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SECRET

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A.C.B. 0254/45 (5)

ROYAL AUSTRALIAN NAVY

MONTHLY NAVAL WARFARE REVIEW

MAY, 1945

S E C R E T

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A.C.B. 0254/45 (5)

OPEN

ROYAL AUSTRALIAN NAVY

MONTHLY NAVAL WARFARE REVIEW

MAY, 1945

C.5644.

S E C R E T

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A.C.B. 0254/45 (5)

ROYAL AUSTRALIAN NAVY

MONTHLY NAVAL WARFARE REVIEW

MAY, 1945

TRAINING AND STAFF
REQUIREMENTS DIVISION,
NAVY OFFICE,
MELBOURNE.

C.5644.

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ADMIRALTY MESSAGE TO R.A.N.

"On the occasion of the cessation of hostilities in Europe the Board of Admiralty desire to convey to the Australian Commonwealth Naval Board their sincere appreciation of the very valuable services rendered, and still being rendered, by the Royal Australian Navy in the war at sea. They recall, in particular, the gallant actions fought by units of the Royal Australian Navy in the Mediterranean as well as in the Pacific and Indian Ocean.

"They also wish to extend their gratitude to the Australian Commonwealth Naval Board for their welcome and constant assistance to the British Pacific Fleet.

"They look forward to the continued co-operation of the Royal Australian Navy in bringing about the early defeat of Japan, the sole remaining member of the Axis, and thus finally liberating the world from fear and aggression."

A.C.N.B. REPLIED AS FOLLOWS:

"The Royal Australian Naval Forces are proud to have shared in the triumph of sea power which assured the decisive defeat of Germany and her European allies.

"The Commonwealth Naval Board would express their admiration and gratitude to the gallant officers and men of the Royal Navy for their outstanding contribution to victory by their skill and relentless courage over more than five years of desperate conflict. We are greatly heartened by the presence of the British Pacific Fleet and welcome the opportunity for continued association and co-operation in the defeat of Japan."

SECTION I

CURRENT EVENTS IN SOUTH WEST PACIFIC

1. AUSTRALIAN FORCES LAND AT TARAKAN

This latest Allied drive against the already sorely pressed Japanese forces remaining in the South West Pacific Area has an immediate significance in the fact that the TARAKAN oilfields, which, though not large, produce about 5,000,000 barrels annually, will be the first to be recovered from the enemy in this area. Furthermore, this successful operation is an important strategic step towards the ultimate liberation of the NETHERLANDS EAST INDIES and and MALAYA.

Preparation and Passage

During the afternoon of Friday 27th April, H.M.A.S. "MANOORA and "WESTRALIA" departed from MOROTAI in company with other units of Task Group 78.1, carrying troops of the 26th Infantry Brigade 9th Australian Division. The Attack Force, which was under the flag of Rear Admiral Forrest ROYAL U.S.N. in U.S.S. "ROCKY MOUNT", included -

H.M.A.S. "MANOORA")
H.M.A.S. "WESTRALIA") - A.L.S.I.'s

U.S.S. "TITANIA" - A.K.A.

U.S.S. "RUSHMORE" - L.S.D.

21 L.S.T's

12 L.C.I's

4 L.S.M's

12 L.C.T's (all in tow)

and other small craft.

The escort included six destroyers, two destroyer escorts and the frigates, H.M.A.S. "HAWKESBURY", "BURDEKIN" and "BARCOO".

The previous three days had been spent in rehearsals for the landing at LINGKAS, a sheltered roadstead, shipping point for the oilfields, on the south west coast of TARAKAN ISLAND. This operation

promised to be more difficult than usual owing to the innumerable well-placed defensive obstacles in the approaches to the beach, and to the nature of the beach itself - a soft sand and mud bank, in which, it was thought, a heavily equipped soldier would probably sink to his waist. Accordingly, it was decided to use a light collapsible wood and canvas Assault Boat, for the final stage between the point where the L.C.V.P's grounded and the beach. Much was learned of the most successful method of using these light craft during the rehearsal period; the soldiers gained confidence and skill in net and debarkation drills.

The passage to TARAKAN was comparatively uneventful and in good weather conditions. During the night of 30th April/1st May, destroyers of the screen engaged two Asdic contacts, one being claimed as a "kill" by the attacking vessel. Heavy rain squalls were experienced during the last few hours of the journey.

The Assault

At 0520/1st May, on arrival at LINGKAS, the transports deployed to their anchoring positions and commenced to lower boats at 0640.

The Bombardment Force, which included H.M.A.S. "HOBART" and "WARRAMUNGA", was at hand to engage selected targets. At 0650 fire was opened by the destroyers only, owing poor visibility at the time, and five minutes later a large fire was observed in "WARRAMUNGA'S" target area near CAPE PASIR.

Shortly after commencing to launch her boats, U.S.S. "RUSHMORE" reported being hit near the stern by a torpedo which, happily, failed to explode, bounced clear, leapt out of the water and then sank. It is believed that midget submarines were responsible, for two other ships also reported torpedoes passing close aboard. No sound contacts were made.

At 0720 the First Wave of L.C.V.P's, towing the light Assault Boats, left the Transport area.

Liberators commenced their bombing runs at 0800, and ten minutes later a large explosion announced an enemy ammunition dump well hit.

Under cover of rocket fire by L.C.I.(R)'s, the troop-laden assault craft now moved towards the beach, through the approach lanes which had been prepared and marked during the previous few days by H.M.A.S. "LACHLAN". That the work of the demolition parties had been well done was evident when the initial waves had passed through the last line of underwater obstacles and landed with little difficulty, almost dry, the mud bottom proving to be firmer than had been expected.

The first troops were ashore at 0815, moving towards their objectives with little opposition, and the beach-head was soon secured.

Though the foreshore was strongly fortified with concrete pill-boxes and gun emplacements, the enemy had deserted them. Desultory sniping, which caused a few casualties during the day, was the only persistent enemy activity in the beach area. Shortly after 1000, Japanese mortar fire was directed at targets in the vicinity of LINGKAS pier without effect, and the gun was soon silenced by counter mortar and Bren Gun fire.

The landing proceeded very successfully, until, as the tide began to fall, the unloading of stores and heavy equipment became more difficult. It was decided, however, to dump the stores from the L.C.V.P's directly on to the pier; as all gear had to be lifted by hand about twenty feet from the boats, this method proved very slow. A large Japanese steel lighter, which had been found secured alongside the pier, was pressed into service with good effect.

Meanwhile, the unloading of the beached L.S.T's, with the aid of pontoon causeways, proceeded satisfactorily, though enemy mortar fire hampered work on some of these craft during the early afternoon.

These operations continued throughout the night and early forenoon of the following day, all cargo being discharged from the L.S.I's by 1000; all boats were hoisted, and the transports, with escort, departed from the area at noon.

2. WEWAK FORCE OPERATIONS - APRIL, 1945

As reported in last month's Review, "WEWAK FORCE" was formed on 20th April, with Lieut. W.J. Dovers R.A.N. as Senior Officer in H.M.A.S. "SWAN".

The first operation of the Force was during the night of 21st/22nd when H.M.A.S. "DELORAINE" and "COLAC", with M.L. 816 as mine destruction vessel carried out a searching sweep off the western tip of KAIRIRU Island, 20 miles north of WEWAK, to clear the area of possible danger from an Allied minefield, which had been set to sink in July 1944; no mines were cut, though "DELORAINE" lost french float and otter when the port sweep fouled an uncharted obstruction, presumably a coral pinnacle. H.M.A.S. "SWAN" and "DUBBO" provided A/S cover to the westward, and, on completion of the sweep, all ships joined in A/S patrol to the north and north east of the island until dawn.

Ships anchored in AITAPE COVE on 22nd, remaining there until

24th, when, during the afternoon "DELORAINE" and "COLAC" carried out a bombardment of gun positions on the western coast of MUSHU Island. Spotting aircraft reported that target areas were well covered and nearby living quarters damaged. Returning from these activities, "DELORAINE" recovered the french float and otter lost on the night of 21st; these had been sighted during the morning, on the way to the bombardment area, anchored by the weight of sweep wire, three quarters of a mile to the south east of KAIRIRU Island.

"DELORAINE" then detached to land Army Bombardment Liaison Officers and party at AITAPE and thence to HOLLANDIA for fuel.

Meanwhile "COLAC" closed to within four cables of VALIF Island to inspect and sound for an anchorage; suitable water with 18 fathoms, sheltered from the north west was found. No enemy activity was observed ashore and ship then departed for A/S patrol to the north and east of KAIRIRU Island during the night.

On 25th "SWAN", "DUBBO" and "COLAC" engaged targets in the vicinity of CAPE SAMEIN and CAPE WOM on MUSHU Island. Again spotting aircraft reported good coverage in the target area. R.A.A.F. Beauforts carried out an air strike at CAPE WOM after "SWAN's" bombardment.

"COLAC" then shaped course for "HOLLANDIA" for fuel while "SWAN" and "DUBBO" anchored at BUT.

Early in the afternoon of 26th, on receipt of a report of the sighting of an enemy submarine 90 miles north west of KAIRIRU Island, "SWAN" and "DUBBO" proceeded to the patrol area to the north and east of the island, in the hope of intercepting the enemy in the approaches to WEWAK. "DELORAINE" joined from AITAPE and the Force patrolled from dusk to dawn with negative result. Ships returned to BUT during the forenoon.

In the afternoon "SWAN" and "DELORAINE" bombarded two enemy gun positions on the eastern tip of KAIRIRU Island; from air reconnaissance these had been assessed as 4" - 5" coast defence weapons. Aircraft spotting was used with good effect, and "DELORAINE" registered a direct hit on one of the guns. Later, after the aircraft had returned to base, the ships closed the target area to 2,000 yards and completed the destruction of three large huts near the gun positions. Although the second gun had not received a direct hit, the whole area to a depth of 200 yards from the point was devastated.

Ships retired to the northward and, joined by "COLAC" and DUBBO" carried out A/S patrol to the west, north and east of the island during the night. Tracer fire was observed from the shore in the entrance to KAIRIRU Strait, where the M.L's were operating, and several contacts were investigated during the night without result.

"DELORAINE" detached for passage south and the remainder of the Force anchored at AITAPE during the forenoon of the 28th; in the evening "SWAN" and "DUBBO" departed in company to HOLLANDIA for fuel.

Details of M.L. activities during this period have not yet been received.

3. CRUISERS SUPPORT WEWAK OPERATIONS

H.M.A.S. "HOBART" (C.T.G. 74.1, Commodore H.B. Farncomb, C.B., D.S.O., M.V.O., R.A.N.) H.M.S. "NEWFOUNDLAND", H.M.A.S. "ARUNTA" and "WARRAMUNGA" were designated "WEWAK SUPPORT FORCE" for bombardment and fire support duties during operations by Australian troops to cut off and destroy the enemy in the WEWAK area.

The ships cruised off WEWAK during the forenoon of 10th May, then stood in to the firing areas, and, after a "dummy run" to identify aiming marks, commenced bombardment of scheduled targets at 1400. Ninety minutes later the Force withdrew and retired for the night.

The following morning, in poor visibility, the ships again carried out bombardment according to plan for one hour from 0730. At 0830 troops of the 19th Australian Infantry Brigade were landed at the eastern end of DOVE BAY, to prevent the enemy withdrawing to the East.

The Force remained in the area, destroyers screening to seaward, awaiting calls for support fire. Just after noon, "NEWFOUNDLAND" reported a sound contact; "ARUNTA" closed but failed to gain contact, and dropped one pattern of depth charges in the vicinity. The destroyers subsequently carried out square searches with negative result; it is not considered that any submarine was present. Between 1600 and 1700 the cruisers answered a call for fire on a suspected gun position. At 1900 the Force, having encountered no enemy opposition of any kind, withdrew and set course for HOLLANDIA.

4. U-BOAT OPERATIONS IN SOUTH WEST PACIFIC AREA - APRIL, 1945.

That the enemy has withdrawn most of his operational submarines from the PHILIPPINES for service closer to the Home Islands

was shown by the marked decrease in the number of contacts during April-only two attacks were recorded in this area, results unknown.

One probable sinking was claimed by an Allied vessel south of OKINAWA, while aircraft claimed a "kill" off SAIGON. In the ANDAMAN Sea a B-24 recorded the sinking of one U-boat. In the JAVA Sea an Allied submarine sank a German U-boat, taking prisoner one survivor, who claimed that the U-boat was on the way to the MOROTAI area.

Several sightings were reported in the NEW GUINEA area and the BISMARCK ARCHIPELIGO, indicating that supply missions may still continue in these parts. H.M.A.S. "JUNEE" attacked a possible submarine contact 100 miles east of WEWAK on 25th April; contact was lost after the second pattern of depth charges and not regained during the subsequent search.

SECTION II

OPERATIONAL AND TRAINING

1. SUICIDE BOMBING ATTACKS - ACTION EXPERIENCE

The following extracts, from a recent action report of an engagement in which a U.S. carrier was hit by several suicide bombers, again bring home the fact that a large proportion of suicide bomber attacks are successful because of surprise. In this report we read the old story of confused recognition of own planes, fighter direction difficulties, and delay in opening fire, each a major contributing factor in enabling enemy planes to reach the ship. It may be noted, for example, that although the carrier fired a total of 1140 rounds of 5"/38 AA Common during several different attacks, she fired only 41 rounds of these during the first attack in which 4 planes crashed into her and one other obtained a bomb hit.

Action Report - Chronological Account

1628 -
Radar bogey contact reported by.....to be bearing 055° T, distance 75 miles, 4 to 6 planes heading south. Warning broadcast sent on I.F.D. frequency, 2096 kcs., to Commander Air Support Group, who evaluated bogies as "returning itinerant friendlies".

