

Chapter VII The Implementation of the Java Invasion Operation

1. Outline of the Progress of the Operation

Although, as previously told, the scheduled dates of the Java invasion operation were at [the conference for] the Cam Ranh Agreement on 19* December moved up to Day X + 70, they were again postponed to Day X + 75 and Day X + 77 (21 and 23 February) at the Manila Conference on 23 January.

The main force of the Sixteenth Army ([consisting of] the 2d Division as the core), which was supposed to land in western Java, had advanced to Taiwan from mainland Japan in late January, and in early February further advanced under the escort of the 5th Destroyer Squadron to stand by at Cam Ranh Bay.

The 48th Division, which was supposed to land in eastern Java, came under the command of the Sixteenth Army after completing the operation to capture Manila. The division assembled in Lingayen, departed on 8 February under the escort of the 4th Destroyer Squadron and sailed south. Then, as previously told [p. 379], due to the delay in the preparations for the western Java invasion [operation], the date of the landings on Java was eventually set on Day X + 80 (26 February).

Following the decision on the schedule, the units involved in the western Java invasion [operation] left Cam Ranh Bay on 18 February and sailed south, escorted by the 5th Destroyer Squadron and the reinforcement from the Malaya Unit (the 7th Cruiser Division that was to join from the Anambas Islands, leaving there on the 22d). In the meantime, the units involved in the eastern Java invasion [operation], which were temporarily standing by at Jolo, departed on 19 February and sailed south toward Java.

However, due to the unsatisfactory results of the air campaign to destroy the enemy air power, the prospect that considerable strength of the enemy had survived became very likely. Consequently, following a proposal offered by Dutch East Indies Unit Commander V. Adm. Takahashi Ibō on 23 February, it was decided that the landing on Java should be further postponed for two days until 28 February. This postponement made the western and eastern Java invasion units bide their time, the former by reversing course on the waters east of the Anambas Islands and the latter by temporarily staying off Balikpapan.

The land-based air unit launched air attacks on eastern Java from 18 February onwards from Kendari and then from Bali, while the units stationed at Kuching and those which had advanced from French Indochina by temporarily using the Gelumbang base (located by army units on 16 February about forty kilometers southwest of Palembang) launched attacks on

*Actually: 29 December. See pp. 359-60.

western Java from 25 February onwards. In the meantime, the Army Third Air Force advanced to Palembang on 18 February and launched attacks on western Java from the 19th onwards.

Both the eastern and western [Java invasion] units entered the Java Sea on the morning of 26th February. However, first of all in the western [Java Sea] area, several enemy naval vessels including cruiser[s] were spotted near Batavia on the morning of 27th, which was followed by the spotting in the eastern [Java Sea] area of a powerful enemy fleet consisting of more than a dozen naval vessels off Surabaya. While postponing the landing on Java for another day and letting the convoys temporarily evacuate to the north, Dutch East Indies Unit Commander Vice Admiral Takahashi issued an order to assemble the escort vessels to destroy the enemy.

Whereas the enemy naval vessels in the western [Java Sea] area sought shelter in [the port of] Batavia by evening, the powerful unit in the eastern part [of the Java Sea] sailed northward in search of the Japanese Navy, which led to a major sea engagement with the 5th Cruiser Division and the 4th and 2d Destroyer Squadrons. The sea engagement lasted from the evening till the early morning of the next day, in which the Japanese Navy sunk two enemy cruisers and two destroyers, and routed the others (the sea engagement off Surabaya). On 1 March, the invasion unit successfully landed in Kragan. On that day, in a daytime sea engagement, the surface unit destroyed the remnants of the enemy fleet.

No enemy movements were spotted in the western part after that, and before dawn on 1 March, the convoy reached Bantam Bay and started landing. Right after [the convoy's] entry into the anchorage, two enemy cruisers raided the anchorage under the cloak of darkness. However, the 5th and 3d Destroyer Squadrons and the 7th Cruiser Division on site immediately encircled the enemy and sank both ships by a concentrated fire of shells and torpedoes (the sea engagement off Batavia). During this engagement, some [Japanese] transport ships were sunk or seriously damaged by torpedoes that seemed to have been launched by friendly naval vessels, but it caused no major hindrance in the landing operation.

The army units that had landed in western Java occupied Batavia on 5 March and closed in on the Bandung stronghold with one element. Meanwhile, those that had landed in eastern Java seized Cilacap on 8 March, while closing in on Surabaya.

In the meantime, the main body of the Southern Task Force, which had advanced from Palau, the Carrier Task Force, which had carried out the attack on Port Darwin, and the 2d Submarine Squadron and others, which had advanced from mainland Japan, were [all gathering] at Staring Bay. On 25 February, they left the bay to advance to the waters south of Java and to the Indian Ocean in an operation to cut off the escape routes of the enemy. From 28 February until around 8 March, starting with air strikes on Cilacap, the units shelled Christmas Island, while catching and attacking the escaping enemy units. Meanwhile, one element of the submarine unit operated as far as in the vicinity of Fremantle on the southwestern coast of Australia. After having sunk some enemy naval vessels and about forty transport ships, in early March [all units] returned to Staring Bay (the submarine units to Penang).

On 9 March, the enemy ground forces surrendered, and the operation to capture Java was completed.

2. From the Launch of the Operation Until the Landings

Further Postponement of the Landing Dates

The Java invasion operation was planned in such a way that the air campaign to destroy the enemy air power should be carried out over western Java from western Borneo and southern Sumatra and over eastern Java from southern Borneo and Celebes; by exploiting the results, large invasion forces should be advanced almost simultaneously into eastern and western [Java]. However, with the air campaign to destroy the enemy air power in Java launched from mid-February in the state as roughly [summarized] in the following table, the results fell short of expectations.⁽⁷¹⁾

✓: attacks implemented; ✕: attacks called-off; (): the bases from which the units took off; the military gains as reported*

Date	Western Java	Eastern Java
9 February	✓ 16 Type-0 fighter planes and 2 land-based recon. planes of the 22d Air Flotilla conducted ([from] Kuching) an attack on Batavia; shot down 12 [enemy aircraft] and destroyed 8, which caught flames; 1 Type-0 fighter plane was seriously damaged in landing.	17 Land-based attack planes and 9 Type-0 fighter planes of the 23d Air Flotilla conducted ([from] Balikpapan) an attack on Malang; shot down 1 P-40.
11 February	✕ 27 Land-based attack planes of the 22d Air flotilla intended to attack Batavia; since the fighter planes were unable to attend [the unit], it changed the plan and attacked [enemy] naval vessels in the Bangka [Strait] (taking off from Kahang and returning to Kuantan); destroyed 1 [enemy] cruiser and 2 merchantmen.	
15 February	The full force of the 22d Air Flotilla carried out an attack on the enemy fleet to the north of the Gaspar Strait ([from] Kuching, Kuantan and Thù Dầu Môt); no direct hits.	23d Air Flotilla ([from] Balikpapan) conducted weather reconnaissance and returned due to bad weather.
16 February		23d Air Flotilla conducted weather reconnaissance ([from] Balikpapan).
17 February	15 Land-based attack planes of the 22d Air Flotilla conducted an attack on [enemy] naval vessels to the south of Bangka Island ([from] Kuching); sank 1 [enemy] merchantman.	✕ 25 Land-based attack planes of the 23d Air Flotilla ([from] Balikpapan) intended to attack Surabaya, but returned due to bad weather.

* See also pp. 281, 290, 292-94, 311, 321-22. The numbers differ slightly.

18 February		✓ 23 Land-based attack planes and 15 fighter planes of the 23d Air Flotilla attacked Surabaya ([from] Balikpapan); destroyed 2 [enemy] cruisers and 3 destroyers and shot down 4 fighter planes; 3 [friendly aircraft] crashed themselves, 4 crews killed and 2 wounded on board, and 7 aircraft were marked by bullets.
19 February	Land-based recon. planes of the 22d Air Flotilla reconnoitered Batavia ([from] Kuching) and spotted 1 [enemy] ship which looked like an aircraft carrier, 3 cruisers and 40 merchantmen. ✓ 60 Army fighter planes and bombers ([from] Palembang) attacked Bandung and Buitenzorg; engaged with 30 enemy aircraft or more; shot down or destroyed 28 [enemy] aircraft.	✗ 18 Land-based attack planes and 24 fighter planes of the 23d Air Flotilla intended to attack Surabaya ([from] Balikpapan), but unable to enter [the sky over Surabaya] due to bad weather, attacked Bawean Island and other targets instead.
20 February	Land-based attack planes of the 22d Air Flotilla reconnoitered Batavia and spotted 5 [enemy] cruisers, 8 destroyers 50 or more merchantmen, 10 flying boats, and 3 recon. seaplanes. ✓ About 50 Army fighter planes and bombers attacked Kalijati ([from] Palembang); destroyed 5 planes.	27 Fighter planes and 3 land-based recon. planes of the 23d Air Flotilla advanced to Bali. ✓ 22 Fighter planes of the 23d Air Flotilla attacked Surabaya and Malang ([from] Balikpapan and Bali); set fire to 4 B-17s and destroyed 1 B-17 and 1 twin-engine plane.
21 February	✓ About 30 Army fighter planes and bombers attacked Kalijati and Bandung ([from] Palembang); shot down or destroyed 8 [enemy] aircraft.	✓ 13 Type-0 fighter planes of the 23d Air Flotilla attacked the vicinity of Surabaya ([from] Bali and Balikpapan); shot down 3 P-40s and destroyed 3 small planes. ✓ 21 Land-based attack planes of the flotilla attacked the naval vessels at anchor in Surabaya port ([from] Balikpapan); destroyed 1 [enemy] cruiser and 1 merchantman and shot down 1 P-40.

On the early morning of 22 February, Dutch East Indies Unit Commander Vice Admiral Takahashi put in at Staring Bay, met with Southern Task Force Commander Vice Admiral Kondō, examined the results of the above-described air campaigns and made the following judgment:⁽⁵³⁾

1. Although the Army air units have finally launched their attack on the 19th in western Java, the Navy air units are still stationed in Kuching and Kuantan, far away [from the targets], and have not yet launched the air campaign to destroy the enemy air power in Java. [Enemy] naval surface vessels including cruiser[s] have been spotted in Batavia, and it seems that considerable [enemy] air strength has survived.
2. Although the air campaign to destroy the enemy air power in eastern Java has been launched in earnest on the 18th, a considerable number [of enemy aircraft] including B-17s and P-40s remain on the bases in the area. As for the [enemy] naval surface vessels, units including cruisers are also still stationed in the Surabaya area.
3. To summarize the above, the results of the air campaign both in eastern and western Java are [still] unsatisfactory, and it is necessary to wait for [better] results by postponing the landing dates for about two days.

In accordance with this judgment, Dutch East Indies Commander Vice Admiral Takahashi sent on the morning of 22 February the following advisory telegram to Sixteenth Army Commander Imamura (also notifying the Southern Army):^{*(30)}

In view of the activities of enemy aircraft and naval vessels in the Java area as well as the results of our air campaigns, I would like to postpone the date of the start of landing for two days until 28 February and discuss this with you.

On the same day, he issued the following order to his subordinate units by means of Third Fleet Classified Telegram No. 445:^{** (53)}

The dates of the start of landing of Operation SU (note by the author: eastern Java operation) and Operation YA (note by the author: western Java operation) shall be postponed until 28 February.

The units for Operation SU shall stay on standby near Balikpapan; the units for Operation YA shall appropriately act as designated by their commander.

[Issued at] 1200, on the 22d

In the meantime, the chief of staff of the Southern Task Force also wired the chief of staff of the Southern Army a telegram to the same effect, while at the same time requesting the Army's cooperation in the Navy Air Unit's advance to the Gelumbang base (which had been located by Army units on 19 February about forty kilometers southwest of Palembang) and the preparation of the base. Having received the advisory telegram, the Southern Army headquarters expressed disapproval lest an unnecessary postponement of the invasion schedule would lead to squandering an opportune moment to attack. However, since their units were already at sea under the escort of the Navy and it was no use opposing [the Navy] at that moment, [the headquarters] consented to the postponement of the invasion schedule on the condition that the invasion schedule would not be further postponed. The Army also promised that it would provide adequate support for the Navy concerning the latter's [use of] the Gelumbang airfield.⁽³⁰⁾

The Conduct of the Operation by the Commanders of the Southern Task Force and the Dutch East Indies Unit

In parallel with the consultation with the Army, Southern Task Force Commander Vice Admiral Kondō and Dutch East Indies Unit Commander Vice Admiral Takahashi discussed the outline of the subsequent operations and on the 22d made the following decisions:⁽⁵³⁾

1. In view of the presence of enemy surface vessels in the Surabaya area, the operation of the core force of the 5th Cruiser Division to act in concert with the second carrier operation shall be called off. The force shall quickly be sent to the Makassar Strait area to support the units for the eastern Java invasion [operation].
2. At the same time, since the Timor operation is on the whole making smooth progress, the destroyer forces, such as the 2d Destroyer Squadron, the 7th Destroyer Division and others, shall

* See also Vol. 3, p. 443.

** See also Vol. 3, p. 443.

be withdrawn from the area as of 24 February in order to be advanced to the Makassar Strait [as well] to support the invasion unit.

3. One destroyer division of the 2d Destroyer Squadron shall be made to participate in the carrier operation from the area near Timor. This is a measure taken to supplement the insufficient destroyer strength of the carrier operation unit.
4. The main unit of the Dutch East Indies Unit shall advance to the waters north of the Lombok Strait to support the entire operation as well as to catch escaping enemy units.
5. The core force of the 1st Base Force shall carry out the second phase of the Bali [operation, i.e.] the transport operation on 25 February, while being prepared for [enemy] units escaping from the Java area.

Based on these discussions, Southern Task Force Commander Vice Admiral Kondō issued on the 22d the following order by means of Southern Task Force Telegraphic Order No. 106:⁽⁵³⁾

1. As of 26 February, one destroyer division designated by the Dutch East Indies Unit commander shall be removed from the unit and transferred to the main body of the Southern Task Force.
2. The above-mentioned destroyer division shall join the Southern Task Force near the Ombai Strait on 26 February.

Further on the 23d, by means of Telegraphic Order No. 107, [the Southern Task Force commander] revised one part of the order issued by means of Telegraphic Order No. 92 (note: the outline of the operation of the Carrier Task Force issued on 9 February) in the following way:

[Part of] the order issued by means of Southern Task Force Telegraphic Order No. 92 shall be revised in the following way:

1. The task assigned to the core force of the 5th Cruiser Division in the second carrier operation shall be deleted; the Dutch East Indies Unit commander shall determine the operations of the division.
2. [The time and place of] the return of the Submarine Unit C after the second carrier operation shall be changed; it shall return to Ambon around 10 March.

On the same day, Dutch East Indies Unit Commander Vice Admiral Takahashi also issued the order concerning the operations of the 5th Cruiser Division, the 2d Destroyer Squadron, the 1st Base Force and other units involved in the Java invasion operation by means of Third Fleet Classified Telegram No. 459, which is in outline as follows (as previously told [pp. 322-23, 354]):⁽⁵³⁾

1. It seems that there are five to seven enemy cruisers and about ten destroyers in Batavia, and one *De Ruyter*- and one *Java*-class [cruiser] and about five destroyers in Surabaya.
2. The Dutch East Indies Unit shall, with the support of the Air Unit ([of] the Southern Task Force) and the Malaya Unit, cover the Sixteenth Army's landings on Java, while catching and destroying enemy naval vessels.
3. Other than the following, all units shall operate in accordance with the outline stipulated in the Dutch East Indies Unit Order Classified No. 9.
 - (1-3) Omitted
 - (4) From the evening of the 26th onwards, the 5th Cruiser Division (minus the *Myōkō*), the 1st Section of the 7th Destroyer Division, the *Yamakaze* and the *Kawakaze* shall appropriately operate in the rear of the 1st Escort Unit, taking charge of its support as well as catching and

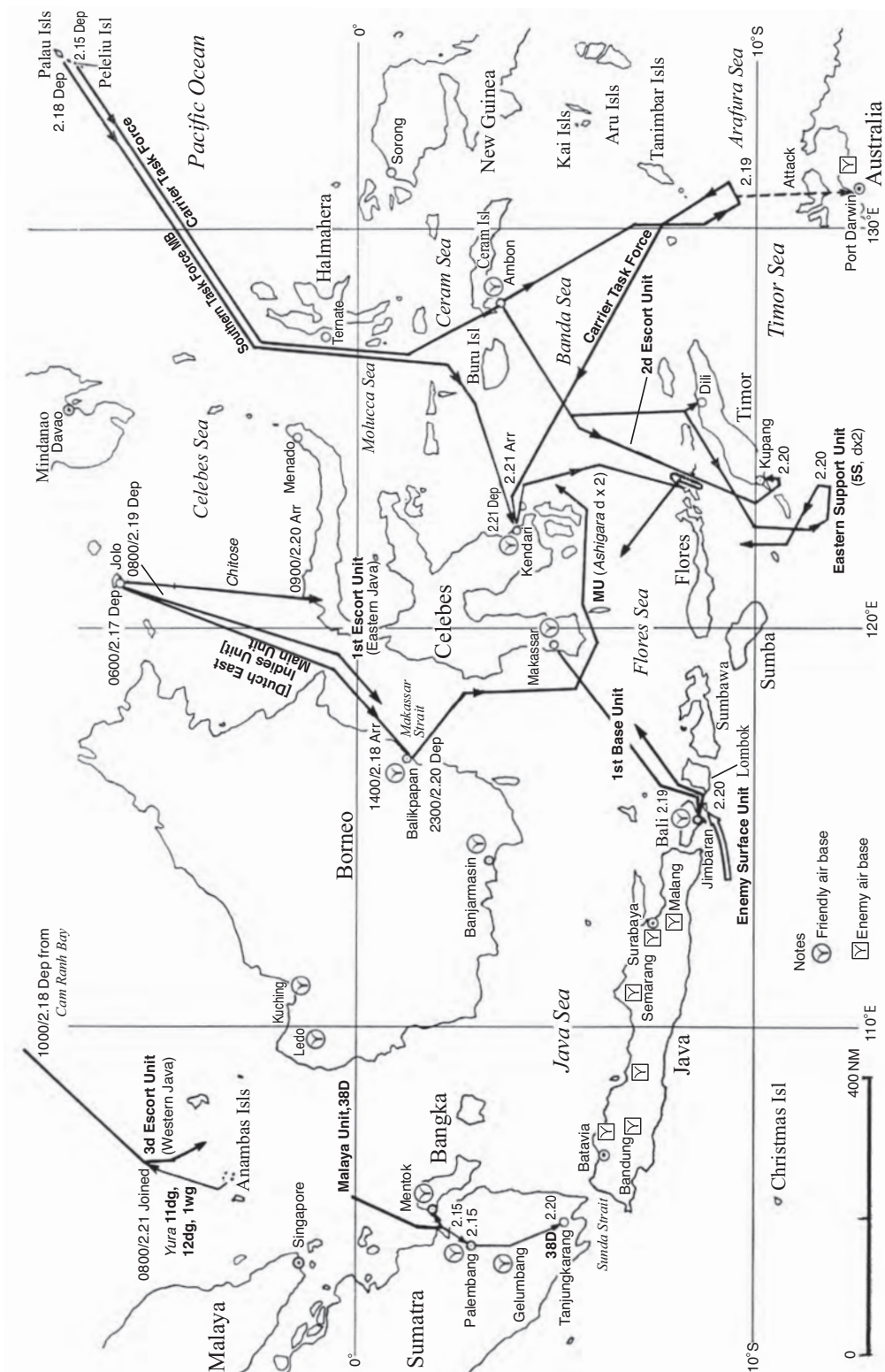


Illustration No. 40 — The Outline of the Movements of Each Unit at the Time of Launch of the Java Invasion Operation (15-21 February, 1942)



(5) The operations of the main unit (the *Ashigara*, the *Ikazuchi* and the *Akebono*) (omitted)

Southern Task Force Telegraphic Order No. 108 [at] 1300, the 23d

The Southern Task Force shall in close conjunction with the Southern Army determinedly carry out the landing operations in eastern and western Java roughly on Day Z + 2 (note by the author: Day Z denotes 26 February) and destroy the base and center of the Dutch East Indies, while at the same time catching and destroying the enemy forces in the east Asian seas at a stroke. Each

unit shall operate as planned, and particularly through close cooperation and by making thoroughgoing and careful preparations and conducting dauntless attacks, thoroughly envelop and destroy the enemy forces around the island of Java, thereby enhancing and accomplishing the military gains of the southern operation in general.

The Unsatisfactory Prior Neutralization of the Enemy Air Power Both in Eastern and Western [Java]

On 20 February, a search plane of the 22d Air Flotilla (the 3d Air Raid Unit) had spotted a powerful unit including five cruisers and eight destroyers in the Batavia area. However, since the unit used the Kuching [airfield] as its front base, from which the aircraft could not take off with a full load of fuel, it was fairly difficult for the unit to implement an attack in the Batavia area. Because of this [issue], the unit planned to advance its land-based attack planes to Gelumbang in southern Sumatra and started transporting its base matériel. However, due to the distance of the airfield from the coast, the transport made little progress, which hindered the advance of the land-based attack planes. Whereas Army air units had launched their air campaign to destroy the enemy air power in the Batavia area from Palembang, attacks by the Navy air unit had not yet been launched, a situation that was particularly serious in regard to attacking the [enemy] surface vessels.⁽¹³⁵⁾

On 24 February, the Southern Task Force wired the following telegram to the chief of staff of the First Southern Expeditionary Fleet and the 22d Air Flotilla commander under the name of its chief of staff:⁽¹⁵⁰⁾

Second Fleet Classified Telegram No. 41

The date of the landings on Java is now approaching, but the fact that we have not yet been able to get an opportunity to destroy the enemy surface forces in the Java Sea area will greatly affect the implementation of the landing operations. Therefore, success in the air operations in the [coming] several days is desperately hoped for. Since the Army has offered its cooperation (cf. 81st Signal Unit Classified Telegram No. 769) and also in view of the condition of the Gelumbang base ([see] Classified telegram, No. 822 from the *Shimushu*), I want you to be ready to promptly destroy enemy aircraft as well as naval vessels in the area before the implementation of the landing by accelerating as much as possible the preparation of this base conjointly with putting it to use. The transport convoy is already under sail, and since the date of landing has already been postponed for two days in view of the intensification of the air campaign, no further postponements of the date will be allowed. At this juncture, I want you to arrange that the attack on enemy naval vessels in western Java area shall be carried out with the full force of the Mihoro Air Group. The above is pursuant to the orders [received].

[Then] it became likely that the Gelumbang base would be available from 25 February, and first of all thirty-three land-based attack planes and one transport plane of the Genzan Air Group and six land-based attack planes of the Kanoya Air Group advanced to the base on the 24th. On the 25th, the Genzan Air Group carried out an attack on Batavia with twenty-seven land-based attack planes, along with thirteen Type-0 fighter planes and one land-based reconnaissance plane that had advanced to Mentok, and reported having shot down four Spitfires and set ablaze two small planes.⁽⁷¹⁾ However, according to a reconnaissance by the search plane, one Class-A cruiser, two Class-B cruisers and five destroyers were spotted in the Batavia port, and also one Class-B cruiser and one gunboat were spotted in the Sunda

Strait, sailing north.⁽¹¹⁹⁾ On the 26th, twenty-five land-based attack planes of the Kanoya Air Group advanced to Gelumbang from Thủ Dầu Một (French Indochina), while twenty-nine land-based attack planes of the Genzan Air Group returned to the Kuching [airfield] instead, after which the Kanoya Air Group mainly took charge of the air attacks in western Java.⁽⁷¹⁾ (Because the transportation of fuel and ammunition was inadequate at Gelumbang, it was difficult for two air groups to simultaneously use the airfield.) In the meantime, the Mihoro Air Group of the Malaya Unit dispatched five Type-96 carrier-based fighter planes to directly guard the base from the air against enemy aircraft, while advancing ten land-based attack planes to Kahang on the 26th, to be ready for search and attack missions in the Batavia area.

The Air Unit also pushed forward bases toward eastern Java and gradually intensified the air attacks. However, despite almost daily attacks, enemy surface naval vessels were still operating in the area. The outline of the attack was as follows:⁽⁷¹⁾ (The bases used for the attack are put within parentheses.)

22d [February]	Six Type-0 fighter planes attacked Malang, etc. ([from] Bali)
23d	Fourteen Type-0 fighter planes attacked Malang, etc. ([from] Bali)
24th	Fifty-one land-based attack planes attacked Surabaya ([from] Kendari, Bali, and Balikpapan); Nine Type-0 fighter planes attacked Surabaya ([from] Bali)
25th	Twenty-two land-based attack planes attacked Surabaya ([from] Balikpapan); Nine Type-0 fighter planes attacked Surabaya ([from] Bali)
26th	Twenty-six land-based attack planes attacked Surabaya ([from] Makassar); Eight Type-0 fighter planes attacked Surabaya ([from] Bali)

On 26 February, Air Unit Commander V. Adm. Tsukahara Nishizō informed the Southern Task Force and the Dutch East Indies Unit of the following general enemy movements [obtained] by air reconnaissance:⁽⁵³⁾

1. According to a reconnaissance by land-based reconnaissance planes on the morning of the 25th, one large enemy cruiser, three light cruisers, five destroyers, some small naval vessels and thirty or more merchantmen were spotted in the port of Surabaya, and one cruiser and more than a dozen merchantmen in the port of Batavia.

Although the Air Unit has been attacking enemy naval vessels every day, it is difficult to destroy enemy naval vessels in quick order. In view of the fact that powerful naval vessels of the Southern Task Force have already advanced to the Sunda and the Java Seas, taking up positions so that they could prevent the escape of the enemy and destroy them, it may be better if they take action to further advance to neutralize enemy ports and completely contain and capture the enemy naval vessels.

2. The military gains of the air campaigns in eastern Java since 18 February are forty-three aircraft shot down (of which eleven were unconfirmed), and forty-eight aircraft set ablaze. Although the Army has also attained considerable military gains in western Java, about fifty fighter planes, about forty bombers and about twenty flying boats of the enemy still survive, and they are starting to wage guerrilla warfare. Since the 26th, Bali has been reinforced with the main body of the 3d Air Group (about twenty Type-0 fighter planes and about ten aircraft, which had earlier been incorporated in the 2d Air Raid Unit), and with these we intend to rapidly clear and destroy the [remaining] enemy aircraft.

Having earlier discussed the matter with Southern Task Force Commander Vice Admiral Kondō, Dutch East Indies Unit Commander Vice Admiral Takahashi had called off the 5th

Cruiser Division force's support for the carrier operation and ordered it to advance to the Java Sea [instead]; he had also called off the forces of the 2d Destroyer Squadron's [participation in] the Timor operation earlier than planned and hastened them to advance to the Java Sea. In view of the movements of the enemy heavy cruiser[s] in the Surabaya area on the evening of the 24th, he [further] had instructed them to advance as soon as possible.⁽⁵³⁾ Meanwhile, the *Myōkō*, who had been damaged by an [enemy] air strike in Malalag Bay (south of Davao) on 4 January, had completed its repairs and left Sasebo on 20 February. The Dutch East Indies Unit commander had [also] ordered this ship to swiftly advance to Makassar, having decided to incorporate her into the main unit upon her arrival, which was due on 26 February.⁽⁷²⁾

In the meantime, Dutch East Indies Unit Commander Vice Admiral Takahashi had left Staring Bay on the early morning of 23 February, leading the main unit (the *Ashigara*, the *Ikazuchi*, the *Akebono* and the *Yamakaze* (who had replaced the *Kawakaze*)* and arrived in Makassar on the 25th. [Then] considering the enemy movements in the Surabaya area, he advanced to the waters north of the Kangean Islands, leaving Makassar on the morning of the 26th. He also ordered the *Myōkō* to join the main unit near the Kangean Islands, after quickly replenishing at Makassar.⁽⁷²⁾

Despite all possible measures taken to accelerate the air campaign also in western Java, a reconnaissance report of the 3d Air Raid Unit on the 25th reported the continuing presence of a powerful [enemy] unit in the Batavia area. Therefore, Southern Task Force Commander Vice Admiral Kondō decided to add to this operational unit the 4th Carrier Division, which was then on standby at Cap Saint Jacques (south of Saigon) after completing Operation L, and ordered it on the morning of 27 February to advance.⁽¹³⁴⁾

The Operations of the Surface Unit in the Western Java Area

The Sailing of the Convoy (See Illustrations No. 42 and No. 43)

At 1000 on 18 February, the 3d Escort Unit left Cam Ranh Bay, escorting fifty-six Army transport ships (one ship had been added). It was a large unit, [consisting of] one light cruiser, ten destroyers, three naval vessels of other types, and fifty-six transport ships, totaling as many as seventy ships.⁽¹⁵⁰⁾ Since the *Ayanami* of the 19th Destroyer Division had hit an uncharted reef at the Anambas Islands on the previous day, it was decided that the *Isonami* of the main unit of the Malaya Unit should take over her tasks. The change caused the 19th Destroyer Division commander to change ships to the *Uranami*, and the *Isonami* to separate from the *Chōkai* and head for the Anambas, while the *Ayanami* joined the *Chōkai* and headed for Cap Saint Jacques.⁽¹⁵⁰⁾

On the evening of the 20th, the convoy reached a point about 250 nautical miles northeast of the Anambas Islands, where one element of the 3d Escort Unit sailed ahead for the islands for replenishment, and the unit, which had been on standby at the Anambas Islands, replaced it and escorted the convoy. As of the 21st, the *Yura*, the 11th and the 12th Destroyer Divisions, the 1st Minesweeper Division, the *Kamikawa-maru*, the *Tsurumi* and others were transferred from the Malaya Unit to the Dutch East Indies Unit.⁽¹⁵⁰⁾ The convoy passed through the waters between the Anambas Islands and Great Natuna Island towards midnight on that day. [Also] on that day, 7th Cruiser Division Commander R. Adm. Kurita Takeo, who had been on

* Actually, the *Yamakaze* and *Kawakaze* had both joined the 5th Cruiser Division.

standby at the Anambas Islands, communicated to the units involved that he would leave the islands at 1800 on the 22d, leading the 7th Cruiser Division, along with the 19th Destroyer Division and approach the convoy at 1200 on the 24th, and that from that time on [his unit] would appropriately operate in the western part of the Java Sea to support the 3d Escort Unit.⁽¹¹⁹⁾

Around noon on the 22d, the 3d Escort Unit reached a point about eighty nautical miles northwest of Singkawang. The [total] strength including the forces transferred from the Malaya Unit had become a total of eighty-three ships, consisting of two light cruisers, fifteen destroyers, two torpedo boats, five minesweepers, three naval vessels of other types and fifty-six transport ships. There the convoy received the [above-mentioned] order from the Dutch East Indies commander: "The landing on Java shall be postponed until 28 February. The units for the Batavia operation shall appropriately operate as designated by their commander."⁽¹⁵⁰⁾ Because of this order, the convoy reversed course at 1400 and [started] sailing north on a 320° [NW] course. Due to this change in schedule, the 7th Cruiser Division postponed its departure from the Anambas Islands for two days until the 24th.⁽¹¹⁹⁾ At 2040* on that day [the 22d], one enemy PBY flying boat came flying over the Anambas anchorage.

At 1400 on the 23d, after having sailed on a reverse course for one day, the convoy reversed again and set a 140° [SE] course. Due to the two-day postponement, all vessels were scheduled to refuel while under sail between that afternoon and the 24th. The refueling started with the *Natori* and the *Yura*, and was finished on the morning of the 24th.⁽¹⁵⁰⁾ At 1650** on the 24th, the aircraft of the *Kamikawa-maru* patrolling against enemy submarines about forty nautical miles off Singkawang spotted [an] enemy submarine and attacked her. The 3d Escort Unit also dispatched the *Harukaze* and the *Fubuki* to neutralize the area while carrying out an attack with antisubmarine depth charges, but the results were unknown. The reconnaissance seaplanes of the *Yura* also supported the operation.⁽¹⁵⁰⁾ At 1800 on that day, the 7th Cruiser Division and the 19th Destroyer Division left the Anambas Islands and sailed south. At 0930 on the 25th, the *Harukaze* and the *Fubuki* returned to the escort unit. At 1600 on the 25th, the convoy passed the Karimata Strait without incident and entered into the Java Sea. At 1100 while en route off Cape Jang, [the 7th Cruiser Division] was approached by an enemy flying boat, which came probing. An observation seaplane[s] of the *Kamikawa-maru* attacked [the enemy], but let it slip away due to a squall.⁽¹¹⁹⁾ At 1800 on that day, the 7th Cruiser Division and the 19th Destroyer Division approached the rear of the 3d Escort Unit at a distance of about 140 nautical miles. In the meantime, air reconnaissance reported that one Class-A cruiser, two Class-B cruisers and five destroyers were in the port of Batavia as of 1005, and that one Class-B cruiser and one gunboat were sailing north in the Sunda Strait as of 1130.⁽¹¹⁹⁾

On the morning of the 26th, the convoy reached the waters about 215 nautical miles northeast of Batavia.⁽¹⁵⁰⁾ At that time, the 7th Cruiser Division unit was reaching a point about fifty-five nautical miles north of the convoy.⁽¹¹⁹⁾ No search planes spotted the enemy except for the aircraft of the *Kumano*, which spotted two merchantmen and one destroyer-like ship to the northeast of Batavia. However, one enemy flying boat came probing at 1000, as well as at 1300. In the meantime, the 7th Cruiser Division unit [further] gradually approached the con-

* On p. 420: 2015.

** On p. 420: 1635.

voy, and around 1400, the unit and the convoy spotted each other at the 4°N* parallel, after which the unit shifted to the support operation, while keeping on sailing to the south of and in parallel with the 3d Escort Unit.⁽¹¹⁹⁾ R. Adm. Hara Kenzaburō, commander of the 5th Destroyer Squadron, requested 7th Cruiser Division Commander Rear Admiral Kurita to provide the following support operations.⁽¹⁵⁰⁾

1. The actions of our unit shall be changed as follows:

From 1200 on the 26th onwards, [our unit] shall [continue] sailing westward along the 4°S parallel to reach a point 4°00'S 107°05'E at 0400 on the 27th, from where the main force and the detachment shall separate and head for their landing points as scheduled, the main force setting a 210° [SSW] course and the detachment a 155° [SSE] course.

2. In view of the enemy movements in the Batavia and Sunda Strait areas, I would like you to see to it that [your unit] generally operates along with our unit until the morning of the 27th, and thereafter with one element support and assist the main force, but with the bulk [of your unit] support and assist the detachment for Patrol.
3. Communication signals (omitted by the author)

The Appearance of a Powerful Enemy Surface Unit

At 0530 on 27 February, the 3d Escort Unit reached the separation point about 140 nautical miles north of Batavia and separated as planned. While appropriately sailing westward about forty nautical miles south of the 3d Escort Unit, the 7th Cruiser Division unit launched four search planes at 0800 at one hundred nautical miles north of Batavia toward the Sunda Strait, the port of Batavia and Patrol. At 0935**, the aircraft of the *Kumano* spotted one large [enemy] cruiser, two light cruisers and two destroyers at thirty-five nautical miles 310° [NW] of Batavia. The enemy fleet was sailing on a steady 160° [SSE] course at a speed of twenty knots; its position was eighty-five nautical miles 220° [SW] of the current position of the 7th Cruiser Division.

Having received the report, 7th Cruiser Division Commander Rear Admiral Kurita made the following initial judgment:⁽¹¹⁹⁾

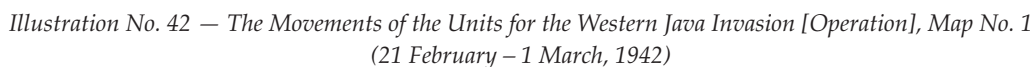
1. In order to block our invasion unit, the enemy will operate on the waters north of the Sunda Strait and thereafter head for Batavia.
2. Since it is very likely that mines have been laid and [enemy] submarines etc. are in hiding in the areas north of the Sunda Strait, the best way to proceed is not to advance to catch the enemy outside the port of Batavia.
3. We shall keep on operating near the convoy and if the enemy should sail northward [toward us], then we shall destroy them.

Then at 0948, the aircraft of the *Kumano* reported: "The large cruiser in front is huge and we suspect that she is a battleship. Although we checked up on her at a distance of four thousand meters, we are not sure." "0935: The enemy has reversed course. His new course is set at 345° [N]."⁽¹⁵⁰⁾*** Even after receiving these reports, 7th Cruiser Division Commander Rear Admiral Kurita continued sailing northward on a 0° [N] course. On the other hand, the 3d Escort Unit

* Actually: the 4°S parallel. See also Illustration No. 42.

