In addition to the regular limits on with regiments, JICPOA and language personnel either belonging to or attached to the G-2 Section, made daily round-ups of regimental CP's to pick up documents and material items of intelligence value and to confer with regimental intelligence officers.

Corps liaison with Division was excellent. Frequent visits from officers in the C-2 Section adequately supplemented communication by phone. Liaison was also maintained by G-2, Expeditionary Troops.

(e) Training and Use of Personnel.

(1) General.

It is worthy of note that Division Intelligence Sections entered this operation in a particularly strong position. A large portion of the original intelligence personnel was intact. Three of the four Regimental S-2's, a large number of Battalion S-2's and virtually the entire G-2 Section had the background of intelligence experience of ROI-NAMUR, SAIPAN and TINIAN. As a result training prior to the operation was sound.

Throughout the operation it was evident that the intelligence function was being performed with professional speed and accuracy. Little direction was required, as personnel knew what to do and
did it.

The G-2 Section operated on proved plans, making minor adjustments to meet current contingencies. The plan of maintaining a strong, central reserve of intelligence personnel, assigning them where and when needed, was continued.

(2) Photographic.

Coordinating with the Navy photographic plan to cover this operation and benefiting by tried and experienced photographers, a particularly detailed plan was made and followed to assure the best possible still and motion picture coverage.

Enthusiastic appraisal received of the motion picture film flown out is indication of the high standard of the film coverage taken.

Regimental photographers trained in the G-2 Photographic School were augmented by G-2 photographers to assure coverage from the early assault stage throughout the entire operation.

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ANNEX BAKER TO FOURTH MARINE DIVISION OPERATION REPORT INO JIMA

Specific scenes were shot to fit into an educational picture Division is making on prisoners of war, including their capture, treatment and interrogation.

Quantities of reconnaissance stills were taken by Division personnel from OY-1 planes and from OP's to assist in terrain appreciation.

A few statistics tell the story:

Motion picture film exposed

.16mm	color.		.19300	feet
		& white		
	1.2	TOTAL.	21400	feet

Still film/exposures

4 x 513	9 Packs	.1668 total	exposures
35mm			
	TOTAL		

Aerial film exposed

100 feet or 500 exposures.

Contact prints and enlargements made during operation

4	x	5	,	. 47
8	x	10	(enlargements)	.919
٠,			TOTAL PRINTS	

In previous operations all film was forwarded undeveloped and a very small percentage of prints ever returned to the Divaision. Frequently, when copies were seen, they were incorrectly titled. During this operation all motion picture, Public Relations and action exposed film was flown out. All intelligence stills were retained for proper screening and titling, and when forwarded, should prove of considerable intelligence value. They will also be of immeasurable value within the Division, in accompanying special reports and Division education in general.

(3) Language Personnel (permanent and attached)

The officers permanently attached to Division operated successfully and smoothly within their lift terms of the permanent

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orginally selected for training in the Japanese language were unquestionably excellent. The courses of study were good, particularly that
at Camp SAVAGE, MINNESOTA. The results obtained by the instruction
were remarkable. It must be remembered, however, that at the completion of the course personnel had necessarily received only certain
base elements of the Japanese language, a framework upon which to
build.

Since graduation further advancement has been dependent on: (1) actual contact during comparatively short action periods; (2) a prief period of practice at JICPOA; and (3) study during training periods within the section. The latter phase has been of minimum value because of lack of instructors and suitable space and the inability to obtain text books.

Consequently, there has been an admittedly alarming decrease in efficiency and fluency. There are a few cases where the individual has lost all but the most fragmentary knowledge of written and spoken Japanese.

These comments are relatively applicable to the enlisted language personnel. Their basic instruction was only for six months.

The attached JICPOA officer language personnel, with one exception, were occupied during the operation in the sorting, evaluating and classification of captured documents. Their work was efficiently and expeditiously done and of great help in keeping a smooth flow of documents passing through the G-2 Section. The other officer contributed outstanding work in interrogation, due to his full knowledge and fluency in the Japanese language.

The great value of NISEI was demonstrated to all in contact with them during this operation. Their industry, initiative and ability to rapidly comprehend the situation made them invaluable. Their command of the Japanese language was even more conspicuous in view of the deterioration of the skill of the permanent personnel. They were invaluable in making rapid translations, reading place names and personnel names (a study in itself), and in the interrogation of POW's. They won the respect and friendship of all the Marines with whom they were associated.

(4) JICPOA

The excellent organization and function of JICPOA Team No. 23 was displayed throughout the operation. This well selected, ably trained, cooperative team completely rounded out the veteran intelligence organization and is considered to be a tower of strength for a G-2 during an operation.

ANNEX BAKER TO FOURTH MARINE DIVISION OPERATION REPORT IVO JIMA

3. PRISONERS

POW's captured by the 4th Marine Division:

Army, i	ncluding	one	lstLt.		 32
Navy					 8
Koreans	Labor	Bn Pe	rsonne	1)	 4
	v		TAL		

Continuous indoctrination of troops in the need of taking prisoners paid dividends. Active measures were taken to capture prisoners. Front line units assisted fully, insofar as compatible with the military situation, in all attempts to induce other enemy troops to surrender.

Short lines of communication facilitated the expediting of POW's to regiments and then to Division. Length of time required for passing through regiments was governed by the tactical value to the regiments of the information possessed by the POW on hand. There were no undue delays.

Processing at Division followed standard practice, medical treatment, delousing, clothes, food and water. Detailed records were kept at the Division stockade.

Prior to the operation a system of interrogating POW's and writing reports was formulated, based on the experience of three previous operations.

Because of the well established belief that all Japanese are regimented throughout their lives, an experimental form was devised for the questioning of POW's. The form was printed entirely in Japanese and adhered chiefly to personal and military questions, the answers to which could be easily and concisely filled out by the POW. At the beginning of the stockade questioning, one of the forms was handed to the POW with instructions to fill out the required information. Having been handed a form in his native tongue, which was typical of other forms he had been accustomed to, each POW without exception willingly cooperated. This initial cooperation carried on naturally into his subsequent relations with the interrogating officers and proved of great value.

Most interrogations were done by a team consisting of one officer interpreter and one NISEI interpreter. For each interrogation each team had as equipment the experimental form, an "Outline for In-

terrogation" (which delineated all possible topics for questioning and provided a structure for the final report), a Target Area map, and a captured Japanese map with Japanese place names. This team system was found to be the most effective in obtaining the greatest amount of information in the shortest time. In this system the NISEI does the greater part of the questioning while the officer guides the lines of the interrogation and takes notes. The officer can follow the information and remain clearheaded to detect contradictions or to spot a "lead" for desired information.

POW's not only showed no surprise or resentment when, questioned by NISEI interrogators but seemed particularly pleased to find some one of their own race in whom they could confide.

In one instance a POW was found who was extremely reluctant to talk. An interesting experiment was conducted to make him more communicative. One of the NISEI interpreters was placed with the POW and represented himself as a Jap POW captured at SAIPAN. He told a glowing story of his treatment and the treatment of other POW's and how he himself had risen to a position of trust and usefulness in our organization. The POW reacted favorably and became one of our most valuable sources of information.

Two of the first POW's captured were kept at the Division stockade until the end of the operation because of their willingness to assist. These two prisoners were a fountain of information and an immeasurable help in indoctrinating POW's. After a day or so in the stockade all POW's, without exception, volunteered to help us in getting their comrades to surrender. Several were willing to reenter the enemy lines to accomplish this end.

Valuable information was obtained from the prisoners. The first ones provided information concerning the number of enemy troops, the enemy supply situation and enemy tactics. Later POW's substantiated information given by the first prisoners and were extremely helpful in giving information on order of battle, locations of various units, lines of defense and strong points of resistance, casualties, locations of CP's and OP's and the location and description of rocket, mortar and artillery positions. General information not of immediate tactical value was also obtained during the course of the interrogation.

With the personal help and information of one POV, a ravine in the final pocket of resistance was taken in two hours. Another POW, familiar with the second ravine of the pocket, drew a sketch showing location of caves in the ravine and number of troops in each. The pocket was overrun the next day.

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POW interrogation reports were distributed to higher echelons, other Divisions and regiments. In cases where reports contained information of especial interest or importance, larger dissemination was given.

4. CAPTURED DOCUMENTS AND MATERIAL.

As on past operations, indoctrination of all Division personnel as to the value of captured enemy documents proved its merit. Officers and men showed a keen interest in the collection of documents and often took extra measures to expedite maps and papers to intelligence sections.

Two factors, however, operated against a wealth of material being collected. First, the Division zone of action did not contain the huge bulk of documents found in previous operations, and second, those caches which presumably did exist in underground CP's were blown shut and buried during the assault or mop-up. Where possible, intelligence patrols searched caves and underground establishments, but it will take weeks, and possibly months, of patient work to unearth documents in by-passed positions.

The original scarcity of documents can be attributed almost wholly to the enemy's security consciousness. Several POW's told us that all classified material was burned and destroyed during the naval bombardment phase. Documents and diaries confirmed this story. This was the first concrete evidence this Division has encountered that the enemy is making strides in this direction.

