



REPORT

JAPANESE SUBMARINE 1 124

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RACAL

The Department of Foreign Affairs and Trade

The Department of the Arts, Sport, the Environment, Tourism and Territories
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Report—Department of Maritime Archaeology, Western Australian
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Background to the report

In July 1988, a wreck believed to be the SS *Koombanah*, which disappeared with all hands in waters off Western Australia in 1921, was officially reported to the W. A. Museum and the federal government by Captain David Tomlinson, (Master/owner of the Darwin based Research Vessel *Flamingo Bay*) and Mr Mike Barron, a Tasmanian associate of Tomlinson's, from the Commonwealth Fisheries.

In order to facilitate an inspection of the site, it was decided on analysis of the available options and in the light of the W.A. Museum's policy of involving the finders where possible, to join with Messrs Tomlinson and Barron in an inspection out of Darwin on board the RV *Flamingo Bay*, a very well equipped and most suitable vessel for such a venture.

Due to the depth of the water in which the site lay and the distance offshore, this required not only the charter of *Flamingo Bay* which normally runs at circa \$2000 per day, but also the hire of a sophisticated position fixing system, a Remote Operated Submersible Vehicle with camera (ROV), echo sounder and side scan sonar. Sponsors were clearly required as the venture was outside of the W. A. Museum's Wreck Inspection budget.

In order to attract sponsors and to keep the venture cost effective in all respects, it was decided that, as *Flamingo Bay* was Darwin based and would leave out of that Port for the supposed *Koombanah* site, an approach would be made to the Northern Territory Museum to arrange an inspection of sites in their waters. These inspections were for the purposes of an on-going corrosion study of iron and steel wrecks in Australian waters and were to be the basis of a film proposed as a means of attracting sponsors to the project.¹

These sites included the iron barque *Ann Millicent* which was wrecked at Cartier Island in the Timor Sea around 1890, and the Japanese Submarine I 124² which was sunk off Darwin in water around 25 fathoms deep on 20 January 1942.

In 1977 the submarine was afforded the full protection of the 1976 Commonwealth Historic Shipwreck's Act by the declaration of a Restricted Zone centring on 12° 06.92' S 130 06.77 E, fixed by HMAS *Moresby* in that same year.³ This zone prevented entry and diving in the area and on the site without permission of the Federal government or its Delegate, the Director of the Northern Territory Museum.

After achieving permission from the Federal Government to visit and

¹ The author has excavated the iron SS *Xantho*(1872) and is in need of comparative data with which to compare corrosion results and submarine and the iron Barque *Ann Millicent* at Cartier Island were to be the beginnings of that study.

² The designation 'I' is actually 壴 (pronounced e) the first character of the Japanese alphabet. This figure was used by the Japanese to designate large submarines in general.

³ Doyle, J.J. (15/8/84), Cmdr. RAN Deputy Hydrographer to J. Amess. Department of Home Affairs and Environment (now DASETT)Position of Wreck Submarine I124

inspect the *I 124*, a voyage was planned out of Darwin involving a combined WA/NT Museum team. The venture was sponsored by Flamingo Bay Research Pty Ltd which provided the vessel gratis. A side scan sonar, Global Positioning System (GPS) and two operators were also supplied gratis by RACAL. An ROV (Remote Operated Vehicle) was supplied at a reduced fee by Underwater Systems Australia (USAL). The Commonwealth Department of The Arts, Sport The Environment and The Territories (DASSETT) allocated \$5,000 to the *Koombanah* inspection, ANSETT Air Freight also assisted and Australian Geographic provided support to Captain Tomlinson in the expectation of an article of interest.

The following report is one part of the overall account of the venture to appear under the title 'The Flamingo Bay Inspections'. This will appear in the form of a W. A. Museum Report under the combined logos of that Institution and Flamingo Bay Research Pty. Ltd. It will be made available to various public repositories in Western Australia, Canberra and the Northern Territory, to those whose assistance has been credited on the cover sheet and to the sponsors of the expedition.

Having received considerable backing, largely through the generosity and entrepreneurial capacities of Captain Tomlinson, the W.A. Museum team headed by the author flew to Darwin to meet the *Flamingo Bay* at Darwin in a period set aside from it's normal charter schedule.

The inspection had become more than a routine wreck inspection for the purposes of obtaining comparative data and film of interest however, a number of issues of greater importance arose during this planning phase.

The Issues Involved

The Two Submarine Theory

On the basis of advice he had received and research that he had conducted before the proposed expedition, Captain Tomlinson noted that contemporary RAN and USN accounts of the sinking of *I 124* all claimed that more than one submarine was sunk in engagements on 20, 21 and 23 January 1942 and that two of the supposed 'kills' lay within a Nautical mile of each other.⁴ To add to this, RAN 'fixes' of 1944, 1977 and 1984 for the wreck believed to be the *I 124*

⁴ Mr Tomlinson was in possession of the operations report of HMA Corvettes *Deloraine*, *Lithgow* and *Katoomba* all claiming that more than one submarine had been sunk.

(a) D.A. Menlove, LCDR RANR CO. HMAS *Deloraine* to NOIC Northern Territory.

'Attacks by surface craft on enemy submarines'.

(b) OIC HMA Anti Submarine School 16/2/42, 200/3/1 to Sec to Naval Board Navy Office, Melbourne. 'Operations Against Submarines'

(c) D.A. Menlove, to NOIC Northern Territory 23/1/42

'Attempted torpedoing of HMAS *Deloraine* and Counter attacks carried out.'

(d) A. S. Knight CMDR RANR HMAS *Lithgow* 27/1/42 Ref L1 to NOIC Northern Territory.

'Anti Submarine Operations'

(e) Ditto 31/1/42

To Sec, Naval Board, Melbourne.

Letter of Proceedings.

A Cousin, Cmdr RANR, C.O. HMAS *Katoomba* . 27/1/42 K28/1942, to Sec. Naval Board, Victoria
'Attacks on Submarine'.

differed by as much as 1300 metres.⁵

The belief that there was more than one submarine wreck was supported by verbal comments made to Captain Tomlinson that, in recent times, two submarines had been found close to each other with different characteristics. One story was to the effect that a fisherman working in the area, on finding his nets snagged, had dived on the source and found what he claimed to be a submarine lying 'in a gutter' and 'disappearing into the sand'. There was according to this unknown informant no evidence of a gun on deck.

According to Captain Tomlinson, he had also been informed by divers who were commissioned in 1973 to survey the wreck believed to be the Japanese *I 124*, that a German compass was seen on the bridge and an unsuccessful attempt was made to remove the instrument.⁶ It was also noted that this particular submarine was fitted with a gun. Another claim was to the effect that there was an aeroplane hangar on-board one of the submarines dived on,⁷ yet *I 124* was known not to have been fitted for that role.

All this understandably led to strong claims that there was more than one submarine wreck in the vicinity of the submarine believed to be the *I 124*.

To add further to the speculation, it was claimed by Japanese sources that the *I 124*, which was commanded by Lt Koichi Kishigami, and which had on board the Division Commander Keiyu Endo, lay in very shallow water 'forty feet deep with clear water free from strong tidal currents' and that the vessel was 'cut open' to enable the divers to successfully retrieve 'navy code books' and the 'merchant vessel code book'.⁸

This surprising claim was reinforced by an account appearing in the 'Submarines of the Imperial Japanese Navy' published by the US Naval Institute Press to the effect that

the *I 124* with her Division Commander Keiyu Endo, embarked, sank with all those onboard in water only forty feet deep. US Navy divers were sent down and entered the submarine, and removed naval code books, a godsend for the Navy codebreakers at Pearl Harbour⁹

As the wrecks which were the subject of the varying claims above all lay in deep water, and as water of that depth lay a considerable distance away from the known submarine in 25 fathoms of water, this account added further to the speculation and, with the claims above required assessment.

⁵ Doyle op. cit. Commander Doyle stated that the wreck lies at the 'extreme range for the equipment and methods of fixing' then used by the RAN and the positions given for *I 124* 'must be considered to be approximate'.

⁶ Pers. Com P. J. Washington to Tomlinson.

⁷ ibid.

⁸ Hiroyuki Agawa. (nd) *The Reluctant Admiral. Yamamoto and the Imperial Navy*. Kodansha International. Tokyo, p. 307.

⁹ Carpenter, D. and Polmar, N., (1986), *Submarines of the Imperial Japanese Navy*, Conway, NY, Cha. 2.

The Mercury Issue

As plans for the venture materialised, Captain Tomlinson also reported that he had obtained information that the submarine(s) contained considerable quantities of mercury possibly as cargo or trimming ballast to the order of 15 tonnes. Supporting evidence in the form of high mercury content of fish taken from the vicinity was produced. On the basis of his information to the effect that the submarine posed a distinct environmental threat, Captain Tomlinson was in correspondence on the matter with authorities in both Darwin and Canberra and the matter also began to receive considerable media coverage.¹⁰

In Captain Tomlinson's analysis, the WA Museum's corrosion study on the hull of *I 124* would, of its nature, indicate whether mercury was escaping, and would in giving an indication of the integrity of the hull and its projected life intact on the seabed be of use in the assessment of the urgency of the supposed threat.

Political Considerations

Unfortunately, just before the WA Museum team left Perth to address the issues above, permission to enter the *I 124* restricted zone and to physically inspect the remains was rescinded for political reasons. The Japanese government, with a large number of submarine¹¹ and other losses containing human remains, had expressed concern on the basis of the fears of divers disturbing the human remains onboard and sought the assistance of the Federal Government in preventing diving on the site. In the meantime the Japanese gave an assurance that they would assess the claims that the vessel carried mercury and would advise the Australian Government as soon as the information became available.

Further complicating the matter, the Northern Territory Government was, at the time, undertaking a feasibility study on the possibility of raising the vessel for display purposes. Amid growing speculation about the viability of the trip, and the increasingly complex political situation, discussions were held with the Commonwealth department responsible for the wreck (DASSETT), representatives of the Federal Police and NT Museum about the situation.

In an attempt to ensure that the inspection of the site believed to be the SS *Koombanah* was not jeopardized by the decision to rescind permission to dive the *I 124* and to keep the project attractive to prospective sponsors, Captain Tomlinson proposed that as an alternative, a search be mounted for the submarines believed to lie nearby and that they be dived on instead of the wreck believed to be *I 124* which was lying inside the restricted area.

¹⁰ See 'Diving on Sub wreck banned', *West Australian* 7/3/1989, for example.

¹¹ Alden, J. (1985) *Japanese Submarine losses in World War II*, in *Warship International*, Vol. XXII, No.1, pp 12-31 supplied by Dr T. O. Paine, The Submarine Warfare Library, 2401 Colorado Avenue, Santa Monica Calif. USA. *Paine to McCarthy*, 3/4/1990. The author is indebted to Dr T. O. Paine of the Submarine Warfare Library, for his invaluable assistance in replying to my inquiry on this and other matters in a remarkably detailed fashion. WA Maritime Museum, File, 3/89. Submarine *I 124*. Sections of his reply are reproduced in Appendices following.

This appeared a most useful solution and a decision was made to proceed on that basis. Despite this, only one day before the departure on the inspection tour, the NT Museum team were then withdrawn by their government for unspecified reasons.

Restrictions on Diving the Site

It was eventually agreed by all concerned that, provided the team did not enter the *I 124* restricted zone then centring on 12°06.92' S and 130°06.77' E.,¹² it could deploy the ROV outside the restricted area for the purposes of fixing and identifying any sites found close by, provided there was no diving undertaken on any submarine believed to be *I 124* even if it lay outside the restricted area.

The following report needs to be read with these considerable restrictions, many issues and political considerations in mind.

Aims of the Inspection and Associated Historical Inquiry

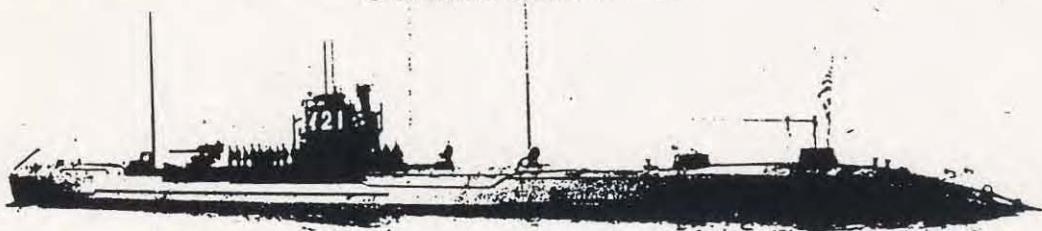
In the light of the above, there were a number of issues that needed to be addressed beyond the original aims of collecting data of relevance to the study of corrosion on iron and steel sites.

- (i) Was the protected submarine the *I 124* and does it lie in the restricted zone
- (ii) If not what is the identity of the submarine and what is its correct position
- (iii) Do other submarines lie in the vicinity and if so what is their identity and position ?
- (iv) Is/are the wreck(s) an environmental hazard.
- (v) Having answered or addressed the questions above, what are the management options available

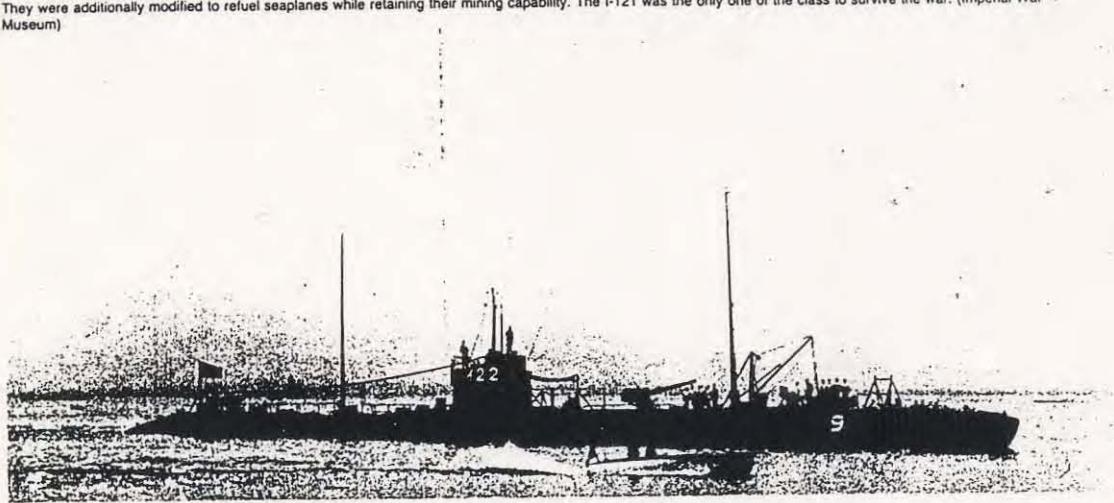
In order to properly address all of the above issues and to acquaint readers with the topic, the matter will be addressed in chronological sequence beginning with the construction of *I 124*, the wreck believed to be at the centre of the controversy.

¹²On AUS 722.

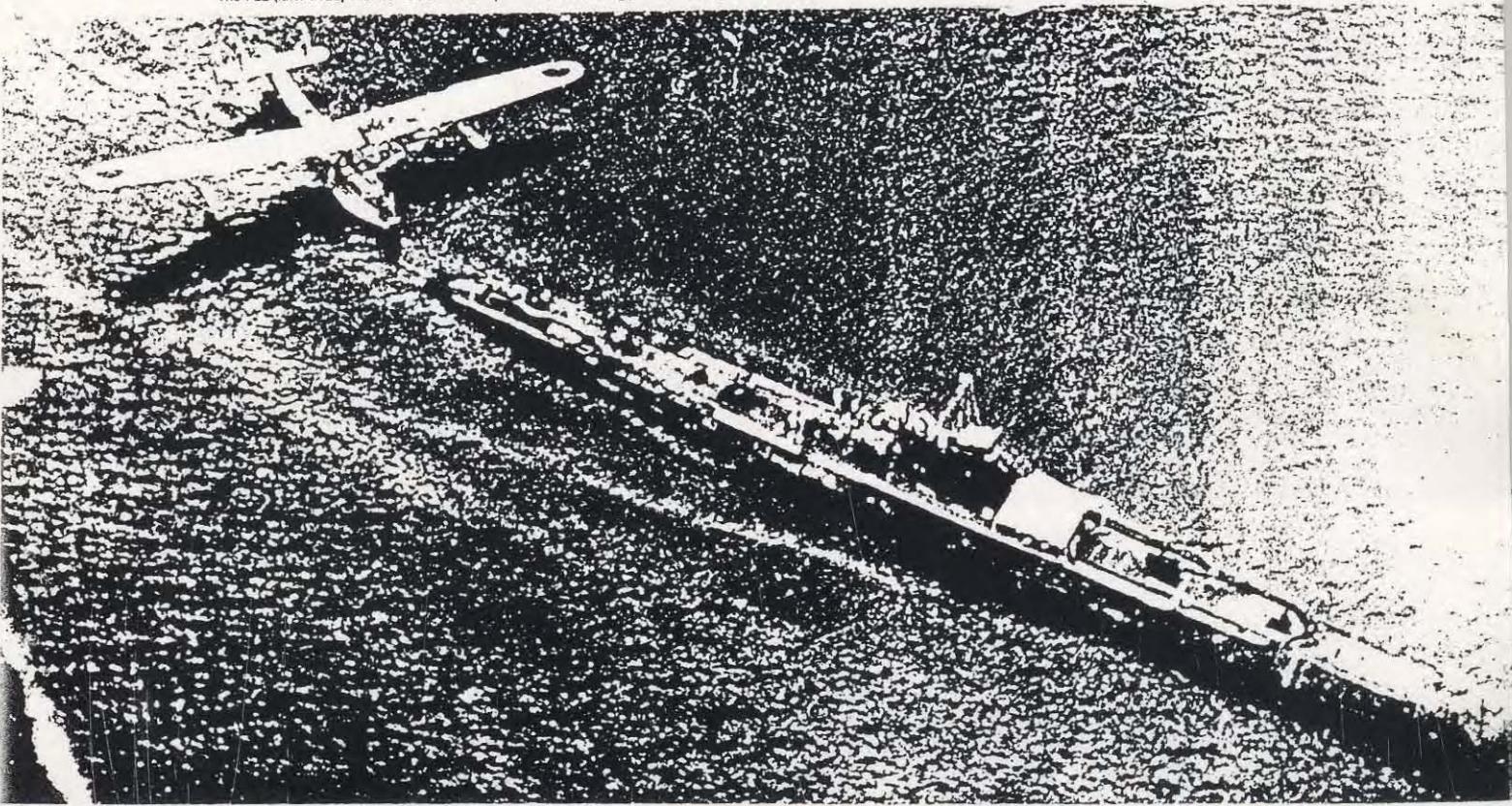
Illustrations of the Japanese Minelaying Submarines and their German antecedent ¹³



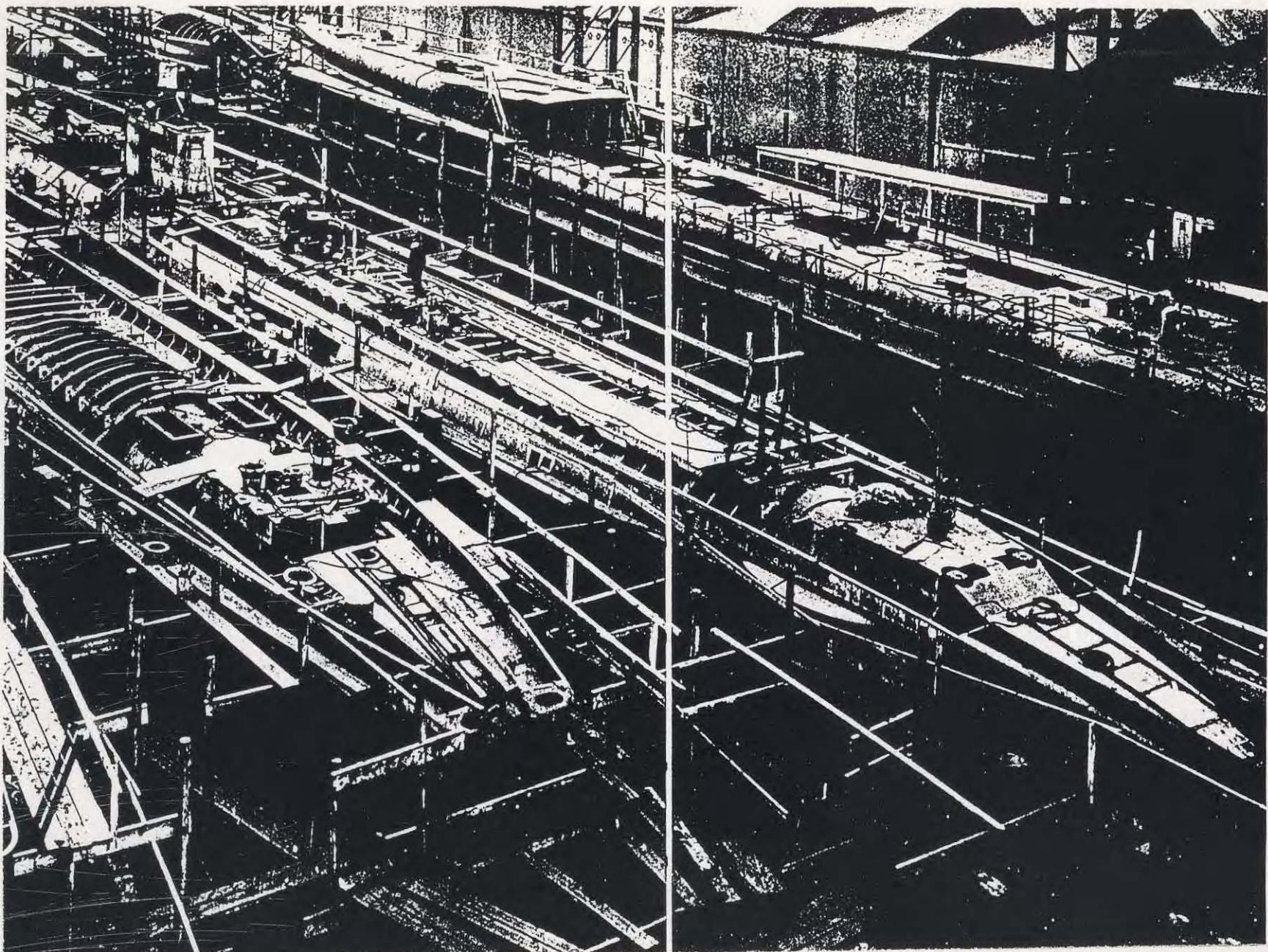
The I-21 (later I-121) was one of four specialized minelaying submarines built by Japan. Their design was based on a German U-boat acquired after World War I. They were additionally modified to refuel seaplanes while retaining their mining capability. The I-121 was the only one of the class to survive the war. (Imperial War Museum)



The I-22 (later I-122) with her radio masts in place and a crane rigged for handling a small boat. (Holbrook)



In addition to operating floatplanes, several Japanese submarines were modified (and later specially built) to refuel and rearm flying boats. Here the I-22 (later I-122) is refueling a Kawanishi H6K Mavis flying boat. In this peacetime view, the minelaying submarine has awnings spread and many of her crew are present on deck. (Anthony J. Watts)



U-boat planning, January 1916

On 6 January 1916, in a memorandum from Department BIII of the Naval Staff to the Kaiser 'Concerning means for prosecuting an economic war of destruction against England', a comprehensive U-boat programme to ensure the successful blockade of Britain was demanded for the first time. More importantly, the planning revealed in this memorandum looked beyond the Continental conflict to a future, final confrontation with Britain, with political and military aims being complementary. It may be of interest to quote extracts from this memorandum.