1630 -
First Division CAP vectored out to investigate bogey.

1635 -
Bogey split at bearing 070°T, distance 70 miles.

1637 -
Combat requested scramble.

1638 -
Outboard bogey turned toward.....

1641 -
Second Section CAP vectored out at maximum speed to investigate.

1650 -
"Tally-ho 4 chickens" received from Second Section 084° T,

35 miles, 4000 feet. This information not received by CTU on the bridge. (later reported by pilot, upon return aboard next day, two Zekes splashed.) This was the raid which closed and attacked the unit.

1651 -
Ordered Condition I in the Gunnery Department.

1651 -
Commenced turn to 025° T to launch

1653 -
Sounded General Quarters.

1653 -
Commenced launching first of 15 aircraft. Bogey 22 miles.

1658 -
Flag hoist, "Prepare to repel air attack."

1659 -
(about) - Opened fire to starboard on 6 aircraft emerging from clouds, Target angle about 110o - 115°, Position angle 20°, Range 6,500 yards.

1703 -
Completed launching 14 VF(N) and 1 TBM. During the action VF(N) were used for protection of the ship in designating sectors. One enemy torpedo plane reported splashed when occurring.

1703-1705 -

Plane No. 1, straffing, hit and blazing, flew into and penetrated the starboard side, frame 104. Bombs on the plane exploded inside in Wing Tank Control and compartment B-111-E, containing a number of men, and carried through to the hangar, starting large fires in the Wing Tank Control Room and hangar. Fires not known to bridge at that time, Plane No. 2 almost simultaneously with No. 1, hit and smoking, glanced off the water near the ship and struck the starboard side, frame 147, at the water line. Ruptured starboard blister and penetrated the side. Ship quickly took a 6° starboard list. Bomb from this plane possibly caused underwater damage at frame No. 121, not discovered until arrival. Plane No. 3 shot down clear of the ship on starboard beam. Plane No. 4 on parallel approach with others but aft of ship, turned and flew up the deck, dropped a bomb into the anchor windlass room through the port catapult and crashed in the water over the bow. Plane No. 5, hit and burning, in a flat turning dive, flew up the deck, crashed into port catapult and exploded violently. Plane No. 6, hit and burning, crashed into airplane crane on starboard side, dropped bomb which exploded at frame 25, starboard flight deck. Parts

of this plane landed in number one gun gallery while the remainder went over the side. At this time the forward part of the flight deck was engulfed in flames and black oil smoke.

1705 -
Ceased firing.

1726 -
Turned right to 180°T, to improve relative wind. Bogies reported to north.

1730 -
Commenced firing at visual target at range of 14,000 yards.

1731 -
Ceased firing.

1734 -
Bogeys reported crossing stern.

1820-23 -
Opened fire on radar contact. Target not sighted.

1830 -
Sunset.

1844 -
Bogey reported 15 miles to north.

1845 -
Completed jettisoning belly tanks.

1846 -
Attacked by estimated five planes on port side. Commenced firing. Two planes shot down on port quarter, one on port beam, and one astern. Friendly plane still circling formation at close range, directed to get clear of gunfire.

1848 -
Commenced right turn attempting to keep line of fire near beam as judged by tracers.

1852 -
Jap plane, approaching from ahead unobserved and unopposed, dropped bomb on flight deck, frame 42, port side. This plane crashed in the water to port. Attack was preceded by parachute flares on both beams, distance 15 miles. Explosion put No. 2 - 5" battery and No. 6 - 40 mm. quad out of commission and started two fires on flight deck. In addition, electrical shorts on No. 2 gun gallery would arc up intermittently, illuminating ship.

General Comments

From the time of General Quarters in the..... to the first bomb hit encompassed a period of about ten minutes. The screening vessels had been at General quarters only a short time before the first hit. Accordingly, during the 1700 attack the following totals of ammunition were fired:

	(Carrier)	(Screen)	(Screen)	(Screen)
5"/38	41	15 Est.	-	-
40 mm.	768	50 Est.	-	-
20 mm.	360	60 Est.	16	-

Fire was not opened sooner than about 6,000 yards when planes were sighted visually by the.....(Carrier) for the following reasons

(a) The high frequency of alarms of bogies which turned out to be friendly, during this Task Units operations en route to, in, and leaving the TOKYO area with TF 58.

(b) The fact that friendly planes were very often lax in utilization of correct approach procedure and I.F.F.

(c) The fact that plot of friendlies and bogies had been reported merged shortly before the attack on the.....

(d) The fact that Fire Control Radars were unable to distinguish between friendly and Bogie indications in the scope. Shortly after the first attack several Bogies were driven off by concentrated ships' fire and one was considered shot down by the..... However, all other attacks, one at 1700 the other at 1850, were pushed home with reckless determination regardless of the extremely heavy barrages thrown up by all ships of the Task Unit. Only one plane out of the Group attacking at dusk in poor visibility managed to get through is considered a tribute to the effectiveness of full Radar Control combined with the use of VT projectiles.

The screening destroyers consider that insufficient AA practice using radar sleeves and insufficient simulated suicide dive attacks were made before entry into combat zones.

Total ammunition expenditures:

5"/38 VT	730
Mark 18	410
Smokeless Powder	540
Service "	600
40 mm.	24,729
20 mm.	16,902

(Adapted from Pacific Fleet Confidential Letter - 22CL-45)

2. STORM DETECTION BY RADAR

Numerous meteorological phenomena may be "seen" by Radar, and, in many instances, weather information thus obtained has been used to supplement other aerological data to produce more accurate warning of changes in weather conditions. Many incidents have been recorded when enterprising and skilful use of Radar has enabled ships and aircraft to take action in time to avoid squalls or patches of thick weather. Aircraft have been directed home to their carrier base through apparently continuous banks of heavy thundercloud via a break visible only on the PPI screen of the Fighter Direction Officer.

"Weather" echoes are easily distinguished by operators, on "A"-Scan by saturation and unsteadiness, on PPI by their shape and brightness - the image may vary in size from several square miles to several hundred, and its shape is always irregular and continuously changing. Intensity of cloud echoes may be such that it blanks off strong land echoes, but this intensity is subject to rapid fluctuations. The brightness of the image produced by clouds appears to diminish towards the edges and finally blends into the screen illumination.

In order to give more useful information than merely calling attention to a rain cloud, operators should be encouraged to identify the various types of weather by the individual characteristics which each presents on the PPI screen. These characteristics are given briefly below:-

A thunderstorm echo:

- bright, dense central area with indistinct boundaries.

A convective cloud echo:

- scattered in a random manner, moving with direction and velocity of the general circulation.

An orographic thunderstorm echo (caused by the influence of high land on moisture-laden air):

- will show little movement.

A cold front echo:

- usually arranged in a line.

A warm front echo:

- hazy, and usually covers very wide area.

A line squall echo:

- long, narrow and moves rapidly.

A shower echo:

- generally less intense than thunderstorm, with a hazy structure.

In general, the shorter the wave length of the Radar set, the better the qualities of echoes received from cloud formations. However, the shorter wave lengths also give shorter ranges, which is a bad feature for "weather warning". Consequently, for cloud detection of a general nature, the high powered long range early warning sets or search type may be best employed. The Australian type A276 provides a most desirable combination of detection and range characteristics for this type of work.

(Adapted from U.S. Naval Aviation Confidential Bulletin - April, 1945 and "C.I.C."-April, 1945)

3. KEEP YOUR RADAR 'ON THE AIR'

Success or failure in an operation, particularly at night or in low visibility, may hinge on the ability of your ship's radar equipment to function properly during the period.

It has been stressed on many occasions that Radar was not completely developed when war necessitated taking it from a laboratory stage and fitting it in ships. Ship-board equipment must, therefore, be studied continually by Radar maintenance personnel - every inherent weakness must be known, so that, if faults occur during critical periods, the set can be 'put back on the air' as quickly as possible.

In an analysis of many reports of Radar Material and Performance, from all classes of ships, one fact stands out above all others: Radar performance is best and most reliable in ships whose personnel are best qualified in maintenance.

Some reports have been received which indicate that, although a qualified Radar mechanic has been on board, the performance of the equipment is well below normal; in other ships, mechanics who have had the same basic Radar training have turned in some outstanding performances. It is felt, therefore, that proper maintenance of Radar is dependent to a large degree on the Commanding Officer's appreciation of its importance, and on the inherent ability and capabilities of the

Radar maintenance personnel.

As a guide to Commanding Officers, the following suggestions are offered:-

(i) Place Radar mechanics in the ship's organisation so that they can give maximum time to knowing and maintaining their equipment. Split duties and responsibilities will inevitably result in poor performance.

(ii) Weed out maintenance personnel who are obviously unfit or not interested.

(iii) Make Radar technical publications and bulletins readily available to mechanics.

(iv) Encourage the use and study of Radar instruction books.

(v) Encourage initiative in tackling maintenance problems.

(vi) Give maintenance personnel every opportunity to attend schools and refresher courses.

SECTION III

NARRATIVES

1. U.S.S. "BATFISH" SINKS THREE JAP SUBMARINES IN FOUR DAYS NORTH OF LUZON

Enemy Submarine Air Search Radar Discovered during Attacks

During the sixth war patrol of U.S.S. "BATFISH" in the South China Sea and Luzon Straits, three daring attacks were made in four days, resulting in the probable sinking of three Japanese I-class submarines, totalling 4,500 tons (See A.C.B. 0254/45 (3) Section I, Article 4).

While conducting these attacks, "BATFISH" made the discovery that enemy submarines have air search radar on 158 mgcs. It is assumed to be non-directional, for "BATFISH" was able during the first attack to close to 900 yards without the enemy's giving any sign of detection.

The first submarine did not turn off his radar until it was secured by one of "BATFISH'S" torpedoes. The second submarine keyed his occasionally, while the third keyed at intervals of from one to two minutes.

While patrolling surfaced in the Babuyan Channel south of Camiguin Island (north of LUZON), "BATFISH" received a radar signal on APR (Search receiver) at 158 mgcs., 500 PRF. Forty minutes later at 2250 (Zone minus 8) 9th February, she obtained radar contact at a range of 11,000 yards. A surface approach was made on the target and at 2331 four Mark 18 torpedoes were fired at a range of 1850 yards, with negative results.

"BATFISH" made an end-around and prepared to launch a second attack at closer range. The target was now identified as a Japanese I-class submarine. At 0002 (10th February) three Mark 18 torpedoes were fired at a range of 990 yards. One torpedo hit. The target then exploded with a brilliant red flare and sank almost immediately, leaving a large oil slick that extended over a radius of two miles. Radar indications on the APR ceased abruptly. The target disappeared from visual sight and on the radar screen, screws stopped, and loud

breaking up noises were heard in the sound gear.

The next day while patrolling on the surface near Calayan, "BATFISH" at 1915 (Zone minus 8) received radar signals on APR at 158 mgcs., 500 PRF. Since this was the same radar found on the submarine target the night before, "BATFISH" began searching carefully on SJ radar, finally determining the approximate true bearing of the source. At 1951, "BATFISH" obtained radar contact at a range of 8,000 yards. Since Japanese radar had proved so ineffective the night before, "BATFISH" decided to make a surface attack in the complete darkness. At 2044 when range had been closed to 1200 yards, the target submerged. One half hour later, sonar heard a swishing noise and identified it as a submarine blowing her ballast tanks. This was confirmed at 2106 when Japanese radar reappeared on the APR at 158 mgcs., and SJ radar made contact at 8650 yards range. "BATFISH" made an end-around and dived for a submerged attack. At 2202 four Mark 18-2 torpedoes were fired at a range of 800 yards. Three hits were made and the target sank almost immediately. Explosions and breakingup noises continued for one-half hour.

After her second kill "BATFISH" set course to an area west of CALAYAN ISLAND. While patrolling on the surface between CALAYAN and DALUPIRI ISLANDS, "BATFISH" at 0155 (Zone minus 8) 13th February received a weak APR signal at 157 mgcs., 500 PRF. In hope that this might be another Japanese submarine, "BATFISH" swung the ship and at 0215 made radar contact at a range of 10,700 yards. The target was tracked and "BATFISH" submerged for the approach. At 0241 at a range of 7,150 yards, the enemy submarine dived but at 0353 surface radar contact was regained.

At 0448 "BATFISH" fired three Mark 18 torpedoes from the stern tubes at a range of 1700 yards. The first torpedo hit, causing a large yellow ball of fire which was observed through the periscope. The target could be seen blowing apart on the radar screen. Considerable oil and some debris marked the scene of the attack. A large oil slick with oil still bubbling to the surface was evident two hours later. After sighting several bits of wood and paper, much oil, but no survivors, "BATFISH" succeeded in recovering a wooden box that contained Japanese navigation equipment and a book of tables "BATFISH'S" report says, "From the positions listed in the work book, it looks like the guy went from NAGOYA to FORMOSA before he headed down toward LUZON to join his ancestors."

(U.S.F. A/S BULLETIN, April, 1945)

2. NOTES FROM A CARRIER OFF KYUSHU

On 17th March the enemy's air forces began what has developed into their most ambitious series of actions since the attenuation of the Japanese offensive in 1942. Already thousands of aggressive sorties are involved; the whole effort has been, for the Japanese, remarkably prolonged and integrated; and its formidability has been increased by the introduction of desparate new technical weapons.