** The original sources state: 0900.

*** Not mentioned in the source cited in note 150. Most of the following pages seem to be based on a mixture of sources: the reports of the 5th Destroyer Division, the 7th Destroyer Division, and the Captain of the *Mogami*.



commander (5th Destroyer Squadron Commander Rear Admiral Hara) who [also] had received these reports judged as follows and made up his mind [to attack]:⁽¹⁵⁰⁾

1. The enemy has made a sortie in order to attack our invasion unit.
2. I will immediately have the transport convoy evacuate northward and, together with the 7th Cruiser Division unit, swiftly confront this enemy with the *Natori*, the *Yura* and the bulk of the destroyers, determined to destroy them.

In line with this decision, 3d Escort Unit Commander Hara immediately ordered the transport convoy, which was heading for Area No. 1 under his direct command, to reverse course under the command of the 5th Destroyer Division commander, while ordering the unit for Area No. 2 to reverse course, too. Along with this, the commander also requested the Air Unit to attack [the enemy].

At 1030, 5th Destroyer Squadron Commander Hara contacted 7th Cruiser Division Commander Kurita in the following way:⁽¹⁵⁰⁾

1. Our unit shall temporarily reverse course at 1030 at 4°25'S 106°40'E.
2. I have ordered the detachment for Patrol to reverse course, too.
3. I would like you to have your unit repulse the enemy reported by the aircraft of the *Kumano*.
4. I would like you to inform us about your position.

Note by the author: At that time, there was a distance of about thirty nautical miles between the 7th Cruiser Division and the 5th Destroyer Squadron.

[Then] 5th Destroyer Squadron Commander Hara started sailing southward on a 200° [SSW] course toward the enemy, leading the *Natori*, the 11th and the 12th Destroyer Divisions.

The 7th Cruiser Division's Avoidance of a Decisive Battle

Whereas 5th Destroyer Squadron Commander Hara took such measures [as described above], 7th Cruiser Division Commander Kurita, without responding [to the former], continued sailing northward, while taking the following measures.⁽¹¹⁹⁾

1. At 0930, he ordered the aircraft of the *Kumano* to conduct the scheduled search missions.
2. At 1000, he ordered the aircraft of the *Mikuma* and the *Mogami* to probe the enemy spotted by the aircraft of the *Kumano*.
3. At 1024, two Type-0 reconnaissance seaplanes of the 2d Section of the 7th Cruiser Division were launched for probing.

The 7th Cruiser Division and the 5th Destroyer Squadron on site continued cooperating with each other in this fashion. R. Adm. Kurita Takeo, commander of the 7th Cruiser Division was a graduate of the 38th class of the Naval Academy, whereas R. Adm. Hara Kenzaburō, commander of the 5th Destroyer Squadron, was a graduate of the 37th class, but the 7th Cruiser Division commander had been promoted earlier [and was therefore actually the senior commander on site].

At 1040, 5th Destroyer Squadron Commander Hara ordered the *Yura* to join him. By this order, the *Yura* separated from the unit for Area No. 2 at 1115 and rushed westward to join the *Natori*. The unit for Area No. 2 [then] evacuated northward under the command of the

6th Destroyer Division commander. While sailing southward, 5th Destroyer Squadron Commander Hara ordered the 5th Destroyer Division to join him, while ordering the convoy to evacuate to the Bangka Strait. Commander Hara continued sailing south, leading the *Natori*, the 11th and the 12th Destroyer Divisions. However, with no response from the 7th Cruiser Division about its position, he changed course to 120° at 1120 in order to locate it. Meanwhile, after retrieving the search planes at 1040, 7th Cruiser Division Commander Kurita finally started sailing south and after conveying at 1130 his current position, he communicated [his decision] to 5th Destroyer Squadron Commander Hara: “The 2d Section of the 7th Cruiser Division and the *Shikinami* shall provide support on the waters where the *Natori* operates, while the rest of the unit shall do so on the waters where the *Yura* operates.”⁽¹⁵⁰⁾ Then at 1140, while sending off the 2d Section (the *Mikuma* and the *Mogami*) of the 7th Cruiser Division southeastward, he changed course to 125° [ESE], away from the enemy (which was supposed to be on the waters southwest [of the division]), leading the 1st Section (the *Uranami* and the *Shikinami**) of the 19th Destroyer Division. The enemy movements reported by the probing aircraft of the 7th Cruiser Division during these hours were as follows:⁽¹¹⁹⁾

The aircraft of the <i>Mogami</i> at 1115:	The enemy force consist of one <i>Glasgow</i> -class and two <i>Danae</i> -class [cruisers] and two destroyers.
The aircraft of the <i>Mogami</i> at 1127:	No battleships or aircraft carriers accompany the enemy.
The aircraft of the <i>Mikuma</i> at 1140:	The enemy changed course to 90° [E].
The aircraft of the <i>Mikuma</i> at 1300:	The enemy position as of 1220 is fourteen nautical miles 356° [N] of Cape Kait, [sailing] on a 95° [E] course at twelve knots.
The aircraft of the <i>Mikuma</i> at 1300:	The enemy changed course to 0° [N] at eighteen knots.
The aircraft of the <i>Mogami</i> at 1305:	The enemy reversed course; he is at nineteen nautical miles 290° [WNW] of Cape Krawang and set on a 0° [N] course.

The report at 1300 of the enemy sailing northward clearly indicated that the enemy was prepared to attack the Japanese forces. Based on this, 7th Cruiser Division Commander Kurita finally made contact at 1330: “I will head for the enemy, sailing on a 230° [SW] course at sixteen knots,” while ordering [his unit] to be ready from 1430 onwards to immediately increase the speed to twenty-eight knots. In the course of joining the 7th Cruiser Division, 5th Destroyer Division Commander Hara communicated to the 7th Cruiser Division commander: “In the light of the current movements of the enemy, I would like to defeat the enemy in front [of us] on the waters northwest of Batavia, with the 7th Cruiser Division, the *Yura*, the *Natori*, the 11th, the 12th and the 19th Destroyer Divisions, while postponing the date of landing for another day.”⁽¹⁵⁹⁾ Further, he communicated to the Dutch East Indies Unit commander: “The enemy is prepared to take the offensive against our transport convoy with one large cruiser, two light cruisers and two destroyers. Presently, while having the transport ships temporarily reverse course, we are gathering surface forces to defeat [the enemy] first. [Thus,] we have no choice but to postpone the date of landing for another day. I would like your approval for a one-day postponement.” He also communicated the matter to Sixteenth Army Commander Lieutenant General Imamura, who was on one of the ships of the transport convoy.⁽¹⁵⁰⁾

* Probably the *Isonami* is meant. The *Shikinami* was part of the 2d Section.

At 1340, the 5th Destroyer Division unit and the 1st section of the 7th Cruiser Division came within sight [of each other]. The 2d section of the 7th Cruiser Division, which at one point had [operated] separately, also joined them. Since he had had no response whatsoever from 7th Cruiser Division Commander Kurita to his "I would like to defeat the enemy in front [of us with my unit] joined by yours" inquiry communicated at 1345, he resent at 1400 the telegram by signal (i.e. the telegram that he would like to postpone the date of landing for another day to defeat the enemy in front).

Without responding to it either (and remaining on a 230° [SW] course), 7th Cruiser Division Commander Kurita only signaled the outline of the subsequent search mission of the 7th Cruiser Division. Also, without gaining speed, he maintained his speed at sixteen knots. Meanwhile, 5th Destroyer Squadron Commander Hara issued the following order concerning the outline of the subsequent operations to the 3d Escort Unit:⁽¹⁵⁰⁾

1. It seems that the enemy will try to block our transport ships with [a force consisting of] one large cruiser, two light cruisers and two destroyers as the core.
2. The *Natori*, the *Yura* the 11th and the 12th Destroyer Divisions shall, along with the 7th Cruiser Division and the 19th Destroyer Division, defeat the enemy in front on the waters northwest of Batavia.
3. The date of landing shall be postponed for another day.
4. The transport ships shall appropriately operate as designated by the commanders of the 22d and the 6th Destroyer Divisions, while being strictly on guard against enemy aircraft and submarines, so as to enter the scheduled route at 3°53'S 107°10'E at 0500 on the 28th.

Meanwhile, after having received a report from the aircraft of the *Mikuma* [saying], "1443: The enemy changed course to 215° [SW]," 7th Cruiser Division Commander Kurita swiftly wired 5th Destroyer Squadron Commander Hara at 1445: "The enemy is very likely to flee into Batavia or other [ports]. If [the enemy] should flee into Batavia, I would like to have the 2d Section of the 7th Cruiser Division directly support [the landing units in] Area No. 1 and the 1st Section to operate appropriately blocking the waters east of Batavia."⁽¹¹⁹⁾ To this message, 5th Destroyer Squadron Commander Hara replied at 1450: "Regarding the current situation that the enemy vessels have escaped into Batavia, our unit shall appropriately operate on the waters northeast of Northwatcher* tonight, while on guard against the enemy. Tomorrow morning, as in your plan, I would like the support of the 7th Cruiser Division split into its sections in the landings of the main force as well as of the detachment."⁽¹¹⁹⁾

At 1450, the aircraft of the *Mogami* reported: "The enemy is about to flee into Batavia, [sailing] at ten nautical miles 20° [NNE] of Batavia." Also, a land-based attack plane unit of the Kanoya Air Group reported: "1450: We finished bombing at 1437. Scored two direct hits at the first ship, which we are sure caught fire. They are at ten nautical miles 28° [NNE] of Batavia, basically sailing on a 206° [SSW] course. We are flying in a formation of eight aircraft."⁽¹¹⁹⁾ At 1455, 7th Cruiser Division Commander Kurita urged 5th Destroyer Squadron Commander Hara: "I suggest you proceed with the operation at this opportunity. A one-day postponement is not convenient for us in terms of the fuel [situation] of our destroyers."⁽¹¹⁹⁾ However, 5th Destroyer Squadron commander replied: "Due to the landing times, it is too late [to resume] the landing operation today. We have arranged to postpone the landing by

* Actually: *Noordwachter*, the northernmost island of the Pulau Seribu Islands. It had a lighthouse erected in 1869; nowadays known as Pulau Sabira or Pulau Jaga Utara.

one day." After communicating at 1500 that "[he would] stop the pursuit," 7th Cruiser Division Commander Kurita suspended the operation to approach [the enemy], again detached the 2d Section of the 7th Cruiser Division and the *Shikinami* to separately operate [in the area of the *Natori*], while he himself reversed course and took a northeastward course. His position at that time was sixty-five nautical miles north of Batavia.⁽¹⁵⁰⁾

The 5th Destroyer Squadron also suspended the pursuit and started sailing northward to support the transport convoy. At 1500, a telegram came from the chief of staff of the Combined Fleet: "In consideration of the enemy movements in the Batavia area, it is appropriate that the 7th Cruiser Division commander shall take a unified command of the units in the said area."⁽¹⁵⁰⁾ It was sent by the Combined Fleet headquarters, and showed that the headquarters was no longer able to put up with the exchange of telegrams between the 7th Cruiser Division and the 5th Destroyer Squadron. At 1500, 7th Cruiser Division Commander Rear Admiral Kurita wirelessly to the Dutch East Indies Unit as well as the Air Unit: "The enemy consists of one large cruiser, two light cruisers and two destroyers. Although the support unit and the bulk of the 3d Escort Unit were heading to attack the enemy en masse, he will very likely flee back into [the port of] Batavia. Unless [the enemy] would be destroyed by a full-scale air attack, it will be difficult to conduct the disembarkation for several days in succession. In terms of fuel, the 7th Cruiser Division cannot stay in this area for long. I would like you to see to the matter of the air attack."⁽¹¹⁹⁾ Furthermore, the 7th Cruiser Division commander [announced] his plan of operations for that night: "Tonight, the 1st Section of the 7th Cruiser Division and the 1st Section of the 19th Destroyer Division shall appropriately operate [in the area] one hundred nautical miles northeast of Batavia, while the 2d Section of the 7th Cruiser Division and the *Shikinami* shall be on the waters northeast of Northwatcher [Noordwachter] along with the *Natori*, to be ready against the appearance of the enemy."⁽¹¹⁹⁾

On the evening of the 27th, the Southern Task Force and the Dutch East Indies Unit commanders sent the following telegraphic orders concerning the disposition of forces.⁽¹⁵⁰⁾

1. The 7th Cruiser Division and the 4th Carrier Division (minus the 2d Section) shall be transferred to the unit for the Batavia invasion [operation] (including the destroyers accompanying each division).
2. The 7th Cruiser Division commander shall take operational command of the unit for the Batavia invasion [operation].

Rear Admiral Kurita, commander of the 7th Cruiser Division, who had newly assumed the unified command of the units on site by these orders, requested Southern Task Force Commander Vice Admiral Kondō to increase the allotment of supply ships. Also, concerning the operations on the next day the 28th, he ordered the 5th Destroyer Squadron to sweep for mines on the waterway south of Northwatcher [Noordwachter] (where [an enemy] auxiliary transport ship had been spotted by the aircraft of the *Kumano* on the 27th), and at the same time issued an order to dispatch one of its destroyers to escort the 4th Carrier Division, which was expected to reach the Karimata Strait on the 28th. He further ordered the *Kamikawa-maru* to attack an enemy submarine, which had also been spotted on that day [the 27th] to the south of Northwatcher [Noordwachter].⁽¹¹⁹⁾ Furthermore, at night a reply came from the Sixteenth Army commander, which read that he had no objection to the postponement of Day H for another day but that he would like to execute [the operation for] Day I without postponing the date, unless it caused problems.⁽¹⁵⁰⁾

Heading for the Landing Points

On 28 February, 5th Destroyer Squadron Commander Rear Admiral Hara ordered the *Yura* to return to its original unit (the 3d Destroyer Squadron), while ordering the 1st Minesweeper Division (minus Minesweeper No. 5) to sweep for mines and the *Matsukaze* to return to the Karimata Strait to escort the 4th Carrier Division.⁽¹⁵⁰⁾ The units for Areas No. 1 and No. 2 [changed course and] started sailing toward the landing points on the planned sailing routes respectively at 0415 and 0500. In the morning, search planes of the 7th Cruiser Division sporadically reported having spotted a small number of destroyers, patrol boats, submarines, merchantmen, etc. on the waters north of Batavia.⁽¹¹⁹⁾ The aircraft of the 22d Air Flotilla reported the results of a reconnaissance of the port of Batavia conducted in the morning: "1050: Spotted fifteen large merchantmen and one large flying boat in the port of Batavia," which raised suspicion that the cruisers spotted on the day before might have escaped somewhere. Around noon, the 1st Section of the 7th Cruiser Division approached about ten nautical miles west of the unit for Patrol so that it could provide direct support for it, when at 1215, it received a report from the *Yura*: "1200: Spotted one enemy cruiser and one destroyer at forty-five nautical miles 280° [W] of Boompjes Island [Pulau Biawak], sailing on a 250° [WSW] course at twenty knots."⁽¹¹⁹⁾ Since the location was about forty-eight nautical miles south of the current position of the 1st Section of the 7th Cruiser Division, it judged that it could catch up with the enemy outside the port of Batavia if it closed in on him now, and at 1230 headed for the enemy, setting its course on 200° [SSW]. However, after having received at 1417 a report from the aircraft of the *Kumano* that "one *Glasgow*-class and one light cruiser had stopped at about ten nautical miles 20° [NNE] of Batavia," the section judged that the enemy had already put in at Batavia port. It called off its southward sailing, reversed course at 1450 and sailed northward to reach in the evening the waters about forty nautical miles north of Patrol, the position where it was supposed to support the Patrol unit.⁽¹¹⁹⁾

At 1900, the units for Area No. 1 turned toward the landing points on a 210° [SW] course, reached a point eighteen nautical miles north of St. Nicholas Point [Tanjung Pujut] at 2020, and split into the units for Sectors A and B and those for Sector C. At 2210, 5th Destroyer Squadron Commander Rear Admiral Hara wirelessly the 22d Air Flotilla and the [Army] Third Air Force and requested them to pay particular concern to the guarding of the anchorages at dawn on the next day. At 2245, the captain of the *Mikuma* sent the following report of the reconnaissance results over Batavia conducted by the aircraft of the *Mogami*.⁽¹⁵⁰⁾

The results of the reconnaissance of the Batavia area conducted at 8 p.m. on the 28th by the aircraft of the *Mogami* (reconnaissance altitude: 1,500 meters)

1. One large cruiser moored at the pier, one light cruiser at anchor inside the wing dam, and further three flying boats.
2. One gunboat and two patrol boats patrolling the mouth of the bay.
3. One destroyer and one large transport ship sailing westward on the waterway north of Cape Kait.
4. One submarine sailing eastward on the said waterway.

At 2300, the *Harukaze*, which was guiding the invasion unit for Bantam Bay, spotted one enemy cutter, and in cooperation with the *Fubuki*, shelled the cutter and caused her to run aground.⁽¹⁵⁰⁾ In the meantime at 2120, the unit for the Patrol area had come under probing

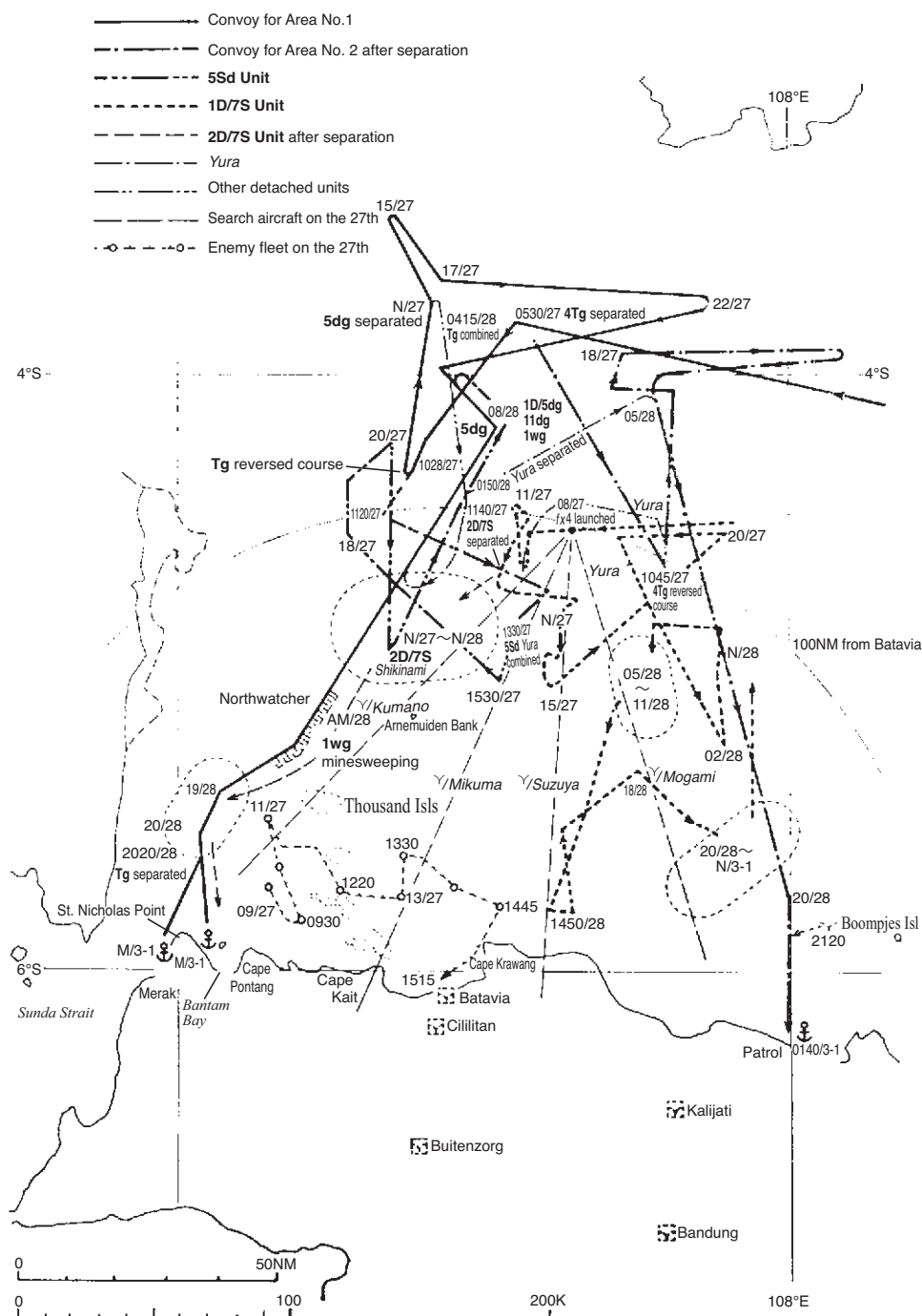


Illustration No. 43 — The Movements of the Units for the Western Java Invasion [Operation], Map No. 2 (27 February – 1 March, 1942)

and an attack by two enemy aircraft at a point about thirty nautical miles north of Patrol, but sustaining no damage, it continued sailing south.

The Engagements of the 1st Air Unit

On 31 January, the *San'yō-maru* left Balikpapan along with Patrol Boat No. 35 (with one platoon of the 2d Kure Special Landing Force on board) and put in at Cam Ranh Bay on 8 February. [Then] at 1700 on the 17th, the *San'yō-maru* left Cam Ranh Bay and arrived at the Anambas Islands at 1700 on the 19th, where she joined the *Kamikawa-maru* to carry out the direct escort of the transport convoy against enemy submarines from 21 February onwards.

There was nothing unusual on that day. On the 22d, a base was set up in Toboali (on the southern coast of Bangka Island; [the advance to] Lepar Island was called off), to where one Type-0 [three-seater] reconnaissance seaplane and four Type-0 observation seaplanes advanced. Although nothing unusual [was spotted] while guarding against [enemy] submarines, at 2015* one enemy flying boat flew over the Anambas anchorage, but slipped away without conducting a bomb attack. Nothing unusual was spotted on the 23d. On the 24th, at 1635, one Type-0 reconnaissance seaplane of the *Kamikawa-maru* spotted a surfaced submarine at fifteen nautical miles southeast of the convoy and dropped a bomb. It scored a near miss but the results were unknown, because the submarine had submerged. It further guided two of the [convoy-]guarding destroyers to the spot to attack it with antisubmarine depth charges [See p. 411]. In the meantime, three Type-0 observation seaplanes and two Type-0 reconnaissance seaplanes of the *Kamikawa-maru* had advanced to the Toboali base. That evening, land-based attack planes of the Genzan Air Group spotted four or more enemy submarines at the north point of the Karimata Strait and neutralized them. On the 25th, one Type-0 reconnaissance seaplane and two Type-0 observation seaplanes of the *Kamikawa-maru* moved [their base] from the Anambas Islands to Toboali. During the operation, one Type-0 observation seaplane spotted one enemy flying boat probing the 7th Cruiser Division at eighty-three nautical miles 91° [E] of Cape Jang ([on] Lingga Island) and attacked it, but had to let it slip away due to a squall (as previously told [p. 411]). Meanwhile, one Type-0 reconnaissance seaplane of the *Kamikawa-maru* flew to an uninhabited island one hundred kilometers northwest of Batavia, escorted by one army fighter plane, to rescue the flight crew of an army aircraft, which had made an emergency landing there, successfully rescued them and brought them to their army unit in Palembang. On that day, while moving to the Toboali base, two Type-0 reconnaissance seaplanes and one Type-0 observation seaplane of the *San'yō-maru* spotted a surfaced submarine sailing south at twenty-five nautical miles 290° [WNW] of Pejantan Island. They scored near misses, but the results were unknown.

On the 26th, nothing unusual was spotted other than four enemy flying boats, which a Type-0 reconnaissance seaplane of the *Kamikawa-maru* spotted at thirty nautical miles 240° [SW] of the convoy. On the 27th, with the discovery of an enemy fleet by the aircraft of the *Kumano*, it was decided that [the unit] should support [the neutralizing of the fleet] as much as possible, besides its original tasks. Accordingly, one Type-0 reconnaissance seaplane searched the whole area of the Sunda Strait and the waters surrounding the Thousand Islands [Pulau Seribu], but spotted no enemy other than two enemy minesweepers at 1525, which

* On p. 411: 2040.

were sweeping for mines [in an area] eight nautical miles 20° [NNE] of Cape Pontang while sailing on a 270° [W] course. On the 28th, in addition to the scheduled direct escort [of the convoy] against enemy submarines, one Type-0 reconnaissance seaplane carried out a search and attack mission against enemy submarines on the waters south of Northwatcher [Noordwachter] Island, only to spot one destroyer and one gunboat at about twenty nautical miles northwest of Batavia. Meanwhile, the advance base personnel for the bases for the next operations ([at] Bantam Bay and the coast of Patrol) and Patrol Boat No. 35 left Toboali.

The Operations of the 3d Air Raid Unit Fell Short of Expectations

It was decided that the bulk of the Air Unit of the Malaya Unit ([consisting of] the 22d Air Flotilla as the core) should come under the command of the Air Unit of the Southern Task Force to take part in the Java operation as the 3d Air Raid Unit on 19 February ([the transfer was] advanced by two days from the 21st in view of the enemy movements).

On 19 February, the Genzan Air Group conducted a search mission over the Java Sea from Kuching with four land-based attack planes, but spotted no enemy.⁽⁷¹⁾ One land-based reconnaissance plane of the Yamada Unit conducted a reconnaissance over Batavia and spotted one Class-A cruiser, three light cruisers and forty merchantmen [p. 403].⁽¹²⁹⁾ On that day, a survey of the Mentok base was conducted, and it was reported that [a runway with] a length of 1,000 meters and a width of 200 meters was completed and that the felling of the rubber tree forest on the extension of the runway would be completed on the 21st.⁽¹²²⁾ On the 20th, no campaign was conducted due to the preparations for the advance of the bases. On the 21st, the Genzan Air Group conducted a search mission over the western part of the Java Sea from Kuching with four land-based attack planes, but only encountered one PBY flying boat (which fled).⁽⁷¹⁾ [On that day,] one land-based attack plane of the Kanoya Air Group headed for Palembang from Thủ Dầu Một to conduct a survey of the base,⁽¹³⁵⁾ while the Yamada Unit engaged in preparations for the advance to Mentok. On the 22d, four land-based attack planes of the Genzan Air Group [again] conducted a search mission over the Java Sea from Kuching only to spot no enemy, while one transport plane of the air group headed for Palembang from Kuching to conduct a survey of the Gelumbang base. On that day, due to bad weather, the Type-0 fighter planes' advance to Mentok was called off.⁽⁷¹⁾

On the 23d, four land-based attack planes of the Genzan Air Group [again] searched for the enemy on the western part of the Java Sea, but only spotted several merchantmen, which had either sunk or run aground. On that day, fifteen Type-0 fighter planes and three land-based reconnaissance planes of the Yamada Unit advanced from Kuching to Mentok with the support of eight land-based attack planes and one transport plane of the Genzan Air Group.⁽¹²⁹⁾ [En route,] the land-based attack planes of the group spotted enemy submarine[s] at twenty-five nautical miles 180° [S] of Pejantan Island, which led to a dispatch of two other land-based attack planes to attack them, but the latter were unable to spot them. [That day,] the land-based attack plane of the Kanoya Air Group that had been dispatched to conduct a survey on the base, returned to Thủ Dầu Một, and it was decided that first of all six land-based attack planes of the group should be advanced to Gelumbang on the 24th and then twenty-five planes on the 26th.⁽¹³⁵⁾

On the 24th, thirty land-based attack planes of the Genzan Air Group advanced to Gelumbang from Kuching to be ready for an attack on Batavia on the 25th. On that day, the Type-

0 fighter plane units [that had moved to] Mentok spotted two *Dornier*-type flying boats and reported having shot down one of them. [In the meantime,] while advancing to Gelumbang, the Genzan Air Group spotted four enemy submarines on the waters to the south of Pejantan Island and neutralized them [p. 420]. [On that day] a land-based reconnaissance plane of the Yamada Unit reported on the enemy movements around Batavia as of 1200 as follows:⁽¹³⁵⁾

1. Inside the port: one large cruiser, ten merchantmen and eight large flying boats
2. Cililitan: eight large and seven small aircraft
3. Kemayoran: three large and two small aircraft

On the 25th, at 1000, twenty-seven land-based attack planes of the Genzan Air Group took off from the Gelumbang base, and in cooperation with thirteen Type-0 fighter planes and one land-based reconnaissance plane of the Yamada Unit, headed for an attack on enemy vessels at anchor at Batavia. Between 1200 and 1230, they bombed a British heavy cruiser (with fifty-two 250-kg [bombs]), scored a direct hit at her stern and reported having destroyed the cruiser.⁽⁷¹⁾ Although the unit was supposed to return to the Kuching base, it [had to] return to the Gelumbang base due to bad weather. The enemy anti-aircraft fire was extremely fierce, and inflicted damage to eleven aircraft, which were marked by bullets, and left two crew members slightly injured. The thirteen Type-0 fighter planes that accompanied the unit engaged in the air over Batavia with eight Spitfires coming to intercept them and reported having shot down four (one of which unconfirmed). After that, they reported having strafed the Cililitan airfield, destroyed two small planes, which were set ablaze, while one element reported having strafed the oil tanks at the port and set ablaze three of them. After this engagement, one land-based reconnaissance plane and one Type-0 fighter plane did not return.⁽¹³⁵⁾

On the 26th, the land-based attack planes of the Genzan Air Group returned to Kuching, and replacing them, twenty-five land-based attack planes of the Kanoya Air Group advanced to the Gelumbang base.⁽¹³⁵⁾ Since the Gelumbang [base] was situated far from the coast, it was difficult to transport fuel and ammunition. On top of that, with no facilities for sleeping, etc., the crew had to go so far as to sleep under mosquito nets hung over the wings. Although large, the airfield was not in a condition to accommodate two air groups for continuous operations.

At 0900 on the 27th, on learning that the reconnaissance seaplane of the *Kumano* had spotted an enemy fleet, [the unit] tried to conduct an attack on the enemy. However, the Genzan Air Group in Kuching was not able to take off due to bad weather in the area of the base,⁽⁷¹⁾ while the Kanoya Air Group in Gelumbang launched only eight of its land-based attack planes with 60-kg land bombs due to the delay in [the transport of] fuel and ammunition. At 1430, they spotted the enemy fleet at fifteen nautical miles 28° [NNE] of Batavia, carried out an attack, scored two or more direct hits on the vessel in front (a heavy cruiser) causing two fires to erupt amidships. Another land-based attack plane completed preparations for an attack and headed for the enemy fleet alone. However, unable to spot it, it bombed a 2,000t-class merchantman it had spotted (at anchor) at twenty nautical miles north of Batavia, and inflicted considerable damage by near misses. Meanwhile, the Type-0 fighter planes of the Yamada Unit patrolled the air above the convoy but did not spot the enemy.⁽¹³⁵⁾

The Summary Report of the Actions of the 3d Air Raid Unit on the 28th read as follows:⁽¹³⁵⁾

1. The Yamada Unit

(1) One land-based reconnaissance plane reconnoitered Batavia, spotted two flying boats and fourteen mid-sized merchantmen in port; no other [ships including] naval vessels were spotted.

(2) Nine Type-0 fighter planes in total patrolled the air over the transport convoy but spotted no enemy.

2. The main body of the Kanoya Air Group

Two land-based attack planes carried out a search mission in the southern part of the Java Sea west of 110°E [longitude]. Although one returned due to bad weather, the other [spotted] at 1225 an 8,000t-class merchantman at sixty nautical miles 20° [NNE] of Cape of Indramayu, sailing on a 110° [E] course at twelve knots.

3. The Genzan Air Group

Due to bad weather at Kuching and the soft ground of the airfield, it did not take off.

Note: The Genzan air Group was supposed to advance to and operate from Gelumbang.

The Mihoro Air Group of the Malaya Unit Failed to Provide Effective Support

As previously told, the bulk of the Air Unit of the Malaya Unit was incorporated into the Air Unit of the Southern Task Force and supposed to participate in the Java operation as the 3d Air Raid Unit under the unified command of Eleventh Air Fleet Commander in Chief Vice Admiral Tsukahara. However, the Mihoro Air Group was kept in the Malaya Unit to remain engaged in the northern Sumatra operations. Then, by the (previously-mentioned) instructions given to the Malaya Unit on the 24th [p.408], the group was assigned to carry out an attack on enemy vessels in the western Java area with its full force.

On the 26th, ten land-based attack planes took off from the Kuantan base at 1500, landed in the Kahang base at 1600, where they completed refueling, and took off from the Kahang base at 0855 on the 27th for a search and attack mission in the Batavia area. Having learned at 1100 about the telegram from an aircraft of the *Kumano* that it had spotted an enemy fleet, they headed for an attack on the enemy but unable to spot the enemy fleet due to low visibility, all returned to the Kahang base at 1800.⁽⁷¹⁾ On the 28th, the air unit left Kahang to return to Kuantan, which meant that they failed to provide effective support for the air operation to destroy the enemy air power in Java.

The Belated Advance of the 4th Carrier Division

The 4th Carrier Division, which had returned to Cap Saint Jacques ([in] French Indochina) on 19 February, was on standby for the subsequent operations. However, since the land-based attack plane unit did not produce significant results in the air campaign in the western Java area, Southern Task Force Commander Vice Admiral Kondō issued at 0850 on the 27th the following order by means of the Second Fleet Classified Telegram No. 50.⁽¹⁵⁰⁾ Southern Task Force Telegraphic Order No. 114: "The Malaya Unit commander shall have the 4th Carrier Division (minus the 2d Section) promptly advance to the Java Sea area to have it support the operations of the Dutch East Indies Unit." In line [with the above], Malaya Unit Commander Vice Admiral Ozawa issued Malaya Unit Telegraphic Order No. 156, which read: "1150, 27 February: The 4th Carrier Division (minus the 2d Section) shall operate as [in-

structed] in Southern Task Force Telegraphic Order No. 114.”⁽¹³⁴⁾ Then at 1600 on the 27th, Southern Task Force Commander Vice Admiral Kondō incorporated the 7th Cruiser Division as well as the 4th Carrier Division (minus the 2d Section) into the Dutch East Indies Unit (including the destroyers accompanying the divisions).⁽¹⁵⁰⁾ In accordance with this, Dutch East Indies Unit Commander Vice Admiral Takahashi issued the following order by means of Third Fleet Classified Telegram No. 519.^{(119)*}

1. The 7th Cruiser Division and the 4th Carrier Division (minus the 2d Section) shall be transferred to the unit for the Batavia invasion [operation].
2. The 7th Cruiser Division commander shall take operational command of the unit for the Batavia invasion [operation].

Based on this order, the 4th Carrier Division hurriedly left Cap Saint Jacques on the afternoon of the 27th to rush to the Java Sea but it was not in time for the engagements before the 28th.

The Engagements of the Army Air Units

The main force of the [Army] Third Air Force had advanced to the Palembang airfield on both 17 and 18 February, carried out attacks on the airfields in Batavia, Kalijati, Bandung and Buitenzorg from the 19th until the 25th, and reported having shot down or destroyed 211 enemy aircraft. The numbers of the army aircraft advanced at that time was as follows.⁽¹¹⁷⁾

By 16 February:	20 Type-97 fighter planes
By 17 February:	20 Type-97 fighter planes, 7 Type-1 fighter planes and 2 command reconnaissance planes
18 February:	Almost the full force of the Type-1 fighter planes

On 17 February, the [Army] 12th Air Division advanced the 11th Air Group to Palembang to assign the latter to [guard] the oil refineries against enemy aircraft and cover the anchorage of the Sixteenth Army. [Then] on the 22d, after the capture of the Tanjungkarang airfield, [the division] advanced one element to the airfield as the advance unit, which was followed by the advance of the main force on the 24th. The group reported military gains of having shot down or destroyed 132 [enemy] aircraft by the 25th, and from the 27th onwards, took charge of the cover of the convoy under sail and the guarding of the anchorage against enemy aircraft.

The Sailing of the Convoy for the Eastern Java Invasion [Operation]

(See Illustrations No. 44 and No. 45)

At 0800 on 19 February, the 1st Escort Unit left Jolo, escorting thirty-eight Army transport ships. The [escort] strength at that time consisted of the *Naka*, the 24th Destroyer Division (one destroyer), the 2d Destroyer Division (four destroyers), the 9th Destroyer Division (three destroyers), the 30th Minesweeper Division (two minesweepers), the 11th Minesweeper Division (two minesweepers), Minesweeper No. 20, the 21st Subchaser Division (five submarine chasers), the *Wakataka*, the *Hayatomo*, and the *Ebisu-maru*, that is, one light cruiser, eight de-

* See also p. 417.