1. Our war aim, apart from destroying the English Fleet as the principal means by which Britain controls its Empire, is to reduce its total economy in the quickest possible time, bringing Great Britain to sue for unconditional peace. To achieve this it will be necessary:

- (a). To cut off all trade routes to and from the British Isles.
- (b). To cripple in all the seven seas, all ships flying under the British flag and all ships under neutral flag plying to and from Great Britain.
- (c). 'To destroy military and economic resources and by means of air attack disrupt the trade and commerce in the British Isles, showing its population quite mercilessly the stark realities of war.'

2. The shutting-off of the British Isles from all incoming and outgoing passenger and mail supplies in such a way that the British Isles are encircled by blockade and forbidden to neutral shipping; any ship attempting to breach the blockade will be destroyed. This blockade will be enforced in the inner waters, as far as our resources allow by minelaying from mine-carrying U-boats and in the more distant approaches by U-boat operation. It is anticipated that defensive operations on the part of our opponents will compel our U-boats frequently to avoid the immediate vicinity of the coast and to move from place to place, and all this will mean that a very extended territory will need to be patrolled. It is not advised that surface ships be used for this blockade on account of danger from English submarines and other warships.

3. The German Bight is the main starting-point for U-boat operations. The coast of Flanders is the natural support-point for operations against the mouth of the Thames and the English Channel. Most important for the carrying on of the U-boat campaign in the North Atlantic would be bases in the Faeroes and in the Azores and also on the Spanish coast. Bases in these places would reduce considerably the lines of approach for U-boats and facilitate greatly the task of blockading the British Isles. One cannot tell at this point in time whether, when peace is declared, the Faeroes and the Azores may be acquired and whether in the next war it will be possible to obtain the use of Spanish ports for our purposes; all this will depend completely on future political alignments. But for the present, none of these bases can be counted upon at all for the present conflict.

Left: U117-U120 (Project 45) on the slips at AG Vulcan, Hamburg.

Historical Background

The Japanese submarine *I 124* is a reasonably well known type of purpose built submarine¹⁴ which is believed to be based on the German 'Project 45' class of 'enlarged minelaying' submarines numbered *U117-U126* that were built in 1917-1918.¹⁵ *U 125* was sent to Japan after WWI as the *O1*.¹⁶ Four submarines apparently based on the design were subsequently built by the Japanese Navy as the KRS Type, these became *I 121*, *I 122*, *I 123* and *I 124*.

Some sources claim that the KRS type was 'practically identical' or 'almost a direct copy' of the German type,¹⁷ the U117 or UE II class of Ocean Minelayers, of which plans and photographs appear in Appendix 1. Other sources are less definite on this matter, though there is general agreement that the German and Japanese types are very similar.

Details of the Japanese vessels also appear in Appendices following, but at this stage it should be noted that they were 279.5 feet (85.2 metres) long by 24.5 feet (7.5 metres) wide and had a draught of 14.5 feet (4.39 metres). One 5.5 inch (140mm) gun was fitted on the foredeck. Four 21 inch (533 mm) torpedo tubes were set at the bow. The submarines had two propellers, carried 12 torpedoes forward and 42 mines which all 'stowed in a compartment aft'. In 1940 they were modified to refuel seaplanes 'being fitted with gasolene tanks', but in doing so still retained their minelaying capacities. One source states that they had a complement of 75 officers and men.¹⁸ Others differ, generally quoting a lesser number.

In examining the German plans it can be seen that the mines were contained within the pressure hull itself and were launched from two horizontal tubes in the stern. It was also noted in comments on the German Project 45 type that

A peculiarity of this design was the storage of a further ten torpedoes in pressure tight containers, positioned in special troughs on the port and starboard sides of the upper deck. In place of these torpedoes, 30 additional mines could be carried in deck storage boxes and could be slid along rails to the after launching position.¹⁹

¹⁴McMurtrie, F.E., (ed) *Janes Fighting Ships*, 1943-4, Sampson, Low, Marston, London. p. 180. & Watts, A. J., and Brian, B. G., () *The Imperial Japanese Navy*, Double Day, NY pp 319-321. (Excerpt supplied by Submarine Warfare Library).

¹⁵Rossler, Eberhard, (1981) *The U Boat (The evolution and technical history of German submarines)*. Arms and Armour Press. London/Melbourne, pp 58 et. seq.

¹⁶Le Fleming, H. M. () *Warships of World War 1 : 5- Submarines (British and German)*, Allen, London, p.58. (Excerpt supplied by Submarine Warfare Library).

¹⁷Bagnasco, E. () *Submarines of World War Two*, p. 180. & Conways, *All the Worlds Fighting Ships. 1922-1946*. (Excerpt supplied by Submarine Warfare Library).

¹⁸Carpenter and Polmar, op cit., Cha. 8

¹⁹Rossler, op. cit., p. 59

It is not known if this was the case with the Japanese model, though one source claims that the Japanese type was fitted with 'two full sets of reload torpedoes' and that the mines were 'launched through vertical tubes'.²⁰ Another source indicates that the Japanese type proved difficult to operate in its intended role, tending to lift towards the surface as each mine was release creating great difficulties for those on board and presenting considerable danger in hostile waters.²¹ There are also clear differences in the plans of the German type and photographs of the Japanese vessels.

The Japanese submarines had a range of 10,500 Nautical miles at 8 knots on the surface, and 40 Nautical miles at 4.5 knots submerged. They had a maximum speed of 14.5 Knots surfaced and 7 Knots submerged and could operate independently for around twenty days. They had a maximum diving depth of 195 feet. In 1940 they were modified to refuel seaplanes but maintained their minelaying capacity.²² *I 124* was begun in 1926, launched in December 1927 and completed on 10 December 1928.²³

Wartime Career of *I 124*

Details of the wartime career of *I 124* appear in a monograph²⁴ compiled from Japanese sources in 1952 kindly supplied in full by Dr T. O. Paine of The Submarine Warfare Library of Santa Monica California.²⁵ This appears in Appendices following, but in short *I 124* with the other three minelaying submarines *I 121*, *I 122* & *I 123* comprised the 6th Submarine Squadron, Japanese Third Fleet.

The *I 123* & *I 124* which comprised the 9th Submarine division of the 6th Submarine Squadron was assigned to the Philippines as the 'Phillipine Submarine Group' and on 1 December left Samah on Hainan Island (China) for the Balabac Strait and Manila Bay where the day after the Pearl Harbour attack on 8 December 1941, they laid mines. *I 124* also served as a 'service boat to the airforce' in this period.

On 10 December, *I 124* torpedoed the British, 1523 ton SS *Hareldawins*, first vessel to be sunk by Japanese Submarines in WW 2, and returned to Camranh Bay arriving on 14 December. There the four minelayers were reunited and patrolled Manila Bay. On 11 December whilst on this patrol, one of the *I 124* mines sank the 1881 ton American SS *Corregidor*.²⁶

These, it was noted by the Submarine Warfare Library were 'the first two

²⁰Watts, A. J., and Brian, B. G., () *The Imperial Japanese Navy*, Double Day, NY pp 319-321, (Excerpt supplied by Submarine Warfare Library).

²¹Mochitsura Hashimoto, (ND) *Sunk, the Story of the Japanese Submarine Fleet, 1942-5*. Cassell, London.

²²Carpenter and Polmar op. cit., & Bagnasco op cit.

²³Ibid.

²⁴Shibuya Tatsuwaka, Japanese Monograph No 102. Submarine Operations December 1941-April 1942. USN. (Supplied by Submarine Warfare Library).

²⁵Paine to McCarthy, 3/4/1990. The author is indebted to Dr T. O. Paine of the Submarine Warfare Library, For his invaluable assistance in replying to my inquiry on this and other matters in a remarkably detailed fashion. WA Maritime Museum, File, 3/89. Submarine *I 124*. Sections of his reply are reproduced in Appendices following.

²⁶Rohwer, J., () *Axis Submarine successes 1939-1945*, Naval Institute Press. Excerpt supplied by the Submarine Warfare Library, p. 258, (Excerpt supplied by Submarine Warfare Library).

ships sunk by Japanese submarines in the Pacific War'.²⁷

On 18 December, the squadron began a patrol of the South China Sea and then the minelayers proceeded to Davao in the Philippines, arriving at the end of the month where they were joined by the flagship of their squadron the Light cruiser *Chōgei*.

The group was re-deployed with the six vessels of the 5th Submarine Squadron to the area of the then 'Dutch East Indies' and northwest of Australia. From their base at Davao they were to assist in invasions, disrupt 'enemy' lines of communication, to patrol, observe and intercept the Allied Fleet, and to lay mines in these regions.

In January, the minelayers then split into their two Divisions of two submarines each to began preparations for minelaying in the Darwin area and in the Torres Strait. On 10 January they departed and headed south. Whilst the submarines were away on this venture, the 1976 ton Panamanian SS *Daylight* was sunk by a mine laid by *I 124* in Manila Bay.²⁸

Having sighted elements of the US Far Eastern Fleet, the four minelayers then joined together in patrols in the Darwin region but succeeded in sinking only one transport. *I 123* laid mines in the 'northern entrance to Torres Strait' and *I 121* and *I 124* laid mines at the 'western end of Clarence Strait' on 16 January and continued on its patrol of those waters. According to the Japanese, it was 'during this operation, the *I 124* disappeared in the Darwin area on 20 January and failed to return'.²⁹

It can be seen from the accounts following that *I 121* and *I 123* may have been involved in the actual engagements that resulted in the loss of *I 124*. According to Japanese sources, both escaped however.³⁰ *I 123* was sunk outside Australian waters in August 1942 and *I 121* was captured after the war. *I 122* which did not join its sister vessels on this raid was sunk in 1945 in the Sea of Japan. It should also be noted at this juncture, that as all Japanese submarine losses in World War II have been accounted for, bar the 'midget submarines in Sydney Harbour, of their large submarines only the *I 124* lies in Australian waters'.³¹

The sinking of *I 124*

When Japanese records were scrutinized after the war, the United States and Royal Australian Navies identified the site as *I 124* and altered their files accordingly at that time.

Recently the RAN file 'Sinking of Submarine *I 124*' was declassified for the purposes of this study.³² When read in conjunction with similar declassified

²⁷Paine to McCarthy, 3/4/1990, op cit.

²⁸ibid.

²⁹Shibuta Tatsuwaka, op cit., pp 43-5.

³⁰ibid.

³¹Alden op. cit.

³²Commonwealth Archives Melbourne, file 1932/3/51 *Sinking of Submarine I124*. Including reports from HMA ships *Deloraine*, *Lithgow*, *Katoomba*, US ships *Edsall*, *Alden*, *Holland*, OIC HMA Anti Submarine school, messages and other relevant information. Note that the submarine was not identified in 1942 and that the

reports on the same subject from the USN,³³ the following can be deduced.

At 0530 on the morning of January 20, at a position approximately 12° 05.5' S. 130°05.6 E., in the Beagle Gulf, about 40 Nautical miles out of Darwin, an attempt was made to torpedo the oil tanker USS *Trinity* whilst it was being escorted by the destroyer *USS Edsall*. Three torpedoes were seen. The submarine was then located by *USS Edsall* and was attacked with depth charges by *USS Alden*. Contact was then lost and the convoy proceeded into Darwin Harbour arriving at 1130 hours.

At 1125 hours, the corvette *HMAS Deloraine* which was conducting sweeping operations outside Darwin Harbour was ordered immediately to the vicinity of the attack. Two other corvettes HMA ships *Lithgow* and *Katoomba* were ordered to sea as soon as they could be made ready.

At 1335 *Deloraine* narrowly avoided a torpedo attack and in locating the submarine with Asdic commenced an attack at 1343 with a Catalina Flying Boat and two American Floatplanes in attendance. The attack resulted in the sighting of a large quantity of oil and bubbles. At 1349 a second attack caused the submarine to surface momentarily showing periscope and bow and listing 20° to port. It was then hit whilst on the surface with a depth charge from *Deloraine* set for 100 feet and a bomb dropped from an American aircraft. The submarine (called Submarine No. 1) was then seen to be stationary on the bottom in water around 25 fathoms deep and was in the opinion of the attackers 'crippled'. More attacks were made. An 'estimated position' of 12° 07'S 130°09' E was given for the submarine. Lt. Cmdr. D. A. Menlove (RANR), Commanding officer of *HMAS Deloraine* advised that the enemy was stationary with oil and air rising continuously to the surface. in his opinion it 'had been put out of action permanently'. *Deloraine* remained on station with 5 depth charges left and at 1430, while crossing through the oil patch caused by this submarine another echo was obtained bearing 125°, 3000 yards distant. An attack was made on the submarine which appeared to be stationary, oil and bubbles were sighted and the enemy rendered stationary. (Submarine 1a) By 1500 *Deloraine* had expended her supply of depth charges but remained on site experiencing 'no difficulty' in 'holding the two contacts'.

At 1633 the American destroyers cast off from alongside the *USS Blackhawk* in Darwin harbour having been requested to assist in the hunt. At 1700 and 1748 respectively *HMAS Lithgow* and *HMAS Katoomba* arrived on the scene of *Deloraine's* engagement.

Lithgow began its attack and having produced bubbles of oil and air laid a Dan buoy 'to the eastward of the position' of one of the submarines rendered stationary either Submarine 1 or 1a. When *Katoomba* arrived, *Lithgow* was doing its last run having made 7 attacks and having expended its 40 depth charges on the one Submarine. *Lithgow* reported that it was confident that the Submarine was 'definitely killed during this operation'.

³³ CO *USS Edsall* to C in C US Asiatic Fleet, US Asiatic Fleet, Destroyer Division 57, *USS Edsall* (DD 219) 31/1/1942, & Commander Destroyer Squadron 29 to Commander US Naval Forces South West Pacific, 10/2/1942, Examination of I 124, 20 January 1942, Action Report, *USS Holland*, supplied by Flamingo Bay Research. (Note the cover of this file is dated 5/10/1965. The identification of the I124 was not known in 1942.)

As *Katoomba* began its run into the target now marked with a Dan Bouy offset to the East, (apparently unknown to *Katoomba*), it was noted by those onboard, that the submarine was actually located apparently 400 to 500 yards away from the Buoy. On the basis of this and other evidence, it was concluded that 'he was possibly still crawling away'. *Katoomba* subsequently began its attacks which produced oil. *Lithgow* was then ordered into harbour and *Deloraine* was ordered to reload depth charges and return the next morning. At 1929 and 1955 hours, the American destroyers *Alden* and *Edsall* arrived and began their attacks on the stationary submarine either Number 1 or 1a.

When the Americans arrived on the scene the *Katoomba* was in the Americans' estimate, attacking a target at the 'Southern edge of an extensive diesel oil slick'. While searching for this target, the *Edsall* located another target approximately 3/4 of a mile away on the Northern edge of the slick. Both the Americans and Australians attacked this target obtaining oil and air bubbles and 'evidence of violent disturbances in the water'. At around 2000 hours, *Alden* obtained contact with 'the original submarine' at the southern end of the slick and depth charged it. *Edsall* appeared to be 'some distance off' however. They also attacked other positions nearby and *Katoomba* noted them attacking positions to the SW and NW of the original sunken submarine which was considered from the echoes received to be 'so large' that it was thought to possibly be a 'mother ship to other smaller ones'.

Darkness set in and at 2047, the Americans left to commence patrolling to the North West of the original engagement area.

Katoomba then attempted to 'fix' the wreck of then stationary Submarine Number 1 or 1a accurately, and noted that it was lying on a bearing of approximately 020°-200°. The submarine was firmly hooked and another Dan Bouy laid. (See Figure) *Katoomba* then cruised around the wreck all night expending a further four charges 'in order to be sure he would remain there for all time'. To the attackers surprise, these 'did not split him asunder but only increased the flow of oil from the vessel'. She reported the wreck to lie at 12° 09'S. 130° 10'E and suggested that divers be sent to investigate.

At 0137 on 21 January, divers were despatched from Darwin aboard the *HMAS Kookaburra* to investigate the 'kill', apparently with the intention of beginning work the next morning.

At 0305, whilst returning to the scene after reloading depth charges, *Deloraine* obtained a submarine echo and at 0321 passed the '1st Dan Bouy marking defunct submarine'. At 0322 an attack was made producing further oil. She then joined *Katoomba* in a search to the south.

At 0717, *USS Edsall* commenced an attack on a 'small' submarine to the north west of *Deloraine* in position 11° 59'S 130.01'E Due to gear malfunction, *Edsall* could not press home her advantage and contact was lost and though two of the Australian vessels and a plane assisted the submarine escaped.

They left the area and at 0900 *Alden* commenced an attack to the south on a submarine in 12° 11'S 129° 40' E. (The Alden Submarine) This submarine had been sighted on the surface, probably making repairs and was leaking oil after

it dived. *Alden* had however expended her supply of depth charges. *Edsall* sped to her assistance.

HMAS Kookaburra then arrived with the divers and proceeded to Submarine Number 1 or 1a, apparently maintaining station overhead. At 0940 *Katoomba* and *Deloraine* then proceeded to attack what was reported from an aircraft to be an oil patch from another submarine on a bearing of 220° to *Kookaburra* and with Penguin Hill bearing N 14°W. (Called Submarine No 2). These attacks produced large quantities of oil.

While heading southwards towards *Alden*, *Edsall* passed the Australians at 0951 and seeing that the 'corvettes have situation well in hand' the *Edsall* kept clear while the Australian vessels made the attacks above. There seemed according to the Americans to be 'two subs down in this area about 3/4 mile apart'.

At 1038 *Lithgow* arrived and was ordered to provide anti submarine protection for the divers on *HMAS Kookaburra*. At 1120 *Deloraine* completed the last of her attacks and proceeded to Darwin.

