

APPENDIX - I

" SHORE PARTY PLAN "

APPENDIX 1

~~CONFIDENTIAL~~

6th Mar Div
In the field.
8 feb 45, 0800

ANNEX E TO)
ADM PLAN..
NO 1-45...

SHORE PARTY PLAN

Maps:

- (a) 1:25,000 RYUKYO RETTO, AMS L891
- (b) 1:100,000 RYUKYO RETTO
- (c) 1:10,000 RYUKYO RETTO

Ref:

- (a) Div GO 28-SOP, SP

TASK ORGN

a. SP CT-4

Capt DIBBLE

Co A 6th Pion Bn (less 1 Plat)
Det Co A 6th Engr Bn
Co A 6th MT Bn (less Det)
Co A Repl Draft (Incl Med Pers less Det)
1st Plat 6th MP Co (less Det)
1st SP Com Team 6th JASCO (less Det)
1st Plat S&S Co 6th Ser Bn (less Det)
1st Plat Ord Co 6th Ser Bn (less Det)
Det 11th Spec NCB (Ships' Plats)
Det Transports (Nav Beach Pty)
Det 58th NCB (Equip Oprs and Ships' Plats)
Det 4th Mar (Bn Sup Secs)

b. SP CT-22

Capt SMITH

Co B 6th Pion Bn
Det Co B 6th Engr Bn
Co B 6th MT Bn (less Det)
Co B Repl Draft (Incl Med Pers)
2d Plat 6th MP Co
2d SP Com Team 6th JASCO
2d Plat S&S Co 6th Ser Bn (less Det)
2d Plat Ord Co 6th Ser Bn
Det 11th Spec NCB (Ships' Plats)
Det Transports (Nav Beach Pty)
Det 58th NCB (Equip Oprs and Ships' Plats)
Det 22d Mar (Bn Sup Secs)

c. Div SP Gp

Lt Col SHAW

6th Pion Bn (less 3 Cos)
Repl Gp (less Det)
11th Spec NCB (less Det)
6th JASCO (less Det)

d. SP LT 2/4 Div Res

2d Lt STANLEY

833

APPENDIX 1

3rd Plat Co A 6th Pion Bn
Det Co A 6th Engr Bn
Det Co A 6th MT Bn
Det Co A Repl Draft (Incl Med Pers)
Det 1st Plat 6th MP Co
Det 1st SP Com Team 6th JASCO
Det 1st Plat S&S Co 6th Ser Bn
Det 1st Plat Ord Co 6th Ser Bn
Det 11th Spec NCB (Ships' Plat)
Det Transports (Nav Beach Pty)
Det 1st Bn 4th Mar (Bn Sup Sec)

e. SP CT-29 (IIIPhib Corps RES)

Capt LUTZ

Co C 6th Pion Bn
Det Co C 6th Engr Bn
Co C 6th MT Bn (less Det)
Det Co C 6th Med Bn
Co C Repl Draft (Incl Med Pers)
3d Plat 6th MP Co
3rd SP Com Team 6th JASCO
3rd Plat S&S Co 6th Ser Bn (less Det)
3rd Plat Ord Co 6th Ser Bn
Det 11th Spec NCB (Ships' Plat)
Det Transports (Nav Beach Pty)
Det 29th Mar (Bn Sup Secs)

1. SUMMARY OF SITUATION

a. Enemy Situation.

- (1) Intelligence reports indicate that BEACHES GREEN and RED are lightly defended, with stronger defenses on the high ground inland from the beaches. Limestone tombs, demolished housing and cliffs overlooking beaches will offer good positions for isolated pockets of enemy resistance and for snipers.
- (2) AP and AT mines will probably be encountered in the SP area, especially on the roads and trails, and in the road cuts through the escarpments. Heavy demolition of roads, bridges and culverts may be expected.
- (3) No artificial obstacles have been located on 6th Mar Div beaches, but on BEACHES YELLOW, in Z of 1st Mar Div, log and wire obstacles are being constructed. Such obstacles may possibly be placed on 6th Mar Div beaches by L-Day.

- (4) The enemy is capable of counter-offensive measures in the form of amphibious landings under cover of darkness on 6th Div or adjacent beaches and by the landing of Airborne Trs within the Div Z of action.
- (5) Air attack is probable.
- (6) Local civilians are hostile and may attempt sabotage against our Instls.
- (7) Beach areas will be within range of enemy Mort and Arty fire for the first several days.
- (8) Annex A to 6th Mar Div Opn Plan 1-45 - Int.

b. Own Situation:

10th Army, supported by 5th Fleet lands on west side of OKINAWA on L-Day at H-Hour with Corps abreast III PhibCorps on left (N), XXIV Corps on the right (S). III PhibCorps lands with 1st and 6th Divs in assault, 1st Div on the right (S) 6th Mar Div (less 29th Mar, Corps Res) lands on BEACHES GREEN and RED (N to S) with the mission of seizing YONTAN AIRFIELD and L plus 3, prepared to continue the attack to succeeding Corps objectives.

29th Mar (Rein) in Corps Res will be prepared to land on designated beaches on Corps order.

CT 22 lands on BEACHES GREEN 1 and 2.

CT 4 (less 1 Bn less 1 Co) Div Res, land on BEACHES RED 1, 2, and 3.

See 6th Mar Div Opn Plan 1-45.

c. Hydrography and Terrain.

Throughout the Div Z of action the beaches will offer a problem to the SPs. There is a coral reef awash at the fringe during low tide and covered with 6 inches to 6 feet of water at high tide. During high tide it is possible that small craft can be beached.

The beaches on which the 6th Div lands are generally narrow in depth and vary from 120 Yds to 500 Yds in length. Beaches are separated from each other by varying intervals. Immediately inland from the beaches an escarpment rises, varying from a height of a few feet to a maximum height of 40 feet. In rear of the escarpment the terrain generally slopes inland to the YONTAN AIR FIELD plateau. This ground is under cultivation and should prove excellent for storage purposes.

d. Beaches.

BEACH GREEN 1

A fringing reef is located about 150 Yds offshore. The beach shelf appears to be shallow. Unload-

APPENDIX 1-

ing from small craft may prove difficult at low tide; at high tide small craft may possibly be beached.

Usable beach area consists of what appears to be coral sand about 6 to 8 yds in width at high tide and approx 180 yds in length. Length of beach will limit number of boats and amount of Sups that may be landed.

From the water's edge, brush-covered dunes or hills rise to height of 4 to 8 feet, bisected by a coral-surfaced road 12 to 18 feet in width running directly inland over about 70 Yds of fill and through a 70 Yd cut in the 20 to 40 feet escarpment. This escarpment is Approx 90 Yds inland at the beach center.

Inland the ground is relatively flat except for some low escarpments and terraces and is planted generally to sugar cane, sweet potatoes and rice. Approx 250 Yds inland a good coral surfaced road runs generally South connecting to the left flank exit of GREEN BEACH 2.

Both flanks of the beach escarpment are dominated by small ridges containing limestone tombs. These ridges run generally North and South, 75 to 100 Yds inland.

Approx 380 Yds directly inland from the beach is a village containing 25 to 30 1 story structures. Each group of buildings surrounded by hedges of fairly high hedge rows or trees.

Some small irrigation canals are found throughout the area as are footpaths, in particular a footpath skirts the top of the sea escarpment on the right (S) flank of the beach.

Generally this beach should prove adequate for unloading and storing of LT Sups, but its size and the height of the escarpment prohibit development as a CT beach.

BEACH GREEN 2

The reef fronting this beach varies from 350 to 440 Yds off shore. It is rough and niggerheads are numerous but at mid and high tides it is possible that small craft may be beached.

The beach is 500 Yds long and from 20 to 30 Yds wide, all figures applying at low tide. At high tide width probably varies from 2 to 6 Yds.

For analytical purposes the beach may roughly be considered in 2 Approx equal sections, Right and Left.

Left (N) Section:

Immediately behind the beach, there is a 10 to 12 foot high brush covered sand dune with very steep sides.

The extreme left flank of the beach is dominated by sheer 30 foot bluff, however it appears that a good coral path capable of improvement runs from inland over this bluff to the sea.

On the right flank of this section, Approx center of BEACH GREEN 2, a coral road Approx 8 to 12 feet in width runs from the water's edge, inland.

A narrow footpath running behind the dunes on the beach front and on top of the cliff to the north, overlooking the sea, connects laterally with BEACH GREEN 1.

APPENDIX 1

Area inland shows typical cultivation patterns and slopes generally upward. Low escarpments, 6 to 10 feet high; crevices, and sinkholes will be encountered. Approx 200 Yds inland a small hill, 20 to 30 feet high, containing 4 limestone tombs fronting the beach, dominates the area. Further inland, on the left flank, another hill containing 10 tombs will be encountered.

Generally throughout the area inland, defiladed Dp locations will be found. Small interconnecting footpaths and/or irrigation ditches abound and will provide good channels of communication laterally and forward.

Right (S) Section:

The dunes in this area are somewhat lower than in the northern sector. Some buildings, possibly shrines, are located on top of these dunes on the right flank.

The right flank is dominated by some hills 25 to 35 feet high cut thru by a vertical walled arroyo running generally NW--SE. Numerous tombs are located in this area. Arroyo bottom is in defilade from all directions although exposed to plunging fire from the heights. 2 or 3 narrow footpaths provide communication up the arroyo to the SE.

A good lateral road running from the south extends for Approx 250 Yds from the extreme right flank. A branch of this road runs about 50 Yds directly into the beach sand. The lateral road terminates at a road running inland from the sea thru the dunes.

The area inland is extensively cultivated but is more broken than area behind the left (N) sector. Numerous terraced escarpments and sink holes will be encountered in this area. These areas should be adequate for protected Dps with a minimum of improvement. Numerous irrigation ditches and footpaths will provide good communication channels.

Generally this beach (GREEN 2) appears to offer most favorable terrain for shore party activities in the 6th Mar Div Z of action. 4 good roads running inland exist, a good lateral road exists inland and numerous footpaths and ditches offer good local communication channels. Dp locations abound and area is large enough to store all types of Sups in small isolated locations.

BEACH RED 1

A coral reef, containing numerous coral heads, extends along the beach 300 Yds off shore. No natural channels exist although on the left half of the beach, the approach is superior to that on the right. The beach is Approx 285 Yds in length, and at low tide about 25 Yds of coral sand is exposed.

837

APPENDIX 1

Behind the sandy beach a vertical cliff 2 to 4 feet high rises to a cultivated area about 60 Yds deep fronting the entire beach area.

One coral road leads inland over a 4 to 8 foot escarpment on the right flank of the beach connecting to a good lateral road 250 Yds inland. No other exit roads will be available. 4 drainage ditches and one footpath are capable of being developed.

The terrain inland is generally level, although a few terraced escarpments will be found, some dropping away inland. Typical cultivation patterns exist and some possible gun positions may be encountered near the lateral road. Numerous footpaths and irrigation ditches will be found inland. A very low hill, Approx 175 Yds inland, dominates the entire area behind the beach although the beach itself is defiladed from inland.

A village of Approx 40 building groups will be found about 225 Yds left of the left flank. This village is on generally high ground W of the arroyo mentioned in the analysis of BEACH GREEN 2. Some patterns, resembling trench systems, are discernible on the Photos available.

The beach is overlooked on the right flank by a small vertically sided peninsula. This peninsula is covered with a medium growth of low brush which may possibly conceal enemy infantry and automatic Wpns.

Generally the area inland offers numerous protected Dp positions.

This landing beach appears to be the best beach in the 4th Mar Z of action. While inferior to BEACH GREEN 2, it is the second best beach in the 6th Mar Div Z of action.

BEACH RED 2.

This beach is the poorest from a SP standpoint in the entire Div Z of action.

A niggerhead reef extends along the beach front 400 Yds offshore. The beach is 120 Yds long and 15 to 25 Yds wide at low tide. An abrupt bluff is encountered immediately inland from the sand. 3 possible exits exist, all requiring development. On either flank a small footpath exists and roughly in the center of the beach there is an 8 to 10 foot wide drainage ditch.

The area inland is generally cultivated and relatively level, sloping gradually upward. One small escarpment exists about 100 Yds inland. A good lateral road, along the edge of this escarpment connects to BEACHES RED 1 and 3. Dp areas inland will require extensive improvement and will in general, be exposed to direct fire from all directions.

APENDIX 1

It is recommended that this beach not be used for other than initial combat supplies.

BEACH RED 3

This beach is 275 Yds long and from 5 to 15 Yds wide. Directly behind the beach is a hedge growth from 10 to 15 feet in height. Though two secondary coral roads run inland from the beach both Trs and tracked vehicles would be able to debouch inland through the hedge growth. A footpath is directly to the left of the beach center.

The coral reef offshore extends generally 500 Yds from the beach, but landing craft should be able to pass the reef at high tide to a point between 150 Yds offshore, to the BEACH shelf itself.

Terrain inland is cultivated and gradually sloping. There is a small elliptical terrace behind the beach and to the right of center. The terrace is faced by a slight slope and may prove to be an obstacle. The two coral roads run inland from either flank, passing over a small bluff.

Area inland is dominated from the right flank by an escarpment containing numerous tombs. This escarpment contains numerous tombs. This escarpment is in the 1st Mar Div Z of action but may prove a hazard to SP operations.

Dp areas inland are level but will require extensive improvement in order to provide protection.

From present information it appears advisable that only LT combat Sups be unloaded on this beach and at earliest possible time all RED BEACH SP activities be consolidated on RED BEACH 1.

2. 6th Mar Div SPs land on BEACHES GREEN and RED and provide initial logistical support for the Div; develop beaches, land and assemble supplies and equipment and provide beach defense for landing area.
3.
 - a. SPs CT-4 land on RED BEACHES as directed, prepared to develop all RED BEACHES or any combination thereof.
 - b. SPs CT-22 land on GREEN BEACHES, prepared to develop either or both beaches.
 - c. Div SP Co land on RED or GREEN BEACHES on order, prepared to assume Contl of CT SPs when directed.
 - d. SP LT 2/4 (Div Res) land on Div O on RED or GREEN BEACHES, prepared to augment or relieve established SPs or to open new beach.
 - e. SPs CT-29 (III PhibCorps Reg) be prepared to land on designated beaches on Corps O.
- x. (1) Ren Pty of SPs LT land with LT Res: perform mission Asgd by GO 28. SP Ren Pty on L-Day.

APPENDIX I

determine which beach best suited for landing 155mm Arty. Factors to be considered are depth of water, extent and nature of reef and routes of egress from beach. 1 Gp Corps Arty will land from LCMs or LCTs and another Gp from LSTs. Corps Arty Bn COs have been directed to contact SP COs for information relative which beach to use".

- (2) Adv Elm of Beach Pty land in same wave as SP Rcn Pty, perform normal missions. Install Rad Com with remainder of Beach Pty.
- (3) Hq Plat, Shore Plat, Com Plat and remainder Beach Pty boated separately from tactical Trs, prepare to land on call from Rcn Ptys.
- (4) SP Lbr Elms land on 2d trip of boats with initial Sups. Landing Pts will be designated by SP Comdr prior to debarkation.
- (5) SP dozers, w/Armd cab, prepared to land in Adv of SPs, assist unloading of Tks and report to Rcn O upon completion of unloading of Tks.
- (6) MT Elms of all SPs provide facilities for dewater-proofing of all vehicles landed.
- (7) Each LTSPCO arrange with LTCOs to prelead 2 LCVPs with priority Sups to act as initial floating Dps.
- (8) Contl
 - (a) 1st Phase - LT Contl
 - (b) 2d Phase - CT Contl on O
 - (c) 3rd Phase - Div Contl on O
 - (d) Prearranged meeting Pts for Rcn Ptys and Comd Ptys will be designated prior to debarkation.
- (9) Engr Elms of all SPs will reconnoiter, clear, and mark areas and traffic lanes which are free of mines.
- (10) PDI's pass to Contl Engr Gp on Div O.
- (11) Place al Instl on top of bluffs.
- (12) Construct roads up steep bluffs at earliest practicable time to facilitate egress from beach.
- (13) SPs will pay particular attention to measures to repel counterlandings, from sea or air.
- (14) Special provisions will be made to strip all disabled vehicles of Ord and to collect all Ord, enemy or friendly, by night of L-Day, all such equip to be placed in Salv Dps.
- (15) SPs will provide 2 boat riders per boat for all LCVPs and LCMs.
- (16) Pilferage or wanton destruction of any material will not be tolerated. All persons so apprehended will be arrested and reported to higher Auth.
- (17) Cons and work priorities.
 - (a) Egress Rds - initially improve existing Rds.
 - (b) Am Dps.
 - (c) Fuel Dps - Special provisions will be made for isolated flame thrower fuel Dps and isolated refueling Stas.
 - (d) Evac Stas
 - (e) Water Sup - sea water distillation initially.
 - (f) Misc SP Instls.

APPENDIX 1

- (g) Special provisions for:
 - (1') Red Cross Sups.
 - (2') Mil Govt Sups.
 - (3') Baggage.
 - (4') Salvage - 1st priority to gas masks.
 - (h) All CPs and Evac Stas to be constructed in accordance with standard design.
 - (i) Drum-type heads will be installed prior to night of L-day.
 - (j) CT SPs will provide special Dps for all Engr Equip and Sups, to include all dunnage landed.
 - (k) Div SP Comdr will direct Cons of PW and Civilian Stockades for Div Provost Marshal.
 - (18) Beaches will be marked with signs to mark center of beaches with letters and numbers, black on yellow, for each section of beach. Spell out beach color. Use illumination screened from overhead at night. Required visibility 2,000 Yds. Minimum height of letters: 20 inches.
4. a. Emb Equip and Sups.
- (1) In accordance with Adm Plan No 1-45.
 - (2) SP Special Equip list.
See Appendix 1.
- b. Debarkation Equip.
- (1) Ren and Comd Ptys carry combat Pks.
 - (2) Remainder of SPs carry Field Transport Pks.
 - (3) SP Equip and Sups will be Asgd high priority in unloading plans.
- c. Labor Parties.
- (1) In addition to normal Lbr Ptys, SPs will provide Lbr Ptys for floating Dps, and transfer Pts.
- d. Reports and Records.
- (1) Div GO 28.
 - (2) Div GO 12.
 - (3) Beach Checkers' reports as directed by SP COs.
- e. Med Responsibility - KIA and KIA.
- (1) Pion Bn Med Sec responsible for establishment of Evac facilities and care of casualties on beaches.
 - (2) Beach Pty Med Sec responsible for care of casualties during movement from shore to ship.
 - (3) Each SP Comdr will establish KIA Coll Pts and report location to next higher Auth.
- f. Mess and Subsistence.
- (1) CT SPs will establish facilities for preparation of hot soup and coffee. SP Pers served on station.