These operations were precipitated by the appearance of a great Allied Fleet off KYUSHU last month. In this view, selected observations of a Naval intelligence officer, who was aboard one of the carriers in that Fleet from the day it set out until well after the OKINAWA landing, are presented below. They afford an interesting close-up of the enemy's tactics and the pattern of his effort; it should be remembered, however, that this article does not purport to give an overall picture, but rather a selected cross-section of experiences within one relatively small portion of the Task Force. It is quite possible, for example, that enemy attacks against some units occurred without this observer's knowledge. No attempt is made here to summarize operations or results.

There was no evidence that the Japanese sighted our Task Force until it was already about 300 miles off KYUSHU. The first alert was sounded at 2140 on the 17th. No actual attacks developed during that night, but the radar screen remained clear at best for a few minutes at a time. As though compensating for their belated discovery of the Fleet, the Japanese subsequently maintained almost continual reconnaissance over it - certainly enough to be reasonably sure of its position. The enemy's effectiveness in this respect offers a strong contrast with his previous failures. An interesting sidelight is that the spotting was apparently carried out by offensive types of airplanes, most of them charged with direct missions against the Fleet; and that virtually no search or floatplanes were observed during the operations.

After the constant heckling on the night of the 17th, bombing attacks against our surface units began the following morning. At the same time our carrier planes were taking off for the first in a four-day series of strikes against KYUSHU and the INLAND SEA, during which time the Task Force stayed on JAPAN's southern doorsteps.

The Japanese raids maintained a uniform, and somewhat surprising pattern on these four days. There were no suicide crashes or rocket bomb attacks. Single planes kept coming in persistently, without fighter cover. They were, for the most part Bettys, Jills, and the new radial-engine Judys - all Navy types. No torpedo attacks were reported. The pilots whose slippery evasiveness through the sea of

ack ack indicated that they were well seasoned, would approach the targets in a shallow dive, level off almost on deck, and attempt precision bombing. With their one bomb dropped, they would pull out and earnestly try to get back to base. One such pilot was hauled out of the water after being shot down, and documents found on him offered confirmation that he was not seeking suicide.

Selection of targets during these four days was remarkably discriminating - the enemy would pass up numerous vessels in an effort to reach a large carrier. In all respects the Japanese bomber pilots continued to evidence respectable skill and experience.

In contrast with the LEYTE and LINGAYEN Gulf shows, our units were heckled throughout each night; this was frequently supplemented by bomb attacks. Bettys performed most of these missions.

The pattern of numerous and importunate single-plane attacks was not varied until the 20th; and on that day the concerted raiding force consisted of only eight planes. It was on the following day that the first really substantial co-ordinated mission was attempted. The Fleet was in the first stage of retirement from the area, now some 300 miles from KYUSHU, when about 35 Bettys, covered by many Zekes, came over. Allied fighter escort caught this force immediately outside the ack ack screen. The Zekes refused to fight, possibly because of an inflexible fuel supply. Whatever the reason, they left the Bettys to slaughter. Twenty-seven were shot down, and none of the remainder tried to penetrate the screen.

Although that was the only large-scale raid, some idea of the constancy of the enemy's single plane search-assaults is suggested by the fact that 113 planes were shot down over the Task Force in the four days.

The Fleet's retirement and refuelling on the 22nd was accomplished without an enemy attack. It would appear that the previous days' attrition and the disruption of KYUSHU airfields had had its effect. In any event, the following day was also free from raids against the Fleet, except for a lone Myrt whose end was quick. One sub which popped up near a carrier was rammed and sunk by a destroyer.

On the 24th, a week after the first Japanese plane spotted the Fleet, the first suicide attacks were made. There were numerous enemy sorties, but only one suicider penetrated the screen. Exhibiting little of the skill or discrimination of the bombers off KYUSHU, the Jill nevertheless damaged the destroyer into which it crashed. From that day, although the intensity of the Japanese effort varied considerably from day to day, suicide attempts formed a consistently large component of the attacks.

The most notable innovation in suicide tactics during the

subsequent days was the institution of teamwork among the raiders. A number of planes, acting as decoys at separate compass points, would attempt to divert ack ack and fighter attention with agile manoeuvres fairly high, at the close edge of 40 mm. range. Meanwhile suiciders would dash along the deck directly into the surface unit concentration. This was done with some regularity, but another, stranger manoeuvre was observed only once: two crash-diving Zekes came in wing tip to wing tip. The crash planes were reported to be carrying 1/2" armour plating. One unsuccessful suicider, from a fairly rare Jack, was picked up very much alive in a bright red life raft. He wore a beautiful red scarf bearing his name and the inscription, "Kamikaze Unit No. 3".

As a correlative indication of the extent to which the Japanese, once they started on the 24th, built their campaign around self-immolation, our Fleet units had to contend with small suicide boats and depth-charge bearing swimmers. In addition of course there was the introduction of the new rocket-propelled, pilot controlled, Betty-borne, bomb. This weapon (now officially labelled Baka) is discussed elsewhere in this Review.

Night attacks, which continued with fair regularity for many days, was featured by the extensive use of window. Whether by virtue of the enemy's rational timing or airborne radar, the windows were frequently dropped just as our night fighters were being vectored.

During the period in which these tactics were being demonstrated, our Fleet of course had returned once to Empire waters, came back and softened up OKINAWA for the landing, and then revisited the Empire to knock off the "YAMATO","AGANO" and most of their entourage. This latter destruction was accomplished by carrier planes who found the sky free of enemy fighters over the famous battleship. Apparently the Japanese Air Forces were too intent on our Fleet. The attacks on it continued day after day, with variations only in degree. The peak effort of course was on 6th April when 245 enemy planes were shot down. Types ranged from Kates and Vals to the new Zekes. Only 24 of the enemy bombers pierced the screen and fighter cover, but they registered 22 suicide hits.

The emphasis here, and also obviously in the Japanese mind, on crash tactics should not be permitted to obscure the fact that conventional type raids persisted throughout the period. Although absent in the early stage, aerial torpedo attacks, involving the extensive use of flares, were encountered later in substantial strength at least once. Although by far the greatest amount of damage suffered by Fleet units was caused by suiciders, ordinary bomb attacks were the second largest factor - with only low percentages of the whole caused by suicide boats, mines, aerial torpedoes and gun fire.

(Headquarters Allied Air Forces S.W.P.A - 21st April, 1945)

3. THIRD TIME PROVES IT

From a recent TOKIO Radio broadcast:

"This is the story of how an airman in our Special Attack Corps in the OKINAWA theatre of war on his third attempt successfully rammed into an enemy target after failing twice due to a faulty engine which forced him to return to his base. He is 22 year old Corporal Yamamoto, Flight Cadet, hailing from KOICHI PREFECTURE.

"With the decisive battle of OKINAWA roaring to a climax, all the members of the Japanese Special Attack Corps are fighting with one determination and one purpose to crush the enemy and to stem his invasion on the Japanese mainland. Amid this atmosphere of burning enthusiasm and fighting spirit, a formation of Japanese planes on 6th April took to the skies from an Army Air base after receiving instructions and words of encouragement from the base commander. Shortly after, this Special Attack Corps departed on its mission, but one aircraft returned with engine trouble.

"The Corporal reported to his commander, apologising for his inability to participate in the attack from which many of his comrades were not expected to return. The commander told him not to be discouraged, for his time would come when he could die for his country.

"Corporal Yamamoto was again assigned with the next assault formation. With profound joy beaming in his face he hopped into his aircraft and roared off the runway with his comrades on 12th April. But hounded by misfortune, he was again forced to drop out of the formation and return to base.

"Suddenly he completely disappeared and everyone at the base anxiously began a thorough search for him. Finally, Corporal Yamamoto was found in the nearby hills. When the searching party reached him they found him weeping bitterly. Questioned by one of his comrades as to why he was snivelling (sic), he wiped his tears and said: 'This is the second time I have failed to fulfil my assignment. It is a disgrace to my name and my eyes cannot face anyone.'

"The adjutant and other officers after listening to this woeful story expressed sympathy with the Corporal, and without a feeling of shame, tears well into the eyes of these warriors. The following day, 13th April, Corporal Yamamoto was included as a member of the Nagamine Unit of the Shimpu Special Attack Corps.

"He was completely a new man as he rose early that morning and cheerfully made last-minute preparations, checking his plane and making sure of everything in tip-top order. When the time to take-off arrived, he climbed into the cockpit of his aircraft and started the engine. It whined steadily. Suddenly, much to the surprise of everyone, Corporal Yamamoto jumped out. They wondered what he was going to do.

"He ambled to the front of his aircraft, fondly patted its nose, then squatted down and facing his aircraft he was praying. He jumped back into his cockpit and as the Nagamine Unit wheeled off the airfield one after another, he followed and waved his hand in farewell to everyone at the base. Gradually his aircraft disappeared into the clouds. Corporal Yamamoto never returned, having successfully rammed into the enemy target and fulfilled his dream in this third attempt."

4. GALLANT RESCUE UNDER ENEMY FIRE

On 6th April, 1945, a combined force of Liberators and Mitchells struck against a heavily defended cruiser protected by three escort vessels and by aeroplanes. As heavy opposition was anticipated the Air-Sea Rescue Organisation consisting of two A.S.R. Catalinas and two A.S.R. Liberators, was called into action, one Catalina and one Liberator to follow the attacking aeroplanes, the other Catalina and Liberator to be an immediate standby. It was arranged that the first Catalina should carry 1000 gallons of petrol so that in the case of a ditching it could effect an immediate landing without jettisoning petrol the second Catalina to carry 1,460 gallons, enabling it if necessary to carry out a protracted search for survivors to maximum endurance of the aeroplane.

During the engagement one Liberator was destroyed by ack ack and another was shot down by fighters. Some crew members were seen to parachute into the sea in the vicinity of the enemy cruiser.

Intercepting the distress message the A.S.R. Liberator and Catalina arrived at the scene of the ditched aircrew. The survivors were scattered over the sea for an area of six to ten square miles. Selecting two men in Mae Wests the Catalina captain alighted alongside one into a six-foot swell and an awkward chop. Owing to the state of the sea it was necessary to stop the engines to pick him up. The engines were then started, and after taxiing for some time the second man was picked up. The Catalina then took off and located another survivor; a second landing was effected, two more survivors being rescued.

At this stage an Oscar and a Zeke made a head-on attack out of the sun registering hits with cannons which caused an immediate fire. All members of the crew and the survivors dived overboard through burning petrol into the water; the aeroplane sank stern first within two minutes.

By this time the A.S.R. Liberator had dropped A.S.R. gear,

including two five-men dinghies, approximately 600 yards away.

The Catalina captain and Liberator second pilot swam to the nearer dinghy and paddled it back to the other survivors. As there were nine men in one dinghy they paddled to the other dinghy, which was a long way up wind, and after lashing the two together an unsuccessful effort was made to reach two other survivors.

While the Liberator continued to circle overhead, the second A.S.R. Catalina arrived, the survivors by this time having been in the water for nearly two hours. A successful landing was made in a heavy sea, and the nine men from the two dinghies were taken on board. Unable to see any more survivors, contact was made with a Liberator on R/T, which in answer dived towards two other survivors. As the Catalina taxied in the given direction an attack was made by two Irvings dropping phosphorous bombs at the Liberator, which was circling 300 feet above. These aeroplanes then attacked the Catalina, which was forced to take off. Violent evasive action was carried out as the Irvings pressed into attack, from either side, cloud cover being reached after 25 minutes battle with the two Irvings.

During the battle the Liberator weaved above the Catalina as it flew for home. Once out of effective enemy range the two aeroplanes flew independently back to base.

(R.A.A.F. Command O.I.B. No. 6)

SECTION IV

INTELLIGENCE

1. THE JAPANESE KAMIKAZE CORPS

This article from O.N.I. Weekly of April 18th, 1944 integrates most of the available information on this form of Japanese attack.

Faced with a military crisis, the Japanese have produced a new primary combat weapon - the suicide crash. The initial attacks of this type were made during the LEYTE landings on October 25th, and they have continued in increasing volume, climaxed by the recent mass suicide raids on our OKINAWA occupation forces.

During the first year of the war the Japanese were successful in their air attacks on surface craft. Japanese airmen exhibited extensive knowledge and effective use of combined dive-bombing and torpedo attacks against ships. Attacks were well co-ordinated and occasionally were effectively linked with level bombing attacks by medium bombers.

Improved interception by our CAP, greater volume and increased accuracy of our ships' A.A. and the improved performance of our new fighter planes gradually decreased the effectiveness of such attacks. In ratio of damage done to effort expended, the enemy's co-ordinated attacks by carrier dive and torpedo bombers became costly failures. Particularly in the Battle of the PHILIPPINE Sea and the Battle for LEYTE GULF the failure of enemy fighters to give adequate cover to their torpedo and dive bombers resulted in heavy loss to the Japanese with only slight damage to our ships.

Suicide tactics are a well-known military maneuver, for obvious reasons only rarely employed. The appearance of suicide planes at this critical tactical phase of the war was a psychologically predictable tactic, developed by a fanatic enemy - an enemy known for desperate and futile counter-assaults by land forces and self-destructive attacks by midget submarines, PT boats and swimmers towing demolition charges. It was easier for the Japanese to decide to use suicide tactics than it would have been for any other people, since there was neither moral nor morale problem involved. A glorious flaming death on the deck of an enemy carrier was in keeping with the finest Japanese military traditions.

From the outbreak of the war, isolated suicide attacks by lone Japanese airmen had been reported at widely separated intervals, usually only as the last maneuver of a doomed aircraft. The attack of October 25th, 1944, the first manifestation of an organised KAMIKAZE ("Divine Wind") unit, was co-ordinated, determined and effective. Dives were numerous, persistent and courageously carried out. They resulted in the sinking of one CVE and one DD, and damage to several other other units.