At 1308 *Katoomba* established another contact (Submarine No. 3) and attacked bringing oil to the surface. A Dan Buoy with two flags was laid on a bearing of 290° from the *HMAS Kookaburra* some 5 miles to the south of the vessel attacked earlier. It was claimed by the Australians that all three attacks were successful. These three positions appear in a contemporary illustration, Figure 2.

At 1315, the Americans abandoned their searches for the '*Alden* submarine' in heavy rain squalls and poor visibility that forced their air support back to base and also precluded them sighting the oil slick produced earlier. They then returned to harbour.

At 1420 *Lithgow* was sent to replenish her supply of depth charges. Having done so she was sent to the position of the '*Alden* Submarine' and remained there overnight in an unsuccessful search. *Katoomba* also remained at sea maintaining an anti submarine watch over Submarine Number 1-1a, the sunken submarine 'on which *Kookaburra* was attempting to dive'. While doing so, they were unable to relocate the submarine (Number 3) attacked by *Katoomba* at 1308 however.

A few days later, on 23 January, two other inconclusive engagements involving the US vessels took place while they were on convoy duty from Darwin en route the Torres Strait. While proceeding up Howard Channel amongst the Vernon Islands North East of Darwin contact was made by USS *Edsall* with a submarine apparently moving in to torpedo one of the convoy. The attack was repulsed but could not be pressed home. On the same day further east, off 'Trepang Bay', *Edsall* attacked a submarine producing 'a strong smell of diesel oil'. A torpedo was sighted and the submarine located and bombed by air. More depth charges were dropped. A 'large gush' of oil and air was seen, oil streamed from the submarine for 'some time after the attack' and mines were also seen.

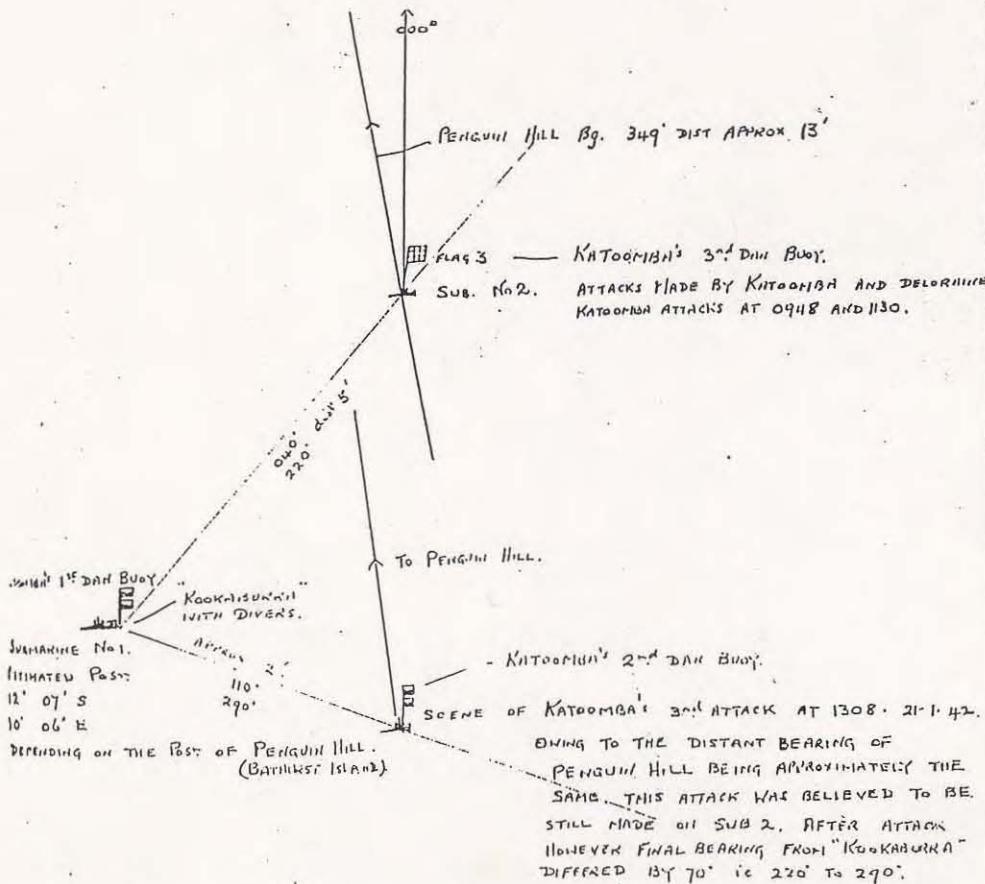
The Americans lost the submarine with the onset of darkness, but were able to give the position of the engagement as 11°04.7'S, 131° 56.3'E.

Figure 2
A contemporary illustration showing the positions of the Submarines believed sunk by the Australian Corvettes

H.M.A.S. KATOOMBA.

DIAGRAM OF ATTACKS ON SUBMARINES

20. 1. 42 and 21. 1. 42.



A. Cousin
Second R.A.M.R. (S)

Claims that two or more submarines were sunk examined

From the above it can be seen that RAN and USN claims to have sunk more than one submarine in January 1942 were originally based on good evidence.

Subsequent analysis of the various 'Australian' engagements by H. M. Newcomb, the acting OIC HMA Anti Submarine School, indicated that there were 6 series of attacks and of the engagement area shown in figure 2, not counting the US engagements to the South (by *Alden*) on 21 January and the East (by *Edsall*) on 23 January.

According to Newcomb, the only confirmed 'kill' in the engagements involving the Australians on 20 and 21 January was Submarine Number 1, the credit for which was due, in his analysis, 'wholly to HMAS *Deloraine*'.

It was in the opinion of this officer 'very probable' that another submarine had been sunk however.³⁴ A message sent on 23 January indicated that

of the three remaining submarines... one can be eliminated, one is very doubtful. But one is very probable. Latter is small submarine situated about three miles from ... large submarine and does not now give such good asdig (sic) contact since final heavy attack.

35

In an assessment written on 31 January, from the American perspective, J J Nix, Commander of USS *Edsall* claimed that the *Edsall* and *Deloraine* had sunk a submarine on 20 January and that *Edsall* had also been successful in the last attack to the North East of Darwin on 23 January.

At the time the Americans were awaiting verification of this last attack from NOIC Darwin who was 'investigating with divers'.³⁶ Though confident of a victory here, they were still awaiting verification on 10 February. H. V. Wiley, the Commander of Destroyer Squadron 29 wrote to the Commander US Naval Forces South West Pacific informing him of this possibility and that

The (original) joint attack...resulted in the destruction of a large submarine which was later boarded by divers from USS *Holland*. There was some evidence from sound search, that the wreck of a small submarine lay about a mile away. The Naval Officer in command Darwin was inclined, naturally, to credit the large submarine to HMAS *Deloraine*.

Sound search did not locate the wreck of the submarine attacked by *Alden*, although *Alden* felt certain it had been destroyed, as oil and bubbles were observed for some time after the attack.

It is believed the attack described (by *Edsall* to the NE of Darwin)...was successful in causing damage to a submarine. The plane pilot reported that he estimated the submarine to be beyond

³⁴ H. Newcomb, OIC HMA Anti Submarine School to Secretary, Naval Board, Navy Office Melbourne, 12/2/1942.

³⁵ CWR ? to ACH Darwin ?v 23/1/1942. I 124 File , op. cit.

³⁶ See Reports of the vessels named above in Commonwealth Archives Melbourne, file 1932/3/51 *Sinking of Submarine I124*, op. cit.. and CO USS Edsall to C in C Asiatic Fleet, Action against submarines by USS Edsall, 31/1/1942. DD 219/A16-3 (03) Supplied by Flamingo Bay Research.

effective depth for his bombs to have done any real damage but he saw a large oil slick and release of air bubbles indicating *Edsall's* depth charge had been effective... mines were seen in the vicinity.³⁷

While the USS *Edsall* claim to have sunk a submarine was not properly assessed at the time, HMAS *Lithgow* examined the area of the *Alden* report on the night of 21 January. In the apparent belief there was no wreck to be found, on 27 January HMAS *Swan* was requested to examine the site of the supposed small submarine (No 1a) believed to have been sunk in the vicinity of Submarine Number 1 in the following terms.

The only position in which a submarine may have been sunk during recent operations and which has not yet been investigated is 1,1/2 to 2 miles from known sunk submarine. Request you will explore with asdic as convenient.³⁸

Apparently (though not conclusively), as a result of this a further message reads

No further contact can be obtained with small submarine and this claim has been discounted. Total result of operation on 20th and 21st January is therefore one large submarine.³⁹ Latter has one escape hatch open and entry by diver is now being attempted.'

The depth of the sunken vessel was given in all the accounts as between 24-27 fathoms depending on tides.⁴⁰

Thus theory that there are two or more submarines in the vicinity of Submarine Number 1, and in the Beagle Gulf, in general can be discounted from the various wartime assessments of the claims made by the attacking vessels. This is supported by a recent analysis of Japanese submarine losses in World War II,⁴¹ and by a statement that

German authorities have specifically confirmed that no German submarines were lost in Australian waters during World War II.⁴²

On the basis of the evidence from the Japanese and German governments, there also appears to be no substance in the USS *Edsall*'s claimed to have had

³⁷H.V. Wiley, Cmdr Destroyer Squadron 29 to Cmdr US Naval Forces South West Pacific, 10/2/1942. FF 6-8 A16-3, supplied by Flamingo Bay Research.

³⁸DNO Darwin to HMAS *Swan*, 27/1/1942.

³⁹To ACNB from DNO, NT, 27/1/1942

⁴⁰In the Darwin region they can be up to 8 metres in height and 3-4 fathoms difference in the depth quoted is not significant. *Australian National Tide Tables* 1989.

⁴¹Alden op. cit. Japanese 'midget' submarines were lost in Sydney Harbour. A section of one is on display at the Canberra War Memorial.

⁴²S. Kentwell, Director Japan Section, Dept. of Foreign Affairs and Trade to McCarthy, 16/2/1990.

sunk a submarine to the North East near Trepang Bay.

Thus the vessel sunk by HMAS *Deloraine* with assistance from HMA ships *Lithgow* and *Katoomba* and USS *Edsall* and *Alden* is, on the basis of the historical evidence, the only large enemy submarine⁴³ lost in Australian waters and it is the *I 124*.

Given the difficulty in accurate position fixing in an area with few noticeable landmarks and strong tide, and given that during the engagements on 20 and 21 January 1942 poor visibility was experienced on some occasions, there is to be little surprise that Submarine Number I (*I 124*) was accorded positions varying from 12° 03' S 130° 09'E to 12° 07' S 130° 09'E and 12° 09' S 130° 10 E. during the War.

The varying fixes for the same wreck obtained in the comparative calm of 1944, 1977 and 1984 by much better equipped survey vessels,⁴⁴ further attest to the difficulty of obtaining accuracy in such an exercise during an engagement. Thus any 'two submarine theory' based on positions given for a particular wreck that vary by as little as one nautical mile in peacetime and by a substantially greater distance during conflict must be treated with caution.

It becomes apparent in all of the above that when relying on oil slicks to fix the position of a supposed wreck allowance must be given for strong tides as it is clearly possible for a slick or even small bubbles to surface a considerable distance downstream of the point of origin. It appears from the above that in areas such as the Darwin region in January 1942 with its strong tides, and /or in poor conditions, that only when a supposed wreck is fixed by some physical or remote sensing means can the location of another nearby be considered by any means a certainty.

Finally it must be noted that, though they safely returned to base, the sister ships to *I 124*, may have been involved in the operations above.

Diving on the *I 124*

On 22 January a message was sent to Melbourne HQ to the effect that a submarine (No.1) had been 'confirmed beyond question in 27 fathoms. Diving is difficult but efforts will be continued'.⁴⁵ This would have been the party on board *Kookaburra* which arrived at the site on 21 January and for which *Lithgow* provided anti submarine cover from 1038 to 1420 on that day. Accounts on those dives (if they took place) have not been obtained, though it appears that attempts may have been made at this time. One account claims that divers from USS *Blackhawk* dived on the wreck on 21 January and heard tapping from within the hull.⁴⁶ On the basis of the lack of any written evidence on this important matter, is doubted that this dive occurred.

⁴³Japanese 'midget' submarines were lost in Sydney Harbour. A section of one is on display at the Canberra War Memorial.

⁴⁴ 1944 : by HMAS *Shepparton* 12° 07'.25S 130° 06'.13 E

1977 : by HMAS *Moresby* 12° 06'.92S 130° 06'.77 E

1984 : by HMAS *Cook* 12°07'.1 S 130°06'.25E

⁴⁵ CWR Melbourne, from ACN Darwin, 22/1/1942, & NB to FOCAS 585, 24/1/1942

⁴⁶It has been claimed that on 21 January a diver from the Fleet Repair Ship USS *Black Hawk* went down onto the vessel and heard tapping. The Sun 9/5/1973. See footnote 47.

It was not until 26 January that divers under the command of Lt. Commander R. E. Hawes from *USS Holland* actually descended to the wreck in an attempt to confirm the 'kill' and possibly to set the scene for the recovery of documents pertaining to the Japanese war effort. The wreck was recorded at 12° 03' S, 130 09' E. After three unsuccessful descents in which the wreck was not found, the fourth diver landed on the deck of the vessel which was found upright in 25 fathoms on a sandy bottom.⁴⁷ The third diver reported a 'large gully about 15 feet across and 4 to 6 feet deep' aft indicating the position which the vessel made first contact with the seabed.

The fourth diver down reported one hatch blown open and no evidence of identifying marks on the submarine. He did not reach the conning tower. The fifth reported as follows

gaskets were blown out of two other hatches aft of the conning tower... a V shaped well at forward part and abreast conning tower about 15 to 20 feet long and 6 feet inside... Antennna ran from the stern to the conning tower... Did not locate gun, says he was about 15 steps forward of conning tower... The hatch blown open was nearest the conning tower.⁴⁸

In being so restricted by the depth which allowed them 'no longer than 16 minutes (including descent time) in order to stay on decompression table, the divers proceeded in their inspection only 15 paces forward of the conning tower, and were led to report that they did not see a gun forward. This subsequently appeared in one analysis of the dive report, quite incorrectly, as 'no gun'.⁴⁹

The diving team were satisfied that the vessel was immobile however and returned to Darwin arriving at 0200 on 27 January, with the intention of returning to the site and conducting further operations on the wreck.

They arrived back at 2000 hours on the same day too late to dive and with the sea too rough to work returned to port arriving at about 2400. The dive report was concluded with the statement that 'further exploratory diving is required... the bottom is hard sand but the submarine may lie in a trough now filled with silt.'⁵⁰

In the light of the short 'bottom time' available to them in diving from the ill-equipped HMAS *Kookaburra* and due to other technical difficulties including the bulky nature of the 'Standard Dress' or 'hard-hat' apparatus the divers apparently made no attempt to make their way through the hatches in an effort to examine the interior of the vessel for documents and material of use to the allied cause.

The commander of the diving group, Lt. Cmdr. R.E. Hawes was noted as a

⁴⁷ The difficulty experienced in actually locating the wreck on this occasion indicates that it was not dived between 21-25 January.

⁴⁸ J. W. Gregory, C.O. *USS Holland to C in C Asiatic Fleet, 1/2/1942 'Sunken Enemy Submarine - investigation by divers and to NOIC Darwin, 'Diving Operations- Report of.'* The report was compiled by Lt Commander R.E. Hawes OIC the diving party. I 124 file. The 'furrow' report is possibly the source of the submarine in the trench story.

⁴⁹ Causing some confusion and adding fuel to the 'modern' two submarine theory

⁵⁰ See note 48.

man of considerable bravery and skill and was one who would have pressed ahead with the penetration if it were possible.⁵¹

It must be noted here that a wartime penetration into a German submarine *U 853* in 127 feet of water has been recorded and that such was possible. Divers succeeded in gaining some access but failed in penetrating far into the hull and in their primary objective of recovering the ship's papers. Despite that, the diver was awarded the Navy and Marine Corps medal for his feat.⁵²

This failure on a site in American waters highlights the difficulty of attempting a similar feat without adequate facilities, in deeper water vulnerable not only to further submarine attack but also air attack. The honours bestowed on a diver, who at the end of the war entered a German submarine in 127 feet near the coast of America, are an indication of the sort of acclaim that normally would have followed on such a feat in deeper much more dangerous waters at the onset of hostilities, and with much more to gain. It could be argued that in an attempt to avoid alerting the Japanese to the fact that their codes had been broken, any penetration into *I 124* would have been kept secret. There would have been no reason to continue with the secrecy after the war however and the divers and their feat would have received considerable and much deserved acclaim publically, as divers, in the history of code breaking in World War II and in the USN accounts of its vessels and the people who served in them.

In their report, the Australian authorities gave the position of the submarine as 12° 08'S 130°10 E and the depth 27 fathoms.⁵³

In support of this evidence, on 30 of January the Naval officer commanding the Darwin base advised that

divers have explored after part externally cause of destruction
appears to be damage to escape hatches by depth charges.⁵⁴

It was noted in this report that entry to the vessel was not possible until four moorings could be laid to counteract the tide and then only near slack water neaps. The report concluded with the note that during the withdrawal of US ships with divers and 'deep water equipment no further preliminary diving can be effected with local resources'.⁵⁵

The comment was then made that the next favourable conditions for diving were not expected until February 9. It was also noted that the submarine was salvable if *USS Pigeon* a vessel then in the Phillipines whose 'primary mission

⁵¹ Hawes was 'a legend amongst submariners... and was known for his ingenuity with men and the materials at hand'. Navy Department, () *Dictionary of American Fighting Ships. Vol 1 1959.* pp 303-4. (Excerpt supplied by Submarine Warfare Library).

⁵² Keatts, H., and Farr. G., *Dive into History U-Boats*, American Merchant Marine Press, NY.

⁵³ ACNB to Admiralty 789, 28/1/1942.

⁵⁴ NOIC Darwin to NB 454, 30/1/1942

⁵⁵ ibid.

was to salvage and aid submarines in distress⁵⁶ were to be made available. With this vessel, which had a fully equipped rescue chamber for rescuing men from stricken submarines, mixed gas facilities and recompression chamber on board, 'bottom time' would not have been the limiting factor that it was in diving from HMAS *Kookaburra* and an entry into the *I 124* would have been quite possible.

USS Holland went to Java on 3 February to 'remove' the Asiatic Fleet Submarine Force staff to Australia however. The first air raid on Darwin occurred on the 19th. and *USS Pigeon* was hard pressed with enemy attacks in the Phillipines and was sunk after gallant salvage work on 4 May 1942.⁵⁷

Thus, in the light of the subsequent air raids on Darwin, the vulnerability of the irreplaceable *USS Holland*, the loss of *USS Pigeon*, and the removal of the US submarine base from Darwin to the west coast, there is no record of a penetration into the hull of the submarine despite there being pressing reason at the time to do so.

Thus it is argued that on the basis of all the above a penetration into the Submarine Number 1, the *I 124* was not made.

On the basis of all of the above, it is clear that post-war Japanese and American reports that the wreck lay in 40 feet of water and that it was entered in order to gain access to the safe are in error.⁵⁸

Comments supporting this argument appear in the reply to this author from the Submarine Warfare Library and these are based on discussions held recently, in response to my inquiry, with the American authors concerned.⁵⁹

According to the American Submarine Warfare Library, the Japanese account is believed to relate to the sinking of the *I 1* on 29 January 1943 by two NZ corvettes. This submarine was rammed and run ashore in a sinking condition by the NZ vessels. It was reported that the 'allied divers salvaged a treasure trove of valuable secret documents'. Though many of the crew leaped ashore and buried some of the code books many were found in the hull. The self evident comment that had the codes onboard *I 124* become available the story of their impact would certainly have been told in similar fashion to this and other code breaking feats was also made.⁶⁰

Thus, on the basis of the wartime evidence there is only one submarine in the Clarence Strait, it lies in water around 25 metres deep and it was not cut open or entered by divers. Those divers that did descend to the wreck centred their activities on the aft deck and proceeded only fifteen steps forward of the conning tower. See Appendix.

⁵⁶ *Dictionary of American Naval Fighting Ships, Vol 1 1959*, Navy Department, Washington, p.303.

⁵⁷ *ibid.*

⁵⁸ Hiroyuki Agawa. (nd) *The Reluctant Admiral. Yamamoto and the Imperial Navy*. Kodansha International. Tokyo, p. 307 & Carpenter, D. and Polmar, N., (1986), *Submarines of the Imperial Japanese Navy*, Conway, NY, Cha. 2.