APPENDIX 1
GENERAL

- (2) Initially, within SP capabilities, furnish hot soup and coffee to Fwd units.

g. General.

- (1) Beach areas are for Excl use of SP Pers and Equip.
- (2) Other units to be moved Fwd of beach areas.
- (3) Stragglers from Fwd units will be apprehended and sent Fwd under Gd to parent units.
- (4) Souvenir hunters within SP areas, regardless of rank or service, will be arrested and detailed to bury enemy dead. Report of such offenders will be made to next higher Auth.
- (5) All casualties upon landing will be sent to their units and report made to Div SP Comdr.

x. Other Adm Details.

- (1) Adm Plan No 1-45.
- (2) Div GO 28.
- (3) Annex K to Adm Plan No 1-45 - Unloading Plan.

5.

- a. Tp and Rad - Annex G to 6th Mar Div Opn Plan 1-45
Sig Com
- b. SP lateral channels by Rad initially.
- c. Lateral wire when enemy activity permits.
- d. All SP Pers responsible for repair of broken wires on beach.
- e. Pyrotechnics and smokes:
Later
- f. CPs
 - (1) Afloat - Annex A to Adm Plan No 1-45 - Emb Plan.
 - (2) Ashore - To be reported.
 - (3) Tentative CP locations will be submitted by SP Comdrs to higher Ech prior to debarkation.

BY COMMAND OF MAJ GEN SHEPHERD

J. C. McQUEEN
Col USMC
Cofs

APPENDIX 1: SP Equip list

DISTRIBUTION: Same as Adm Plan No 1-45
plus all SP Comdrs.

OFFICIAL:

A. LARSON
LtCol USMC
ACofs D-4

Copy No.

(00011045)

6th Mar Div
In the Field
8Feb45, 0800

APPENDIX 1 TO...)
ANNEX B TO ...)
ADM PLAN NO 1-45)

SP EQUIP LIST

SP EQUIP LIST

(a) Normal Pion Co and Plat Gear to be carried.

(b) Heavy Equip CT and LT SPs CT-4.

CT-4 SP

2 Trks, 1/2-ton, 4X4, cargo
1 Tlr, 300-gal, water
2 Water distillation units, Badger

LT-1/4 SP

2 Dozers, TD-18
1 Dozer, D-8, w/Armd cab
2 Dozers, TD-14
1 Crane, TD-14
1 Crane, TD-9
1 Trk, 6X6, Dp
1 Water distillation unit, Badger

LT-2/4 SP

2 Dozers, TD-18
1 Dozer, D-8
1 Dozer, TD-14
1 Crane, TD-9
1 Trk, 6X6, Dp
1 Water distillation unit, Badger

LT-3/4 SP

2 Dozers, TD-18
1 Dozer, D-8, w/Armd cab
1 Dozer, TD-14, w/Armd cab
2 Dozers, TD-14
1 Crane, TD-14
1 Crane, TD-9
1 Trk, 6X6, Dp
1 Water distillation unit, Badger

(c) Heavy Equip CT and LT SPs CT-22

843

8Feb45, 0800

CT-22 SP

2 Trks, $\frac{1}{2}$ -ton, 4x4, cargo
1 Tlr, 300-gal, water

LT-1/22 SP

2 Dozers, TD-18
1 Dozer, D-8
1 Dozer, TD-14
2 Cranes, TD-9
1 Trk, 6x6, Dp
3 Water distillation units, Badger

LT-2/22 SP

2 Dozers, TD-18
1 Dozer, D-8, w/Armd cab
2 Dozers, TD-14
1 Crane, TD-14
1 Crane, TD-9
1 Trk, 6x6, Dp
1 Water distillation unit, Badger

LT-3/22 SP

1 Dozer, TD-18, w/Armd cab
1 Dozer, TD-18
1 Dozer, D-8, w/Armd cab
3 Dozers, TD-14
1 Dozer, D-7
1 Crane, TD-14
1 Crane, TD-9
1 Trk, 6x6, Dp
1 Water distillation unit, Badger

(d) Heavy Equip Div SP

2 Trks, 6x6, Dp
2 Trks, $\frac{1}{2}$ -ton, 4x4, cargo
1 Tlr, 300-gal, water
1 Tlr, Machine Shop
1 Tlr, Spare Parts
1 Tlr, Arc welder
1 Trk, 6x6, Wkr
1 Trk, 6x6, cargo

(e) Heavy Equip CT-29 SP

- 3 Dozers, TD-18
- 1 Dozer, TD-18, w/Armd cab
- 6 Dozers, TD-14
- 2 Cranes, TD-14
- 4 Cranes, TD-9
- 3 Trks, 6x6, Dp
- 2 Trks, $\frac{1}{2}$ -ton, 4x4, cargo
- 1 Tlr, 300-gal, water
- 5 Tlr, water distillation unit, Badger

(f) In addition, Div Units to be designated will furnish 8 large cranes to be installed on floating barge Dps and reef transfer Pts, located as follows:

- 1 off GREEN BEACH 1
- 3 off GREEN BEACH 2
- 3 off RED BEACH 1
- 1 off RED BEACH 3

(g) Special steel SP mat will be drawn from normal Sup. 1,000 feet carried in assault and 500 feet in 1st Ech.

APPENDIX II
ADDITIONAL INSTRUCTIONS TO
SHORE PARTY COMMANDERS

Appendix 2

6th Pion Bn
6th Mar Div
In the field.
8 March, 1945.

Additional Inst to all Shore Parties.

Reference: Annex B to Adm Plan No. 1-45.

Task Orgn

No change

1. Summary of Situation.

No change

2. General Plan

No change.

3. (x) (1) All SP CO's will arrange with tactical commanders for mortar illumination to seaward if deemed necessary.

(2) No AA Fire unless under direct air attack.

(3) Unloading work will continue under Condition Red until AA in immediate vicinity open fire, or bombs fall in immediate vicinity.

(4) All machine guns will be sited for seaward defense except left flank of GREEN 1. No inland fire unless cleared thru tactical command.

(5) Flank and center markers will be placed as high as possible for good seaward visibility.

(6) Beach Defense Plan.

(a) 1st Arm Amph Bn beach defense plan attached.

Overlay to CT SP CO.

(b) Cargo LVT's to be placed on beach flanks as reef guards.

(c) SP CO's will provide infantry strong point defense for Arm LVT's, and coordinate defense with Amph Trac Co's.

(7) SP CO's will insure complete briefing of all Pers as to Beaches, Tentative CP's, Control boat flags, and symbols, and Code word designations.

(8) If low priority supplies arrive at beach when high priority unloading is under way, it will be unloaded. Make specific request to APA's or AKA's concerned.

4. (a) Reports and records.

(1) Beach unloading reports to higher echelon on order.

(2) Periodic reports of beach unloading to Div SP period 0600 to 0600 by 0700 daily.

(b) (1) Leggings will be worn by allhands at all times under trousers.

(c) (1) All SP Officers will pay particular attention to censorship and mailing restrictions.

(d) (1) Upon return from initial trip to beaches, DUKWS will be employed to unload understowed Am on LST's on basis of 10 DUKWS to each LST with following unloading priority.

0549-1

H. 9 g 12 pts

ANNEX H
TO
SIXTH MARINE DIVISION
SPECIAL ACTION REPORT

PHASES I & II OKINAWA OPERATION

6TH MEDICAL BATTALION

RESEARCH SECTION

REVIEWED BY *RSP*

DATE *5/2/45*

RECOMMENDED VALUE:

(NAVMC-QUANTICO)

D

13789(1) MCS Quantico, Va. 1-24-46-1M

ek
RECORD SECTION, M.C.S.

RECEIVED FROM:.....

DATE:..... JUN 25 1945

TO FILE NO. *5475-575-5(15)*

Okinaawa
COPY NO. *3 of 3*

849

HEADQUARTERS
SIXTH MEDICAL BATTALION
~~SIXTH MARINE DIVISION~~
IN THE FIELD.

30 April 1915

ANNEX "H" TO
SPECIAL ACTION REPORT OF SIXTH MARINE DIVISION
COVERING FIRST AND SECOND PHASE OF THE ICEBERG
OPERATION.

HEADQUARTERS
SIXTH MEDICAL BATTALION
SIXTH MARINE DIVISION
IN THE FIELD.

30 April 1945

TABLE OF CONTENTS

Chapter I:	General - - - - -	1
Chapter II:	The Task Organization - - - - -	1
Chapter III:	Preliminary Planning - - - - -	2
Chapter IV:	Training Phase and Rehearsals - - - - -	2
Chapter V:	Loading and Embarkation - - - - -	3
Chapter VI:	Movement to and Arrival to Objective Area - - - - -	3
Chapter VII:	Assault Phase - - - - -	4
Chapter VIII:	Enemy Tactics, Organization, and Equipment - - - - -	12
Chapter IX:	Estimated Results of Operation - - - - -	12
Chapter X:	Comments and Recommendations of the Commander - - - - -	12

HEADQUARTERS
SIXTH MEDICAL BATTALION
SIXTH MARINE DIVISION
IN THE FIELD

SPECIAL ACTION REPORT OF PHASES
ONE AND TWO, ICEBERG OPERATION

a. Chapter I: General

This Special Action Report covers the activities of the Sixth Medical Battalion, Sixth Marine Division during the assault phase of the central and northern Okinawa operation from 1 April, 1945 to 20 April, 1945 and the training phase preparatory thereto. The mission assigned to this Battalion was the treatment and evacuation of casualties occurring in the Sixth Marine Division.

b. Chapter II: The Task Organization

The Sixth Medical Battalion is composed of the following elements. The Battalion operates under the supervision of the Division Surgeon, Sixth Marine Division.

1. Headquarters and Service Company - Lieut. Comdr. J. S. Cowan, (MC), USN, Commanding Officer, Sixth Medical Battalion.
Lieut. J. M. Shelton, (MC), USNR, Battalion Executive Officer.
 - a. Malaria and Epidemic Control Unit - Lieut. Comdr. H. B. Orenstein, (MC), USNR.
 - b. Battalion Quartermaster - 1st. Lt. L. G. Walters, (QM), USMCR.
 - c. Medical Supply Section - Ens. C. D. Worthen, (HC), USN.
2. "A" Medical Company - Lt. Comdr. O. W. E. Nowlin, (MC), USNR.
3. "B" Medical Company - Lt. Comdr. G. Flaum, (MC), USNR.
4. "C" Medical Company - Lt. Comdr. A. A. Topcik, (MC), USNR.
5. "D" Medical Company - Lt. Comdr. H. B. McSwain, (MC), USNR.
6. "E" Medical Company - Lt. G. W. Ihle, (MC), USNR.

c.

Chapter III: Preliminary Planning.

The Sixth Medical Battalion since its activation on 24 November, 1944 has, under the Division Surgeon, worked out its present plan for the care and evacuation of the Division's sick and wounded. This plan is summarized in the Medical S.O.P., Sixth Marine Division. Close contact with the Division Staff sections at all times have enabled us to modify our plans as the various details of the forthcoming operation were released.

(a) Battalion 1 - The personnel of the Medical Battalion have been carefully selected in regard to their previous training and aptitude for their assigned duties. A complete card file of all personnel is maintained, making it possible to quickly obtain specialized personnel on short notices. The personnel of H&S Company and Medical Companies D. and E were interviewed and selected from the available pool of medical personnel stationed at Camp Pendleton. During the period, 24 November 1944 through 15 January 1945, the personnel office assumed the additional duties involved in having approximately 500 additional Medical Officers and Corpsmen (Replacement Pool for South Pacific Area) assigned and redistributed in small groups to other units in the area.

(b) Battalion 2 - Commencing 24 November, 1944, the Divisional Dental Officer was assigned additional duty as Bn 2., as such, he studied and worked with the Division Two Section half of each day. He kept the Medical Battalion constantly abreast of the military situation and planning, including repeated briefing of all personnel on intelligence matters.

(c) Battalion 3 - The training of this Battalion was rigorous and complete. All aspects of medical training were covered as well as chemical warfare, field exercises, week-long bivouacs in jungle terrain during which time field hospitals were established and the chain of evacuation was practiced, care of weapons, physical conditioning, close order drill, care of motor vehicles and other necessary phases of training. This training was facilitated by the supervision of the Division Surgeon who had previously organized and commanded the Medical Field Service School at Camp Lejeune.

(d) Battalion 4 - After careful study of reports compiled by Marine Organizations on previous operations, a complete list of all supplies needed to meet any exigency was made. Adequate medical and quartermaster supplies were thus obtained for the Battalion prior to this operation. The Division, as a result, was made self-sufficient for adequately caring for its casualties. Motor vehicles were constantly serviced and repaired and all shortages were replaced. In addition, one Army weapons carrier and two 4 x 4 1/4 ton trucks were loaned to the Malaria and Epidemiological Control Unit by the Malaria Control Section ComSoPac for local use in field work.

(e) Malaria and Epidemic Control Unit - In addition to its routine duties of Epidemic and Malaria Control in the Division training area, this unit made investigations, studies, and preparations for carrying out their program in the target area. Close liaison with the Bn 2 was maintained in this regard. Their special laboratory facilities were made available at all times to all Medical Units of the Division while in the training area.

d.

Chapter IV: Training Phase and Rehearsals

Upon the formation of the Sixth Marine Division, Medical Companies "A", "B", and "C", were attached to the 4th, 22nd, and 29th reinforced Regiments respectively and started preliminary training under

852

Regimental control. Medical Companies "D" and "E" and the Headquarters and Service Company received preliminary training at the Medical Field Service School, Camp Pendleton, before embarking from the United States in November, 1944. Upon the arrival of these latter units at Guadalcanal and intensive training program was instituted. This included:

(1) Daily physical training including morning marches, calisthenics and organized athletics. Toward the end of the training phase daily practice in climbing cargo nets was included.

(2) Daily lectures and demonstrations on medical subjects. All necessary instruction of a medical nature was completely covered. The medical officers conducted evening seminars on tropical medicine and original papers were presented each week.

(3) All Medical Companies functioned constantly as Field Hospitals. Companies "A", "B", and "C" remained in the vicinity of the respective regiments while Companies "D" and "E" jointly operated a 250 bed Division Field Hospital. Consequently, the Division was self-sufficient in caring for its sick and wounded.

(4) Each Medical Company spent three separate weeks in bivouac in jungle terrain on Guadalcanal. During these bivouacs, each company established and operated an independent Field Hospital. Training in map reading, scouting and patrolling, school of the soldier, evacuation of wounded and hospital establishment and operation were intensified during these periods under field conditions.

(5) Chemical warfare from both a medical and tactical standpoint was well covered. All personnel had gas chamber drill as well as lectures, demonstrations and simulated gas attacks while on morning marches. Decontamination squads were trained in each medical company.

(6) Each Medical Company had men from their own personnel trained in field communication by the Division Signal Company. These men installed and operated company switchboards in their hospitals and bivouac areas.

(7) The Medical Battalion participated in all Division maneuvers and rehearsals. These operations were always followed by a critique at which time the Division Surgeon and the Battalion Commanding Officer discussed the operation and made recommendations for future maneuvers.

(8) Before embarkation, all company commanders were thoroughly briefed on the forthcoming operation. Tentative sites for hospital establishment were discussed and routes for evacuation were tentatively chosen.

e. Chapter V: Loading and Embarkation

All material of the Sixth Medical Battalion was loaded at Guadalcanal on 12-14 March, 1945, tonnage in accordance with Division TQM Allowances.

54 officers and 526 enlisted men were embarked on 14 March, 1945. Each Medical Company was embarked on a different transport.

No loss of personnel or equipment was incurred.

f. Chapter VI: Movement to and Arrival at Objective Area

Daily conferences were held aboard ship among the officers, maps were studied and daily briefing was continued.

After leaving the final staging area, all personnel was thoroughly briefed as to their part in the operation. The enlisted men were instructed as to the terrain, nature of expected enemy resistance, prospective routes of action, and all companies conducted intensified instruction for all personnel.

Aboard ship the Battalion medical personnel assisted in daily sanitary inspections, sick call, and supplemented the ships medical personnel

personnel in manning aid stations and General Quarters.

(a) Sanitary Conditions Aboard Ship:

1. Heads - Satisfactory in all respects.
2. Living Quarters - Satisfactory. Ventilating was particularly poor on APA 25 where Company "E" and "H&S" Company were quartered in Hold 4A.
3. Messes - Satisfactory.
4. Galleys - Satisfactory.
5. Cooks and messmen - Satisfactory. From a medical standpoint the sanitary and messing facilities aboard ship were entirely satisfactory.

(b) Sickness Aboard Ship:

- 4 cases Catarrhal Fever.
- 1 case multiple sclerosis - evacuated at staging area.
- 1 case Dermatitis (generalized) - evacuated at staging area.
- 1 case Appendicitis, Acute. Operation performed on Hospital Ship at Target Area. Returned to duty at Okinawa 12 April 1945.

(c) Special Precautions Taken Aboard Ship:

1. Continuation of atabrine medication.
2. Daily inspection of living quarters, heads and messing facilities.
3. Aboard APA 25 all troops were given sulfadiazine (1gm. daily) for the last 4 days aboard, following the development of a case of meningitis. No cases have appeared among our personnel.

g. Chapter VII: Assault Phase

(1) Ship to Shore Movement:

- a. "A" Medical Company.
 1. 15th wave.
 2. Boated in LCVP's transferring to amphibious tractors at transfer zone.
 3. Time of landing - 1030, 1 April, 1945.
- b. "B" Medical Company.
 1. 6th wave.
 2. Boated in LCVP's.
 3. Time of landing - 1430, 1 April 1945.
- c. "C" Medical Company.
 1. 3rd wave of GT 29.
 2. Boated in LCVP's.
 3. Time of landing - 1730, 1 April 1945.