Since the Battle for LEYTE GULF, organized, deliberate suicide attacks have been one of the chief Japanese tactics against both naval and merchant ships. The scale of these attacks reached a peak during a 10-day period while ships of the Seventh Fleet were engaged in amphibious operations at LINGAYEN GULF.

ORGANISATION OF SUICIDE UNITS

The Japanese refer to their suicide attack units as the KAMIKAZE Corps, named after a "Divine Wind" which the gods are believed to have sent to JAPAN'S assistance in 1570. At that time, during the Yuan Dynasty, a Mongol fleet bent on the invasion of JAPAN was wrecked by a tempest which blew the ships back on the CHINESE coast. References to KAMIKAZE units began to appear in Japanese broadcasts and newspaper accounts early in 1944. Following the success of the suicide planes during the Battle for LEYTE GULF, citations, posthumous awards and promotions were given to the dead airmen who were said to have taken part in these "body crashing" tactics.

From a thorough study of all available information on the subject (enemy documents, P.O.W. interrogation, examination of crashed planes and interviews with pilots aboard our ships), it has been established that there are two different methods of staging suicide attacks. The first is by the organized special attack or genuine KAMIKAZE unit. The second is by a hastily formed suicide-attack party made up of any type of plane and equipment and ordinary pilots, the latter having been suddenly ordered to crash, often against their will. This second type has been frequently encountered.

There is much to indicate that the early attacks were mounted in just this hit-and-miss manner. During attacks last October 25th and 26th in LEYTE GULF, there was little consistency in the type of aircraft used or in the method of making the final crash. Vals, Zekes, Jills and Judys were among the planes identified, and these aircraft appeared to have been gathered together from several different units. Examination of the wreckage indicated that the Zekes were mostly older models and carried as their bomb loads such queer ordnance as the Type 89 50 mm. mortar shell. One of these unexploded shells was recovered and found not to be modified for nose detonation. It had little value either as a bomb or shell.

This would seem to indicate that the hard-pressed enemy had decided on the suicide attack almost at the last moment and had seized on any ordnance available.

Pilots appeared to have been both experienced and inexperienced. The more experienced released their bombs a few feet above the deck of the target ship while the less experienced failed to release at all, and the bomb exploded on the deck doing little or no damage from failure to penetrate. Aircraft in these early attacks used both high and low altitude approaches and swung into the attack from all angles.

In view of the fact that it is now known that there actual-ly are KAMIKAZE units composed of pilots selected and trained to die in flaming pyres on the decks of enemy ships, it is interesting to note what was said about those early attacks by pilots who had misjudged their aim and plunged ingloriously into the water.

A Judy pilot revealed that he was a member of one of four air groups, including Zekes, Kates, Jills, Bettys and Judys, which arrived in the Philippines in October. Five days later, the commanding officer of the Judy group bluntly informed his pilots that they had been designate a special attack force (KAMIKAZE unit) and that the planes were to go out on suicide missions by number. The prisoner's turn came on November 11th. No special instructions were given him other than to crash into a ship, and no special equipment was installed in the plane. On the other hand, despite the fact that the plane was to become a total loss, no equipment was removed from it. His plane was one of five Judys setting out for the attack, but he overshot his target.

Another prisoner stated that his unit became a suicide squadron on October 27th when the commanding officer succeeded in having his request for such a designation granted by a higher authority. Pilots and personnel of the outfit were not questioned as to their desires in the matter.

This prisoner felt that the order "dive to one's destruction" was absurd but that since it was an order he would carry it out. He claimed that he had been given no instruction but planned to aim for an elevator on a carrier. He was shot down, however, before he could complete his run.

As opposed to this, there were many cases where commanding officers called for volunteers for suicide attacks and found plenty of young pilots eager for the honour and the glorious death.

Contrary to the rather hit-or-miss methods outlined above,

there were developed in both the Japanese Army and Navy Air Forces, however, trained and organized groups of volunteer pilots to make up various units of the KAMIKAZE Corps.

The propaganda campaign to stimulate volunteering for the KAMIKAZE units got underway in late July and August 1944 when Japanese domestic broadcasts urged young men to volunteer and pointed out the glorious opportunities for the youthful fliers to crash into enemy ships or into attacking bombers. Exploits of three army fliers who had won their niche in the YASUKUNI Shrine by crashing into enemy planes were eulogized in broadcasts to Japanese youth.

According to a Japanese newspaper article, the Navy volunteers were then trained in the TSUCHIURA Naval Aviation Corps in KASUMIGAURA, JAPAN. Secrecy and mysticism surround the training of these youths who range from 19 to 24 years of age. In the first stage, or prepatory training, emphasis is placed on spiritual "intoxication" while later, in the basic training, the development of the proper techniques is stressed. During the whole process of the training, extraordinary emphasis is laid on physical perfection and accomodation to a "slavish" life. The term for the preparatory training is one month, during which the major subjects are physical training, code instruction, general principles of land and sea fighting, and the like. No rest is allowed in the whole day. There is a shrine inside the squadron's quarters where the dead of the Naval Aviation Corps are worshipped. The combatants of the squadron are ordered to pay periodically their solemn respects to the dead and are made to swear before them: "We are certainly coming after you!"

A gloomy and terror-inspiring atmosphere is created. Each cadet of the preparatory course is closely followed by a veteran cadet who has finished his preparatory course and who makes use of every chance to din into his ears such exhortations as "Be brave!" "Make use of your vigorous vitality and physical strength to overcome your physical pains." "The order from senior officers must be fulfilled without fail!" After one month of such training and trial, a state of psychological abnormality is reached, and most of the cadets are transformed into machines without individuality, ready to fulfill without hesitation the mission assigned by the senior officers. At this time, the basic training will begin.

While the basic technical training is being carried on, the discipline is tightened still more. There are the most rigid regulations for the manners and movements of daily living down to the most trivial things. The section commander is responsible for the training. He is to live with the cadets and inspire in them the spirit of blind faith from early in the morning till late at night.

When the section commander is going to the front the last words he says to his cadets are: "I have taught you all that I have learned from our seniors. There is, however, the lesson of death which I have not yet taught you. Be careful to learn the manner in which I am to die!"

During the Philippines campaign, the principal suicide unit of the Japanese Naval Air Force was the 221st KOKUTAI (loosely, an "air group"). Considerable information is available on this unit. Pilots were drawn from a dozen or so other KOKUTAI, and grouped into fighter and attack HIKOTAI (roughly, "squadrons") within the KOKUTAI organization. An enlisted pilot, now a prisoner of war, has stated that enlisted pilots were given no opportunity to decline service as suicide pilots, but were ordered to join the special attack units. Officer pilots were in some cases drawn by lot or permitted to volunteer, a procedure which resulted in some bitterness on the part of the enlisted men.

The nucleus of the 221st was the former 601st KOKUTAI which had been assigned to CarDiv One until the carriers of the division were sunk - the "SHOKAKU" in the Battle of the PHILIPPINE Sea and the "ZUIKAKU" and "ZUIHO" in the Battle for LEYTE GULF. In December 1944 the KOKUTAI was composed of the 304th, 312th, 313th, 315th and 407th HIKOTAI, and the special attack (or suicide) unit. Pilots were usually interchangeable and might find themselves flying with any of the units. Each HIKOTAI was equipped with 20 to 30 Zekes, and there were also a few Vals, Jills and Judys. The suicide unit was equipped, as of November 15th, 1944 with 48 Zeke 52's (of which 24 were equipped as suicide fighter-bombers and 24 as escorts) 12 Jills, 12 Judy bombers and 6 Judy reconnaissance planes - a total of 78 aircraft. At the opening of the Philippines Campaign in October the 221st held a larger proportion of single-engined bombers, but this group suffered heavy losses, especially on October 22nd when the entire strength of the 221st took off from Clark Field for a strike on allied shipping. The planes were intercepted by F6F's before reaching the target. Subsequently, the Zeke was favoured over Vals, Jills and Judys, as the need for maneuverability became paramount.

Despite the heavy losses, it is known that elements of the 221st KOKUTAI have been evacuated to JAPAN, where the unit presumably has been reorganized or broken up and its personnel assigned to other units defending the Empire. Since the 221st was formed at KASANOHARA and nearby bases on KYUSHU, it is probable that the unit returned to this area.

TACTICS.

Suicide tactics are generally of two types: (1) Very low level torpedo type runs; (2) Glide runs out of sun at about a 45°

angle with engine cut. Very often the stage is set by accompanying planes which make a feint attack on the opposite side of the enemy or fly around the ships out of range at about 8,000 feet while the "sneak" suicide bombers come in low, or vice versa. At times the diversionary planes have eventually made suicide attacks but not until after the original attacks were completed.

The Japanese planes usually approach in a group and split up just before interception by CAP, some creating the diversion and others going in to attack. Occasionally a bogey has followed the CAP into the formation, resulting in a merged plot and consequent avoidance of discovery by radar. Suicide pilots take every advantage of clouds and smoke and of land masses that render radar helpless as an early warning device.

Pilots also appear aware of the limitation on A.A. defense directly forward and aft, where most of the guns are masked, and capitalize on it in many cases by diving down the axis of the ship. On some occasions it has been reported that the Japanese have used our own IFF in their approach.

The diving glides into the target are usually made from an altitude of 8,000 to 10,000 feet although dives as low as 4,000 feet have been reported. In the low level attacks, pilots have been reported to come in so low on the water that their prop-wash creates a wake and they pull up only enough to clear the deck and crash into the ship's superstructure.

PLANE TYPES

In the initial attacks of Otober 25th, 1944, the planes used were mostly Japanese Naval Air Force Zeke 52's although other planes were noticed. Since then a variety of Army and Navy planes have been used, including Zeke 21's, Oscars, Vals, Kates, Tojos, Tonys, Judys, including the radial engine type, Bettys, Franceses, Irvings, Dinahs, Lilys, and Jills.

Whereas in the earlier attacks a variety of ordnance was used, the subsequent weapons are believed to have been 250 kg. (550-lb) armor-piercing or semi-armor-piercing bombs. In at least one case a type of fire bomb was used.

In some instances suicide planes carried bomb loads far in excess of rated capacity. The planes are evidently fueled only for a one-way trip to the target ship, and the bomb load is increased accordingly. A Frances which missed its target and crashed in the water exploded with a force which suggested that it was carrying 3,000 pounds of explosives.

The existence of a Japanese rocket-propelled aircraft bomb

designed to carry a pilot has been established by the finding of twelve such bombs at OKINAWA, five of which are in excellent condition. The operational use of this new weapon has also been confirmed by action photographs of a Betty carrying such a bomb on the underside of its fuselage, apparently along the bomb bay. A full description and sketches of this weapon appear in the next article of this Section.

To identify this piloted bomb, the code name "BAKA" has been officially allocated. Previously the weapon had been known unofficially as "Jap buzz bomb", "poor man's drone", "Viper", "Zombie", and "Samurai Swansong". The new name was selected because of its psychological implications; it is considered that a weapon designed so that its every use is necessarily at the cost of a human life is indeed representative of the word's literal meaning of "fool" or "idiot".

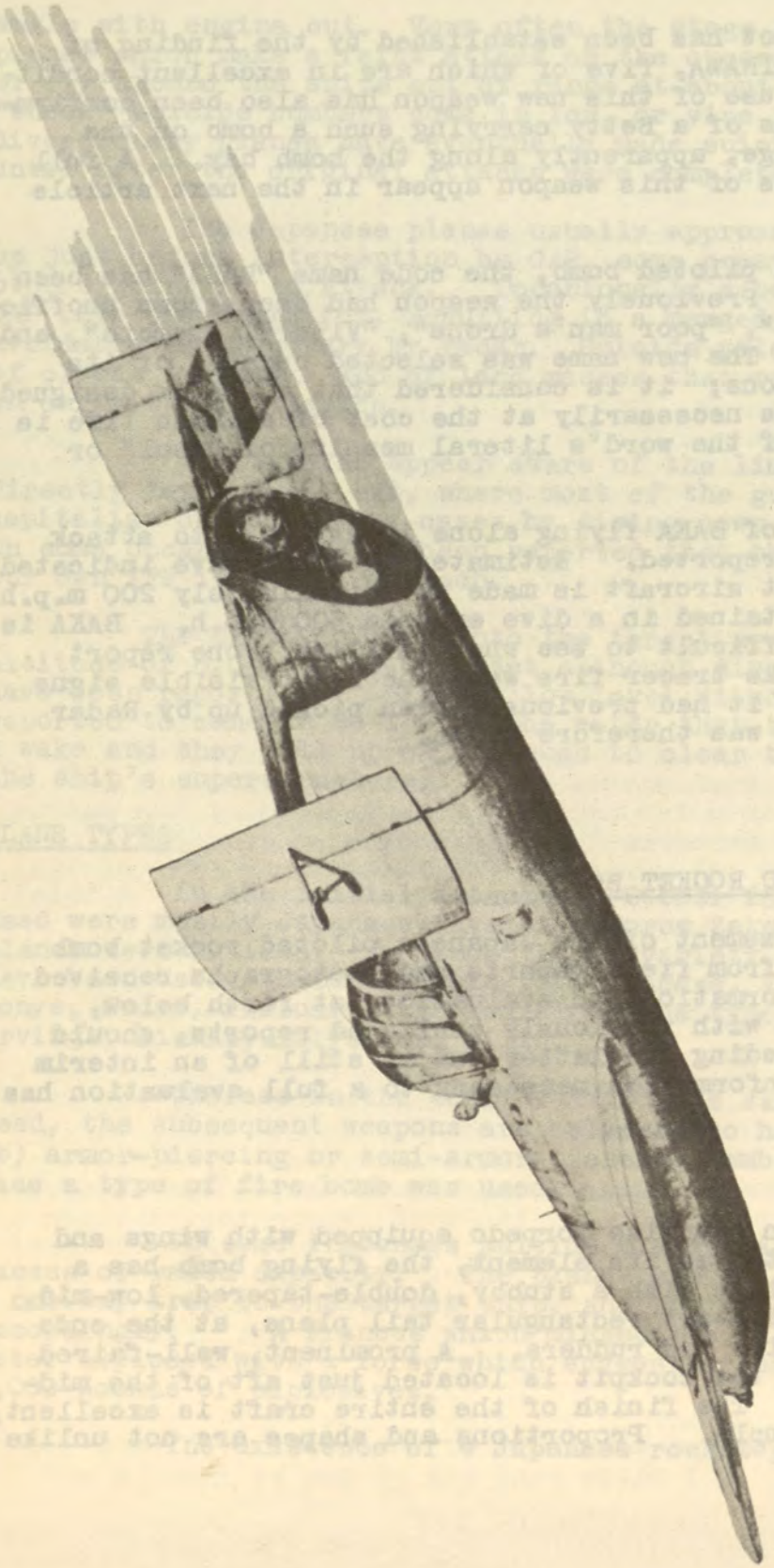
A few sightings of BAKA flying alone in attempts to attack Allied ships have been reported. Estimates of speed have indicated that release from parent aircraft is made at approximately 200 m.p.h. and that the maximum attained in a dive exceeds 500 m.p.h. BAKA is said to be extremely difficult to see when in flight, one report stating that streaks like tracer fire were the first visible signs of its approach, though it had previously been picked up by Radar and its approach course was therefore known.