Although constantly hampered by these two factors of scarcity of material and increasing enemy security, translators were able to piece together much worthwhile information. Document files, letters and diaries helped assemble the Order of Battle, maps provided lucrative targets for artillery, and captured orders gave some idea of the enemy's strength and capabilities. One set of maps and messages removed from enemy dead by BLT 2/23 following the largescale counterattack on the night of D-plus-18 permitted translators to reconstruct the attack and enabled G-2 accurately to evaluate the results.

Captured enemy documents, despite their scarcity, again proved a valuable source of intelligence. In addition, 17 seabage of culled material were sent to JICPOA for further evaluation.



A DEX BART TO POURTH MARINE DIVISION OPERATION REPORT IVO JIMA

Material. The only materiel actually handled and collected by intelligence personnel was that which had definite intelligence value, such as new weapons. After such finds had been inspected they were turned over to JICPOA. All other materiel located by intelligence was reported to JICPOA for inspection and collection.

5. PROPAGANDA.

Results of our propaganda on IVO JIMA were disappointing. Of the 44 prisoners taken by this Division, one had actually seen our leaflets; seven others said they were influenced to surrender by oral propaganda.

Unless we are to make the assumption that the Japanese possess a psychology utterly different from that of other peoples and are therefore impervious to the power of suggestion, these facts indicate the need for a reappraisal of our propaganda methods. The fact that only one of the total number of POW's saw our leaflets is a measure of the feebleness of our efforts and suggests the desirability of improving the technique of dissemination. One of the basic facts of effective propaganda is reiteration. If a person hears an idea as new and startling as surrender is to the Japanese a single time, it is certain to be dismissed without further thought. But if it is pounded into his consciousness like a rivet, it is likely to become disturbing and may influence his behaviour at a critical moment. It must be remembered that the force of our propaganda will become greater as the operation progresses and the enemy situation becomes increasingly desperate, and our efforts should take advantage of this fact and be brought to a crescendo at the psychological moment. How great the possibilities of propaganda are is suggested by the fact that the idea that they could surrender had not occured to four POW's until they heard our broadcasts.

Our propaganda has been given only a nominal trial. Under the circumstances it is impossible to make a judgment on its content.

Amplification equipment was repeatedly used by Division to induce surrender. The effort usually draw fire and was frequently minimized by the difficulties of the terrain. Broadcasts from LCI(G)'s were admittedly heard by some POV's.

Unfortunately, 40 of the 50 rounds of artillery shells loaded with propaganda were lost by enemy action. The 10 rounds left were employed at a critical time with unknown results. Had more shells been so loaded they would certainly have been employed.



UNGLASSIFIED

ANNEX BAKER TO FOURTH MARINE DIVISION OPERATION REPORT INO JIMA

6. COUNTERINTELLIGENCE.

(a) Own.

Counterintelligence on this operation was not as effective as it might have been. Captured documents and POV interrogation
disclosed that the enemy knew IWO JIMA was to be attacked and had an
accurate estimate as to the time and place the attack would be delivered and generally the forces involved. The POW's and documents
did not indicate the source of this intelligence. It may have been
the result of a sound estimate of the situation. However, it is reiterated that counterintelligence was not complete.

Division exercised scrupulous care to insure that there be no leaks of the operation. Dissemination of target information was limited strictly to a designated list of officers to whom knowledge was absolutely essential in order to conduct the proper planning; and this group was specifically ordered to insure that all material relative to the target be given security consistent with its Top Secret classification.

When the preliminary plan was drawn up for "Island X", Division believed that the Air and Gunnery Target Map issued for the purpose, though unnamed and showing only the southern portion of IWO JIMA, was too obvious for general use, due to the peculiar shape of the SURIBACHI knob. Of the 1000 copies received, only approximately 25 were issued to major unit commanders.

During this time knowledge of details of the operation, seeping into the Division through unofficial channels from outside sources, complicated the problems of security and rendered them much more difficult.

Target intelligence materials being received at this time, including large quantities of maps, photographs and other material, were closely guarded. Very limited distribution was made to the approved and authorized list only. Materials for subsequent distribution were delivered in sealed packages to CO's of regiments and independent battalions. Detailed instructions were given to each recipient unit to insure proper security in repackaging for the unit's own distribution to its elements which would be separately embarked. All such material was packaged and sealed and covered by strict orders that the seals would not be broken until final departure from the HAWAIIAN Area.



During the rehabilitation period at PEARL HARBOR after the rehearsal, it was apparent that the target and details of the operation were openly discussed ashore. Though open discussions were forbidden in the Division it was impossible to keep the information from Division personnal while on liberty ashore.

A counterintelligence plan ordered by VACLF was effectively executed. By this plan an immediate study was ordered of another objective. While it succeeded in causing considerable consternation within the Division it is questionable whether its late release was sufficient to counter the prevalent rumor ashore.

Counterintelligence function enroute and at the target was generally satisfactory.

Front line units were carefully indoctrinated in the absolute necessity of preventing compromise of our maps, orders and other documents, and it is believed that no maps or documents were lost to the enemy within this Division's zone of action. On two occasions, when BLUE observation planes were shot down close to our front lines patrols were sent out to the planes at considerable risk of life to bring back or destroy any compromising documents.

The employment or effect of extensive camouflage in areas behind the front line was largely minimized due to fact that most of the CP's and all rear areas were totally exposed and in the open. The enmey enjoyed commanding ground for OP's overlooking at short range the entire Division zone of action until after the capture of Hill 382.

During the operation a careful check was kept on our radio transmission; and although much material was sent in modified clear, discrimination was used, and it is believed that the enemy obtained no compromising information by monitoring our transmissions.

One report from the 14th Marines suggested that a telephone line might have been tapped and a captured enemy document further
suggests this possibility. The document did not indicate that information gained was of any importance. Generally, translations indicated
that the enemy's combat information was as inaccurate as usual.

Unlike the MARIANAS Operation, there were no cases reported of the enemy attempting to use our passwords. On one occasion groups did try to infiltrate our line by crying "Corpsman!", and approaching our lines carrying a stretcher.



UNITED SET TO FOURTH MARINE DIVISION OPERATION REPORT INO JIMA

Instances were reported of the enemy's using our front line markers to sight in on, and one case was reported of observing a Jap soldier making off with one of our panels.

Censorship. Censorship rules and regulations for the operation issued by VACLF were timely and complete.

(b) Enemy counterintelligence.

The enemy on this operation was markedly more security conscious than on any previous operation. This is shown not only by the failure of the Division to make the rich hauls of intelligence materials which had been previously made, but also by the enemy's own testimony.

Numerous captured documents directed the destruction of all classified documents and valuable material, even going so far as to set out priority of destruction and means to be used. POW's declare also that they were instructed to this effect and that instructions were carried out.

Evidence was also received that most of the enemy's radio transmission was in code and that he frequently avoided the use of radios for important messages.

This new attitude on security, however, has apparently not caused instructions to be issued to troops concerning information to be divulged by prisoners. POW's on this operations talked as freely as those on previous operations.

After D-day the enemy's principal camouflage was cover and concealment. He made full and excellent use of rough terrain, rocks, tree roots and debris. Enemy targets were difficult to observe.

7. PUBLIC RELATIONS.

Distribution of Public Relations personnel through the Division followed the plan for previous operations, with minor changes to cover tank and amphibian tractor units. The Radio Recording Team, a new unit of the section, was assigned to the Tank Battalion to take advantage of the ease of ship-to-shore movement from an LSM and to secure recordings from the tank radio net.

A new system for collecting and forwarding copy, as established by higher echelon, was used on the rehearsal for the operation and worked successfully. At the critique of the rehearsal, however, the suggestion was made by Division and Corps PRO's that the



ANNEX BAKER TO FOURTH MARINE DIVISION OPERATION REPORT INO JIMA

plan was adapted to a landing against light opposition and that an alternate plan should provide for the use of control vessels as collecting stations. This suggestion was not accepted and no alternate plan was adopted.

Some nine civilian Var Correspondents were embarked with the Division either at the rehearsal area or at the final staging area, and insofar as permitted by the exigencies of the situation and orders from higher echelon, arrangements were made for their landing in accordance with their wishes.

All Division Public Relations personnel landed generally as scheduled. One combat correspondent became a casualty immediately after landing and another on the fourth day. The planned channels of forwarding copy broke down immediately with the failure of the press boat from the Flagship to arrive at the beach and the evacuation of the VACLF collection station after a direct hit on its shelter.

On the first day three stories and one film pack were forwarded to the Flagship, using control vessels as forwarding stations. Two of the stories were picked up immediately by the wire services and were among the first eyevitness accounts to reach the UNITED STATES by radio.

On D-plus-1 a Press Headquarters was established at Beach YELLOW One. Intra-division collection arrangements were utilized to get copy to this Press Headquarters, and couriers carried press material twice daily from the beach to the Flagship using press boats when available and "hitch-hiking" otherwise. The two assault Divisions alternated in sending men for this function. After the establishment of VACLF CP ashore, the higher echelons collected material twice daily from all three Divisions, picking all material up at the 4th Division CP

The Section's Radio Recording Team landed on the evening of D-plus-1. Recordings had been made from the Tank Battalion radio net and during several runs to the beach. Much material of the highest value was secured from these sources. The film-type recorder was destroyed by enemy fire during the night of D-plus-2 and thereafter the wire-type recorder was used exclusively.