⁵⁹ Paine to McCarthy, *op. cit.*

⁶⁰ *ibid*, quoting Holmes, W.J. () *Double Edged Secrets. US Naval Intelligence Operations in the Pacific during World War II*, p. 123 & Blair, C. *Silent Victory. The US Submarine War against Japan*, p.370. (Excerpt supplied by Submarine Warfare Library).

Dives in the 'modern' era

The *I 124* was then left undisturbed until it was relocated in 1972.⁶¹

It appears that when the submarine was first dived on sometime around the end of 1972. An unprovenanced document entitled 'History'⁶² obtained by Flamingo Bay Research, indicates that in late July 1972 a partnership of George Tyers, C.J. Hawks and Harry Baxter was formed with a view to locating the *I 124*.

Baxter claims to have found the wreck on 15 November 1972 and to have dived five times. He stated that it was fitted with a 5.5 inch gun and had open torpedo tubes. On the basis of research conducted it was his teams 'firm conclusion' that it was the *I 124*. Sounding equipment used on the hull led he and his colleagues to believe that 'half of the submarine is still water tight and the other half filled with water'. He estimated the scrap metal value of the wreck to be \$1.5 million and noted that 'it is possible that the ship also contains mercury which was used for ballast which would be worth \$1 million. He also noted that apart from these considerations, the submarine 'might be a valuable war relic'.⁶³

Baxter went on to make a number of bizarre claims relating to sharks, sea snakes and 'man eating' gropers and though there appears an element of truth in the above it needs to be treated with the same caution as that applied to later much publicised reports emanating from him.⁶⁴

According to the unprovenanced 'History', the contents of which cannot be verified at this stage, many searches were conducted over 6 weeks and the vessel was finally located with echo sounder and sonar. Between September and November preliminary dives were conducted which included Baxter, though he appears to have taken a secondary role despite his claims to the contrary. Baxter then went to Melbourne on behalf of the group to raise money. There he entered into a contract with a Mr Nason and others.⁶⁵ This group, T&L salvage whose solicitors were Garrick Gray and Associates commissioned a 'very professional and thorough inspection' by Sub Sea Services headed by P.J. Washington.⁶⁶

According to the author of 'History' the wreck was 'in a perfect condition with only light growth 1/2 way up the side of the hull and on the conning

⁶¹ It has been claimed that relatives of the crew led by Atsuko Kishigami eldest daughter of the *I 124* commander attempted to organise the recovery of the remains in 1958. *The Sun* 9/5/1973.

⁶² An excerpt from a report 'History' believed to be written by G. Chadderton master of one of the vessels involved during the Sub Sea Services survey A copy of which is in the Flamingo Bay Research Pty Ltd archives.

⁶³ Statement by Harold Baxter circa January 1973, Nason Papers.

⁶⁴ There are many, the most notable being: (i) *Australasian Post* (13/3/1981) The \$2 Million Dollar Graveyard: 4-6/ (ii) *The Sun* (9/5/1973) The Death of the Dreaded *I 124* :10

⁶⁵ Others involved in an unknown capacity appear to be, Lowry, Baxter, Reardon, Murray, Harper, Gray and Nason. See footnote following.

⁶⁶ P. J. Washington, Managing Director, Sub Sea Services, Pty. Ltd., to Garrick Gray and Co., Solicitors, 8/3/1973. Papers held by Mr Washington kindly released to the WA Museum by Mr Washington formerly of Sub Sea Services acting with the permission of his then client Mr J Nason for whom Garrick Gray were operating. Hereafter called the *Nason Papers*.

tower.....(the) aft deck was 2 rows of petrol drums in brackets which are intact.⁶⁷ The inspection by Sub Sea Services showed that the wreck lay in 160 feet (26-27 fathoms). The first diver descended to the bow and reported a net cutter 5 feet high, a hatch which was 'at an angle of 25° and between this and the conning tower was a gun. In the course of this 14 minute dive (including 2 minutes descent) the diver left the wreck to clear his hose and could not return due to the currents. The second diver had a 37 minute dive and also landed at the bow. In proceeding aft from there he noted the blown hatch 40 feet aft of the conning tower. The diver also noted that 'forward of the conning tower is an open hole. Port side of the conning tower is a bad hole.' The next dive was aborted due to rupture of the air hose. The last diver had a 25 minute dive and noticed a 'mortar bomb' in the conning tower and that 'aft of the conning tower is a rack of depth charges or mines'. Mr Washington indicated that more information would be available in examining the photographer Mr Bource's photographs.⁶⁸

According to the syndicate who commissioned the report, the wreck was

positively identified as *I124* from plans we had from Kawasaki
and measurements taken on the submarine and relayed by
telephone.

The comment was made that 'if it is loaded with mercury' it would be very valuable and that one of the divers, Henri Bource's, photographs should be obtained. These films are in the possession of the well known Mr Henri Bource of Brighton Victoria.

Dissension then occurred within the ranks of the Company and it split apparently into two factions. Discussions were held by one faction with the Japanese Government with a view to salvage after the proper removal of bodies while the other pressed ahead in a less conciliatory mood. Reference is made in the document purporting to be a history of these events to 'armed raids on my tug moored to the submarine so as to try and change our legal standing of possession in international waters.' At least some of the group were of the belief that the wreck contained mercury and had considerable salvage worth. In 1977, Baxter on his own admission, severely damaged the conning tower with explosives in an attempt to force the Japanese government to deal with him and not his former partners.

The reverse occurred and as a result, the area was declared restricted under the historic shipwrecks act and a 500 m radius exclusion zone declared around 12°06.92S and 130°06.77 E., the position fixed to the limits of the equipment then available by HMAS *Moresby* in 1977.

Apparently in response to the reports of Sub Sea Services and Baxter's group that unexploded mines lay on the deck of the vessel, 7 investigatory dives were made by HMAS *Curlew* on 5 and 6 November 1984.⁶⁹

⁶⁷ 'History,' op. cit.

⁶⁸Washington, op. cit.

⁶⁹Partington. R. Capt.RAN to J. Amess, DASSETT. *Historic Shipwreck Japanese Submarine I 124*. 7/3/1985.

In the course of this inspection, 'mine carrying rails' were noted on the aft deck, along with two hatches on the stern, one open. The after section of the conning tower was found detached from the main structure and lay across the starboard side of the vessel. A gun was noted on the foredeck. Photographs and a site plan were produced. The report stated that, 'no minelike objects or explosives were found on or in the vicinity of the wreck.' The hull appeared generally sound with no apparent damage, bar that noted above.

The four dive reports i.e. those of USS *Holland*, Baxter, Sub Sea Services and HMAS *Curlew* appear together in Appendix 2. It is clear that though there are discrepancies, i.e. the net cutter missed in the *Curlew* inspection and the peacetime boat stowage noted on the *Holland* inspection, the four teams are referring to the same vessel, and that any differences noted are due to the different places of access to the site (bow or stern) and the difficulties of diving on the site which can be summarized as short bottom time, severe narcosis (in some cases) due to the depth, gear failure, fear (in some cases), poor visibility and problems in combating the tide.

The one serious discrepancy was in the matter of the presence or absence of the row of 'depth charges' or petrol drums' noted by Sub Sea Services aft of the conning tower. These were not seen by divers from USS *Holland* in 1942 and HMAS *Curlew* in 1984.

The situation was resolved recently in the interview conducted with Henri Bource, photographer and diver for Sub Sea Services. Mr Bource noted that the poor visibility and refraction reduced the quality of the photographic record and that only 'five or six' of the photographs showed much detail. Mr Bource centred his attention on the seabed around the vessel in order to gauge the suction forces that would be required to overcome in order to raise the wreck. He did however spend some time in the area 'just aft of the tower to the bow' and looked through the 'grating' on the aft deck.

There he noted lying between the pressure hull and the outer hull were drums in 'the shape of 44 gallon fuel containers'. He reported this on surfacing and the suggestion was made from a perusal of Janes Fighting Ships that these may be mines, depth charges or petrol drums.⁷⁰ Mr Bource confirmed that no actual identification of the containers was made at the time.

Apart from a number of unauthorised attempts to dive on the site which appear to have been unsuccessful, there appears to have been little activity on the wreck since these visits until this 1989 inspection was mooted.

The Flamingo Bay Inspection : March 1989

In utilizing the GPS position fixing systems and the VDU plot and hard copy of the search vessel's course in coordinates to the Australian National Datum, Captain Tomlinson was able to navigate the *Flamingo Bay* accurately outside, but on the border of the 1000m. diameter restricted area as fixed by HMAS *Moresby* in 1977. The area inside the restricted zone was examined by skirting

⁷⁰ Henri Bource, pers com to McCarthy, 21/5/1990. I 124 File 3/89. WA Museum.

its boundary with the side scan sonar set on a range of 500 m. Nothing was seen within its confines. A submarine was located 500 metres outside the zone towards the south, however and the *Flamingo Bay* then conducted a side scan sonar assessment of the wreck and on anchoring above the wreck deployed the ROV.⁷¹

It should be noted again at this time that, when the RAN conducted their surveys of *I 124*, in 1944, 1977 and 1984, GPS was not available and that as the wreck lies in the 'extreme range for the equipment and methods of fixing employed by all three ships, consequently all three positions must be considered to be appropriate'.⁷²

From side scan records and film taken from the ROV, the site was seen to match the description of the *I 124* as recorded by a diving team from HMAS *Curlew* in 5-6 November 1984.⁷³ It has a gun forward, lies on a N/S axis with apparent damage to the conning tower. This coincides with the report from HMAS *Katoomba* in 1942 that indicated the wreck lay at an angle of 020°-200. The dive report from USS *Holland* matches the known details of the type in as much as they refer to the aft deck and this in turn matches the description of the professional diving team commissioned to inspect the site in 1973.⁷⁴ It also fits accounts of damage wrought by diver Harry Baxter that led to the restrictions on diving in the area. The wreck is the *I 124*.

Despite the intense frustration of being anchored directly over the site confirmed as *I 124*, lying outside its restricted area with excellent video and still cameras at our disposal, the team abided by the letter and the intent of the agreement not to dive the *I 124*. Consideration was also given to the presence of 'press' cameras and reporters on-board keen to make a story at any cost. Two very frustrating days attempting to deploy an ROV which, due to its 'simple' nature, could not satisfactorily maintain station in the strong tides.

Weather, technical problems, time constraints and difficulties in the operation of the ROV (despite the obvious skills of the operator) precluded a complete inspection. Only the aft deck and the aft section of the conning tower were recorded using the ROV camera. Of a total of 8 ROV dives, 6 were aborted due to gear failure and/or inability to maintain station in the adverse currents. No inspection of the internal pressure hull was made.

The quality of the film produced by the ROV is sufficient to show what could have been done had this team been able to deploy the wider angle, hand held video and 15 mm still cameras at its disposal. Our frustration in being only able to deploy what amounted to an unsophisticated ROV and not produce a satisfactory record and take corrosion measurements as planned needs to be again noted at this point.

As indicated above, at the time the March 1989 inspection was conducted the *I 124* files were restricted. Having only the reports of HMA vessels *Deloraine*, *Lithgow* and *Katoomba* and USS *Edsall* and *Alden* to the effect

⁷¹Details appear in WA Museum File, 3/89, above.

⁷² Doyle, op. cit.

⁷³ Partington, R., op. cit., Appendix 2

⁷⁴P. J. Washington op cit.

that more than one submarine was sunk searches were made for the other sites. There are, as indicated verbal accounts of another submarine wreck with a 'hanger and with a gun aft' lying 'in a gutter' in the vicinity.⁷⁵

On the premise that when the *I 124* was sunk the *HMAS Kookaburra* was moored over the site and used as a navigation aid in the location of the other submarines believed sunk by the USS *Edsall* and HMA Corvettes, *Deloraine*, *Lithgow* and *Katoomba*, their courses were retraced and each area examined using the side scan sonar. These areas lay 5NM on a bearing of 220°, 5 NM on a bearing of 290° and 3000m. on a bearing of 125°. Nothing was found other than a remotely possible (and at best a very fragmented site) near one supposed kill at the last position noted above. This was later proved to be of natural origin as one would expect in the light of the evidence presented above.⁷⁶

The position of the wreck and the search areas was fixed by RACAL staff. The wreck lies at a position 18 NM due south of Penguin Hill, Bathurst Island, (using as datum AGD 66, AUS National Spheroid)⁷⁷

Lat: 12°07'12.328" S Long: 130°06'23.619" E

511 595 E

8 660 160 N⁷⁸

⁷⁵ Lt. Cmdr Menlove in an interview recently conducted with Film North of Darwin is adamant that at least two were sunk.

⁷⁶ Tomlinson to McCarthy, *pers com.*

⁷⁷ RACAL Survey, Daily Log. : *Japanese Submarine Location Survey*. 22/3/1989, Copy on File 3/89/1 WA Maritime Museum, Dept of Maritime Archaeology. This needs to be transposed to suit the various charts used in locating the vessel.

⁷⁸ This position now needs to be converted to fit the various charts on which the wreck appears. Some attention has been paid to this problem already. See R.D. Eames, Commander, RAN, Acting Naval Officer Commanding, North Australia Area, to DASSETT, *Japanese Submarine I 124*, 7/9/1989.

The Mercury Contamination Issue

In 1972 Harold Baxter raised the possibility that the *I 124* contained mercury and noted that if this was so it raised the value of the wreck quite considerably.⁷⁹ Baxter's claims and those that have emanated from this source need to be treated with caution however.

The presence of mercury is, according to the Submarine Warfare Library,
a

fanciful justification for diving on sunken subs that has been used before by promoters seeking funds for their venture. High vapour pressure toxic materials are generally avoided aboard submarines.⁸⁰

Yet we know that in the latter part of World War II, mercury was carried on German submarines to Penang and possibly Singapore and from there it was transported to Japan, presumably by the Japanese.⁸¹

In examining these varying stances, it became evident that any mercury found onboard a submarine is, if it exists, to be found in three situations

- (a) as cargo
- (b) in instruments
- (c) as trimming ballast

Mercury as Cargo

It is well known that mercury was carried as cargo on German submarines in the latter part of World War II.

In 1976 for example, an apparently loosely knit, Australian Salvage Company called 'The Group' dived on the German Submarine *U 859* which was sunk by HMAS *Trenchant* in 120 feet of water about 25 Nautical miles North West of Penang Island. According to Mr John Bastian, a member of the diving team, 'about 40 tons' of mercury were recovered from the submarine which had been cut in two by the engagement and the two sections lay about 50 metres apart.⁸² According to Mr Bastian, who in my opinion is a very reliable source, the group was aware that the submarine carried mercury and located it in small 'steel flasks' not much larger than portable oxygen therapy bottles in common use today. These were found stowed horizontally in layers in the keel, in compartments aft of the conning tower which measured around '3 feet wide by four feet deep'. The compartments apparently bounded by the frames of the vessel and the keel itself. When the news of their find spread, the group were effectively dispossessed of the mercury by the West German

⁷⁹Baxter op. cit.

⁸⁰Paine to McCarthy op. cit.

⁸¹ See footnotes, 82 & 83 following.

⁸²J Bastian to McCarthy, 12/3/1990, I 124 File, WA Museum File 3/89.

Government.

This claim in relation to the carriage of mercury by the *U 859*, its loss, subsequent salvage and court case has been specifically supported elsewhere,⁸³ and in this context it was generally noted that

Specific purpose vessels such as the IXd2 class, of which *U 859* was a member, were

despatched from Germany to Japan carrying mercury, optical instruments, radar sets and dismantled V weapons. Those that survived the round trip returned to Germany with cargoes of zinc, tin, raw rubber, quinine and opium.⁸⁴

Other cargo carrying submarines were built by both the Germans and Japanese.⁸⁵ Many of these were lost, and it is expected that some of the wrecks of these vessels still contain their respective cargoes.

In the context of the *I 124*, it has been noted that for the Japanese to send a vessel carrying such a cargo into combat is unthinkable.⁸⁶ In analysing this statement it can be claimed, with little fear of contradiction, that to reduce that particular submarine's capacity to carry mines by loading it with mercury in 1942, when the war had just begun and Japan was on the offensive, is also unthinkable. In addition, *I 124* did not go to Penang or Singapore en route the Darwin engagement.

Further to this, the carriage of cargoes by submarine does not appear to have commenced until the Japanese entered what has been described as 'Phase III' of their tactical concepts which began in 'mid November 1942' when the majority of active submarines' were 'employed primarily to supply bypassed island outposts'.⁸⁷

Thus *I 124* was not carrying mercury as a cargo.

Mercury in instruments.

It is expected that *I 124* carried mercury in instruments in similar fashion to any ocean going vessel, but that even then alternatives would have been sought. As a source of contamination that source can be discounted.

Mercury as Trimming Ballast

An examination of the plans of the German type was conducted at my request by Mr George Thompson⁸⁸ with assistance from Mr A. Shaw,

⁸³Keatts and Farr, op. cit, pp 135-6.

⁸⁴ibid.

⁸⁵See *Submarines as Supply Ships* in Carpenter and Polmar, p. 29 et seq.. op. cit. & Rossler, op. cit.

⁸⁶Paine op. cit.

⁸⁷Polmar and Carpenter, op. cit., p.11, 29.

⁸⁸George, G. 'Graham', Thompson, 6/7/1989, *I 124 W.W.2 Japanese Submarine. (investigation into the trim and Ballast system)*, WA Museum File I 124, 3/89. Mr Thompson served his apprenticeship with Vickers Armstrong (Shipbuilders) in the UK. Has worked as a draughtsman on armaments and worked seven years on Nuclear submarines as propulsion test engineer. He transferred to Vickers Oceanics and trained as a Diver-

Engineering Project Manager, British Shipbuilders Ltd.⁸⁹
 Mr Thompson's and his associates findings were :

Initial research showed the design of the German *U117* was purchased by the Japanese Imperial Navy from Germany in 1920.⁹⁰

The German *U117* was a UE11 design and was a development from the earlier UE class submarine. The UE class was introduced in 1916 as a 'Dry Storage Mine Laying Submarine'.⁹¹ Four boats were built to the UEII plans in Japan between the years 1924 and 1926 under German supervision.⁹² Comparisons were made between the plans of the German UE11 and photos of the Japanese *I 124*.⁹³

It could be seen that some modifications were made by the Japanese, namely the aft gun was omitted on the *I 124*. Other modifications appear to be the fitting of aviation fuel tanks to the upper decks of the *I 124*.⁹⁴ No other modifications have been found to date.

In order to gain an understanding of the design development of the German UE11 boat, the design of its predecessor the UE boat was also studied.

In making the following observations, the Specific Gravity of mercury was taken as is generally accepted at 13.5 tons/cubic metre.⁹⁵

Consideration was first given to the possibility that mercury may have been used as a trimming medium in either of the German designs.

From the outline and frame plans of the UE boat the volume of the trim tanks was measured and these were found to be in the order of 34 cubic metres.

This volume indicated that sea water was used to trim these boats and also used to compensate for the loss in weight of these boats during mine laying exercises. No further consideration was given to the trim system.

References were found to the fitting of a 50 ton keel to improve the stability of the German UE boat.⁹⁶

Studies of the plans of the UE boat revealed the existence of an inner keel, measurements showed this compartment to be approximately 1.23 cubic metres.

In considering the ballast volume and loading it would appear that the facility exists in the UE boats for the carrying of up to 16.8

Pilot/Maintainer on two man deep diving submersibles. Since his arrival in Australia in 1981 has worked in the offshore industry, three years as a two man submersible pilot followed by five years as a Remote Controlled Vehicle operator and is currently employed by Subsea International as an engineer. He was ROV operator on the examination of *I 124*.

⁸⁹ Mr Shaw provided technical assistance in studying the designs of the UE boat, and also assisted in liaising between Mr Thompson and Naval Architects at the Greenwich Maritime Museum.

⁹⁰ Rossler, op. cit. p.88

⁹¹ ibid., 44

⁹² Watts & Gordon, op. cit., p.320, 321.

⁹³ Janes, op. cit. p. 339.

⁹⁴ Watts & Gordon, op. cit.p. 321.

⁹⁵ Encyclopaedia Britannica.

⁹⁶ Rosler, op. cit., p. 45

tons of mercury.⁹⁷

It was noted that the keel configuration on the UEII type boat differed from the keel of the UE boat. Whereas the UE boat had a single box type keel, the UE 11 boat was fitted with twin parallel bilge keels.

Careful studies of the UE11 drawings failed to find the existence of any likely compartment that would indicate that mercury was used to ballast these boats.