2. THE JAPANESE PILOTED ROCKET BOMB

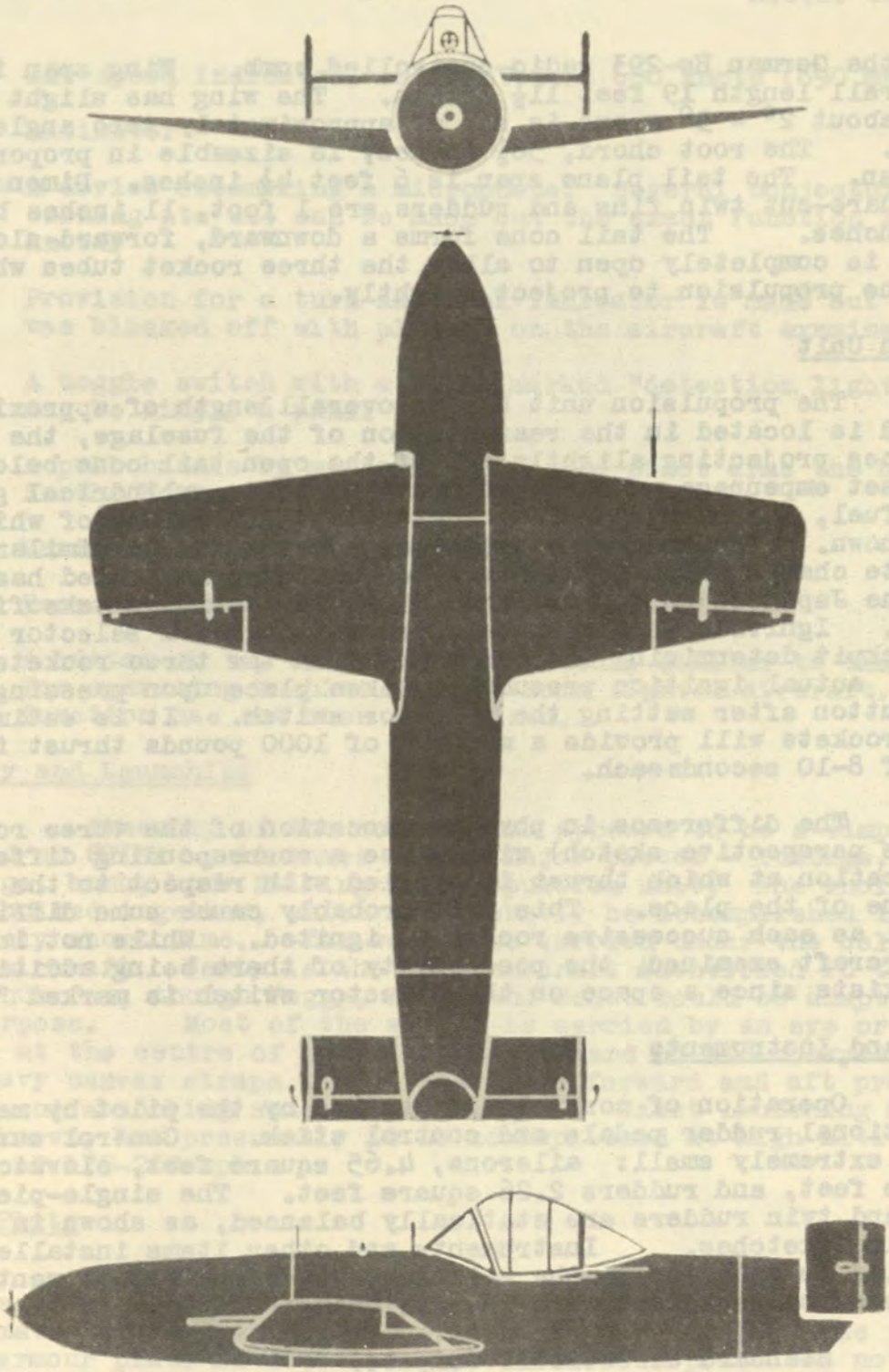
Further assessment of the Japanese piloted rocket bomb has been made possible from field reports and photographs received from OKINAWA. The information and evaluation set forth below, some of which conflicts with previously published reports, should be considered as superseding the latter but as still of an interim nature since complete information necessary to a full evaluation has not been received.

General Appearance

Not unlike an oversize torpedo equipped with wings and with air rather than water as its element, the flying bomb has a simple cylindrical fuselage with a stubby, double-tapered, low-mid, cantilever wing and a high-set rectangular tail plane, at the ends of which are squarish fins and rudders. A prominent, well-faired bubble type canopy over the cockpit is located just aft of the mid-point of the fuselage. The finish of the entire craft is excellent, clean, and extremely simple. Proportions and shapes are not unlike



Japanese Piloted Rocket Bomb - BAKA



PILOTED ROCKET FLYING BOMB

RESTRICTED INTERIM SILHOUETTE

SPAN 16' 0" LENGTH 19' 11 1/2"

11 APRIL 1945 CINCPAC - CINCPOA

those of the German Hs-293 radio-controlled bomb. Wing span is 16 feet, overall length 19 feet 11½ inches. The wing has slight dihedral - about 2° - 3° - and is set at approximately zero angle of incidence. The root chord, 58½ inches, is sizeable in proportion to its span. The tail plane span is 6 feet 4½ inches. Dimensions of the square-cut twin fins and rudders are 1 foot, 11 inches by 2 feet, 2 inches. The tail cone forms a downward, forward-sloping angle and is completely open to allow the three rocket tubes which provide the propulsion to project slightly.

Propulsion Unit

The propulsion unit has an overall length of approximately 6 feet and is located in the rear section of the fuselage, the three rocket tubes projecting slightly aft of the open tail cone below the high-set empennage. Each tube contains three cylindrical grains of solid fuel, the exact chemical content and dimensions of which are not yet known. The charge is believed, however, to be similar to the cordite charge which documentary sources have indicated has been used by the Japanese in connection with rocket-assisted takeoff experiments. Ignition is electrical, the setting of a selector switch in the cockpit determining the order in which the three rockets function; actual ignition presumably takes place upon pressing a contact button after setting the selector switch. It is estimated that the rockets will provide a maximum of 1000 pounds thrust for periods of 8-10 seconds each.

The difference in physical location of the three rocket tubes (see perspective sketch) will cause a corresponding difference in the location at which thrust is applied with respect to the centre line of the plane. This will probably cause some difficulty in control as each successive rocket is ignited. While not installed on the aircraft examined, the possibility of there being additional rockets exists since a space on the selector switch is marked "wing".

Controls and Instruments

Operation of controls is handled by the pilot by means of conventional rudder pedals and control stick. Control surface areas are extremely small: ailerons, 4.65 square feet, elevator 3.3 square feet, and rudders 2.26 square feet. The single-piece elevator and twin rudders are statically balanced, as shown in the accompanying sketches. Instruments and other items installed in the cockpit, in addition to the selector switch and button mentioned in the preceding paragraph, are the following:-

Standard directional compass.

Inclinometer, calibrated to 5° above and 25° below horizontal.

Air speed indicator, calibrated at 600 knots (690 mph)

Altimeter

A device resembling a microphone. Several conjectures concerning its use can be made but the exact function is not known.

Provision for a turn and bank indicator is made but the space was blocked off with plywood on the aircraft examined.

A toggle switch with a light marked "detection light". This may be simply a panel light.

A pull handle by means of which the pilot arms the base fuzes in the bomb.

Master electrical switch and junction box.

Personnel oxygen gear (not in all aircraft).

A button on top of the control stick, similar to that used for operating machine guns on some fighter aircraft. Its function has not been determined.

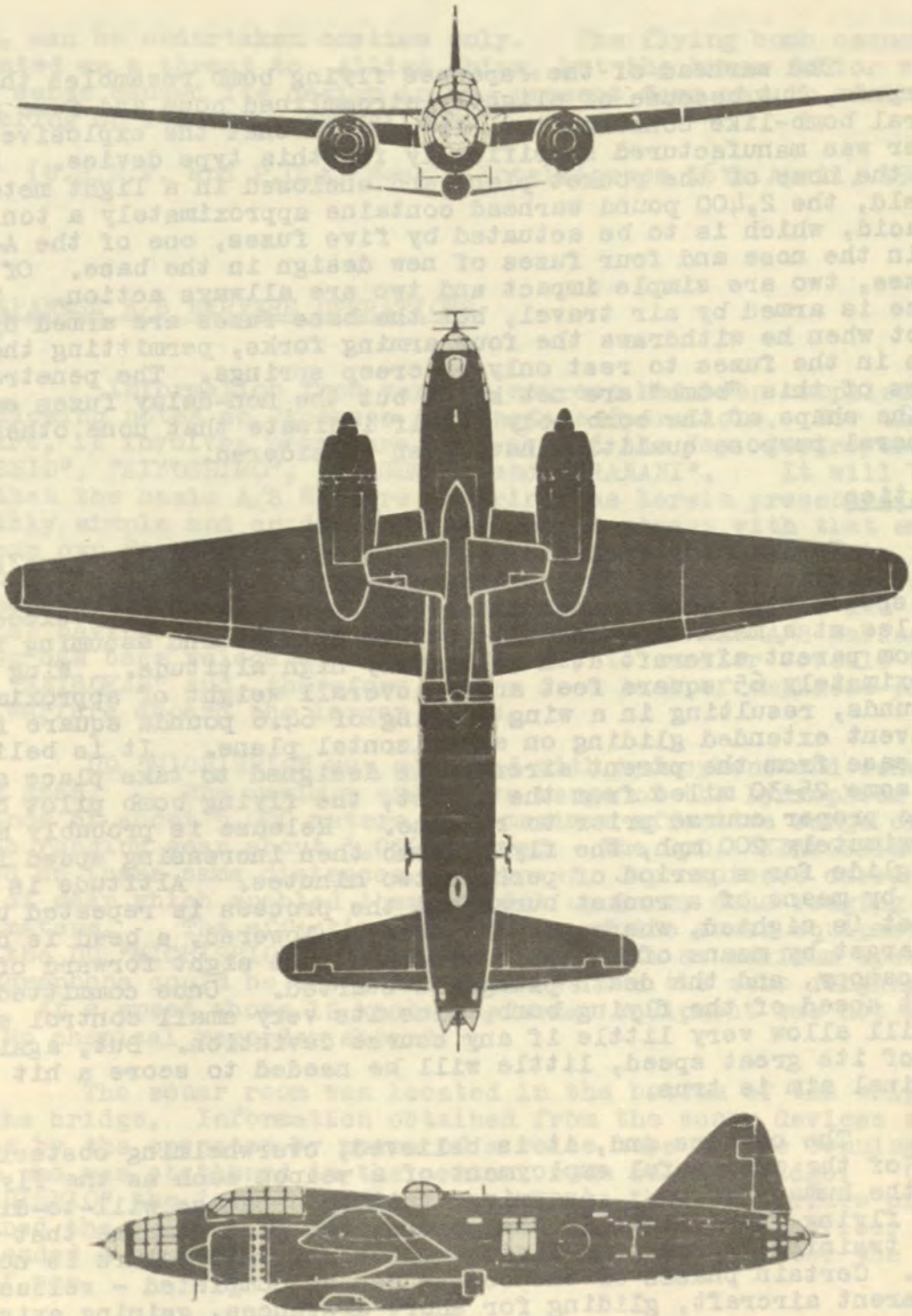
Assembly and Launching

Assembly of the rocket bomb appears to be a simple process. As found on OKINAWA, it comes in six major pieces - fuelage, wings, empennage, bomb, bomb fairing and propulsion unit. The whole is simply bolted together, which can probably be accomplished in a relatively short time. The weapon is carried under the belly of a parent aircraft. Betty is the only aircraft identified in this capacity thus far, though Peggy, Sally and Helen could be adapted for this purpose. Most of the weight is carried by an eye or shackle located at the centre of gravity just forward of the cockpit canopy, with heavy canvas straps in two positions forward and aft providing balance and absorbing some of the weight. Exact launching method is not known, but presumably it is accomplished at high altitude at a speed of 175-200 mph.