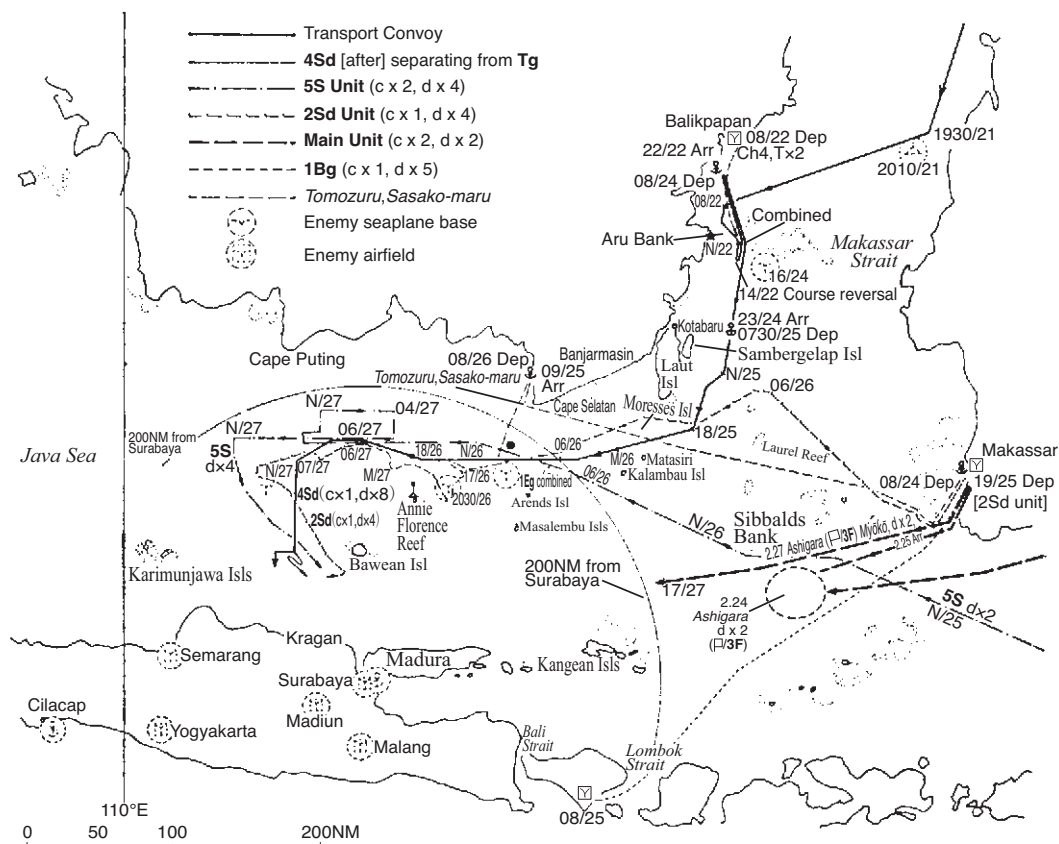


Illustration No. 44 — The Operations of the Eastern Java Invasion Unit and the Units Involved Before the Sea Engagement off Surabaya (21-27 February, 1942)

stroyers, five minesweepers, five submarine chasers, and three vessels of other types, totaling twenty-two naval vessels, which, including the thirty-eight transport ships, made up a large unit of a total of sixty ships. At 1930, Submarine Chaser No. 16 in the front line detected enemy submarine[s], attacked [them] with depth charges and searched for the enemy until 2100. However, nothing in particular was detected, so the results remained unknown.⁽⁵⁶⁾ On that day, the Carrier Task Force and the Air Unit carried out an air strike on Port Darwin, while the unit to capture Bali left Makassar (as previously told [p. 337; pp. 311-12]).

On 20 February, the 1st Escort Unit sailed southward on the Celebes Sea roughly on a 200° [S] course and in the evening approached a point about seventy nautical miles from the north entrance of the Makassar Strait. On that day, while the sea engagement off Bali occurred before dawn, [the operations] to capture Kupang and Dili were launched. The main unit [of the Dutch East Indies Unit] (the *Ashigara*, the *Kawakaze* and the *Yamakaze*) rushed toward Bali to support the unit to capture Bali, leaving Balikpapan around 0300 (as previously told [p.

373]). Meanwhile, the *Myōkō*, who had sustained damage by the enemy air strike in Malalag Bay, completed a speedy repair at Sasebo, left the port at 1400 and sailed toward Makassar.⁽⁷²⁾

At 1100 on 21 February, the 1st Escort Unit crossed the equator and at 1930 turned to head for an area off Balikpapan on a 250° [WSW] course. From that day onwards, a direct escort by the fighter planes of the 2d Air Raid Unit was provided. In the meantime at 1000, the *Mizuho*, who had been in the middle of the Kupang operation, was ordered to return from the 2d Escort Unit to her original unit and without a break participate in the eastern Java operation (as previously told [p. 373]).⁽⁵⁴⁾

On the morning of the 22 February, the 1st Escort Unit arrived off Balikpapan. At 0800, the *Ehime-maru* and the *Liverpool-maru* with the Sakaguchi Detachment on board, left Balikpapan, escorted by Submarine Chaser No. 4, the *Aotaka* of the 1st Base Force, and the 2d Gunboat Division, and joined the 1st Escort Unit at a point north of Aru Bank at 1200. Around 1345, when [the unit] had passed through the narrow waterways of Aru Bank, an order of Dutch East Indies Commander Vice Admiral Takahashi came in: "The landing dates shall be postponed until 28 February. [The unit] shall stay on standby near Balikpapan." [The unit] reversed course at 1400, and around 2200 dropped anchor off the mouth of the river at Sapunang about thirteen nautical miles southwest of Balikpapan to temporarily ride at anchor [there].⁽⁵⁴⁾ On that day at 1600, the eastern support unit (the 5th Cruiser division, the *Ikazuchi* and the *Akebono*) returned from the Timor operation to Staring Bay, where the 5th Cruiser Division's task of supporting the second carrier operation was changed to supporting the 1st Escort Unit by advancing into the Java Sea (as previously told [pp. 354-55]). Meanwhile, Dutch East Indies Unit Commander Vice Admiral Takahashi issued an order that the 2d Escort Unit, then engaged in the Timor Operation, should be disbanded as of 24 February, and that the main force of the 2d Destroyer Squadron and the 1st Section of the 7th Destroyer Division, too, should swiftly advance to the Java Sea after replenishing at Makassar (as previously told [pp. 354-55]).

On 24 February, the 1st Escort Unit left its temporary anchorage south of Balikpapan. At 1600, one enemy flying boat approached [the unit] to probe from the south from a long distance, but friendly fighter planes and observation plane[s] shot it down.⁽⁵⁶⁾ On that day, at 0830, the 1st Section of the 7th Destroyer Division left Dili for Makassar and the 2d Destroyer Squadron (the *Jintsū* and the 16th Destroyer Division) left Kupang at 1200 also for Makassar,⁽⁵⁴⁾ while the 5th Cruiser Division (the *Nachi* and the *Haguro*) and the *Yamakaze* and the *Kawakaze* left Staring Bay at 1200 to advance to the Java Sea.⁽⁷⁵⁾ At 2300, the 1st Escort Unit temporarily rode at anchor at thirty nautical miles off Kotabaru on Laut Island to adjust the sailing schedule. In the meantime, the main unit of the Dutch East Indies Unit appropriately operated in the area northeast of the Kangean Islands to support the second Bali [transport] operation.

On 25 February, the *Sasako-maru* (which had left Makassar on the 24th) under the escort of the *Tomozuru* arrived in Banjarmasin at 0900, where the embarkation of the Yamamoto Regiment of the Sakaguchi Detachment was started. In the meantime, at 0730 the 1st Escort Unit left the temporary anchorage off Kotabaru, began to sail southward and entered the Java Sea in the middle of the night.⁽⁵⁶⁾ The 5th Cruiser Division (minus the *Myōkō*), the *Yamakaze* and the *Kawakaze* sailed westward on the waters south of Makassar, rushing around noon towards the waters south of Banjarmasin, where they were supposed to join the 1st Escort Unit.⁽⁷⁸⁾ Also, at 1900, the 2d Destroyer Squadron (the *Jintsū* and the 16th Destroyer Di-

vision) left Makassar to follow in the wake of the 1st Escort Unit.⁽⁵⁴⁾ On that day, 1st Base Force Commander R. Adm. Kubo Kyūji arrived in Bali at 0800 and started the disembarkation of the unit of the second phase of the transport [operation], while the Dutch East Indies Unit commander called off the support for the Bali operation and returned to Makassar in the evening.

At sunrise on 26th February, the 1st Escort Unit reached a point forty nautical miles south of Cape Selatan (south of Banjarmasin) and continued sailing westward. Around noon, the *Sasako-maru* and the *Tomozuru*, who had sailed from Banjarmasin, joined them and by sunset they reached a point 150 nautical miles north of Surabaya.⁽⁵⁶⁾ Around 0630, the 5th Cruiser Division unit caught up with the 1st Escort Unit and shifted to the support operation by sailing westward ahead of the 1st Escort Unit on its starboard bow.⁽⁷⁸⁾ By the evening, the 2d Destroyer Squadron unit also joined the 1st Escort Unit and shifted to the support operation by taking a position on its port side quarter.⁽⁵⁴⁾ In the meantime between 1245 and 1330, the 1st Escort Unit and the 2d Destroyer Squadron unit were probed by one enemy flying boat and later at 2005 bombed by two enemy four-engine heavy bombers, but they sustained no damage.⁽⁵⁶⁾ At 1500, 1st Escort Unit Commander R. Adm. Nishimura Shōji contacted 5th Cruiser Division Commander R. Adm. Takagi Takeo: "I suspect that the transport ships were spotted by the enemy. To be prepared against an appearance of enemy naval vessels tonight, I would like [you] to search for the enemy on the waters north of Surabaya before sunset with the aircraft of the 5th Cruiser Division. If [enemy] naval vessels should appear, I plan to have the aircraft of the *Naka* probe them at night and destroy the enemy with the full force of our unit."⁽⁵⁶⁾ Accepting this proposal, 5th Cruiser Division Commander Rear Admiral Takagi searched for the enemy in the area between Bawean Island and Surabaya, but only spotted three [enemy] patrol boats to the north of Surabaya.⁽⁷⁸⁾ On the other hand, the reconnaissance over Surabaya by aircraft of the 2d Air Raid Unit still reported that several powerful enemy naval vessels including cruisers were at anchor [there]. At 2150, 2d Air Raid Unit Commander R. Adm. Takenaka Ryōzō sent the following assessment about the enemy movements:

1. Outside the port: one heavy cruiser, two light cruisers, several destroyers and torpedo boats at anchor.
2. North entrance of Surabaya port: two destroyer-like vessels sailing eastward.

At 2330, the 1st Escort Unit commander requested the 5th Cruiser Division commander: "It is required to guard in particular against the enemy, who might come for an attack from the Surabaya area when the transport ships enter into the anchorage. We have figured out our countermeasures, however, if possible, I would like you to look out for [the enemy] by positioning appropriate naval vessels near the north entrance of Surabaya."

The Operations of the 2d Air Unit

On 19 February, the convoy left Jolo. The *Chitose*, which had been guarding the sailing route ahead of the convoy while providing guard in the air against [enemy] aircraft, spotted nothing unusual.^(68, 79) At 1915 on that day, the *Chitose* left Jolo for Dondo Bay (on the north coast of Celebes). Patrol Boat No. 34 left Tarakan for Dondo Bay around 1300, while Patrol Boat No. 38 left Jolo around 0900 [also] for Dondo Bay. At 0830 on the 20th, the *Chitose* put in at Dondo Bay and provided the whole day [the convoy] with a guard on the sailing route ahead

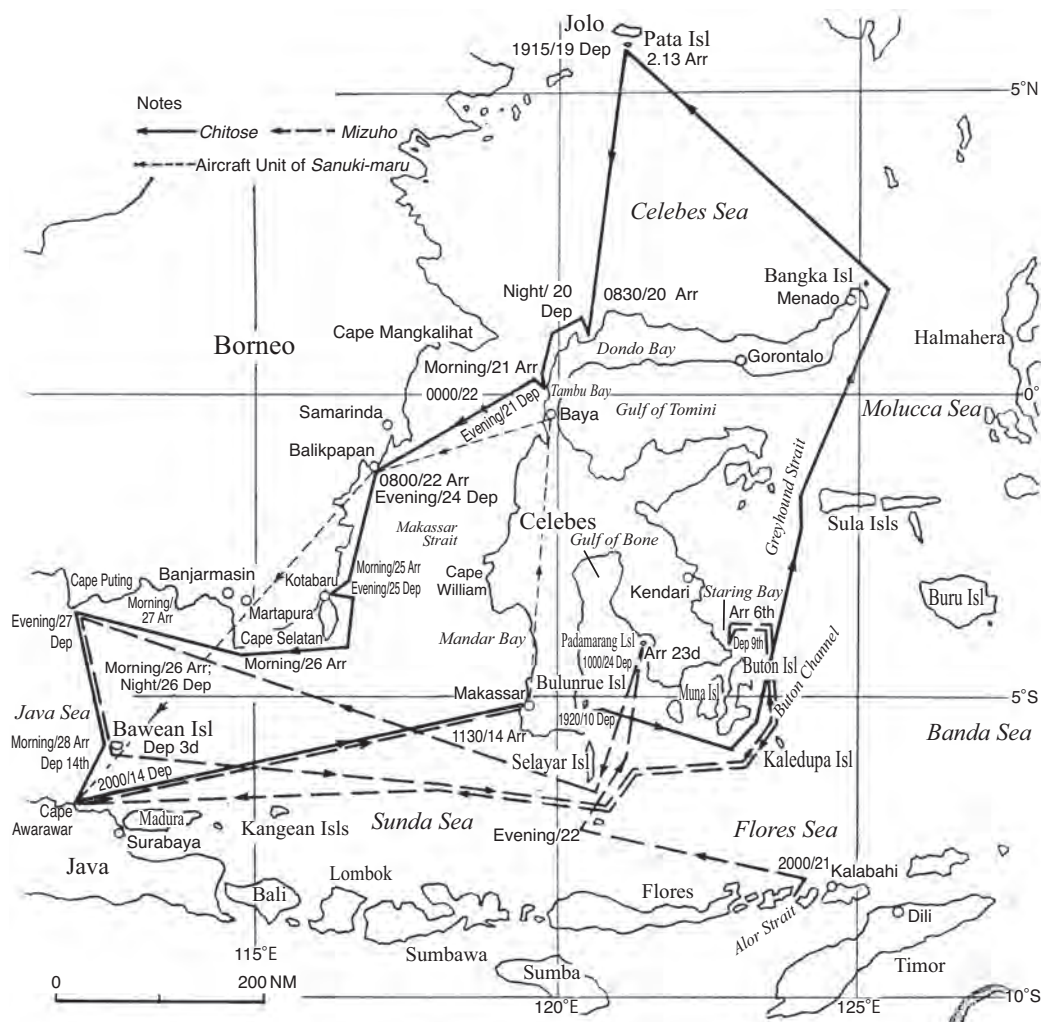


Illustration No. 45 — The Outline of the Movements of the 2d Air Unit

as well as a guard in the air [against enemy aircraft], but nothing unusual was spotted. Patrol Boats No. 34 and No. 38 had respectively put in at Dondo Bay around 0600 and around 0800. On the 21st, the *Chitose* and Patrol Boat No. 38 put in at Tambu Bay (on the west coast of Celebes) after having left Dondo Bay and provided a guard in the air against enemy aircraft and submarines in the same way as the previous day. On the morning of the 22d, the *Chitose*, coming from the Gulf of Tambu, entered the port of Balikpapan and stayed at anchor there. On that day, a guard against [enemy] aircraft and submarines was again provided in the same way as the previous day. On the 23d, while remaining at anchor in Balikpapan, the *Chitose* continued providing the convoy with a guard against [enemy] aircraft and submarines from the air. On the 24th, while providing the convoy with a guard in the air against [enemy] aircraft and submarines in the same way as the previous day, the *Chitose* left Balikpapan for Laut Island. On that day, one enemy flying boat came probing [the convoy], but the fighter planes of the Tainan Air Group shot it down [p. 426].⁽⁶⁸⁾ On the 25th, the *Chitose* dropped anchor near Kotabaru on Laut Island, and on the 26th near Cape Selatan to provide the convoy

with a guard in the air against [enemy] aircraft and submarines. The *Mizuho* joined her [off] Cape Selatan, and provided a guard in the air against [enemy] aircraft and submarines along with her. In the meantime, the aircraft unit of the *Sanuki-maru* provided the convoy with a guard in the air against [enemy] aircraft and submarines from Baya ([in] central Celebes). The *Sanuki-maru's* aircraft unit is presumed to have operated along with the *Chitose* after that, but its operations are not clear.

The 2d Air Raid Unit Largely Neutralized Eastern Java

The major operations of the 2d Air Raid Unit from 19 until 26 February were as follows:⁽⁷¹⁾

Date	Unit	Forces	Outline of Operations	Reported Military Gains and Losses
19th [Feb]	Takao Air Gp	18 land-based attack planes	Attacked the urban area of Bawean Island	
	Tainan Air Gp	6 Type-0 fighter planes	Patrolled in the air over the Bali anchorage	Raided by a total of 7 B-17s and 3 B-24s; could not shoot them down
		23 Type-0 fighter planes	Attacked Surabaya; engaged with 30 P-40s in the air	Shot down 17 P-40s; 1 Type-0 fighter plane crashed itself
20th	Takao Air Gp	16 land-based attack planes	Attacked enemy naval vessels in Madura Bay	Scored no hits
		13 land-based attack planes	Attacked enemy naval vessels in the Lombok Strait	No enemy naval vessels spotted; bombed the city of Banyuwangi [instead]
	Tainan Air Gp	13 Type-0 fighter planes	Attacked Surabaya	No enemy spotted
		9 Type-0 fighter planes	Attacked the airfield[s] near Malang	Set fire to 4 B-17s and destroyed 1 B-17 and 1 twin-engine plane
	3d Air Gp	4 Type-0 fighter planes	Patrolled over the Bali anchorage	Raided by 3 light bombers and 20 fighter planes; shot down 6 fighter planes
21st	Takao Air Gp	21 land-based attack planes	Attacked naval vessels at anchor in Surabaya port	Destroyed 1 cruiser and 1 merchantman
	Tainan Air Gp	7 Type-0 fighter planes	Attacked the airfields in Maospati and Malang	Shot down 1 P-40; 1 land-based attack plane badly damaged during an emergency landing; destroyed 3 small planes
	3d Air Gp	6 Type-0 fighter planes	Provided cover for the land-based attack plane unit attacking Surabaya; engaged with 10 P-40s	Shot down 3 P-40s, set fire to 1 B-17 and destroyed 2 mid-sized planes and 1 small plane

22d	Tainan Air Gp	12 Type-0 fighter planes	Provided direct escort in the air over the convoy	Spotted no enemy
		6 Type-0 fighter planes	Attacked Yogyakarta and Semarang	Set fire to 1 B-24 and 2 twin-engine planes and destroyed 9 planes of other types
		4 Type-0 fighter planes	Attacked the Pasirian airfield	Set fire to 1 B-17 and destroyed 5 B-17s and 2 twin-engine planes
		6 Type-0 fighter planes	Attacked [the airfields in] Pasirian and Malang	Set fire to 4 B-17s and 1 P-40, and destroyed 2 twin-engine planes
	3d Air Gp	3 Type-0 fighter planes	Carried out a reconnaissance attack on Yogyakarta	Set fire to 2 large and 1 mid-sized planes and destroyed 1 large, 3 mid-sized and 5 small planes
23d	Tainan Air Gp	9 Type-0 fighter planes	Provided cover for the land-based attack planes attacking Malang; engaged with 6 P-40s	Shot down 3 P-40s
		8 Type-0 fighter planes	Provided direct escort in the air over the convoy	Spotted no enemy
24th	Takao Air Gp	9 land-based attack planes	Attacked Malang	Destroyed 2 twin-engine planes
		9 land-based attack planes	Attacked naval vessels in Surabaya	Sank 1 merchantman
		15 land-based attack planes	Ditto	Destroyed 2 cruisers and 1 merchantman
	Tainan Air Gp	10 Type-0 fighter planes	Provided direct escort in the air over the convoy	Shot down 1 flying boat
25th	Takao Air Gp	22 land-based attack planes	Attacked naval vessels at anchor in Surabaya [port]	Bombed cruiser[s]; scored no hits; 4 [Japanese planes] marked by bullets
	Tainan Air Gp	9 Type-0 fighter planes	Provided cover for the land-based attack plane unit attacking Surabaya; engaged with 13 P-40s	Shot down 8 P-40s (4 of which unconfirmed)
		10 Type-0 fighter planes	Provided direct escort in the air over the convoy	Spotted no enemy

26th	Tainan Air Gp	12 Type-0 fighter planes	Provided direct escort in the air over the convoy	Spotted no enemy
	Takao Air Gp	5 land-based attack planes	Searched for the enemy in the Indian Ocean	Spotted 1 aircraft carrier and 1 submarine
		4 land-based attack planes	Searched for the enemy in the Sunda and Java Seas	Spotted 3 light cruisers, 3 destroyers and 2 torpedo boats (which later put in at Surabaya port)

During this period, the 1st Air Raid Unit supported the Timor operation, while at the same time carrying out the attack on Port Darwin as well as the attack on the neighborhood of Surabaya.

3. The Sea Engagement off Surabaya

(See Attached Illustrations No. 5 and No. 6)

The Appearance of a Powerful Enemy Surface Unit (27 February)

Around sunrise on 27 February, the 1st Escort Unit reached [a point] about fifty nautical miles northwest of Bawean Island and at 0700 turned to head for Kragan on a 190° [S] course. Both the 5th Cruiser Division unit (the 5th Cruiser Division, the 1st Section of the 7th Destroyer Division and two destroyers of the 24th Destroyer Division) and the 2d Destroyer Squadron (the *Jintsū* and the 16th Destroyer Division) were sailing westward, supporting the 1st Escort Unit from a position about fifty nautical miles to the northeast of the latter. At 0900, 5th Cruiser Division Commander Rear Admiral Takagi issued the following order concerning the deployment of the units on site around the time of the [convoy's] entering into the anchorage.⁽⁵⁶⁾

Unless enemy movements significantly change, [the units on site] shall be deployed to the following [areas] around the time of the [convoy's] entry into the anchorage tonight:

1. The area north of Surabaya: 2d Destroyer Squadron (minus the 15th, the 8th and the 18th Destroyer Divisions)
2. The area between the Karimunjawa Islands and Jati Point: the 1st Section of the 7th Destroyer Division
3. The 5th Cruiser Division, the *Yamakaze*, and the *Kawakaze* shall, depending on the situation at Kragan, appropriately operate within a range of ninety nautical miles [from Kragan] between the Karimunjawa Islands and Bawean Island.

From around 1100, the 2d Destroyer Squadron changed course southeastward to take a position to cover the northwest of the 1st Escort Unit, while at 1200 the 5th Cruiser division steered southward and followed the 1st Escort Unit. Although the 2d Destroyer Squadron was bombed around 1150 by two enemy heavy bombers, no damage was sustained. About then, a telegram came in from [an] aircraft of the 2d Air Raid Unit, which read: "1150: Five

enemy cruisers and six destroyers [are spotted] at sixty-three nautical miles 310° [NW] of Surabaya, steering 80° [E] at twelve knots.”⁽⁵⁶⁾ The location was about sixty nautical miles to the south of the convoy and 120 nautical miles from the 5th Cruiser Division. Having received this report, 5th Cruiser Division Commander Rear Admiral Takagi headed for the enemy from 1230 onwards, steering a 150° [SE] course and increasing his speed. While launching [an] aircraft of the *Nachi* at 1307 to probe the enemy, he issued at 1320 the following order to the 4th Destroyer Squadron (the 1st Escort Unit) and the 2d Destroyer Squadron.⁽⁵⁶⁾

1. Five enemy cruisers and six destroyers were reportedly spotted at sixty-three nautical miles 310° [NW] of Surabaya steering 80° [E] at a speed of eighteen knots.
2. The 5th Cruiser Division shall immediately head for the enemy. The location [of the division] as of 1300 is 165 nautical miles 328° [NW] of Surabaya, sailing at a speed of twenty-four knots.
3. The 2d Destroyer Squadron shall join [the division] on the spot. At 1315, one aircraft has been launched for probing.

In the meantime, at 1245, 1st Escort Unit Commander Rear Admiral Nishimura had ordered the 4th Destroyer Squadron to “Complete preparations for torpedo warfare,” while launching at 1255 an aircraft of the *Naka* for probing. While ordering at 1300 the captain of the *Wakataka* to let the convoy change course westward and evacuate under his command, Commander [Rear Admiral Nishimura] assembled the 4th Destroyer Squadron (the *Naka*, the 2d Destroyer Division, the 1st Section of the 9th Destroyer Division — one light cruiser and six destroyers), changed course southeastward from around 1310 onwards and headed for the enemy.⁽⁵⁶⁾ From 1315 onwards, the 2d Destroyer Squadron (one cruiser and four destroyers) [also] headed for the enemy, sailing on a 150° [SE] course at twenty-one knots, while expecting to be joined by the 5th Cruiser Division.⁽⁵⁴⁾

The reports delivered thereafter from the aircraft of the 2d Air Raid Unit were as follows:⁽⁵⁴⁾

- 1225: [The enemy consisting of] three destroyers, three cruisers, two cruisers and three destroyers, are [sailing] in three columns. Two torpedo boat-like vessels are sailing along at both sides [of the fleet]. [They are] sailing on a 120° [ESE] course at eighteen knots.
- 1245: The enemy sails on a zigzag course, all turning their bows at certain intervals, but he currently advances roughly on a 90° [E] course.

The aircraft of the *Nachi* also spotted the enemy and reported as follows:⁽⁵⁴⁾

- 1405: The enemy consists of two Class-A cruisers, three light cruisers and nine destroyers and is at forty-five nautical miles 194° [SSW] from the reference point, steering 180° [S] at twenty-four knots.
- 1425: The enemy seems to be heading for Surabaya.
- 1455: The enemy is putting in at Surabaya.

At that moment, Rear Admiral Takagi, commander of the 5th Cruiser Division formed the following judgment:

It is not possible to firmly judge whether the enemy movements are an offensive against our transport convoy or an action to avoid our daytime air raid over the port of Surabaya.

1. If the enemy flees into [the port of] Surabaya, it is possible to execute the landing tonight as scheduled by watching and staying on guard at the north entrance of Surabaya.
2. If the enemy sails northward, it is likely that we can catch up with him by the evening and we will need to destroy him in a night engagement.

According to this judgment, 5th Cruiser Division Commander Takagi issued the following order:⁽⁵⁴⁾

1. The enemy cruiser unit seems to head for Surabaya.
2. The 5th Cruiser Division shall take a position to the east of the transport ships and appropriately slow down.
3. The 2d Destroyer Squadron shall operate so as to take its assigned position for tonight.

When he received this order issued at 1510, the 1st Escort Unit commander had [at 1425*] already given an order to the transport convoy, "Change course at 1500 to head for the planned landing point,"⁽⁵⁶⁾ while he himself reversed course at 1430, and returned to his position [of escorting] the transport convoy. [Meanwhile] the 2d Destroyer Squadron continued sailing southeastward to head for the waters north of Surabaya, its scheduled deployment point that night. From 1500 onwards, the transport convoy one by one changed course southward and headed again for Kragan. However, reports came in one after another that the enemy fleet, which at one point had shown signs of putting in at Surabaya, had again started sailing northward.

[From]

The aircraft of the *Nachi*: 1523: The enemy shows no signs of putting in [at Surabaya]. The enemy steers a 60° [ENE] course at eighteen knots.

The aircraft of the *Nachi*: 1615: The enemy reversed course, steering 20° [NNE] at eighteen knots.

The aircraft of the *Nachi*: 1620: The enemy sails on a 0° [N] course at eighteen knots.

The aircraft of the *Nachi*: 1648: The enemy sails on a 315° [NW] course at twenty-two knots.

On receiving these reports, 5th Cruiser Division Commander Takagi immediately increased his speed, and issued an order to the 2d and the 4th Destroyer Squadrons: "1635: I will steer 220° [SW] at twenty-one knots. We shall combine, while enticing the enemy."⁽⁵⁶⁾ R. Adm. Tanaka, commander of the 2d Destroyer Squadron had already accelerated his speed to twenty-eight knots at the first report of the *Nachi*.

Receiving the reports of the enemy's course reversal a little late, 4th Destroyer Squadron Commander Nishimura had at 1600 according to schedule already shifted to the operation of having the convoy enter into the Kragan roadstead. However, learning before long that the enemy had reversed course, he headed for the enemy, leading the 4th Destroyer Squadron unit (the *Naka*, the 1st Section of the 9th Destroyer Division and the 2d Destroyer Division), while assigning the 24th Destroyer Division commander to command the convoy. Thus, by around 1650, all [escort] units (the 5th Cruiser Division and the 2d and the 4th Destroyer Squadrons) were heading for the enemy more or less in parallel. The 2d Destroyer Squadron, which sailed ahead, reported: "1659: We see masts that appear to be the enemy's. The direc-

* See Action Reports of the 2d and 4th Destroyer Divisions (JACAR Ref: 4th DS: C08030111200 7/59; 2d DS: C08030093600 37/59).

tion from us is 150° [SE] and the distance is twenty-nine kilometers.”⁽⁶²⁾ (At that time, the weather was fine with the time of sunset at 1950 and a [gibbous] moon of about the twelfth lunar day that had [already] risen at 1653.)

The lineup and strength of the Japanese forces at that time was as follows:⁽⁷⁸⁾

The 5th Cruiser Division unit (support unit)

The 5th Cruiser Division (the *Nachi* and the *Haguro*), the 1st Section of the 7th Destroyer Division (the *Ushio* and the *Sazanami*), the *Yamakaze* and the *Kawakaze*

The 2d Destroyer Squadron

The *Jintsū* and the 16th Destroyer Division (the *Yukikaze*, the *Tokitsukaze*, the *Hatsukaze* and the *Amatsukaze*)

The 4th Destroyer Squadron unit

The *Naka*, the 2d Destroyer Division (the *Murasame*, the *Samidare*, the *Harukaze** and the *Yūdachi*), and the 9th Destroyer Division (the *Asagumo* and the *Minegumo*)

In total: two heavy cruisers, two light cruisers and fourteen destroyers

(151)

Ship Class	Tonnage	Speed	Guns		Number of Torpedo Tubes
			Main Guns	Antiaircraft Guns	
<i>Myōkō</i> -class [the <i>Nachi</i>]	10,000	35.5	20-cm x 10	12-cm x 6	61-cm x 16**
<i>Jintsū</i> -class (the <i>Naka</i>)	5,195	35.25	14-cm x 7	8-cm x 2	61-cm x 8
<i>Ushio</i> -class (the <i>Sazanami</i>)	1,680	38.0	12.7-cm x 6		61-cm x 9
<i>Yamakaze</i> -class (the <i>Kawakaze</i> , the 2d Destroyer Div)	1,685	34.0	12.7-cm x 5		61-cm x 8
<i>Yukikaze</i> -class (the 16th Destroyer Div)	2,000	35.0	12.7-cm x 6		61-cm x 8
<i>Asagumo</i> -class (the <i>Minegumo</i>)	1,961	35.0	12.7-cm x 6		61-cm x 8

For reference:

The total numbers of guns and torpedoes [of the vessels that participated in the engagement]:

20-cm guns: 20 (the *Myōkō**** and the *Haguro*)

14-cm guns: 14 (the *Jintsū* and the *Naka*)

12.7-cm guns: 78 (the *Ushio*, the *Sazanami*, the *Yamakaze*, the *Kawakaze*, and the 16th, the 2d and the 9th Destroyer Divisions)

12-cm guns: 12 (the *Myōkō**** and the *Haguro*)

8-cm guns: 4 (the *Jintsū* and the *Naka*)

61-cm torpedo tubes: 168

* Probably a mistake for the *Harusame*; the *Harukaze* belonged to the 5th Destroyer Division.

** The number differs from that in the list on p. 735.

*** Probably the *Nachi* is meant. The *Myōkō* did not appear on the scene until after the battle, together with the main unit of the Dutch East Indies Unit.

The First Phase of the Daytime Engagement (from 1725 until 1850)^(54, 56, 78, 62)

While steering 270° [W] to join the 5th Cruiser Division, 2d Destroyer Squadron Commander Tanaka spotted masts at 150° [SSE], which appeared to be the enemy's. At the same time, he recognized the masts of the 5th Cruiser Division at 320° [NW] and approached them steering 300° [WNW]. At 1720, he took a position eight kilometers ahead of the 5th Cruiser Division and headed for the enemy steering 180° [S], while launching the aircraft of the *Jintsū* at 1731. Since the 2d Destroyer Squadron had joined him, 5th Cruiser Division Commander Takagi incorporated the 1st Section of the 7th Destroyer Division as well as the *Yamakaze* and the *Kawakaze*, which were [all] under his direct command, into the 2d Destroyer Squadron. These units then moved into position as the second unit of the 2d Destroyer Squadron. At 1738, 5th Cruiser Division Commander Takagi issued the order, "I plan to deploy southward to attack. The enemy is at forty nautical miles 157° [SSE] of us." He [also] launched two artillery observation planes from each ship, totaling four planes.

At 1739, on changing course southward, the 2d Destroyer Squadron spotted the masts of enemy cruisers at a distance of twenty-eight kilometers 150° [SSE]. Gradually changing course southwestward, the squadron began to sail on a parallel course with the enemy, while the 5th Cruiser Division also changed course westward to sail in parallel astern of the 2d Destroyer Squadron. At 1745, the 2d Destroyer Squadron increased its speed to thirty knots steering 230° [SW] and opened fire, first of all from the *Jintsū*, at the leading enemy destroyer, which was closing in from 150° [SSE] as close as 16,800 meters. At 1747, the enemy destroyers also started returning fire, which was followed at 1748 by the enemy cruisers, who also opened fire, and their shells began to drop near the 2d Destroyer Squadron. At 1747, the 5th Cruiser Division also opened fire at the enemy cruisers at a distance of 22,000 to 25,000 meters. Since the enemy shells kept dropping all around, the 2d Destroyer Squadron, steering 280° [W], moved away from the enemy at 1750, and stopped firing. Spreading smoke screens, the squadron evacuated on a 300° [WNW] course.

Just then, the 4th Destroyer Squadron appeared from the north, sailing southward straight at the enemy at a speed of thirty knots. Crossing in front of the 2d Destroyer Squadron and closing with the enemy, it launched from 1804 till 1815 twenty-seven Type93 Torpedoes against the enemy cruiser unit roughly at a distance of 15,000 to 12,500 meters before evacuating while spreading smoke screens. At 1805, the *Jintsū* also launched four torpedoes from the farther side of the 4th Destroyer Squadron. However, some torpedoes exploded before running far, throwing up large columns of water, which led to quite confused interpretations at the different (command) staffs; some guessed that the explosions were those of enemy mines and others misjudged that the torpedoes had hit enemy vessels.

During this period, the 5th Cruiser Division continued firing at the enemy, sailing on a parallel course, while maintaining a distance of roughly over 20,000 meters, but due to the frequent evasive actions of the enemy vessels, the division was unable to get effective results and only wasted its shells. Nevertheless, at least several shells seemed to have scored direct hits, for some disorder became noticeable in the columns of the enemy. Although from 1800 until around 1820 the enemy shells fell short, their fire gradually became more accurate after that. Quite frequently dye-capped shells* (note by the author: shells which would color the water columns red, blue, etc., depending on the vessel in order to facilitate the observation

* According to Morison, *The Rising Sun in the Pacific*, p. 345, the *Houston* used crimson dye in her shells.



The Cruiser Myōkō



The Cruiser Jintsū

of the impact results) straddled [the division]. At 1822, the 5th Cruiser Division started torpedo warfare. However, only the *Haguro* launched eight torpedoes, whereas the *Nachi* was unable to launch hers because of launcher trouble.

Around that time, while sailing on parallel courses and with the shell and torpedo warfare continuing, the engagement moved westward. At 1834, the 24th Destroyer Division commander reported: "We are coming under a bombing attack of a dozen or more enemy bombers." Noticing that the distance to the convoy had already been reduced to about twenty nautical miles, 4th Destroyer Squadron Commander Nishimura immediately gave the order: "The convoy must evacuate to the west."