Discussion

1. In studying the two German designs the author feels that the confusion arising over the possible use of mercury as a ballast in the *I 124* arises from the possibility that mercury was used in the early German UE boat.
2. Discrepancies have been noted in various publications with respect to the length and tonnage of the German UE 11 boat and the Japanese *I 124*. The author has mentioned two known modifications that were carried out by the Japanese Navy. However, to evaluate the design in more detail a set of the Japanese plans would be needed.
3. Studies of the designs of the UE 11 type revealed that spare torpedoes were carried either side of the deck casing (appendix 4). These torpedo racks were supported by the saddle tanks. The author feels that future consideration should be given to what the effect of the eventual corrosion of the saddle tanks and decking would have on these torpedoes.

Conclusion

From the information available, the author concludes that the U boat design purchased by the Japanese and used in the construction of *I 124* was a design that is not consistent with that of a mercury ballast design.

In response to queries directed to the Australian Department of Foreign Affairs and Trade (as the best means of contacting informed German and Japanese sources such as Rossler and others) on the possibility that the *I 124* contained mercury as a trimming ballast, reply was received to the effect that

In recent months we have through diplomatic channels pursued the historical evidence thoroughly with the appropriate authorities in Japan, the United States and Federal Republic of Germany, and in archives both classified and unclassified. The principal conclusions are as follows :

I 124 was not equipped with a mercury ballast system, nor was it carrying a cargo of mercury.

No historical evidence has emerged that any submarine in the Imperial Japanese navy was equipped with a mercury ballast system.

The West German Ministry of Defence has advised that no

⁹⁷ The final amount of mercury ballast would probably have been determined empirically by the shipwrights and designers at the final stages of fitting out of the submarine at the builders yard.

German Submarines had mercury trim or ballast, although a few present day submarines have an external trim that operates with oil and mercury.

It is therefore certain that the German design upon which the *I 124* was base, did not provide for a mercury trim or ballast system, but instead had provisions for trim and ballast to be effected by other means.⁹⁸

After further investigation of the matter in response to continued inquiry and requests for primary sources, it was advised that the *U 125* class on which *I 124* was based used iron ballast and sea water as trimming ballast.

It can be concluded from an examination of these various sources that *I 124* does not have a mercury trimming system.

Mercury in Fish collected from *I 124*

Thus it has been concluded from a number of sources that mercury was not present on the *I 124* in any form other than in instruments carried on board.

Having reached that conclusion it now remains to assess the source of the supposedly high mercury content of fish recovered from the region of the submarine reported by Captain Tomlinson at the start of this project and which has caused concerns at all levels in Australia.

These reports to the effect that *I 124* carried mercury and that it was leaking into the sea producing an un-acceptably high level of mercury in fish led to various articles in the press, on radio and on television.

These assertions were tested on the 1989 inspection of the site by the taking of fish, mud and water samples from the vicinity of the wreck.

Following that inspection, in a letter of 4 July 1989, Captain Tomlinson stated that 'over 50% of the fish collected had a mercury reading above the allowable limit set by the National Health and Medical Research Council'. Though Captain Tomlinson noted that the sample did not give a 'true indication of the mercury source associated with the wreck because there is no comparative data available' and though he also noted that the figures 'cannot prove that mercury exists', he nevertheless stated that 'in my [his] mind the likelihood of its existence is a strong possibility'.⁹⁹

This will now be examined.

Water and Mud samples taken from the site produced 'background levels' of mercury, though it must be noted that the sampling methods used were crude and unreliable.¹⁰⁰

With regard to the fish, the levels of mercury found in the fish sampled

⁹⁸S. Kentwell, Director Japan Section, Dept of Foreign Affairs and Trade to McCarthy, 16/2/1990

⁹⁹Capt. D.Tomlinson to Dr C.Jack Hinton, Director Northern Territory Museum, 4/7/1989. *I 124* File, 3/89, WA Museum.

¹⁰⁰Dr J. Fabris Dept. of Conservation, Forests and Lands, Victoria to McCarthy 20/7/1989 & Fabris to Dr I Macleod, Head Materials Conservation Dept. WA Museum, 18/5/1989, *I 124* File 3/89. WA Museum.

from above and around the wreck was also considered to be 'not unusual'.¹⁰¹

The level of Hg [mercury] in fish recovered from the site is not high, and does not differ significantly from levels recorded in fish elsewhere in Northern Waters and throughout Australia.¹⁰²

None of the fish sampled exceeded the maximum permissible concentration of 1.5 mg/kg in any individual sample accepted by the NH&MRC and only one fish, a blue spotted trevally, equalled the maximum limit of 1.0 mg/kg accepted by South Australia and Tasmania. The following comment casts some light on the subject :

Little is known about the mechanism for uptake of mercury by fish, uptake probably occurs through the gills. Accumulation through the trophic levels is also possible. Because of this tendency, biomagnification of mercury can then occur.... magnifications of the order of 600 have been reported for fish...high concentrations of mercury are found in predatory marine fish and in whales, it is probable that these levels are due to background levels of mercury in the oceans not related to anthropogenic release. There is a distinct relationship between age and size of animals and the level of mercury in tissues.¹⁰³

In a recent review of the data, Fisheries Research Branch, Darwin, have concluded that the data supplied to them and on which Captain Tomlinson's claim, above, was made are

"very patchy" [sic] and reflect the opportunistic nature of sampling. The small number of samples available for the species under consideration, and the lack of controls, preclude comparative analysis.

It is concluded that the biological data collected to date from the site does not indicate that the *I 124* is a source of mercury contamination into the environment.

¹⁰¹Dr D.C.Ramm, Fisheries Research Branch Darwin to McCarthy, 4/7/1989, *I 124* file.

¹⁰² Dr D.C. Ramm to McCarthy, 25/05/1990. *I 124* File.

¹⁰³ National Advisory Committee on Chemicals of the Australian Environment Council, (1982), MERCURY POLICY STATEMENT AND BACKGROUND PROFILE, Australian Government Publishing Service, p.7

Recommendations and Management Proposals:

Though the wreck of the sole submarine in the Beagle Gulf is, without any doubt, the *I 124* and it is accepted that it contains no dangerous amounts of mercury, it must be noted that it does contain highly explosive materials some of which could prove dangerous in the case of diver access, salvage, or decay through corrosion.

With this in mind, if the corrosion process is allowed to continue to the level of that noted on the German submarine *U 853* sunk in 130 feet of water in 1945, consideration should be given as was done in that case, to the presence of torpedoes some of which are stored between the outer and inner hulls.¹⁰⁴

On *U 835* and other submarines of an older vintage, the thin outer hull has almost totally degenerated leaving the much stronger and thicker inner pressure hull. It is within this capsule that the main working compartments of the submarine and the human and other remains lie and it is expected that in being so enclosed within this strong unit, they will be safely preserved for many years. The corrosion study originally mooted would have hopefully been able to give an indication of the expected life of the vessel as it lies today. In general, an intact sunken and undisturbed submarine has the potential to provide a medium with which to preserve machinery, human remains and artefacts for examination in the future. There is however a point beyond which even the pressure hull will begin to break down.

In view of the above, the management options are:

- i) to allow the site to decay untouched and to rely solely on the protection of the Historic Shipwrecks Act.¹⁰⁵
- ii) To proceed as in (i) above, but to protect the site from future human incursions by sealing hatches and openings.
- iii) to stabilize the site in situ using anodes in similar fashion to the SS

¹⁰⁴Keatts and Farr op. cit. p.40

¹⁰⁵ This viewpoint is that held by the Japanese and Australian Governments (Kentwell, Dept. of Foreign Affairs and Trade pers. com. 25/5/1990).

Until now the *I 124* has been adequately protected, not only by the act and fear of prosecution, but also by the great difficulties experienced in locating it even with the relatively sophisticated 'Satnav' systems carried on most large vessels today. It should be noted from our experience in Western Australia that divers are drawn to such 'exotic' or 'rich' sites of their own nature and that with the advent of accurate, cheap hand held GPS systems, the Act and its provisions may not serve to deter some in the *I 124* case. Experience will tell. The willingness of divers to defy the Act and risk their lives on the wreck of the VOC ship *Zuytdorp* (1712), a site currently being excavated by this author and the only site with a restricted area in WA, is a clear indication of what some will do.

Xantho(1872) in Western Australian waters.¹⁰⁶

iv) to raise the wreck as 'a unique historic artefact', as an evocative and most impressive display of 'the only full sized Japanese submarine sunk in Australian coastal waters in World War II', and the first Japanese submarine to sink Allied vessels in World War II.

In all cases (iii and iv) above, further recording is vital, though in all cases an adequate film and video record of the site should be obtained.

Recommendations.

(A) As what appears to be extensive corrosion is evident on the upper deck casing, and as it is known that the torpedoes now housed outside the pressure hull in containers will, one day, become exposed and at risk; I recommend that the complete physical and corrosion potential examination of the site planned for the trip be made in conjunction with a black and white, colour, still and video record of the quality we now know can be obtained at neap tides with high ambient light.

(B) I suggest that a committee advising the Australian Government comprising representatives of the Japanese, Australian, Northern Territory Museum and Northern Territory Government,¹⁰⁷ be convened to discuss how to manage the site.

This group would decide what management option, if any, will be taken and if (iv) above, the application of protective anodes (as in (iii)) may be a necessary beginning as such things often take time.

(C) All written, oral and audio visual material; local, American, German and Japanese on this vessel, its construction, loss and its human and other contents, be compiled and housed in a central repository for public purposes.

(D) I also recommend publication of the material so gleaned, in suitable form, as the *I124* saga is a most notable one worthy of documentation in all its various contexts be they technical, human, wartime, salvage, management or otherwise.

To this end, I recommend the Northern Territory Museum or its agent be

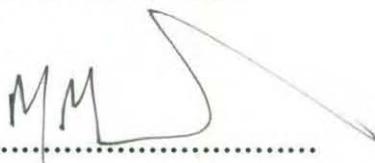
¹⁰⁶ McCarthy, M., (1988): The Excavation of the SS *Xantho*, in McCarthy, M. (ed) *Iron Ships and Steam Shipwrecks*. Papers from the First Australian Seminar on the Management of Iron Vessels and Steam Shipwrecks. W.A. Museum. & MacLeod, I.D., (1987) *Conservation of Corroded Iron Artefacts-new methods for on-site preservation*, IJNA 16.1:49-56

¹⁰⁷ It appears from informal discussion and asides that the Northern Territory Government have been exploring the possibility of raising the vessel with the Japanese. The proposed *I124* management committee would have importance in this context.

the compiler of such material.

(E) I would suggest to any committee formed to manage the *I 124* that objective consideration be given to the possibility that the *I 124* be one day raised, conserved and displayed, and that the human remains be disposed of according to the traditions of Japan. The vessel is unique, historically important to both Japan and Australia, a monument to their respective navies, possibly watertight in some sections, accessible and salvable. From my experience with the SS *Xantho*, the submarine is capable of being conserved and displayed. If this were to be done, the *I 124* would become one of Australia's foremost Maritime attractions.

It must be noted here, that this is an Archaeologist's and Historian's perspective and that there are clearly other perspectives from which to view this issue, most notably the social and humanitarian.

A handwritten signature consisting of the initials "MM" followed by a stylized surname, all written in black ink above a horizontal dotted line.

Mike McCarthy, Dip. P.E., B.Ed., Grad. Dip. Mar. Arc., M. Phil.
25/5/1990

APPENDIX 1

Lines and Plans of *U 117* type

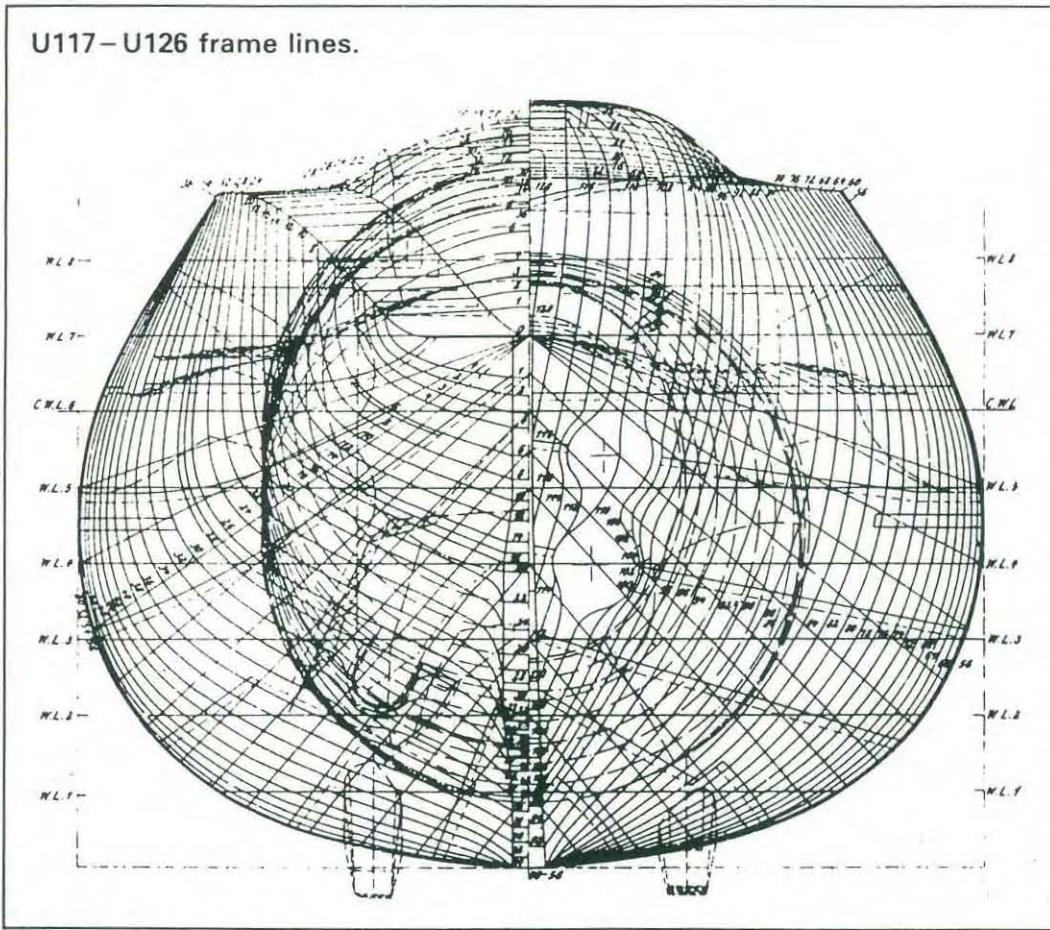
beginning of 1916, when it was planned to resume the campaign against merchant shipping. This UI Project 45 depended, in its principal features (internal fittings, and all structural members, especially external frames), on Project 43. The stern compartment, however, requiring space for mine storage, was changed and was based upon that in *U71-U80*. Armament consisted of two 10.5cm U-boat guns and four submerged bow torpedo tubes (six G/6 torpedoes) and a minimum of 32 and a maximum of 40 UC/200 mines. Surface speed was 14 knots, and surface range was 5–6,000 nautical miles at 9 knots. The submerged range was less than that of the Ms U-boats because mine storage had increased the displacement to approximately 1,000 tons, but battery capacity had remained the same. The length was increased to 77m.

The UI assumed that, bearing in mind the quantity of engines available, 9 boats of this type could be built by Vulcan and B&V during the summer of 1917, as Vulcan was experienced in the construction of mine installations of an appropriate type. However, during verification of the plan, it became clear that the pressure hull shape of Project 43 was inadequate for the exceptional space

requirement in the after part of the boat. The profile and cross-section measurements of the pressure hull had to be changed several times. In fact, the mine compartment had to be made elliptical, but, because of the double-hull form, the outer lines of the boat were not changed. On the surface, total propulsion efficiency was 50 per cent, which was reckoned to be good. But, as a result of the numerous projections and additions, including the two 10.5cm guns and a large navigating bridge, the submerged propulsion efficiency was naturally inferior, amounting, after towing trials had been made, to 32 per cent. A peculiarity of this design was the storage of a further ten torpedoes in pressure-tight containers, positioned in special troughs on the port and starboard sides of the upper deck. In place of these torpedoes, 30 additional mines could be carried in deck storage boxes and could be slid along rails to the after launching position.

On 13 May 1916, the UI suggested building 10 of these Project 45 boats, and tenders were received from Vulcan and B&V on 25 May. On the 27th, contracts for 5 boats from each yard were awarded: *U117-U121* to Vulcan, *U122-U126* to B&V.

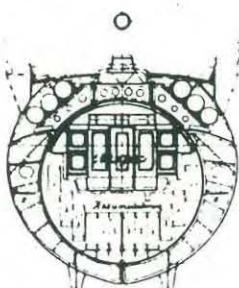
U117–U126 frame lines.



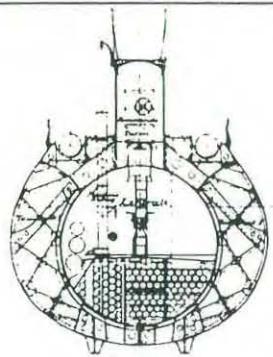
Left: Slipway launch of an UBIII boat at B&V. These series boats were not built entirely on the building-slips; the fittings were added only after the incomplete boats had been transferred to a floating dock.

Project 45 (U117 – U126).

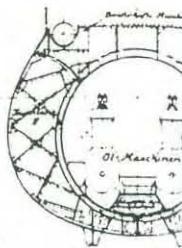
Glossary: Minen-Raum, mine compartment; Trimmtank, trimming Schalttafel, switch panel; E-Maschinen, electric motors; Öl-Maschinen, engine; Munition, ammunition; Kommando-turm, command tower; Hilfsmaschinen, auxiliary engines; Brunnen, well; Kugel, control room; Akkumulatoren, batteries; Mannschaftsräume, crew's quarters; Hinterer Oberdeckstank, stern upper deck Tauchtank, diving tank; Reglertank, regulating tank; Minenabwurftank, mine compensation tank; Proviant, stores. (See also Glossary, page 372.)



