f Fuse - instantaneous or delay.

2 Launcher:
a Length - 8.1 feet.
b Weight - 55 pounds.

(b) Employment:

1 The 122mm Rocket was first introduced into South Vietnam with an attack on Camp Carroll, adjacent to the DMZ, in early May 1967. Since that time, the 122mm Rocket has been used for attacks against installations and cities throughout the RVN. The first 122mm Rocket attack against CLDC was on 31 January 1968, when fifty (50) rockets were fired. Since that time numerous rocket attacks have been directed against the Chu Lai area; the most recent and noteable being the attack on 4-5 May 70 when over 200 rockets were directed against the Chu Lai area.

2 The 122mm Rocket when fired from the 122mm launching system is extremely accurate. This accuracy is achieved primarily due to the sophisticated instruments used to initially survey the site. A type theodolite or transit, mounted on a tripod, is used to determine the correct firing data. This survey, in conjuction with the spin/fin guidance system, the [illegible] sighting system, and the tripod mount provides the weapon with a high degree of accuracy.

3 Experience has shown that the 122mm rocket can be fired also from unsophisticated launchers. A subsequent sweep of the area after the attack on 4-5 May 70 produced 43 rockets set up on crossed stakes and aimed at Chu Lai. The area from which the 200 rockets were also indicated that these rockets were fired from crossed sticks.

4 Attacks by 122mm Rockets are normally greater in duration than those by 140mm Rockets or others. This greater period is evidenced by the fact that the rocket launchers can be replaced during the attack, with each launcher probably capable of firing three to five rockets, with two to four minutes preparation for each rocket.

5 When the tripod mounted launcher is used to fire rockets, holes are dug approximately six inches deep and five to eight feet apart to emplace the tripod legs. Also, a shallow hole could be dug behind each launcher to facilitate reloading, and trenches beside the launchers to protect the crews during firing and against retaliatory fires.

c. Defensive measures:

(1) Denial:

(a) It is a known fact that the optimum method of preventing rocket attacks is to deny the enemy the opportunity to occupy launching positions. Therefore, consideration must be given to finding means and ways to detecting and destroying the enemy before an attack can be launched. Such considerations should include, but not be limited to:

1 Frequent aerial and ground reconnaissance of suspected rocket infiltration routes, with emphasis on the area adjacent and within the rocket belt.
2 Conduct of Long Range Reconnaissance Patrols.
3 Establishment of night ambush sites in areas suitable for launching sites.

4 Continuous intelligence gathering and exploitation of information pertaining to a unit's movement, capabilities, size and armament operating within or adjacent to the rocket belt.

5 Use of anti-intrusion devices along possible or suspected routes into the rocket belt and in possible/probable launching areas.

6 An effective system of counter battery and H & I program, on likely launch sites and avenues of approach.

7 Establishment of LP's and Observation Posts in areas where good visual surveillance of avenues of approach or probable launching sites is obtained.

8 Patrols of waterways for possible infiltration of rockets and personnel by water.

(b) Rocket Belt is considered that area located within a 11,000 meter area surrounding the CLDC. Surveillance of potential rocket sites and avenues of approach should be continuous, with emphasis placed on early morning and late evening hours and during the dark phase of the moon.

d. Post Attack Actions:

(1) Areas of impact and launch sites should be inspected by EOD personnel and other personnel with knowledge of rocket characteristics.

(2) Inspection of impact areas by crater analysis teams could provide information of intelligence value, to include type of rocket fired, use of new rockets and type of fuse used.

(3) Inspection of launch sites provides information as to:

- (a) Location of launch sites.
- (b) Type of launcher used.
- (c) Number of launch sites used.
- (d) Effectiveness of countermeasures, which can be evidenced when the enemy is unable to fire rockets that are found in the launch site or it's vicinity.

(4) Caution should be observed by personnel when rockets are discovered since the enemy sometimes booby traps items or rockets left unfired in the launching area, or the area itself may be booby trapped.

(5) EOD personnel should be summoned to the launching site when rockets are discovered.

(6) Pictures of launching sites should be taken when appropriate.

Acknowledge;

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Appendix 1: Probable Launch Areas

DISTRIBUTION: Same as OPORD 5-69

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1 (Rocket and Mortar Launch Areas) to ANNEX A (Intel) to OPORD 5-69

Based on the terrain, weapons range, and past used rocket launch sites, the following areas are considered the most likely to be used by the enemy in preparation of future rocket/mortar attacks against the Chu Lai Defense Command (CLDC) and the Americal Division Headquarters.

a. Possible Rocket Launch Areas (corner coordinates given)

BT4107
BT4306
BT4406
BT4502
BT6397
BT4602
BT4698
BT4699
BT4398
BT6501
BT5097
BT5096
BT5596
BT5397
BT6701
BT5195
BT5194
BT5294
BT4303
BT6698

b. Possible Mortar Positions Areas (corner coordinates given)

BT5901
BT6101
BT6199
BT5999
BT5002
BT5202
BT5300
BT5000
BT5702
BT4903
BT5001
BT4800
BT5112
BT5012

2. During the conduct of aerial reconnaissance and patrols, detail search and surveillance should be effected in the areas stated above.