Since the enemy was superior in cruisers, 5th Cruiser Division Commander Takagi's initial battle plan was to appropriately entice the enemy into a daytime engagement, and [then] destroy him at a stroke in a night engagement, making the most of the superior [Japanese] torpedo power. However, the enemy had already come close enough to the convoy and any closer approach could not be allowed. At 1833, although there was still one and a half hour before sunset, [Commander Takagi] gave the order: "All ready to charge!" Around that time, a vessel in the enemy fleet seemed to have sustained damage; spreading thick smoke screens, [the enemy] started to cover the damaged vessel, and his formation became seriously disordered. [Considering] that he must not miss this war opportunity, Commander Takagi gave at 1837 the order: "All charge!" The [first phase of the daytime] engagement, which had started at 1745 with the opening fire of the *Jintsū*, lasted about fifty minutes. Although the damage inflicted on the enemy was not clear, at least two or three enemy vessels had presumably sustained damage. At the charge of the Japanese Navy, the enemy started to evac-

uate southeastward in a disorderly formation. No loss was sustained on the Japanese side, but the consumption of shells (torpedoes) was as follows:

20-cm guns (the *Nachi* and the *Haguro*): 1,271 shells

14-cm guns (the *Jintsū* and the *Naka*): 171 shells

Type93 Torpedoes (the *Haguro*, the 4th Destroyer Squadron and the *Jintsū*): 39 torpedoes

The Second Phase of the Daytime Engagement (from 1850 until 1950)^(54, 56, 62, 78)

At 1839, all [Japanese] units turned left at once and proceeded to charge. Counting from the right, the line of battle consisted of the 4th Destroyer Squadron, the 2d Destroyer Squadron and the 5th Cruiser Division. At that moment, the formation of the enemy was in total disorder and started to retreat southeastward, spreading thick smoke screens. Around 1920, the *Naka*, the flagship in the lead of the 4th Destroyer Squadron opened fire at the enemy cruiser unit at a distance between 15,000 and 12,000 meters and then launched four torpedoes, while its subunits, the 2d and the 9th Destroyer Divisions, pushed even closer to the enemy. Then, the 2d Destroyer Squadron, which was sailing in parallel on the north side of the 4th Destroyer Squadron, broke into the smoke screen belt spread by the enemy, where they encountered the enemy who had reversed course to cover the damaged vessel. At 1924, the flagship *Jintsū* first of all launched torpedoes at a distance of 18,000 meters, after which the 16th Destroyer Division and the 1st Section of the 7th Destroyer Division, the *Yamakaze* and the *Kawakaze*, rushed in even further and, closing to 9,000 or 8,500 meters, launched torpedoes. However, since the enemy again made a wide turn spreading smoke screens, the results of the torpedoes were unknown. The 5th Cruiser Division sailing on the north side of the 2d Destroyer Squadron, while firing at the enemy from a great distance of 25,000 meters, [also] launched sixteen torpedoes from a long distance against the enemy vessels, who were reversing course from 1918 until 1924. After that, the division [also] reversed course. The results of this torpedo attack were, as a matter of course, unknown.

At 1934, The 2d Destroyer Division of the 4th Destroyer Squadron, which had taken the southernmost course, drew near the enemy cruisers as close as 10,000 to 7,500 meters to launch torpedoes. The *Asagumo* and the *Minegumo* of the 9th Destroyer Division closed in even closer and launched torpedoes at a range of 6,000 meters, when all of a sudden two enemy destroyers jumped out of the smoke screen belt, which instantly led to a two-against-two artillery duel between fellow destroyers at a close distance of 3,000 meters. The first vessel quickly reversed course and fled back into the smoke screen. The *Asagumo* and the *Minegumo* concentrated their fire on a British destroyer with the sign H-27 on her side, which had come out next, and crippled her. However, one enemy shell hit the engine room of the *Asagumo*, stopped her engine and also caused an electric power failure. Nevertheless, she dauntlessly continued firing in cooperation with the *Minegumo*, and finally sank the British vessel at 1954.

Around that time the sun set, and also because of the artillery smoke and the smoke screens, visibility on the battle site rapidly decreased. The battle site had gradually moved southward, and the positions of the 4th and the 2d Destroyer Squadrons drew very near to the coast, presumably within twenty nautical miles north of Cape Awarawar, where many huge explosions of what seemed to be controlled mines were spotted (note: they later turned out to have been the self-destruction of Type93 Torpedoes [going off in the middle of their

run)). Judging that it was not appropriate to come closer to waters fortified by the enemy, 5th Cruiser Division Commander Takagi decided to stop the pursuit, swiftly assemble his forces, rearrange them, and by taking a position roughly between the convoy and the enemy, conduct a search and patrol mission to search for the enemy and destroy him. Accordingly, at 2005 Commander Takagi issued the order to the 2d and the 4th Destroyer Squadrons: "All units swiftly assemble and prepare for a night engagement."

Meanwhile, Dutch East Indies Unit Commander Vice Admiral Takahashi had communicated that the main unit was hurrying to the battle site, leaving the waters north of the Kangean Islands on that evening after having been joined by the *Myōkō*, who had arrived from Sasebo. At 2025, Commander Takagi replied: "We have inflicted serious damage to one enemy cruiser and some damage to a few destroyers, but [the status of] the other [ships] is unknown. We would like you to swiftly join us." Then from 2027, the 5th Cruiser Division began to retrieve all of its aircraft (three aircraft of the *Nachi* and two aircraft of the *Haguro*), which had been employed in the daytime engagement.

[Earlier,] at 1940, after all his units had completed launching their torpedoes, 2d Destroyer Squadron Commander Tanaka had given the order: "Assemble." The flagship *Jintsū* slowed down to wait for the units to assemble. At 2015, the 1st Section of the 7th Destroyer Division, and the *Yamakaze* and the *Kawakaze* joined her. However, while witnessing the artillery duel between the 1st Section of the 9th Destroyer Division and the [two] enemy destroyers, the 16th Destroyer Division had reversed course after launching its torpedoes to support the section, thereby delaying its action to join. The division finally joined at 2037. Having assembled, the 2d destroyer Squadron headed northwestward to join the 5th Cruiser Division.

[As for the engagement of] the 4th Destroyer Squadron, Commander Nishimura had rushed into the attack after issuing at 1906 to the convoy the order: "We have sunk three enemy cruisers and are pursuing [the others]. The convoy shall head for the landing points as scheduled." At 1920, his flagship *Naka* had come under fire of the 20-cm guns of the *USS Houston*, one of whose salvos straddled her so perfectly that water columns totally surrounded and covered the entire ship. The 1st Section of the 9th Destroyer Division had pushed closest to the enemy. However, when about to launch her torpedoes, the *Minegumo* had to haul out of her line in order to evade the torpedoes launched by friendly vessel[s]; she lost sight of the enemy in his smoke screen and lost the opportunity to launch. Then the artillery duel [of the section] with the [two] enemy destroyers had followed. At 2000, the *Naka* had been joined by the 2d Destroyer Division, but since he was caught in a situation where the status the 9th Destroyer Division was unclear and also the movements of the enemy were unknown because of the smoke screens they had spread, Commander Nishimura considered the risks to the transport convoy and at 2015 issued the order, "The transport convoy shall reverse course. The battle site has not been cleared yet," after which he offered at 2030 his opinion to the 5th Cruiser Division commander: "Under such circumstances, it is difficult for the transport convoy to enter into the anchorage. So, I had them reverse course at 2015. I think we will need to clear the enemy in a night engagement."

In the meantime, the aircraft of the *Jintsū* was probing the enemy and had begun reporting the movements of the enemy vessels one after another. At 2020, 5th Cruiser Division Commander Takagi issued an order concerning the outline of the subsequent operations: "We shall conduct patrols around this area, [keeping] the enemy to the east [of us] with the 5th Cruiser Division, the 2d Destroyer Squadron and the 4th Destroyer Squadron in that order

from the north, and destroy him in a night engagement tonight.” [Meanwhile] at 2016, the aircraft of the *Jintsū* reported that the enemy was sailing on a 310° [NW] course. Since the enemy had reversed course and again set about to attack the Japanese forces, 4th Destroyer Squadron Commander Nishimura [once again] ordered: “2034: The transport convoy shall swiftly reverse course.” “2035: The enemy is heading for the transport convoy.” At 2045, the aircraft of the *Jintsū* again reported: “The main force of the enemy is [sailing] on a 310° course at twenty knots.” While dropping flares, the aircraft of the *Jintsū* kept on probing the enemy.

The ammunition consumed during this period [the second phase of the daytime engagement] was as follows:

20-cm gun shells (the *Nachi* and the *Haguro*): 302 shells
 14-cm gun shells: 50 shells
 12.7-cm gun shells: 515 shells
 25-mm gun: 256 bullets
 Type93 torpedoes: 98 torpedoes

The First Phase of the Night Engagement (from 2050 until 2110)^(54, 56, 62, 78)

At 2027, the 5th Cruiser Division stopped on the sea to start retrieving the five aircraft that had been employed for the daytime engagement. At 2052, when just about to complete retrieving the last aircraft, it spotted silhouettes of presumably enemy naval vessels approaching from 150° [SE]. Since the enemy started firing star shells at 2055, the 5th Cruiser Division evaded the enemy by all at once accelerating to twenty-eight knots and spreading smoke screens. (The last aircraft was nearly left out [on the sea], but fortunately raised before the vessels gained speed.) At 2107, after completing preparations for shelling, the division was about to reverse course, when the 2d Destroyer Squadron came sailing in between the division and the enemy. On top of this, due to the smoke screens of the enemy and his change of course, the division lost sight of the enemy in the direction of 120° [ESE]. Having spotted the firing of star shells at the 5th Cruiser Division, the 2d Destroyer Squadron hurried toward the enemy, and at 2106 the *Jintsū* launched torpedoes from a distance of 19,000 meters while sailing on a parallel course. However, since the enemy swung to the right and kept going, the squadron let him escape to the east.

In the meantime, around that time, the following reports [finally] came in concerning the situation of [the *Asagumo* of] the 9th Destroyer Division of the 4th Destroyer Squadron: “2020: [the *Asagumo* is] sailing on one engine under the escort of the *Minegumo*, steered by manpower, on a 280° [W] course at twelve knots. Now checking the damage on the body and the crew. No leaks. Since the *Asagumo* is unable to sail for long, she will sail to a point near the convoy, drop anchor and make emergency repairs. Our location is sixty-three nautical miles 215° [SSW] from the base point.” “2040: Restored the engine in working order and are able to sail on one engine at a maximum speed of twenty-four knots. We engaged with one enemy cruiser together with the *Minegumo* and sank her.” “2150: The *Asagumo* has dropped anchor at 6°38’S 111°43’E. Now conducting emergency repairs on the damaged parts.”

The Second Phase of the Night Engagement (from 0030 until 0100)

After the first night engagement, the aircraft of the *Jintsū* kept on probing the enemy, while frequently dropping flares over him. From 2250 onwards, relieving the aircraft of the *Jintsū*, the aircraft of the *Naka* started to probe the enemy. However, from around 2330 onwards, communications with the aircraft of the *Naka* were disrupted, and the enemy's whereabouts were lost after he had sailed southward closer inshore. After ordering the 2d Destroyer Squadron, "0000: Since the enemy movements are unclear, the 2d Destroyer Squadron shall sail close to the 4th Destroyer Squadron," 5th Cruiser Division Commander Takagi started sailing south. However at 0033, when the 5th Cruiser Division was sailing south on an 180° [S] course, it sighted at a distance of 15,000 meters, 152° [SE], the silhouettes of four vessels sailing northward. At 0040 after reversing course, the division set on a 0° [N] course, increased its speed to thirty-three knots to sail north on a parallel course with the enemy. Just before the 5th Cruiser Division reversed course, the enemy had started firing star shells.

While sailing on a parallel course with the enemy and keeping him at a distance of 12,000-13,500 meters, the division fought back with slow salvos (salvos from alternate guns at longer intervals, because the division had consumed much of its ammunition during the daytime engagement and only a little was left) and without using searchlights, measuring the distance by eye under the moonlight. At 0053, sailing on a parallel course [with the enemy], the division launched torpedoes (the *Nachi* eight and the *Haguro* four). Since the division was falling away from the enemy after launching the torpedoes, it [also] stopped shelling and reduced its speed to twenty-eight knots, when around 0106, suddenly a huge explosion with flames soaring up to the sky occurred. Around 0110, it was followed by [another] explosion and another flame shot up to the sky. It was confirmed that the torpedoes had instantly sunk one [enemy] vessel, and set another ablaze. While immediately reporting this to the 2d and the 4th Destroyer Squadrons, 5th Cruiser Division Commander Takagi kept sailing north at a reduced speed, waiting for both units [to join]. However, around 0125, he rapidly lost sight of the enemy. He changed to a 90° [E] course, launched at 0145 an aircraft of the *Nachi* to probe [the enemy] and [kept on] searching for him setting on a 150° [SE] course at 0200, but could not find him. Meanwhile, the 2d Destroyer Squadron, which was positioned to the southwest of the 5th Cruiser Division, had immediately increased its speed to sail north when it had spotted the enemy's firing of star shells. After seeing the large columns of flames at 0108, the squadron pursued the enemy on a 45° [NE] course from 0120 onwards, and further pursued the enemy fleet, setting on a 90° [E] course at 0130.

The 4th Destroyer Squadron, positioned further southwest of the 2d Destroyer Squadron, was not in time for this engagement. [Then] expecting the arrival of the main unit of the Dutch East Indies Unit on the battle site in a short while, 5th Cruiser Division Commander Takagi wired: "0210: The *Ashigara* and the *Myōkō* will soon join us. Be careful in identifying friendly forces." Although the aircraft of the *Nachi* searched for the enemy until around 0245 in the neighborhood of the battle site, no enemy was spotted within a radius of twenty nautical miles with the burning enemy vessel at the center. It further searched for the enemy as far as to the vicinity of the port of Surabaya, but did not spot him. Since the whereabouts of the enemy remained unknown even at 0135, Commander Takagi had the 2d and the 4th Destroyer Squadrons take up their respective guard positions, with the order, "Guard the south-eastern side of the convoy." The numbers of shells ([and] torpedoes) consumed in the first and second phases of the night engagement were as follows:

The first phase:

Type93 Torpedoes (the *Jintsū*): 4 torpedoes

The second phase:

20-cm guns (the *Nachi* and the *Haguro*): 46 shells

Type93 Torpedoes: 12 torpedoes

Cdr. Suékuni Masao, then gunnery staff officer of the 5th Cruiser Division, recalled the engagements as follows:

When we encountered the enemy at 1730, I thought that the sun would set soon. So, I figured out that we could destroy the enemy if we carried out a night engagement after the engagement at dusk. At that time, the staff officers shared the unspoken thought that our convoy could possibly be destroyed if the 5th Cruiser Division should sustain damage in the engagement, and that [the division] should [only] conduct an “outranging” artillery duel at a distance of 23,000 to 20,000 meters (note by the author: a situation where the enemy shells would not reach the Japanese vessels but the Japanese shells could reach the enemy) and at an appropriate moment launch Type93 torpedoes to finish it off.

We launched torpedoes at 1826, [ordered] “all ready for charge” at 1833, and then ordered to charge at 1837. After supporting the charge of the destroyer squadrons for a while by sailing on a parallel course with the enemy, the 5th Cruiser Division shifted to the pursuit of the enemy on a south-southeast course from around 1840. Around 1850, when the torpedoes of the first launch were supposed to have reached the enemy vessels, no explosions, which should have been caused by hits, occurred. Commander Takagi asked his staff what to do next. In response, Senior Staff Officer Nagasawa Kō answered that we should conduct a night engagement. When someone of the staff asked the signal officer about the time of sunset, it was reported as 1950, which reminded [the staff] for the first time that sunset was quite some time off. We still had about a good hour before sunset, but with no particular course to be taken, we [just] continued the engagement. However, from around that time, both the enemy and us [had to] sail in or out of the smoke screens that the destroyers on both sides had spread, which naturally slowed down the artillery duel. In this engagement, every time our vessels appeared from the smoke screens, enemy shells came instantly flying at them. We, on the other hand, needed some measuring time to calculate our firing data. (Later, when we reviewed the engagement at Makassar, we suspected that the enemy must have used radar for its gunnery that time.*)

After the charge, around 1918, we carried out the second launch of torpedoes. Then from around 1924, the destroyer squadrons launched torpedoes. From around that time onwards, a number of large water columns were spotted particularly on the waters near the 2d Destroyer Squadron, which made us fear that the squadron was heading into an enemy minefield. The fear of enemy minefields made us reverse course and sail away from the shore, and consequently away from the enemy.

When the daytime engagements were mostly over, we ordered [the units] to report the remaining amounts of ammunition. In an hour and a half, overall reports came in all together, which revealed that the remaining amounts of ammunition had gotten unexpectedly low, and we became suddenly concerned about the remaining amounts.

In the night engagements, we conducted shelling [at the enemy] from a distance of 17,000 to 18,000 meters without using searchlights. The chief gunner had requested to turn off the lights, because he could not see the targets when they were on.

* Although most sources maintain that none of the Allied ships had radar, *HMS Exeter* had actually just been refitted with Type278 early-warning radar and Type284 fire-control radar, [https://en.wikipedia.org/wiki/HMS_Exeter_\(68\)](https://en.wikipedia.org/wiki/HMS_Exeter_(68)).

In the daytime engagement, the launching tubes of the *Nachi* had malfunctioned and she could not launch her torpedoes. [The truth was that] the launching crew had forgotten that the valve to supply compressed air to the launching tubes had already been turned fully open; by the torpedo chief's order to open the valve, they tried to open [it] but were unable to turn it any further, because it had already been fully opened; consequently, it was reported that the launching tubes had malfunctioned. In actual engagements, unexpected and absurd things do happen. However, the torpedoes that could not be launched [in the daytime engagement] because of this [mistake] were launched in the night engagement and achieved a great success by sinking two enemy (main force) cruisers. This instantly retrieved the honor of the torpedo chief and his men, which had been lost in the daytime engagement. In this world you never know what may turn out to your advantage.

After the night engagement, we [again] checked the remaining amounts of shells and torpedoes; the amounts were low enough to make us extremely concerned about how to handle this in future engagements.

Reflecting on the engagements, I realized that drills would usually come to a close after a series of attack actions triggered by the "all charge" order were finished, and that we rarely conducted post-attack training. I keenly felt that, without adequate training for the actions to be taken after attacks, it is difficult to destroy the enemy, because people do not perform better in actual engagements than in normal training.

The Main Unit of the Dutch East Indies Unit Came to Assist But Too Late to Participate in the Engagement

On 27 February, around the time when the 5th Cruiser Division, the 2d and the 4th Destroyer Squadrons encountered the enemy fleet on the waters southwest of Bawean Island, the Dutch East Indies Unit commander had [already] advanced to the waters north of the Kangean Islands, leading the *Ashigara*, the *Myōkō*, the *Ikazuchi* and the *Akebono* (having left Makassar on 26 February*). In view of the enemy movements in the Surabaya area, Dutch East Indies Unit Commander Vice Admiral Takahashi had at 1420 an instruction sent under the name of his chief of staff to the 1st Base Unit engaged in the Bali operation to advance the *Kinu* and [some] destroyers to the area where the 5th Cruiser Division and the 2d Destroyer Squadron were operating. In response, 1st Base Force Commander Rear Admiral Kubo replied at 1700 that he would dispatch the *Kinu* and the 8th Destroyer Division (minus two destroyers).⁽⁵⁴⁾

On receiving the report from 5th Cruiser Division Commander Takagi that he had encountered the enemy, Dutch East Indies Unit Commander Vice Admiral Takahashi decided to immediately rush to the site and sent a telegram: "1830: Our position as of 1830 is 'HO-WA-RE-19' and we expect to reach [a position] about forty nautical miles southeast of Bawean Island at 0230." While communicating its own position to the 5th Cruiser Division, the main unit rushed to the battle site roughly on a 270° [W] course, and at 2330 radioed its plan of operations as follows: "The main unit shall basically combine with the 5th Cruiser Division. The other units shall take up appropriate positions. We shall do our utmost to destroy the enemy in a night engagement tonight, and completely destroy the remnants of the enemy in a subsequent daytime engagement."

Around 0230, the main unit reached the waters south of Bawean Island. However, unable to sail west any farther due to the situation on the battle site, the unit operated in the sur-

* The *Myōkō* actually joined later. See p. 410.

rounding waters at high speed for a while, while sending a telegram to the 5th Cruiser Division: "Report your next attack plan." In the meantime, 4th Destroyer Squadron Commander Nishimura offered his proposal: "0420: In terms of the remaining enemy surface strength, I think it better to postpone the start of the landings for one day. The convoy seems to be [still] evacuating to the north," to which Dutch East Indies Unit Commander Takahashi responded that he had no objections; [accordingly, the start of] the landing in eastern Java was postponed for one day. During these hours, a reconnaissance by the aircraft of the *Nachi* and a search mission conducted by the surface units made it clear that no enemy other than the blazing damaged vessels were seen at the battle site. The main unit advanced from the area south of Bawean Island to the area to its west, and at 0600 specified the designated meeting point for the 5th Cruiser Division in the following [telegram]: "0600: Join [the main unit] at sixty-three nautical miles 292° [WNW] of the reference point at 0700. The main unit is bearing 0° [N] at sixteen knots."

The Transport Convoy's Entry into [the Anchorage off] Kragan

The sun rose, while the 5th Cruiser Division and the 2d Destroyer Squadron were [still] unable to get further information about the enemy movements. At 0730 on the 28th, [they] joined the main unit at the designated meeting point. Fourth Destroyer Squadron Commander Nishimura ordered the transport convoy "to operate so as to reach, at 1200 today on the 28th, the point that you were designated to reach at 1200 on the 27th ([in accordance with] Escort Unit Order Separate Illustration, No. 2),⁽⁵⁴⁾" and again shifted to the formation to escort the convoy. At 0815, the *Asagumo*, which had sustained damage the previous night, [also] joined, escorted by the *Minegumo*. It was decided that the *Asagumo* should sail to Balikpapan to repair the damage, while the 9th Destroyer Division commander changed ships to the *Natsugumo*.

Dutch East Indies Unit Commander Takahashi assigned the guarding of the areas east of the convoy to the 2d Destroyer Squadron, the 5th Cruiser Division and the main unit in that order from the south, and each unit broke up its columns to take up their respective positions. Tanaka, commander of the 2d Destroyer Squadron, sent the 1st Section (the *Ushio* and the *Sazanami*) of the 7th Destroyer Division, which had a short cruising range, to Banjarmasin for replenishment, while returning the *Yamakaze* and the *Kawakaze* to the 5th Cruiser Division unit at the latter's request,⁽⁵⁴⁾ which changed the [distribution of] forces in the following way:

The 2d Destroyer Squadron unit: The *Jintsū* and the 16th Destroyer Division

The 5th Cruiser Division unit: The *Nachi*, the *Haguro*, the *Yamakaze* and the *Kawakaze*

The main unit: The *Ashigara*, the *Myōkō*, the *Ikazuchi* and the *Akebono*

The transport convoy: The *Naka*, the 2d Destroyer Division, the 9th Destroyer Division (minus the *Asagumo* and the *Yamagumo*), the *Shirataka*,* the 21st Torpedo Boat Division 1st Section, the 11th and the 30th Minesweeper Divisions, Patrol Boat** No. 20, the 21st Subchaser Division, the *Myōkō-maru*,*** and the forty-three army transport ships

* A mistake for the *Wakataka*. The *Shirataka* was part of the western Java escort (p. 366).

** Actually *Minesweeper*.

*** The *Myōkō-maru* was part of the western Java convoy (p. 366).

The *Kinu* (the flagship of the 4th Submarine Squadron) and the 8th Destroyer Division (minus the *Asashio* and the *Arashio*), which had been dispatched by the 1st Base Force, also joined the transport convoy around 1330. At the request of the 4th Destroyer Squadron commander, they guarded the rear of the convoy on its eastern port quarter, while sailing south [along with it].⁽⁶²⁾

Right before entering into the anchorage, the minesweeping unit and the convoy came under a persistent attack by about ten enemy dive-bombers, their near misses caused the *Tokushima-maru* some leaks and made her run aground on the coast, while direct hits inflicted a loss of about 150 casualties on the *Johor-maru*. She also sustained minor damage, but since her hull and engine were still intact, she continued sailing and entered into the anchorage for Kragan at 0235 on 1 March [along with the other ships], as scheduled. Even after their entry into the anchorage, the enemy repeated its persistent attacks while dropping flares. Meanwhile, three [enemy] torpedo boats raided the anchorage, of which the *Harusame* sank one and destroyed the other [two]. Also after sunrise, [enemy] fighter planes strafed [the Japanese forces], however, at 0400 the army units successfully landed the first landing unit.

Destroying the Remnants of the Enemy Fleet



The British Heavy Cruiser HMS Exeter About to Sink

At 1103 on the morning of 1 March, while patrolling in an area about ninety nautical miles west of Bawean Island, the 5th Cruiser Division unit spotted at 64° [ENE] one enemy cruiser and one destroyer (which later turned out to be two), sailing westward. Since the 5th Cruiser Division had used up much of its ammunition in the engagements since the 27th, it decided to enlist the *Ashigara* and the *Myōkō* to attack the enemy. The division informed all units of its decision, while launching two observation seaplanes between 1117 and 1128. Around that time, the enemy started to escape by changing course to [first] northward and then eastward, while spreading smoke screens. The 5th Cruiser Division also changed course eastward and began to pursue him, and along with the main unit, which was sailing around from the west to the north, they took up positions to launch a pincer attack on him from the north and the south.



The HMS Exeter at the Moment of Being Hit by Torpedoes

Both units pursued the enemy from the south and the north; at 1150, the main unit first of all opened fire from a distance of about 23,500 meters, and then the 5th Cruiser Division followed, opening fire from around 1225 from about 16,000 to 18,000 meters away. Although the enemy tried to escape eastward spreading smoke screens, the cruiser took a number of direct hits from around 1240 onwards, which caused fires and reduced her speed. Around 1250, the units simultaneously conducted a concentrated torpedo attack and delivered a decisive blow to the cruiser. It was the British heavy cruiser *HMS Exeter*. Then, the units concentrated their fire on the remaining two destroyers; the British destroyer sank at 1330, while the other destroyer escaped eastward, taking advantage of a squall. Ordering the 5th Cruiser Division unit to leave for Banjarmasin for replenishment, Dutch East Indies Unit Commander Takahashi hotly pursued the fleeing destroyer, leading the main unit. The [enemy] destroyer escaped as far as the southern coast of Borneo where she was bombed by aircraft of the 4th Carrier Division and the Eleventh Air Fleet. The main unit spotted her crippled from the [bombing] damage, and sank her at 1540. The former British destroyer was the *HMS Encounter*, whereas the destroyer sunk later was the *USS Pope*.

The number of shells ([and] torpedoes) expended in the daytime engagement on 1 March was as follows:

20-cm guns (the <i>Ashigara</i> and the <i>Myōkō</i>):	1,171 shells
ditto (the <i>Nachi</i> and the <i>Haguro</i>):	288 shells

12.7-cm guns (the <i>Ashigara</i>):	14 shells
ditto (the <i>Ikazuchi</i>):	279 shells
Type93 torpedoes (the <i>Nachi</i> , the <i>Haguro</i> , the <i>Ashigara</i> and the <i>Myōkō</i>):	24 torpedoes
Type93 torpedoes (the <i>Ikazuchi</i> , the <i>Yamakaze</i> and the <i>Kawakaze</i>):	11 torpedoes

The remaining number of shells and torpedoes of the 5th Cruiser Division after this engagement was as in the following table:⁽⁷⁸⁾

Name of Ship	Main Guns	Remaining Torpedoes
<i>Nachi</i>	7 shells per gun	4
<i>Haguro</i>	19 shells per gun	4

Note: The number of shells loadable to each 20-cm gun: 200 shells⁽⁶⁹⁾
The number of torpedoes loadable to each ship: 24 torpedoes⁽¹⁵¹⁾

Lessons Learned and Reviews After the Sea Engagements

1. The Action Report of the 5th Cruiser Division⁽⁷⁸⁾ (submitted on 20 March)

(1) Concerning the large blackish gray water columns

We guessed, [judging from] the location of the battle site at that time (about fifty nautical miles northwest of the north entrance of [the port of] Surabaya and about twenty nautical miles north of the closest coast) that the supersized blackish gray water columns that appeared in large numbers in the daytime engagement off Surabaya on 27 February must have been controlled mines of the enemy and reported as such in our summary report of the actions sent by telegram. However, some later reports of other units took them for [Japanese] torpedoes that had self-destructed.

However, in the engagement with the British vessel *HMS Exeter* on 1 March, we confirmed three times that about the same time and in the same areas where enemy shells had landed, the aforementioned supersized blackish gray water columns (guessed from memory, not measured by instruments, about five or six meters wide and about seventy or eighty meters high, and taking about thirty seconds to disperse and disappear) had appeared mixed [with the enemy shell splashes].

Whether these were a means employed by the enemy, particularly at the time of test-firing their guns in order to facilitate the measuring of the impact points of their shells, or whether they were used as a threat or for cover, we still entertained many doubts on a technical level, for if we saw that in the engagements of 27 February, when we were all charging toward the enemy, the enemy, apart from wrapping himself in chemical smoke screens spread by the main ships and also in sooty and chemical smoke screens emitted by the destroyers of their direct escort, had moreover created walls of large black water columns with presumably a special type of shells on the route ahead of our destroyer units, the fact remains that those water columns were too supersized to have been created just by 20-cm gun shells.

Then, when the recollections of observations by the flight crews were put together and added, it turned out that no circular ripples, which must have been caused by dropping shells, had been spotted at all right before the appearances of the large water columns. [Apparently,] the large water columns were not created by explosions caused by something dropped, but were consistent with columns that had arisen directly from the water. Moreover, after comprehensively judging the accounts of several persons of other units, who had

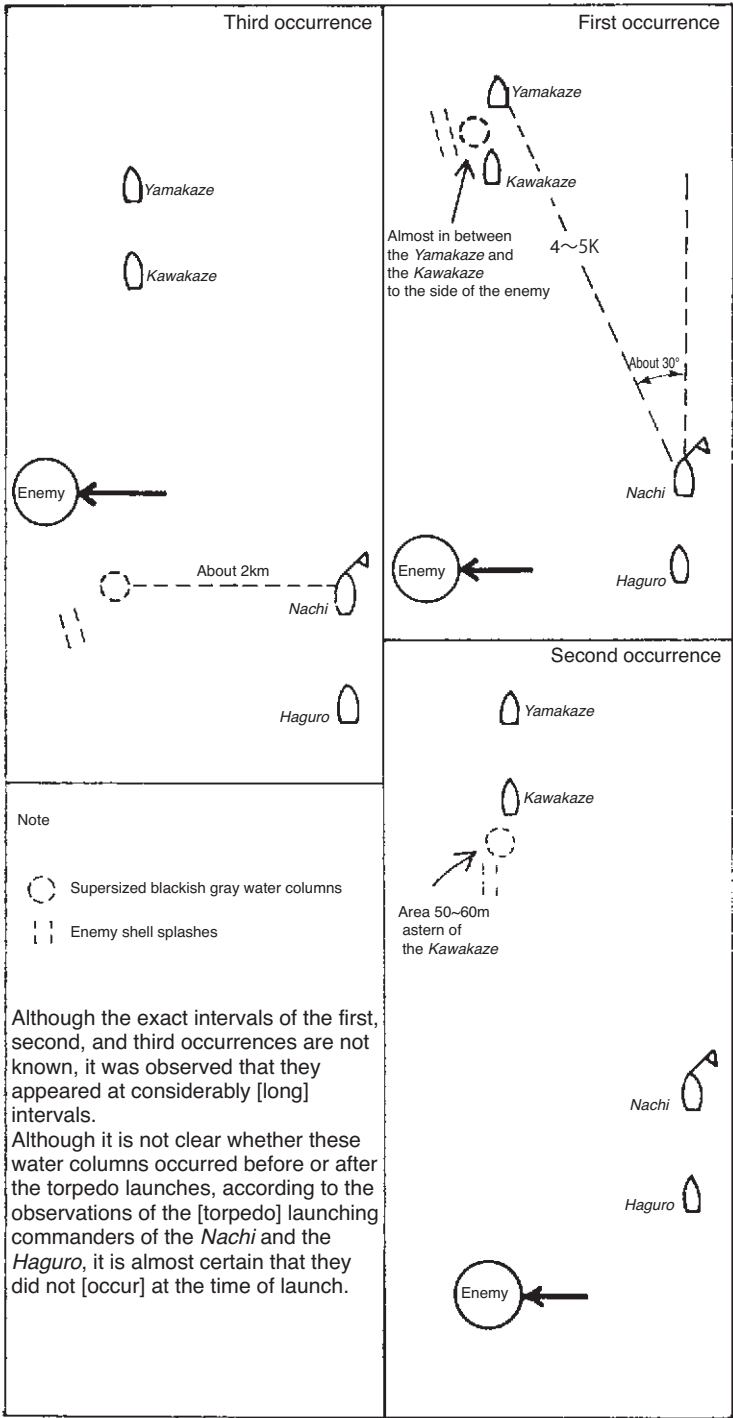


Illustration No. 46 — The Circumstances at the Time of the Appearance of the Large Water Columns

participated in the daytime engagement on 27 February (but who had not yet had an opportunity to satisfactorily review [the engagement]), as well as the accounts of [other] persons concerned of friendly units who had participated in the engagement, suspicions hardened that [the water columns] might have been caused by the self-destruction of friendly torpedoes.

If [the water columns] were [indeed] caused by the self-destruction of [our] torpedoes, it would be a grave situation, which would require a prompt and thorough examination in order to take countermeasures.

However, this is not certain either, because among the torpedoes launched four times [in total] on 27, 28 February and 1 March by our unit (minus the *Myōkō*), only one torpedo, which had been launched at night, was suspected of having self-destructed.

- (2) Ideas about [using special] 20-cm gun shells for finding the range in test-firings.

Even if explosive shells are fired at [actual] target ships by 20-cm guns in long-range artillery duels, ranging the fire from aboard a ship remains difficult, as has always been said.

If we would apply the idea of throwing up large columns of water, as suggested by this engagement, to smoke shells for the 20-cm guns, conduct research and create special smoke shells that can throw up smoke/water columns similar to those caused by shells but by far larger than those thrown up by regular shells, and launch such smoke shells along with the [other] shells at the time of ranging the fire (or when we intend to make more reliable observations of shelling distances), they would certainly enable us to easily observe the distance [between the enemy and us] even without observations by aircraft, and obviously give us an advantage when carrying out artillery duels.

I think it is essential to speedily research and create special smoke shells for observation.

- (3) It is imperative to conduct thorough drills and gain the skills [required] for sudden artillery duels.

As seen in the engagements on 27 February and the engagement on 1 March, the enemy spread smoke screens on an extensive scale and fired [at us] skillfully making use of them by sailing in and out of them, which in many cases made it difficult for us to visually confirm him from our side. Therefore, it is imperative to conduct thorough drills to improve the skills [required] for sudden artillery duels against targets, which would come in and go out of sight, making use of smoke screens. The traditional trainings for combat skills are far from sufficient. Even more “severe” drills are required.

- (4) When attacking the enemy by encircling him, it is absolutely necessary to take adequate measures on a technical level as well as on a tactical level to prevent friendly torpedoes launched from the opposite side of the enemy from doing harm to [other] friendly vessels.

There are indications that in the engagement [of 1 March], the passing torpedoes, which the *Yamakaze* reported around 1315 to the 5th Cruiser Division and which the 5th Cruiser Division evaded with a sudden wide swerve, must not have been enemy torpedoes but friendly torpedoes launched from the north of the enemy (launched at 130° [by] the *Ashigara* at 1300), which had run [past the enemy] and were coming [toward the division].

We became painfully aware of the absolute necessity in terms of combat duties that the launching times, the position in relation to the enemy at the time of launch, and direction of the line of fire are promptly reported to friendly forces on the opposite side of the enemy, while making sure that the [friendly] forces receive it.

- (5) Apart from the need to use ammunition efficiently by quickly evaluating the damage inflicted on the enemy, appropriately shifting firing targets, and avoiding the unnecessary shelling of disabled enemy vessels, one should also not stick to one target more than necessary while letting other enemy vessels slip away.

It is extremely difficult in combat to judge whether the enemy has been totally disabled or not. In the engagement [of 1 March], considerable time presumably passed since the exact

moment that *HMS Exeter* had really been disabled until it was confirmed that she had lost her fighting capacity, [that is] when the traverse and the elevation of her gun turrets became odd and [she] stopped firing. Also, by continuously attacking the enemy cruiser, [we let] one of the enemy destroyers slip away, which put us in a situation that later we had to pursue her over a long distance to catch her.

- (6) A damaged vessel loses speed sooner than expected; nevertheless, it is difficult to detect the speed reduction of a damaged enemy vessel from aboard one's ship.

In the engagement [of 1 March], the shells we fired around 1250 continuously deflected to the right. It was because the enemy vessel had suddenly reduced her speed (which became known later). According to observations from our aircraft, by around 1256, the enemy [vessel] already seemed to have almost completely stopped.