Armour Plate

A small piece of 5/16 inch armour plate is installed behind the pilot's head, held in place by two brackets of such light weight material that they can easily be bent by hand. The purpose of the armour plate is doubtless intended to be practical not psychological, and to insure that the pilot will be able to complete his mission. Actually, its effectiveness against even the lightest calibre machine guns would be relatively small since it would either be shattered or torn off its brackets when hit.

BETTY 22 - Carrying BAKA



BETTY 22

PILOTED ROCKET BOMB IN PLACE

SPAN 82' 0" LENGTH 64' 6"

RESTRICTED

8 APRIL 1945

INTERIM SILHOUETTE

CINCPAC - CINCPOA

The warhead of the Japanese flying bomb resembles that of a torpedo, but because of slightly streamlined nose and fuze pocket andgeneral bomb-like construction, it appears that the explosive container was manufactured specifically for this type device. Fitted into the nose of the rocket plane and enclosed in a light metal windshield, the 2,400 pound warhead contains approximately a ton of picric acid, which is to be actuated by five fuzes, one of the A-3(a) series in the nose and four fuzes of new design in the base. Of the base fuzes, two are simple impact and two are allways action. The nose fuze is armed by air travel, but the base fuzes are armed by the pilot when he withdraws the four arming forks, permitting the strikers in the fuzes to rest only on creep springs. The penetrating qualities of this "bomb" are not known but the non-delay fuzes employed and the shape of the bomb body itself indicate that none other than general purpose qualities have been considered.

Capabilities

Preliminary estimates indicate that the flying bomb's maximum speed in level flight will be approximately 400-425 mph. Greater speeds will be attained in dives. Range should not exceed 30-35 miles at a maximum under the best conditions and assuming release from parent aircraft at a relatively high altitude. Wing area of approximately 65 square feet and an overall weight of approximately 4,200 pounds, resulting in a wing loading of 64.6 pounds square foot, will prevent extended gliding on a horizontal plane. It is believed that release from the parent aircraft is designed to take place at a point some 25-30 miles from the target, the flying bomb pilot being given the proper course prior to release. Release is probably made at approximately 200 mph, the flying bomb then increasing speed in a shallow glide for a period of perhaps two minutes. Altitude is then regained by means of a rocket burst and the process is repeated until the target is sighted, whereupon the nose is lowered, a bead is drawn on the target by means of a simple ring and post sight forward of the cockpit canopy, and the death plunge is started. Once committed, the great speed of the flying bomb, plus its very small control surfaces, will allow very little if any course deviation. But, again because of its great speed, little will be needed to score a hit if the original aim is true.

The obvious and, it is believed, overwhelming obstacle in the path of the successful employment of a weapon such as the flying bomb is the human factor. Assuming that the Japanese will-to-die attracts flying bomb pilots to the colors, the fact remains that a complete training course in a flying machine of this nature is not possible. Certain phases of the course can be completed - release from a parent aircraft, gliding for short distances, gaining extra speed by means of rocket bursts - but the final phase, the dive onto a pin pointed target, which is the key to success or failure of the

weapon, can be undertaken onetime only. The flying bomb cannot be discounted as a threat to Allied ships, but the human factor which in one sense caused its design in its present form may, in another sense, bring on its ultimate failure.

(U.S.P.F. and P.O.A. Weekly Intelligence 16th April, 1945)

3. JAPANESE A/S WARFARE OPERATIONS

Information from various sources has been compiled in the following notes on Japanese A/S Warfare Operations. For the most part, it involves procedure used aboard the Jap. destroyers "MICHISHIO", "KIYOSHIMO", "ASAGUMO", and "URANANI". It will be noted that the basic A/S Warfare doctrine, as herein presented, is remarkably simple and crude and makes poor contrast with that employed by our own forces in sub attacks. However, in many points it has been confirmed that such Jap A/S warfare doctrine is the rule rather than the exception, at least on destroyers. This may be due to the fact that having suffered severe destroyer losses the A/S Warfare function has been relegated almost entirely to smaller vessels such as the "KAIBOKAN" and, therefore, there is a lack of emphasis placed on A/S Warfare aboard the larger ships.

DD "MICHISHIO" was equipped with hydrophone and echo ranging gear. The maximum effective range of the hydrophone was a distance of about 5,000 meters, the maximum effective range of the echo ranging gear about 3,000 meters. The D.D. "KIKYOSHIMO" operated on these same distances. However, Jap cruisers carried a type of gear which enabled them to pick up enemy echo ranging at 10,000 meters. The effective capability of the sonar equipment aboard the DD "MICHISHIO" was limited to 8 knots as maximum speed when hydrophone could be used, and 12 knots for the echo ranging gear. At a speed above 12 knots the sonar equipment was not effective. No chemical recorder aboard.

The sonar room was located in the bottom of the ship below the bridge. Information obtained from the sonar devices was conveyed by the operator by means of a voice tube to the Conning Officer who was stationed in the control room on the bridge. On the DD "MICHISHIO" the torpedo officer was always the A/S Warfare officer and conned the ship. He was a young and inexperienced officer who had attended a course in A/S Warfare in JAPAN shortly after the outbreak of war.

On the DD "ASAGUMO" this was also the case. The Torpedo Officer was in the habit of claiming a kill every time an attack was

made against a submarine contact. His claims were laughed at by his fellow officers.

The Captain of the "MICHISHIO" had had no other training in A/S Warfare than that which he had received several years prior to the war, at YOKOSUKA. The captain did not interfere with either approach or attack unless he supposed the orders given by the Torpedo Officer to be faulty.

Range and bearing were given by the operator, who also indicat-ed whether he thought the speed of the SS to be slow or fast, and whether the SS was bearing right, left or remaining constant. The Conning Officer had at his disposal tables which gave him the lead angle and the time allowed to elapse before the dropping of the depth charges, for distances ranging from 3,000 to 1,000 meters and for relative bearings from 1° to 60°. The table also allowed for the change of speed from approach to full attack speed. The DD standard approach speed was calculated to be 12 knots and the SS speed was assumed to be 4 knots if the SS was estimated to be travelling at slow speed or 6 knots if the SS was estimated to be travelling fast. The standard tables varied according to the SS speed but never for the DD speed as it was the practice aboard the DD "MICHISHIO" to keep an approach speed of 12 knots.

The Conning Officer made up his own tables according to what he learned in A/S Warfare school and according to what he judged to be the best method of attack. There were no standardized tables, and the Conning Officer did not use a plotting board during the attack.

When the DD "MICHISHIO" travelled in waters where the presence of enemy SS was suspected the hydrophone was used constantly. In case of a contact by hydrophone, the DD would run down that contact to a distance of about 3,000 meters, whereupon she would switch over to the echo ranging gear. From 3,000 meters on to the point where the contact was considered positive and the attack run began, the echo ranging gear would be constantly used. The DD would maintain a constant speed of 12 knots while using sonar equipment until she reach-ed the point where the final attack began. In developing a contact, the DD might hold to the original course or would slowly turn toward the contact.

If the contact was probable, the attack run would then begin immediately regardless of the distance. At the point where the attack run would begin the DD would increase her speed to full attack speed which usually, in the case of the DD "MICHISHIO", was 18 knots, but which varied in individual ships between 16-22 knots. Upon commencing attack run, the use of echo ranging gear would be abandoned and the Conning Officer would take from the table the lead angle and time allowed before dropping the depth charges. The lead

angle rarely exceeded 1-2° either way and no allowances were made for sinking time of depth charges nor for the movement of the SS after the last contact. Using time according to the table, a stop watch was used to determine the moment for dropping depth charges.

Information on the DD "KIYOSHIMO" confirms the fact of the echo ranging gear being abandoned at the time of attack and that the dome was retracted and hydrophones were shut off to prevent injury to the equipment from the explosion of depth charges.

Aboard DD "MICHISHIO" 30 Type 95 depth charges were carried. 12 depth charges, six on each side of the ship, were carried as ready ammunition in stern dropping racks. The remainder were stowed below deck and brought topside by means of a hoist. Aboard DD "MICHISHIO" all attacks were made by dropping the depth charges off the stern and P.O.W. stated definitely that no depth charge thrower was used aboard his ship.

There was no given interval between the dropping of each individual depth charge. They were dropped singly one after the other as fast as possible. At every attack, six depth charges with the same setting were dropped. At the next attack again six depth charges were dropped, and so on; that being the standard pattern.

Aboard DD "URANAMI" several instances of premature explosions had taken place, the use of the "Y" gun was considered very dangerous. The attack was based really on a principle of "probability". Once the area of the SS was reached, the depth charges were dropped indiscriminately, no standard pattern being followed. In shallow waters, depth charges were set at 150 meters. This "hit and miss" procedure of dropping depth charges was also confirmed by evidence from the "KIYOSHIMO".

At the present time the Japanese seem to rely for their A/S Warfare on the following vessels listed below in the order of their importance:-

Jap Sea Defence Vessels (presently to be renamed Anti-Sub Vessels ("TAISENKAN") were now considered an effective anti-sub weapon (Characteristics of these vessels are given in table on page 41 of this Review) They were equipped with new depth charge guns, having six on each side aft (See A.C.B. 0254/45 (2) Page 37 and (3) Page 40)), as well as racks for dropping Depth Charges. New guns were merely former "Y" guns modified to shoot only one charge each. This method for rapid firing of Depth Charges had been first used in April, 1944. Sea Defence Vessels carried 300 x 415 lb. Depth Charges. They could make 24 knots.

Second most effective Anti-Sub Vessel was the Jap. Sub. Chaser. These could make 22 knots and carried 120 Depth Charges.

They did not have "Y" guns mentioned in paragraph above.

New "MATSU" Class DD's were considered third most effective anti-sub ship. These usually carried 80 Depth Charges but could carry 120. They could make 27/28 knots.

Depth Charges

Japs had an improved type depth charge in use now. It would not explode when hit by Machine gun fire. Formerly Depth Charges contained Type 88 Explosive Mixture. The new Depth Charges also contained SHIMOSE powder (usual explosive used in torpedoes) in outer section of Depth Charge. An inner section contained the Type 88 Explosive Mixture, which produced the shock necessary for under water explosions. Fuzes were still the same, being set for depths of 30, 60, 90, 120, and 150 meters. Jap Depth Charges did not have any type of contact fuze.

Jap surface craft from DD's up now used anti-submarine shell in their main guns. This shell had an ordinary time fuze and contained both SHIMOSE and Type 88 Explosive Mixture as in new Depth Charge above. The shape of the shell was distinctive.

(Sefic Intelligence Bulletin No. 10)

4. CHARACTERISTICS OF JAPANESE PATROL FRIGATES (PF's)

Below is the first compilation ever presented in which the names of Japanese patrol frigates (PF's) are shown in conjunction with characteristics derived from photo identification.

The patrol frigate is considered the most important Japanese escort craft. More than 100 are afloat and new ones are being completed at the rate of approximately five every month.

Class	Ships Afloat and Complement	Tonnage, Dimensions, Speed.	Armament	Engines and Steering	Radar and Sound
SHIMUSHU	SHIMUSHU, KUNAJIRI, HACHIJO, ETOROFU, OKI, TSUSHIMA, FUKUE, AMAKUSA, MANJU, KANJU, KASADO, UKURU, OKINAWA, AMAMI, AGUNI, IOSHIMA* Built 1940-1944. Complement 150 * Name not definitely known.	860 tons 245' length 30' beam 9' draft 19.7 knots	Three single 4.7"/50 calibre DP in shield mounts. Four 25 mm. guns. Ten K-guns One Y-gun. Four paravanes. Minetracks	Two diesels. Two Kampon boilers. Two screws 4,500 H.P.	Radar RDF Sonar
MIKURA	MIKURA, MIYAKE, KURABASHI, NOMI, CHIBURI, YASHIRO, SHONAN, and others. Built 1943-1944. Complement 149	1,200 tons 275' length 35' beam 11' draft 16 knots	Two twin 4.7" DP in shield mounts. Number of 25 mm. guns and Y-guns not known		Radar Radar Search receiver Sonar

KAIBOKAN No. 1	Nos. 1, 3, 9, 13, 17, 19, 23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, and others. Built 1944. Complement 131	800-900 tons 220' length 27' beam 11' draft 14 knots (estimated)	Two 4.7"/45 calibre DP in shield mounts. Five 25 mm. guns. Two 13 mm. guns. 12 K-guns. One Y-gun.	Two 8 cyl. direct-drive diesels. Two 4-foot high-pitched screws Hydraulic steering with single balanced rudder	Radar Radar Search receiver Sonar
KAIBOKAN No. 2	Nos. 2, 4, 6, 8, 12, 14, 16, 18, 22, 26, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 112, 130, and others Built 1944. Complement 141	900-1,000 tons 260' length 31' beam 14 knots (estimated)	Two 4.7" DP guns. Six 25 mm. guns (triples) Five 13 mm. guns. 12 K-guns	Steam turbine drive	Radar Radar search receiver Sonar

(U.S.F. A/S Bulletin, April, 1945.)

5. JAPANESE PILOTED TORPEDO

A piloted torpedo, designed for release from submarines and probably from other craft, is the latest Japanese suicide weapon on which detailed characteristics are available. The examination of an incomplete specimen recovered from a ULITHI reef has yielded valuable information on the construction and operation of these torpedoes, some of which are believed to have been mistaken for midget submarines.