- d. "D" Medical Company.
 1. 6th Wave.
 2. Boated in LCVP's.
 3. Time of landing - 0915, 2 April 1945.
- e. "E" Medical Company.
 1. 5th and 6th waves.
 2. Boated in LCVP's and LCT's.
 3. Time of landing - 5th wave - 1730, 1 April 1945,
6th wave - 0830, 2 April 1945.
- f. "H&S" Company.
 1. 5th and 6th waves.
 2. Boated in LCVP's and LCT's.
 3. Time of landing - 5th wave - 1730, 1 April 1945,
6th wave - 0830, 2 April 1945.
- g. Material.
 1. Transported by LCVP, LCT, LCM, and LVT's.
 2. Time of landing - all medical supplies ashore on 6 April 1945.
 3. Landed by LCVP, LCT, LCM, and LVT's.
- h. Losses of personnel and material.

Personnel - none.

Material:

 - 1 water pump (lost overboard)
 - 3 sea bags
 - 1 bedding roll
 - 1 back pack
 - 2 tents, hospital
 - 4 tents, pyramidal
 - 4 tents, storage
 - 6 tents, flys
 - 3 tarpaulins
 - 1 tent, blackout
 - 1 $\frac{1}{4}$ ton ambulance, Jeep (Submerged off shore, subsequently repaired).
 - 1 Utility case

(2) Ashore - Assault Phase.

Medical Battalion personnel were immediately assigned upon landing to patrol all landing beaches in cooperation with the Shore Party personnel to locate all medical equipment and supplies and arrange for their immediate move to medical dumps.

(3) Medical Installations were set up as follows:

1. When set up

- "A" Medical Company - 1630, 1 April 1945.
- "B" Medical Company - 1430, 1 April 1945.
- "C" Medical Company - 1600, 3 April 1945.
- "D" Medical Company - 1400, 2 April 1945.
- "E" Medical Company - 0830, 3 April, 1945.

2. Location with regard to:

- a. Roads or trails - All companies were located on traversable roads. The locations of companies "D" and "E" (Division Field Hospital) have always been on good roads with unimpeded evacuation routes, to the beach.
- b. Cover - Hospital sites were chosen to provide maximum cover and natural camouflage. On two occasions at Yontan Airfield (Company "A") and at Nago Beach (Company "C") camouflage was considered secondary to the providing of easy accessibility and the available buildings at those sites.
- c. Dispersion - Within the limits of the company areas wide dispersion of medical facilities, living quarters, and vehicles was constantly practiced. This was of necessity curtailed on occasion for security reasons.
- d. Other Medical Installations - All forward medical companies were easily accessible for evacuation from the front lines. These hospitals were invariably in close proximity to Regimental Headquarters. The Division Field Hospitals maintained evacuation from the forward companies. This evacuation was at no time interrupted.
- e. Natural line of drift of walking wounded - As noted above, forward Medical Companies were located along natural lines of drift. However, such casualties were invariably evacuated to the hospitals by normal routes.

(4) The following Protective Measures were taken in Medical Battalion Units:

- a. Local Security - Provided at all times by own Marine guards supplemented by Corpsmen. Contact with adjacent units maintained.
- b. Cover - Camouflage netting provided for vehicles and supplies. Advantages of natural cover and defilade taken at all times. Sites for hospitals always chosen with this in mind.
- c. Concealment - This was obtained satisfactorily except as noted in 2 (b). These two locations, however, were in no way marked as hospitals sites except for small road signs.
- d. Shelters and dugouts - Fox holes and dugouts for personnel and patients provided at all installations. Operating tents, when used, were either dug in or adequately sand bagged.

- e. Blackout precautions - Enforced at all times. All hands instructed in standard air raid signals.

(5) Hospitalization was as follows:

1. Functioning - Medical care and evacuation of wounded proceeded smoothly and without interruption.
2. Adequacy - Adequate in all respects during this operation.
3. Equipment, supplies, and personnel - Adequate for the providing of medical care, but inadequate for unassisted perimeter defense.
4. Number of patients - 1 April, 1945 to 20 April, 1945.

1370

5. Operations performed - 154.

(6) Evacuation Chain worked unerringly as follows:

1. How effected - By litter and ambulance to Division Field Hospital.
By Amphibious tractors from Field Hospital to LST (H) since L plus 8.
A limited number of patients were evacuated by ambulance to rear hospital installations.
Prior to L plus 8, evacuation was by ambulance to the Shore Party Evacuation Station from the Division Field Hospital.
One patient was evacuated directly by seaplane from "B" Medical Company to a Hospital Ship. (Bilateral arm amputation and other injuries). The Patient was received aboard the hospital ship in good condition. A Medical Officer accompanied this patient.

2. Adequate or inadequate - Adequate.

(7) Casualties treated were as follows:

1. Number - 1370
 - a. Retained - 230
 - b. Evacuated - 953
 - c. Died - 39
2. Type
 - Walking wounded - 685
 - Stretcher Cases - 268

(8) Sanitation included the followig:

- Specific measures -
Covering of native heads and refuse.
DDT spraying by plane and working parties of bivouac areas and native villages.
Draining of rice paddies in Nago areas occupied by troops.

Otherwise, all standard camp sanitary procedures were routinely carried out.

- (9) Rations employed in this assault phase were:

K, C, 10-in-1 rations used exclusively to date.
No epidemics of food poisoning or dysentery were encountered.

- (10) Water supply during assault phase:

Initially, water brought ashore in cans, drums, and trailers. Subsequently, water points were established. All processed water was tested bacteriologically and found to be safe for drinking.

- (11) Disposal of dead was as follows:

1. Our - By Grave Registration.
2. Enemy - By Grave Registration.
3. Sanitary precautions taken -

Bodies sprayed with Sodium Arsenite by Grave Registration.

- (12) No epidemic or unusual diseases occurred in the troops.

- (13) Dental service was adequate and was furnished by Regimental and Medical Company Dental Officers with field units. One Dental officer was carried in excess by each Medical Company. (Total per company - 2).

205 cases were treated and were as follows:

Extractions - 81
Fracture, jaw - 1
Temporary filling - 105
Gingivitis - 7
Pericorinitis - 11

Dental Officers were assigned the following additional duties:

Security Officer.
Censor.
Sanitary Inspector.
Motor Vehicle Supervision.
Anesthetist.
Plasma Teams.

- (14) Many civilian casualties were rendered first-aid treatment by Medical units and turned over to the Civil Government G-10 Dispensary Units. This Division was provided with two of these units consisting of one Medical Officer and six Corpsmen each. The Medical care thus provided was far from adequate both in personnel, equipment, and supplies. From 14 April to close of this phase, it was necessary to supplement Civil Affairs Group by utilizing twenty Hospital Corpsmen and two Medical Officers from the Medical Battalion. The latter was possible only because the casualties among Marine personnel were relative light during this period. Prior to 8 April, the Civil Affairs Medical Section functioning at Toya and thereafter at Taira.
- Among the civilians, scabies is apparently widespread. The Malaria and Epidemic Control Unit has made an extensive survey of groups of natives, and report 31% of adults showing microfilria and midnight. No malaria was encountered in 150 consecutive blood smears. 19 cases of hookworm discovered in 26 stools. One-third of mosquitoes in native villages were infected with microfilaria. 22 species of snails were discovered in local fresh water. None are capable of being intermediate hosts of Schistosomiasis.
- (15) Prisoners of War were given emergency medical treatment by various aid stations and transferred to POW Stockades. The Medical Battalion furnished a full time corpsman to the stockade and daily sick call was made by a medical officer from the Division Field Hospital. There were no predominant diseases among these prisoners.
- (16) Medical Organization was suitable in it's present type and no changes are suggested.
- (17) Medical personnel were adequate and were employed in the manning of hospital facilities and hospital maintenance, evacuation of casualties by ambulance, supplementing security details and performing housekeeping measures.

Losses and replacements of personnel were as follows:

Losses: 2 battle casualties - evacuated.
1 non-battle casualty - evacuated and later died.

Replacements (from shore party personnel)
1 Medical Officer.
21 enlisted men.

All hospital personnel were adequately trained for this operation, no other specialties than provided were needed.

(18) Field Medical Equipment:

1. Proportion of allowances carried -
100% medical supplies.
90% equipment (vehicles).
2. Pilferage and losses -
Except for the initial landing losses, there has been little additional loss of equipment except the following:

One $\frac{1}{2}$ ton ambulance Jeep, badly damaged in a road accident. Has been surveyed by Motor Transport and will be replaced.

A steady but small loss of stretchers and blankets to Grave Registration and Civilian Affairs Group. These groups should be supplied with exchange litters and blankets.
3. Adequate or inadequate -
Adequate. One Medical Company was provided with a mobile surgical trailer which was fully equipped by the company. This trailer was extensively used during this operation and proved to be invaluable.
4. Suitability of present type -
Suitable.
5. Re-supply -
Adequate on this operation.

(19) Medical Supplies:

1. Amount carried - 30 day supply.
2. Pilferage and losses - Minimal. No major loss of equipment and supplies.
3. Adequate, inadequate and overage - Adequate.
4. Re-supply - Adequate.
5. Adequacy of blockshipments - Adequate.

(20) Motor Vehicles and Rolling Stock:

1. Number and type carried --

$\frac{1}{2}$ ton Jeep ambulances -	- 25
$\frac{1}{2}$ ton Field ambulances -	- 5
4x4 Recon trucks -	- 5
6x6 Trucks -	- 5
1 ton 2 wheel cargo trailers -	- 5
1 ton 2 wheel water trailers -	- 5
Trailer, Generator -	- 5
Trailer, Sterilizer and shower -	- 5
Operating Room Trailer -	- 1
$\frac{1}{4}$ ton Jeeps -	- 3

2. Losses -

- 1 Jeep ambulance - to 6th Marine Division.
- 1 Jeep ambulance - wrecked and surveyed.
- 1 Jeep ambulance - submerged in landing operation but now in use.

3. How utilized and maintained -

Utilized in : Patient evacuation, hauling of company gear and supplies, routine hauling of materials, rations and water. Ambulances used only for patient transportation.

(21) Quartermaster Equipment and Supplies:

1. Allowance carried -

Full allowance as designated by Division T.Q.M.

2. Availability of -

Readily available after landing of supplies was completed.

3. Re-supply -

Adequate. Additional clothing issue received during assault phase.

4. Re-clothing for patients -

Adequate.

(22) Malaria and Epidemic Control Equipment and supplies:

1. Amount and type carried -

- 300 Freon bombs per 1000 men.
- 150 lbs DDT powder per 1000 men.
- 3 bottles Insect Repellent per man.
- 2 cans Louse powder per man.
- Cloth bobinette and screening.
- 2 knapsack sprayers per Medical Company.

2. How used -

The above listed supplies were issued to all units prior to embarkation. An additional supply for use by the Malaria and Epidemic Control Unit - as well as their own equipment - was carried for the unit's projects. Use of the basic supplies was by the unit sanitation officers under the supervision and advice of the Malaria and Epidemic Control Unit of the Sixth Medical Battalion.

3. Availability of -

Readily available. It should be noted that apparently some of the units did not bring their full issue with them. Fortunately, the Medical Battalion was able to re-supply them to a limited degree.

4. Losses -
None.

h. Chapter VIII: Enemy Tactics, Organization, and Equipment.

Moderate quantities of medical equipment and supplies were found to be of good quality. Equipment and supplies of all unusual medications were turned over to the Medical Intelligence Section of the III Amphibious Corps. Of Particular interest was the finding of quantities of Filarysin, a Japanese medication used in the treatment of Filariasis. Japanese Anti-venoms captured were out of date, but were also turned in for study. All other captured supplies and equipment not needed for intelligence purposes were released to the Civil Affairs Group for the care of wounded civilians.

i. Chapter IX: Estimated Results of Operation.

Personnel losses of the Sixth Medical Battalion:

(a) Wounded in action - - - - -	2
(b) Non-battle casualties - - - - -	1
(c) Died of injury - - - - -	1
(d) Missing - - - - -	0

j. Chapter X: Comments and Recommendations of the Commander.

S-1 (1) It is recommended that five additional marine guards equipped with automatic weapons be added to each Medical Company. Present marine personnel and fire power are considered insufficient to maintain an unassisted perimeter defense in warfare of this type. In a larger land mass, Medical Companies must frequently be established at some distance from any combat unit. With increase protection, Medical Companies could be more strategically located at times because of ability to better defend themselves. As noted before in this report, it is felt that the Civil Affairs Organization should be augmented as regards to both medical personnel and supplies, providing at least a small hospital unit comparable to a Medical Company.

S-2 (1) A Special effort taken by this Battalion in Training a S-2 Officer and making all personnel intelligence conscious have proven and we feel has been a material assistance to the G-2 Section. To the best of our knowledge, this is the first attempt made by a Medical Battalion and it is recommended that such practices become standard procedure.

S-3 (1) Training of personnel is felt to have been adequate. Dividends have especially resulted from the extensive training under field conditions.

S-4 (1) It is earnestly recommended that one 6x6 truck be added to the Table of Organization for each Medical Company in the Medical Battalion, and that two 6x6 trucks be assigned to Headquarters and Service Company of the Medical Battalion, to be used to back up any unit that needs to advance rapidly with its equipment and personnel intact and to move the Division Medical Dump. It is also recommended that two 1 ton 4x4 and two $\frac{1}{4}$ ton 4x4 trucks be added to the Malaria and Epidemic Control Unit's Table of Organization, as this unit was added to the Medical Battalion; but no provision has as yet been made for transportation to enable them to make their extensive surveys and to transport their control personnel and equipment. This would greatly facilitate their work in the field. These needs have become apparent in this operation on a large land mass in which moves have been frequent and over long distances.

(2) Because of the excellent performance of the surgical trailer, and because of the fact that its use unquestionably saved many lives and reduced the incidence of infected wounds to practically zero, it is recommended that one such trailer be added to the equipment of each Medical Company.

(3) In regard to making any recommendations as to change in the present field units, it can be said that they have proved extremely satisfactory in combat, therefore no changes are indicated.

The addition of whole blood to the supplies of the Medical Department of a Marine Division was timely and has proved an invaluable aid as an adjunct to plasma.

0549-1

Pt. 10712 pts

ANNEX I

TO

SIXTH MARINE DIVISION SPECIAL ACTION REPORT

PHASES I & II OKINAWA OPERATION

1ST ARMORED AMPHIBIAN BATTALION

RESEARCH SECTION

REVIEWED BY *REP*

DATE *5/1/45*

RECOMMENDED VALUE:

(NAVMC-QUANTICO)

PA *[REDACTED]*

[REDACTED]

[REDACTED]

[REDACTED]

13789(1) MCS Quantico, Va. 1-24-46-1M

ek
RECORD SECTION, M.C.S.

RECEIVED FROM: *[REDACTED]*

DATE: JUN 25 1945

TO FILE NO. *5475-575-5(15)*

COPY NO. *3* *Okinaawa* *of 3* 864

SPECIAL ACTION REPORT

OKINAWA JIMA OPERATION

FIRST ARMORED AMPHIBIAN BATTALION

SIXTH MARINE DIVISION

ANNEX ITEM TO SIXTH MARINE DIVISION

SPECIAL ACTION REPORT

LOUIS METZGER
Lieutenant Colonel
U. S. Marine Corps

1st Armd Amph Bn.
FMF, Pacific,
In the Field.
1 May, 1945.

Annex ITEM

EMPLOYMENT OF ARMORED AMPHIBIANS, LVT(A)(4)

CHAPTER 1: GENERAL

1. This report will include this unit's preparations for combat, loading and embarkation, the assault phase including estimated results of the operation, and recommendations of the Commanding Officer.

2. The mission assigned the 1st Armored Amphibian Battalion was the neutralization of all beach defenses within the Sixth Marine Division Zone of Action; thereafter to support the advance of the infantry by direct and indirect fire under control of Division Artillery. In addition the 1st Armored Amphibian Battalion was to coordinate night beach defense with the Shore Party Commander.

CHAPTER 2: PREPARATION FOR COMBAT

1. The 1st Armored Amphibian Battalion was attached to the Sixth Marine Division on 10Jan45 for tactical planning and training. The status of this unit at that time was as follows:

(a) Personnel:

(1) 10Jan45:	<u>COMM</u> 35	<u>USMC</u> <u>WARRANT</u> 4	<u>ENLISTED</u> 772
	<u>COMM</u> 2	<u>USN</u> <u>WARRANT</u> 1	<u>ENLISTED</u> 23
(2) 15Mar45:	<u>COMM</u> 35	<u>USMC</u> <u>WARRANT</u> 4	<u>ENLISTED</u> 806.
	<u>COMM</u> 3	<u>USN</u> <u>WARRANT</u> 1	<u>ENLISTED</u> 27

Annex ITEM.

Annex ITEM

(b) Training: A training program was initiated on 11Sep44 upon returning from GUAM, M.I. Very briefly, this program included four phases.

(1) Ship-to-Shore Movement, stressing Formation Driving, Waterborne Firing, 75mm How M3, .30 Cal LMG (Bow Mount) and .50 Cal AA Firing, Communications.

(2) Assault Gun Phase which included Formation Driving, (land), Assault Gun Tactics, Range Estimation, Target Designation, 75mm How Firing on land up to ranges of 1800 yards; .30 and .50 Cal MG Firing.

(3) Artillery Phase: upon the approval of the CG, III Amphibious Corps, this unit commenced training to fire by indirect methods on 15Oct44. The 1st Armored Amphibian Battalion is the first unit of its type to fire as Artillery. Before the arrival of the LVT(A)(4)s, two instructors from the 15th Marines with four (4) 75mm Pack Howitzers were assigned to the battalion for a period of six (6) weeks to train LVT(A) crews in fundamentals of Artillery. Following this, two (2) officers from the 15th Marines were assigned this unit for a period of three (3) weeks to conduct officers' school. Firing as Artillery commenced on 17Dec44 and continued until 1Mar45. Due to an ample supply of ammunition, each company spent a total of seven (7) days on the range. Training of Platoon and Company FDCs was stressed. In late February, the Battalion fired as a unit to perfect the massing of four (4) Companies on one target. The training of each platoon as an independent firing unit with its own FDC proved invaluable in providing fire support for combat patrols.

(4) Basic Infantry Training which included firing of individual weapons, .30 and .50 Cal MG on ground mount; throwing Grenades, Frag, Mk2; Map Reading; Swimming; Marches & Patrols; Infantry Tactics, Security, and First Aid & Field Sanitation.

(5) Training in these four phases continued until the Division Rehearsal. The emphasis in training after joining the Sixth Marine Division was on Platoon, Company and Battalion problems in waterborne and land firing, and in Artillery firing.