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Annex B (Fire Support) to OPORD 4-70

Reference: 198th Inf Bde OPORD 4-70

1. SITUATION:

a. Enemy Forces. Annex A to OPORD 4-70

b. Friendly Forces:

(1) Americal Division conducts defense of vital installations in TAOI.

(2) Chu Lai Defense Command (CLDC) conducts passive defensive measures within boundaries.

(3) Americal Division Artillery provides target acquisition support and reinforcing/supporting fires as required.

(4) 7th Air Force provides tactical air support in and on approaches to the rocket belt.

(5) Artillery Support:

1-14 Arty
3-16 Arty (-)
3-18 Arty (-)
1-82 Arty (-)
Elements G/55 Arty (AW)
Elements 3/G/29 Arty (SLT)
251st FA Radar Detachment

2. MISSION:

198th Inf Bde defends vital installations within the TAOR against rocket/mortar attack.

3. EXECUTION:

a. Concept of Operation:

(1) Maneuver: 198th Inf Bde defends Chu Lai installation from Rocket/Mortar attack with two battalions conducting continuous rocket operations in the TAOR.

(2) Fire Support: All fire support means give priority to counter rocket/counter mortar fires.

b. Air Support: Tactical air support through 198th Bde S3 Air. Allocated by I Corps DASC.

Artillery Support:

(1) General: Artillery supports by scheduled and on-call fires on known and suspected enemy launch sites.

(2) Organization for Combat.

a FA

1-14 Arty: DS 198th Bde
3-16 Arty (-): GSR 1-14 Arty
1-82 Arty (-): GSR 1-14 Arty
3-18 Arty (-): GS Americal Division, fires available in request.
251st FA Radar Detachment: GS Americal Division, priority of operation in Chu Lai rocket belt.

b ADA

Elements G/55 Arty: Protect BSB by direct fire, provide scheduled and on-call indirect fires.
Elements 3/G/29 Arty: Provide illumination on and around BSB and Chu Lai installation.

(3) Miscellaneous:

a. Counter rocket/counter mortar fires have priority over all missions except support of troops in contact. Priorities further go to fires on positively identified launch sites.

b. GSR units schedule fires in the rocket belt at request of 1-14 Arty.

c. Americal Division Artillery schedules fires on approaches to the rocket belt nightly.

d. Intensity of scheduled fires is determined daily based on natural illumination and predicted enemy threat.

e. 1-14 Arty pre-clears on call fires to be fired in response to actual attack. These "Automatic" fires are initiated by FSE of 198th Inf Bde upon confirmation of attack.

d. Aviation Support: 16th CAG provides Helicopter Gunships and Flareships for resistance and surveillance of the rocket belt, scheduled by Americal Division G3 or on call through Bde S3 to DTOC.

e. Naval Support: TU 70.8.9 provides Naval Gun Fire support on request through FSE.

f. Coordinating instructions:

(1) Normal artillery coordinations and liaison in effect.

(2) Requests for additional fire support routed through the Arty Liaison Officer.

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ANNEX C (Distribution) to OPORD 4-70 (Defense against Rocket/Mortar Attack)

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1	Record File
2	Reference File
3-7	AMCAL G3 Plans
8	CO, 11th Inf Bde
9	CO, 196th Inf Bde
10	CO, 198th Inf Bde
11	CO, 6th ARVN Inf Regt
12	S1, 198th Inf Bde
13	S2, 198th Inf Bde
14-17	S3, 198th Inf Bde
18	S4, 198th Inf Bde
19	S5, 198th Inf Bde
20	Signal O, 198th Inf Bde
21	Chemical O, 198th Inf Bde
22	ALO, 198th Inf Bde
23	PMO, Americal Division
24	HHC, 198th Inf Bde
25-26	CO, 1-6 Inf
27-28	CO, 5-46 Inf
29-30	CO, 1-52 Inf
31-32	CO, 1-14 Arty
33	CO, H/17 Cav
34	CO, D/26 Engr
35	CO, AMCAL MID
36	CO, 57th Scout Dog Plt
37	CO, 16th CAG
38	CO, 1st CAG
39	CO, 9th Engr Bn, USMC
40	CIDC
41	CO, 26th Engr Bn
42	CO, 1-1 Cav
43	Sr Advisor, 2d ARVN Div, Quang Ngai, RVN

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Glen W. Jester.
MSG

071830 Aug Acknowledged Rec of Copies 12 & 13 to MSG Dowdy - S3 Bde -

GWJ.