Civilian War Correspondents landed as planned and used the copy collection channels for their material. Most of them divided their time between gathering material ashore and writing it up aboard ship. After the establishment of the Division CP ashore, at least three Civilian Correspondents stayed ashore continuously, and lived at



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the Public Relations office and dugout in Division CP. (Because the Division CP did not displace, there was opportunity to build a workable blackout shelter.)

During the assault phase of the operation, the following totals were produced and forwarded:

All material was made available to civilian correspondents.

The following comments and recommendations are drawn from the experience gained during the operation:

- (a) Copy Collection. Copy collection plans were well laid and might have worked in an operation involving lighter opposition. They did not work well at IWO JIMA, and complicated arrangements had to be devised at short notice on the beach. It is recommended that in future operations plans for copy collection include the use of a control vessel offshore as a collection station and as a place for correspondents to write and that an alternate plan be included in the copy collection arrangements.
- (b) Equipment. The Public Relations Section has the assigned mission of covering, by stories, pictures, and recordings, the activities of the entire Division from the time of landing until the securing of the operation, and the additional duty of providing working facilities and transportation for civilian correspondents assigned to the Division. The equipment deemed necessary by higher echelons for the fulfilment of this assigned mission includes two jeeps and a blackout tent. Had the distances been longer, a second jeep would have been an urgent necessity; and had the Division CP ever been displaced, the lack of a blackout tent would have caused serious difficulties and much deserved newspaper space might have been lost.
- (c) Radio Recording. The operation of the radio recording team was entirely satisfactory, and plans followed in this operation will be followed again. In an operation over a greater area, present transportation assigned to the Section will not be adequate. The Radio Recording Section will require practically the full time use of one vehicle. It is recommended that the portable recording equipment be standardized, that the use of either the wire or the film-type recorder be discontinued, and that an additional recorder be issued to each Division to provide a spare.

8. THE ENEMY

(a) Organization for Defense

The defensive organization of IWO JIMA reflects considerable credit on the Japanese Island Commander, Lieutenant General KURIBAYASHI.

From observation of the enemy's defenses and from captured documents it was evident that he had profited by the experience of his previous defeats and that he had made a sound estimate of the situation. He had anticipated our heavy preliminary air and naval bombardments and his eventual loss of air control, and had prepared his defensive plans accordingly. Documents captured on SAIPAN showed that the enemy gave IWO JIMA a priority on cement, steel and reinforcements.

The perimeter defense doctrine previously employed by the enemy, with its objectives (1) of preventing a Blue landing and (2) in case a Blue landing was effected, of destroying it by a combined counterattack, was discarded as obsolete. In its place, it would appear that the enemy had adopted as his mission (1) to prevent a Blue landing on any beach and (2) in case a landing was effected, to deny Blue use of airbase facilities for as long as possible and to make the Blue conquest as costly as possible.

The new type of plan included the following fundamentals:
(1) Construction throughout the Island of massive defensive positions artfully concealed and capable of withstanding everything but a direct hit from a heavy caliber weapon.

- (2) Construction of sufficient underground caves and tunnels to be able to house all personnel underground during an attack.
- (3) Maintaining heavy and accurate anti-aircraft fire during the preliminary phase in order to compel Blue air attacks to be made from high levels so that damage would be minimized and principal installations would be intact for employment when our actual landing was made.
- (4) Distributing personnel, ammunition, food and water so that no movement above ground would be necessary after our attack commenced.
- (5) Strongly augmenting coast defense guns and artillery by many mortars and rockets so that heavy concentrations could be maintained from varied and unseen positions. (This would eliminate the task of displacing artillery to the rear which the enemy had found impossible to perform on SAIPAN).



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In actuality, the enemy prepared an elaborate defense in depth, making maximum use of the terrain. Within the Division's zone of action several hundred pillboxes were spotted. There were many massive reinforced concrete blockhouses and covered artillery positions, all with deadly fields of fire, all mutually supporting and generally covered with many feet of sand. See approaches were covered by many dual purpose, coast defense and anti-boat guns, many of which were installed in well camouflaged massive reinforced concrete blockhouses.

Artillery, large mortars and rockets were so emplaced as to cover all the beaches and the entire Division's zone of action. Many of the rocket and mortar positions constructed below ground had a firing aperture of less than two feet, making it a virtual impossibility to observe them and requiring a direct hit to neutralize them. Observation posts covering the entire Division's zone of action were located on high ground, where the enemy had hollowed out and lined with concrete the tops of hills. Gun positions were provided with complete pre-registration data.

Defenses were prepared for attacks from varied directions. The deep emplacements which protected the guns confined their fields of fire but supporting installations were always so constructed that the attacker was exposed to multiple fires when he attempted to capture a position. Gun ports were generally sited to have defilade from the direct fire from Blue ships.

Communications were maintained by trenched wire, radios, pigeons, and dogs, and a labyrinth of underground tunnels was constructed connecting all areas. One of these tunnels was explored for 800 yards, and 14 entrances were found; it housed two battalion command posts and was equipped with lights and telephones.

Mine fields were employed at well selected locations and were invariably covered by fire.

The following installations directly covering BLUE and YELLOW Beaches, upon which Division landed, were captured and identified by the Division in an area approximately 2500 yards long by 1000 yards deep:

10 reinforced concrete blockhouses 7 covered artillery positions

80 pillboxes

weapons:

These positions included the following direct fire

7 120mm coastal defense guns

2 120mm short coastal defense gun

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4 120mm Dual Purpose guns

1 80mm Dual Purpose gun

1 70mm Battalion Howitzer

6 47mm Anti-Tank - Anti-Boot guns 3 37mm Anti-Tank - Anti-Boot guns

19 25mm Twin Mount Machine guns

1 13mm Machine gun

Unquestionably there were many more positions and weapons which could not be identified because of the destructive effect of the bombardments.

Strong underground defensive positions were constructed to cover by direct fire both east and west beaches and the terraces inland from them. Aumerous well emplaced positions were also constructed at At. SURIBACHI and overlooking the East Boat Basin to enfilede the boat lanes and the entire eastern beach.

The high ground between Airfields No. 1 and No. 2 was highly organized with minefields and mutually supporting pillboxes which had fields of fire covering the east beaches and approaches inland. A deep cross-island defense was built from WIPAIVA Bay to the East Boat Basin. This sector was generally organized on high ground overTobking the beaches and approaches therefrom and was strewn with all types of mines. It was organized to cover a Blue landing from either the east or wast beaches and while held, denied our forces access to the major portion of the Island and the use of either airfield and retained for the enemy virtually all of the high ground for observation and the rough terrain for cover and concealment.

Forth of this cross-island defensive sector, the extremely rough terrain found in the eastern bulge of the Island and in its north and northwestern tip was well organized, with much underground construction. Defensive organization for final resistance centered around headquarters of higher achelon units found in each of the two sectors. Artillery, rocket, morter and anti-aircraft mositions were also scattered throughout the sectors. The center of the Island north of the cross-island defense was flat and open. This soft spot, however, was protected by a highly organized piece of high ground just north of the center of Airfield No. 2.

The cross-island defense was anchored on Hill 382, just west of Airfield No. 2. The surface of this hill was deaply cut by a labyrinth of winding, erosion-made crevices. Here the enemy prepared a defense to withstand against assault or bombardment by air, land, or sea. Observation posts, radar and anti-aircraft positions were placed on top of the fill. Deep tunnels cut into the sides of the crevices afforded perfect shelter for personnel and material. Concrete faced caves were dug into the crevice walls to cover the approaches to the Hillsand its interior network.

CONTINUE DIVISION OPERATION REPORT INO JIMA

Tanks and 47mm anti-tank guns were dug-in on the perimeter of the Hill and installed inside the Hill in craftily selected
positions in the crevices where they would have long fire lanes covering vital exterior approaches. The defense was prepared for an attack from the west, south or east. From the west, the attacker was
forced to approach down 1500 yards of a flat airfield, which in turn
had to be approached across 700 yards of gradually sloping bare volcanic ash. The approach from the south was dominated by a steep
rocky ridge line later known as "Charle-Dog Ridge" and a natural
amphitheater some seventy feet high. Southeast and east of Hill 382
was a weird mass of wild, rocky volcanic outcroppings, deeply furrowed
with narrow gullies running to the coast in a southeasterly direction.
This area in the original aerial photographic coverage was so densely
covered with vegetation that its surface was an unknown quantity. In
-it, the enemy prepared his most elaborate underground works.

There were no "lines" as such in the enemy's defense. Instead, he prepared strongpoints or fortified areas which would require the attacker to fight bitterly for every foot of advance and where the attacker would be under prepared fires through the entire advance.

(b) Conduct of Defense

From translation of captured documents it was revealed that the enemy knew of the size of our forces and when they left the HAWAIIAN Area. Prior to the preliminary bombardment he was underground and ready. Preliminary reconnaissance missions by underwater demolition teams were met with severe enemy fire.

The initial ship-to-shore movement was met with well directed fires, although most of the 120mm coastal defense guns had been knocked out by our preliminary bombardment. With the entire barren and steeply sloping beach area under observation, the enemy placed well directed and pre-registered artillery, rocket and mortar fire over our entire beachhead. The enemy was almost never seen in person and only his larger positions could be observed. A multitude of varied positions and weapons firing direct fire missions between the beach and the airfiæd continued firing until individually captured, taking full advantage of our slow and difficult progress through the beach mine fields and the heavy volcanic ash.