The partial torpedo was found near the point of an explosion heard on 20th November, 1944. The same day a Fleet tanker was torpedoed in the atoll and midget subs were reported then in the area. A metal fragment thrown onto the deck on an AE which was attacked at ULITHI on 12th January, 1945 now is identified as part of the conning tower of a piloted torpedo identical to the one examined.

The recovered torpedo's warhead and most of its control compartment had been destroyed, but its air flask, after body and tail have undergone preliminary examination by MEIU No. 4. This examination indicates that a 24-inch torpedo (presumably an 8th year type) was separated at the joint of the warhead and air flask for purposes of this new suicide weapon. Built in at the point of separation is a compartment large enough to accommodate one man, the pilot. The usual tail section is replaced by a section of special construction, with larger fins and rudders and oversize dual propellers. Overall length of the piloted torpedo is estimated as between 30 and 40 feet. The section of the one examined measured approximately 23 feet.

At the forward end of the incomplete specimen recovered is the pilot's compartment, access to which is gained by a circular hatch directly above. Just forward of the hatch is what appears to be part of its periscope. From the compartment, copper tubes lead to the standard torpedo control mechanism. There are connections at the bottom of the compartment through which the pilot probably receives air from the parent sub. before launching.

The section covering the pilot's compartment has a diameter of 40 inches. This outside case extends aft of the compartment 6 feet 3 inches, covering the forward part of the air flask. The total length of the flask is 15 feet, 9 inches. At its after end the fins extend 8 inches outward from the body of the weapon, so the outside fin measurements are the same as the compartment's body.

There is evidence that a streamlined fairing extended from the larger section to the tail. Such a fairing would make the torpedo appear similar to midget submarine. No covering was found with the specimen examined, however. A streamlined conning tower, was spot welded over the weapon's hatch and periscope.

Exact appearance of the complete piloted torpedo still is a matter for conjecture, but it is reasonable to assume that a torpedo warhead would be incorporated forward and streamlined somewhat like the after end. This would give a symmetrical weapon between 30 and 40 feet long, 40 inches wide at the centre section and tapering at both ends.

It is thought that the suicide piloted torpedo usually is carried on the deck of a submarine. Thus, before entering combat waters the operator is placed in the torpedo. He is supplied air by the parent sub as the submerged approach on the target is made. When the target is sighted and within range, the human torpedo is detached from its parent craft and the operator drives directly to the target with a high degree of accuracy.

The calculated range for the 8th year type torpedo is approx-imately 21,000 yards at 26 knots. At the same speed, the increased weight and size probably would reduce this range. However, at a much slower speed, it should be possible for that parent sub to launch its "human torpedo" at distances up to 15 miles from the target. Unlike the Italian human torpedo the Japanese version of this weapon of des-peration has no provision for the escape of its pilot immediately prior to impact.

(U.S.P.F.and P.O.A. Weekly Intelligence
23rd April, 1945.)

HARA-KIRI WITH RATIONS AND QUARTERS

- Captured Japanese Field Order (ATIS):-

"Those in each unit who are wounded and sick and are unable to engage in combat will carry two days rations to the corner of the fortress on or about the 21st and will commit mass suicide.

"Each unit C.O. will put a responsible man in charge to witness their deaths.

"Freedom of meditation for a day and a night will be granted prior to suicide so that each man may attain for himself the determination of gladly sacrificing himself for the country."

SECTION V.

MISCELLANEOUS

1. JAPANESE CONCERN OVER PROPAGANDA

Some estimation of the effects of Allied propaganda warfare on Japan's homeland is contained in a recent domestic radio broadcast by the chief managing editor of the TOKYO newspaper, Mainishi. "The Nefarious Schemes of the Enemy" was the title of the address.

The speaker postulates that the outstanding aim of 'the enemy's' indiscriminate bombing attacks is to demoralize the people, along with the destruction of our fight power." Against a war-weary Japan, he foresees a general propaganda offensive in order to create a desire for peace among the people. The speaker continues, in part:

"The enemy has used every possible trick against our people. It is only natural that the enemy's efforts in spreading propaganda will be increased as the bombing attacks are increased. In carrying out his machinations and propaganda the most important means used by the enemy are radio, newspapers, magazines and handbills, dropped from the air.

"As for radio, due to skilful interference by our radio stations, the enemy's broadcasts have been completely sealed from the ears of our people. As the fighting is brought closer to our homeland, there is no doubt that the enemy will resort to every possible method, such as changing frequencies, in order to bring his propaganda to our ears. If you happen to be listening to a broadcast which is hard to understand, or which appears to be queer, that is an enemy propaganda broadcast and you must turn the switch and pay no attention to it all.

"Printed papers, such as newspapers, magazines and handbills scattered from the air, were distributed all over the place during the carrier plane attacks in February. Propaganda handbills, taking the form of newspapers and magazines, must have been printed in HONOLULU for they are beautiful Japanese language prints which look as if they were printed in JAPAN. We must be vigilant because the enemy gradually may take up more skilful methods.

"To listen to or read enemy propaganda once or twice would not amount to anything, but if this is repeated a great number of times,

people may become interested. To take an interest in enemy propaganda material is equivalent to the first stage of being taken in by enemy propaganda.

"Recently we have been hearing frequent talks on just what part of our country is likely to be dangerous (in the event of an invasion) and whether we should evacuate (those areas) and seek refuge elsewhere. To spread such false rumors or to believe them means that you already have taken the first step in falling in line with the enemy's machinations and propaganda."

(U.S.P.F. and P.O.A. Weekly Intelligence 9th April, 1945)

2. OPINION OF A JAP DIPLOMAT

Hideo Okano, a highly educated civilian, for many years engaged in the Japanese diplomatic service, was one of the civilian prisoners captured on LUZON. A graduate of TOKYO Imperial University in 1931, he had had a long career in the diplomatic service including time spent in the Japanese Embassy in Paris, at the Consulates in SHANGHAI, PEKING, MUKDEN and HARBIN, and even 8 months in the Japanese Consulate in NEW YORK City. His last assignment, which had been with the Japanese Legation at SANTIAGO, CHILE, terminated at the outbreak of the war when, endeavouring to return home, he was interned at PANAMA and later sent to NEW YORK.

In 1942 he returned to JAPAN on the exchange ship "GRIPSHOLM" and was almost immediately assigned to the Japanese Embassy in MANILA where he began his duties in October, 1942. Here his duties consisted in the settlement of claims against the Japanese Government or armed forces registered by neutral aliens. He also was assigned by the Government to act as an intermediary with the military forces governing the internment centre at SANTO TOMAS University. He made trips to the BICOL and to the VISAYAS to arrange for compensation for civilian property which had been confiscated by the armed forces and even acted as an emissary of wealthy neutrals who wished to have food brought to their houses in MANILA from their country estates. At MANILA the Embassy was under the control of the Japanese military authorities and possessed very little power of its own. Its efforts to settle claims for neutrals or to improve conditions at SANTO TOMAS carried little weight and the Embassy was powerless to do anything.

With the movement of the government to BAGUIO at the time of the American invasion of LUZON, Okano went there with the Embassy. Food

was very scarce and with other Embassy members he endeavoured to proceed on foot to BAYOMBONG. His strength exhausted, he fell behind by the road side and was captured by guerrillas.

Although Okano's knowledge of military tactics and plans was limited, his past experience as a member of the Japanese diplomatic corps provided an excellent back-ground for his opinions on Japanese psychology and various other internal matters. It should be borne in mind that the following opinions expressed by Okano are his own personal estimates and do not necessarily represent a complete picture. They are, however, interesting in their relation to the immediate future course of the war, and with the proper reservations offer a rare opportunity for an insight into the thinking of an educated and thoughtful Japanese.

Army-Navy Relations

Constant disagreements, bickerings and quarrels were going on between Army and Navy officials, even about the most insignificant matters. A supreme example of this lack of co-operation between the two branches was the bitter quarrel which arose concerning the strategy to be employed after the Japanese conquest of the PHILIPPINES in 1942. At that time, the Navy wished to push on to the occupation of AUSTRALIA but the Army was equally insistent that all efforts be concentrated on the "liberation" of INDIA.

Besides such obvious instances of disagreement, the Army and Navy were at odds much of the time over small things. In MANILA, for example, there were repeated instances of quarrels over housing facilities. The Army would move without permission into a block of buildings reserved by the Navy, or vice versa. Marshal Terauchi and Admiral Toyoda were very cool towards each other and did not maintain close liaison, since the former was always in SAIGON, FRENCH INDO CHINA, and the latter always with the fleet, somewhere at sea.

The recent severe reverses suffered by both Army and Navy and the resultant threat to the Japanese homeland, might have improved relat-ions between Army and Navy, at least superficially, and the two branches might be forced to co-operate in a common effort to defend JAPAN itself.

Attitude Towards Prominent Japanese Leaders

Up until the fall of SAIPAN, former Premier TOJO had the full confidence and support of the Japanese people. He was considered in diplomatic circles however to be more of a propagandist and politician than a military leader. Premier Koiso, on the other hand, was believed to be a very ardent militarist and member of the "old school" and was thought to have the trust and support of the people even more than Tojo.

Marshal Terauchi was a trusted and respected military leader and was very popular with the Japanese people. In spite of the holocaust on LEYTE and the tremendous losses suffered by the Japanese there, General Yamashita was as popular as ever and still had the confidence of the people. When the loss of LUZON was announced, however, a very different attitude would arise, and this news might have a very demoralizing effect on the civilian population and might change their opinion of General Yamashita greatly. As for the general himself, he would probably either return humiliated to JAPAN or, more likely, commit suicide since he would be held directly responsible for the military defeat because of his tactical decisions.

Troop Morale and Propaganda Possibilities

The main reason the Japanese soldiers continue to fight when their cause is obviously lost is not so much that they are eager to die for the Emperor but that they are ordered to fight to the last man by their officers and would be shot if they did attempt to desert or surrender. For example, the troops mobilized for the defence of BAGUIO had no delusions that they would be successful, and actually did not want to fight but were ordered or otherwise forced to do so. Consequently, it was not at all probable that soldiers could be induced to give up en masse since their officers would never permit it, but an appeal to the individual soldier through propaganda leaflets might induce many men to surrender one by one if they could slip away from their units unobserved.

Japan's recent losses, particularly the successful liberation of LUZON and the conquest of IWO by U.S. forces might be expected to have an immediate and far-reaching demoralizing effect on the Japanese civilian population. The responsibility for the loss of IWO would devolve on the Highest Commander for the defence of TOKYO (TEITO BOEI SHIREIKAN). Besides the loss of these islands, which, however, were not considered a part of the Japanese homeland, the bombing of JAPAN itself would tend to discourage and dishearten the people much more than anything else. As might be expected, from this point on, the emphasis in Japanese domestic propaganda, would shift from the "all-out defence of the PHILIPPINES" to the "defence of the homeland to the death". This type of propaganda might have a certain effect, but it would not stand up long in the event of an invasion of JAPAN.

To the Japanese a destructive war carried out on their own sacred homeland would be quite a different thing in the minds of the people from a war carried out on foreign soil. The wanton destruction of MANILA, which had no historic or traditional associations for the Japanese and no shrines or public buildings sacred to the Japanese through the centuries of time, caused no compunction whatever. With the cities of JAPAN itself the reverse was true, and because nearly every inch of Japanese soil had its own history and was rich in the traditions of an antique civilization dear to the hearts of all Japanese, before allowing their homeland to be wrecked in the same manner as MANILA, some compromise might be made.

Okano made the statement that "the military are crazy" and as long as the government remains in the hands of war leaders no peace terms would be offered or received until all the fighting weapons of JAPAN had been destroyed. Before that could occur, however, it was possible that a change in the government might take place and that more conservative men would endeavour to reach a compromise with the Allies. If such a change were instituted with the "approval" of the Emperor, it would receive the unanimous support of the people. In such a case it was considered as most unlikely that the Army remaining in CHINA and in other places outside the homeland would continue to fight until the end of their resources. Such a thing was inconceivable once the Emperor had officially decreed that hostilities should end. This rule also applied to guerrilla warfare.

In contrast to the popular belief among occidentals, the Japanese might accept defeat philosophically provided they were told by the Emperor to do so. The prevailing viewpoint among some of the highly educated Japanese was that defeat would be welcome, because it would put an end to the fanatical barbarism of which the intelligensia were ashamed and would also destroy completely the paranoic dreams of an empire which they had been against from the first.

(Sefic Intelligence Bulletin, April 27th)

3. MULES IN COMBINED OPERATIONS

Extracts from a recent Monthly Bulletin of the Directorate of Combined Operations (India):

Launching Mules from ramp into Deep Water

Every effort should be made to keep ship or craft at right angles to the bank during disembarkation, because, if this is not done the animal has a tendency to go over the side of the ramp from which it can see the land. Such attempts to go over the side will inevitably cause casualties through legs becoming entangled with the ramp lifting wires. If the craft is pointing direct towards the land the mule has an opportunity of fixing its objective before taking off, and launching will be quicker and easier than it would be if the mule had only a side view of the land.

If it is impossible to maintain the craft at right angles to the land, as it may be in a strong tidal stream, it is essential that the craft is held stern to current with engines going slow astern during the time that the animals are being launched. If this is not done,

the animal will be overrun by the ramp before it has an opportunity to collect itself after taking to the water.

The position of the ramp should be such that its leading edge is at water level.

The recommended drill for launching the mules into a water-gap is as under:-

(a) A team of six men is required.

(b) Only launching personnel should be on the ramp and they should wear Mae Wests.

(c) All saddlery should be removed with the exception of the head-collar, which should be strong, well adjusted, and without an eye-fringe. The animal's field of vision is very limited while swimming, and a wet eye-fringe would make it even more limited.