Annex ITEM

Annex HOW

(c) Supply:

- (1) Level on 15Jan45: 90%
- (2) Level on 15Mar45: 95%
- (3) Critical items received just prior to Embarkation:

75mm How Spare Parts.
5 Blackout Tents.
4 LVT(A)(4)s.
1 TBX Radio, Mod I.
430 Armor, Flyer's Vest M1 & M2.

(4) It is felt that the supply service should complete supplying a unit embarking for combat at least twenty (20) days prior to embarkation as it is difficult to plan for loading when equipment is arriving as late as a day before embarkation. Great difficulty was experienced in equipping this battalion; the Fourth Base Depot took from three (3) to five (5) months to fill a requisition. This was due in part to the fact that the Base Depot was located in the Russell Islands while the Battalion was located on Guadalcanal, S.S.I.

(5) Pre-fabricated heads and galleys were a great aid in establishing a temporary camp. The new type "C" & "K" rations are considered very superior to the older type "C" & "K2" ration by the men of this Battalion. The C.B. Distillation Unit attached to this Battalion was vital as a source of water, particularly during the first few days. While attached to the Sixth Marine Division this battalion was more rapidly and completely supplied than for any previous operation. The aid given by the Sixth Marine Division to this unit in procuring critical equipment was greatly appreciated.

(d) Communication: Prior to the operation a rigorous communications training program was initiated. Emphasis was placed on the basic means of communications of an artillery unit. All Communication Personnel were familiarized with the communication system of a Fire Direction Center. A battalion wire team was trained, made up of five (5) privates of line duty personnel. These men showed up excellently in combat and maintained our lines under the most adverse conditions. Radio procedure was stressed with good results; only few procedure breaks were noted in combat. The training was terminated with several CFX's where realistic combat conditions were stressed. The lectures given to all Armored Amphibian crews on the importance of telephone lines resulted in a minimum of wire destruction in combat.

Annex HOW

Annex HOW

(e) Division Rehearsal:

(1) All LVT crews were indoctrinated thoroughly in their positions and overall timing in the landing, stressing the simultaneous landing of all Companies on the five (5) beaches assigned.

(2) LCIs served as Floating Command Posts for the Battalion Commander, Executive Officer, and Company Commanders most successfully during the Ship-to-Shore movement.

(f) Modification of LVT(A)s: LVT(A)(4)s were modified by this battalion's maintenance sections prior to combat. The following modifications were effected:

(1) Welding of $\frac{1}{2}$ inch armor on Bow of LVTs; $\frac{1}{4}$ inch armor on pontoons.

(2) Additional armor-plating $\frac{1}{2}$ inch thick extending around the top of the turret, 12 inches high on the sides and 8 inches high in front.

(3) Concussion shields over the periscopes to prevent shattering from 75mm Howitzer concussion while firing.

(4) Splash guard extending 6 inches over the front of the cab, to prevent water from coming down the hatches above the driver and the bow machine gunner.

(5) Sand bag retainers around the base of the turret, large enough to accommodate 8 bags per side, to give additional protection to personnel in the turret.

(6) Racks in the cargo compartment for carrying one (1) .30 Cal. machine gun and ground mount.

(7) Direct vision slits on the front and sides of the cab to aid the drivers and bow machine gunners.

(8) LVTs were painted Camouflage Green.

(g) The following Armament was carried on each LVT(A):

- 1 75mm How, M3
- 1 .50 Cal MG in ring in turret.
- 1 .300 Cal MG as bow gun for asst Driver.
- 1 .30 Cal MG, w/tripod, for bivouac security.
- 1 .45 Cal TSMG.
- 4 .45 Cal Pistol.
- 2 .30 Cal Rifle, M1.

Annex HOW

(h) The following Ammunition was carried in each LVT(A):

.75mm Howitzer

60 rounds M48	.50 Cal MG - 600 rounds
33 rounds M54	480 AFI
15 rounds HEAT	.30 Cal MG - 3,000 belted
8 rounds Cann	4-1
9 rounds Smoke (WF)	Grenades, Incend - 2
125 Total	Smoke - 1
	1 u/f per ind wpn.
	2 Gren, Frag per ind.

In addition command vehicles carried 12 assorted smoke grenades.

(i) Load carried in LVT(A)s:

1. For Am, see Par (h)
2. On board equipment.
3. Rations and water for three (3) days.
4. Combat packs, camouflage nets and tarpaulines were lashed to the outside of the turret.

CHAPTER 3: LOADING AND EMBARKATION

A. Type Ships Used: 1 LST with 18 LVT(A)s, Small Arms Ammunition and Spare Parts on Tank Deck, 1 LVT(2), Motor Transport, and crated property on top deck.

1 LST with 17 LVT(A)s and 1 LVT(4), Small Arms Ammunition and Spare Parts on Tank Deck, 2 LVT(2)s, Motor Transport, and crated property on top deck.

2 LSTs, one with 4 LVT(4)s; one with 3 LVT(4)s.

3 LSMs with 6 LVT(A)s.

2 LSMs with 5 LVT(A)s and 1 LVT(2)

1 LSM with 4 LVT(A)s and 3 Medium Tanks (6th Tk Bn)

1 LSM with 3 LVT(A)s and 4 Medium Tanks (6th Tk Bn)

B. LSTs and LSMs beached for loading.

Annex HOW

C. Comment: It is recommended that the tactical integrity of each company be maintained when embarked for purposes of control and briefing. This occurred with B and C Companies on two (2) LSTs; but not with A, D, and elements of H&S Company.

D. Extra supplies of beef, eggs, and fruit juices supplied by the Sixth Marine Division for use aboard ship were a great factor for the health and morale of all troops concerned. In addition soft drinks in the amount of one (1) bottle per man per day were purchased by the battalion recreation fund. Ample Post Exchange supplies and excellent mail service at ULITHI were additional morale factors.

CHAPTER 4: ASSAULT PHASE

Part I: Ship-to-Shore Movement.

1. Personnel:

In assault wave: 16 Off; 423 Enl who landed at H-Hour.
Cmdg Co, Bn-X, Co Cmdrs: landing at H plus 40.
Staff and Rtrvr LVTs: landing at H plus 60.
Battalion & Company Headquarters (less Motor Transport landed at H plus 7 hours.
Motor Transport Personnel were not landed until L plus 3 because of poor LST beaching conditions.

2. Intelligence:

- (a) Sufficient accurate maps were supplied.
- (b) Hydrographic information was excellent.
- (c) Photographic coverage was considered fair as there were no low angle obliques, no submarine coverage of beaches, and stereoscopic views were too far inland to bring out the features of the landing beaches.
- (d) Underwater Demolition Teams Reports were received on LOVE-1 Day.

3. Operations:

(a) Control of LVT(A)s:

(1) Navy Control:

(a) Line of Departure Beach Marker Vessels.

Annex HOW

Annex

on 3
the S
their
the L

throu
into

boats
LVT(A
beach
rende
disti
small
the b
of th
flank
the p
and a
LVI(A
to se

and C
there
as vi
Furth
at an
Comm
Divis
were
and b

reass
Rehea
of co
becau
Amphi
pany,

Annex

Annex HOW

PCs and SCs maintained good position except on Beach GREEN 2 where they took position initially too far to the South. After LVT(A)s formed on them, these vessels changed their position to the North, requiring an additional movement for the LVT(A)s.

(b) LCI(G)s and other Support Craft:

In one instance, it was difficult to pass through the LCIs as their courses converged, forcing LVT(A)s into column formation and delaying their approach to the beach.

(c) LCS's and LCVF's:

On Beaches GREEN 1 and RED 1, the control boats did not maintain a uniform speed, making it difficult for LVT(A)s to keep formation; and impeded their progress to the beaches. Heavy obscuring smoke and dust on the landing beaches rendered visibility extremely poor, and it was impossible to distinguish terrain features indentifying the beaches. When small boat officers left the Assault Wave 800 to 1000 yards from the beach, all LVT(A)s were from 500 to 800 yards to either flank of their assigned beaches. Armored Amphibian Officers executed flanking movements to correct their positions, bringing them to the proper beaches. Credit is due these officers for their prompt and efficient action. Because of the initial misalignment of LVT(A)s on the beaches, their landing was delayed from two (2) to seven (7) minutes.

(2) LVT(A) Battalion Control:

(a) The Commanding Officer, Executive Officer, and Company Commanders embarked on LCIs at H-40 and remained there until H plus 30. This method of control proved excellent as visibility and maneuverability was much better than on LVT(A)s. Furthermore, the firepower of the LCIs could have been directed at any enemy installations firing upon the assault wave. The Commanding Officer was able to keep Headquarters, Sixth Marine Division informed on the progress of the landing. Communications were maintained with the Battalion by use of the ship's TCS radio and by SCR 610 radios which were brought aboard.

(b) Confusion resulted, however, due to the reassignment of LCIs for Floating Command Posts after the Division Rehearsal. In two (2) instances, it was impossible to contact or confer with the Captains of these craft. It is believed that because of this change in craft designated to act as Armored Amphibian Floating Command Posts, the Commanding Officer, D Company, was not allowed to embark on LCI(M) 1059 on LOVE-Day.

Annex HOW

Annex HOW

(b) Scheme of Maneuver:

(1) LVT(A)s proceeded in column from the Launching Area to the Line Of Departure, a distance of 3,000 yards; then formed in line. LVT(A)s proceeded in line until they were within 300-1000 yards of the beach at which time the flanks of the waves echeloned back to cover the promontories flanking the landing beaches.

(2) Limited exits from the beaches forced LVT(A)s to proceed over escarpments in column; then on reforming, they proceeded in line, advancing by sections.

(c) Task Organization:

(1) The 1st Armored Amphibian Battalion was formed into two Groups:

Group 1: A and B Companies controlled by the Battalion Executive Officer.

Group 2: 1st Armored Amphibian Battalion (less A and B Companies) controlled by the Battalion Commander.

(d) Short account of landing.

(1) LVT(A) Groups were assigned the mission to land HOW-Hour, LOVE-Day on beaches GREEN and RED, support the ship-to-shore movement of assault LVT's and cover the debarkation of assault forces; thereafter to execute direct and indirect fire missions in support of the attack, under control of Division Artillery. During darkness they were to support beach defenses against hostile landings. See Reference (c).

(2) All LVT(A)s assigned to the first wave left the Line Of Departure at 0801 except C Company which left the Line Of Departure at 0802. D Company landed with two (2) platoons on GREEN 1, C Company plus one (1) platoon of D Company on GREEN 2, B Company on RED 1, and A Company with nine (9) LVT(A)'s on RED 2 and nine (9) LVT(A)(4)s on RED 3. The Armored Amphibians opened fire at 500 - 800 yards off-shore, continuing to fire at known and possible emplacements until masked by infantry. No known enemy fire was received as LVT(A)s approached the beach. D Company landed at 0837, C Company landed at 0832, having drifted to the right and had to move back to the left to land on the correct beach. B Company landed at 0837. The first platoon of Company A landed on the right flank of Beach RED 1, the 2nd Platoon landed on the left flank of Beach RED 3; the 3rd platoon,

Annex HOW

Annex

Comoa
was d
A Com

howev
ity.
amphi

requi
(5) m
the L
minut
0730.
partu

LVT(A)
five
land
plate

of B
read
with
to A
sion
No a

Part

Annex

Annex HOW

Company A, landed on beach RED 2; the misalignment on beaches was due to the initial displacement caused by Navy guide boats. A Company landed at 0835.

(3) The surf was negligible; an off shore wind, however, blew dust and smoke towards the LVTs hindering visibility. There was sufficient water over the reef so that armored amphibians were waterborne all the way into the beach.

(4) All LVT(A)s debarked from ships. The time required to disembark LVT(A)s from LSTs was approximately five (5) minutes; another fifteen (15) minutes was required to launch the LVTs loaded on the top deck. LSMs were unloaded in five (5) minutes. All LVT(A)s were at the line of departure at about 0730. Running time from the Launching Area to the Line of Departure was twenty-five (25) minutes.

(5) This unit is equipped with seventy (70) LVT(A)s, seven (7) LVT(4)s used as ammunition carriers, and five (5) LVT(2)s equipped and used as retrievers. All LVT's landed on the beaches assigned. Effect of LVT(A) fire and armor-plate is not known as no enemy fire was received.

(6) Ammunition expended by types, LOVE-Day:

76mm:	HE M48	1,538 Rounds:
	HE M54	275 "
	HEAT	150 "
	WP	160 "
	CANN	60 "
.50 Cal		12,000 "
.30 Cal		80,000 "

(7) Night Beach Defense:

By 1600, LOVE-Day, one (1) Platoon on each of Beaches GREEN 1, GREEN 2, RED 1, and RED 3 were in position ready to fire. Communication by telephone had been established with the Shore Party Commander. Beach Defense Platoons returned to Artillery Positions at daylight daily for indirect fire missions. This unit was relieved of this mission at 1200, 5Apr45. No ammunition was expended in Night Beach Defense.

Part II: Assault Gun Phase.

1. Advance Inland from Beaches:

Annex HOW

874

Annex HOW

Upon landing, all LVT(A)s proceeded inland with close infantry support. On the left (North) flank, the exits from the beach were so narrow and steep that the infantry had advanced too far for direct fire support from this company. However, on Beaches GREEN 2, RED 1, 2, and 3, inland approaches were more favorable. Five (5) platoons were able to advance rapidly to the edge of YONIA AIRFIELD. One Platoon remained here to cover the advance of infantry and LVT(A)s. Four (4) Platoons crossed the airfield, advancing by sections; one section proceeded into the village of China upon request from the infantry. Upon release from the infantry on arrival of medium tanks, all LVT(A)s returned to their predetermined artillery positions, arriving there by 1200.

2. Liaison with Infantry:

Prior to the operation, liaison with the assault battalions was to be through the Artillery Forward Observers attached thereto with SCR 610 Radios. Because of the rapid advance inland, there was no occasion to make use of this plan. Initially LVT(A)s advanced inland with the infantry directly behind them. Upon reaching the crest west of the Airfield, Infantry and LVT(A) Officers conferred, planning the movement across the field. All Infantry - LVT(A) coordination was between responsible officers by voice.

3. Targets Taken Under Fire:

No enemy fire was received until the Eastern extremity of the Airfield was reached where sniper fire was encountered. LVT(A) fire covered caves, tombs, and other possible military installations as they proceeded inland.

Part III: Effectiveness of LVT(A)s in the role of Field Artillery

(1) Survey:

This battalion did not make any position area surveys as it has neither trained personnel nor equipment for survey. The 16th Marines were most cooperative in surveying the firing batteries, accomplishing this in four (4) instances. In other cases, firing batteries were located by inspection as accurately as possible. When accurate locations of Base Points were obtained, positions could be determined fairly accurately by back plotting.

(2) Fire Adjustment:

Adjustment on Base Points or Check Points was done either by FO or AO. In a few cases, the observer would carry out the adjustment throughout the fire for effect. In the majority of cases, however, fires were unobserved.

Annex HOW

Annex HOW

(3) Fire Direction:

(a) Battalion FDC:

The FDC received fire missions from either Regiment or the Direct Support Battalion to which it was attached. In turn, these missions were assigned the companies of this unit. A Battalion Fire Chart was kept at all times showing fire possibilities of each company and concentrations fired. The 3rd Section Worksheet and Unit Journal supported and amplified the data plotted on the fire chart. In addition, firing schedules were made and concentrations assigned the companies.

(b) Company FDCs:

All company FDCs functioned in the same manner as artillery battalion FDCs.

(c) Platoon FDCs:

These functioned only in the absence of the Company FDC. Their value was emphasized when platoons (batteries of LVT(A)s were given the mission of supporting combat patrols. Had opposition developed on these, artillery support would have been immediately available to the infantry.

(4) Organization for Combat and Tactical Employment:

(a) Each company was organized into three (3) firing batteries of four (4) guns. Hence one (1) Armored Amphibian Company has fire power equivalent to an artillery battalion; an Armored Amphibian Battalion the equivalent of an Artillery Regiment.

(b) Prior to the landing of the 15th Marines, Armored Amphibian Companies were to register and fire missions directly through Artillery Forward Observers. Eight (8) batteries were prepared to register by 1100; four (4) batteries were registered by 1300. However, due to the rapid advance of all assault elements, no fire missions were executed.

(c) When the Direct Support Battalions landed, A and B Companies were attached to 1/15, C and D Companies to 2/15 for reinforcing fires. Upon the landing of Regimental Headquarters, this Battalion reverted to Regimental control; the Battalion FDC assigned and coordinated fire missions for the companies.

Annex HOW

Annex HOW

(d) No fire missions were executed from the initial positions of this battalion inland from Beaches GREEN 1 and 2, and Beaches RED 1 and 2. On numerous occasions, the battalion was alerted for fire missions. At 2000, 3Apr45, four (4) batteries were laid on YONTAN Airfield for call fires in event of an airborne attack which was anticipated. There were several alerts on 2 and 3Apr45 for reinforcing fires but in each case, friendly troops were discovered in the target areas assigned. At 1600, 3Apr45, the advance of the 22nd and 4th RCTs had extended beyond the effective range of the LVT(A) 75mm Howitzers.

(e) On 6Apr45, A and B Companies were moved by L3Ts to MAKAMA to be in position for possible landings on MOTOCU PENINSULA and to reinforce fires for 15th Marines. Due to the rapid advance of the infantry overland, landings were cancelled. Two batteries were laid but did not register due to the positions of friendly troops. C and D Companies displaced forward on 7Apr45 to MAKAMA. On 8Apr45, this battalion moved by water to YABU for reinforcing fires and other missions.

(f) For effectiveness and types of Artillery missions fired in this location see Par (12).

(5) Liaison with Division Artillery:

(a) Because of the excellent communication by telephone with both Regimental Headquarters and Direct Support Battalions, no liaison officer was found necessary. Liaison was maintained by frequent visits to S-3, 15th Marines, by S-3 and Artillery Officer, 1st Armored Amphibian Battalion, kept Regiment informed as to the fire possibilities and capabilities of this unit.

(6) Communication:

(a) With Forward Observers:

Base Point Registrations and Fire Missions were directed by the Forward Observers over the SCR 610 radio net with Company FDCs. One of these sets was in each platoon FDC. This was very effective when a platoon operated in direct support of the infantry with no company FDC present to direct its fire. This net was also used on several occasions to relay fire missions from Forward Observers to their own battalion FDCs. In addition on several occasions the air-spot-net (Radio TCS) was used to register and direct the fire of our companies.