Phase two of the enemy's defense covered our advance beyond the beach areas over the ground between Airfields No. 1 and No. 2 and the north and easterly advance from the Quarry north of the East Boat Basin. Boads and routes of advance were obstructed by mine fields. Flat sandy areas were swept by "flush-deck" pillboxes which often protruded only a foot above the ground. A machine gun battalion, with large numbers of infantry troops, occupying these pillboxes; defended until the last pillbox was destroyed and all the personnel slain.

Utilizing the rougher ground to the northeast, 37 and 47mm anti-tank guns fired from reinforced concrete covered positions with deadly effect. Each of these positions was in turn covered by as many as ten pillboxes, and the entire area was still subject to observed and directed fires from the inland concealed mortar, rocket and artitlery positions.

Phase three of the defense was centered around Hill 382 and the "Amphitheater". According to a prisoner of war these positions were prepared by the 2nd Mixed Brigade Engineering Unit, and were regarded as the strongest and most elaborate ones on the Island. Commanding hill faces were hollowed out and lined with reinforced concrete for observation posts and for anti-tank guns and machine guns. Three tiers of such positions were constructed across the entire face of the "Amphitheater". Thousands of feet of tunnels and caves were provided, as well as reinforced concrete command posts and hospitals, all deeply imbedded below ground.

Up to this point there had been no "line;" the entire area was mine-strewn, booby-trapped and covered by fire from innumerable mutually supporting direct fire positions and subjected to observed artillery, rocket and morter fire. There had been no retirement or surrender of enemy personnel. Each enemy position fought till it was individually destroyed and all personnel killed.

As the pivotal point of the Island's defensive system, Hill 382 and the "Amphitheater" were defended even more fiercely and effectively than the preceding areas. Several times, the enemy lost Hill 382 to our troops, but he pushed them off its peaks or out of its crevices by a flare-up of intensive rifle, machine-gun and granada fire from the fortified caves or by a tremendous barrage from the heavy mortars or rockets, which all had pre-registration data on this key terrain feature. At night, fantastic hand-to-hand fighting raged, with grenades and satchel charges being tossed up and down through the cravices. It was only after the cave and tunnel entrances had been sealed shut by demolitions that the last enemy resistance on the Hill died out. Resistance at the "Amphitheater" continued for even a longer pariod of time. Enemy riflemen and machine gunners were extremely accurate, and the difficulties of the open approach to the tiers of the "Amphitheater" complicated the problem. Even after the "Amphitheater" itself was taken, the "Pocket", a small strip of terrain running in Target Area 184F from MINAMI to "Turkey Knob", just east of the "Amphitheater", continued to hold out. This strip was completely covered by our fire, but its defenses were not destroyed for several days after our front lines had progressed beyond it. It has been the experience of this Division that engineer troops, when they are occupying positions which they have prepared for themselves, create by for the hardest strongpoints for an assault to take. The fight for Hill 382 and the "Amphitheater" definitely confirms this opinion.

There had been no real counterattacks. Captured documents and prisoners of war secured at the close of this phase disclosed that the command had forbidden counterattacks, retirement or surrender, and that the defense had been rehearsed in detail in January, 1945, exactly as it was being fought.

Phase four of the defense included the fight around TAMANA YAMA (directly east of Hill 382, in the vicinity of 201PORV) and MINAMI Village (southeast of the "Amphitheater" in 184FGKL). Both of these areas had constituted headquarters locations for both army and navy troops and were well dug-in. The defense can be best described by quoting an extract from G-2 Periodic Report Number 63, dated 6 March, 1945.

"As a result of a close study of the enemy's recent defensive action, aided by observation from OP's and air reconnaissance, the following explanation is suggested of the enemy's defense in this Div's ZofA. The enemy remains below ground in his maze of communicating tunnels throughout our pre-liminary arty fires. When the fire ceases he pushes OP's out of entrances not demolished by our fires. Then choosing a suitable exit he moves as many men and weapons to the surface as he can, depending on the cover and concealment of that area, often as close as 75 yards from our front. As our troops advance to-ward this point he delivers all the fire at his disposal, rifle, MG and mortar. When he has inflicted sufficient casualties to pin down our advance he then withdraws through his underground tunnels most of his forces, possibly leaving a few machine gunners and mortars. Meanwhile our Bn CO has coordinated his direct support weapons and delivers a concentration of rockets, mortars and arty. Our tanks then push in, supported by infantry. When the hot spot is overrun we find a handful of dead Japs and few if any enemy weapons. While this is happening, the enemy has repeated the process and another sector of our advance is engaged in a vicious fire fight, and the cycle con-Supporting indications to these deductions are: tinues.

"(1) When the hot spot is overrun we find far too few dead enemy to have delivered the fire encountered in overrunning the position;

"(2) We find few if any enemy weapons in the position

overrun but plenty of empty shell cases;

"(3) We find many tunnel entrances, some caved in, all appearing deep and well prepared, some with electric light wires;

"(4) During the cycle, close air and OP observation detects no enemy surface movement."

This proved to be an accurate estimate of the enemy's actual practice.

A prisoner of war captured at

statement:

"After the present defensive positions have been breached, night counterattacks can be expected from large numbers of reserves still in the northern end of the Island. General counterattacks are discouraged by command as long as gun or mortar positions are intact. After permanant positions have been overrun by our troops (Marines) counterattacks are to be made at the discretion of unit commanders."

The highly organized defensive positions around TANANA YAMA and MINAMI were being breached and nearly overrun by 9 March and the enemy was being compressed in a manner beyond his endurance. Preceded by a heavy concentration of mortars and rockets he made a desperate counterattack on the night of 9 March in the left and center sectors of the Division zone of action. From identifications established and from captured documents it was evident that elements of the 310th and 314th Independent Infantry Battalions, 3rd Battalion, 145th Infantry and personnel of the Naval Land Forces had planned a coordinated counterattack across the entire front in the Division zone of action. Communication breakdowns and lack of contact, however, caused some of the units on the left to fail to jump off. The attack was completely repulsed, with over 800 enemy troops killed, and the backbone of the enemy's coordinated defense was broken.

Phase five of the defense constituted the final fight, in the area between the last position and the sea. In this area the enemy had previously taken advantage of the concealment afforded by the once luxurious foliage to dig large numbers of deep personnel caves and tunnels. He had also made wide distribution of heavy rocket and mortar ammunition. Taking advantage of this unbelievably rocky terrain and the debris caused by combined bombardment the enemy fought to the death. The area was infested with snipers, machine guns, mortars and rockets. The rockets were launched from rough board troughs from caves in the sides of deep volcanic crevices. While their fires could neither be directed nor observed for more than a hundred yards, their volume always made them a casualty producing agency. From their many totally concealed positions, enemy troops held their fire until our troops were very close by. Their accuracy throughout was deadly, particularly at the close range.

Throughout three-fourths of the operation enemy antiaircraft fire from hidden positions was accurate and brought several Blue planes down in the Division's zone of action.

(c) Units in Contact

According to the captured map of enemy units and positions prepared by Fifth Amphibious CorpsLanding Force on 5 March, 1945, this Division's zone of action included the Japanese "southern" this Division's zone of action included the paperese south. sector and the bulk of the "eastern" sector, of the five-main-sectors into which the Island was divided.

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ANNEX BAKER TO FOURTH MARINE DIVISION OPERATION REPORT IVO JIMA

Opposition on the beaches consisted principally of approximately two companies of the 309th Independent Infantry Battalion, some elements of the 1st Battalion, 145th Infantry Regiment, and assorted Naval Anti-Aircraft, Construction and Guard Force personnel, who were defending fixed emplacements on the terraces. As our forces moved into the north section of Target Area 165 and into Target Areas 166, 183, the full strength of the 309th Battalion was encountered and destroyed. Emplacements of the supporting 8th Independent Anti-Tank Battalion, in target area 183, were overrun and personnel destroyed. Elements of the 12th Independent Anti-Tank Battalion were met between Airfields No. 1 and No. 2. The 2d Independent Machine Gun Battalion, defending an area roughly centered at the junction of Target Areas 165, 166, 182, and 183, in support of the 309th Independent Infantry Battalion, was annihilated.

As we advanced into Target Area 183, moving northeast, units of the 310th Independent Infantry Battalion were encountered, plus 2d Mixed Brigade. Engineer and Signal personnel. Contact with Naval units was infrequent except that a Naval Guard Force Intendence Headquarters in Target Area 183 was overrun. The heart of the enemy resistance was met at NIDAN IVA, (Hill 382), and TANANA YAMA, (201 PQVR). Well entrenched herewere the bulk of the 310th Battalion, plus the supporting 11th Independent Anti-Tank Battalion; the 3d Battalion of the 145th Infantry Regiment; 2d Mixed Brigade Headquarters and Engineer unit; and a strong naval reserve force consisting of Guard and Land Force troops, plus some construction personnel.

After elements of these units abandoned their positions to counterattack on the night of D-plus-18 (9 March), units of the 314th Independent Infantry Battalion, which had been in reserve, pocketed artillery personnel, and remnants of the other forces were destroyed in Target Area 185.