I think this should be particularly kept in mind when making observations either from aircraft or vessels ([on the latter], the observations need to be made by personnel other than those in charge of range taking, and the results should be advised to the fire-control officer or the range-taking officer, since those right in the heat of artillery duels will not easily detect [the reduction in speed].)

2. The Action Report of the 4th Destroyer Squadron (23 March)

- (1) In such exceptional circumstances as accompanying a large convoy that could not make more than eight knots and with a distance of merely about one hundred nautical miles between the enemy and the convoy, we nevertheless completed the operation successfully. We owe that of course to the tremendous spirit and technical skill [of our forces], but, among others, it also depended greatly on the following factors.

- [1] The Japanese side mostly had the upper hand in the air. Although enemy [aircraft] came for an attack on the convoy, none participated in the engagements; on the other hand, we made the most of our land-based attack planes and aircraft carried on board the vessels. While [having our aircraft] keep on reporting on the enemy movements and block his surprise attack maneuvers, we concentrated our forces for seizing the offensive, and throughout made one-sidedly better use of all aircraft for observing the situation and the results of shelling as well as for probing at night.

Moreover, in our further review of [the engagement], we noticed that the enemy [still] had flying boats and land-based aircraft among its remaining forces, all of which had their own bases at close distance, and that though there might have been some obstacles, he was still in a position where he could have used them in a much better way. If he had made use of them in reconnaissance, observation of the situation (or observation of the artillery duel) or probing at night, we think that [our fight against the enemy] would have involved considerable difficulties. Among the various reasons that prevented the enemy from conducting the war in such a way were weak points attributable to the allied forces, [poor] daily trainings (no great amount of training seems to have been given [to the crews] of the flying boats, not to mention the training [of the crews] of land-based aircraft, who presumably had been given no training at all), and poor tactics, etc. Nevertheless, our appropriate use of ship-based aircraft was to a high degree [responsible for our success]. However, when considering sea engagements against America, which will certainly involve considerable obstacles, we cannot expect the same perfect use of ship-based aircraft as this time, therefore I think that further research and improvement will be required concerning the performance of ship-based aircraft in air engagements, their cruising time and speed, or the number of aircraft to be carried on board, the measures against blast [damage produced by the main guns], or the continuous use of ship-based aircraft.

- [2] On the afternoon of the 26th, several enemy naval vessels consisting of two light cruisers as the core were cruising outside the port of Surabaya and then put into port, [which gave an opportunity to] the 1st Escort Unit to make an outline of precautions to take in case [it had to] separate the 4th Destroyer Squadron for an attack on the enemy and [thus] already getting ready for an attack at any time. I think it not only helped the 4th Destroyer Squadron to quickly assemble immediately after the first report of the spotting of a powerful enemy fleet on the 27th, swiftly join the 5th Cruiser Division and the 2d Destroyer Squadron to concentrate forces for seizing the offensive and to get the upper hand in the engagement, but it also enabled the transport convoy to appropriately operate in perfect order.
- [3] The enemy fully revealed the weaknesses of the allied forces by:
 - 1) Its confused rout after [the Japanese attack in] the first phase of the daytime engagement (when the Japanese torpedoes reached him)
 - 2) The escape of the *USS Houston* and the *HMAS Perth* when the enemy lost the *HNLMS De Ruyter* and the *HNLMS Java* in the night engagement
 - 3) The fact that the signal staff of the *USS Houston* had been dispatched to work on the *HNLMS De Ruyter* for communications (this was brought to light in the interrogation of the prisoners)
- [4] The enemy was very passive in his use of destroyers, whereas we were totally aggressive as is our tradition. On top of that, our performance from our torpedoes down to our guns was far superior; such ships as the enemy destroyers are not even worth considering. Also in the light of the hard fighting of the 8th Destroyer Division in the Lombok Strait, it is regrettable that in this fight the superior power of our destroyers could not be fully demonstrated in their torpedo power. Nevertheless, I think that we gave the enemy a massive lesson in combat leadership and combat spirit.
- (2) Although the first launch [of our torpedoes] in the daytime engagement was carried out under totally favorable circumstances, [including] a perfect launching point and precise reports by our aircraft about the speed of the enemy, we were not able to fully demonstrate our torpedo power because many torpedoes self-destructed [halfway], which was very regrettable. Since the employment of Type93 torpedoes [in attacks] is one of the [main] tactics of the Imperial Navy for certain victory, these self-destructions are a crucial problem in a decisive battle. Therefore, it is necessary to immediately improve the detonators and remove these worries. According to the torpedo chief of the *HMS Exeter*, who later became prisoner, he saw some exploding in reaction to her wake while [she was] taking evasive actions (at twenty-five knots) after spotting the wake of our torpedoes.
- (3) In the daytime engagement, the enemy consisted of five cruisers (of which two were equipped with 20-cm guns), and ten destroyers,* whereas Japanese forces consisted of two heavy cruisers, two light cruisers and fourteen destroyers, [which meant] that in power both sides were almost equivalent. In reality, we fought against the five [cruisers] of the enemy cruiser unit with two [cruisers] of our cruiser division and two destroyer squadrons. The circumstances at the time of the charge of the destroyer squadrons were somewhat like a decisive battle. Under such circumstances, the 5th Cruiser Division fired at the enemy cruiser unit at a distance of about 26,000 to 21,000 meters. [However,] before having inflicted considerable damage to the [enemy] ships other than the *HMS Exeter* (the second ship), whose damage was serious enough to let her drop out of line, [the division] used up more than half of the ammunition loaded on the ships. Also, even when the [Japanese] destroyer squadrons shifted to a pursuit battle, taking advantage of the enemy, whose formation had become totally disorderly at their charge, no perfect results were attained, either. These may

* Actually *nine*: four American, three British and two Dutch destroyers.

be considered partly due to the enemy's skillful evasive actions, but I [rather] think that it was because the shelling was carried out at too great a range.

It was observed from afar that there might be some scope for reconsideration of the decisions concerning effective shelling ranges. And, the various issues of artillery duel tactics, including the "outranging" tactics to be used at the beginning of an engagement, [might be reviewed] with a mind to decisive battles when encountering the main force of the enemy taking the present battle into consideration. I think we need to further re-examine the amounts of ammunition etc. loaded [onto our vessels] based on the changes in various battle situations.

- (4) I think that the following matters require prompt research and measures for improvement:
- {1} Fire control when the enemy takes skillful and bold evasive actions
 - {2} Comparison and examination of evasive actions and methods to make the most of our firepower, and studying appropriate evasive actions
 - {3} To re-examine the outline of our current night engagement tactics in such night engagements where the enemy uses star shells on a large scale, as well as to study the use of them.

3. The Action Report of the 2d Destroyer Squadron (dated 12 March, submitted 23 March)

- (1) It is extremely difficult to carry out a charge from one direction against an [enemy] cruiser unit in daytime because the enemy can freely take evasive actions, and also because there is little difference between his speed and ours. I keenly felt the necessity for torpedoes that can instantly be launched at a favorable opportunity and with an oblique second-stage run (and running in a circular pattern at their final stage).

It is necessary to immediately distribute such torpedoes also to the destroyer squadrons.

- (2) When a superior enemy rapidly advances toward us at the beginning of an engagement, the S-launch (note by the author: a long-distance launch)⁽¹⁵²⁾ is also effective against [such] cruiser units.

Since our squadron had taken a favorable position against the enemy also at the initial stage of this sea engagement, I am certain that if we had carried out [the S-launch], with the *Jintsu* and one element of our destroyers combined, we could have achieved a huge effect.

Traditionally there is a preconceived idea that destroyer squadrons should avoid S-launches, particularly against cruiser units. However, it is more sensible that we should determinedly conduct such launches at favorable opportunities.

That is to say, since the critical turning point between win or lose as was shown in this sea engagement will be decided in the blink of an eye, I was made fully aware that we should determinedly carry out torpedo warfare at any favorable opportunity. For this purpose, I consider it necessary also for destroyer squadrons to study and drill S-launches.

- (3) It is extremely difficult to fight a night engagement (particularly when visibility is high) against enemy cruiser units, whose vessels can sail at a same speed and can freely take evasive actions. This is the reason why we failed to satisfactorily pursue [him] in this night engagement. Accordingly, I keenly felt that it is also essential [in engagements] against an [enemy] cruiser unit to approach the enemy up to the visibility limit and as soon as his direction becomes clear conduct O-launches (note by the author: covert launches from a [long] range, which are carried out in such a [stealthy] way that even a launching action would not be detected by the enemy).

If S- and O-launches were to be carried out by the destroyer squadrons, the number of torpedoes on hand on the destroyers may not be sufficient, but even if the number of torpedo launches is reduced or if the launches would be carried out by only part of the destroyers, I still think that implementing these [S- and O-] launches at favorable opportunities will bring advantages to the overall situation.

Particularly, the O-launch carried out this time by 5th Cruiser Division in its simultaneous artillery and torpedo duel, was extremely effective.

- (4) In relation to the previous three items, I think that a thorough study and tactical drills against cruiser units are most urgently required.
- (5) When launching torpedoes during daytime against enemy cruiser units, which take a zigzag evasive action, it is better to launch them at a maximum spread angle with no deflection angle set.
- (6) The self-destruction of Type93 torpedoes in this sea engagement was confirmed by later investigations.

[This meant that] at least dozens of torpedoes self-destructed in the daytime engagement, and that the large water columns that the *Jintsu* spotted right after having launched her [torpedoes] in the first phase of the night engagement were probably caused by the self-detonation of our torpedoes as well.

Since these self-detonations of our torpedoes, which [our men] “had launched after daring to jump into the midst of the enemy,” will affect their morale, it is urgently required to take steps [to prevent it].

- (7) The guarding in this engagement after sunset could better have been assigned to the 2d Destroyer Squadron, the 5th Cruiser Division and the 4th Destroyer Squadron in that order from the north.

Even if the enemy could possibly have come for an attack on the convoy from either way [north or south], it would have been easier for either of the destroyer squadrons to advance into his sailing route and have an opportunity to charge toward him while the 5th Cruiser Division was [engaging him] in an artillery duel. In order to destroy a superior enemy cruiser unit, I think it a standard move to swiftly advance destroyer squadrons (destroyer divisions) into the sailing route of the enemy while friendly cruisers [engage him] in an artillery duel, and at a favorable opportunity have [the destroyers] shift and charge toward him.

Neither in the first nor the second phase of the night engagement did the destroyer squadrons have time to advance to positions to charge [against the enemy].

- (8, 9) (Omitted by the author — these items concern submarines; will be described later.)
- (10) The artillery ability of the enemy cruisers was excellent; the dispersion area of their shells fired in salvos by four to six guns from about twenty kilometers afar was [only] about 150 to 200 [meters].

It is necessary [for our forces] to study and take steps to narrow down the dispersion area of our guns.

- (11) It seems that the enemy destroyers accompanied [the cruisers] only to directly escort the main unit and to spread smoke screens. They seem to have had no intention to carry out aggressive torpedo attacks ([or] charges) either in the daytime and the night engagements, which gave us an impression that their power to conduct torpedo warfare is inferior.
- (12) The enemy used dye-capped shells in daytime and star shells (British and U.S. forces) at night. However, the range of the star shells must have been almost the same as our shells; in the artillery duel against the 5th Cruiser Division (at a range of about eighteen kilometers), the star shells exploded so close that I thought that they must rather have hampered [than helped] the enemy’s visual confirmation. We visually confirmed that all his shells fell short.
- (13) It is better to conduct artillery warfare without using searchlights when visibility is high. I keenly felt it when firing at [enemy] submarines.

Also, as seen and clearly shown in the battle example of the 8th Destroyer Division in the Lombok Strait, in some cases, the use of searchlights is rather disadvantageous even on a dark night.

Particularly, it is true when charging with a small number of vessels into a large number [of enemies] to fiercely attack from a close range.

I think that from now on artillery drills without using searchlights need to be greatly encouraged for destroyer squadrons.

Capt. (then Cdr.) Takedai Takashi of the Navy Technical Department, who was in charge of torpedoes at that time, wrote the following recollection of the self-destruction of the Type93 torpedoes:⁽¹⁵³⁾

In February 1942, on the sea [off] Surabaya, a Japanese elite division of the latest cruisers and a destroyer group consisting of the 2d and 4th Destroyer Squadrons, also made up of destroyers of the latest type in the world, caught up in a skillful operation with an enemy fleet ([of] five cruisers and six destroyers) and were poised to destroy the latter at a stroke. The enemy fleet was just like a small bird stalked by a predatory eagle, and its destruction was just a matter of time.

The Japanese cruiser division operated in perfect order, just as in the yearly Pacific Ocean exercises. At a range of about 30,000 meters, it carried out the first long-distance concentrated [torpedo] launch; in concert with this, the destroyer squadrons carried out the second launch, and over a hundred torpedoes simultaneously ran toward the enemy vessels.

The torpedoes were the pure oxygen Type93 torpedoes, which were [at that time] the best performing torpedoes in the world. Sixty-one centimeters in diameter, four meters long and carrying 1.5 tons of explosive in their warhead, they resembled a baby whale when they rushed like lightning several meters below the surface of the sea off Surabaya towards the enemy fleet, rolling their massive bodies. The total amount of explosive added up to about two hundred tons; no matter how [skillfully] the enemy vessels would try to evade them, they would have no way to escape from the gigantic swarm of torpedoes, ready to catch them as if in a net. The biggest show of the century was just about to begin. The officers and men shuddered imagining the impending gruesome scene of the enemy vessels being annihilated at a stroke.

However, after plunging into the water and running for about five hundred to one thousand meters, the launched torpedoes exploded with a terrific bang, tossing up huge splashes. One after another the torpedoes exploded, and they were followed by those from other vessels.

The torpedoes exploded too early. The moment they passed through the safety distance, the fuze automatically actuated and set off the explosive. They literally self-destructed.

The number of the torpedoes that self-destructed in this sea engagement reached as many as about one third of the launched torpedoes. It was a true disaster. What had the Navy Technical Department been doing? What about the personnel in charge of torpedoes? The operational units were so angry that they just wanted the personnel responsible to take their own lives. You can imagine our panic when we were told the news. Having no idea at all about the cause, we had no excuse to offer. We had no words to apologize to the officers and men of the operational units, who risked their lives in battle. As the competent person in charge of the torpedoes, I felt more dead than alive. However, since taking my life would not solve this problem, I promptly set up an investigation panel in the Navy Technical Department to investigate the cause. Upon the return of the fleet to the Inland Sea [of Japan], all persons involved, from the director down to the personnel in charge of torpedoes, immediately presented themselves to investigate the situation. I felt completely miserable at that time; scolded and yelled at everywhere, I felt more dead than alive.

[Then] the results became clear; the main cause was a manifestation of the fighting spirit of the Imperial Japanese Navy personnel.

The fuze worked in such a way that, after running through the safety distance, the inertia mechanism in it would be set free; when [the torpedo] hit something with a force above a fixed level, the inertia mechanism would tip forward and release the firing pin, which would strike into the detonator by force of a spring and detonate the explosive. The force, at which the inertia

mechanism would move, was adjusted with [special] measuring instruments. It would not move at a small force; it was supposed to actuate only when a force above a fixed level operated on it. However, in the sea engagement [off] Surabaya, the fuze was actuated at a very low level. How could that happen?

[When] the fuzes of the remaining torpedoes of the sea engagement were put on the testing instrument in the presence of the persons concerned, about half of the fuzes actuated on a small force that deviated from the standard setting. No wonder that they had exploded on the impact of waves at the moment they ran out of the safety distance. We investigated in detail the causes why the fuzes were adjusted to such a substandard level. In the end, it turned out that, displaying the Japanese spirit of loyalty and patriotism, those in charge of adjusting the fuzes had set them to a somewhat lower level for fear that it would be a serious problem if the fuzes should not actuate when the torpedoes hit enemy vessels. That is why, after running five hundred or a thousand meters and getting out of the safety distance, the torpedoes self-destructed under the impact of the waves. At that time, torpedoes were also adjusted both at the naval arsenals and military supplies departments. However, none [of those adjusted there] self-destructed.

The main cause for the self-destruction turned out to be the devotional zeal of the Imperial Japanese Navy personnel. I am not sure even now whether I should deplore or be impressed [by their devotion].

Also R. Adm. of Engineering Ōyagi Shizuo, an authority on Type93 torpedoes remarked in his recollections: "It was a matter of eternal regret that we had provided each vessel with a sensitivity adjuster for the fuzes."

The "Excerpts of lessons learned in the Greater East Asia War and observations by the Yokosuka Gunnery School," prepared on 24 August 1944, has the following to say on shelling distances and the firing on targets taking evasive actions:

I. Shelling distances

1. Example engagement

In the engagement off Surabaya (27 February – 1 March, 1942), our large cruisers, although at one moment having closed to about fifteen kilometers on the enemy, on the whole continued the artillery duel from a considerable distance of twenty to twenty-five kilometers, during which, due to the evasive actions of the enemy, they used up most of their ordnance, and that without achieving satisfactory military gains.

2. Observations by the Yokosuka Gunnery School

- (1) To open fire from as long a range as possible, at which results may [still] be expected, promptly deliver a preemptive strike on the enemy, and at a favorable opportunity close in on him to within decisive-battle range and destroy him at a stroke is what gunnery textbooks teach. However, once an artillery duel has begun, it is difficult [to continue] the artillery duel at close range. This tendency is all the stronger when the enemy guns are powerful. [Therefore,] you need to "go one step closer" and open fire at a closer range, where it is possible to demonstrate considerably bigger firing results. (The weakness commonly seen in combat psychology is to overestimate the power of the enemy and to take your own damage too seriously, which may be regarded as one of the factors that makes closing in on the enemy difficult.)
- (2) You need to see to it that that you do not continue a long-range artillery duel for [too] long without confirming the results or unconsciously let it go on while admitting that the results are unsatisfactory, as if you have forgotten your real ability for a fierce attack at short range.

- (3) There are indications that make us think that maybe [the participating units] overindulged in long-range shelling from a force of habit acquired in normal drills, where skills are honed through firing drills for the initial stages of an engagement, the most difficult stage of all engagement stages. However, the main point of engagements lies in the destruction of the enemy, and the essential and most important condition for this is to fiercely attack him by closing in on him at short range for a decisive battle, while long-range shelling is [nothing more than] a means of preemptive attacks. It would be the best if both [methods] are combined, however, when implementing them, you rather need to attach more importance to the former.

In other words, since short-range shelling is extremely difficult [to implement] in actual battle, you need to have enough grit to endure some sacrifices to win the battle, while courageously deciding and determinedly implementing [short-range shelling].

- (4) [The following] needs to be avoided: to continue distant shelling while being distracted by enemy shellfire; to totally forget your effective shelling range, due to being too cautious about enemy shellfire made more effective by radar; or to miss an opportunity to fiercely attack him from close range by not fully understanding your own skills.
- (5) Since a fierce attack from close range is the main characteristic of decisive battles, you need to clearly grasp the distances at which to conduct a decisive battle.
- (6) Although the main points of conducting a fierce attack from close range may differ depending on the circumstances, they are generally considered to be the following:
- {1} When confronting an enemy with great fire power, make your silhouette as small as possible, so as to reduce the accuracy of his shelling, and conduct a fierce attack by rapidly approaching him at close range, bringing rapid fire into play and reducing the difference in fire power between him and us (particularly the difference in power per shell).
 - {2} When our fire power is superior [to that of the enemy], we shall destroy him while keeping him at a distance, so as not to allow him access into the midst of our units.
- (7) The firing distance shall be decided by keeping in mind the mission, the purpose of the shelling, the power and the skills of the enemy and us, the power of the guns, the armor, the meteorological and terrestrial circumstances, the length of time available for the engagement, the current amount of ammunition, etc. However, assuming [our] present skills, the power of our guns and our armor, etc., the following is usually considered an appropriate standard under the present conditions.

Note by the author: Since the tables included cases of shelling using radar,* [only] the tables of the cases where radar was not used or the accuracy of the radar was bad were selected, with the following results:

* Although we use the term “radar,” it should be kept in mind that the Japanese naval equivalent *den[pa] tan[shingi]* (electronic wave search device) was a far more primitive system than the American radar systems. In fact, during the war the Japanese never developed a fully functional and effective air-search, surface-search, or fire-control radar. See David C. Evans and Mark R. Peattie, *Kaigun; Strategy, Tactics, and Technology in the Imperial Japanese Navy 1887-1941*. Annapolis, Naval Institute Press 1997, pp. 411-15.

The (desirable close) range at the time of decisive battles

(1) Daytime

Type of Vessel	Target	Range	Remarks
Battleship	Battleship	20,000	Vessels with 36-cm guns were also taken into account.
Cruiser	Cruiser	12,000	
Destroyer	Destroyer	5,000	

(2) Nighttime ([or] at times of low visibility)

Type of Vessel	Target	Range	Remarks
Battleship	Battleship	15,000	
Cruiser	Cruiser	10,000	
Destroyer	Destroyer	4,000	

II. Firing at targets taking evasive actions

1. Example engagement

In the engagement off Surabaya, our cruiser division carried out shelling from about twenty kilometers, which allowed the enemy to take evasive actions (while also using smoke screens). Although the division fired a large number of shells (using up most of the ordnance on board), it did not attain remarkable military gains.

In other past engagements, the enemy with few exceptions [always] seemed to take evasive actions, in which, even if he consisted of a single vessel or vessels in formation, he drastically changed course in various ways, and sometimes even abruptly changed speed. Also, in general, he often used smoke screens while taking evasive actions.

When he thought that we might use torpedoes, he sometimes took large evasive actions and even reversed course in order to evade our torpedoes as well.

The delay in noticing the enemy's evasive actions or the failure to communicate [the enemy movements] to the [fire control] command station sometimes led to a lack of appropriate measures.

2. Observations by the Yokosuka Gunnery School

(1) The first principle in firing at a target taking evasive actions is to shorten the firing distance. Although the closing-in distance should differ according to the type and movements of the enemy vessels, visibility, etc.,

{1} the distance needs in general to satisfy the following conditions:

- a. It should enable us to notice the enemy's course changes without delay and make it relatively easy to determine the enemy's [future] course.
- b. It should enable our adjusted fire to score hits before the enemy's change of course takes effect.

{2} In view of the above, the desirable close-in ranges in the following table shall generally be considered appropriate:

Firing Vessel	Target Vessel	Firing Range
Large cruiser	Large cruiser	Within 12 km
	Destroyer	Within 7 km
Destroyer	Destroyer	Within 7 km

- (2) In order to reduce the effects of the enemy's evasive actions or contain his evasive actions, it is advantageous to concentrate fire or simultaneously fire from different directions and, if possible, to conduct a pincer attack.
- (3) Whereas there are no particularly [difficult] points when firing at short range, when it comes to shelling from farther distances, the firing method to be taken can be variously thought of in the following ways making the lateral control of the fire very difficult:
- {1} Shortening the intervals of salvos. In order to implement this, alternate firing [the firing of the guns of a multiple gun turret in turn] is generally considered advantageous. However, in the case of vessels equipped with a [small] number of guns, where the number of shells to be fired in an alternate-firing salvo very much decreases, salvos of all guns together are rather more advantageous. (In general, salvos using all guns together are more advantageous for vessels, which carry six or less guns).
 - {2} Applying the measurement-based fire control method, where the data of plotted ranges on the fire control table* are used [to decide the line of fire].
 - {3} Applying the dispersion fire method.
 - {4} Applying the [farthest/ closest] limit fire method when the enemy is expected to take large evasive actions.
 - {5} Applying the range-rate-based fire control method using the firing calculator against slow evasive actions of the enemy.

Based upon this method, you should try to shorten the time between noticing the course changes of the enemy and measuring his position and control your fire in such a way so as to obstruct the enemy's evasive actions, when his plan of evasive actions (particularly such plans as changing course to a farther side at the sight of our over-shot shells, expecting our fire control correction [to a nearer side]) is detected (or anticipated). (Study and drills are necessary regarding the decision on the enemy's [new] course, the estimation of the angle of change of his course, which do depend on the delay in detecting the enemy's course change and the time spent [for the detection], as well as regarding the share of responsibility for the adjustments and adjustment methods between the ship's commander and the chief of the fire control command station.)

In short, it is not easy to apply each item of the above; there is no better way at present than to conduct intense drills on each vessel according to her armaments and facilities.

- (4) Since long-range gunfire not only produces poor results but also raises concerns about wasting ammunition, you need to pay particular attention to confirming the fire results and keeping your gunfire under control.

* For a discussion of Japanese fire control systems and their problems, see David C. Evans and Mark R. Peattie, *Kaigun; Strategy, Tactics, and Technology in the Imperial Japanese Navy 1887-1941*. Annapolis, Naval Institute Press 1997, pp. 250-53.

The Engagements of the 2d Air Unit

The Engagements of the 2d Air Unit

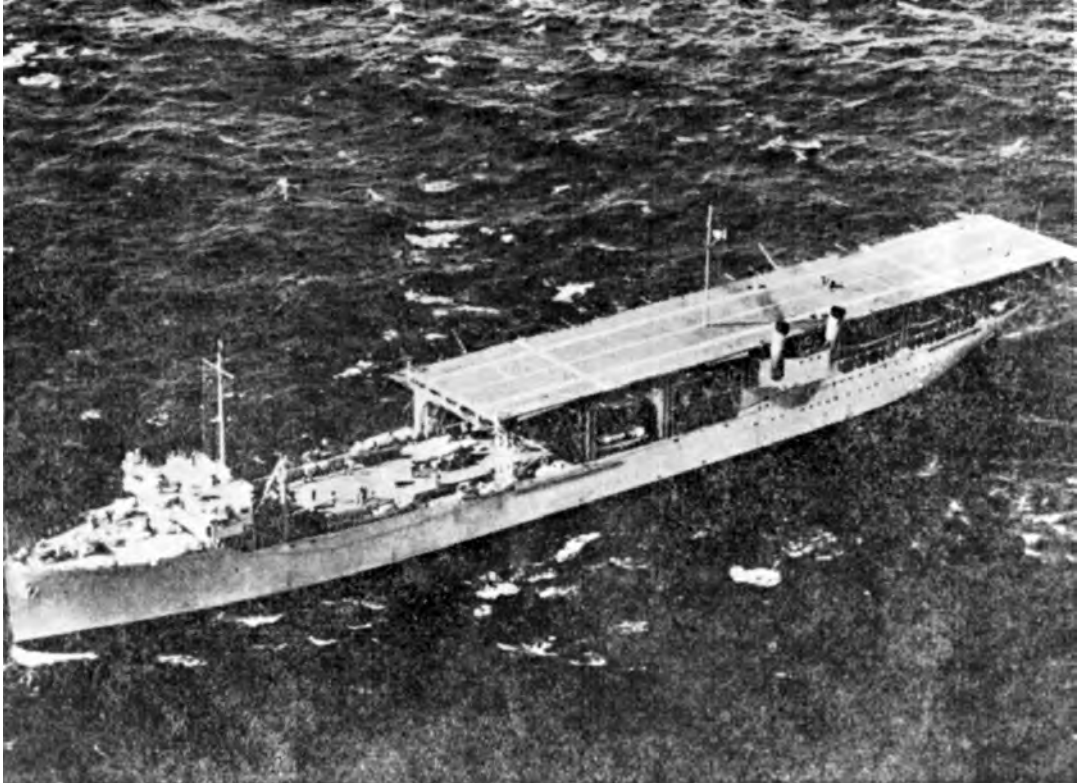
On the early morning of 27 February, the 2d Air Unit dropped anchor off Cape [Tanjung] Puting, and carried out operations.⁽⁷⁹⁾ On that day, an enemy fleet was spotted off Surabaya, which made the convoy evacuate westward along with one element of the escort unit. Although part of the aircraft unit of the *Chitose* and the *Mizuho* seemed to have participated in the engagements, the details are unclear. According to a journal kept by Yamada Shigeru, the weather was so bad that day that they only flew a very few flights.^[106] At night, the 2d Air Unit left the area off Cape [Tanjung] Puting for Bawean Island.

On the 28th, the 2d Air Unit dropped anchor [off] the west coast of Bawean Island and provided guard [for] the transport convoy [against] the remnant [enemy] vessels [which had survived] the engagement off Surabaya. However, other than having spotted three 2,000t-class auxiliary gunboats and eight torpedo boat-like ships (sailing southward in the Surabaya Strait), and a few submarine chasers at several nautical miles offshore at the north entrance of the strait, they did not see any enemy vessels.⁽⁵³⁾

On 1 March, the 2d Air Unit operated in the same way as the previous day near the west coast of Bawean Island. Since at 0945 the staff of the 1st Escort Unit reported the following movements of enemy aircraft, 2d Air Unit Commander R. Adm. Fujita Ruitarō decided to directly guard for the time being the echelon in the air [against enemy aircraft] with aircraft that was supposed to be employed for supporting the land combat.⁽⁵⁶⁾

1. Last night, there were persistent attacks by enemy light bombers throughout the night. After the moon set, they continued their attacks, dropping large flares. Although the exact number of aircraft was unclear, ten or more aircraft [were spotted].
2. This morning, at 0736, ten four-engine bombers came for a raid, along with more than a dozen fighter planes (P-40s), which had come at 1735. The fighter planes repeatedly strafed the convoy and the landing craft from a low altitude for twenty minutes. Both the bombers and the fighter planes evacuated bearing 240° [SW].
3. Yesterday at dusk, just before entering into the anchorage, we were persistently probed by three-engine enemy flying boat[s].
4. Nine observation seaplanes as well as two Type-0 fighter planes arrived in the air [over the convoy] at 0815 (right after the enemy fighter planes evacuated).

The Type-0 observation seaplanes on guard in the air above the convoy reported having shot down three Northrop light bombers, while those in support of the land combat reported having blown up six enemy tanks on the road near Kragan, and [also] supported [the ground units] by a bombing attack on an enemy position.⁽⁷¹⁾ On that day, eleven Type-0 observation seaplanes took off at 1240 for an attack on the enemy cruiser and destroyer, but could not spot them due to a squall. It was [well] after the enemy vessels had been sunk when they spotted the friendly unit.⁽⁵⁶⁾ Since it turned out that the coast near Kragan was shallow for a good distance from the shore and not fit for a [seaplane] base, it was decided that [the air unit] should continue the air campaign [with its base] near Bawean Island until a better base was found.⁽⁵⁶⁾



The U.S. Tender USS Langley

The Land-Based Air Unit Sinks the Tender *USS Langley*

On the 27th, the 1st Air Raid Unit was not able to conduct an attack on the enemy fleet due to bad weather, and on the 28th, no attack was conducted either, other than a search mission by flying boat[s]. On 1 March, twenty-seven land-based attack planes of the Kanoya Air Group Detachment carried out a bombing attack on naval vessels in the port of Surabaya and reported having inflicted damage to two destroyers, two submarines, two special service vessels and one merchantman. However, due to the accurate and fierce antiaircraft fire, fourteen were marked by bullets (of which two made an emergency landing on Bali).⁽⁸¹⁾

Meanwhile, at 0950 on the 27th, the 2d Air Raid Unit spotted the U.S. Tender *USS Langley* (at 368 nautical miles 265° [W] of the Bali base sailing on a 230° [SW] course at ten knots), and at 1340 sank her with sixteen land-based attack planes of the Takao Air Group stationed at Bali.⁽⁷¹⁾ According to a U.S. book *They Fought with What They Had* by Walter D. Edmonds [pp. 315-16], the tender carried thirty-two P-40s on her deck. Lt. Adachi Jirō, who led the attack unit, recalled the attack as follows:

The fighter plane unit took off first guided by a land-based reconnaissance plane and advanced without directly covering the attack unit. I made the sortie as the commander of the attack unit and spotted the enemy fleet sailing northward. The enemy sailed with two destroyers in a line abreast with the tender *USS Langley* in the rear, following the former. When our attack unit ap-

peared above the enemy fleet, it split and started an evasive action. The bombs delivered by the 1st Kusuhatu Squadron (led by Lt. Kusuhatu Yoshinobu) did not score a hit; I aborted my bombing run twice, carried out the bombing on the third try, and scored a hit at the fore part of the flight deck. Our bombs straddled the tender, and three 250-kg bombs and three 60-kg bombs hit her. Since they were land bombs with instantaneous fuses, they caused large fires upon hitting her, setting the aircraft and the fuel bunker ablaze. When we entered the bombing run for the third time, we came under defensive fire from the destroyers, but it was nothing serious. The [enemy] escort destroyers transmitted in plain that the *USS Langley* was coming under a bomb attack by enemy aircraft.

We circled the scene once, but considering that enemy fighter planes might come for support from the Cilacap area, we left at a proper moment to return [to base].

Although [our] fighter plane unit had left the base earlier, they had not spotted the enemy [tender], but while returning to base, they [finally] spotted the tender in flames and strafed her. After returning to base, I reported that we believed that we had sunk the *USS Langley*. However, staff officers Yasunobu Takeo and Nomura Ryōsuke judged that we had only inflicted damage on her, but had not sunk her. That time, I wished we could have carried our regular bombs with us but I remember that we only had land bombs.

Note by the author: According to *The Rising Sun in the Pacific* by [Samuel] Morison [p. 363], the ship had been crippled by too many fires and leaks, so the destroyer escort “scuttled the old tender with torpedo and shellfire.”

The land-based attack planes, which left the Banjarmasin base on 27 February, also spotted the enemy fleet off Surabaya [p. 432], but they were not able to attack it; the Takao Air Group because of [its assignment to] attack the tender [*USS Langley*], and the Kanoya Air Group Detachment because of bad weather.⁽⁷¹⁾ On that day, a total of fourteen Type-0 fighter planes of the Tainan Air Group from Banjarmasin provided the transport ships with direct escort in the air [against enemy aircraft]. Two aircraft of the third shift reported having driven away two B-17s and shot down one flying boat. [However,] all three Type-0 fighter planes of the sixth shift, which took off at 1430, went missing due to bad weather. [Meanwhile], the Type-0 fighter planes of the Tainan Air Group stationed in Bali were engaged in patrolling in the air over the Bali base while providing cover for the land-based attack planes conducting the attack on the *USS Langley*, and reported having strafed the tender with machineguns, set five or more mid-sized aircraft ablaze, inflicted damage to five or more aircraft and shot down one four-engine flying boat and one two-engine flying boat. One of the Japanese aircraft got hit and went missing.⁽⁷¹⁾ The Type-0 fighter planes of the 3d Air Group also stationed in Bali were [also] assigned to the cover of the land-based attack planes conducting the attack on the tender as well as to cover the land-based attack planes conducting an attack on Surabaya (the latter was called off due to bad weather). While the Type-0 fighter planes in charge of [covering] the Surabaya attack [unit] did not spot the enemy, those in charge of covering the attack on the tender reported having strafed three aircraft on the deck of the tender and set them ablaze, and shot down two flying boats (one of which was unconfirmed).

On 28 February, the 2d Air Raid Unit carried out an attack on the airfield[s] near Surabaya as well as an attack on Christmas Island, while providing the convoy with direct escort in the air [against enemy aircraft] and reported having shot down one four-engine flying boat and two Buffalo fighter planes.⁽⁷¹⁾

On 1 March, the 2d Air Raid Unit [again] directly guarded the convoy and [the base on] Bali in the air [against enemy aircraft], while carrying out a search mission in the Indian

Ocean, as well as attacking the airfield[s] near Surabaya. Reporting military gains of having set two large aircraft ablaze and inflicting damage on two large aircraft, fourteen P-40s and eight Buffalo fighter planes, they all returned [to base].⁽⁷¹⁾

The Engagements of the 4th Carrier Division

On the morning of 1 March, the 4th Carrier Division reached a point north of the Karimata Strait. On receiving the previously-mentioned report [pp. 444-45] that one enemy cruiser and one destroyer had been spotted near Bawean Island, the division launched six carrier-based attack planes at 1300. The attack [plane] unit reached the site at 1505; since the [enemy] cruiser had already been sunk by the 5th Cruiser Division, the unit carried out a bombing attack ([with] six 250-kg bombs and twenty-four 60-kg bombs) on the destroyer [*USS Pope*], which was trying to escape, and crippled her. (As has already been told [p. 445], the destroyer was sunk by the main unit of the Dutch East Indies Unit that pursued her.)