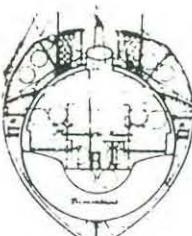
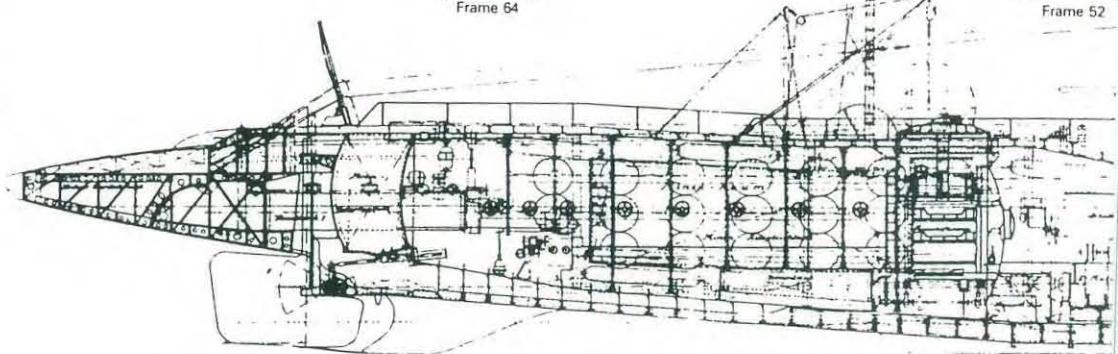
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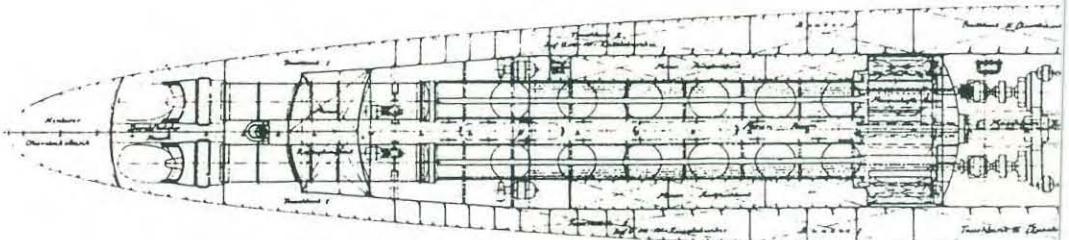
Frame 64



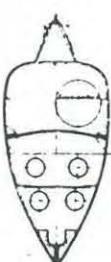
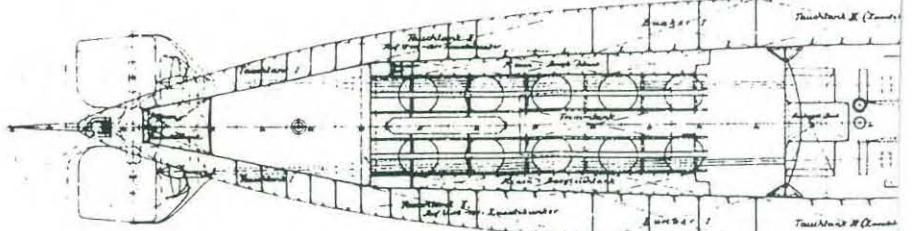
Frame 52



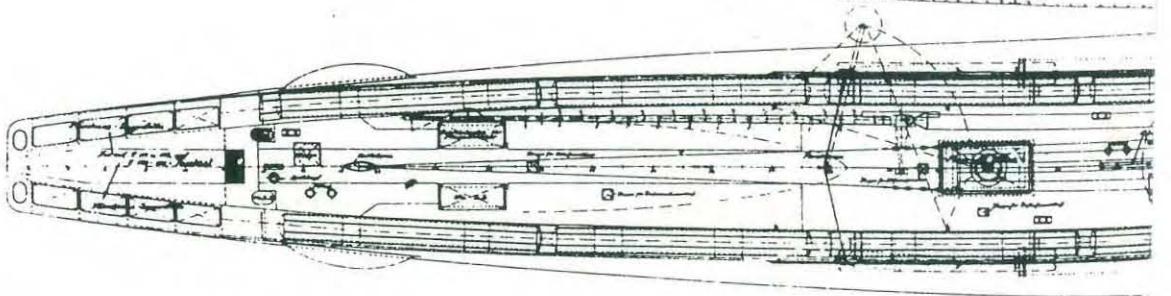
Frame 84

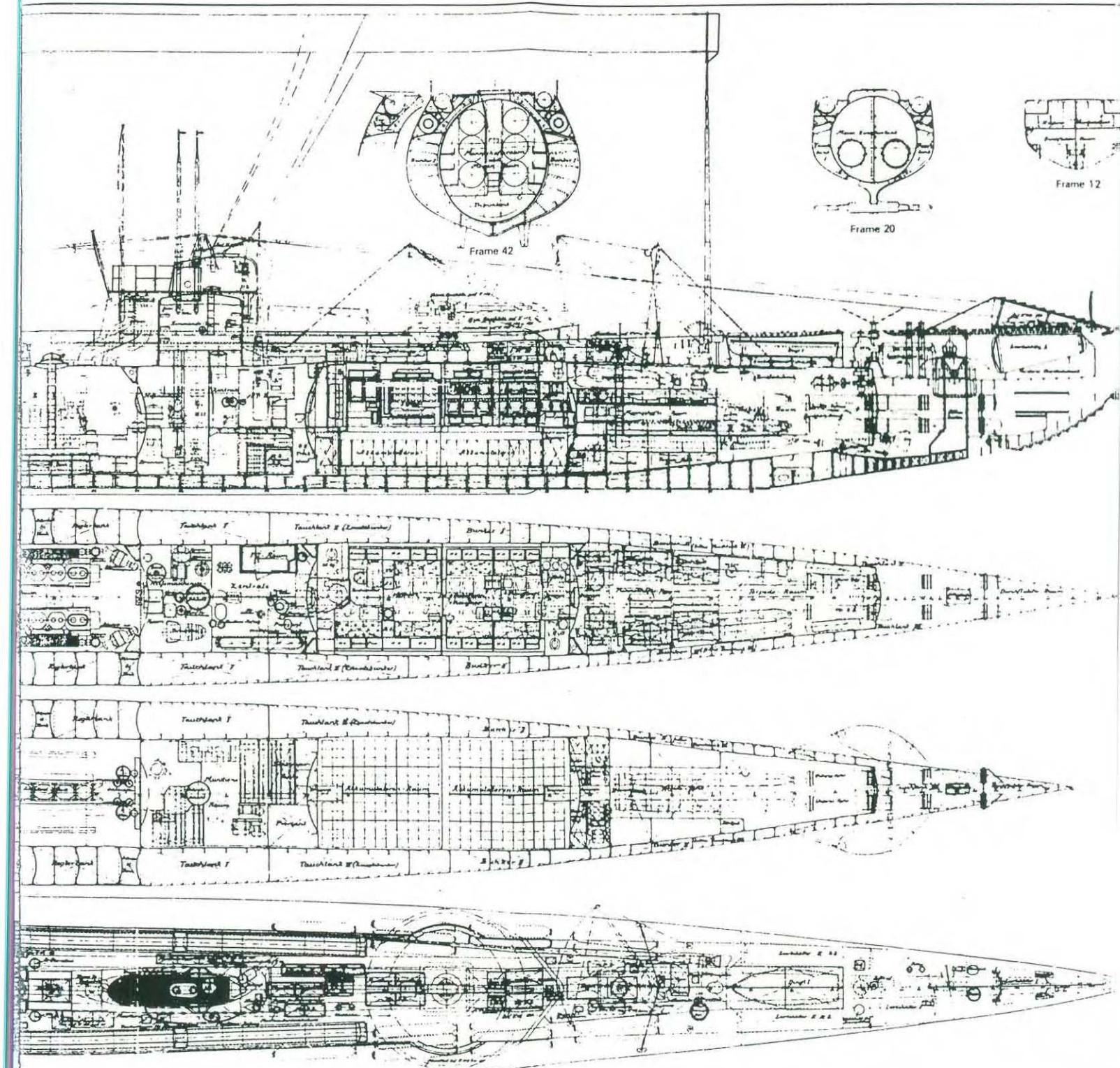


Frame 94



Frame 100





U-BOAT CONSTRUCTION DURING THE FIRST WORLD WAR

**APPENDIX 2
Dive Reports, I 124**

***USS HOLLAND
BAXTERS REPORTS
SUBSEA SERVICES
HMAS CURLEW***

Original
IN REPLY
REFER TO:

U. S. HOLLAND

10-BH

DECLASSIFIED

31

O-5-N-A-F-L-T-D-E-E-F-T-I-A-L

AS3/394

Serial 405

From: The Commanding Officer.
To : Naval Officer in Command, Darwin.
Subject: Diving operations - Report of.

1. Quoted herein is the report of Lieutenant Commander R. E. HAWES, U.S. Navy, the officer in charge HOLLAND diving party, which examined the sunken enemy submarine at latitude 12-03 south, longitude 130-09 east (off Port Darwin).

"Embarked with diving party on board HMAS KOKABURRA and arrived at buoyed location about 0700. Started dragging operations apparently made several strikes but nothing certain. Occasional small bubbles of oil were noted and finally a line of pin point bubbles with frequent larger bubbles about the size of a dime. Ship was moored about center of bubbles and it was hoped that diver could be landed on the submarine. It was the intention to keep divers on bottom not longer than 16 minutes in order to stay on decompression table.

First diver - no results.

Second diver - no results.

Third diver - reported a large gully about 15 feet across and 4 to 6 feet deep which is believed to be where submarine first hit bottom. Bubbles from divers come up well forward of the ship and position was shifted about 150 feet aft.

Descending line was shackled to stern mooring wire and diver put down on this. He landed on deck of submarine before reaching bottom.

Report of fourth diver - a large submarine. One hatch apparently blown open. Unable to make out any identification. Also located 2 other hatches but did not reach conning tower.

Fifth diver - reported gaskets blown out of two other hatches abaft conning tower; a built in hatch at conning tower with hatch at top, a V shaped well at forward part and abreast conning tower

IN REPLY
REFER TO:

U. S. S. HOLLAND

10-6h

31 JAN 1961

C-E-N-S-E-F-B-N-T-I-A-L

AS3/594

Serial 4082

Subject: Diving operations - report of.

"about 15 to 20 feet long and 6 feet inside. Apparently peace time boat stowage. A small door open on conning tower with valve wheels exposed, believed to be salvage air manifold. Antenna ran from stern to conning tower. Wire hand rails went up to conning tower where pipe hand rails went inboard of well and cut where wire again started. Did not locate gun, says he was about 15 steps forward of conning tower. Hatch blown open had dogs bent but no wheel inside for locking as we have. At each hatch there were two pad eyes also an air connection. The blown out gasket was cut from the after hatch. The hatch blown open was nearest conning tower. Gasket on second hatch was bulging out. Color of submarine black but was covered with slight coating of light colored mud. Ship was on even keel. No bubbles visible. No damage of any kind noted to hull or decking other than condition of hatches.

Sirh diver - cast off descending line and verified observation of first two. Air supply prevented further diving operations this date. Returned to port arriving about 0200 following morning.

On return to submarine the following night arriving at 2000 too late and sea too rough for work that date. Same sea conditions following morning. Returned to port arriving about 2400."

2. It is understood that after the submarine was sunk by depth-charges no debris nor oil came to the surface. Bubbles from the submarine on January 26 were very small; it is possible that her hull is intact, having been sunk by water taken in through the blown-open hatches.

3. Further exploratory diving is required before a recommendation for salvaging can be given. The bottom is hard sand but the submarine may lie in a trough now filled with silt. Her main ballast tanks are evidently intact and could probably be blown through the salvage air lines. The damaged hatches can be repaired so that the flooded compartments can be blown.

IN REPLY
REFER TO:

U. S. S. HOLLAND

10-bh

~~C-C-SERIAL~~

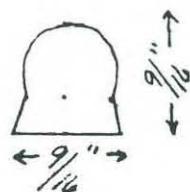
31 MAY 1943

AS3/394

Serial 400

Subject: Diving operations - report of.

4. A cross-section sketch of gasket taken from the submarine:



The gasket retaining scarifying
is about $\frac{3}{16}$ " deep.

This gasket is of new rubber and recently installed, showing faint knife edge markings and the whiteness of its sides unstained. It appears that its surface in contact with knife edge when dogged down is only about $\frac{1}{2}$ " wide, a fatal weakness of design.

J.W. GREGORY.

Copy to:

ComBasePer, AF,

ComSubs, AF

Dinged

IN REPLY
REFER TO:

U. S. HOLLAND

DECLASSIFIED

10-bh

~~C-O-N-S-E-C-R-E-T-I-A-L~~

February 1, 1942.

AS3/S94

033

Serial

From: The Commanding Officer.
To : Commander in Chief, Asiatic Fleet.
Via : Commander Submarines, Asiatic Fleet.
Subject: Sunken Enemy Submarine - investigation by divers.

1. At the request of the Naval Officer Commanding, Darwin, a HOLLAND diving party verified the sinking of an enemy submarine off Port Darwin. The party was in charge of Lieutenant Commander H.E. HAWES, U.S. Navy; H.M.A.S. KOOKABURRA (Net Tender) was diving tender and our party landed on the deck of the submarine January 26, 1942.

2. The following items of information resulting from these diving operations are of interest. I have not reported this information to the Office of Naval Intelligence.

(a) The submarine lies upright in 25 fathoms on sandy bottom, there being a "furrow" astern of her where she evidently struck bottom. Little oil and no debris was seen when she was depth-charged and during diving operations the air bubbles arising were very small and there were only occasional oil bubbles.

(b) Divers walked on her deck from aft to about fifteen feet forward of the conning tower, along the starboard side.

(c) No gun was seen either forward or aft.

(d) The conning tower structure was reported to be about the size of those on our submarines on this station; the deck extends aft about 80 feet from the conning tower; there are three hatches abaft the conning tower spaced about 20 feet apart; the hatches are about 24" above the deck, the two after ones having streamlined fairwaters and appearing to be about 24" hatches but the one near the conning tower is not faired and is about 30" diameter.

(e) At the starboard side of the conning tower there is a 24" hatch and outboard of that is a well in the deck extending for the length of the conning tower and bridge structure. There is no door in that side of the structure but a hatch cover was swung open displaying valves which may be the salvage air connections.

(f) There is no radio antenna forward; the after antenna extends from the bridge structure to stanchions which are just forward of the after hatch.

IN REPLY
REFER TO:

U. S. S. HOLLAND

DECLASSIFIED

10-bh

~~C-O-N-F-I-D-E-R-E-T-Y-A-L~~

February 1, 1942.

AS3/394

Serial 033

Subject: Sunken Enemy Submarine - investigation by divers.

(g) The superstructure sides are not vertical but are rounded from the hull to the deck. The sides of the bridge structure are vertical.

(h) Of the hatches abaft the conning tower, the forward one was wide open and its dogs beat; the gasket of the next hatch was bulged out and that of the after hatch was blown out - a sample of this was brought to the surface. There was no spider type quick-closing devise.

(i) This gasket is of new white rubber, recently installed. Its cross-section is $9/16"$ wide and $9/16"$ high, rounded at the top. It tapers at the bottom indicates that the retaining gearring is only about $3/16"$ deep. The knife-edge marks thereon show that the bearing surface of the gasket on the knife edges is only $\frac{1}{8}$ " wide. Compared with our large square-cross sectioned gaskets this appears to be a very flimsy installation and a source of great weakness. It may be the result of the conserving rubber?

3. Because of the few air and oil bubbles rising from the submarine it is believed that the hull is intact and that she sank from the water taken through the hatches. At each hatch there are two pad eyes and an air connection. The hatches could probably be made tight with lead gaskets and a strong-arm secured to the pad-eyes. Salvage is believed possible if suitable equipment were made available.

4. Attempts at further investigative diving were made on the two succeeding days but conditions were not favorable. Currents will be too strong until the next Neap tides about February 9th. The KOOKABURRA had no air compressor. HOLLAND's portable bank of air flasks were used and an unsatisfactory gasoline air compressor was borrowed from the Australian Army Command. Using the PIGGYBACK the submarine might be blown light enough to be lifted and moved to shallow water, taking advantage of the large rise and fall of tide.

J.W. GREGORY.

OCCUPATION: SALVAGE CONTRACTOR

AGE: 34 YEARS

S T A T E S :

I am 34 years of age and have lived in Darwin for fourteen years. I went to Darwin in the Airforce in 1958. I left the Airforce in 1962 and became a professional diver in 1964.

When I arrived in Darwin Japanese Salvage Contractors were cleaning up various wrecks which had been sunk off Darwin in 1941-42. I heard talk about a Japanese submarine which the Salvage Contractors were looking for but could not find and I became interested in searching for it.

I have been reading Naval records and doing other research about likely places in the area where the submarine might be for the whole of the eight years I have been diving. I spent a great deal of time and money in fruitless searches for the submarine and finally became convinced that it was somewhere in the Clarence Strait between Bathurst Island and Darwin.

I enlisted the aid of a friend who is the skipper of a Prawn Trawler who had good echo sounding equipment and on the 15th November, 1972 we made what we believed to be a firm contact with the submarine. We made two dives in a cage because there were many sharks in the area. On the second dive, just on dusk, another diver and I discovered the submarine. We left the cage and swam to the Conning Tower. There were many sharks around and our emergency air supply had failed so we placed bouys over the submarine and waited until the next morning.

We inspected the submarine at first light the next morning and discovered one open hatch. Inside the hatch were the bones of a Japanese crewman who had apparently tried to escape; there was escape apparatus in the form of oxygen bottles and harness lying on the deck. There was a small hole through the lower half of the Conning Tower which seemed to have been made by a depth charge. We were unable to gain access to the submarine due to the hatch opening being made for Japanese seamen and being too small for us. I am 6ft 1 inch tall and weigh 13 stone.

I have inspected the submarine five times altogether. There is a 10 ft. shark which is always in the Conning Tower.

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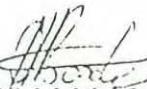
The Conning Tower also contains a great deal of pearl shell. The submarine is surrounded by sharks, man eating gropers and sea snakes which seem to make it their home.

We originally estimated the length of the submarine at 300 ft., approximately 25 ft. high and 15 ft. wide. It has light armament on the deck consisting of 5.5 gun and what appears to be some machine guns. The torpedo tubes were open and appeared to have been fired shortly prior to the submarine being sunk. Our research leads us to the firm conclusion that the submarine was the I.124 which was sunk by a depth charge attack by U.S. Edsall and Deloraine in McLaren Strait on the 20th January, 1942. Attached hereto is a page describing it from the book "Imperial Japanese Navy" written by A.J. Watts and B.G. Gordon published by McDonald & Co. Publishers Limited, 49 Poland Street, London W.1 and printed in Great Britain by A. Wheaton Pty. Ltd.

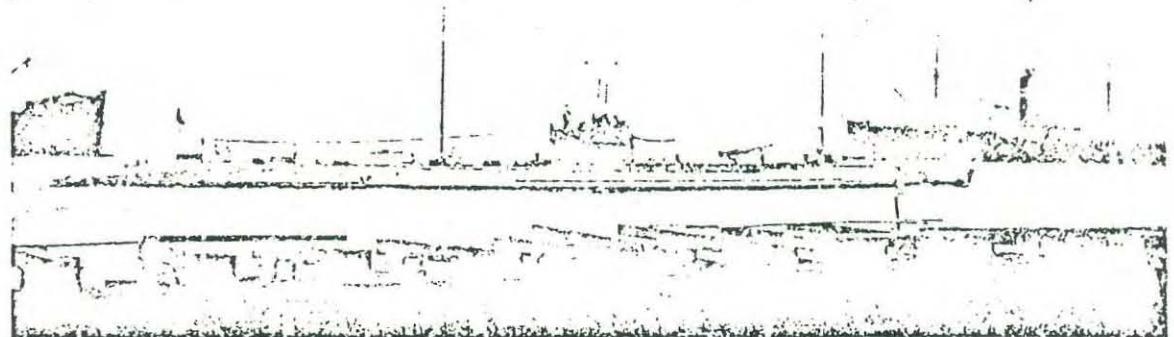
Sounding equipment used on the hull of the submarine leads us to believe that half of the submarine is still water tight and the other half filled with water. The submarine should contain the skeletons of a crew of approximately 85, records, a safe and valuable war relics. The salvage value of the scrape material would be approximately \$1.5 million and it is possible that the ship also contains Mercury which was used for ballast which would be worth \$1 million. It is believed that apart from its value as scrape the submarine might be a valuable war relic for the Japanese or U.S. Governments or private museum.

Only four of these submarines were ever built and this is the only one recovered. Of the other three one was surrendered and scraped in 1946 and the other two were sunk in deep water in 1942 and 1945 respectively.

I have recently entered into a contract with a Company in the New Hebrides to raise the submarine.



HAROLD BAXTER



277. I 22 (Type KRS) c. 1936 [A. Watts coll.]

Kawasaki only one vessel was actually completed by that yard. Towards the end of 1926 the yard almost

went bankrupt and this delayed the completion of the three other vessels then under construction. Two of them were taken to the Kure Navy Yard where they were completed and the fourth vessel was completed

<i>Displacement:</i>	1,383/1,768 tons (normal), 1,142 tons (standard)	<i>Metric equivalent</i>			
<i>Dimensions:</i>	269(pp)(wl) 279½(oa) × 24½ × 14½ feet	82/..../85·2 × 7·5 × 4·4m			
<i>Machinery:</i>	Two shaft diesel/electric motors, B.H.P./S.H.P. 2,400/1,100 = 14½/7 knots				
<i>Bunkers & radius:</i> tons; 10,500m @ 8k/40m @ 4½k				
<i>Armament:</i>	One 5·5-inch gun; four (bow) 21-inch T.T. (twelve torpedoes); 42 mines	140mm 533mm			
<i>Complement:</i>					
Number	Builder	Laid down	Launched	Completed	Fate
48	Kawasaki (Kobe)	10.24	20.3.26	31.3.27	Renumbered I 21 1924. Renumbered I 121 1939. Surrendered and scrapped 30.4.46.
49	" (completed Kure N.Y.)	1925	8.11.26	28.10.27	Renumbered I 22 1924. Renumbered I 122 1939. Torpedoed USN Skate Toyama Bay 10.6.45.
50	"	1925	19.3.27	28.4.28	Renumbered I 23 1924. Renumbered I 123 1939. Sunk depth charge USN Gamble 60 miles ESE Savo 29.8.42.
I 24	"	1926	12.12.27	19.12.28	Renumbered I 124 1939. Sunk depth charge of USN Edsall and Delcaine Clarence Strait 20.1.42.

LOA 85M 20

B. 7.50

d 4.31

DISPT. 1,163 NORMAL
1,468 TONS
(1,142 STANDB)

SPEED 14.5/7 KNOTS

ENGINES

S.H.P.

2 DIESELS

2,400

RADIUS

10,500-~~8~~ 40-45 MILES-KNOTS.

ARMAMENTS

1 14%L GUN
4 53%L.T.T. (BOW) WITH 12 TORPEDOES
42 MINES

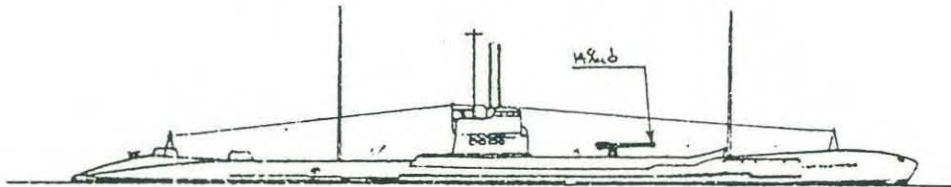
SUBMARINES

[SENSUI-KAN]

I 121 TYPE:

I 121, * 122

MINE LAYER TYPE.