Artillery firing into the 4th Division's zone of action consisted of the 1st, 3d, and 4th Batteries, 2d Mixed Brigade Artillery (plus one 120mm howitzer platoon); the 3d Medium Mortar Battalion; 1st, 2d, and 3d Batteries, 145th Regiment Artillery; 1st Battery, 20th Independent Mortar Battalion; and the 2d Rocket Unit. Of these, probably the 1st Battery, 20th Independent Mortar Battalion, two batteries of the 3d Medium Mortar Battalion, two batteries of the 2d Mixed Brigade Artillery, one battery of the 145th Artillery, and the 2d Rocket Unit were actually empleced in the Division's zone of action.

While originally the battalions of the 145th Infantry Regiment were under direct control of the 109th Division Headquarters, it is likely that when committed, the 3d Battalion was directed by the 2d Mixed Brigade Headquarters, which was the command echelon for all other infantry units in the Division's zone of a transfer of the command and the command echelon for all other infantry units in the Division's zone of a transfer of the command echelon for all other infantry units in the Division's zone of a transfer of the 145th Infantry Regiment were under direct control of the 109th Division Headquarters, it is a likely that when committed, the 3d Battalion was directed by the 2d Mixed Brigade Headquarters, which was the command echelon for all other infantry units in the Division's zone of a transfer of the 109th Division Headquarters, which was the command echelon for all other infantry units in the Division's zone of a transfer of the 109th Division Headquarters.

Guard Force Headquarters was adjacent to the Headquarters of the 2d Mixed Brigade and close liaison was evidently maintained. The Land Forces, Southern Air Command, and Antiaircraft and Construction personnel were under Guard Force Command.

Artillery was apportioned into sector commands of which the Central Group and the Southern Group were in the Fourth Division's area, and the Vest-Central Group undoubtedly contributed to fire received by this Division. There was an overall artillery command which was responsible to the 109th Division Headquarters.

The following is a tabulation of enemy units encountered in the Fourth Division's zone of action, together with an estimate of strength, showing the number of enemy troops believed to have been overcome by this Division;

and Mirrod Brimada Hardamantone and Giornal Unit	350
2nd Mixed Brigade Headquarters and Signal Unit	
2nd Mixed Brigade Engineers	450
2nd Mixed Brigade Artillery (two batteries)	300
1st Battalion, 145th Infantry Regiment (elements)	200
3rd Battalion, 145th Infantry Regiment	
(4 Infantry Companies, 1 Machine Gun Company,	
l Infantry Gun Company)	700
309th Independent Infantry Battalion	
(4 Infantry Companies, 1 Machine Gun Company,	•
1 Infantry Gun Company)	800
310th Independent Infantry Battalion	800
314th Independent Infantry Battalion (approximately	
50%)	400
8th Independent Anti-Tank Battalion (3 companies)	250
11th Independent Anti-Tank Battalion	250
12th Independent Anti-Tank Battalion (part)	100
2nd Independent Machine Gun Battalion (3 companies)	300
3rd Medium Mortar Battalion (Main force)	350
1st Battery, 20th Independent Mortar Battalion	150
145th Regiment Artillery (1 battery)	100
2nd Rocket Unit	100
26th Tank Regiment (one company)	100
Naval Forces	100
Guard Force 2000	
Land Force (Southern Air Command) 1500 Construction 500	4000
Construction 500 TOTAL	<u>4000</u>
TOTAL	9700

The actual count of enemy dead reported by the Fourth Division is 8982. This count is of observed dead and does not include enemy dead disposed of by the enemy or troops sealed in caves or tunnels and not seen.

DIFFERENCE TO FOURTH MARINE DIVISION OPERATION REPORT IVO JIMA

(d) Special Intelligence

(1) Artillery

Enemy artillery was ably employed during this operation. From the start it was evident that there was an unusual degree of infantry-artillery coordination. With the exception of some coastal defense guns and the anti-aircraft batteries, guns were emplaced in reinforced concrete shelters. Their well chosen, usually defiladed, positions were capably sited for deadly fields of fire. Generally, their limited fields of fire and dispersal prevented massing of fires. Many reports indicated, however, that the fires of two guns were massed on one target. The positions were frequently established with observation, fire control and with communications to adjust and deliver accurate fires on our troops.

The establishment of prior registration on critical terrain features and check points and the maintenance of detailed firing charts made enemy fires effective even after the best observation posts had been captured. The unification of command of artillery and mortar units under an artillery officer and the employment of a gridded fire control map are further evidence of the careful preparation of the artillery defense.

Some time-fire (airbursts) was noted and was believed to have been delivered by depressed anti-aircraft batteries. Shrap-nel was used to some extent, but was largely ineffective, due to the fact that it was impact-fused and the soft volcanic ash had a blanketing effect on the burst.

All of the 34 captured 37, 47 and 57mm guns had ample supplies of armor-piercing solid shot, which readily penetrated our medium tanks. On two specific observed instances the fragmentation of a 75mm shell was directly to the rear. Fragments appeared to be a light weight alloy.

On several occasions the enemy employed smoke.

The list of captured artillery is recorded in Appendix No. 1 to this Annex.

(2) Rockets

The largest weapon of this type recovered was the 250 kilogram bomb rocket. It consisted of a 250 kilogram aerial bomb from which the tail cone had been removed and a motor assembly attached. The motor was a cylinder 12 inches in diameter and 45 inches long, which contained the rocket propellent, with a 24-inch tail section which carried the venturi tube and the four tail fins

ANNEX BAKER TO FOURTH MARINE DIVISION OPERATION REPORT I'VO JIMA

A nose fuse on the explosive head detonated the rocket on impact. Its reported range was 5,000 yards.

Rocket motors launching 63 or 100-kilogram aerial bombs were found in two different lengths. One was 42 inches long and seven and one-half inches in diameter, while the other was 30 inches long and 10 inches in diameter. The motors were frequently fired without the bomb attached.

The eight-inch rocket was extensively employed by the The projectile is known as the converted eight-inch navalshell, spin-stabilized, rocket. Initially, it was fired in batteries of four from light tube launchers which were open at both ends, and mounted on light two-wheel rubber-tired carriages. It was breechloaded over a small attached loading tray, eight inches by four and one-half inches in size. The barrel could be elevated to 80 degrees by a lever arm. Setting in place was secured by a rotating clamping handle. A plunger, cammed down when the rocket shall was loaded, held the rocket in place. Firing was by percussion hammer. Traverse was accomplished by rotating the entire launcher. Each position included an open revetted fire pit, provided with a wire camouflage net to cover it completely and an underground covered shelter into which the launcher could be rolled by a ramp when not firing. From prisoner-of-war interrogation it was learned that the enemy did not contemplate the displacement of these launchers but planned to rely on countless simple wooden trough launchers if forced to abandon these positions. From the same source, confirmed by observation of captured positions, it was learned that the eight-inch rocket projectiles were stored in innumerable small caches in caves throughout the entire area, each cache being provided with the trough launchers.

Rockets were extensively employed by the enemy. Their well chosen launching sites were very difficult to locate and required a direct hit to neutralize. Their concussion effect was terrific. Rocket positions invariably had range and pre-registration data posted on boards.

(3) Mortars

Mortars were employed in great numbers. All of the conventional types were found, including the 150mm mortar. Positions were captured constructed to fire four 150mm mortars in a battery.

Six 320mm "Spigot" mortars were captured in the Division zone of action. The positions were uniform in construction, consisting of reinforced covered shelters constructed below the ground level containing the mortar base and ammunition. A small tunnel adjoined for personnel shelter during firing. The front of the position was open for firing. The opening was provided with a removable wire camouflage net. All walls and faces were the will revented with



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quarried blocks of volcanic stone. The morter was mounted on a three-tier wood base bolted at a 45 degree angle upon which were bolted the steel base plate and spigot barrel section. The projectile was four feet, eleven inches in length and 320mm in diameter. It was constructed in three sections which were packed separately but joined together for use by a threaded joint. The parts consisted of an explosive head, an explosive body and a tail assembly. The total weight was 680 pounds. The same fuse was used to ignite the first and second sections. The propulsion charge was ignited by an electric squib. Each position had a detailed firing chart, including azimuth rays and range with elevation and propellent required. These charts listed BLUE and YELLOW Beaches as the primary target, with Airfield No. 1 as the alternate target.

Several interesting developments in enemy mortar tactics were observed. Light 81mm to 90mm morters were used extremely close to our front lines. Frequently, they were so close that they could fire only on our observation posts and command posts. These close-up mortars were covered by mortars further to the rear which could fire on our front lines. In many instances it was noted that when a medium mortar position drew our artillery fire it became silent sometimes for a period of two or three days. From an observation post on an LCI(G) it was noted that the enemy would get off several quick mortar rounds simultaneously with the falling of rounds from our artillery in his immediate area, thus taking full advantage of the smoke and noise to hide his firing position. In several instances it was noted that the enemy placed and operated mortars in concrete artillery positions which had been previously knocked out. Light and medium mortars were coordinated for massed fires. Enemy 81mm mortars would fire a concentration of airbursts on our front lines and just prior to lifting the barrage would fire one or two high airbursts over the target, presumably as a signal and aiming point for the medium mortars, which would then commence firing on the same area.

(4) Mines, Grenades and Booby Traps

As this subject is covered in detail in Annex King to the Operation Report only brief reference will be included here.