Meanwhile, [another] six carrier-based attack planes bombed a 10,000t-class cargo ship in the port of Semarang at 1640; the ship ran aground and caught fire, after which all planes returned to the carrier.⁽⁷¹⁾

The Situation of the Allied Forces

According to *The Rising Sun in the Pacific* by [Samuel] Morison, the following unit had made a sortie to attack the Japanese invasion unit:⁽⁹²⁾

Commander: Rear Admiral Doorman of the Dutch Navy (flagship *HNLMS De Ruyter*)

Forces: The Dutch light cruiser *HNLMS De Ruyter*, the British heavy cruiser *HMS Exeter*, the U.S. heavy cruiser *USS Houston*, the Australian light cruiser *HMAS Perth*, the Dutch light cruiser *HNLMS Java*, the U.S. destroyers *USS John D. Ford*, *USS Paul Jones*, *USS [John D.] Edwards*, *USS Alden*, the British destroyers *HMS Electra*, *HMS Encounter*, *HMS Jupiter*, the Dutch destroyers *HNLMS Witte de With*, and *HNLMS Kortenaer*, totaling two heavy cruisers, three light cruisers, and nine destroyers

From the Japanese record and *The Rising Sun in the Pacific* by Morison we may infer the following state of affairs on the allied side:

1. [The allied unit which] in the beginning engaged with the 2d Destroyer Squadron was the British destroyer unit.
2. In the initial artillery duel, *HNLMS De Ruyter* was hit by a dud shell.
3. None of the torpedoes in the first torpedo attack by the 4th Destroyer Squadron hit the enemy.
4. At 1838, a shell hit the engine room of *HMS Exeter*, which caused confusion in the formation [of the allies]. (The shell is presumed to have been fired by the *Haguro*.)
5. At 1845, in the middle of the confusion, the Dutch destroyer *HNLMS Kortenaer* was hit by a torpedo and instantly sank. (The torpedo is presumed to have been fired by the *Haguro*.)
6. The speed of *HMS Exeter* dropped to fifteen knots, and she pulled back into the smoke screen spread by the Australian cruiser *HMAS Perth*, covered by the British destroyers.
7. It were the British destroyers *HMS Encounter* and *HMS Electra* who exchanged fire at short range with the *Asagumo* and the *Minegumo*. Both vessels had reversed course and carried out the attack in order to cover *HMS Exeter*, however, *HMS Electra* was sunk by the 9th Destroyer Division. It was *HMS Electra* who delivered a direct hit on the *Asagumo*.

8. After the daytime engagement, *HMS Exeter** and *HNLMS Witte de With* retreated to Surabaya.
9. It were the four cruisers, *HNLMS De Ruyter*, *USS Houston*, *HMAS Perth* and *HNLMS Java*, and the British destroyers *HMS Jupiter* and *HMS Encounter*, who had reversed course and around 2100 attacked the 5th Cruiser Division, which was retrieving its aircraft.
10. After the first phase of the night engagement, the four U.S. destroyers headed for Surabaya for replenishment.
11. While the remaining forces were sailing eastward** near the coast, the British destroyer *HMS Jupiter* hit at 2255 a mine laid by the Dutch and sank.
12. The remaining forces started sailing northward from 2300. At 2347, they passed the spot where *HNLMS Kortenaer* had sunk and took her crew onto *HMS Encounter*, who [then] headed for Surabaya.
13. Only four ships, [i.e.] *HNLMS De Ruyter*, *HMAS Perth*, *USS Houston* and *HNLMS Java* participated in the second phase of the night engagement against the 5th Cruiser Division.
14. *HNLMS De Ruyter* and *HNLMS Java* were hit by torpedoes of the 5th Cruiser Division and sank. Right after that, *USS Houston* and *HMAS Perth* changed course southwestward and escaped to Batavia. They successfully avoided being spotted [by the Japanese forces] since the latter searched for them in an area east [of the battle site]. (Both vessels went down after having exchanged fire with a Japanese fleet off Batavia on the early morning of the 1st, as will be described later.)
15. Around 0000 of 1 March, the British cruiser *HMS Exeter* left Surabaya accompanied by the British destroyer *HMS Encounter* and the U.S. destroyer *USS Pope*. They tried to head for Cilacap by sailing east of Bawean Island, then turning westward to sail by way of Batavia and [through] the Sunda Strait. However, they were caught by the main unit of the Dutch East Indies Unit and sunk.
16. In the end, among the allied forces that had participated in the sea engagement off Surabaya, only four U.S. destroyers managed to escape. They passed through the Bali Strait on the early morning of 1 March and successfully escaped after breaking through the guard of the 21st Destroyer Division and the *Tsukushi*, who were on guard off Bali Island.

The characteristics of the enemy naval vessels were as shown in the following table.⁽¹⁵⁴⁾

Name of Vessel	Tonnage	Speed	Installed Guns		Number of Torpedo [Launchers]
			Main Guns	Antiaircraft Guns	
<i>HNLMS De Ruyter</i> (Dutch light cruiser)	6,450	32.0	7 x 15-cm		N/A
<i>HMS Exeter</i> (British heavy cruiser)	8,390	32.0	6 x 20-cm	3 x 10-cm	6 x 53-cm
<i>USS Houston</i> (U.S. heavy cruiser)	9,050	32.7	9 x 20-cm	8 x 12.7-cm	N/A
<i>HMAS Perth</i> (Australian light cruiser)	6,980	32.5	8 x 15-cm	8 x 7-cm	4 x 53-cm
<i>HNLMS Java</i> (Dutch light cruiser)	6,670	31.0	7 x 15-cm		N/A

* The text mistakenly includes *HMS Encounter*.

** Actually *westward*, see also Morison p. 350, 355.

<i>USS John D. Ford</i> <i>USS Paul Jones</i> <i>USS [John D.] Edwards</i> <i>USS Alden</i> <i>USS Pope</i> (U.S.)	1,190	35.0	4 x 10-cm	A few 20-mm machineguns	6 x 53-cm
<i>HMS Electra</i> (British)	1,375	36.0	4 x 12-cm	1 x 10-cm	4 x 53-cm
<i>HMS Encounter</i> (British)	1,375	36.0	4 x 12-cm	1 x 10-cm	4 x 53-cm
<i>HMS Jupiter</i> (British)	1,690	36.0	6 x 12-cm	1 x 10-cm	5 x 53-cm
<i>HNLMS Witte de With</i> (Dutch)	1,650	36.0	4 x 12-cm	1 x 8-cm	6 x 53-cm
<i>HNLMS Kortenaer</i> (Dutch)	1,640	36.0	4 x 12-cm	2 x 8-cm	6 x 53-cm

Note: Due to engine trouble, the U.S. destroyer *USS Pope* did not participate in the sea engagement off Surabaya.⁽¹⁷⁶⁾

Reference: A comparison of the guns and torpedo [launchers] employed by both sides in the sea engagement off Surabaya

Size of Guns (or Torpedoes)	Total Numbers			
	Japanese Side		Allied Side	
20-cm Guns	20		12	
14-15-cm Guns	14 x 14-cm		22 x 15-cm	
12.7-cm Guns	78	90	8	61
12-cm Guns	12		22	
10-cm Guns	0		31*	
8-cm Guns	4		4	
Torpedo launchers	160 x 61-cm		79 x 53-cm	

Note: Since the *USS Houston* had sustained damage at her after turret by a Japanese air attack some time ago [4 February], the number of her 20-cm guns was calculated as six. As seen in this table, the offensive power of the Japanese side was overwhelmingly superior [to that of the allies].

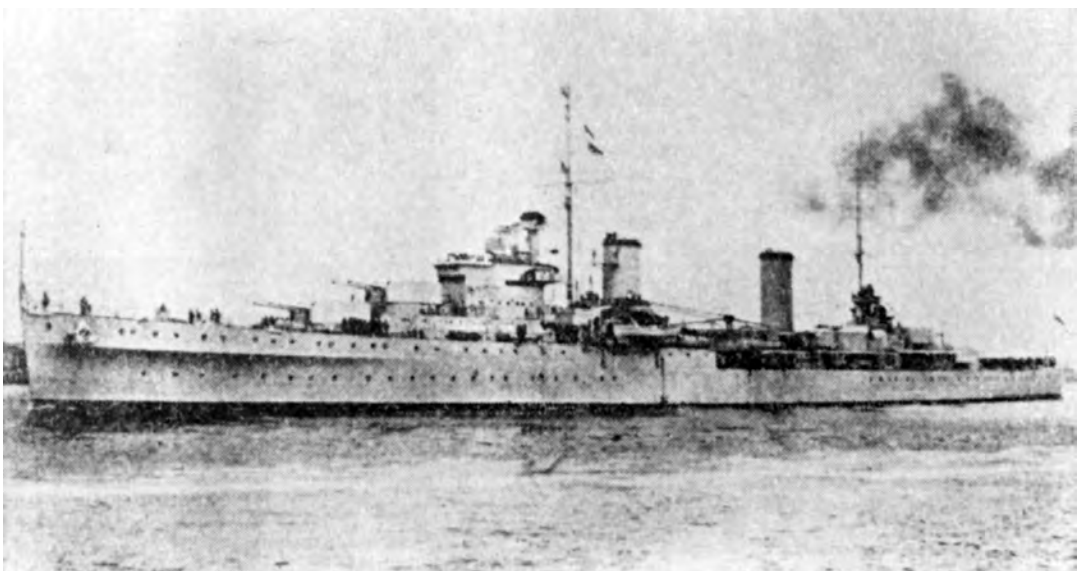
* If based on the table on pp. 462-63, the number of allied 10-cm guns (excluding the *USS Pope*) would be 22, not 31. The author probably misread the Japanese numbers in the original manuscript.



The Dutch Light Cruiser HNLMS De Ruyter



The U.S. Heavy Cruiser USS Houston



The Australian Light Cruiser HMAS Perth

4. The Sea Engagement off Batavia (28 February - 1 March)

(See Attached Illustration No. 7)

At 2350 on 28 February, 3d Escort Unit commander (5th Destroyer Squadron Commander Rear Admiral Hara) gave the order [to shift to] the second disposition of forces (the disposition after the transport ships' entry into the anchorage). On this order, each unit started for its patrol area, keeping a strict guard. The 2d Section of the 7th Cruiser Division headed for an area about twenty nautical miles 10° [N] of St. Nicholas Point [Tanjung Pujut]. Both the Merak and Bantam Bay [sections of] the transport convoy completed entering into their anchorages at 0000 on 1 March without problems. The main forces⁽¹⁵⁰⁾ of the Japanese Navy near the convoy's anchorages at that time as well as their characteristics⁽¹⁵¹⁾ were as follows:

1. Bantam Bay

7th Cruiser Division 2d Section (support unit)

The *Mikuma*, the *Mogami* and the *Shikinami*

5th Destroyer Squadron

The *Natori*

5th Destroyer Division (the *Asakaze*, the *Harukaze* and the *Hatakaze*)

11th Destroyer Division (the *Hatsuyuki*, the *Shirayuki* and the *Fubuki*)

Two heavy cruisers, one light cruiser and seven destroyers in total

2. The Merak area

22d Destroyer Division (the *Satsuki*, the *Minazuki*, the *Nagatsuki* and the *Fumizuki*)

12th Destroyer Division (the *Shirakumo* and the *Murakumo*)

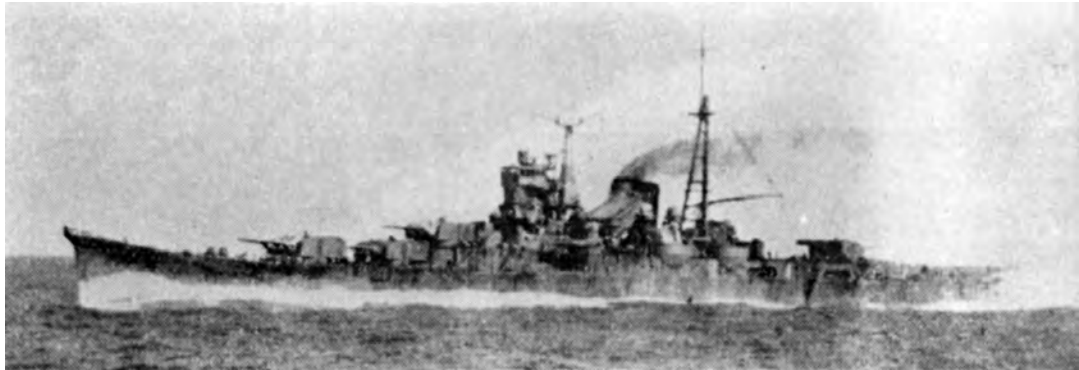
Six destroyers in total

3. Characteristics (as shown in the following table)

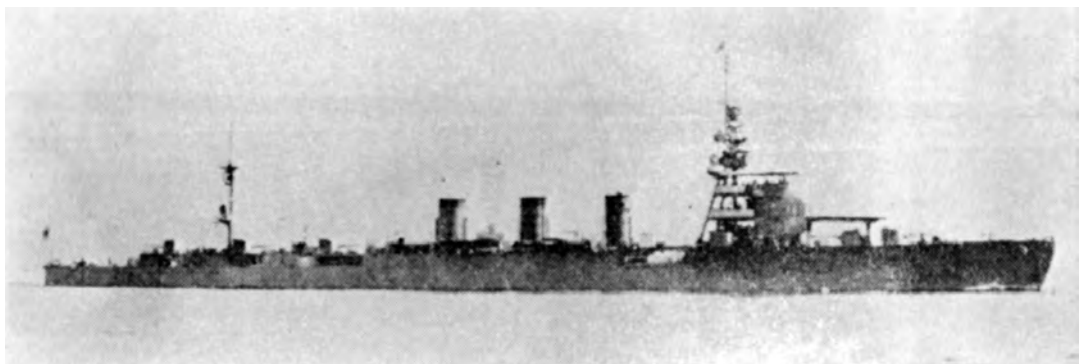
Ship Class	Tonnage	Speed	Installed Guns		Number of Torpedo [Launchers]
			Main Guns	Antiaircraft Guns	
<i>Mogami</i> -class	8,500	37.0	10 x 20-cm	8 x 12.7-cm	12 x 61-cm
<i>Natori</i> -class	5,170	36.0	7 x 14-cm	2 x 8-cm	61-cm (Type8)
<i>Asakaze</i> -class	1,270	37.25	4 x 12-cm		6 x 53-cm
<i>Fubuki</i> -class (<i>Shirakumo</i> -class)	1,680	38.0	6 x 12.7-cm		9 x 61-cm

The First Phase of the Engagement⁽¹⁵⁰⁾ (from 0009 until 0100)

At 0009, the 11th Destroyer Division's *Fubuki*, who was patrolling in the easternmost part of Bantam Bay, spotted black silhouettes at a distance of 10,000 meters, 85° [E], and immediately reported to the 3d Escort Unit: "Spotted two silhouettes of naval vessels, which look like enemy vessels, to the northeast of Babi Island." Then after confirming that the black silhou-



The Cruiser Mogami



The Cruiser Natori

ettes were those of two [enemy] cruisers, she continued at 0013: "Spotted enemy cruisers. Our position is two nautical miles west of Cape Babi. The enemy is sailing on a 240° [WSW] course." In the meantime, at 0018, the *Natori* and the 11th Destroyer Division (minus the *Fubuki*), which were patrolling in an area about eight nautical miles north of St. Nicholas Point [Tanjung Pujut], also spotted enemy-like silhouettes at a distance of about 20,000 meters, 115° [ESE]. Then around 0030, the *Fubuki*, who had sailed around Babi Island hugging its coast to hide herself in the silhouette of the island, took up a position about 8,000 meters behind the enemy and kept reporting on the enemy movements. [Meanwhile] at 0029, the *Harukaze* of the 5th Destroyer Division, who was patrolling the area between Babi Island and Panjang Island around that time, also spotted the two enemy cruisers at a distance of 8,000 meters, 60° [ENE] and reported it. [By] around that time, the *Natori* also reached the conclusion that the silhouettes presumed to be enemy [vessels] were [indeed] two enemy cruisers.

Based on the above enemy movements, 3d Escort Unit Commander Hara made up his mind that in order to secure the safety of the transport convoy, he needed to quickly gather the support forces, [i.e.] the 2d Section (the *Mikuma* and the *Mogami*) of the 7th Cruiser Division, and the *Shikinami* to promptly defeat the enemy. At 0029, he ordered the *Natori* and the 11th Destroyer Division: "Prepare for torpedo warfare. The 11th Destroyer Division shall follow in the wake [of the *Natori*.]" [Then] at 0030, he ordered the 2d Section of the 7th Cruiser Division and the 5th Destroyer Division (the *Harukaze*, the *Hatakaze* and the *Asakaze*) to "assemble!"

At that time, 3d Escort Unit Commander Hara had the following plan of action: "It is possible that the enemy will try to escape seeing our powerful [cruisers of the] 7th Cruiser Division, 2d Section, appear. Then we may lose the opportunity to catch and destroy him. So, first of all, we will entice him into broader waters with the *Natori* and the destroyer divisions; in that way, we shall avoid waters where there is a risk of mines and also keep away from the anchorage. Once the enemy has got deeply involved in the engagement, we shall bring in the 2d Section of the 7th Cruiser Division and destroy him at a stroke. I consider this the best way. The *Natori* and the destroyer divisions shall operate as a destroyer squadron, while the 2d Section of the 7th Cruiser Division shall act as the main unit; [both] shall close in on the enemy and carry out a joint attack, closely cooperating with each other. Tonight, under the [bright] moonlight of the almost full moon ([of] fourteenth lunar day) with a high visibility, we will be able to operate in the same way as we do in daytime."

At 0035, the *Harukaze* reported: "Spotted two enemy cruisers at 70° [ENE], to the southeast of Babi Island." Since at 0037 the enemy opened fire on the Japanese transport convoy, the *Harukaze* immediately threw up a very effective smoke screen between the enemy and the transport convoy. Meanwhile, the *Fubuki*, who was reporting on the enemy movements by probing him from behind, took advantage of the enemy's right turn at 0043. At 0044, she launched (nine torpedoes) at the second enemy vessel sailing on a parallel course on her port beam from a short range of about 2,500 meters and [also] fired (sixteen shells) for about two minutes using her searchlights, after which she saw that her torpedo[es] had hit the enemy vessel and made the latter slow down. The first enemy vessel returned fire at the *Fubuki* using her searchlights, but inflicted no damage.

Having seen that the enemy had opened fire on the Japanese convoy, 3d Escort Unit Commander Hara at 0045, in order to immediately relieve the crisis, ordered the 11th and the 5th Destroyer Divisions: "Destroyer units, charge!" Along with this, at 0047, he [also] ordered the 12th Destroyer Division (the *Shirakumo* and the *Murakumo*), who were in an area near Thwartway Island [Dwars-in-den-Weg, Pulau Sangiang], to "Join!" In the meantime, the 2d Section of the 7th Cruiser Division and the *Shikinami*, which were preparing for the engagement on the 0010 radio-telephoned report that the enemy had been spotted, started sailing southward toward the enemy, following the 0030 order to assemble. Furthermore, after the *Harukaze* had thrown up her smoke screens, the 5th Destroyer Division was assembling at a point to the north of the convoy's anchorage. North of Panjang Island at 0052, in order to cover the convoy, the *Hatakaze* fired on the first vessel of the enemy at a range of 3,500 meters using her searchlights. Although she [also] came under fierce enemy fire, she sustained no damage. At 0056, 3d Escort Unit Commander Hara ordered the 5th Destroyer Division to charge. After having completed her shelling, the *Hatakaze* joined the *Harukaze*. They were then joined by the *Asakaze* as well, and at 0102 the 5th Destroyer Division completed assembling at about ten kilometers north of St. Nicholas Point [Tanjung Pujut].

The Second Phase of the Engagement⁽¹⁵⁰⁾ (from 0100 until 0116)

The 11th Destroyer Division (minus the *Fubuki*), which on the order to charge was approaching the enemy, started its charge at 0056, bearing 135° [SE]. At 0110, despite fierce enemy fire, it carried out a torpedo launch (nine per vessel) from a range of 3,500 - 3,800 meters while sailing on a parallel course at the second enemy vessel on starboard beam, after which [the

destroyers] evacuated northward, throwing up smoke screens. After having assembled, the 5th Destroyer Division, too, promptly changed to the charge; it reached around 0110 a launching point while sailing on a parallel course with the enemy on starboard beam. However, fierce enemy fire hit the flagship *Harukaze*, causing trouble with her steering and forcing her to turn to port, thereby missing her opportunity to launch. The *Hatakaze* was also unable to launch due to the water columns caused by enemy near misses. Only the third vessel, the *Asakaze*, launched her torpedoes (six of them) at 0113 at the first enemy vessel on starboard beam from a range of 3,700 meters while sailing on a parallel course with the latter, after which the division was forced to evacuate northward.

In the meantime, the *Natori* had from 0100 onwards changed to the charge bearing 135° [SE]; at 0113 she opened fire at the first enemy vessel using her searchlights and at 0114 launched four torpedoes at the latter on starboard beam while sailing on a parallel course. After that, she ordered the 3d Escort Unit, "Those who have finished their [torpedo] launch shall join the *Natori*," and evacuated northward, throwing up smoke screens. Meanwhile, at 0106, the 12th Destroyer Division, which was [also] rushing toward the site, visually confirmed the enemy at a range of about 13,000 meters, at 15° on her right. The 2d Section of the 7th Cruiser Division and the *Shikinami* also spotted the enemy ahead at 0106. After marking time until the destroyers had completed their attacks, from 0113 onwards, they gradually shortened the distance to the enemy while sailing on a parallel course, bearing 110° [ESE]. During that time, at 0116, the *Mikuma* launched her first aircraft for probing. From around 0056, the *Shirataka*, which had been on the waters to the north of the convoy and [temporarily] evacuated to the west so as not to encumber the charge of the *Natori* and the destroyers, [also] started advancing toward the enemy; she opened fire from 0114 onwards and scored hit[s]. During this period, the enemy returned fire on the *Natori* and the destroyer divisions using all his guns including main guns, auxiliary guns and machineguns. Due to the [Japanese] attacks until that time, the enemy had sustained serious damage, lost speed as well as control over his movements, and his formation became very much disorderly. On the Japanese side, the *Shirayuki* and the *Harukaze* sustained damage, including eight casualties each.

The Third Phase of the Engagement⁽¹⁵⁰⁾ (from 0116 until 0132)

At 0119, the 2d Section of the 7th Cruiser Division, sailing on a parallel course with the enemy bearing 110° [ESE], launched six torpedoes each against the first enemy vessel from a range of 11,200 meters, and reversed course to port because they came too close to Babi Island. Around that time, the enemy, who had been pouring fire on the 11th Destroyer Division (the *Hatsuyuki* and the *Shirayuki*), also started firing at the 5th Destroyer Division (the *Harukaze* and the *Hatakaze*) around 0118. At 0118, the *Harukaze* again got a fix on the enemy, and at 0119, while ordering to prepare for a torpedo launch at the enemy on starboard beam on a parallel course, turned to port. However, due to the water columns thrown up by the enemy shells, she again lost an opportunity to launch. Around that time, the enemy was beginning to turn to starboard to reverse course. Maintaining her readiness, the *Harukaze* swiftly approached the enemy; at 0126 she launched six torpedoes at the first enemy vessel and reversed course to starboard to evacuate northward; after two minutes, she spotted large water columns presumably caused by hits of her torpedoes. Meanwhile, the *Hatakaze* launched six torpedoes at a range of 3,800 meters, and evacuated westward, splitting from the *Harukaze*.

Earlier at 0122, the 2d Section of the 7th Cruiser Division had opened fire on the second enemy vessel from a range of 11,200 meters using searchlights. A number of direct hits caused fires and explosions of the turrets on the enemy vessel, providing a quite spectacular view, and her speed got slower all the time. Although the enemy had also started returning fire on the 2d Section of the 7th Cruiser Division from 0122 onwards, the power of his searchlight[s] was too weak to enable him to carry out effective shelling. At 0125, due to trouble with her main [power] switch, the *Mikuma* became unable to use her searchlights and main guns, after which only the *Mogami* continued her shelling, using searchlights. At 0127 the *Mogami* launched six torpedoes against the second enemy vessel.

At 0130 the main [power] circuit of the *Mikuma* was restored, and after sending a telegram to the entire fleet, "We will finish off the enemy from now," she opened fire at the second enemy vessel at a range of the 9,000 meters using her searchlights and scored a large number of direct hits. The fierce attacks by all [Japanese] vessels caused huge fires on the first enemy vessel, while the concentrated fire at her portside bow caused the second enemy vessel to list to port. Meanwhile, the *Natori*, who had evacuated northward after having completed the first launch earlier, again got a fix on the enemy movements. At 0130 she opened fire using searchlights at the second enemy vessel, who had come within a range [as close as] 8,000 meters, but since she entered a smoke screen at 0132, she halted firing. Meanwhile, the 12th Destroyer Division had been rapidly advancing toward the enemy; [of this division] the *Murakumo* was the first [to open fire]; at 0130, using her searchlights, she started firing at the first enemy vessel (who was [already] crippled by now). [Then] both vessels [of the division] launched nine torpedoes each at both the first and second enemy vessels, and confirmed that their torpedoes hit both of them. This [attack] seemed to have aggravated the second enemy vessel's difficulty in sailing. On the Japanese side, only the *Shikinami* had sustained minor damage to a part of her propeller due to near misses during this period.

The Fourth Phase of the Engagement⁽¹⁵⁰⁾ (from 0138 until 0206)

At 0135, 3d Escort Unit Commander Hara ordered the units, which had finished their first launch, to report on their preparations for the next launch. (Note by the author: it [usually] took five to twenty minutes [to load the launchers] on smooth waters.) At that time, the first enemy vessel was already on the verge of sinking. While setting a 90° [E] course at 0133 and pursuing the enemy, the 2d Section of the 7th Cruiser Division spotted at 0135 the first enemy vessel practically coming to a halt, and opened fire at her from a range of 7,300 meters. At 0142 the section confirmed that the first enemy vessel had sunk, and stopped firing. But then getting a fix on the second enemy vessel at 0146, they immediately approached the latter and at 0150 opened fire at her using searchlights. By that time, the enemy vessel had lost most of her means to fight, including her main guns, which had fallen completely silent. At 0156, the section stopped firing and detached the *Shikinami* to finish off the enemy. She launched a torpedo to deliver the final blow, which brought the enemy vessel to a complete halt, and she finally sank at 0206.

Prior to this, the destroyer divisions had been ordered by 3d Escort Unit Commander Hara at 0140 to "form a single column behind [the *Natori*] in the order of their number," and they had completed assembling by 0200 [at a point] about five nautical miles north of St. Nicholas Point [Tanjung Pujut], where they were about to reverse course right away to head

for the enemy. However, since the first enemy vessel had already sunk and the second vessel had lost most of her means to fight by that time, the commander ordered the 5th and the 12th Destroyer Divisions at 0200 to: "Go and guard the transport convoy." Following this order, both the 5th and the 12th Destroyer Divisions returned to their patrol areas. At first, the 3d Escort Unit staff had judged the two [enemy] vessels to be one *Glasgow*-class [cruiser] and one light cruiser. However, as a result of later [interrogations] of prisoners, it was learned that they were the Australian light cruiser *HMAS Perth* (the first vessel) and the U.S. heavy cruiser *USS Houston* (the second vessel) who had been attempting to reach Cilicap after fleeing from [the battle off] Surabaya.

Capt. Sakiyama Shakao, captain of the *Mikuma* of the 7th Cruiser Division, described the engagement [off Batavia] in his "Report on the battle circumstances" to the 5th Destroyer Squadron commander in the following way:

1. At 0010, the *Natori* called that two vessels, which looked like large enemy cruisers had been spotted two nautical miles southeast of Babi Island. We immediately formed a single column, increased speed, reported it, and completed preparations for an engagement.
2. By measuring the flash of the enemy's firing of star shells we assessed [the distance of the enemy from us] as 26,000 - 27,000 meters.
3. At 0104, we increased our speed to thirty knots, when we spotted the enemy at 30° to the left. Artillery duels [had already opened]; especially when the enemy fired red tracer shells, the red [tracers] of their Pom-Pom guns streaming toward our friendly units together with the star shells and smoke screens produced quite a magnificent sight. Since we noticed that the enemy was taking evasive actions and sailing [now] on a reverse course on starboard bow of the *Natori* and the destroyers, we decided to conduct the fight with the enemy on our port hand. However, the enemy movements were still not clear. We wanted to launch an aircraft, but we could not because of the wind direction.
4. In a while, we received a report that the enemy was bearing 45° [NE]. After [taking a good look] through the rifts in the smoke screens, we changed to a 60° [ENE] course, and prepared for an engagement with the enemy on starboard. Although we realized that sailing at high speed in a night engagement might be excessive, we set our speed at the second war speed [twenty-one knots], hoping to arrive at the decisive battle site sooner. However, considering that [the course and speed] not only would not let us take up a position [as close as] 9,000 meters where we expected to start illuminating the enemy, but would [actually] carry us away from the enemy, I ordered to set a 110° [ESE] course [and increase speed to] the third war speed [twenty-four knots].

In the meantime, to my great joy, the wind direction became favorable. At 0116, the first aircraft was launched. Feeling relieved that finally we would be able to begin the engagement with the enemy on the starboard, I ordered all aircraft to take off. However, the third aircraft slid from its platform onto the port catapult, where the second aircraft had already been set on; [both aircraft] with their flight crews on board got stuck and were unable to take off.

5. Through our launch of an aircraft, the enemy became aware of us and [fired] shells which straddled us ahead and astern, which was a bit unpleasant. At 0118, we attacked the *HMAS Perth* who sailed on our starboard on a reverse parallel course, launching six torpedoes each at a 40° angle to the right from a range of 10,000 meters, while she was sailing at twenty knots (twenty-four knots at most). After a few moments, I ordered to [fire at the enemy] using searchlights. The enemy sailed remarkably fast.
6. The sound of enemy shells landing nearby felt as if they were directly hitting us.

As Babi Island was approaching ahead, the navigation officer, the communications officer and others lost patience and requested to change course. Since there was a risk of getting [too] close to the enemy by changing course to starboard, we boldly put the helm hard aport and sus-

pending firing so as to get ready to fire at the enemy from our port hand sooner. We [hurriedly] prepared for firing from our port hand, while keeping our searchlights on for the sake of the *Mogami*. Interestingly, most of enemy shells dropped in front of us, as if he had set the wrong deflections by judging from the waves produced by our paravane chains that we were sailing at a very high speed. And while we were changing course, all his shells dropped on starboard and then astern, as if he had aimed at our searchlights or had no idea about our course change. Around that time, our torpedo attacks sounded like the sudden [explosions of] antisubmarine depth charges. As the enemy shells roared under water, [the sound] made me worry whether we might have sustained damage. I truly experienced a baptism of fire. Although the enemy turned his searchlights toward us, they were weak, whereas ours were very strong.

7. We resumed the engagement bearing 285° [WNW] and at 0124 we again opened fire while sailing on a 260° [W] course. [Scored] direct hits, which presented a spectacular sight. The enemy's speed was dropping a little.

In the same way as before, the enemy shells dropped in front of our bow. The navigation officer was shouted at by the captain, having tried to change course possibly [to avoid] friendly destroyers, or something else, or enemy shells; the officer later seemed to feel ashamed. [Then] the [main power] switch broke down, which made us unable to use searchlights or our main guns. The captain considered it damage inflicted by enemy shells, and ordered the fourth ship [the *Mogami*] to turn on her searchlights. He was greatly relieved at the report that the problem had been fixed, and he ordered the unit to launch [torpedoes]. However, the torpedo chief insisted that the enemy was dropping speed and that no gunfire [had been observed], and we finally [decided] not to launch ours, while the fourth ship [the *Mogami*] launched hers.

After that, reports came in: [Our shells and torpedoes are] torturing [her], they have hit her and caused fire, her turret[s] have been blown off, she is about to sink, etc. Very good! The captain also watched from nearby the 12[.7]-cm [antiaircraft] guns.

Due to our high speed, we were sailing past the enemy; we turned to port to reverse course, and bearing 90° [E], fired at her [at a range of] 7,000 [meters]; scored direct hits; splendid!

At 0143, *HMAS Perth* suddenly went down and sank.

8. Since it was reported that the other vessel was presumably heading for the Babi Island waterway, we moved ahead, increasing our speed to the third war speed [twenty-four knots], and to the fourth war speed [twenty-seven knots]. While sailing on a 165° [SSE] course, we spotted the silhouette of the enemy vessel. She still seemed to be firing her Pom-Pom guns, but her main guns did not seem to work.

On the way, we spotted a cutter, which made me worry that a friendly destroyer might have been hit, but with no time to check those on board, we [kept on] sailing. Since the *Shikinami* sailing ahead of us prevented us from turning our searchlights [on the enemy and firing at him], I ordered her to move to the left. At 0150, we [again] opened fire at a range of about 6,500 [meters]. The second salvo scored a hit, after which we kept scoring hits. After three minutes, we spotted waves ahead, reversed course at a point close to shore, and resumed firing. Our shells hit, caused fires, blew off her foretop, and flames burst out. [The staff on] our bridge observed the battle situation with great excitement; even without conveying orders to the engine room things went well.

9. [The enemy vessel] did not sink despite such [enormous] damage. I thought for a moment that she had run aground. She came to a halt, whereas we continued sailing at a high speed. In night engagements, sailing at high speed is problematic, so I gave orders [to slow down to] strong speed [fifteen knots] and to normal speed [twelve knots], etc., just for my own peace of mind.

The enemy [vessel] had sustained concentrated fire at her port bow, which had blown off her turret[s] and caused fire; she listed to port and began to sink, losing [all] means to fight and we stopped firing.

10. The torpedo chief offered a proposal that since the *Shikinami* did not seem to have launched her torpedoes yet, perhaps you could let her launch hers. Accordingly, I ordered her to launch one torpedo and charge.

Although the torpedo chief said that I should let her decide the number of torpedoes to be launched, I thought we should not waste them. While I was wavering about letting her decide [the number], the transmission [of the order] was finished. The *Shikinami* launched [only] one torpedo, but I could not tell whether it was because she faithfully executed the order, or because she herself made the decision.

This torpedo attack sped up the enemy vessel's sinking, and she went down with her bow first. It was 0205.

11. Although the enemy had consisted of [only] two vessels, it was not clear when they had disbanded the formation or when they had reversed course.
12. I was deeply grateful to my men that they supported and guided their captain with such a battle spirit.

I was also relieved that the vessels behind me instantly reacted [at unanticipated orders to increase their speed] to high speed, and followed me in good order. (The rest omitted by the author.)

The Damage Sustained by the Army Transport Ships and Minesweeper No. 2

At 0135 on 1 March, Minesweeper No. 2, who was guarding the transport convoy [on the waters] south of Panjang Island, was hit by a torpedo on starboard in her boiler room; she broke up at that section and capsized. Around that time, the transport ships were also hit by torpedoes, which caused the loss of the *Sakura-maru*, who sank, while the *Ryūjō-maru*, the *Hōrai-maru* and the *Tatsuno-maru* sustained serious damage. Among them, the *Ryūjō-maru* was carrying [Sixteenth] Army Commander Imamura on board, and was in the middle of the second landing operation. [The accident caused] Army Commander Imamura to swim around just in his life vest in a sea covered with heavy oil for about three hours until he was finally picked up and rescued around 0430. In view of the launching points, the lines of fire, and the performance of the torpedoes, it was certain that these torpedoes were among those which the 7th Cruiser Division had launched in its second launch.⁽¹⁵⁰⁾ (The tails of Type93 torpedoes were recovered near the landing area of the army.)⁽¹⁹⁹⁾ However, concerning this incident, it was generally believed that enemy torpedo boats had intruded into the anchorage following the attack by the enemy cruisers and had inflicted the damage [to the vessels]. It was because Commander Imamura had graciously accepted the apology of the Navy side that this fact was kept from becoming publicly known.

Lessons of War and Observations After this Sea Engagement

The lessons of war drawn by 5th Destroyer Squadron Commander Rear Admiral Hara and the observations he made were according to the "Action Report of the 5th Destroyer Squadron" the following:

1. When implementing plans of operations, we need to take appropriate measures at appropriate moments as the movements of the enemy which we are facing change. More often than not, you should not stick to plans that have been drawn up long before. When the defeat of the enemy air power, which should be a necessary condition when implementing landing operations, has

not yet been completed, you also need to accordingly change at an appropriate moment [the schedule of] the advance of the transport ships and the execution of the landing operation, just like this time in the Java landing operation. Particularly, in the operations of the land-based air units, the conditions of the advance bases are often unknown, which at times hinders them from carrying out air campaigns to destroy the enemy air power as planned. Therefore, the commander on site's judgment of the enemy movements needs to be respected and without sticking to the basic plans, instructions need to be given in such a way that the operations at the front can be implemented appropriately and with ease.