(b) With Regimental and Battalion FDCs:

Annex HOW

Annex

Direct
company
and m
mai n
too r
Divis
of th
help;
aided

Artill
ion t
Batta
ments

tains
missi
traff
prior

telex
telex
telex
These
the
advic
(3) c

duri
all
form
call
Each
pl u
into

Annex

Annex HOW

As each company occupied its Artillery position Direct Support Artillery Battalions laid wire to the respective companies. On reaching YABU, telephone lines were installed and maintained mutually. Initially telephone communications were maintained with the Regimental FDC but as distances increased too rapidly, radio communications, especially the Regimental and Division command Nets were utilized. The excellent cooperation of the Artillery Battalions' Communication Sections was a great help; on several occasions they made their lines available and aided in maintaining them.

(c) INTRA-BATTALION Communications:

As soon as the situation became stabilized and Artillery positions were occupied, wire was laid from the Battalion to all company FDCs. By the morning of LOVE plus 1 all Intra-Battalion wire was installed and except for forward displacements, maintained throughout the operation.

An Intra-Battalion Radio (TCS) net was maintained during forward displacement and with companies on separate missions. This net was also found useful to clear administration traffic, during times when telephone lines were utilized for high priority fire missions.

(d) INTRA-COMPANY Communications:

Companies installed and maintained their own telephone lines. These communications consisted of soundpower telephones from each gun to the platoon FDC and regular (EE8) telephone circuits between the company FDC and the platoon FDCs. These communications were found sufficient with the exception that the addition of a switchboard (BD 71) for each company would be advisable to handle three (3) internal local phones and three (3) or more outside lines.

(7) Ammunition Supply:

This was no problem at the rate of expenditure during the operation. Over one (1) unit of fire was on hand at all times. Initially, seven (7) LVT(4)s of this Battalion formed a floating ammunition dump in the 12th Wave, to land on call of the Battalion Commander. LVT(4)s landed at H plus 60. Each LVT(4) carried 400 rounds of 75mm ammunition. One additional unit of fire of 75mm ammunition was unloaded by the LVT(4)s integral to this battalion, from LSMs that remained in position

Annex HOW

Annex HOW

off the landing beaches.

(8) Training Deficiencies:

Due to the limited time for training and the difficulty in developing technique and training an entire battalion in a new field, it was felt that all training should be confined to the fundamentals of artillery. The training was based on the precept of getting heavy and rapid fire on a target by the most expeditious means. Therefore no attempt was made to train the battalion in either time fire or survey methods, and very little time was devoted to time on target fire. During the next training period it is contemplated to train the battalion in these phases.

(9) Supply:

The Battalion went into combat with adequate fire direct and artillery equipment. Aiming Circles, protractors, range deflection fans, and graphic firing tables were supplied by the Fourth Base Dept. Miscellaneous equipment (forms, additional protractors and deflection fans) were furnished by III Corps Artillery or bought from the Bookstore, Fort Sill, Oklahoma. Range deflection fans and coordinate squares were corrected to a 1-25,000 scale by machinists of this organization.

(10) Maps and Photos:

An adequate supply of accurate maps was on hand at all times.

(11) Summary of Ammunition Expenditure by Item:

(a) In direct support of the infantry:

- a. 1538 rds M48 w/f M48A1
- b. 275 rds M54 w/f M54
- c. 150 rds HEAT
- d. 160 rds WP
- e. 60 rds Cannister

(b) As Artillery:

- a. 7746 rds M48 w/f M48A1
- b. 2255 rds M54 w/f M54
- c. 440 rds WP

Annex HOW

Annex HOW

Annex HOW

(12) Effectiveness as Artillery:

(a) The Battalion was prepared to support the infantry as artillery by 1100, LOVE-Day, had the occasion demanded it. However, no fire missions were executed until LOVE-Day plus 8, except for four (4) Base Point Registrations in previous positions.

(b) On reaching YABU, six (6) batteries were laid and registered. Fire missions were of three types, - harassing, preparatory, and adjusted fires on specific targets. Missions were received either from the Regimental FDC, the FDC of 2/15 or FOs. Harassing and preparation fires were well executed, according to the 15th Regiment, although an observed effect was impossible on the greater part of them. Adjusted fires, the majority of which were done by two batteries in position at TAGUCHI in support of 3/29, received an observed effect of from Very Good to Excellent.

Concentrations of each type fired:

Preparation Fires:	78 Concentrations
Harassing Fires :	43 Concentrations
Adjusted Fires :	29 Concentrations

1. Results of Artillery Fires:

Destroyed:	2 Field Pieces; 1 90mm mortar; 2 Pillboxes.
Neutralized:	4 Field Pieces; unknown number of mortars.
Killed :	100 enemy (estimated)
Dispersed two enemy counterattacks.	

(13) Effectiveness of Enemy Artillery:

No counterbattery fire was received except by one (1) platoon at TAGUCHI which received scattered fires. Fire was generally inaccurate and only one enemy artillery piece and one mortar fired. No casualties resulted.

(14) Methods Used to Locate Enemy Targets:

(a) By FOs, AOs & NGF spotters in observed fires.

Annex HOW

Annex HOW

- (b) On one occasion, by estimation using a compass and a wrist watch.
No Sound and Flash Ranging equipment is authorized this battalion.

Part IV: Other Missions:

(1) General:

(a) Other missions assigned this Battalion fall generally into three classes: (a) Amphibious Reconnaissance of outlying islands in the Division Zone of Action with elements of the FMF Reconnaissance Battalion and the Sixth Marine Division Reconnaissance Company; (b) Employment as Assault Guns for combat patrols; (c) Employment as Mobile Artillery, where road nets were incapable of supporting Field Artillery Units.

(2) Amphibious Reconnaissance:

(a) Landings were made on YAGACHI-SHIMA, SESOKO-SHIMA and KOURI-SHIMA on 21, 22, and 23 Apr 45 respectively with platoons or a company of the FMF and Division Reconnaissance Units. The pattern of each landing was generally the same. From six (6) to ten (10) infantry would ride behind the turret of the LVT(A)s; upon landing, troops would disembark and their advance would be covered by the LVT(A)s, which in each case advanced inland as far as the terrain permitted. In one case, on SESOKO-SHIMA, LVT(A)s supported the infantry throughout the greater part of the island, travelling on roads. In all cases, Armored Amphibians supported the advance of the infantry along the beaches by remaining water-borne off shore. No enemy opposition was encountered on the islands reconnoitered.

(b) The versatility of these vehicles is well adapted to this type of mission. It is not recommended, however, that they be used to carry infantry over greater distances than 3000 yards by water as the additional weight endangers the LVT(A)'s buoyancy. Furthermore, the position of the infantry is an exposed one.

(3) Support of Combat Patrols:

(a) During the initial phases of the MOTOBU Campaign, extensive use of LVT(A)s was made to support combat patrols. In all cases one (1) platoon of armored amphibians supported these patrols.

Annex HOW

CONFIDENTIAL

Annex

10 Apr 45
MOTOBU
North
the of
In bot
infant
have b
scatte

plato
This i

4th Ma
their
return
with a

missio
it is
before
over

by lan
two pl
Marine
were
Compan
opport
Observ
result
ous co
strik
the w

SAKIM
speed
receiv
1400,
posit
event
ery b

Annex

381

Annex HOW

(b) Five (5) LVT(A) platoons were active from 10Apr45 to 18Apr45, operating mainly with the 29th Marines on MOTOBU PENINSULA. On 10Apr45, one (1) patrol proceeded as far North as YABIKUBARU on the western side of MOTOBU PENINSULA; the other as far as NAKASOMI on the eastern side of the Peninsula. In both cases, LVT(A)s proceeded by both land and water. Had the infantry needed direct or indirect fire support, LVT(A)s could have been called upon. Enemy contact was made at TAGUCHI where scattered enemy artillery and mortar fire was received.

(c) From 13 through 18 April, 1945, one (1) platoon was attached to the 29th Marines for "On Call" missions. This platoon aided in the defense of the Regimental CP.

(d) On 10Apr45, one (1) platoon reported to the 4th Marines but upon arrival found that there was no occasion for their employment, so upon orders of the Regimental Commander, returned to the battalion bivouac. A similar incident occurred with another platoon ordered to report to 1/22 by G-3 on 14Apr45.

(e) LVT(A)s are well adapted to this type of mission. However, due to the great wear on tracks and power train it is recommended that a definite need for LVT(A)s be established before they are dispatched to distant points involving travel over roads.

(4) Employment as Mobile Artillery:

(a) The ability of LVT(A)s to displace either by land or water to forward positions was well demonstrated with two platoons attached to 3/29 from 12Apr to 19Apr45. The 15th Marines was unable to traverse the roads because the bridges were out in this area so this unit was assigned the mission. The Company FDC directed the fire of the platoons at targets of opportunity through 2/15 Forward Observers and Naval Gunfire Observers. A total of 27 concentrations were fired with observed results of Very Good to Excellent (See Part IV, Part 2). Numerous concentrations were refired with WP to mark targets for air strikes. On one occasion, direct fire of one (1) platoon permitted the withdrawal of a combat patrol pinned down by fire.

(b) One company displaced to the vicinity of SAKIMOTOBU on 20Apr45 for fire missions on SESOKO-SHIMA. The speed of this displacement should be mentioned. Orders were received from G-3 at 1300; C Company cleared the bivouac area at 1400, proceeding 8500 yards by water to their reconnoitered position. They were ready for registration by 1600. In the event that opposition had developed, the equivalent of an artillery battalion in fire power was available to the infantry.

Annex HOW

CO

882

Annex HOW

Part V: Recapitulation of LVT(A) Losses:

(a) No LVT(A)s were lost in Phases I and II of the operation.

Part VI: Status of LVTs before and after Operation.

(a) The condition of all LVTs before the operation was excellent. No rebuilt LVTs were employed in the landing.

(b) The average number of hours operating time on LVTs from the Division Rehearsal through Phase II of the OKINAWA Operation was 125 to 150 hours, varying by companies. Prior to the Rehearsal, these vehicles averaged fifty (50) hours, all in training.

(c) It is believed that all LVTs should be assigned to a Base Depot for major overhauls. Frequent displacements, reconnaissances, and patrols have caused excessive wear on tracks and hulls in particular. Past experience has indicated that rust working from the inside of the pontoons weakens the hull which makes rebuilt tractors of doubtful value.

Part VII: Maintenance of LVT(A)s.

(a) During the assault, each of the line companies plus H&S Company had one (1) LVT(2) equipped with a boom capable of lifting an engine or a transmission. Each retriever carried enough spare parts to accomplish any minor repairs, - e.g. magnets, generators, acetylene welding. The Battalion Maintenance Section was established on LST #681 until LOVE plus 1 Day prepared for any battle repairs. No repairs were required but had heavy opposition developed on the initial beachhead, it is felt that this LST would have been extremely valuable for LVT(A) repairs.

(b) After maintenance facilities were based ashore, each line company established its own section capable of handling minor overhauls. The Battalion Maintenance Section and E-9-A Unit repaired all LVTs beyond the maintenance facilities of the companies. Four (4) E-9-A Pallets were ashore on LOVE-Day; the remaining two (2) were ashore on LOVE plus 1 Day.

(c) Seventy (70) LVT(A)(4)s, eight (8) LVT(4)s and five (5) LVT(2)s participated in the landing. This battalion carried enough spare parts for normal repairs over a period of

Annex HOW

Annex

thirt
two (1
acts,

13
20
52
32
1,30
1,30
19
57
90
90
7,50
13,00

1
3
66

10
8

1

10

Anne

883

Annex HOW

thirty (30) days. The list thereof follows below. In addition, two (2) electric welding machines, five (5) acetylene welding sets, and two (2) grease trailers were carried.

(1) Spare Parts Carried.

- 5 Continental engines complete
- 4 Transmissions complete
- 4 $\frac{1}{2}$ sections of track complete with grousers, cap screws, lock washers, pins and seals.
- 130 Links, inside with bushing.
- 200 Links, outside
- 525 Grousers
- 325 Plates, track
- 1,300 Protectors
- 1,300 Seals
- 190 Pins, Tee Cotter
- 570 Pins, Link
- 900 Link nuts, short
- 900 Link nuts, long
- 7,500 Screw Cap $\frac{1}{2}$ "-20NF - $1\frac{1}{2}$ " track screws.
- 13,000 Washer, lock $\frac{1}{2}$ " SHE regular for track cap screw.
- 2 Power plant assembly.
- 2 Boxes, assorted spare parts, for power plant.
- 4 $\frac{1}{2}$ sections track complete with plates, pins, Tee Cotters, outside links, inside links, seals.
- 3 Drive final, right assembly.
- 3 Drive final, left assembly.
- 10 Battery, dry uncharged 6-volt, 205 ampere hours.
- 30 1 gallon bottles battery electrolyte.
- 680 Spark plugs #635
- 2 Oil filters
- 2 Primer pumps
- 100 Exhaust clamps 3".
- 80 Exhausts, flexible
- 5 Blowers
- 3 Gas filters
- 14 Pistons complete with rings.
- 7 Battery relays.
- 5 Tachometer cables
- 2 Brackets return idler, center
- 2 Brackets return idler, rear
- 16 Piston rings - 4th groove
- 16 Piston rings - 3rd groove
- 32 Piston rings - 1st & 2nd groove.
- 5 Starters
- 12 Plates, clutch, driven
- 18 Plates, clutch, driving
- 2 Return idler wheel assembly.
- 1 Bilge pump.
- 4 Booster coils
- 100 Fuses

Annex HOW

15 Generators
30 Generator belts
2 Carburetors, Stromberg
5 Voltage regulators
2 Bogie wheel arms.
12 Engine oil screens
6 Hand throttles
2 Governors
1 Engine air horn.
8 Oil temperature gauge assembly
6 Oil pressure gauges
2 Engine ammeters
11 Piston pins
13 Piston rods
4 Push rod housing
2 Crankshafts
6 Fuel pumps
1 Muffler
2 Air cleaners
8 Clutch bearings, double row

18 Magnetos
18 Generator end bearings
1 Engine oil colers
8 Bogie wheels
1 Cuno filter
2 Sets brake bands
25 Cap screws, bogie wheel
5 Sets engine gaskets
62 Engine valves, exhaust
4 Tachometers, engine RPM
18 Engine, valve, intake
15 Rocker arms
30 Push rods.
5 Rods, connecting
6 Battery ground cables
7 Oil pumps
6 Cutout assembly
1 Fan ventilator
8 Clutch bearings, single row

(d) The following list of spare parts expended will, it is believed, clearly indicate the maintenance failures of LVT(A)s; the list only includes parts required to keep the vehicles running. Complete overhauls have not been attempted due to lack of time and spare parts.

2 Continental engines complete
3 Transmissions
6 Magnetos
90 Outside track links
2 Clutch, complete
1 Right final drive
8 Magneto condensers
1 Gas tank
1 Clutch yoke
1 Gas "Cuno" filter
2 Transmissions oil screens
1 Starter relay
1 Set brake bands
1 Oil filter
150 Track pins
1 Auxiliary power plant
25 Cap screws bogie wheel
2 Controlled differentials
4 Batteries, 205 ampere hours
2 Sets engine gaskets
1 Drive shaft

500 Grouscrs
18 Generators
15 Generator end bearing
26 Inside track links
2 Carburetors, Stromberg
1 Engine oil cooler
1 Voltage regulator complet
36 Bogie wheels
24 Generator belts
1 Sprock Hub
2 Oil intake lines
1 Starter
2 Hand throttles
1 Bogie wheel arm
150 Tee Cotter pins
2 Auxiliary power plant
carburetors
2 Auxiliary power plant
sparkplugs
1 Governor
1 Battery ground cable

Annex HOW

Annex

6 B
400 1

this.
machi
the b
by th
a gre
anequ
to pe
el ad

LVT(3

parti
incro

Part

forme
Dumps

ly or
ing c

Part

up ex
edly
credi
case.

Annex

935

Annex HOW

6 Bottles acetylene
400 lbs electric welding rod

12 Bottles oxygen
96 sq. feet $\frac{1}{4}$ " steel plate

(e) Navy E-9-A Unit, No. 13.

After once established in a stationary position this unit has proved itself to be very useful. The portable machine shop, welding equipment, forge, and tools not organic to the battalion were of great value. The major tasks accomplished by this unit included transmission and engine rebuilding and a great deal of welding on hulls and tracks. It is believed that an equal number of marines with similar equipment would be able to perform the same work and at the same time reduce the additional administration entailed by having a Naval unit attached.

(f) Recommendations:

(1) A Track Jack similar to those in use by LVT(3)s should replace the present LVT(A)(4) and LVT(4) Jack.

(2) The strength of all parts of the track, particularly outside and inside links and track pins, should be increased.

Part VIII: Refueling of LVT(A)s.

(a) In the initial phase, all refueling was performed on the beach from 55 gallon drums drawn from Shore Party Dumps.

(b) This unit's gasoline truck was used extensively on MOTOBU PENINSULA for refueling platoons of LVT(A)s supporting combat patrols in various sectors of the Peninsula.

Part IX: Communication:

(a) Radios:

(1) The 91 TCS radios in the battalion stood up excellently. Glyptol, sprayed on all inside parts, undoubtedly helped much to waterproof the equipment. Operators, however credit the lack of even one failure to the new type waterproof case.

Annex HOW

CONFIDENTIAL

886

Annex HOW

(2) The five (5) SCR 508s stood up well, especially those in Battalion Headquarters, which were used continuously for communication with higher echelon with 100% effectiveness.

(3) Of the twenty-two (22) SCR 610's which were received one month before the operation, all needed maintenance when first received. They performed excellently in combat and only one failure was noted during the period from L Day to L plus 16. These radios were installed in the turret of the LVT(A)(4) and might have formed a good liaison channel during the Assault Gun phase with the infantry.

(4) During the Amphibious Phase five (5) intra-battalion nets were in operation. (1 Battalion Command and 4 Company Command nets, using TCS radio equipment). These communications were about 98% efficient. This efficiency was impaired and reduced to about 80% when company commanders boarded LCIs to direct the landing of their units. Most of the TCS radios aboard these vessels were poorly installed for operation from the conn and in one case inoperative.