Mines. No new mines were encountered. Mines were employed, however, in much greater numbers than heretofore encountered, and while their employment still does not compare with American or European standards they were used both in fields and individually. (See Appendix No. 1 for areas of minefields), They were judiciously placed on the beaches, on routes of advance to defensive positions, on the airfields and on the shoulders of roads, and were generally covered by fire. There was a vidence of considerable last-minute hasty sunface emplacement of individual mines.

Types discovered included:

(a) Two horn hemispherical

(b) One horn conical

- (c) 50, 63 and 250 kilogram aerial bombs buried as mines and generally activated by an attached yardstick mine. (d) Yardstick
- (e) Terracotta
- (\overline{f}) Box type
- (g) Tape measure.

Grenades. Grenades as usual were plentiful. tured types included:

(a) Magnetic anti-tank

(b) Shaped charge anti-tank

(c) Terracotta. This offensive grenade was found in quantity. It was made of terracotta filled with type 88 explosive (ammonium perchlorate) and has a friction type scratch igniter. Grenades varied in color from white to black. Some were glazed and all were encased in a rubber protective cover with a separate small rubber cover for the igniter and cap to seal it from moisture.

(d) Frangible (smoke) (e) Molotov coctail. A new variation of Molotov cocktail was found. A detonator made of explosives which ignited on being crushed was encased in a celluloid box and attached to the bottom of the bottle with rubber bands. When the bottle was thrown against a tank the detonator was crushed, igniting the oil from the broken bottle. This detonator replaced the detonator and fuse in the neck of the bottle.

Booby traps. Booby traps were found in greater quantities than heretofore. They were employed on enemy and Marine dead, souvenirs, food and ammunition, and at entrances of Japanese installations.

(5) Tanks.

The following enemy tanks were captured:

2 Model 95 light tanks, with 37mm guns

2 Model 97 medium tanks, with 47mm guns

3 Model 97 medium tanks, with 57mm guns.



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None of the tanks were employed or observed in mobile defense. Two fired from revetted positions, while five were fired from defiladed or artfully concealed and camouflaged positions.

(6) Small Boats.

While small boats were reported in operation to transport enemy troops on the western side of the Island, none were employed off the shores of this Division's zone of action. Several were found destroyed in the area of the East Boat Basin.

(7); Communications.

In aerial photographs furnished just prior to our departure from the HAWAIIAN Area it was noted that there was a lacework of narrow communication trenches throughout the Division's contemplated zone of action. Occupation of this area disclosed a new departure worth noting. Narrow and shallow trenches were frequently found in which stakes had been driven supporting communication wires. This practice obviously protected the wire from being cut by fragmentation but still left it in sight for wiremen to locate and repair breaks.

Radios were in use in greater numbers than on SAIPAN or TINIAN but were meticulously destroyed before capture. Captured communication diagrams disclosed a thorough, well organized net of both wire and radio to all units and areas.

War dogs with message collars were observed in use. Pigeons were found with quantities of message bands but were not observed in use.

(8) Construction.

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Concrete work was of far better type than that encountered on ROI-NAMUR, SAIPAN and TINIAN. This was probably due to the fact that the hard volcanic rock when crushed made a better aggregate; and the volcanis ash, resembling course sand, made a better mix than the coral product used on the coral islands.

Reinforcing bars up to three-fourths inch in size were freely employed. Concrete works, depending on their vulnerability and size, had walls and roofs ranging up to nine feet in thickness. Vents were baffle-plated to prevent the passage of grenades. Fire apertures were very small and frequently were faced in a direction to prevent penetration by direct fire from seaward sides. The exterior of fire aperatures were generally heavily re-

OF THE MARINE DIVISION OPERATION REPORT IVO JIMA

vetted for further protection. Sand, sand-filled oil drums and timbers were used to cover positions often to a depth of 10 to 15 feet and occasionally to a depth of 20-25 feet.

Small water tanks are described under section (9) herein. Large concrete tanks with wooden roofs flush with the ground were constructed to hold water drained from the airfields.

Two massive concrete communication centers, both built above ground, remained intact at the completion of the operation. The larger, built with four-foot-thick reinforced concrete walls, withstood several hundred rounds fired from our tanks and half-tracks.

Blockhouses and casemates were massive and of the German casemate type. Two concrete buildings adjacent to Airfield No. 2 remained intact. The more recently constructed one, reported to be a weather station, was modern and employed steel sash for doors and windows. All concrete structures were provided with percussion vents.

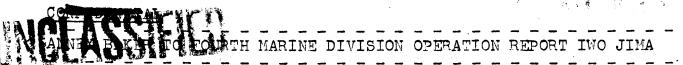
Virtually all above-surface wooden buildings had been destroyed prior to the operation, and the debris was either burned or reemployed for underground structures.

Construction of the elaborate underground cave and tunnel system was simplified due to the fact that the volcanic rock resembling soft limestone was easily cut by hand and required no shoring. The soft stone had an additional advantageous feature in that it cushioned shock and concussion. Lights, telephones and countless entrances were a part of each major system.

In the rough terrain, tunnel entrances were put in defilade and were difficult to observe from the air or to hit by even high trajectory weapons. Entrances to underground systems from flat terrain were made by placing end on end short sections of concrete pipe with an inside diameter of approximately three feet, the bottom section having a side cut out to allow passage to a ramp or steps which led further underground. All entrances had several abrupt turns.

Many so called "flush-deck" pillboxes, constructed below ground with a slightly mounded sand-covered top, blended perfectly into the terrain and had their sole entrance many yards away, connected by an underground tunnel.

Trenches and most anti-tank ditches were constructed in the volcanic ash and none were observed revetted. Consequently, the sand rapidly drifted in and they constituted neither effective shelters or barriers.



(9) Supplies.

Captured documents, prisoner-of-war interrogation and observation all indicated that the enemy had ample supplies of food, ammunition and general supplies. There were no shortages.

Command policy called for the immediate distribution of all types of supplies upon their arrival at IWO JIMA to individual units. There were no large centralized dumps. Each small unit had complete and adequate supplies distributed in prepared underground shelters throughout its zone of responsibility.

Rice was stored in heavy rubber bags. Water storage was established throughout the entire area in underground tanks approximately six feet wide, 10 feet long and 12 feet deep. The tanks consisted merely of a hole dug in the volcanic stone (resembling limestone), faced with approximately one-half inch of cement with a six-inch to eight-inch peaked concrete slab roof. The plan and distribution of this water storage might have been excellent except for the fact, as indicated by prisoners of war and confirmed by observation, that the thin veneer face of cement cracked by concussion and drained the precious water supply.

The apparent lack of surplus of lumber, cement and reinforcing steel indicated that all stocks of such material had all been used up.

(10) Equipment.

Trucks were chiefly of the open-body, two-wheel-drive variety of Japanese manufacture and comparable to Chevrolet or Ford type. While they were in some quantity most of them were old. Two multiple-wheel pneumatic-tire dirt-moving scoops were captured - the first modern pieces of dirt-moving equipment observed by this Division. They were crudely welded and made in JAPAN. Two diesel narrow-guage locomotives of conventional design were also captured. Three obsolete steam rollers and one small gasoline roller and several stone crushers, all of conventional design, were also captured.

As usual, the enemy appeared to have an amazing lack of modern equipment.

(11) Miscellaneous Intelligence Items and Observations.

(a) The first gridded Japanese map encountered on any operation by this Division was found on IWO JIMA. It was divided into 550-yard numbered squares, which were in turn divided into sixteen bettered squares, and the lettered squares were further days in the

LA BANG POCKER MARINE DIVISION OPERATION REPORT IVO JIMA

four squares numbered from one to four in each case. The scale was 1:5,000. It was contoured at five-meter intervals.

- (b) The enemy's discipline in remaining out of sight at all times was perfect.
- (c) In many cases where enemy personnel had an assigned mission to hold a blockhouse or casemate it was noted that although they were well equipped with machine guns and grenades there were no rifles present.
- (\underline{d}) Infiltration groups attempted passage of our lines by impersonating Marines and by boldly carrying stretchers.
 - (e) Many Japanese were killed wearing Marine uniforms.
- (f) A "Battle Vow," presumably issued by the Island Commander, was frequently found posted in captured positions and on dead. It said, "Above all else we shall dedicate ourselves and our entire strength to the defense of this entire Island. Until we are destroyed to the last man we shall harass the enemy by guerilla tactics."
- (g) A 105mm fuse and assembly, with the fuse made of \underline{wood} , was found.
- (\underline{h}) The enemy continued his practice of burning and burying his dead.
- (\underline{i}) On two instances the enemy preceded a counterattack by firing three white streamers.
- (j) The enemy generally held his rifle and machine-gun fire until very close range made sure hits.
- (\underline{k}) The enemy constantly attempted to keep contact during the hours of darkness by strong reconnaissance patrols.
- (1) Rifle grenades were frequently fired as airbursts and were often massed.
- (m) Rifles captured were nearly all Model 99 7.7mm. There were a few Model 44, 6.5mm cavalry carbines.
- (n) Examination of approximately 100 wrecked Japanese planes disclosed that most were of conventional types. One new type Army bomber was found. It was a twin-engined medium plane identified as a "Peggy."