2. Although it is essential to reinforce the support forces so as to match the movements of the enemy, it will be useless unless the specially-dispatched reinforcements arrive in time for the engagement. The dispatch of the *Ryūjō* this time is a good example of such [a case]. Thus, I think careful consideration is required so that appropriate reinforcements will be dispatched to an appropriate place at an appropriate time.
3. The sea engagement off Batavia, which occurred on waters very close to the anchorage of the transport convoy, was extremely disadvantageous for us as escort unit to fight. The conceivable reasons for this were that in the first place the landing was forced in an area close to waters where powerful enemy surface forces existed, and that in the second place, we did not have forces enough to conduct the landing operation while carrying out attacks on the enemy. At that time, our escort forces were not enough [in strength] to defeat the enemy surface forces beforehand and grasp the command of the sea in the surrounding areas, and we did not have sufficient time, either. [Therefore,] it became necessary for us to have the indirect escort forces further advance and enhance their operations in concert with the air campaign to destroy the enemy air power, by which we would locally gain the upper hand [over the enemy] and hence locally gain command of the sea before the landing operation. If the enemy had intended to aggressively carry out an offensive in the engagement off Batavia, he could have conducted a far more effective attack by taking advantage of the home ground. [Therefore,] I think this will make a good example when conducting landing operations in the future.
4. When a concentrated attack of all units (and vessels) becomes excessively dense in night engagements, it is common that consecutive direct hits by the units (or vessels), water columns created by their torpedo hits as well as the flashes of enemy gunfire make it extremely difficult to judge the general situation on both sides, observe the landing of shells, or to assess the effect of torpedoes etc. It is crucial to report the damage to the enemy, such as a dropping of his speed, or fires. However, at the sight of water columns or black smoke caused by friendly shells landing near the enemy, all units (and vessels) too quickly jumped to report them as the results of their own shelling or torpedo hits. Although it may boost morale, there is some fear that it may instead not only crowd communications but also mislead the judgment of the commanders.
5. Although such issues as the depth of torpedo [trajectories] or excessive running range in torpedo attacks against [enemy] cruisers have traditionally been studied, in the engagement off Batavia, again many trails of torpedoes, presumably launched by our cruisers, ran through waters very close to [our] destroyer divisions then in the middle of charging toward the enemy, which made us feel in danger of getting hit.
6. Shelling conducted only with medium-caliber guns on cruisers or lesser vessels can degrade the enemy's fighting ability, but it is not [strong] enough to sink them. In many cases, torpedo attacks are required to completely sink them. [However,] when conducting torpedo warfare such as in the recent engagement where the engagement occurred on waters very close to the anchorage of the transport convoy and where many units engaged in the night engagement took up positions to make a pincer attack on the enemy, we need to pay special attention to the direction of the lines of fire.
7. The fighting ability of our special-type destroyers was superior and their reputation as the [Navy's] principal weapon particularly in night engagements was confirmed in the successive

engagements in the Java area. In the future, we need to attach greater importance to drills for night engagements, so as to make the most of their strong points; at the same time the performance of the special-type destroyers should be further improved; [on top of that,] the crew [of these vessels], from the captain and staff officers down to those in important positions, should be specially selected as has been done before, and appropriately assigned, so that [these destroyers] will form the elite of our navy and a national treasure both in name and reality. Also, I keenly felt that the [performance of the] torpedoes of the *Natori*-class cruisers was very poor, and that they must be quickly upgraded to Type90 or Type93 [torpedoes].

Note by the author: The torpedoes of the vessels that participated in the engagement⁽¹⁵⁵⁾

Mikuma-class: Type93 (with an [effective] range of 20,000 meters [when running at] 48 knots, a range of 30,000 meters [when running at] 41 knots, with a range of 38,000 meters, [when running at] 36 knots)

Natori-class: Type8 (with an [effective] range of 10,000 meters [when running at] 39 knots)

Harukaze-class: Type6 (with an [effective] range of 6,000 meters [when running at] 37 knots)

Hatsuyuki-class: Type90 (with an [effective] range of 7,000 meters [when running at] 45 knots)

Shirakumo-class: Type90

Shikinami-class: Type90

8. We need to see to it that friend-or-foe identification signals shall be given swiftly.

Needless to say, this is without fail necessary when the enemy and us are mixed up in a night [engagement]. However, when deployed for patrolling and [sailing] on guard, sometimes there is a lack in swiftness [in giving signals and responding], possibly due to a hasty conclusion that vessels approaching the patrol area border must be friends. A little delay in response nearly led sometimes to a situation that was only seconds away from an unfortunate friendly fire [incident].

Not only the signal staff but also the crew on the bridge during a patrolling deployment need all to be fully aware of this.

9. General observations on providing escort for landing operations

(1) Although attaching Class-A cruisers to an escort unit as its support unit and have the former support the latter may increase confidence, they [usually] support [the escort unit] in a roundabout way, which, more often than not, does not fit the actual situation. We need to put the support unit and one element of the air unit under the unified command of the escort unit commander and have them operate at a short distance of the escort unit depending on the enemy movements so as to make the most of them.

(2) Since in sea areas such as where we carried out the recent Java operation, the days when seaplanes are not able to operate in terms of weather and sea conditions are rare, I think it would be best to have seaplane tenders like the *San'yō-maru* or the *Kamikawa-maru* sail together within the columns of the transport convoy and assign [these tenders] to guard against enemy aircraft and submarines under the direct command of the escort unit commander ([because such tenders] are able to retrieve their aircraft at sea, it becomes possible for the escort unit to neutralize enemy submarines by itself).

10. Needless to say, the escort forces should not leave the landing point too early. A review of the course of invasion operations until now indicates that it is one or two days after the convoy's entry into the anchorage that the enemy flocks to the [landing point], which makes me think that we need to have the escort forces remain [at the landing point] until at least the disembarkation is completed. Nevertheless, in such local invasion operations as the seizure of a [nearby] air base, I think it stands to reason to first of all only disembark the things required for the immediate engagements, and have the transport convoy leave the anchorage for the time being and at the appropriate moment [return and] carry out the second and third transports.

5. The Main Body of the Southern Task Force Advances to the South of Java (See Illustration No. 47)

On 22 February, Southern Task Force Commander Vice Admiral Kondō had made various arrangements with Dutch East Indies Commander Vice Admiral Takahashi, who had put in at Staring Bay on that day, concerning the outline of the Java invasion operation. Those directly relevant here concern the second carrier operation, which were the following (as previously told [p. 404]):⁽⁵³⁾

1. In view of the presence of enemy surface vessels in the Surabaya area, the operation of the core force of the 5th Cruiser Division to act in concert with the second carrier operation shall be called off. The force shall quickly be sent to the Makassar Strait area to support the units for the eastern Java invasion [operation].
2. As a measure to supplement the insufficient destroyer strength of the carrier task force, one destroyer division shall be extracted from the 2d Destroyer Squadron currently engaged in the Kupang operation to participate in the carrier operation from the area near Timor.

Meanwhile on the same day, Southern Task Force Commander Vice Admiral Kondō sent a proposal to the Southern Army to postpone the starting date of the landing [operation] for two days. At 1830, he informed the carrier task force that the departure of the main body of the Southern Task Force from Staring Bay had been set for 0800 on 25 February.

At 0830 on 25 February, following the departure of the Carrier Task Force from Staring Bay, Southern Task Force Commander Vice Admiral Kondō left the bay for the Indian Ocean, leading the main body of the Southern Task Force ([consisting of] the 4th Cruiser division (the *Atago*, the *Takao* and the *Maya*), and the 4th Destroyer Division 1st Section (the *Arashi* and the *Nowaki*). Having followed in the wake of the Carrier Task Force until 1530, the main body separated from the former and headed for the Ombai Strait. [Then] joined around noon on 26 February at Ombai Strait by the *Hayashio* of the 2d Section of the 15th Destroyer Division, who had cut short the Kupang operation, the main body headed for the waters south of Sumba Island and reached the waters south of Sumbawa Island on the 27th. On that day, the sea engagement off Surabaya took place in the eastern part of the Java Sea while in the western part an enemy fleet [was spotted] making a sortie (it was later [judged to] have escaped into the port of Batavia), which led to the afore-mentioned delay of the landing operations both in eastern and western Java for one day (the postponement of the eastern Java [operation] was decided in the early morning of the 28th).

Also on the 28th, the main body continued to sail westward, and on the early morning of that day it reached the waters south of Bali. At 1000, Southern Task Force Commander Kondō sent the following telegram to commanders in chief as well as commanders of all units of the Southern Task Force by way of Second Fleet Classified Telegram No. 56: "From now on, the main body of the Southern Task Force shall sail to the waters about seventy nautical miles south of Cilacap, after which it shall meet, catch and destroy the evacuating enemy while cruising from east to west on the waters south of Java."⁽¹⁴¹⁾

On the early morning of 1 March, the main body of the Southern Task Force reached the waters about seventy nautical miles south of the Cilacap, after which, it gradually pushed southward while cruising from east to west on the waters south of Java. Between 0142 and 0529, the 1st Section (the *Arashi* and the *Nowaki*) of the 4th Destroyer Division sank four

enemy merchant ships.⁽⁵⁸⁾ On top of that, at 0740, the *Arashi* captured a Dutch merchantman (1,000t-class), while between 1330 and 1620, the aircraft of the *Takao* carried out a bombing attack on an armed Dutch ship (7,000 tons) and caused a large fire on her.

6. The Operations of the Carrier Task Force (Until 1 March)

The distribution of forces for the second carrier operation by the Carrier Task Force was as follows.^(141, 143, 156) (Although the 2d Section of the 3d Battleship Division had been incorporated in the main body of the Southern Task Force, it was returned to the 3d Battleship Division as of 16 February to participate in the second carrier operation.)

Unit		Commander	Forces	Tasks
Carrier Task Force	Air Raid Unit	Cdr in Chief, 1st Air Fleet	1st Carrier Div (<i>Akagi</i> and <i>Kaga</i> as the core; minus the 7th Destroyer Div) 2d Carrier Div (<i>Sōryū</i> and <i>Hiryū</i> as the core, minus the 23d Destroyer Div)	Attacks on enemy fleets and transport convoys
	Support Unit		3d Battleship Div Cdr 8th Cruiser Div (<i>Toné</i> , <i>Chikuma</i>)	Cover for air raid units Attacks on enemy fleets
	Guard Unit		1st Destroyer Sqdn Cdr <i>Abukuma</i> , 17th Destroyer Div, 18th Destroyer Div 1st Section, 4th Destroyer Div 2d Section, 27th Destroyer Div 2d Section, <i>Akigumo</i> , 15th Destroyer Div 1st Section ([during] 6-10 March)	Guarding Attacks on enemy fleets and transport convoys
	Supply Unit		Capt of the <i>Kyokutō-maru</i> 1st Supply Unit (<i>Kyokutō-maru</i> , <i>Ken'yō-maru</i> , <i>Nippon-maru</i> , <i>Tōei-maru</i> [A], and <i>Teiyō-maru</i>)	Replenishment

The outline of the planned operations of the units was as follows:⁽¹⁵⁶⁾

1. The air raid unit, the support unit and the guard unit shall leave Staring Bay at 0700 on the 25th, conduct the first refueling at Point A (11°50'S, 117°40'E) at 1800 on the 27th, and the second refueling at Point B (16°20'S, 107°20'E) at 1800 on 1 March. Thereafter, while searching for enemy

fleets, they shall advance to the waters south of Java by way of Point C (17°30'S, 104°30'E), and Point D (10°0'S, 101°10'E). If [the units] spot enemy fleets or transport convoys, [they] shall operate generally westward so as to cut off the enemy's escape routes while carrying out air attacks, and quickly and completely destroy him by repeatedly conducting fierce attacks. After having destroyed enemy carriers, the support unit and the bulk of the guard unit shall be advanced with the intention to completely destroy the enemy in concert with the air campaign. Depending on the circumstances, [enemy] transport convoys shall be captured. If the units should spot no enemy fleets or transport convoys even as far as Point D, the units shall advance to Point E (9°20'S, 106°10'E) around 0600 on the 4th, where they shall conduct an air raid on [enemy] transport convoys in the Cilacap area, and head for Point F (15°0'S, 110°0'E), where they shall have the third refueling before returning to Staring Bay.

2. Depending on the enemy movements, [the units] may shift to the second disposition of forces and have a detached unit (the 2d Carrier Division, the 2d Section of the 3d Battleship Division, four destroyers, and the *Ken'yō-maru*) operate separately. In that case, the detached unit shall operate so as to be able to return to Staring Bay in the middle of March unless specifically ordered otherwise.

At 0830 on 25 February, the Carrier Task Force left Staring Bay for the Indian Ocean for the second carrier operation.⁽⁶⁸⁾ While strictly patrolling against enemy submarines including on the route ahead and also guarding in the air against enemy aircraft, the Carrier Task Force sailed southward and passed through the Ombai Strait at 0930 on the 26th. On the 27th, having received reports from the land-based air unit of spotting an enemy carrier (at 368 nautical miles 265° [W] of Bali), Carrier Task Force Commander V. Adm. Nagumo Chūichi signaled: "After finishing refueling, the Carrier Task Force shall swiftly advance to take up a position to the south of the enemy carrier and completely destroy her tomorrow early in the morning. The supply unit and the 1st Section of the 15th Destroyer Division shall directly head for the area of Point B and stay on standby."⁽¹⁴¹⁾ However, the [enemy] carrier (the converted U.S. seaplane tender *USS Langley*) was severely damaged by a land-based attack plane unit of the Takao Air Group and sank on the same day.

On the 28th, an aircraft patrolling the route ahead of the Carrier Task Force spotted an armed merchantman and carried out an attack ([with] one 60-kg bomb, which missed). However, other than her, the Carrier Task Force spotted no enemy. At 0700 on 1 March, the Carrier Task Force reached the waters about 140 nautical miles 150° [SE] of Christmas Island. On that day, the force sank one Dutch merchantman (the *Modjokerto*, 8,082t, [equipped with] one 3-inch anti-aircraft gun and two machineguns), one U.S. oiler (the *Pecos*, [equipped with] two anti-aircraft guns and a number of small machineguns) and one U.S. destroyer (the *USS Edsall*).

The circumstances at the time of the sinking of the U.S. Destroyer *USS Edsall* were as follows:⁽¹⁵⁶⁾ (See *Illustration No. 48*)



Third Battleship Division Commander
V. Adm. Mikawa
Gun'ichi



Eighth Cruiser Division Commander
R. Adm. Abe Hiroaki



First Destroyer Squadron Commander
R. Adm. Ōmori
Sentarō

At 1722, Carrier Task Force Commander Vice Admiral Nagumo ordered V. Adm. Mikawa Gun'ichi, commander of the support unit: "The support unit (minus the 3d Battleship Division 2d Section) shall sink the enemy light cruiser that is following us astern." Almost simultaneously with this order, the support unit (the *Hiei*, the *Kirishima*, the *Toné* and the *Chikuma*), too, spotted the [enemy] masts at a distance of about thirty kilometers 335° [NNW], reversed course and headed for the attack. At that time, three aircraft of the *Sōryū* were directly escorting the force in the air. Although the weather was fine, a rather dense mist covered the surface of the sea while at sea level the wind was blowing from 130° [SE] at ten meters per second; visibility was thirty-five kilometers. From around 1732, the *Chikuma* opened fire at a range of 21,000 meters. At 1745, the 3d Battleship Division launched three Type-95 reconnaissance seaplanes to observe the artillery engagement, and at 1747 started firing with its main guns at a range of 27,000 meters. The *Toné* opened fire at a range of 23,500 meters around 1815. However, because the enemy made large right-about turns almost every minute and often skillfully threw up smoke screens, the Japanese forces were hardly able to score hits.

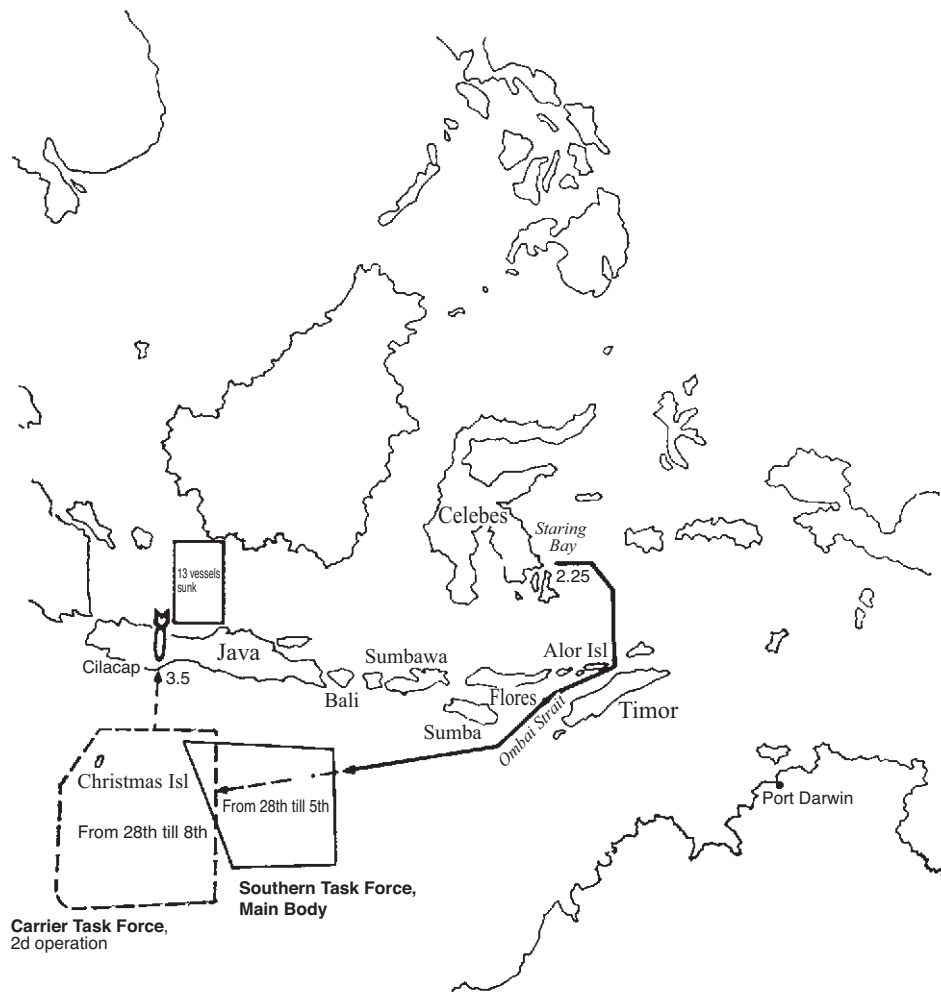


Illustration No. 47 — The Sea Area of the Second [Carrier] Operation of the Main Body of the Southern Task Force and the Carrier Task Force

Since the attacks by the surface units were not producing the intended results, eight carrier-based bombers of the *Akagi* and nine of the *Sōryū* respectively took off at 1800 and 1805, carried out dive bombings from 1827 until 1857 ([and dropped] nine 500-kg and eight 250-kg bombs). With many direct hits and near misses, the enemy destroyer lost her speed and finally came to a halt. During this period and holding their fire, the surface units gradually reduced the distance. From around 1850, they resumed firing, and making use of [all guns including] secondary guns and antiaircraft guns, they finally sank the enemy destroyer at 1901. The shelling of the surface units lasted as long as one hour and fourteen minutes; the amount of ordnance consumed was enormous as seen below:

The 3d Battleship Division: 297 36-cm shells and 132 15-cm shells

The 8th Cruiser Division: 844 20-cm shells and 62 12.7-cm shells

Concerning this engagement, the 3d Battleship Division and the 8th Cruiser Division made the following observations.^(158, 159)

The 3d Battleship Division

1. Since the enemy was a destroyer sailing alone and did not need to take into consideration how to bring her gun power into play due to the distance between us, she was able to freely move without restriction, which enabled her to take skillful evasive actions and throw up smoke screens. (It looked as if she made a right-about turn almost every minute or changed course after observing our discharges.)
2. Because we fired roughly at a range between 28,000 meters and 24,000 meters, which made the flight time of our shells fairly long (about forty-five seconds or more), and because the intervals between our salvos were also long, it became even easier for the enemy to take evasive actions.
3. From the beginning [of the engagement], the *Hiei* and the *Chikuma* had figured out that the enemy was not a light cruiser but a destroyer, and hence carried out the shelling using the target-gauging calculator.*

Although entertaining some doubts, the *Kirishima* and the *Toné* dealt with her as a light cruiser ([of the] *Marblehead*-class).

The 8th Cruiser Division

1. Long-range firing at a fast vessel that freely takes evasive actions lowers the hit rate and ends up consuming an unexpectedly large amount of ordnance.

In order to [avoid] this [situation] in these kinds of artillery duels, it is absolutely essential to heed the following [points]:

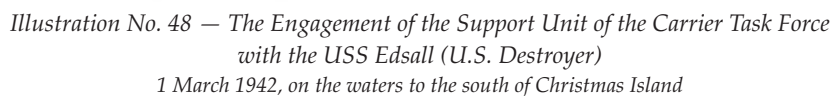
- (1) To carry out shelling from a range as close [to the enemy] as possible.

The appropriate firing range for the main guns on our vessel to fire on [enemy] destroyers should be deemed to be within 10,000 meters.

- (2) If it is impossible to wait for [an opportunity to] close in on the enemy due to circumstances, you should closely watch the enemy movements while conducting slow fire; rapid fire shall be conducted only when the fire is seen to produce results.

2. You need to try to confirm the type of enemy vessel before opening fire.

* For fire control the Japanese Navy used the British-derived “fire control director [*hōiban*]” and “fire control table / calculator [*shagekiban*]”, to which they had added a uniquely Japanese instrument to measure the speed and course of the target, the so-called “*sokutekiban* [gauging-the target-calculator].” See David C. Evans and Mark R. Peattie, *Kaigun; Strategy, Tactics, and Technology in the Imperial Japanese Navy 1887-1941*. Annapolis, Naval Institute Press 1997, pp. 250-53.





The Battleship Hiei



The Cruiser Toné

The *Toné* mistakenly took the enemy vessel in the engagement for a *Marblehead*-class [cruiser], which considerably disadvantaged her in terms of the artillery duel as well as in terms of gauging the speed and course of the target.

7. The Operations of the Submarine Units (*See Illustration No. 49*)

Southern Task Force Commander Vice Admiral Kondō had informally announced to the units concerned that he would combine the 6th Submarine Squadron (Commander: R. Adm. Kawano Chimaki), then under his direct command, with the 4th Submarine Squadron, currently incorporated in the Malaya Unit, to form Submarine Unit A (under the command of 4th Submarine Squadron Commander R. Adm. Yoshitomi Setsuzō) and put it under his [Kondō's] unified command. On 1 February, by means of Second Fleet Classified Telegram No. 820, the Southern Task Force commander announced the outline of operations for Submarine Unit A at the time of the Timor, Bali and Java invasion operations, the main points of which were as follows:⁽⁶⁰⁾

1. Mission
 - (1) To catch and destroy reinforcements and/or escaping forces of the enemy.
 - (2) To watch and attack key enemy areas.
2. Deployment

- (1) Five submarines in the area [off] the southern coast of Java and the Sunda Islands (roughly within sixty nautical miles offshore). However, before the landing on Java, two submarines each shall be deployed at the southern entrances of [both] the Sunda and the Lombok Straits. After the landings two or more submarines shall be deployed off Cilacap.
- (2) Two submarines in the Torres Strait
- (3) One submarine [off] Port Darwin



6th Submarine
Squadron Com-
mander R. Adm.
Kawano Chimaki

In accordance with this outline, Rear Admiral Yoshitomi, Submarine Unit A commander, issued on 5 February the following order by means of Submarine Unit A Telegraphic Operation Order No. 1:

1. The deployment of the 4th Submarine Squadron
[At] the southern entrance of the Sunda Strait, [the area] off Cilacap, and the southern entrance of the Lombok Strait
2. The deployment of the 6th Submarine Squadron
[At] Port Darwin and the Torres Strait

Since the 2d Submarine Squadron was [also] transferred to the Southern Task Force later on 8 February, Southern Task Force Commander Vice Admiral Kondō formed with this squadron Submarine Unit C, and on 9 February, by means of Telegraphic Order No. 92 (as previously told [pp. 331-32]) he outlined his plans for all units [of the Southern Task Force] including the submarine units. The items concerning the submarine units will be cited again.* It was a very grand plan.⁽¹⁴¹⁾

7. Submarine Unit A (the 4th and the 6th Submarine Squadrons) shall operate as scheduled; it shall be assigned to watch and patrol the southern coast of the Dutch East Indies east of (and including) Java as well as the Torres Strait and the Port Darwin area.
8. Submarine Unit B (the 5th Submarine Squadron) shall be assigned to watch and patrol the coastal areas of Ceylon and India as well as the north entrance of the Malacca Strait and the southern coast of Sumatra.
9. Submarine Unit C (the 2d Submarine Squadron) shall leave Staring Bay around 23 February and advance into the Indian Ocean. The bulk of the unit shall advance while searching for the enemy more or less 400 nautical miles south of Java, and swiftly reach the area south of the Cocos Islands. After that and until about 1 March, it shall conduct patrols from a position on the waters between about 97°E and 100°E beyond the 600 nautical miles range from Palembang. One element shall be assigned to covertly patrol the regular sailing routes on the western coast of Australia off Freemantle, after which it shall return to Staring Bay around 6 March. Also, one designated submarine shall promptly be assigned to reconnoiter and watch the Cocos Islands.

Submarine Unit A, Guarding Java and [the Area] to the East

On 6 February, Submarine Unit A Commander Rear Admiral Yoshitomi issued the details on the deployment of the submarines of the 4th Submarine Squadron in the Java operation by means of Submarine Unit A Operation Order No. 2. In accordance with this order, Sub-

* The quote on pp. 331-32 is from the Action Report of the 2d Destroyer Squadron. The quote here is from the Action Report of the 1st Destroyer Squadron. The main difference is that the first report says that the search for the enemy should be conducted *southeast* of Java, while all other reports say *south*.

marines *I-53*, *I-54* and *I-58* left Cam Ranh Bay on 7 February, and Submarine *Ro-33* on 8 February, for their respective stations. However, since on the 9th the [landing] date of the Java operation became likely to be postponed, Submarine Unit A Commander Rear Admiral Yoshitomi ordered the submarines, which were under sail southward toward their stations, to stand by in the Anambas Islands [instead].

On 11 February, after having been notified that the invasion schedule for Batavia and Surabaya had been postponed until 26 February and the schedule for Bali and Kupang until 20 February, the Submarine Unit A commander gave orders regarding the operations of each submarine by means of Telegraphic Operation Order No. 42. [Accordingly], submarines *I-53*, *I-54*, and *I-58*, as well as submarine *Ro-33*, left the Anambas Islands on 13 February, while submarine *Ro-34* left Cam Ranh Bay on 17 February, heading for their respective stations for the Java operation. The operations of each submarine will be outlined below.

Submarine *I-54* (with the 18th Submarine Division commander on board): Having left the Anambas Islands on 13 February, she reached via the Lombok Strait her patrol area in the western part of the waters south of the Sunda Strait roughly around the 20th, pulled out [from the area] on 4 March, and returned to Staring Bay on the 9th. During this period, she attacked three merchant ships and sank one 10,000t-class passenger ship. She [also] heard a sound presumably caused by a [torpedo] hit on a 15,000t-class tanker, but the result was unclear.

Submarine *I-53*: Having left the Anambas Islands on 13 February, she took up position along with her fellow submarines (*I-55* and *Ro-33*) on 15 February on a skirmish line in order to obstruct the escape routes of the enemy fleet [then] sailing northward through the Gaspar Strait [p. 300]. However, having spotted no enemy [there], the line was called off on the evening of the 16th and she advanced to [the area] off Cilacap through the Lombok Strait, after which she pulled out of the area on 4 March and returned to Staring Bay on the 8th. During this operation, she sank one 10,000t-class and one 15,000t-class merchantman.

Submarine *I-58*: Having left the Anambas Islands on 13 February, she arrived at her patrol area in the eastern part of the waters south of the Sunda Strait around the 20th via the Lombok Strait, pulled out [from the area] on 4 March and returned to Staring Bay on the 8th. During this period, she sank one 15,000t-class tanker as well as one 4,000t-class and one 3,000t-class merchantman.

Submarine *Ro-33*: Having left the Anambas Islands on 13 February, she operated in the Sunda Strait for an attack on the enemy fleet on the 15th, after which she arrived in her patrol area in the western part of the waters south of the Lombok Strait. Then from the 21st to the 24th, she was deployed for watching [enemy movements] near Bali until returning to her original patrol area. On 1 March, she advanced to [the area] off Cilacap due to a change in her deployment on the 28th, after which she pulled out from the area on 4 March and returned to Staring Bay on the 8th. During this period, she spotted a considerable number of enemy merchant ships, destroyers and submarines and attacked them, but every time she failed to produce results due to evasive actions of the enemy.

Submarine *Ro-34*: Because Submarine *I-57* had become unable to conduct operations for the rest of the February due to an outbreak of dysentery, it was decided that the *Ro-34* would replace her and take up position in the patrol area in the eastern part of the waters south of the Lombok Strait. She left Cam Ranh Bay on 17 February, and after having been deployed for watching [enemy movements] near Bali from the 21st to the 24th along with Submarine *Ro-33*, she returned to her original patrol area on the 24th. She [again] changed her position to [an area] off

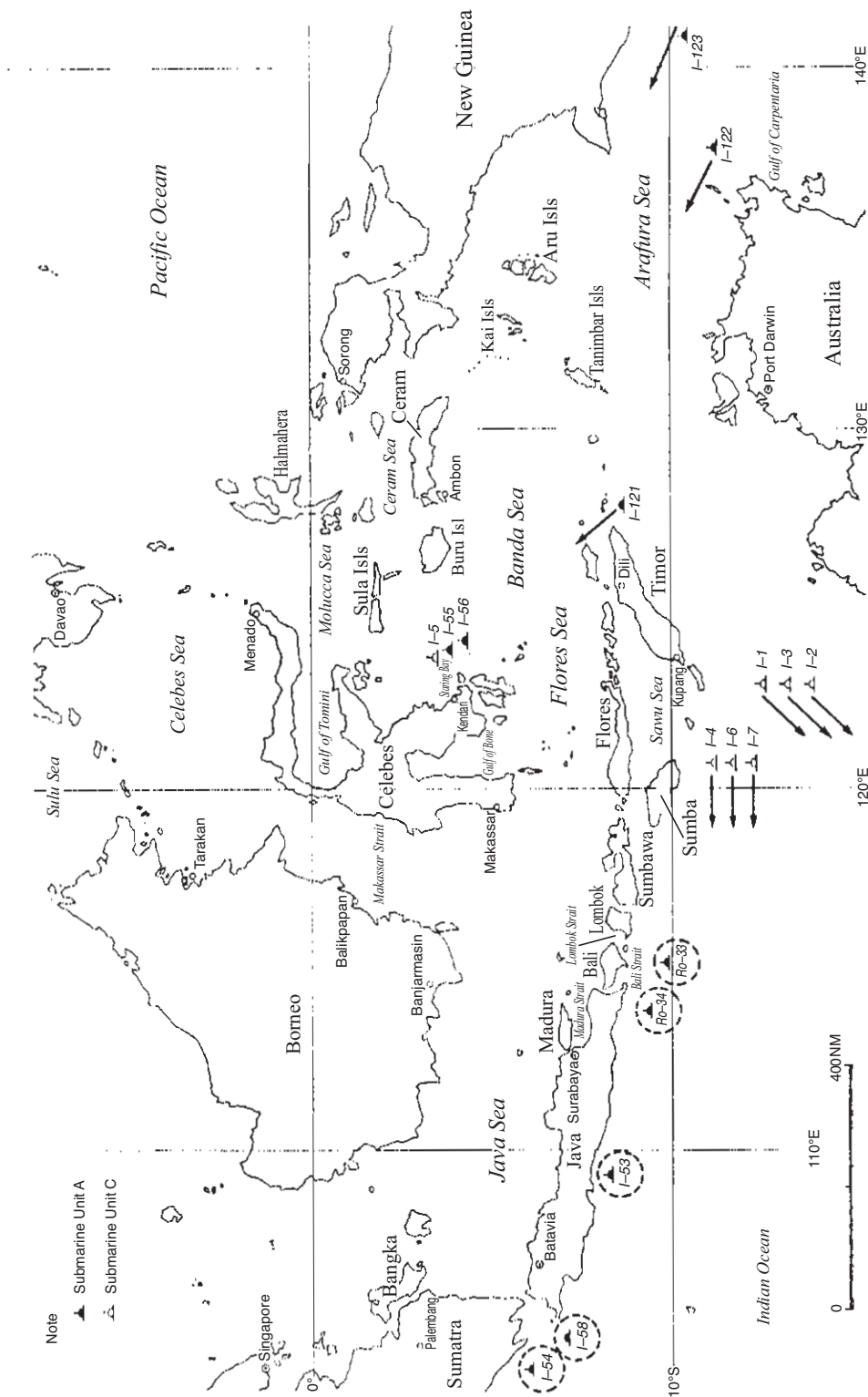


Illustration No. 49 — Outline of Deployment Positions of the Submarines of Submarine Units A and C of the Southern Task Force (as of 26 February, 1942)

Cilacap from the 28th onwards. However, she did not spot any enemy vessels other than once spotting [an] enemy destroyer; she pulled out of the area on 4 March and returned to Staring Bay on 7 March.

In the meantime, after having watched [enemy movements] in her patrol area at the southern entrance of the Sunda Strait during Operation L [the southern Sumatra operation], Submarine *I-56* returned to Staring Bay on the 21st, where she stayed on standby. [Then] on 4 March she was ordered by the Southern Task Force commander to hurriedly deploy to [the area] off Cilacap to watch [enemy movements] in this area; she left port on the morning of the 5th for [the area] off Cilacap and took charge of patrolling from the 8th onwards. However, on the afternoon of the next day, the 9th, she was ordered to return to Staring Bay. She left the patrol area on the same day and put in at Staring Bay on 12 March. During this period, she was not able to sink a single ship.

[Meanwhile,] the 6th Submarine Squadron operated in outline as follows:

Submarine *I-121*: She left Davao on 9 February, [arrived] in the Arafura Sea on the 14th, [reached] the waters west of Port Darwin on the 16th (where she supported the air campaign by communicating weather information) and returned to Staring Bay on the 28th; other than several times spotting enemy aircraft, she spotted no enemy.

Submarine *I-122*: She left Davao on 9 February, and [reached] the Torres Strait on the 15th, where she engaged in watching [enemy movements] until the 26th, and returned to Staring Bay on the 28th. Other than encountering one enemy patrol boat, she spotted no enemy.

Submarine *I-123*: She left Davao on 19 February, and reached the Torres Strait on the 24th, where she laid mines at night on the 25th and returned to Staring Bay on 9 March. She spotted no enemy during this deployment.

***Chōgei*:** She left Davao on 20 February, put in at Staring Bay on the 23d, and directed the operations.

The operations of Submarine Unit B (in the areas along the coast of Ceylon and India as well as the north entrance of the Malacca Strait) are omitted here, because they were not directly related to the Java invasion operation.

Submarine Unit C, Guarding [the Area] South of Java

On 21 January,* Combined Fleet Commander in Chief Admiral Yamamoto Isoroku announced his plans for the carrier operations of the Southern Task Force by means of Telegraphic Operation Order No. 54 (as previously told), in which he disclosed that one element of the Sixth Fleet would be transferred to the Southern Task Force (the name of the vessels and the timing would be given later).⁽¹⁴¹⁾ On 3 February, the Navy General Staff informally notified the 2d Submarine Squadron that it should participate in the carrier operations in the southern [theater]. The 2d Submarine Squadron returned to Yokosuka in early February after having participated in the Hawaii operation right at the opening of hostilities, and was doing maintenance in preparation for the operation in the Indian Ocean. On 8 February, the 2d Sub-

* Probably a misprint for 31 January, see pp. 211-12.

marine Squadron was officially transferred to the Southern Task Force by means of Combined Fleet Telegraphic Operation Order No. 64.⁽¹⁴¹⁾ Conform to this order, Southern Task Force Commander Vice Admiral Kondō gave orders to form Submarine Unit C with the 2d Submarine Squadron, while ordering the squadron to advance to Palau as soon as possible. The forces of the unit consisted of the following:

Submarine *I-7* (flagship)
 7th Submarine Division (Submarines *I-1*, *I-2*, and *I-3*)
 8th Submarine Division (Submarines *I-4*, *I-5*, and *I-6*)
 The *Santos-maru*



2d Submarine
 Squadron Com-
 mander R. Adm.
 Ichioka Hisashi

On 16 and 17 February, the 2d Submarine Squadron advanced to Palau (Submarines *I-1* and *I-6* directly headed for Staring Bay and put in there on 22 February due to their delayed departure from Yokosuka). On 16 February, Southern Task Force commander ordered 2d Submarine Squadron Commander R. Adm. Ichioka Hisashi to sail to Staring Bay, and thus the [whole] squadron put in at the bay on the 21st and the 22d.