(5) Commencing at H-50, the Battalion Command LVT(A) had continuous radio communications with the Sixth Marine Division on the direct command net (SCR 508). Continuous reports were made to Division from the Line of Departure until H plus 45. The Division reported this to be their best source of information during the landing phase.

(6) RADIO NETS GUARDED:

1. Bn Comd Net "A".
2. Company "A", Comd. Net.
3. Company "B", Comd. Net.
4. Company "C", Comd. Net.
5. Company "D", Comd. Net.
6. Division Comd Net "C".
7. 15th Mar Air Support Arty Net.
8. 1st Bn. 15th F.O. Nets A & B.
9. 2nd Bn. 15th F.O. Nets A & B.
10. LVT Command Net (LOVE-Day).

(7) RECOMMENDATIONS:

1. From the experiences gained at OKINAWA the following recommendations are made:

887

Annex HOW

Annex HOW

a. The need for a wire team of three (3) men for each Company and a team of five (5) men for Battalion Headquarters was apparent. The five (5) other duty (521) private trained for this purpose for battalion headquarters prior to the operation proved that with four (4) weeks of training other duty personnel can be used; the T.O. however does not allow sufficient men for this use as the other duty personnel are required in Fire Direction Centers.

b. A separate switchboard (BD 71) per company in addition to the board (BD 72) now in battalion headquarters would increase speed in wire communications and reduce number of telephones in the company FDC's.

c. A minimum of one (1) Radio SCR 608 per company and one (1) for Headquarters & Service Company is required to keep up the liaison channels with artillery.

d. A wire-laying vehicle, equal in mobility on water as well as on land to the LVT, i.e. the Vesel, (Amphibious Vehicle, M29), would be of utmost importance if the advantage of such a highly mobile artillery unit is to be fully utilized. With the present equipment it is often impossible to have wire laying vehicles accompany advance detachments of armored amphibians.

(8) SOUNDPOWER PHONES:

a. Soundpower phones connecting each gun to the platoon FDC were found to be extremely valuable.

b. Salt water damaged some of these phones and waterproofing is now being experimented with.

(9) SIGNAL EQUIPMENT

a. During the OKINAWA Operation each LVT(A)(4), LVT(4) and LVT(2) was equipped with one (1) TCS Radio. In addition:

Each Platoon Leader had:	1 SCR 610.
Each Company Executive Officer had:	1 SCR 610.
	1 additional TCS.
Each Company Commander had:	1 SCR 610.
	1 additional TCS.
	1 SCR 608.
Battalion Commander had:	1 SCR 610.
	1 additional TCS.
	1 SCR 608.
Battalion Executive Officer had:	1 SCR 610.
	2 additional TCS.

888

Annex HOW

Annex HOW

b. Once conversion is made of Intra-Battalion Communication to SCR 500 series, the following multiple mounts are suggested.

Each LVT:	1 SCR 528
In addition Each Platoon Leader:	1 SCR 610
Each Company Commander:	1 SCR 628
	1 SCR 508 instead of 528
Each Company Executive Officer:	1 TCS
	1 SCR 508 instead of 528
	1 SCR 610
Battalion Commander:	1 SCR 608
	1 SCR 508 instead of 528
	1 TCS
Battalion Executive Officer:	1 SCR 610
	1 SCR 508 instead of 528
	1 TCS

(10) OTHER EQUIPMENT REQUIRED:

- (a) 1 (BD 71) Switchboard per Company.
- (b) 1 Wersel (M29) per Company Headquarters (Wire and Radio)
- (c) 1 Wersel (M29) per Battalion Headquarter (Wire and Radio)
- (d) 18 Soundpower Telephones per Company.
- (e) 3 Head & Chest set, (HS19) per Company.
- (f) 1 Head & Chest set, (HS19) per Battalion Headquarters.

Part X: Personnel Casualties:

	<u>MIA</u>	<u>NIA</u>	<u>IIA</u>
Officers			2
Enlisted	1	11	2

Part XI: Additional Comments:

1. Comments on the type, LVT(A)(4).

(a) The LVT(A)(4) as modified by this battalion (see Chapter II, Part F), has proven satisfactory in this operation. When the newer models with direct vision prisms and reduced gear ratios become available the vehicle will be much improved. There is still considerable track trouble due to the lightness of the track for the weight of the amphibian, and it is felt that an engine that delivers more than 250 horse power would be a valuable

Annex HOW

Annex HOW

modification. Still the fact remains that the LVT(A)(4) has performed well during the OKINAWA operation.

(b) The 75mm pack howitzer M3, has been an excellent weapon in both direct and indirect fire. It is not believed that a heavier gun, i.e. the 105 pack howitzer, would be an improvement, as the increased weight of both the gun and the ammunition would be most undesirable. The present gun can perform all the missions required of the armored amphibians. If a satisfactory power turret and gyro stabilizer could be developed that would not interfere with the employment of the vehicle in firing indirect fire missions, there would be a decided improvement in the direct fire abilities of the LVT(A)(4).

(c) Several of the newer LVT(A)(4)s received by this battalion have had the .50 Cal. machine gun ring removed and two (2) .30 Caliber machine guns substituted in its place. The officers and men of this battalion liked the original mount and .50 Cal. machine gun. Whether .30 or .50 Cal. machine guns are mounted it would be extremely precarious for any man to attempt to fire the gun(s) in an assault landing. The .50 Cal. machine gun is much better suited for AA defense than two .30 Cal. guns. Therefore it is recommended that the original mount with a .50 Cal. machine gun be retained. The constant presence of Japanese aircraft overhead during this operation certainly point to an increased need for AA defense.

(d) Attention should be called to the tendency of the LVT(A)(4)s to rust from inside the pontoon thereby weakening the hull and buoyancy of the vehicle. It is recommended that some action be taken to reduce this tendency to rust and that the inspection plates be made larger so that men can work on the inside of the pontoons. It is further recommended that some substance similar to GRIPDECK, employed by the Navy to keep steel decks from being slippery when wet, be painted on the catwalks and deck surface of the LVT(A)(4)s. The present metal plates are extremely dangerous to crew members walking on the top of the vehicle while it is waterborne.

(e) As a result of corrosion and the abrasive action of coral the present catwalks have not stood up. It is recommended that a metal of heavier gage be employed in the construction of the catwalks as once they have rusted through there is an increase in the amount of water which splashes into the turret and the moving track is dangerous to men working on the top side of the amphibian.

Annex HOW

Annex HOW

2. Comments on Tactical Employment:

(a) The employment of armored amphibians as artillery was successful during the initial stages of the landing. LVT(A)s were ready to fire as artillery by 1100, LOVE-Day. This reduces by some two and one half hours the earliest time that regular artillery has been set up and ready to fire. Had the need for LVT(A)s in direct support missions been less, batteries (platoons) could have been laid for registration at an earlier time. In this operation due to light resistance there was no need for indirect support in the initial phase. However, the fact that artillery was available certainly made it possible for the infantry to advance with more confidence.

(b) The terrain covered, and the rapid advance of the Sixth Marine Division made it possible for armored amphibians to be employed in a manner which had not been possible in the past. By using water for forward movements, at times employing ships for the longer advances, this battalion was able to remain directly behind the infantry. This placed them in a position where they could either support the attack by indirect firing or to make subsequent landings behind any stubborn pockets of enemy resistance.

(c) When the Sixth Marine Division had established itself and started covering MOTOBU Peninsula and the northern end of OKINAWA by combat patrols, the versatility of armored amphibians readily showed itself. In instances where the roads were impassable and the bridges out LVT(A)s could give direct support to combat patrols by advancing over water. Once the patrol had contacted the enemy, the armored amphibians could either support the infantry by direct or indirect fire.

(d) The system devised by this battalion for the employment of armored amphibians as artillery has functioned successfully during the entire campaign. The mobility which makes for rapid displacement and increase of the fire power in support of a division justifies the training of armored amphibian battalions to fire as artillery.

Louis Metzger
LOUIS METZGER
Lieutenant Colonel,
U. S. Marine Corps.

Annex HOW

0549-1

Pt. 11712 ft

ANNEX J

TO

SIXTH MARINE DIVISION SPECIAL ACTION REPORT

PHASES I & II OKINAWA OPERATION

4TH AMPHIBIAN TRACTOR BATTALION

RESEARCH SECTION

REVIEWED BY *(signature)*

DATE

5/7/45

RECOMMENDED VALUE:

Cell
RECORD SECTION, M.C.S.

RECEIVED FROM:

DATE: *JUN 25 1945*

TO FILE NO. *5475-575-5(15)*

COPY NO. *3-073* *Okinaawa* 892

SPECIAL ACTION REPORT
OKINAWA GUNTO OPERATION

FOURTH AMPHIBIAN TRACTOR BATTALION
FLEET MARINE FORCE, PACIFIC

ANNEX JIG
TO SPECIAL ACTION REPORT OF
SIXTH MARINE DIVISION

C. C. COFFMAN,
LtCol., USMC,
Commanding.

HEADQUARTERS, FOURTH AMPHIBIAN TRACTOR BATTALION,
FORWARD ECHELON, FLEET MARINE FORCE, PACIFIC,
C/O FLEET POST OFFICE, SAN FRANCISCO, CALIFORNIA.

23 May, 1945.

ANNEX JIG

EMPLOYMENT OF AMPHIBIAN TRACTORS (LVT-3)

A. Chapter I: General

The purpose of this report is to present in narrative form, without the usual compiled lists of figures and facts, the part that the Fourth Amphibian Tractor Battalion played in making possible the occupation of OKINAWA Island. The mission assigned to this Battalion was to land the assault troops of the 22nd Marines and to assist in unloading of supplies and equipment until other means were available for bringing in supplies.

This report is a consolidation of operations of this battalion from 1 April to 20 April, 1945, inclusive. Though operations continued at this date it is felt that the dates included in this report are sufficient to give a general description of operating conditions for this campaign.

If any unusual circumstances, techniques, or problems develop in the continuing action which is now taking place and which are not covered in this report, an addendum will be submitted when this battalion's participation in the operation has ceased. At the present date it seems possible that such may be necessary.

B. Chapter II: Task Organization.

This battalion was under the command of Lieutenant Colonel Clovis C. Coffman. The battalion consisted of H&S Company and three letter companies commanded as listed below:

HEADQUARTERS & SERVICE COMPANY: MAJOR Harold L. Oppenheimer.
Company "A" - First Lieutenant Frank Dayes.
Company "B" - First Lieutenant Theodore M. Garhart.
Company "C" - Captain David E. Skipper.

This battalion was assigned to the 22nd Marines for landing of assault troops and supplies over Green Beach One and Two. "A" Company was assigned to the 2nd Battalion, 22nd Marines to land on Green Beach One. "C" Company was assigned to the 3rd Battalion, 22nd Marines to land on Green Two. "B" Company was assigned the 1st Battalion, 22nd Marines, which was in Regimental Reserve, to land on either Green Beach One or Two upon orders of the Regimental Commander.

Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS,
CONFIDENTIAL (CONT'D)

"A" Company and "C" Company landed their battalions of Green Beach One and Two while "B" Company landed its battalion in reserve over Green Beach Two upon order of the Regimental Commander because of lack of resistance and better reef conditions in that area.

Before the LST arrived at the LST area the following dispersion of staff officers of this battalion was made. The Battalion Commander was located in the central Control Vessel (SC) of Green Beaches. The S-3 was located in the LCC controlling Green Beach One while the S-1 was in the other LCC controlling Green Beach Two, the Bn-X was located with H&S tractors which carried Headquarters personnel of the 22nd Marines.

C. Chapter III: Preliminary Planning.

This battalion had known for some time prior to the operation that it would be completely equipped with the LVT-3. This new type of amphibious vehicle was not available at that time for training so it was necessary to devise some method of schooling of all personnel in both mechanical and operational function of the LVT-3. Two M-5 Tanks were obtained for training purposes, one was to be stripped in order that mechanics would be able to become familiar with the hydromatic system, and thoroughly understand the workings of the Cadillac engine, the other tank was used to conduct school for all crew chiefs and operators, as the shifting system and control system were similar in construction, it was possible to thoroughly acquaint the drivers and crewmen with the operating principles of the LVT-3.

Upon arrival of small numbers of LVT-3's to our area, it was then possible to conduct schools directly with the vehicles. As is in the case of any new type vehicle, it was necessary to run each tractor a minimum of twenty-five (25) hours to thoroughly test it for any "bugs" which might develop in later use. Mechanics were able to work directly on the tractor when these "bugs" did develop and thus gained valuable experience for future operations.

As each tractor came equipped with a radio, both for sending and receiving, it was necessary to familiarize all personnel with radio procedure and operations procedure. The Communications section of each company was in charge of schooling of all men that would have to operate these radios.

Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS,
CONFIDENTIAL, (CONT'D)

It soon became apparent that it would be necessary to make some changes on the tractor before going into an operation against the enemy. Each tractor came equipped with front armor plate, which when in place, made it necessary for the driver to depend entirely upon the periscope for his vision. It was soon noticed, however, that this method of driving the tractor would cause serious trouble because of continued fogging up of the periscope lens when immersed in water. A slit was cut in the bow armor plate approximately five inches long and one and one-half inches wide to improve vision of the driver. It was also felt that greater vision would be needed as the operation progressed and the chances of direct fire from the enemy lessened, so a window equal to the size of the cab window was cut in the front armor plate to provide better visibility for the crew. This window was hinged and could soon be replaced over the cab window to provide protection from enemy fire if necessary. This did away with removal of the front armor plate every time that better visibility was desired.

Sections of surveyed automobile tires were bolted on each corner of the tractor so that, in collisions with other tractors or small boats, the resultant damage would be lessened.

Four maintenance tractors, complete with "A" frame, were constructed for repair and salvage of knocked out tractors. These tractors were so fitted as to carry a small amount of spare parts, plus welding equipment for making minor repairs until battalion maintenance could be brought ashore and setup.

D. Chapter IV: Training Phase and Rehearsals

Training conducted by this battalion prior to the invasion of OKINAWA consisted mostly of ship-to-shore movement, machine gun tactics, radio technique, and maintenance of LVT-3's. Simulated problems concerning wave formations, with the stressing of correct intervals between waves, the correct times for passing the LD, and of hitting the beach. Due to the location of the battalion camp it was impossible to conduct any training with infantry units.

Upon being assigned to the 22nd Marines, it became necessary for all members of the staff to develop a closer cooperation between these units. Conferences were held in which the problems of the amphibian tractor and the problems of the infantry commander, in regards to ship-to-shore movements, were discussed. Tentative boat loads for LVT's were arrived at with special attention paid to the tactical situation of the operation, weights and types of preloaded supplies and wave formations to be used by the assault LVT's were a few of the results of these discussions.

Sul
-
the
Br
a

ase
and
ber
deb
Com
tio

RE

Gre

 Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS,
 (CONT'D)

the forthcoming operation were given to the men by their officers. Briefing of crew chiefs by the wave boat guide officer was also a daily procedure.

G. Chapter VII: Assault Phase.

Upon arriving at the LST debarking area prior to the assault landing tractors took aboard their infantry troops and debarked at 0700. Approximately twelve minutes was taken before the last LVT left the LST, all tractors were able to debark in this time. After leaving the LST's, Navy Wave Guide Commanders picked up their waves and lead them in column formation of line-abreast and proceeded to their respective beaches.

Green Beach One:

Tractors of "A" Company landed on this beach without opposition. Due to smoke which obscured beach, and necessity of changing direction of waves before the beach was located, the first wave landed seven minutes late. The Headquarters Tractor developed ignition trouble and it was necessary to transfer personnel to "A" Company Maintenance Tractor. The tractor was soon repaired and landed one wave later than originally scheduled.

Green Beach Two:

The same conditions of visibility prevailed resulting in the first two waves hitting the wrong beach. Later waves noticed this mistake, and as visibility had cleared somewhat, were able to land on the correct beach. The first wave was five minutes late and one hundred yards too far to the right (north) of their beach. "B" Company landed over Green Beach two upon call of the Regimental Commander.

<u>BEACH</u>	<u>WAVE</u>	<u>No. OF TRACTORS</u>	<u>TIME CROSSED LINE OF DEPARTURE</u>	<u>TIME LANDED</u>
Green 1.	2	5	0800	0837
	3	5	0803	0840
	4	5	0808	0845
	5	5	0813	0850
	6	5	0821	0859
	7	6	0842	0920

Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS,
 (CONT'D).

BEACH	WAVE	NO. OF TRACTORS	TIME CROSSED LINE OF DEPARTURE	TIME LANDED
Green 2.	2	10	0800	0835
	3	6	0803	0838
	4	4	0808	0843
	5	4	0813	0848
	6	Tanks loaded in LCM's	0816	0851
	7	3	0825	0900
	8	2	0827	0902
	9	4	0830	on call

Baker Company, landed the reserve battalion crossed the LD at 0945, landed at 1015 with two minute intervals between six waves.

All tractors landed their assault troops without casualties.

Beach obstacles, which were located in the vicinity of Green Beach two, consisting of small four-by-four poles stuck in the coral, had been removed by Navy Demolition Personnel, but they were of such flimsy construction that they would have presented no obstacle to the tractors crossing the reef.

The second wave of "C" Company, which landed on Green Beach Two, fired at suspected enemy beach defenses with no observed results. It is felt that the volume of fire directed at these positions, plus the additional fire of the LVT-A's, would have been sufficient to keep pinned down any persons occupying these positions.

Original orders were that upon hitting beach tractors would proceed 500 yards inland before letting troops out. This was impossible to carry out because of high cliffs and dunes which blocked any advance inland. After letting troops out tractors returned to control Messel off their respective beaches by the shortest route possible keeping clear of incoming waves.

Surf and tide were excellent for amphibious operations, however, the reef conditions encountered on Green Beach one and two were very poor. Tractors were able to cross the reef at high tide without too much difficulty, however, at low tide pot holes and nigger heads, which had been covered by the water, became serious obstacles to reef crossings. It was necessary to find a place on the reef where tractors were able to climb on and proceed to shore.

Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS,
CONFIDENTIAL (CONT'D).

ME
DED
35
38
43
48
51
00
02
11

•

1-02

1

2

5.

y
Б
С

Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS
 (CONT'D).

S-2

Intelligence information disseminated to this battalion from higher echelons was excellent and more material which was of vital importance to amphibian tractors was available at all times. Excellent coverage on reef and sun conditions in the OKINAWA area was promptly passed on to this battalion from Division.