WARING DIVISION OPERATION REPORT INO JIMA

9. RECOMMENDATIONS

The following is a compilation of the more important recommendations contained in this Annex:

- (a) That the official map for the operation not carry an overprint of enemy installations. Enemy installations should be shown in the intelligence maps.
- (b) That intelligence maps, or enemy situation maps, not be issued separately by each echelon but as a joint product on which the various units have agreed.
- (c) That aerial photograph interpretation reports regarding the prospective target also be issued by a single agency.
- (d) That during an operation complete and adequate arrangements be made and carried out for providing satisfactory aerial coverage after D-day in accordance with the needs and requests of lower echelons.
- (e) That a system of displaying panels be adopted to designate boundaries between units, to be displayed near enough to the front line to be a guide to air observers.
- (f) That arrangements be made to send Division language personnel to school between operations for additional instruction in the Japanese language.
- (g) That the methods for disseminating propaganda be completely reappraised in order to insure more effective results.
- (h) That a Radio Intelligence Platoon be attached to Marine Divisions.



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TO

FOURTH

MARINE DIVISION

OPERATIONS REPORT

IWO JIMA

OPERATIONS





OPERATIONS

1. INFANTRY

(a) General.

- (1) The amphibious assault on the island fortress of IWO JIMA presented a tactical problem different from any previously encountered by the Marine Corps, (except possibly to a limited extent at PELILEU) in that, after establishment of the initial beachhead, the attack inland continued to be opposed by heavily fortified positions organized in depth throughout the island. The initial landing was made on beaches composed of loose volcanic sand and backed by formidable terraces of varying heights which restricted the movement of tracked and wheeled vehicles inland. The defense-studded high ground on the right flank effectively covered the landing area and afforded the enemy excellent observation of the landing and the subsequent attack inland.
- (2) Tactics displayed by the enemy in defending IWO JIMA were different from those employed in the defense of other island bases captured by this Division, in that, units were instructed to hold their positions until death and to conserve their forces with the mission of inflicting maximum casualties on our attacking forces. The enemy made skillful use of the rocky, rugged, jumbled terrain and from concealed, mutually supporting positions was able to deliver intense and accurate automatic weapons and mortar fire combined with sporadic and intermittent artillery and rocket fire throughout the operation.
- (3) Within the Division zone of action, two phases of defense were encountered. The first phase consisted of a highly organized defense in depth of the landing beaches and sirfields, utilizing, for the most part, concrete and steel pillboxes, block-houses, and weapon emplacements. The enemy's defense during the latter stages was conducted from natural terrain irregularities, utilizing previously prepared caves and tunnels, rather than from concrete works.
- (4) Nature of terrain and type of defenses encountered prevented maximum benefit being obtained from the fire power of supporting arms. The majority of the fortifications were of such strength that numerous direct hits of heavy caliber shells in the same place were required to breach the structure.
- (5) Indirect artillery fire had little or no destructive effect on concrete blockhouses and pillboxes nor was it entirely effective against enemy personnel and weapons located in the labyrinth of caves and underground tunnels. Even under intense artillery

ANNEX CHARLIE TO 4TH MARINE DIVISION OPERATION REPORT, IWO JIMA.

fire, the enemy was still able to continue his mortar barrages and small arms fire. Naval gunfire achieved some destructive effect when employing AP ammunition and direct fire, but few targets could be so engaged from seaward. Air bombing, strafing, and use of rockets had little destructive effect on such well constructed and artfully concealed positions. Extremely tortuous terrain and skillfully designed anti-tank measures precluded effective use of tanks and 75mm half-tracks for direct fire missions against these emplacements, while the Bazooka and 37mm AT gun proved, in most cases, too light for the job.

(6) Thus, the infantryman, attacking in the open without full benefit of his usual supporting fire power, was pitted against imposing walls of concrete and steel and an intricate system of underground works.

(b) Tactics Employed.

- (1) From the outset, the Division was committed to a continuous frontal assault against a series of strongly fortified positions. While constant attempts were made to flank or envelop enemy positions throughout the operation, the system of defense, employing mutually supporting fire from fortified positions, and the restricted area in which the Division was operating, prevented successful flanking action on a large scale. Thus, no recourse but frontal assault was open.
- (2) The eastern portion of the Division's zone of action beyond the 0-1 line consisted of a series of cross compartments running perpendicular to the direction of attack. These deep, fortified ravines extending from the high central plateau to the sea presented a formidable obstacle to movement toward the 0-2 line and early in the operation requests were made to move the Division boundary southward to permit an attack down these corridors "with the terrain". Not until the latter stages, when the left RCT had advanced to a favorable position on the flank, was it possible for the right RCT to move down the ravines to the sea.
- (3) In the assault of fortified positions, the following factors increased the difficulties of the problem and contributed to exessive casualties:

a. Unsuitability of terrain for the employment of heavy direct fire weapons, such as, the tank-mounted 75mm gun and the 75mm half track.

b. Relative ineffectiveness of artillery, air, of articles of art and NGF against heavy installations.

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c. Lack of a suitable, portable, direct fire weapon capable of breaching concrete installations.

<u>d</u>. Mutually supporting nature of the majority of the fortifications, making attack by assault teams alone more costly than if heavy direct fire weapons could have been employed.

- (4) The IWO JIMA operation emphasized the fact that the assault of a fortified position is a time consuming process that requires meticulous reconneissance, planning, and preparation prior to initiation of the actual attack. The most important single factor in the success of the attack is the proper employment of heavy direct fire weapons executing slow, deliberate destruction of each enemy position. Artillery cannot be expected to destroy a great number of concrete pillboxes, blockhouses, and weapons emplacements, even though it be large caliber employing precision methods. Once a position has been neutralized by direct fire weapons, then, and only then, can assault teams attack the position with minimum casualties. Experience indicates that all infantry commanders from the battalion level upward must give more consideration to the planning and preparation phase before pitting flesh and blood against concrete and steel.
- (5) Again the enemy practice of "crowding" our lines in order to get out of our artillery and morter fire was prevelant and, on many occasions, rifle and hand grenades were the only weapons that could be used effectively against such tectics. Accordingly, great emphasis was placed on the use of the rifle grenade, but more intensive training in the employment of this valuable weapon is indicated. A system of mass fires, four (4) men in each squad firing in bettery, will be stressed in future training of the division.
- (6) Because of the reduced size of units after the initial stages (many rifle companies were down to 50 men from a T/O strength of 240) and because of the rugged terrain which restricted visibility and limited fields of fire to a few yards, it was necessary to utilize more units in the line than would have been required on the same frontage in more open terrain. Physical contact was necessary, particularly at night, since gaps in the lines could rarely be covered by fire and this fact necessitated the employment of what may have seemed an excessive number of troops in the line, leaving very small reserves for all units. Against constant, heavy opposition in the type terrain encountered on IWO JIMA, it is considered that the comittment of fewer troops in the line to allow more rest for reserve units would have resulted in excessive infiltration, disruption of rear area activities, and additional casualties.

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(7) The by-passing of strong points in an operation of this type is considered undesirable. On only two (2) occasions were such tactics used on a large scale in the Division zone of action and it was found that both positions were difficult to reduce because of inability of the containing and mopping up force to employ heavy supporting arms. In more open terrain where defenses are not so concentrated, such by passing tactics could be employed advantageously.

(8) During the early stages of the operation the enemy took advantage of our set pattern of beginning an attack by remaining in caves and emplacements during the preparatory fires. then appearing suddenly as soon as the attack jumped off. On the several occasions when pre-dawn attacks without preparatory fires were made, surprise was gained and good advances made, indicating that the decision to attack with or without a preparation must be carefully weighed in view of the factors involved. A standard routine of attacking at a certain hour must not be allowed to develop, but the procedure should be so veried that the enemy will be habitually caught off guard. The possibility of employing limited objective night attacks should be considered.

(9) The early loss of leaders and other experienced key personnel seriously affected the efficiency of small unit tactics. Assignment of untrained replacements did little to improve the situation and toward the end of the operation most small units were under command of personnel who had been placed in a position beyond their capabilities. Thus, the fact that leaders and key men must be adequately trained at least "three deep" was forcefully emphasized in the IWO JIMA operation.

(10) While retaining advantage of observation, the enemy consistently concentrated mortar, rocket, and artillery fires on CP's of all units, indicating the need for additional emphasis being placed on CP discipline and camouflage, particularly traffic control. When under constant enemy observation and conditions do not permit concealment of CP locations, it is believed the practice of small units occupying one CP location during daylight and then moving to an alternate location during the night should be considered.

(c) Infantry Weapons.

(1) No unusual employment of small arms was encountered during the operation. The BAR retains its place as a most dependable and popular weapon with the infantry. The carbine is valuable as a defensive weapon, but should be replaced in many instances by the .45 caliber pistol. The short bayonet was used by



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many units to replace both the long bayonet and the utility fighting knife. TSMG's are needed in the infantry battalion for mopping up work.