NOTES: THEY ARE THE ONLY MINE-LAYING SUBMARINES IN THE JAPANESE NAVY. THEIR DESIGN WAS MODIFIED FROM THE GERMAN MINE LAYING SUBMARINE OF THE U-111 TYPE, OF WHICH ONE BOAT (U 125) WAS DELIVERED TO THE JAPANESE NAVY BY THE VERSAILLE CONFERENCE.

4 BOATS OF THIS TYPE (I 21 ~ 24) WERE BUILT BY KAWASAKI, COMPLETED BETWEEN 31/3/27 ~ 10/12/28.
THEY WERE RENAMED AS I 121 ~ 124 IN 1939.

THEY TOOK PART IN THE OPERATIONS AT THE FIRST PERIOD OF THIS WAR, BUT SINCE 1942 ~ 43 THEY WERE USED AS TRAINING BOATS IN THE INLAND SEA.

I 121 (EX. I 21) AT MAIZURU AT THE END OF WAR.

* 122 (EX. 22) MINED & SUNK NEAR HOTO PENINSULA, 10/6/45. REMOVED FROM LIST, 15/9/45.

WAR LOSSES:

I 123 (EX. 23) SUNK IN SOLOMON WATERS, AUG. ~ SEPT. '42.

I 24 (EX. 24) NEAR PORT DARWIN, JAN. '42.

SUB-SEA SERVICES PTY. LTD.

UNDERWATER CONTRACTORS AND ENGINEERS

8th March, 1973.

Garrick Gray & Co.,
10th Floor,
570 Bourke Street,
MELBOURNE, VIC. 3000.

Dear Sirs,

PROJECT: SUBMARINE HULL INSPECTION

I wish to advise the following details re Hull Inspection of your Submarine off Darwin.

DIVER:

DEPTH: 160'

L.S. 11.11
A.B. 11.13
L.B. 11.25
A.S. 11.36

VISIBILITY: 30' +

Net Cutter is 5' high. Starboard side elevators are O.K. Hatch is at an angle of 25° and Cannon is apt of hatch but forrad of conning tower. There are two holes, one in the bow and one man made. Diver left the wreck to clear hose and owing to current could not get back to wreck.

DIVER:

L.S. 15.53
A.B. 15.55
L.B. 16.30

STANDBY:

There is a Plate missing on deck. Behind this there are two open hatches, one has a door, the other has not. There is no visible damage to Port side Bow and no damage around gun emplacement. There is an open hatch on port side near gun emplacement, and blown hatch apt of

conning tower and minor damage to hatchway. On port side, behind gun, grating is missing from the deck. Behind gun on port side there is no visible gun damage. Forward of conning tower is an open hole. Port side of conning tower is a bad hole. Port and starboard lights are intact. 40' astern of conning tower on port side is an open hatch badly overgrown. On port side 4' from stern is round hole 1½" in diameter.

INSPECTION OF SUBMARINE

DIVER:

DEPTH: 160'

L.S. 0903

A.B. 0904

L.B. 0905

A.S. 0806

STANDBY:

HOSE BLEW - DIVER BROUGHT TO SURFACE

DIVER:

L.S. 0922

A.B. 0934

A.S. 0947

Found mortor bomb at conning tower.

Vessel has list of approximately 30° to starboard. Under side of hull is exposed from rear to well forward past propellor shafts. Propellors are intact. Apt of conning tower is rack of depth charges or mines. There is no visible damage to the hull.

There is no visible damage to hull other than a hole in conning tower and open hatches. All open hatches have the dogs opened on them with the exception of the stern hatch, which appears to be twisted from an explosion. No salvage valves were located owing to the amount of growth on the hull and the absence of drawings. As you will realise these valves would have to be covered and a major search would have to be carried out and even then, without a drawing or approximate location of the valves, they would be difficult to find. My opinion is that the vessel can be salvaged intact but the operation would require a well equipped barge with several compressors and perhaps a cox gun. The cost, as you will realise, is difficult to estimate but I would put it in the vicinity of \$50,000 to \$75,000 and the best time to commence this would be after the Cyclone season had finished. We do not know for sure whether the torpedo tubes are open or closed, as we were not asked to check for this, just for damage to the hull.

Near the bow there is a towing hole still intact, so the vessel after being raised, should be able to be towed to whatever destination is required.

Scrap value of the vessel would be difficult to estimate but most of the deck fittings would be non-ferreous metal and if it is loaded with mercury, the figure to salvage the vessel would be paltry in comparison to the value of the mercury. The other alternative would be to approach the Japanese Government on the value of the vessel as a war memorial, but I feel this last approach, should be made with caution, as they could decide to have the vessel made a war grave, which would leave everyone out in the cold. I feel you will be better able to evaluate the situation after seeing Henri Bource's photographs.

Yours faithfully,
SUB-SEA SERVICES PTY. LIMITED.

*P.J. Washington /
P.J.*
P.J. WASHINGTON,
Managing Director.



231

DEPARTMENT OF DEFENCE
(NAVY OFFICE)

RUSSELL OFFICES
CANBERRA, A.C.T. 2600

N84/16303

IN REPLY QUOTE:

07 March 1985

The Secretary
Department of Arts, Heritage
and Environment
G.P.O. Box 1252
CANBERRA ACT 2601
Amess 14/3/85
Attention: Mrs J. Amess

HISTORIC SHIPWRECK - JAPANESE SUBMARINE I-124

References:

- A. Navy Office letter N84/16303 dated 21 May 1984
- B. Your letter 79/2783 dated 16 August 1984
- C. Your letter 79/2783 dated 15 October 1984

1. At Reference A permission was sought for a Navy diving team from HMAS CURLEW to dive on the wreck of the Japanese submarine I-124 off Darwin. This request was made at the behest of the Naval Officer Commanding Northern Australia who reported local concern over unsubstantiated reports that the wreck had a number of unexploded mines on deck. You advised your conditions relating to the dive at Reference B and subsequently issued a permit at Reference C.

2. A total of seven dives by divers from HMAS CURLEW was made on the wreck on 5 and 6 November 1984. The wreck lies stem to stern, North to South in approximately 45 metres of water. Mine carrying rails are visible from the stern to protrusions aft of the conning tower. Two of these protrusions are hatches, one shut and one fully open. The identity and function of the other two protrusions could not be determined.

3. The after section of the conning tower is detached from the main structure for a distance of about one metre and it is now littered across the starboard side of the wreck (see diagram at Annex A). This damage is consistent with Mr Baxter's claim in the Australasian Post on 12 March 1981. An estimated 75% of the conning tower remains attached to the hull, upright and with aerials intact. The

direction finding aerial is clearly visible as can be seen in the photographs at Annex B. There are no extraneous objects visible forward of the conning tower to the bow except for the 5.5 inch gun which is in good condition with the barrel trained level fore and aft.

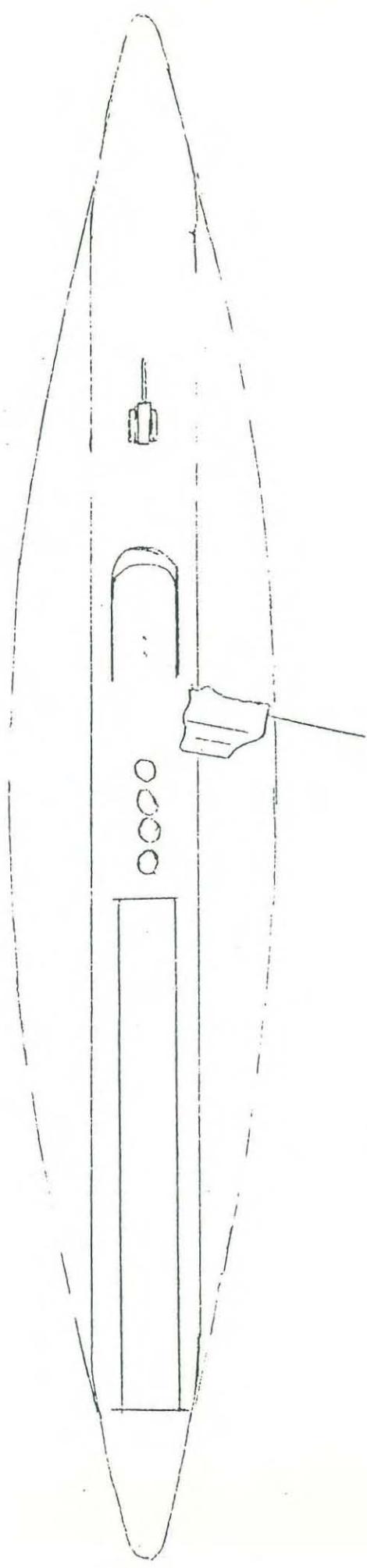
4. Growth on the hull casing is prevalent everywhere and this made identification of many objects difficult. However, no minelike objects or explosives were found on or in the vicinity of the wreck to indicate that it is a danger to shipping. Further, the hull appears sound with no evidence of damage that originally sank the submarine. The only apparent damage is to the conning tower.

R. Partington
R. PARTINGTON
Captain, RAN
Director of Naval Operations

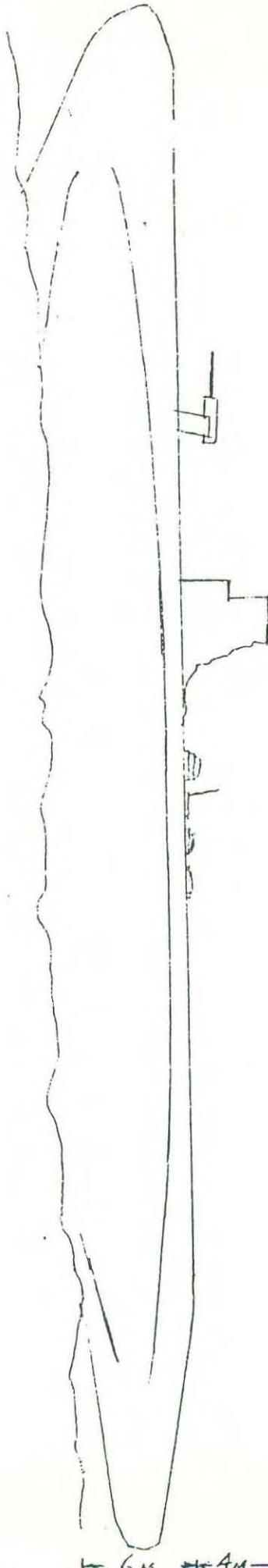
Annexes:

- A. I-124 Diagrams
- B. I-124 Photographs

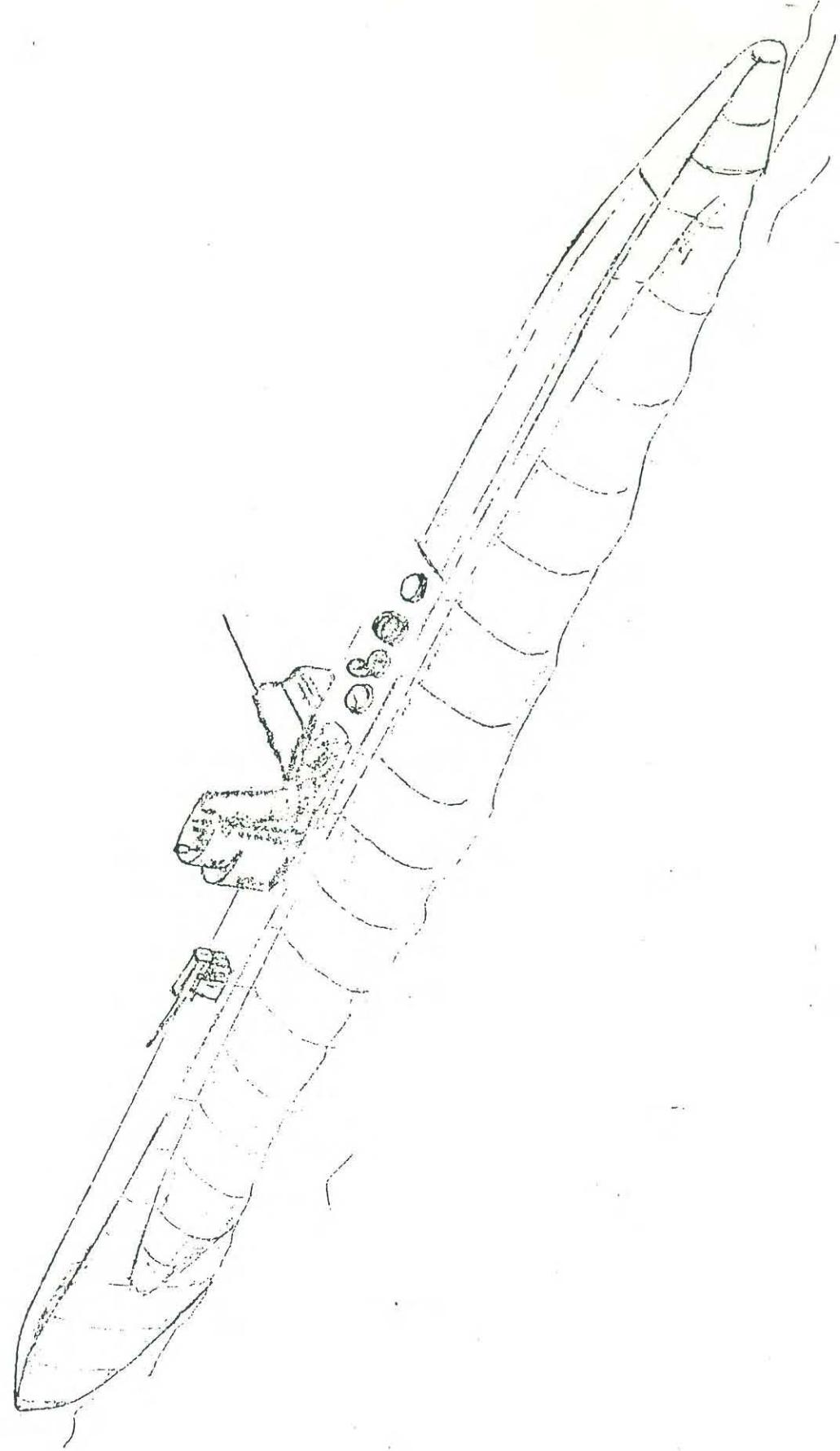
PLAN

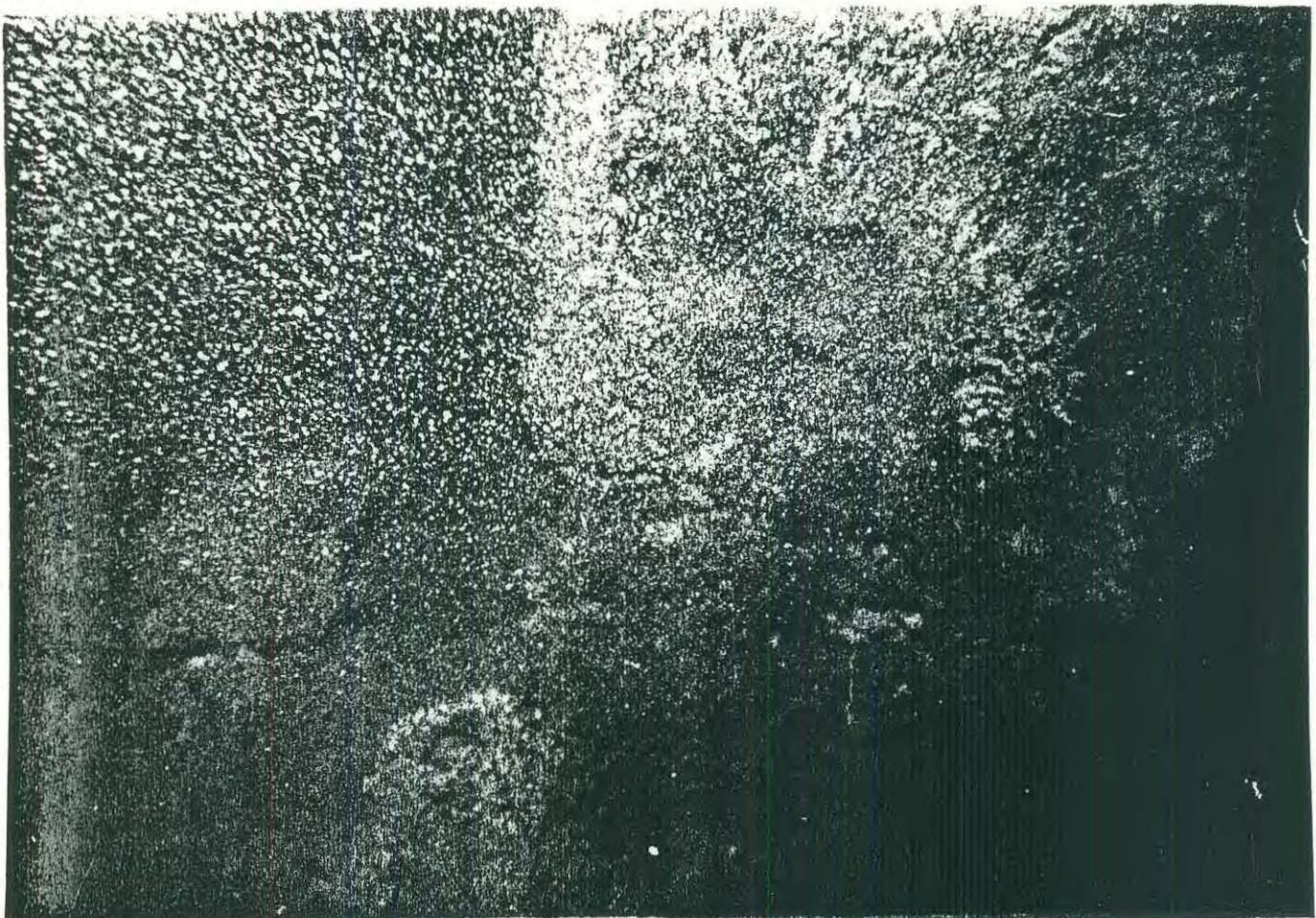


ELEVATION

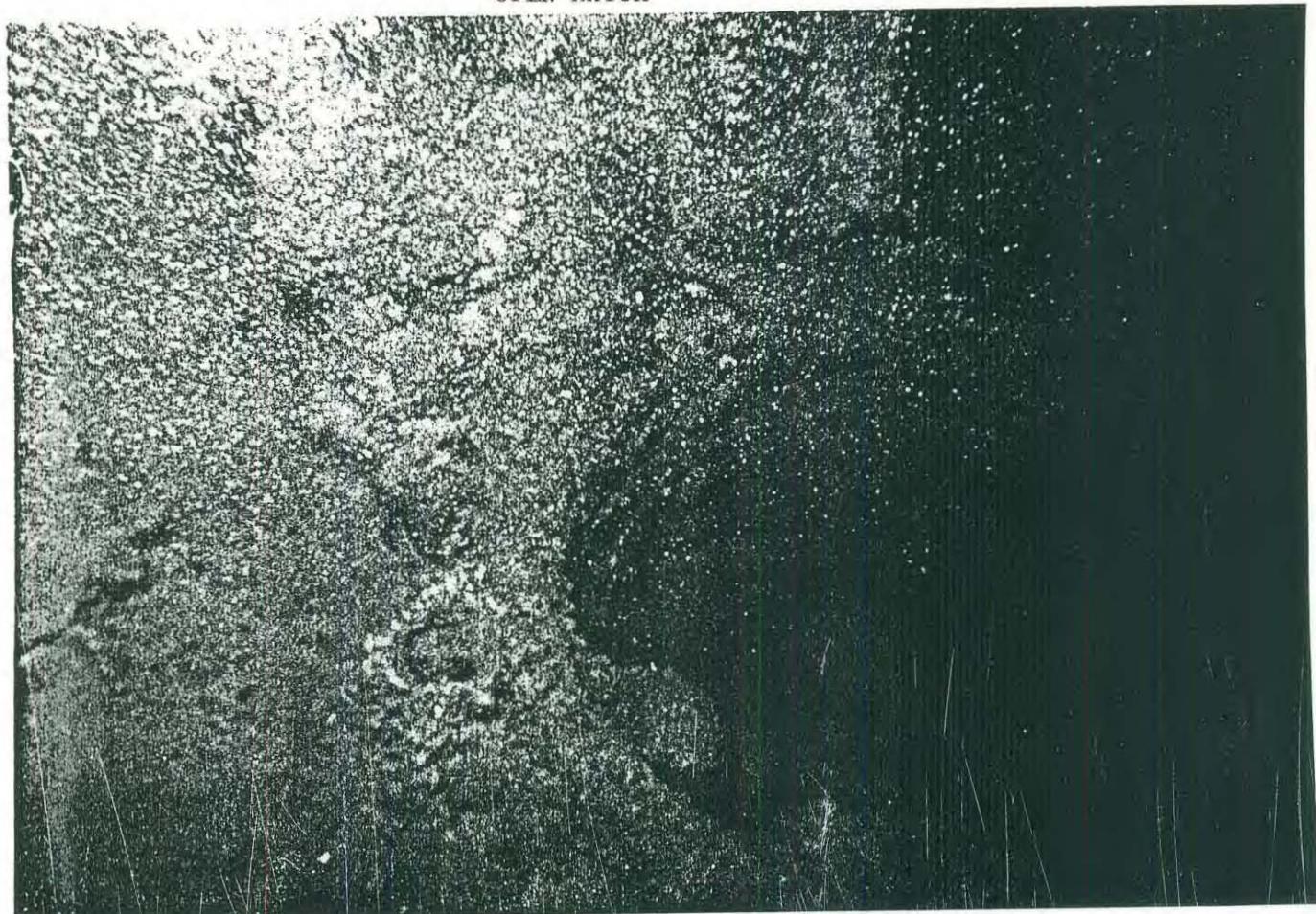


— 6M — 4M — 34 TO 36 M

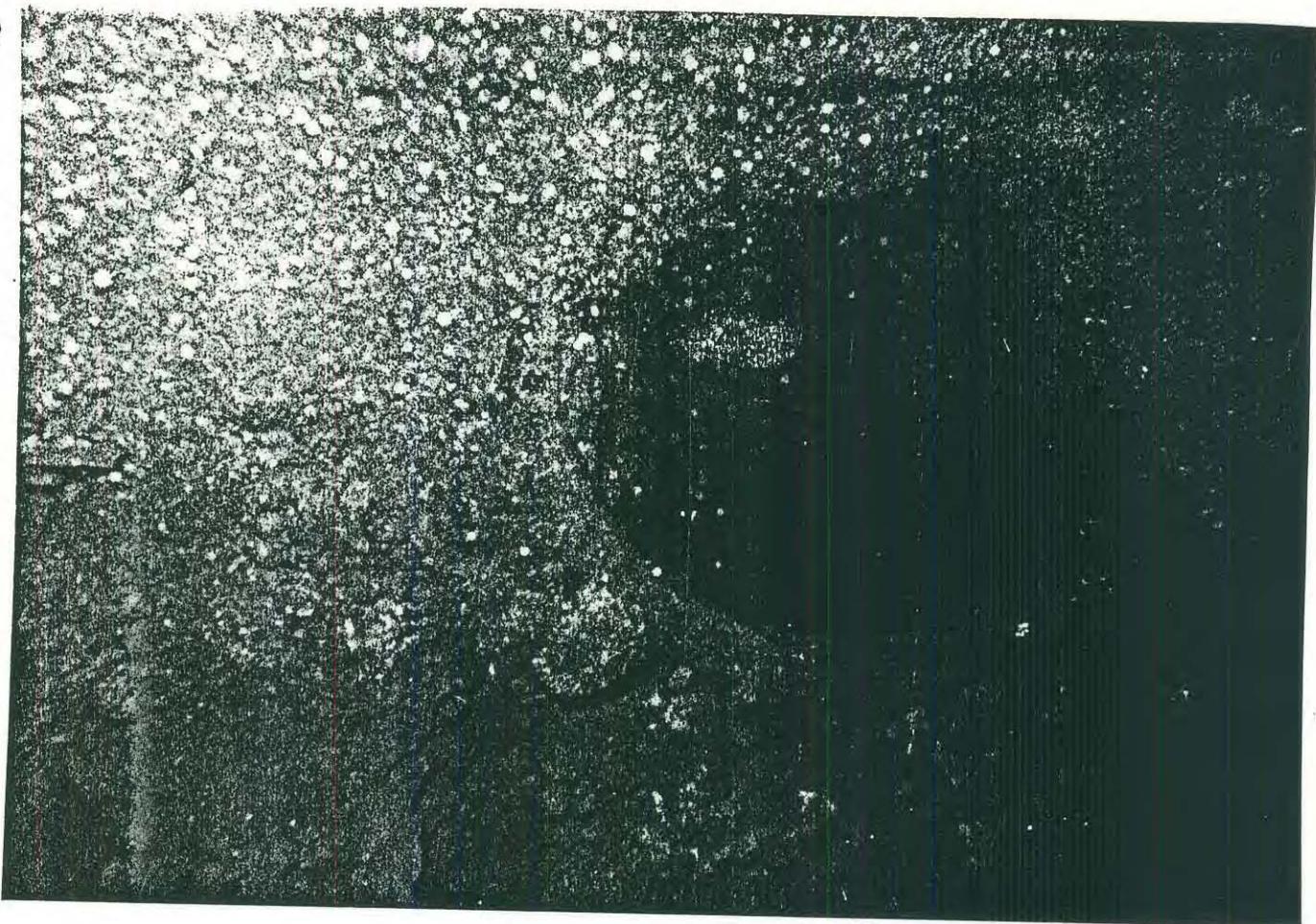




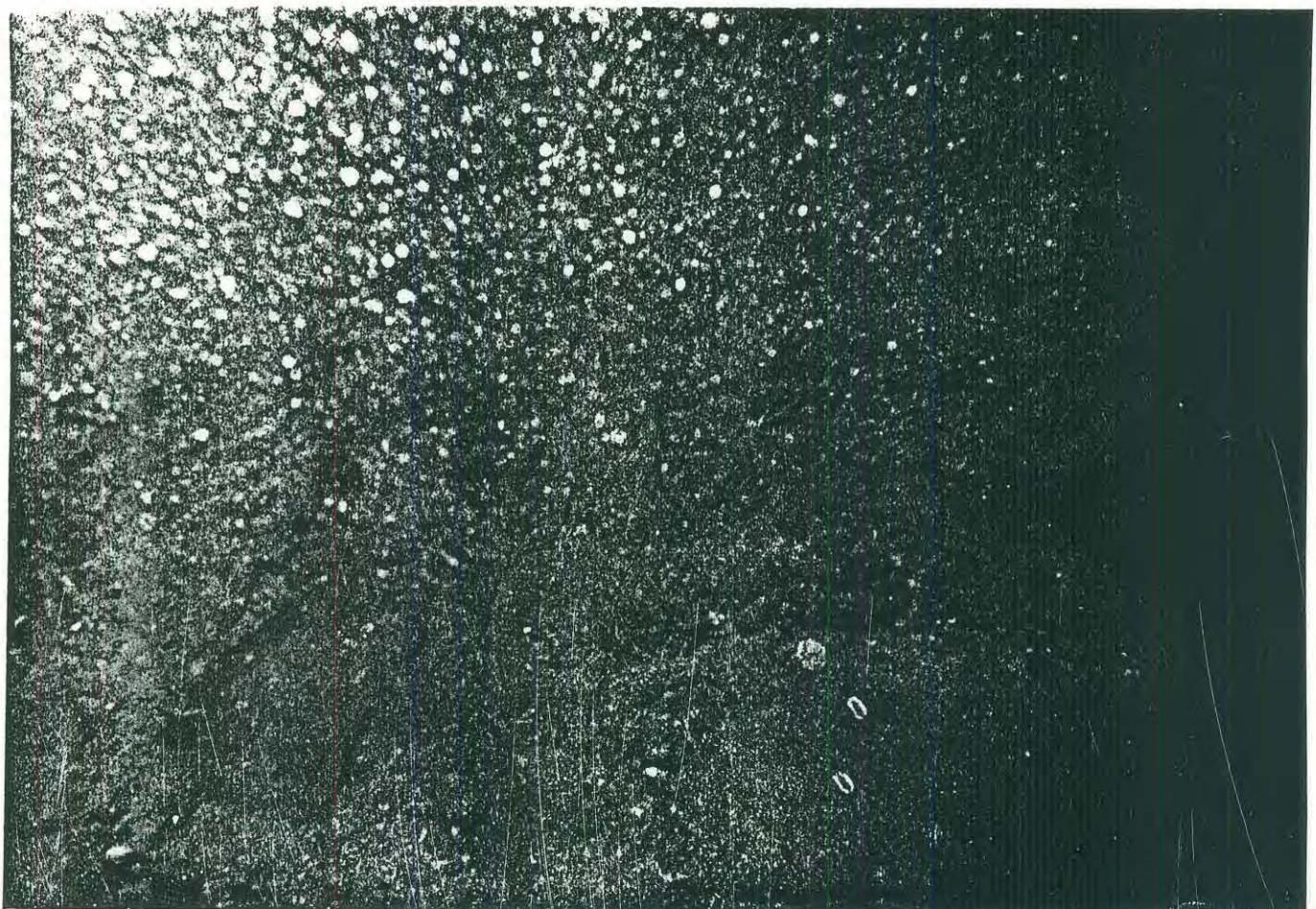
OPEN HATCH



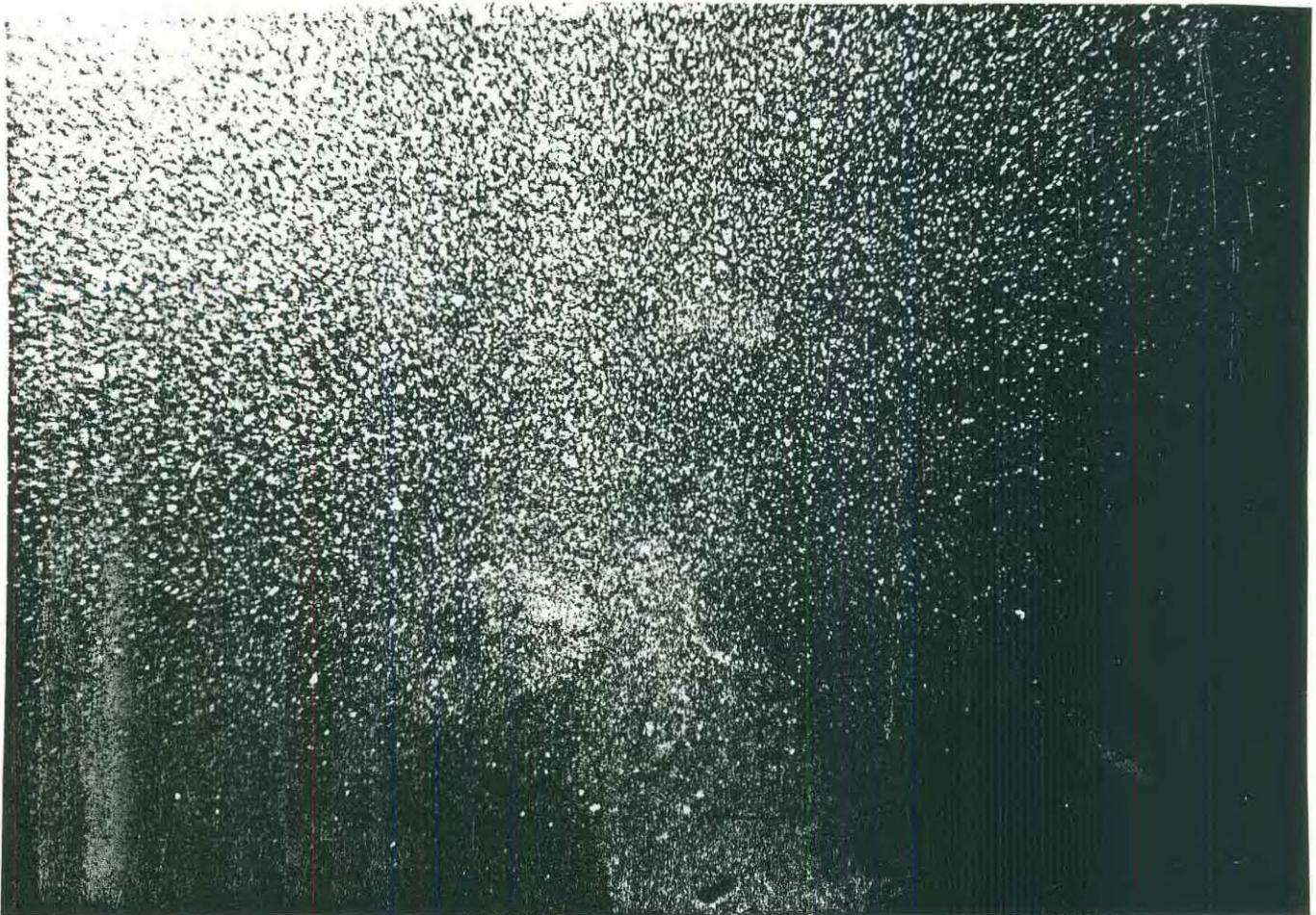
INTERNAL VIEW



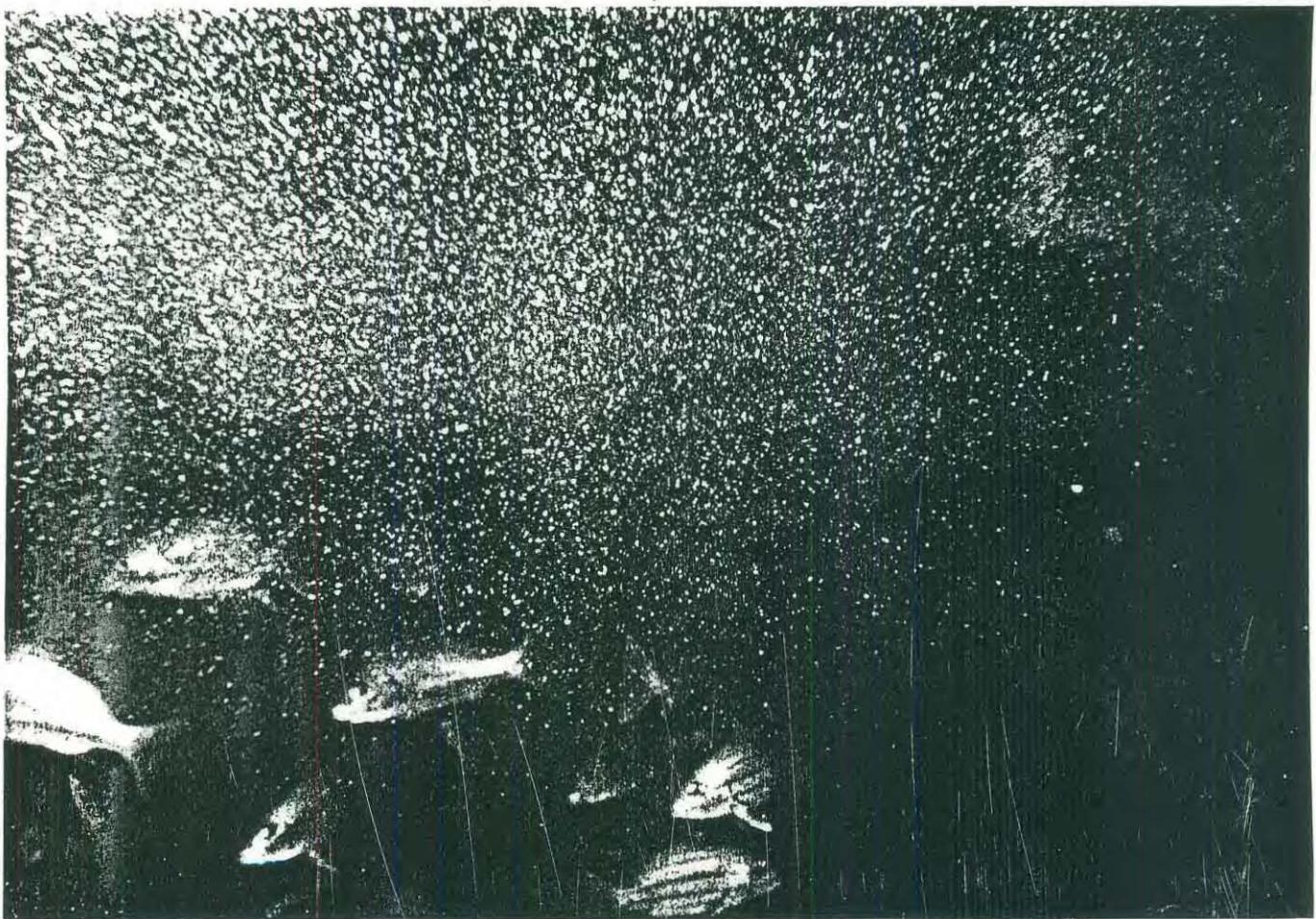
INTERNAL VIEW



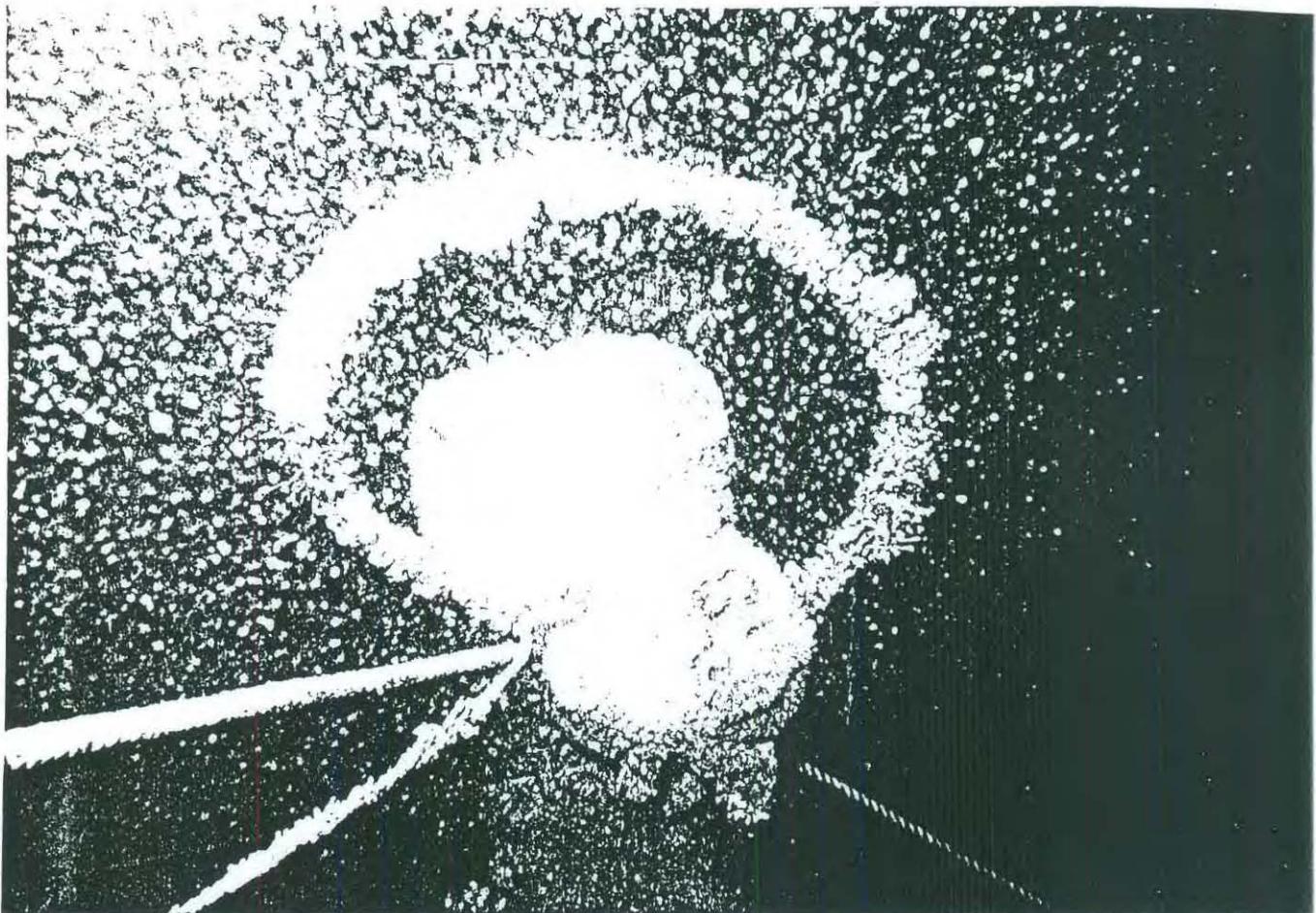
UPPER DECK GROWTH



GUN (FWD TO AFT)



GUN (PORT SIDE)



DF AERIAL