S-3

Thorough understanding of problems confronting the Amphibian Tractor Battalion by infantry commanders that we were assigned to, and excellent cooperation from them in solving these problems led to a well coordinated and well executed landing.

S-4

Prior to the operation this battalion was equipped with one hundred and two (102) new LVT-3's. Additional equipment required for the operation was available and it is felt that this battalion was more fully equipped for a combat operation than ever before.

Maintenance:

Two combat sets, and four organizational spare parts sets, were carried to the Target area by the battalion. However, it was soon apparent that this supply was not adequate in that some parts failed above expectations. The supply on hand of these parts was soon exhausted and it became necessary to get these parts from stripped vehicles as no replacements were forthcoming.

It was discovered early in the operation that turning in mud caused the rear idler support to bend under the strain caused by this turning. By welding of metal angle-irons to the rear idler support, it was found that this trouble could be eliminated.

Failures in the track soon became apparent. Grousers were not able to stand up to the continued operations over coral that were necessary in the early stages of the operation. Adequate track replacements were not available and it was necessary to operate many tractors with a large percentage of the grousers missing. It is suggested that one (1) complete set, per operating tractors, of track be carried for every thirty days operation in future landings. When it becomes necessary for tractors to operate inland a track developed along the lines of a tank track should be available for amphibian tractors. This type of track would stand up much better to continued turning.

Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS,
CONFIDENTIAL, (CONT'D).

to continued turning and mud operation than the present type of track does.

Two (2) tractors have been lost during this period due to similar failures. The return idler located just above the pontoon gave way and tore a hole in the pontoon. It was impossible to reach the tractors and water was coming in, in greater amounts than the bilge pumps could carry, with the result that both tractors were lost and could not be salvaged.

An E-9-A Unit was available for this operation, however, their equipment did not arrive in time for the operation. Their work was highly satisfactory and they showed that they were well trained in repair of the LVT-3.

An extensive list of recommendations for increases in allowances of spare parts has been forwarded to the Fleet Marine Force, Pacific, Amphibian Tractor Staff Section. This list is not included herein as due to its length and technical detail, it would have no general interest.

It is felt that this battalion was able to do a better job on this operation due to the quality of equipment on hand. Crew chiefs report that the tractors were easier to drive which resulted in less driver fatigue than has been noticed in previous operations.

Excellent control was maintained throughout the battalion by radios and many instances have been noticed where efficiency of the battalion was increased by having a radio in each tractor.

A critical shortage of spare parts again confronted the maintenance sections. This was unavoidable due to lack of shipping space as a satisfactory store of spares was on hand just before sailing. While it is understood that types of replacements and spare parts must, if necessary, be assigned priorities, it is urgently recommended that LVT spare parts be loaded so as to reach battalions (or Field Depot) in the theatre of operations not later than D plus thirty. It is hoped that this report, and others outlining principal failures in the newly employed LVT-3's, will serve to improve the vehicle both mechanically and operationally.

Subject: ANNEX JIG, EMPLOYMENT OF AMPHIBIAN TRACTORS,
(CONT'D).

The undersigned particularly wishes to comment upon the high degree of cooperation on the part of the Naval personnel in this landing. The general sense of confusion and contrary orders which have been present in the past were entirely absent and I do not hesitate to state that little could have been done to improve the control of the ship to shore operation.

C. C. COFFMAN.

Certified a True Copy:

Thornwell R. Mangum
THORNWELL R. MANGUM, 2nd Lt, MCR

-10-

CONFIDENTIAL.

RESEARCH
REVIEW
DATE
RECORD

(NAVMC-QUANT

PAGE

DEPT

903

13789(1)

0549-1

Pl. 12912 pto

ANNEX K
TO
SIXTH MARINE DIVISION
SPECIAL ACTION REPORT

PHASES I & II OKINAWA OPERATION

9TH AMPHIBIAN
TRACTOR BATTALION

RESEARCH SECTION

REVIEWED BY _____

DATE: _____

RECOMMENDED VALUE: _____

(NAVMC-QUANTICO)

PAGE _____

IDENTIFIED _____

13789(1) MCS Quantico, Va. 1-24-46-1M

EC/L

RECORD SECTION, M.C.S.

RECEIVED FROM: _____

DATE: JUN 25 1945

TO FILE NO. 5475-575-5(15)

COPY NO. _____

3 Okinawa 904
73

NINTH AMPHIBION TRACTOR BATTALION
FLEET MARINE FORCE, PACIFIC
c/o FLEET POST OFFICE, SAN FRANCISCO, CALIFORNIA

6 June, 1945.

Employment of Amphibion Tractors (LVT-4).

(Annex KING)

1. The following discrepancies have been noted on the Special Action Report (Annex KING) of this organization for the OKINAWA SHIMA operation dated 1 May, 1945, and appropriate pen and ink changes should be made by all addressees:

Page 6, paragraph 3, (c), (1) (a):

Where "3/22" appears change to read "3/4".

Page 6, paragraph 3, (c) (1) (b):

Where "1/22" appears change to read "1/4".

BY ORDER OF THE COMMANDING OFFICER:

Glenn M. Matthieu
GLENN M. MATTHIEU,
By direction.

Distribution:

CG, 6thMarDiv (80)
S-3 (3)
File (10)

Annex KING

9th AMPH TRAC BN.
FMF, Pacific
In the Field
1 May, 1945.

EMPLOYMENT OF AMPHIBIAN TRACTORS LVT(4)

CHAPTER 1. GENERAL

1. This report will include this unit's preparations for combat, loading and embarkation, the assault phase including results of such, and the recommendations of the Commanding Officer.

2. The mission assigned the Ninth Amphibian Tractor Battalion was to land RCT4 on Red Beaches, and thereafter to land reserves and supplies as directed by the Shore Party Commander. In addition, this unit was to participate in night beach defense as directed by SPC.

CHAPTER 2. PREPARATION FOR COMBAT

1. The Ninth Amphibian Tractor Battalion was attached to the Sixth Marine Division on 10 January, 1945 for tactical planning and training. The status of this unit at that time was as follows:

(a) Personnel.

(1) 15Jan45:

	U. S. MARINE CORPS	
COMM	WARRANT	ENLISTED
23	2	494

	U. S. NAVY	
COMM	WARRANT	ENLISTED
2	0	9

(2) 15Mar45:

	U. S. MARINE CORPS	
COMM	WARRANT	ENLISTED
24	2	492

	U. S. NAVY	
COMM	WARRANT	ENLISTED
2	1	28

(b) Training: Training program was initiated on 8 November, 1944, shortly after the arrival of this unit from the United States.

(1) Ship to shore movement and formation driving was stressed. Men were fully schooled in the technique of control of a ship to shore phase.

(2) Maintenance of LVT up to and including 3rd echelon repair was emphasized.

(3) Firing was conducted at seaborne targets and aircraft towed sleeves, with the .30 and .50 caliber machine guns. In addition, the men had firing of the normal weapons with which they are armed.

Annex KING

Annex KING

(4) Basic infantry training was done with emphasis on scouting and patrolling. Map reading, swimming, compass marches, and training on the use and setting of the tractor compasses were also given. Tactics of the defense, emplacement and employment of machine guns, security, and field sanitation were thoroughly covered.

(5) Particular stress was laid on the importance of the leadership of junior officers and NCOs.

(6) A week of training was conducted on the aspects of chemical warfare.

(7) In December, this unit landed the 29th Marines on Teter Beach, Guadalcanal. This was the first time that a large body of troops were landed by this unit.

(8) During the rehearsal in early March, this unit worked with the 4th Marines, and worked out the scheme of maneuver to be used on Okinawa.

(c) Supply.

(1) Level on 15Jan45 - 80%

(2) Level on 15Mar45 - 95%

(3) Critical items received just prior to embarkation:

(a) 108 radios, SCR 508 series.

(b) 105 armor, flyer's vests M1 and M2. (200 were received the day after three-fourths of the unit had boarded ship).

(4) This unit arrived from the United States with most of the organizational gear and was not too dependent on the Fourth Base Depot for supply. However, items that were requisitioned took from three to four months to fill. This was probably due to the removed location of the base in the Russel Islands.

(5) Regulation prefabricated heads and galleys were not made available to this command, even after repeated requisitions. Precut heads and galleys were made by this unit, but the lack of screening, hinges, and adequate building materials imposed on proper field sanitation. Regulation prefabricated heads and galleys are most satisfactory due to their mobility and the ease with which they can be erected.

(d) Communication.

Prior to the operation a rigorous program was initiated. Semaphore was practiced three times weekly. SOI, voice procedure, and general operating instructions were emphasized. This was later rewarded by the excellent communication results achieved by this battalion at Okinawa.

Annex KING

(e) Division Rehearsal.

(1) All LVT crews were indoctrinated thoroughly in their positions and the overall scheme of the landing.

(2) This unit was never more than two thirds present at the rehearsal due to the late arrival of LSTs. The command LST for this unit participated in only one day of the rehearsal.

(f) Modification of LVT(4).

(1) The grousers were cut off on both sides, from a point approximately one and one half inches at the top and tapering at an angle to the base.

(2) A wooden firing step was installed across the front of the cargo compartment enabling personnel properly to man machine guns.

(3) A six inch plate was welded on the leading edge of the cab to keep water out of the hatches.

(4) Direct vision slits were cut in the forward hatch cover on the drivers side of the cab, and peepholes were cut to provide vision to the left.

(5) One hundred and eight SCR radios were installed and the corresponding number of TCS radios removed.

(6) Each battalion command and company command tractor was equipped with an additional SCR and TCS in the cargo compartment. The two battalion command tractors were also equipped with a "Little Joe" generator.

(7) Five maintenance tractors were fitted with an "A" frame. These same tractors were equipped with many spare parts.

(g) The following armament was carried on each LVT(4).

- 1 .30 caliber machine gun, mounted forward.
- 1 .50 caliber machine gun, mounted forward.
- 1 .30 caliber rifle, M1.
- 1 .30 caliber carbine.
- 1 .45 caliber pistol.
- 2 Machine gun shields.

(h) The following ammunition was carried on each LVT(4).

- 1 Unit, .50 caliber, belted.
- 1 Unit, .30 caliber, belted.
- 1 Unit, .30 caliber, 8rd clips.
- 1 Unit, .30 caliber, carbine.
- 1 Unit, .45 caliber, pistol.

In addition each command tractor had a box of hand grenades and a Very Pistol.

Annex KING

(i) Loads carried by assault LVT(4)s.

1. Complete equipment of the three crewmen.
2. Rations for three days.
3. Minor spare parts.
4. Twenty gallons #50 SAE oil engine detergent.
5. Twenty-five gallons of water.
6. 16X20 Tarpaulin.
7. Cots for crewmen.
8. Machine gun spare parts box.
9. SG grease, 25 pounds.
10. First aid kit. (For description see chapter four, part IX, section 3 (b).)
11. For ammunition see paragraph (h).
12. Thirty-four troops and equipment on non-cargo vehicles.
13. One thousand pounds of high priority cargo.
14. Nine jeeps, four 37 mm guns, and two trailers were preloaded.
Six LVT(4)s were preloaded with 75 mm ammunition.

(j) Three crewmen were assigned to each LVT(4).

(k) The .30 caliber machine gun was manned by troops.

(l) Amphibian trailers were not used.

CHAPTER 3. LOADING AND EMBARKATION

1. Type of ships used.

1 LST	17 LVT(4)
1 LST	17 LVT(4)
1 LST	13 LVT(4)
1 LST	13 LVT(4)
*1 LST	17 LVT(4)
**1 LST	17 LVT(4)
1 LST	1 LVT(4)
1 LST	2 LVT(4)
1 LSM	2 LVT(4)
1 LSM	2 LVT(4)
1 LSM	2 LVT(4)

*All battalion maintenance gear loaded on top deck.

**All battalion motor transport loaded on top deck.

2. All LVT(4)s were loaded on the tank deck.

3. LSTs beached to load maintenance and motor transport gear. LVTs were loaded at sea in accordance with SOP. LSMs beached for loading.

4. The facilities for messing and sleeping of men were excellent on the newer LSTs. The older LSTs had inadequate facilities for the accomodation of enlisted men and officers.

CHAPTER 4. ASSAULT PHASE

Annex KING

Part I: Ship-to-shore movement.

1. Personnel.

In the assault waves, 15 officers and 280 enlisted personnel landed by HOW plus 20 minutes. By HOW plus seven, all officers and enlisted personnel, less motor transport and E9A Unit personnel, were ashore. The latter went ashore on LOVE plus one.

2. Intelligence.

- (a) Sufficient accurate maps were available.
- (b) Hydrographic information was good.
- (c) Photographic coverage was not good. The Type of terrain to be encountered on the beach was always in doubt. There were oblique shots, but the angle on these photos was not nearly low enough to give our drivers accurate beach formation from an off-shore view. It is recommended that obliques be taken from almost water line. No photos were available to use stereoscopic vision. It is hoped that these will be provided in all future operations.
- (d) Underwater demolition teams reports were received on LOVE-1 day. Information was not secured from these in time to be passed on to drivers and crew members.

3. Operations.

- (a) Control of LVT(4)s.
 - (1) Navy control:
 - (a) Line of departure beach marker vessels.
 - (b) There was one PC to control Red beaches. For each of the Red beaches an LCC was control vessel. Communication from the LCC was to higher echelon and down to the Shore Party Commander.
 - (c) Guide boats met the LVT(4) as they debarked from the LSTs, and led them in column to the LD. There a flank maneuver was executed and tractors were swung into line and stopped.
 - (d) The LCC vessel for Red One guided the waves to Green Beach Two, and landed them nine minutes late. Successive waves were corrected by HOW plus three minutes, and the LCC changed it's position and went south 800 yards to the proper beach.
 - (e) There were thirteen waves of assault vehicles. All waves were composed of LVT(4)s as follows:

WAVE	<u>RED ONE</u>	<u>RED TWO</u>	<u>RED THREE</u>	<u>FREE</u>
1	Armored Amph.	Armored Amph.	Armored Amph.	
2	Eight	Four	Four	None
3	Eight	Four	Four	None
4	Four	None	Four	None
5	Four	None	Four	None
6	Nine	None	None	None
7	Four	None	None	One
8	Five	None	None	None
9	Twelve	None	None	None

<u>Annex KING</u>	<u>WAVE</u>	<u>RED ONE</u>	<u>RED TWO</u>	<u>RED THREE</u>	<u>FREE</u>
	10	None	None	None	None
	11	Twelve	None	None	None
	12	None	None	None	None
	13	Six	None	None	None

(2) Battalion control was on the SCR radio. Four channels were assigned. Each company had it's own channel, and the fourth was retained by the battalion. The battalion command tractors also had a TCS in them to maintain liaison with infantry units.

- (a) Battalion commander was on Red Beach Two PC, S-3 on left flank. LCC and battalion executive officer on right flank LCC.
- (b) An LVT officer was in charge of each wave whenever possible. When a platoon was split into more than one wave, the platoon sergeant was placed in charge of the smaller wave.

(3) Recommendations.

- (a) Navy guide boat personnel should be more thoroughly indoctrinated with the limitations of LVTs maneuverability, and in addition, should be briefed on the proper location of beaches and the general scheme of maneuver for the landing. Had this been done, the mistake already mentioned above could have been avoided.

(b) Scheme of maneuver for LVT(4)s.

(1) Guide boats met the LVT(4)s as they left the LST, and formed them into waves. The LVTs were then led in column to the rear of line of departure where a flank movement was executed toward the beach. Then the LVTs were stopped and moved only to maintain alignment. LVTs left LD on signal from the Guide Boat, and landed according to plan noted in (e) above.

(2) By the time the 2d and 3rd waves of LVTs hit the beach, there was considerable congestion. This was caused by the narrow beaches terminating into a sharp cliff, and the consequent lack of exits from beach.

(3) After unloading, LVTs were instructed to report back to the LCC for their beach via the most direct route.

(4) LVTs had been instructed to carry the troops 500 yards inland, but this was impossible due to terrain barriers mentioned above.

(c) Task organization.

(1) The Ninth Amphibian Tractor Battalion was divided into three task organizations.

- (a) Company "A" was to land ^{3/4} 3/22 on beaches Red One.
- (b) Company "B" was to land ^{1/2} 1/22 on beaches Red Two and Three.
- (c) Company "C" was assigned several missions:
 - (1) Five LVTs were to land Regimental Headquarters on order.
 - (2) Twelve LVTs were to stand by in Division Reserve and on order.
 - (3) Six LVTs preloaded with 75 mm ammunition and were to land on order.
 - (4) Three LVTs were loaded on LSMs and used to guide land tanks over the reef.

Annex KING

(d) Short account of landing.

(1) Mission was that outlined above under (c). This was carried out with the following exceptions: Company "A" landed on Green Beach Two, and was landed nine minutes late because of the wrong beach assignment by the LCC.

(2) The surf was negligible. An off-shore wind blew dust and smoke toward the LVTs and greatly hindered visibility. There was sufficient water over the reef at high tide so that the tractors were waterborne almost to the point of landing. However, at low tide the reef extended about 300 yards off-shore and was pocked by many potholes. There were many nigger heads at the reefs edge.

(3) All LVT(4)s debarked from the ship and landed. The time required to launch the LVT(4)s from LSTs was seven minutes. LSMs were unloaded in less time. All assault waves were at the LD by 0730.

(4) This unit is equipped with one hundred three LVT(4)s.

(5) No firing was done coming into the beach.

(6) No casualties were sustained in the assault, and all troops were landed without loss.

Part II: Cargo Hauling after troops were ashore.

(1) By afternoon of LOVE day, all LVT(4)s were hauling cargo.

(2) Two LVT(4)s were assigned to a mortar section, and acted as a mobile dump advancing with this section.

(3) Other LVT(4)s continued to transfer cargo at the reef's edge.

(4) Many LVT(4)s were dispatched by the Shore Party Commander directly to the front with water, ammunition and rations. This greatly aided the rapid advance of the troops.

(5) On return trips from the front, LVT(4)s were used to haul casualties directly to the hospital ships.

(6) Dispatchers were set up by each company and close liaison was maintained with the Shore Party Commander.

(7) Battalion Headquarters was assigned an area behind Green Beach Two, a position somewhat removed from the companies. This greatly hampered control by the Battalion Headquarters.

(8) From LOVE day until LOVE plus seventeen, this unit continued to unload cargo. On this date the Battalion was ordered into a defensive position around Bolo Point. All movement of cargo was suspended on that date by this unit.