- (2) The 60mm and 81mm mortar were employed effectively for close-in targets of opportunity, illumination, smoke missions, and counter-mortar fires. While these weapons were invaluable in their role, the need for a more effective mortar organization within the Division was indicated. The Japanese have many times the mortar fire power of a Marine Division, both in number of weapons and larger calibers, and on IWO JIMA it is estimated that a larger percentage of casualties to our own forces were caused by enemy mortars then any other weapon. Repeated recommendations have been made by the Division that the 4.2 chemical mortar, whichhas been tested and proven in combat, be adopted by the Marine Corps. A mortar battalion, consisting of two (2) 4.2 companies and one (1) 155mm mortar company, has been recommened as the ideal organization which would permit the assignment of one (1) 4.2 company to support each assault regiment while the 155mm company was held in general support under Division control.
- (3) The 37mm gun and the 75mm half track, with which the Regimental Weapons Companies were equipped for the operation, were used infrequently because of the difficult terrain and the vulnerability of these weapons to enemy fire. The 37mm gun should be replaced by the 57mm gun in order to provide more adequate antitank protection. The M7Bl, now replacing the 75mm half track, could have been used in the IWO JIMA operation as an indirect fire weapon when it was not possible to employ it in a direct fire role.
- (4) The Bazooka was designed primarily as an antitank weapon and as such it has proven invaluable. For lack of a more suitable weapon, it has been used more frequently by assault teams as a direct fire weapon against fortified positions and caves. The need for a heavier direct fire weapon that could be carried by the assault team as a substitute for the Bazooka was keenly felt throughout the operation. It is believed that a rocket, emboding Bazooka-like characteristics but equipped with both a concrete-piercing and fragmentation shell, should be developed.
- (5) Portable flame throwers were used extensively in assault work and in cleaning out caves. Their vulnerability to enemy fire and the difficulties of servicing make it mandatory that at least one (1) flame thrower be retained in reserve for each one (1) in use.



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(a) Support Aviation.

- (1) Defensive air cover including antisubmarine patrol, was adequate and efficient from time of mounting until completion of assault phase. Preliminary air strikes were not sufficiently effective and the desired degree of neutralization was not obtained.
- (2) On DOG-day, air attacks were delivered on the beaches and flanks prior to HOW-hour, and during the period H-55 to H-35 caused an apparent lull in naval gunfire, which was scheduled to continue uninterruptedly with a limited maximum ordinate.
- (3) Air liaison parties operated under the supervision of unit air officers and commanders. Close liaison with naval gunfire and artillery teams was initially obtained by direct contact with their liaison officers in the landing teams. Requests for air support were forwarded over voice radio on the single channel available and later over land wires. Direction of air attacks was retained exclusively by CASCU, with whom radio communications were satisfactorily maintained throughout the operation.
- (4) Communication between AGL teams and ASC was adequate; between ASC, support sircraft, and air coordinators apparently satisfactory; and between support aircraft and air support parties non-existent, although equipment was available.
- (5) Targets were marked by white phosphorous and yellow smoke. Yellow fluorescent front line panels were used to mark front lines and appeared satisfactory to support aircraft.
- (6) Air support missions were particularly effective when the heavier bombs with four-second-delay fuzes were used. In general, a lack of coordinated training of pilots with troops seemed to be responsible for inordinately lengthy dummy runs being made, adversely affecting effective timing and resulting in excessive intervals between origination of request and execution.
- (7) Dummy attacks were the rule rather than the exception, preceding all close support missions; they were only rarely employed to cover an advance.
- (8) Air liaison parties were not permitted to employ their VHF radios to control aircraft from the ground. This arbitrary limitation abrogated the tentative joint and Navy-approved

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procedure which stated that air liaison parties would not be deprived of this privilege. Air liaison parties suffered heavy casualties working forward into positions from which to coach aircraft. Many air liaison officers available were former aviators, and six naval aviators were with the combat teams and Division Headquarters. Any objection to turning over coaching control to "inexperienced" air liaison parties is therefore not valid.

- (9) The following comments and recommendations are tendered on their merits:
- a. The planned air support did not provide adequately for exigencies such as might be reasonably expected from enemy action, nor did it provide the minimum number of aircraft for support missions stipulated in our previous battle operation reports.
 - <u>b.</u> Garrison fighter aircraft might have been employed earlier and more effectively for troop support missions if the pilots had trained with the Division.
 - c. Night air observers, repeatedly in demand by combat teams, should have been provided for in the Air Flan as recommended, and the subject given the widest dissemination; at least one air raid condition was caused partially by this omission.
 - d. Armament did not provide 2000-pound and heavier bombs despite prior requests and recommendations contained in previous battle operation reports.
- e. Since no dive bombers were part of the support carrier group none were available to hit peculiarly defiladed enemy targets which artillery reported they could not reach.
- f. Air liaison parties should not be deprived of the privilege of cosching sircreft onto the targets, if sir support is to be close and effective.
- g. Filots of troop support aircraft should train with the Division.
- h. White phosphorous was used by friend and foe, often with confusing and dangerous results. Yellow smoke shell at present has a poor bellistic design but with improvement, could more accurately be employed.
- i. More data as to the allocation, number, armament, and type of aircraft, and times avantage of aircraft, and times avantage of aircraft.

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H-hour strikes should be made available by higher authority and the Division permitted to plan coverage of targets in the Division zone of action.

i. Strategic priority to water installations was advocated in our prior air recommendations, and apparently ignored. POW's stressed the fact that lack of water was losing the war for them on IWO.

k. The ordnance arming of carrier planes again proved too inflexible. Requests originated the night before for Napalm or specific bomb and fuzes were repeatedly ignored; or the present system is inadequate to effect the desired arming on reasonable advance notice.

1. Rehearsal air exercises were of little value to the Division. A minimum requirement should have provided for the air liaison parties being lended on KAHOOLAWE with sufficient troops to form front lines and display panels, while live ammunition was employed.

(b) Air Observation

(1) Flans and Freparations.

a. Training of Air Observers - Frior to the SAIPAN-TINIAN operation, twenty-three officers had received air observation training and over half flew in combet during that operation. Upon returning to Maui, training was continued and seventeen officers, ten of whom had had no previous training, attended a two-week course at Naval Air Station Kahului; a one-week course at Hickam Field; and a four-week course at Naval Air Station, Kaneohe. Two tactical observers received training at JICPOA, CINCPOA, and four artillery observers attended a two-week course at SOSU, Naval Air Station, Ford Island. Upon return to Maui, observers trained with VMO-4 and naval air units up to the time of the Division's emberkation. During the rehearsal period off Maui, fifteen observers continued training at Naval Air Station, Kahului. The Division Air Observer Group comprised: nine officers from the Artillery Regiment; one officer from each infantry regiment, the Fourth Tank Battalion, and the Division Reconnaissance Company; two officers from the First JASCo, and four officers from Division Headquarters.

b. Flans for Employment - Plans for employment of observers were designed to furnish tactical observation commencing immediately prior to How-hour on Dog-day; air spot for naval gunfire commencing on Dog-minus-three day; air spot for shore-based artillery to commence as soon as artillery was ashore and prepared



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to fire; night tactical observation, and special missions. Since the situation precluded use of OY-1 aircraft during early phases, it was necessary for the plan to be sufficiently flexible to take full advantage of observers based on carriers and other combat ships, and yet provide for the OY-1 aircraft to be shore-based with observers as soon as practicable. The plan was covered by Annex MIKE to Operation Plan No. 49-44, and provided for embarkation as set forth in the following table:

EMBARKATION TABLE

	Ship	Flene	Pilot M	ission	Observer
USS	CHESTER	vos	Nevy	NGF	1 Arty Obsr
USS	SALT LAKE CITY TENNESSEE	VOS VOS	Navy Navy	NGF NGF	1 Arty Obsr 1 Arty Obsr
	BILOXI	vos	Navy	NGF	1 Arty Obsr
		0Y-1'6			
	WAKE ISLAND	<u>OY-l's</u>	2 VMO-4	Arty Spot	3 Arty Obsrs
	SAGINAW BAY	2	2 VMO-4		
USS LST	MAKIN ISLAND BISMARCK SEA #776 SARATOGA	2 5 TBM	1 VMO-4 2 VMO-4 5 VMO-4 Nevy	Tactical Arty Spot Night Obsn	5 Tact Obsrs 2 Arty Obsrs 1 Tact Obsr
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The five remaining officers who had received observation training were embarked with their respective units, prepared to fly on order.

c. Movement to Theater of Operations - During the rehearsal period at Maui from 3 January to 18 January, 1945, the fifteen observers assigned to combatant ships were temporarily attached to Naval Air Station, Kahului. The four observers assigned for naval gunfire spot departed from Maui 8 January, 1945, and embarked at Pearl shortly thereafter, while the remaining eleven observers departed Maui for Pearl 18 January, 1945. The one observer for night tactical observation, and the two observers assigned to LST #776 embarked at Fearl. The eight observers assigned to carriers departed Fearl by air on 21-22 January, 1945, arriving at Ulithi and embarking aboard assigned carriers on 25 January, 1945. On all combatant ships where observers were embarked, satisfactory liaison was established with the Air Department, Intelligence, Gunnery, Operations, and Communications. Aboard the USS BISMARCK SEA, arrangements were made for a receiver to monitor the SAO net and to make a transcription of all transmissions on that net. All observers made a detailed study of the operation plan and an intensive intelligence analysis of the theater of operations. The senior observer aboard the various combatant ships lectured separately to the air squadron aboard, all ship's officers, and to ell ship's personnel on the landing force phase of the operation and the mission of air observation.