(d) The task must be carried out energetically; hesitation leads to trouble and will result in the mule taking to the water in an uncollected manner.

(e) Launching party of six men detailed and a Mae West fitted under the jowl of each mule.

(f) Forward lateral bar of the first stall removed.

(g) Nos. 1 and 2 lead the first mule to the edge of the ramp, firmly holding the head collar. Nos. 3 and 4 link hands around the quarters of the mule and launch it at right angles to the forward edge of the ramp.

(h) Nos. 3 and 4 remain on the ramp edge as launching numbers throughout. Nos. 1 and 2 return for the third mule.

(i) Nos. 5 and 6 will lead the second animal to the edge of the ramp, where the procedure at para. (g) will be repeated. The second animal will not be launched until the first is an animal's length clear of the ramp.

(j) When disembarking mules from LST, the launching team should be increased in order to ensure a continuouse flow of animals to the ramp.

(k) A party of men should be detailed to meet the mules as they reach the shore. This party can be sent to the beach in a minor landing craft.

If the water gap is a long one or there is a slight swell, or it is considered advisable for the mules to swim ashore saddled, Mae Wests should be used to give the animals greater flotation.

During trials, unsaddled mules, each with one Mae West fitted under the jowl, swam 800 yards, and on landing, showed no outward signs of exhaustion. Saddled mules, each fitted with three Mae Wests swam 400 yards and then rested on the surface of the water. The Mae West provided adequate buoyancy and the mules could have remained afloat as long as the Mae Wests remained efficient. With the saddled mules, the three Mae Wests were fitted one under the jowl, and one to each side of the saddle.

The methods recommended for securing the Mae Wests are as under:-

To the Jowl

(i) The neck brace of the Mae West is placed over the animal's head and tightened until the clearance between the Mae West and the jowl is about 2 inches.

(ii) The Mae West tapes are secured on top of the animal's neck.

(iii) The throat lash is passed through the loop of the Mae West to prevent it from moving.

(iv) The bit is removed from the animal's mouth and the reins are doubled and placed over the neck of the animal.

(v) The Mae West is inflated.

To the Saddle

(i) Before Mae Wests are fitted to the saddle, the breast collar and breaching are folded back on to the arch of the saddle. This is necessary in order to allow the animal free movement while swimming. The crupper remains in position throughout.

(ii) The neck brace of the Mae West is tightened until it fits firmly over the load hooks of the saddle, and the tapes are then secured to the load hooks on the opposite side.

(iii) The long numnar strap (or panel strap) is passed through the loops of the Mae West and this holds it closely to the panel.

The importance of ensuring that the Mae Wests, used to assist a mule are in good condition is stressed. A punctured or faulty Mae West would seriously upset the balance of themule.

These trials were carried out under open bay conditions with a 1'6" to 2' swell.

4. GERMAN AND JAPANESE SUBMARINE OPERATIONS

Losses of merchant ships during April are estimated at 18 ships of 97,000 tons - of these, 13 ships, totalling 73,000 tons, were sunk by U-boat. Against these losses, U-boat casualties are thought to have been satisfactorily high, 23 being claimed sunk or probably sunk, including 3 in PACIFIC Ocean and one in INDIAN Ocean areas.

Final figures for February show that 16 U-boats were sunk or probably sunk - 8 in the Atlantic area, one in the BARENTS Sea near KOLA INLET, one in the MEDITERRANEAN and 6 in the PACIFIC. Merchant ship losses for February are now known to have been 15 by U-boat, 8 by other enemy action and 7 by marine casualty, a total of 109,000 tons.

U-boat losses during March are confirmed at 13 - 11 in the ATLANTIC and two in PACIFIC Ocean areas - whilst merchant ships lost are now shown as 31 ships of 103,000 tons - 13 by U-boat, 14 by other enemy action and 4 by other causes.

For the quarter ended 31st March, therefore, merchant ships lost, world-wide, from all causes total 94 of 326,000 tons. Comparative figures for the last quarter of 1944 are 60 ships, totalling 187,000 tons, and for the corresponding quarter last year 149 ships of 535,000 tons.

SECTION VI.

CONTRIBUTORS' SECTION

1. KAI LUNG UNROLLS HIS MAT

A Trip in H.M.S. "X"

The following account was written by a Chinese who was rescued by the British submarine which sank the Japanese-controlled junk in which he was making a passage in N.E.I. waters. For his protection, anything by which he might be identified has been cut out, but otherwise the account is exactly as he wrote it.

My Experiences in a British Submarine

My job on the junk was to take care of certain goods so they would reach their destination intact. Although it wasn't a rather safe one, I took it because the salary was rather high, and in such a bad time we got to have a lot of money in order not to die of starvation.

That morning we had the north-west wind. It wasn't the ideal wind, but anyhow we could go forward. That day and the second one passed through without any happenings. But the third day became a day full of adventures. There was no wind and the surface of the sea was rather smooth, the ideal day for submarines. One junk couldn't go forward for just an inch and at the far distance we could see an island. The day was hot and silent.

Suddenly one of the crew cried out: "A submarine!" At first I was surprised, but when I saw the boys were turning the gun to our direction I got my presence of mind back and ordered my crew to let go the sails. They rushed to the mid-sail and unfastened the rope, and the big sail started to fall but stopped at midway. There came the first shot from the submarine hitting the water not far from our junk.

The crew of our junk were scared and with their captain they jumped into the sea and as I saw that I myself rushed to the foresail in order to let it down, but on my way there a second shot came and instinctively I let myself fall down into the water and that second shot did hit the foresail and the pole with the sail sprang into pieces. Then I started to swim far away from the junk in order not to be hit by the flying pieces.

After about ten shots the junk started to sink and the submarine went into my direction. One of the submarine-boys waved at me and I swam to his direction. As he stretched out his hand to me I grabbed it and at the same moment I got the feeling that the British although surrounded by the cruelties of the war still remained gentlemen with a smiling face and always standing ready at anything to help people who needed their help.

I go on board

When I were onboard the submarine the captain called the other crew of our junk to come over, but they refused and the submarine submerged again and continued her journey underneath the sea. The captain sent me to the fore-room where I met the other boys. They were very nice to me and offered me something to eat. Oh, mine, they had got there bread, butter, cheese, milk and many other wonderful things which I hadn't seen for many years. It was if I dreamed of a happy landing on a paradise among friends. I enjoyed myself very well.

I had been called by the captain for many times and he had spoken to me like an old friend. He was very young and brave, too. A real British gentleman of war and I respect him very much. When he started shelling our junk the world seemed to me to be performing incredible somersaults and I thought the captain of the submarine must be a rough and cruel man. But in the submarine I came to know that he was a good man who wouldn't even kill a fly when it was not necessary.

Let us now continue the story. Some hour later the submarine started to dive deeper because a Japanese destroyer had seen us and was coming to our direction. He went close by and the submarine rattled heavily by the rolling seawater. I wondered what would happen when the Japs dropped depth charges. I wouldn't be alive now, I thought. Fortunately, the Jap Captain seemed to have forgotten his pair of spectacles and hadn't washed his ears clean enough that day.

Depth Charged

By the time our submarine had dived deeper and then the Japs returned to our place and let go depth charges which exploded within some miles of our submarine, which got several shocks and paint were falling down from the ceiling. The boys remained calm and were looking not scared. To me, it was something different, it was my first experience. Fortunately I had learnt to control my mind on any occasions and that was why I could remain calm without showing any signs of fear, for which the boys, later on praised me.

After dropping the depth charges the Japs remained circling above us trying to locate our position more accurately, but meanwhile

our submarine went slowly and silently away from the destroyer and when darkness came we went to the surface again and continued our journey. The ventilating-system started to work and plenty of fresh air of liberty went through our submarine. We got our swell dinner and smoked fine British cigarettes. Someone turned on the radio and the B.B.C. broadcasting came into the air with real war news - in the place where I came from we could only hear Jap. news which were all fantasy, good for little children - and sweet music.

Without war, the world must be very beautiful and for this we have to fight now and slowly but surely we will win the war and will enjoy the fruits of victory.

To come back to our story. I asked the boys for a nest to sleep on and I did get one, that was to say, between the torpedo-launching tubes and on cases of machine gun bullets. That wasn't a very safe place to sleep on. Suppose all that stuff would exploded by accident during my sleep, what would had happened to my lovely bones? Don't you think that the boys weren't nice enough to offer me such a bed to sleep on? But anyhow I did like those happy brave men and as I had learnt the act of sleeping at any hour, and under any conditions I soon fell asleep dreaming of shining British torpedoes hitting Japanese destroyers.

The next day went through without any happenings, but early on the third day the powerful diesel engines stopped to run and our submarine started to dive to a certain depth. What was going on there, I thought, and before I could get the answer two exploding depth charges told me that the day wouldn't be a very nice one, and it proved to be the worst of all days the boys had had so far.

I left my lovely sleeping-place and joined the boys instinctively. I were feeling to be more saver to be with them. Some moments later a destroyer came to our direction and after having passed above us she dropped another four depth-charges exploding not very far from our submarine.

Then followed the terrible hours of waiting and waiting. The destroyer returned again and dropped other depth charges, without anyone hitting our submarine. Although the Japs, were good imitators, they seemed not to have good instruments enough to hit more accurately. The Japs had still one depth charge left and many minutes later they dropped their last one which made our submarine went up and down and rattled as if she had been hit on her head.

After that the destroyer came back with other destroyers. That didn't promise much good.

Then came the terrible knocking of the destroyer's engine again and more depth charges came down the sea exploding some distance

from our submarine. Those were the most terrible ones, and although we were all calm, some of us were looking pale and bewildered because of the many strainous hours of waiting.

We survive

Big globules of perspiration were beading on our forehead and our body, the air was terrible and we could breath with difficulty. The Japs had tried to undermine our morale by bombing us steadily but he didn't know the character of our captain very well. We were all very tired and none of us dared to make a noise or even to speak to each other. Someone tried to sleep but most of us sat down and waited till the enemy would vanish from sight.

Later that night we came to the surface again, and made for home.

But we will come back again, and shall bring their ships to the bottom of the sea and will give them other things to talk about than to drop those dirty depth charges and I am sure the captain with his kind but brave officers and the boys will show the Japs who they really are when the time for action has come. Surely, they will all come back with victory and peace and will assure the world of Liberty-Equality and Fraternity!

(E.I.I.N. No. 9)

SECTION VII.

MATERIEL

1. C.A.F.O's ON ANTI-SUBMARINE SUBJECTS

C.A.F.O. 1945	Subject	Brief Description
482	Hedgehog	Introduction and Fitting of Automatic Ripple Firing Switch Patt. 17970 - A's and A's.
483	Hedgehog Practice Attacks against submarines	
493	Training Unit Patt. A2117B and Connector H.T. Patt. A.2664	Introduction
544	Asdic Bridge Huts and offices	Improvement of Atmospheric Conditions in Hot Climates.
545	Clock Patt. 724	Introduction for Asdic Control Room
546	Depth Recorders Patt. A2296, A2297, A2296(B) and A2297(B)	Failure to run at Correct Speed when cold.

Attention is also drawn to C.A.F.O's -

509, 528, 547, 548 and 549

SECTION VIII

SHIPPING STATISTICS FOR SOUTH WEST PACIFIC AREA

1. CONVOYS - FEBRUARY-MARCH, 1945

During March 1945, 43 merchant ships of 241,086 tons were sailed in convoy in forward areas of the South West Pacific area; February figures were 52 ships of 243,344 tons. Ships in convoy sustained no damage by enemy action.

2. SINGLE ESCORTED SHIPS - FEBRUARY - MARCH, 1945.

AREA	No. of Ships		Tonnage	
	February	March	February	March
West of Humboldt	1	2	7,176	8,774
East of Humboldt	2	-	7,942	-
Total	3	2	15,118	8,774

3. INDEPENDENT VESSELS - FEBRUARY - MARCH, 1945

AREA	No. of Ships		Tonnage	
	February	March	February	March
Eastern States - Western States	39	35	223,278	191,937
Melbourne - South Australia	86	104	363,507	470,606
Newcastle-Melbourne	175	194	731,710	758,668
Brisbane - Sydney	101	129	493,313	603,553
Barrier Reef - Brisbane	54	54	193,774	197,068
West of Humboldt	67	78	311,871	499,477
East of Humboldt (Including Coral Sea)	336	427	1,922,191	2,513,376
Arafura Sea	18	12	80,539	44,484
Total	876	1,033	4,320,183	5,279,169

4. MONTHLY OUTWARD GROSS TONNAGE - FEBRUARY - MARCH, 1945

PORT	No. of Ships		Tonnage	
	February	March	February	March
Humboldt Bay	421	530	2,133,732	2,353,716
Sydney	285	322	847,476	946,016
Melbourne	135	158	613,779	668,275
Langemak	118	127	567,716	604,284
Newcastle	190	193	435,168	454,615
Biak	69	68	292,648	350,451
Brisbane	62	79	230,500	342,502
Fremantle	55	48	341,293	315,103
Townsville	38	54	98,236	191,858
Adelaide	40	36	169,939	164,153
Milne Bay	47	33	184,372	161,850
Lae	38	33	97,453	119,371
Port Kembla	45	37	146,396	116,069
Cairns	53	48	48,264	107,975
Whyalla	24	24	106,377	106,141
Oro Bay	39	30	99,314	62,837
Port Moresby	12	14	42,946	47,142
Hobart	13	14	45,411	35,673
Darwin	7	7	36,894	34,752
Thursday Island	11	9	25,965	10,323