Part III: Recapitulation of LVT(4) losses:

(1) No LVT(4)s were lost in the assault phases of the operation.

(2) One LVT(4) was sunk on LOVE plus seven due to overloading.

(3) All other losses were due to mechanical failure and could have been repaired if parts had been available.

Part IV: Status of LVT(4)s before and after operation.

(1) One hundred and three new LVT(4)s were used by this organization.

(2) Each LVT(4) has an average of three hundred and fifty hours on them at this writing.

- (3) Ninety five percent need a major overhaul.
 (4) Sixty can be reconditioned if materials and time are available.

Part V: Maintenance of LVT(4)s.

- (1) A maintenance LVT stood off each beach to assist disabled LVT(4)s.
 (2) Company maintenance was ashore by HOW plus six, and battalion maintenance was ashore and operating at LOVE plus one.
 (3) By LOVE plus ten, the spare parts and equipment situation had become acute. This was caused by the fact that shipping space was not available and by the arbitrary decision of higher echelon of telling this unit what gear could be brought. As direct result this battalion was forced to leave behind some badly needed gear. A brief resume follows:

<u>EQUIPMENT</u>	<u>BROUGHT</u>	<u>NEEDED</u>
Truck, 2½ ton, 6X6, cargo	2	6
Trailer, 1 ton, 2 wheel, stockroom	0	4
Trailer, 1 ton, 2 wheel, lube	1	4
Truck, 1 ton, 4X4, cargo	2	4
Truck, 2½ ton, GMC, mobile repair unit	1	1
Trailer, 2 wheel, high pressure cleaning	1	4
Welder, electric, Libby, Model LHL 300 amp cap	1	4
Trailer, 5 ton, 4 wheel, machine shop	1	1
Trailer, 2 ton, 4 wheel, stockroom	1	1
Trailer, water, 1 ton, 2 wheel, 300 gal. capacity	0	4
Charger, battery, gas engine driven, 2000 watt DC 12 volt, Onan Model OTC-33B	2	4
Trac-tractor, International, TD-14 w/blade	0	1
Trac-tractor, International, TD-18	1	2
Trac-tractor, International, TD-9	1	2
Crane, LeTourneau, Model M-20	1	1
Kit, welder, acetylene	1	4
Truck, ¼ ton, 4X4	5	5
Trailer, 1 ton, 2 wheel, cargo	1	4
Trailer, ¼ ton, 2 wheel, 4X4	2	5
Jacks (type issued with LVT(3))		20

- (4) Breakdown of parts expended. This was only to keep LVT(4)s running. No attempt has been made to overhaul.

<u>PART NUMBER</u>	<u>AMOUNT</u>	<u>ITEMS</u>
89-3680	6	Complete Trans. Assy.
A294699	8	Engine Assy. Model W-670 - Series 9A.
5LX1024	7	Shaft, external final drives with BB and Seals Assy.
50X1033C	10	Arm Center, return idler, outside MTG, BTG, BRKT.

Annex KING

PART NUMBER	AMOUNT	ITEM
50X1034C	5	Arm, center, return idler, inside MTG, BRKT.
50X1082C	5	Arm, front return idler, inside MTG, BRKT.
50X1083C	10	Arm front, return idler, outside MTG, BRKT.
5X1080B	800	Nut, link, short, track screws.
5X1081B	1000	Nut, link, long, track screws.
P-581	120	Nut, Hex 3/4"-16NF safety sprocket ATT.
5X1091B	2000	Screw, cap 1/2" 2 ONF X 1 1/8".
P-909	18	Pump, Primer.
4X2005B	5	Shaft, drive power take off to Bidge pump.
B157536	15	Plate, clutch, driven.
B158343	8	Plate, clutch, driving Assy.
B157396	20	Facing, clutch drive and pressure plate
A161590	2	Bearing, ball clutch spindle to hub.
A161680	2	Bearing, ball double row, clutch pressure plate to spindle.
A169767K	150	Rivet 3/16" X 1" (Clutch).
51X1111D	5	Track, 1/4" sections.
5B2B	48	Link, inside track chain.
51X1097C	52	Link, outside track chain.
5B138A	250	Pin, detachable, chain link.
5X1107B	500	Pin, tee cotter.
5B86A	150	Protector Ring Seal.
5B87A	150	Seal Neoprene.
5X1112D	24	Sprocket, drive 33 tooth.
5X1070D	18	Sprocket, idler 33 tooth.
5X1110C	550	Grouser, track chain.
P1047	12	Battery, dryuncharged, 6 volt, 205 AMP. HR.
5X1066C	220	Tee, cross, track chain.
P-1	150	Fitting, grease.
51B156C	60	Wheel, bogie Assy.
5B38C	18	Tire, bogie wheel.
5X1003A	56	Cap, bogie wheel arm.
51X1008A	108	Bumper, bogie wheel arm.
P58	126	Screw, cap, Hex. ND., 5/8-18NF X 2 1/4" LG.
51X1101D	32	Arm, bogie wheel Assy.
P836	226	Washer, lock, 5/8" SAE, regular.
P60	300	Nut, Hex. 3/8" - 24NF.
89-70-6	4	Plug, pipe on drain 1".
89-223-5	2	Gasket oil pump.
89-155-3	26	Gasket, drive bucket.

Annex KING

Annex KING

<u>PART NUMBER</u>	<u>AMOUNT</u>	<u>ITEM</u>
89-155-4	2	Gasket, diff. cover.
89-528-1	60	Lining, brake band.
89-6059-X	2	Pump, oil Assy.
89-6136-X	3	Screen oil Assy.
8906390-X	3	Hub, track drive sprocket.
89-5903-X	1	Diff. controlled Assy.
89-6393-X	8	Drive, final, right Assy.
8906392-X	8	Drive, final, left Assy.
CO-35217	2	Pump fuel, chandler, Hull #9151.
CO-22530	1	Kit, gasket overhaul complete.
CO-20878	2	Screen, scavenge oil, Assy.
CO-20979	2	Coupling, spark, champion 635.
SC1-10-7559-2	4	Breaker, Mag. Assy.
DR-1118473	3	Voltage regulator FMC #D437.
51X1044C	2	Screw, adjusting, rear idler slide Assy.
51X1041C	2	Screw, rear idler spring follower.
51X1071C	3	Wheel, sprocket, rear idler, Assy.
20X2503B	12	Cable Assy.
P-218	36	Clamp 3".
3X1216B	24	Tube, Flex. exhaust manifold to muffler.
20X1679D-R	4	Deflector, splash right.
20X1679D-L	4	Deflector, splash left.
P-222	6	Plug, pipe 3/8" STD, Sq. HD, brass.
P-282	3	Filter, fuel cuno.
P-336	5	Filter, engine oil.
D-786	12	Hole, snap switches 4792L13.
4X1067B	8	Yoke, flex. coupling, keyed.
P-203	3	Strainer oil.
P-119	45	Plug, pipe, 1/2" counter sunk.
P-1026	24	Plug, pipe, 3/8" slotted brass.
P-1036	2	Bolt, hook, ramp toggle lock Assy.
2X2219B	8	Hinge, base.
2X2521B	8	Hinge, strap.
4X1038B	6	Key, jib, bilge pump drive shaft.
4X2006B	8	Yoke, flexible coupling splined.
P-9	153	Stud, drive SPKT. ATT., Ext. final drive shafts.
P-254	1	Tachometer, engine RPM.
P-265	7	Ammeter, Gen. Chging rate.
P-267	4	Gauge, oil pressur.
P-374	3	Lanterns, hand.
P-376	4	Spotlight, grimes portable.
P-435	16	Relay (with 2 spline nuts).
P-636	10	Bulb, 13 volt 3 C.P.
P-762	6	Disc. thermoid flex. coupling.
P-779	6	Breaker, circuit, 60 Amp.

Annex KING

(5)

caused

more th
the rot

install

but fai

weaknes
has ser
warded

has not

engine,

cleanin

was bo

Annex I

9. 915

(4) Breakdown of parts expended. (Cont'd).

<u>PART NUMBER</u>	<u>AMOUNT</u>	<u>ITEM</u>
P-783	10	Switch, snap 4718L.
P-784	8	Switch, snap mag. 4718L Mod. ANS 4811978A.
P-785	7	Switch, push, 4838L.
P-789	14	Unit sealed beam no lite.
P-790	5	Unit sealed beam spotlight.
P-989	3	Gauge, engine temp. with 15" tube.
70X1041C	6	Headlight, left.
70X1042C	8	Headlight, right.
P-341	2	Cooler, oil, Young 37822-5 with flanges.
	10	Bottles acetylene.
	300 lbs.	Electric welding rod.
	5	Bottles oxygen.

(5) Breakdown of mechanical failures, with comment on the probable cause.

Transmission and Power Train

1. Control differentials broke down due to wear on the bushings which caused the spool gears to mesh improperly and allow excessive strain on gear teeth.

2. Internal final drive failures were over ninety percent. Of this more than two thirds were on the starboard side. Perhaps this was caused by the rotation direction of the herring bone gear.

3. Herring bone gears in the final drive stripped due to faulty installation at the factory.

4. An unknown number of modified transmissions are in use by this unit, but failures were noted in each type and results are not conclusive.

5. External drive stud breaking seems to be an inherent construction weakness. Backing off has been remedied by spot welding on the inside, but this has served only as a partial remedy. A detailed recommendation will be forwarded at an early date.

6. It is believed that the present transmission employed in the LVT(4) has not proven satisfactory and should be replaced by an improved model.

7. Fourth and fifth gears have been blocked off to prevent lugging of engine, but the results were more hoped for than realized.

Engine

Engines held up extremely well. Very little trouble was encountered.

1. Generators held up well, the only attention required was bi-weekly cleaning of the brushes.

2. Plugs were replaced in many engines, but it is not felt that this was beyond normal wear.

Annex KING

Annex KING

3. Clutches gave out in only two instances, one due to pushing a heavy object.

4. Temperature of the engine became excessive at times, but no harmful results were noted.

5. Oil engine deturgent SAE #50 was used for everything and gave good results as an all around lubricant.

6. The average number of hours on the engines is now three hundred and fifty.

Track Suspension.

1. Bogies #2 and #10 sustained excessive wear and were constantly replaced, however, this is due to the construction of the suspension system and apparently cannot be remedied.

2. Return idler (rear) was replaced on several vehicles. It is believed that these were twisted by the mud that collected there on the long inland hauls. The tracks gave no trouble. It is believed that this was due to the cutting off of the outside portions of the grouzers prior to embarking.

Hull.

1. The only work that had to be done on this was the patching of numerous rents caused by shell fragments and coral.

2. Splash guards were all soon broken off. This is caused by the light and flimsy construction of the present guard, plus the fact that not enough clearance is allowed between the guard and the chain. It is believed that a flat plate of heavy metal, welded horizontal and protruding over the present position of the splash guard, will be much better.

E9A Unit.

The E9A Navy repair unit joined this battalion just prior to leaving for the target, and came sans equipment and supplies. To this date same has not arrived. However, by "improvising" this unit acquired enough tools and material to work with and contributed 2320 man hours on tractor maintenance. This unit will be very valuable to this organization if and when their gear gets to them.

Part VI: Refueling of LVTs.

(1) Up until LOVE plus three, refueling was from Bowser Boats and was most satisfactory.

(2) After that date fuel was secured from beach dumps.

Annex KING

Anne

Part

cons

Part

been

Part

one

medi
(att

thre
main

with
and
the

Anne

etc

917

Annex KING

(3) Fuel and lubricants used during operation are as follows:

- | | |
|----------------------------|---------------------|
| (a) 62 octane gas, | 70 drums. |
| (b) 80 octane gas, | 2,291 drums. |
| (c) Oil, engine, detergent | SAE #50 70 drums. |
| (d) Grease #1 | 84 drums, (25 lbs). |
| (e) Diesel | 13 drums. |

Part VII. Communications during the operation.

- (1) An SCR radio was installed in each LVT.
- (2) All radios gave excellent performance.
- (3) Glyptol was used to waterproof all TCS radio equipment.
- (4) Time was not available to waterproof SCRs.
- (5) TCS radios installed in cargo compartment of Command LVTs gave constant liaison with the infantry and Shore Party Commander.

Part VIII. Motor Transport.

- (1) The organic gear of this battalion would have been sufficient had we been allowed to bring same.

Part IX. Report of the Medical Section.

CHAPTER 1. PREPARATION AND PLANNING.

1. Organization:

(a) The Battalion Medical section is composed of one medical officer, one dental officer, and nine corpsmen.

(b) Since activation of this battalion in May, 1944 the personnel of the medical section has remained unchanged with the exception of the dental officer. (attached 17 January, 1945.)

(c) During this operation two corpsmen were assigned to each of the three assault companies while the medical officer, dental officer, and remaining corpsmen were assigned to Headquarters and Service Company.

(d) On LOVE day the corpsmen assigned to assault companies were to move with the company tractors as directed by the company commander. The Headquarters and Service Company personnel were to remain aboard an LST to work there until the commanding officer sent word by radio for them to come ashore.

Annex KING

Annex KING

2. Training:

(a) Through maintaining a battalion sick bay, under direction, the corpsmen became capable of handling a routine sick call. Periods of instruction in first aid and lectures on diseases prevalent in areas in which the battalion was to operate were given the corpsmen by the medical officer.

(b) The entire medical section was given instructions in tractor driving and tractor 24 - hour servicing.

(c) Lectures on diseases prevalent in anticipated theaters of operation, plus demonstrations in first aid were given the entire command by the medical officer.

(d) Camp sanitation and malaria control were assumed by the line under supervision of the medical section, and battalion officers were assigned from each company to take over the sanitation of this battalion.

3. Equipment:

(a) All of the battalion's authorized medical units with the exception of office equipment and the autoclave were transported to the combat zone.

(b) In addition to the above equipment, each tractor was supplied with a .50 caliber machine gun spare parts and tool box, painted black and marked with red crosses to clearly identify it, containing morphine, large and small battle dressings, gauze, triangular bandages, tourniquets, zinc oxide ung, ophthalmic ung, boric acid ung, aspirin, and salt tablets. Tractor crews were familiarized with the contents and use of these boxes.

4. Rehearsal:

(a) The medical section remained at the Guadalcanal Bivouac Area during the rehearsal.

CHAPTER 2. MOVEMENT TO OBJECTIVE

1. Aboard Ship.

(a) An attempt was made to distribute the medical section as widely as possible aboard LSTs and LSMs. This was done more for record and information purposes than medical reasons. The company corpsmen boarded LSTs carrying respective company personnel. The dental officer was on a BAKER Company LST. The medical officer with a Headquarters and Service Company LST. Corpsmen helped with sick calls aboard ship.

(b) Aboard ship only ship's medical supplies were used. The Battalion medical supplies were carried as a unit on one LST, deck loaded. All supplies arrived at the target in good condition.

Annex KING

Anne

dire
comp
RED
ship

a ba

sect
frag
Beac
were
same
surr
of t
rath

radi
aboa
Batt

medi
unit
unti

Part

Anne

919 150

Annex KING

(c) The battalion had no hospitalizations during the trip to the target.

CHAPTER 3. ASSAULT PHASE.

(1) On LOVE day company corpsmen rode tractors in the assault waves as directed by their company commanders. Since little opposition was encountered, company aid stations were immediately set up in the company bivouac areas on RED Beaches. Some accompanied tractors carrying wounded back to hospital ships. None accompanied tractors hauling cargo.

(2) On LOVE plus one Hq&ServCo medical personnel came ashore and set up a battalion aid station in the Headquarters and Service Company bivouac area.

(3) The majority of casualties treated and evacuated by this medical section during the period 1 April, to 30 April, 1945 were due to falling shell fragments and shells from our own guns. Evacuations were through Red and Green Beach Shore Party evacuation stations. There were 20 evacuations, 5 of which were later returned to duty, and no deaths during this period. During this same period the company battalion sick bays gave medical attention to smaller surrounding units that were without medical aid. By LOVE plus 10 the facilities of the Third Amphibious Corps Medical Battalion became available and were used rather than those aboard hospital ships.

(4) The dental officer accepted patients from units within a three mile radius of Green Beach Two. Apparently no other dental aid other than that aboard hospital ships was available in this area until the Corps Medical Battalion Hospital was in operation.

1. Recommendation.

(a) It is strongly recommended that in future operations, in which this medical section participates, that they be given definite assignment, as a unit, to work aboard an LST-H, hospital ship or shore party evacuation station until such time as the battalion reverts to an independent command.

Part X. Personnel Casualties.

(1) KIA	None
(2) WIA	Eleven
(3) MIA	None
(4) IIA	Five
(5) Sick & evac.	Four
(6) Returned to duty.	Five

Annex KING

Part XI. Miscellaneous comments and recommendations not covered above.

(1) As a new type the LVT(4) performed very well in action. The main trouble was in the transmission and final drives. The transmission and final drive gave such poor performance that it is strongly recommended that the transmission be replaced by an entirely new model. If this recommendation is accomplished, it is believed that the LVT(4) will be superior to any LVT Model now in the field.

(2) The experience of this battalion has shown that to rely on disabled tractors as a source of spare parts is not advisable. Due to no tractors being lost to enemy action this unit had no outside source other than the parts carried.

(3) This battalion was hard pressed for bar and plate stock. There was none available in the Solomon Islands. Consequently improvisation of tools was limited.

(4) More time should be available after rehearsal to service repair tractors. This unit was rushed for time.

(5) It is felt that tractors were not used advantage ously by higher echelon. Regimental Headquarters had five LVTs standing by off shore, and Division had twelve standing by off shore. These tractors could have been utilized initially to haul in high priority cargo or troops, and could have then returned and transported the aforementioned elements to shore, bringing them in at the same time as they were landed.

(6) There were numerous instances of overloading of LVTs by the personnel operating the barge cranes at the reefs edge. This was done despite the strenuous objections of the LVT operators. One LVT was sunk due to overloading. Many of the final drive failures are believed to have been caused by overloading. The terrific strain caused on the sprockets by the impact of an LVT striking the reef from the water, was greatly accentuated if the LVT was hauling more than the rated efficiency load of 6,000 pounds. Often LVTs were loaded with loads in excess of 12,000 pounds.

(7) This Battalion was officially credited with shooting down of two Japanese planes in this operation with .50 Caliber Machine Guns.

T. P. Watson
T. P. WATSON.

Distribution:

CG, 6th Mar Div (80)
FILE (10)
S-3. (3)