Although the main points of the operations of Submarine Unit C are not very clear in detail, they are presumed to have been as follows [See also pp. 331-32, 482]:

1. [The squadron] should leave Staring Bay on 23 February.
2. The 7th Submarine Division shall sail and search for [the enemy] along the regular sailing routes on the western coast of Australia and, after patrolling the area off Freemantle, return to Staring Bay around 6 March.
3. Submarine *I-7* and the 8th Submarine Division should sail while searching for the enemy on the waters about four hundred nautical miles from the southern coast of Java and reach the area south of the Cocos Islands. After that and until about 1 March, they should reach a point between about 97°E and 100°E beyond the six hundred nautical miles range from Palembang, conduct patrols [there] and then return to Staring Bay around 10 March.
4. Submarine *I-4* should reconnoiter and watch [enemy movements near] the Cocos Islands.

The operations of the submarines of Submarine Unit C were as follows:

Submarine *I-1*: She left Staring bay at 1700 on 23 February, using only one of her engines. At that time, her starboard engine was out of order and needed repair at a naval arsenal. On the 25th, the submarine passed through the Ombai Strait. She searched for the enemy while sailing on the waters northwest of Australia; on 3 March she sank one 8,000t-class armed merchantman (the Dutch ship *Sianter*, 8,667 tons) at a point four hundred nautical miles northwest of Sharks Bay.⁽¹⁶⁰⁾ She returned to Staring Bay on the 11th, and was ordered to leave the bay for Yokosuka on the 15th.

Submarine *I-3* (with the 7th Submarine Division commander on board): At 1630 on 22 February, she left Staring Bay along with Submarine *I-2*. At 0135 on the 23d, she spotted [an] enemy submarine, but did not have an opportunity to attack her. On 2 March, she passed the skirmish line X-4, and headed for a point six nautical miles 270° of Cape Leeuwin. On 3 March, she spotted and attacked one 7,000t-class cargo ship sailing westward but let her slip away. Then on 6 March, she reconnoitered Sharks Bay as ordered, spotted one surfaced [enemy] submarine, fired at the

latter but let her slip away, without being able to score a hit. After reporting on the reconnaissance results of Sharks Bay, she put in at Penang on 14 March by way of Skirmish Line Q-2.

Submarine I-2: On 22 February, along with Submarine I-3, she left Staring Bay to advance to the Indian Ocean. At 2103 on 1 March, she spotted two mid-sized cargo ships at 31°50'S 113°30'E and sank one of them (the Dutch ship *Parigi*, 1,172 tons)⁽¹⁶⁰⁾ with two torpedoes. [Then,] at 0358 on the 2d, she also spotted one mid-sized merchantman off Freemantle, attacked her but gained no results. She [further] spotted one large cargo ship at 2000 and attacked her but let her slip away when counterattacked. After that, she was persistently pursued by two enemy patrol boats, which did not allow her to surface from 0700 on the 3d until 2000 on the 4th. On 5 March, she left her patrol area to head northward for Skirmish Line Q-2. On the 11th, she again sank one merchantman (the British ship *Chilka*, 4,360 tons)⁽¹⁶⁰⁾, crossed Skirmish Line Q-2 on the 12th, and put in at Penang on the 14th.

Submarine I-4 (with the 8th Submarine Division commander on board): She left Staring Bay on 23 February and advanced into the Indian Ocean. On the 28th, she sank one mid-sized cargo ship (the Dutch ship *Ban Ho Guan*, 1,693 tons)⁽¹⁶⁰⁾ on the waters southwest of Bali, after which she headed for the Cocos Islands as ordered to conduct shelling but the results were unclear. Thereafter, by way of Skirmish Line Q-2, she put in at Penang at 1250 on 8 March.

Submarine I-5: Although she left Staring Bay on 23 February, she came under friendly fire from two aircraft on the waters west of Timor on the 25th. This caused serious injury to the captain and two non-commissioned officers and caused her to put in at Kupang, where she underwent emergency repairs; she left there on the 27th back for Staring Bay. However, at 0908 on the 28th, she ran aground on the south side of the North Channel at the entrance of Kendari. After that, a rescue operation was conducted under the command of the 6th Submarine Squadron commander, the senior commander on site. Although she was finally successfully refloated at 1640 on 20 March, she was unable to join the [designated] operations.

Submarine I-6: At 0800 on 23 February, she left Staring Bay and advanced to the Indian Ocean. [On her way to her designated position] at 1230 on the 25th, she was also mistakenly fired on by friendly aircraft on the waters west of Timor (a little after the friendly fire [incident] on Submarine I-5) but sustained no damage. On 8 March, she put in at Penang by way of Skirmish Line Q-2. During [her deployment], she spotted no enemy.

Submarine I-7 (the flagship of the 2d Submarine Squadron): She left Staring Bay on 23 February and advanced to the Indian Ocean. Having sunk a passenger cargo ship (the Dutch ship *Le Maire*, 3,271 tons)⁽¹⁶⁰⁾ at a point 250 nautical miles 330° [NW] of the Cocos Islands at 1300 on the 4th, she put in at Penang at 1030 on 9 March by way of Skirmish Line Q-2.

Santos-maru: She left Yokosuka on 21 February and arrived in Palau on the 27th. Then she left there on 1 March and put in at Staring Bay on the 5th, where she stayed until 25 March, engaging in the rescue operation of Submarine I-5.

8. The Army Units Sweep Across Java

Before dawn on 1 March, escorted by the [Navy] 3d Escort Unit, the main force of the Sixteenth Army put the Satō Detachment ashore near Cape Awuran at the mouth of Bantam Bay, the Nasu and the Fukushima Detachments near Merak and the Shōji Detachment near Eretan to the east of Batavia. Meanwhile before dawn on the same day, escorted by the [Navy] 1st Escort Unit, the [Army] 48th Division and the Sakaguchi Detachment also successfully landed in front of the enemy near Kragan to the west of Surabaya. As early as by the end of the day, the main force of the army had advanced one element to the line of the Ciujung River, while the Shōji Detachment had advanced to the whole area of the Kalijati airfield, and the Sakaguchi Detachment to the area near Blora. The 48th Division had also driven the enemy back to fifty kilometers or more from its landing point and secured the latter.

In western Java, the Nasu Detachment of the 2d Division reached the area near Leuwiliang on the evening of the 3d, seized the town after a fierce fight with an Australian garrison near the town at the night on the 4th and reached the front of Buitenzorg [Bogor] on the next day, the 5th. [Meanwhile] on the 3d, the Fukushima and the Satō Detachments respectively reached the areas near Maja and Balaraja, where their advance was temporarily hindered by destroyed bridges. On the afternoon of the 3d, the 2d Division commander decided to transfer the main force of the division to the Buitenzorg area where the war situation was making steady progress, and transferred one element of the Fukushima and the Satō Detachments to the Nasu Detachment. On the night of the 5th, the Nasu Detachment determinedly carried out a night attack on Buitenzorg, drove back 2,000 to 3,000 Australian troops to the south and seized the place at 0600 on the 6th. Meanwhile at 2130 on the 5th, the Satō Detachment seized Batavia. The 2d Division continued its advance toward Bandung* when on the early morning of the 8th, it received a report from the Army that the enemy in Bandung had offered to surrender, which was followed by an Army order concerning the occupation of Bandung received on the afternoon of the 9th. In accordance with the order, the division occupied the city with about two battalions.

In the meantime, at 1200 on the 1st, the raiding unit of the Shōji Detachment, assigned to charge toward the Kalijati airfield, had rushed into the airfield and completely seized it at 1230. Although the airfield was in [good] condition and available for immediate use, it was impossible to report it to the Army headquarters or the 3d Air Division because no communications could be established. Before dawn on the 2d, the main force of the detachment arrived in Subang, where around 1100 it came under attack of a powerful mechanized enemy unit from the Bandung area, and narrowly defeated it after an engagement of an hour and a half. On that afternoon, the 3d Air Division forced its advance to the Kalijati airfield, and intensified its support for the Shōji Detachment. On the 3d, despite several attacks by powerful enemy tank units, [the detachment] successfully frustrated the enemy's intentions with the effective support of the air division. Having learned the situation of the bitter fight of the Shōji Detachment, the Army headquarters was deeply concerned about the war situation in that area. On the 4th, the headquarters requested the Southern Army to airlift one element of the 38th Division [to the area], but this was not approved.

Judging that uselessly making a defensive stand when enveloped by the enemy would only lead to self-destruction, the detachment commander decided that the best way was to

* It was slightly more complicated than the impression given here. See Vol. 3, pp. 500-501.

carry out a sudden assault [on Bandung] and seize the city before the stronghold got well prepared and requested the 3d Air Division commander to support him. From the 5th onwards, with close cooperation of the air division, the detachment shifted to the attack on Bandung and seized Lembang on the night of the 7th. That night, an enemy messenger bearing a flag of truce arrived at the detachment headquarters and offered a cease-fire by Major General Pesman, the garrison commander of the Bandung sector.

Moreover, the Sakaguchi Detachment, which had been assigned to cut off the enemy escape routes by seizing Cilacap on the southern coast of central Java, had seized Blora on the night of the 1st. Thereafter having captured key places such as Surakarta, Yogyakarta, Magelang, Semarang, Purwokerto in succession, it finally seized Cilacap on the 8th.

The 48th Division with the task of capturing Surabaya in eastern Java commenced its operation on 4 March when the [temporary] bridge over the Solo river was completed near Cepu.* The main force of the division charged around the clock along the road connecting Cepu, Kertosono, Jombang, and Mojokerto while fighting off resistance by the enemy and reached Mojokerto on the 6th, whereas a raiding unit, which had charged toward Bojonegoro seized the city on the morning of the 3d, continued its advance eastward, and captured Lamongan on the 7th, and Gresik on the 8th.**

Army Commander Imamura, who had learned in the middle of the night of the 7th of the enemy's offer to surrender to the Shōji Detachment, considered that the offer of surrender of the commander of the garrison in the Bandung sector should be expanded to a surrender of the entire allied army stationed in the Dutch East Indies. He demanded the presence of not only Major General Pesman but also of Governor-General [Tjarda van] Starckenborgh [Stachouwer] of the Dutch East Indies and Lieutenant General Ter Poorten, the commander of the Dutch East Indies Forces (and chief of the Dutch East Indies Army Department). At 1800 on the 8th, he opened at Kalijati the meeting concerning the cease-fire.*** Although the Dutch East Indies side was reluctant to accept an overall surrender at the meeting, the army commander demanded: "The Japanese army demands your overall and unconditional surrender. If you cannot accept it, we shall promptly reopen hostilities and resort to force until the Dutch East Indies Army is destroyed. If you should have the intention to surrender totally and unconditionally, you must give an order that [your forces] shall stop all resistance after 1200 tomorrow, the 9th, and that each regional unit shall surrender to the Japanese Army in its area."****

At 1200 on the 9th, the Dutch East Indies side put in outline the following broadcast on the air:*****

The Japanese Army succeeded in breaking through into the intermountain area of Bandung. It has taken complete command of the air, which made it impossible for us to put up resistance in the intermountain area of Bandung. Therefore, we had no choice but to hold cease-fire negotiations.

The Japanese Army demanded prompt talks with our governor-general and me. In these talks, the Japanese Army commander made the following demands on 8 March:

* A fuller version may be found in Vol. 3, p. 555.

** According to Vol. 3, p. 567, on the 9th.

*** See Vol. 3, p. 531.

**** See Vol. 3, pp. 532-33. The text in the present volume has been somewhat abridged.

***** See Vol. 3, p. 534.

1. Our overall surrender.
2. A prompt discontinuance of all hostilities.
3. The raising of white flags as a proof of our overall surrender.
4. All forces shall be disarmed and handed over. For this purpose, after disarmament, units in positions shall assemble at clearly visible places, and other units in barracks. Collected weapons and ammunition shall be gathered and put under supervision.
5. The demands stated in Items 1 to 4 shall be completed by 1200 on 9 March.
6. Bodies identified as Japanese military, [Japanese] prisoners of war, and deceased and living Japanese residents shall be promptly handed over.
7. Any kind of destruction is prohibited. For example, the destruction of war materials, weapons, ammunition, roads or traffic structures is forbidden.
8. Communications with foreign countries are prohibited.
9. The operations of the Japanese Army shall be continued.
10. If the above demands are not met, attacks will be immediately resumed. In order to ensure [compliance with] the demands, armed patrol units necessary to maintain public order shall be formed and provided with a certain number of weapons and ammunition. These patrol units need to be supervised by officers as much as possible. The patrol units shall be made distinguishable by a white armband and a white flag.

After due consideration, I finally had no option but to meet these stipulated demands. I order you to suspend the current hostilities and obey the above-mentioned demands.

When you have received this order, or when you have been contacted by the Japanese Army commander, I ask you to communicate or broadcast [this] through the available radio communication facilities and broadcasting stations, on every whole hour and every thirty minutes starting at 0900 until 1200.

This order applies also to the Navy and all directors of customs.

Major General Pesman, on behalf of the Chief of the Dutch East Indies Army Department

At that time, the positions of [Japanese] units were as follows:

Shōji Detachment: in Lembang (since the evening of the 7th)

Nasu Detachment: in Cimahi (since 0200 on the 9th)

The 2d Division commander: in Kalijati (since before the noon on the 9th)

Satō Detachment: in Krawang (since the night of the 7th)

Fukushima Detachment: near Cibarusa, about thirty kilometers southwest of Krawang, marching toward Krawang

Sakaguchi Detachment: Cilacap

48th Division: near Surabaya and Malang

Following the surrender of the main force of the Dutch East Indies Army, the enemy units in all areas, including about 11,000 British and U.S. troops [stationed] in areas southeast of Bandung, surrendered one after another, and the invasion of the whole of Java was completed by around 12 March.

9. The [Naval] Operations Around Java After the Landing of the Army Units

The Devastation of Cilacap by the Carrier Task Force

The Carrier Task Force, which had sunk the armed Dutch merchantman *Modjokerto*, the U.S. special service vessel *Pecos*, and the U.S. destroyer *USS Edsall* on 1 March, was joined by the 1st Supply Unit and the 1st Section of the 15th Destroyer Division at 0047 on 2 March at 16°15'S 107°16'E, then by the 8th Cruiser Division at 0144 at 16°16'S 107°7'E, and further by the 1st Section of the 3d Battleship Division at 0450 at 16°16'S 106°29'E, and was sailing westward bearing 270° [W]. On that day, no enemy was spotted. At 2150, the 1st Supply Unit and the 15th Destroyer Division separated from the main unit at 16°6'S 103°42'E.⁽¹⁴¹⁾

On 3 March, the force spotted no enemy either; Carrier Task Force Commander Vice Admiral Nagumo issued the following order concerning the attack on Cilacap on the next day, the 4th:⁽¹⁴¹⁾

Carrier Task Force Signal Order No. 49

1. At 1100 tomorrow on the 4th, the Carrier Task Force shall reach a point about 230 nautical miles 215° [SW] of the lighthouse of 'JG' (note by the author: Cilacap), and launch the first attack unit. Then, the second attack unit shall be launched as soon as it is ready, and they shall destroy enemy naval vessels at anchor in the port of Cilacap.
2. The formation of the aircraft unit:
 The first attack unit: the 4th formation
 The second attack unit: the 5th formation (minus the 11th and the 12th attack units)
 The carrier-based attack plane units shall form formations of six aircraft each as long as guiding planes are available. Each carrier shall assign nine of its aircraft for securing air supremacy, while assigning one element of its fighter planes to cover the carrier-based attack plane units in the air.
- 3- 7. (Omitted by the author: [items concerning] guarding against [enemy] aircraft and submarines, etc.)
8. Target assignments
 (a) Carrier-based attack planes and bombers: primarily [enemy] naval vessels and secondly [enemy] merchantmen
 (b) Carrier-based fighter planes: enemy aircraft in the air and aircraft at seaplane bases
- 9- 10. (Omitted by the author: [items concerning] assembling after the attacks; ordnance, etc.)

On 4 March, due to bad weather, the Carrier Task Force postponed the attack on Cilacap until the next day, the 5th.⁽¹⁴¹⁾ On that day [the 4th], aircraft guarding the route ahead of the force spotted one [enemy] destroyer and one merchantman. One of them attacked the destroyer but did not score a hit. An attack unit (consisting of ten carrier-based bombers) took off, too, but did not spot the enemy due to low visibility. Also, aircraft of the *Hiryū* spotted an enemy cargo ship ablaze (the Dutch armed merchantman *Enggano* 5,000* tons at 12°4'S 108°1.5'E.** The *Chikuma* and the *Urukaze* were sent to deal with her, and at 2043 they sank her with their torpedoes.⁽¹⁴¹⁾ In executing this task, the *Chikuma* had at first shelled her. However, since the

* The text mistakenly has 15,000 tons.

** The exact spot is differently cited in the original documents.

Chikuma used armored shells, whose penetrating power was too strong, the shells did not explode inside the [cargo] ship, and she just uselessly punched holes through [the *Enggano*'s] topsides (the sides above the water), but could not sink her despite the many shells she wasted; in the end, she used her torpedoes. Concerning the attacks on merchantmen, the Malaya Unit had already suffered the same bitter experience in the Bangka Sea (i.e. since merchantmen do not sink instantly even if hit by many shells, [naval vessels] tend to use more shells than necessary). However, this lesson of war was not immediately conveyed to the Carrier Task Force, which led to the useless expenditure of a large number of shells.⁽¹²⁴⁾

Meanwhile, Carrier Task Force Commander Vice Admiral Nagumo issued his outline for the attack on the next day by means of Signal Order No. 50.

On 5 March, the Carrier Task Force carried out its attack on Cilacap and reported having sunk or inflicted damage on almost all ships at anchor in the port (the attack was led by Cdr. Fuchida Mitsuo). According to the summary report of the actions, the military gains were as follows:⁽¹⁴¹⁾

1. Sunk four large and fifteen mid-sized merchantmen, nineteen in total.
2. Bombed and destroyed a few barracks, warehouses, freight cars and anti-aircraft batteries.
3. Inflicted serious damage on one small naval vessel.

The Japanese side only sustained damage to a few of its aircraft, which were marked by bullets.

At 1030 on 6 March, at a point about 13°S 109°E, the Carrier Task Force separated into the main unit ([consisting of] the 1st Carrier Division, the 3d Battleship Division 1st Section, the 8th Cruiser Division, the *Abukuma* and six destroyers) and the detached unit ([consisting of] the 2d Carrier Division, the 3d Battleship Division 2d Section and four destroyers), sailed eastward intending to clear the remnants of the enemy, but spotted none.⁽¹⁴¹⁾

On the early morning of 7 March, the detached unit bombed and destroyed [enemy] ground facilities (the telegraph station, pier[s] and oil tank[s]) on Christmas Island for about twenty minutes. The enemy raised a white flag, which led the force to think that the island could easily be captured with a small force. On that day, the aircraft unit of the *Sōryū* sank two armed merchantmen at a point about ninety nautical miles 300° [WNW] of Christmas Island.⁽⁷¹⁾ After that, neither the main unit nor the detached unit spotted any enemy; at 1030 on the 11th, the Carrier Task Force returned to Staring Bay without incident.⁽¹⁴¹⁾

Earlier, when changing anchorages at Palau, the *Kaga* had hit an uncharted reef in the east waterway and sustained minor damage to her hull, which caused some leaks. The vessel had participated in the first and the second carrier operations after emergency repairs conducted by her crew. However, as a result of an examination of her bottom on her return to Staring Bay on 11 March after the second carrier operation, it was decided that, since the damage was serious enough to raise concern about her participation in the attack on Ceylon, she should return to mainland Japan for a while for repairs. As of 13 March, she was removed from the Carrier Task Force and transferred to the guard unit.

The Main Body of the Southern Task Force Destroys Enemy Vessels [on the Waters] South of Java (See Illustrations No. 50 and No. 51)

On the early morning of 1 March, the main body of the Southern Task Force reached the waters about seventy nautical miles south of Cilacap, after which, it gradually pushed southward while cruising from east to west on the waters south of Java (as previously told [pp.475-76]). The military gains reported on that day were four merchantmen, who were sunk,⁽⁵⁸⁾ one ship, who was set ablaze, and another, who was captured. On the morning of 2 March, the *Hayashio* captured a Dutch ship (1,100 ton). As of the noon that day, the location of [the main body of] the Southern Task Force was about three hundred nautical miles south of Cilacap. At 1340, the chief of staff of the force sent the following telegram concerning the subsequent operation schedule:⁽¹⁴¹⁾

From: Chief of Staff of the Second Fleet

To: The Dutch East Indies Unit (minus the Supply Unit), the Air Unit, and the Carrier Task Force
Second Fleet Classified Telegram No. 63 ([at] 1340, [on] 2 March 1942)

1. The main body of the Southern Task Force ([consisting of] the 4th Cruiser Division (minus the *Chōkai*), the 4th Destroyer Division 1st Section) shall operate on the waters south of Java, and after passing a point about 160 nautical miles 196° [S] of Bali at 1000 on the 3d, it shall reach a point about one hundred nautical miles 150° [SE] of Cilacap at 0800 on the 4th, to act in concert with the attack to be conducted by the Carrier Task Force.
2. The oiler *Tōei-maru* [A] and the [destroyer] *Hayashio* shall join the main unit at a point around 160 nautical miles 204° [SSW] of Bali at noon on the 3d, and follow in the wake of the unit.
3. Since the ships captured in our area (most of which will be provided with a crew, sail our naval flag and hoist anti-aircraft identification marks (the national flag)) will be sent to Bali or Makassar, see to it that they will not be attacked.

After having sent this telegram, [the Southern Task Force] received a report from the land-based air unit that two enemy destroyers had been spotted at a point about three hundred nautical miles southwest of Bali and one [enemy] light cruiser about one hundred nautical miles to their south. On receiving this report, Southern Task Force Commander Vice Admiral Kondō gave orders to the *Atago* and the *Takao* to go in hot pursuit of the enemy light cruiser, and to the *Maya* and the 1st Section of the 4th Destroyer Division to go in pursuit of the enemy destroyers, and destroy them.⁽⁶⁸⁾

In accordance with the order, the *Atago* and the *Takao* sailed south at twenty-six knots bearing 130° [SE], searching for the enemy. At 2200, at 15°38'S 113°13'E, they spotted at about 18,000 meters at 73° [ENE] the silhouette of a vessel, which looked like an enemy [vessel] that gradually approached them. After taking a good look, she was identified as a U.S. *Marblehead*-class* cruiser; at 2225, with their searchlights on, they opened fire at the enemy at a range of 5,200 meters, and sank her at 2232. Although the enemy was seen to have fired from her aft turrets during the artillery duel, it was unclear where her shells had landed.⁽¹⁶²⁾ In the meantime, the *Maya* and the 1st Section of the 4th Destroyer Division hotly pursued the enemy destroyer (the British destroyer *HMS Stronghold*). At 1912, first of all the *Maya* opened

* She actually was the destroyer *USS Pillsbury*. The mistake is understandable as both the *USS Marblehead* and the *USS Pillsbury* were four-stackers.

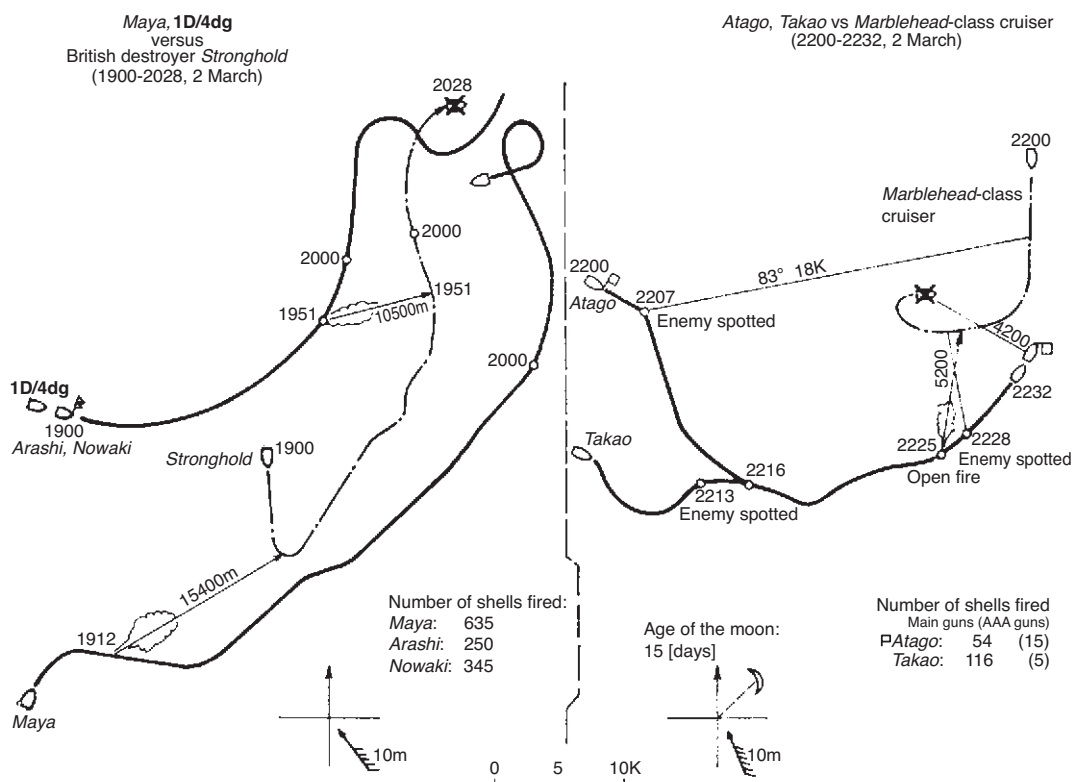


Illustration No. 50 — The Engagements with a British Destroyer and a U.S. Cruiser

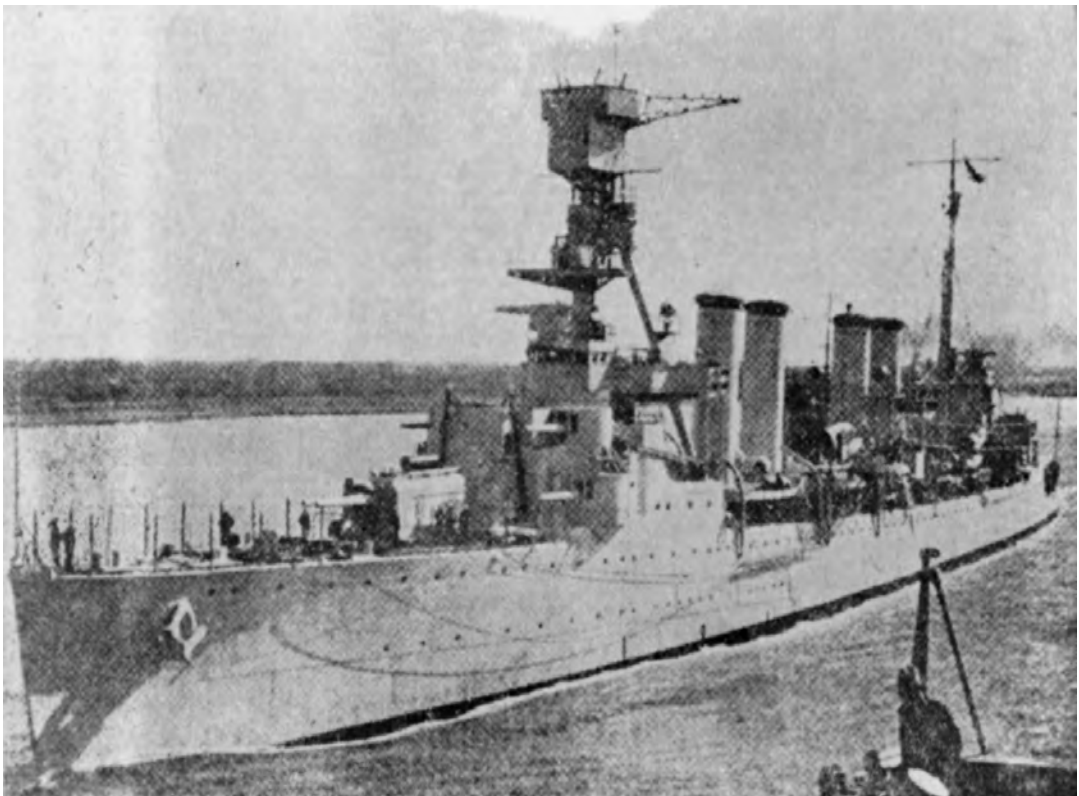
fire at a range of 15,400 meters, and then the 1st Section of the 4th Destroyer Division at a range of 10,500 meters at 1951. They sank her at 2028.⁽¹⁶²⁾

At 1000 on 3 March, the main body of the Southern Task Force reached a point about 160 nautical miles 196° [S] of Bali, and changed course westward. At 1036, the 1st Section of the 4th Destroyer Division caught up with the U.S. Gunboat *USS Asheville*, opened fire at a range of 8,500 meters, and sank her at 1108. Around noon that day, the main body joined the *Tōei-maru* and the *Hayashio*, who had operated separately, and carried out a refueling at sea.⁽⁶⁸⁾

At 0800 on 4 March, the main body of the Southern Task Force was cruising around 280 nautical miles 170° [S] of Cilacap, and from 0740 until around 0900, it sank one Australian sloop, one British oiler, one British merchantman and one British minesweeper.⁽⁶⁸⁾ Meanwhile at 1620, the *Arashi* seized an armed Dutch merchantman (7,089 tons, carrying about 250 marines and about 250 sailors called "cadets"), which the land-based air unit had spotted and reported.⁽¹⁶³⁾ Further at 2030, the *Atago* seized another Dutch ship (1,030 tons).⁽⁶⁸⁾ As of that day, the main body of the Southern Task Force completed the carrier [operation] on the sea to the south of Java, and returned to Staring Bay at 1305 on 7 March without incident.⁽⁶¹⁾



The Cruiser Atago



The U.S. Cruiser USS Marblehead

The Actions of the [Land-Based] Air Unit

The major operations carried out by the 1st Air Raid Unit were as follows:^(71, 81) (The military gains [cited below] are those that were reported.)

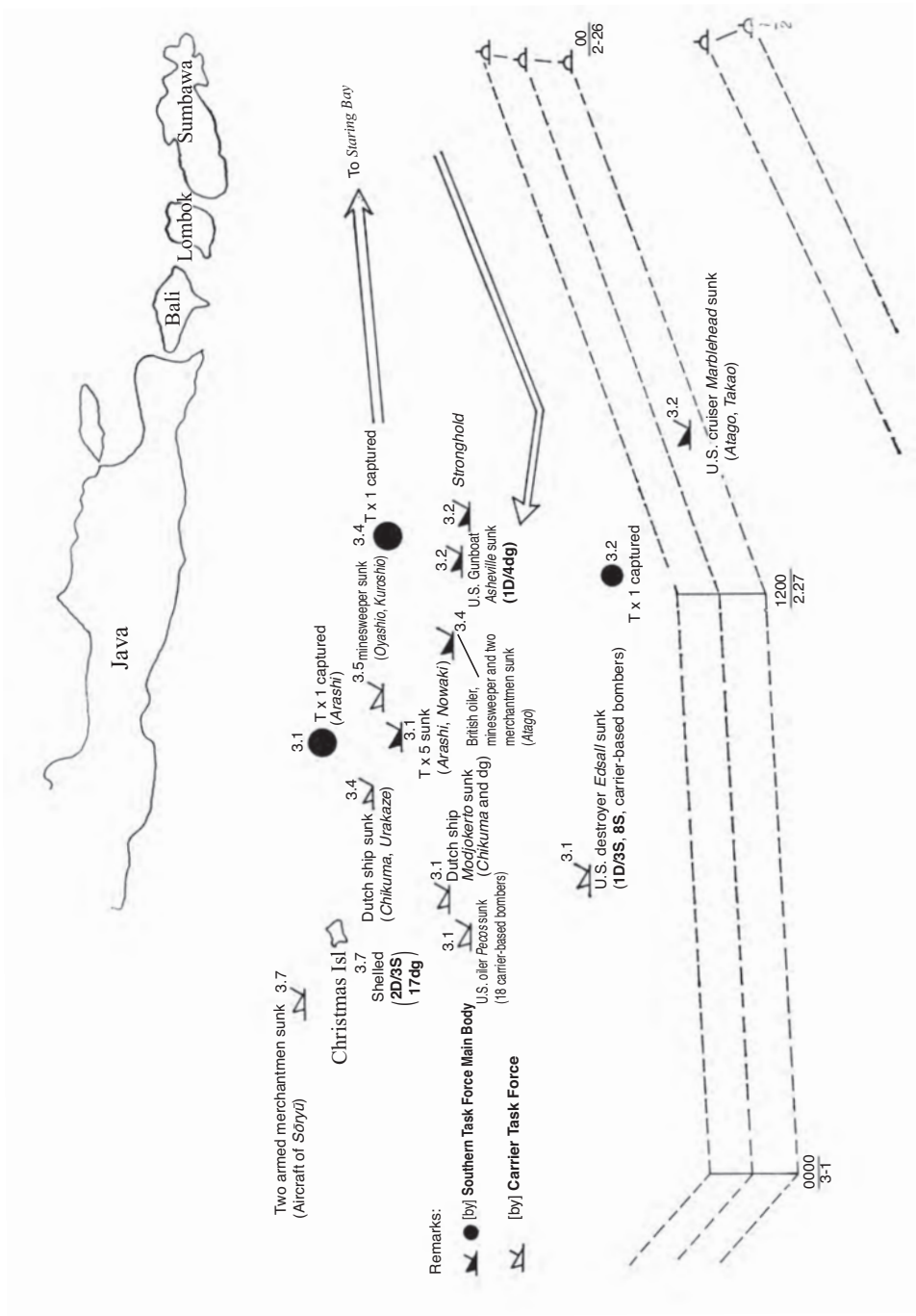


Illustration No. 51 — The Military Gains in the Carrier Operation [on the Waters] South of Java*
*The allied ships lost and their particulars may be found in the List of Shipwrecks in March 1942
(https://en.wikipedia.org/wiki/List_of_shipwrecks_in_March_1942).

- 1 March:** Twenty-seven land-based attack planes of the Kanoya Air Group conducted an attack on [enemy] cruisers in the Surabaya area. [Having spotted no cruisers], they inflicted damage on two destroyers, two submarines, two special service vessels and one merchantman.
- 3 March:** One land-based reconnaissance plane and nine Type-0 fighter planes of the 3d Air Group Detachment raided Broome ([on] the northern coast of Australia), brought down four [enemy] aircraft and set twenty-four aircraft [on the ground] ablaze; two Type-0 fighter planes did not return (of which one crew was rescued on the 21st). [Another] land-based reconnaissance plane and eight Type-0 fighter planes of the 3d Air Group Detachment carried out an attack on Wyndham ([on] the northern coast of Australia), set ablaze one [enemy] transport plane, one hangar, and six hundred drums.
- 4 March:** One land-based reconnaissance plane and nine Type-0 fighter planes conducted a reconnaissance attack on Port Darwin, and set five bombers ablaze; four of Japanese aircraft were marked by bullets.

During these days, the Tōkō Air Group conducted a search mission over the waters up to six hundred nautical miles southwest of Kupang as well as patrolling the surrounding areas, while the 3d Air Group Detachment patrolled in the air above Kupang, but spotted almost no enemy. On 5 March, the 21st Air Flotilla headquarters and the Kanoya Air Group were transferred to the Northern Task Force; they left Kendari at 0830 for Kasumigaura.

[Meanwhile,] the major operations carried out by the 2d Air Raid Unit were as follows:⁽⁷¹⁾ (The military gains [cited below] are those that were reported.)

- 1 March:** Seven land-based attack planes of the Takao Air Group carried out an attack on the Blimbing airfield ([in] eastern Java) and inflicted damage on fourteen P-40s and five Buffalo fighter planes [on the ground]. [Another team of] seven land-based attack planes [of the group] carried out an attack on the Yogyakarta airfield and set two large aircraft ablaze and blew up one large aircraft. [One element of] twenty-five Type-0 fighter planes (in five shifts) of the Tainan Air Group on patrol in the air over the convoy [against enemy aircraft] also spotted enemy aircraft on the Blimbing airfield and inflicted damage on one twin-engine aircraft and more than a dozen fighter planes. Also, six Type-0 fighter planes of the 3d Air Group [went for] an attack on Blimbing, while providing cover to the land-based attack plane unit, carried out an attack and inflicted serious damage on seven P-40 fighter planes and three Buffalo fighter planes.
- 2 March:** Fourteen land-based attack planes of the Takao Air Group carried out a bombing attack on the Yogyakarta airfield, set two large aircraft ablaze and blew up two other large aircraft. Nine Type-0 fighter planes of the Tainan Air Group carried out an attack on a reconnaissance seaplane base to the north of Malang, blew up one four-engine flying boat, two twin-engine flying boats, and one [single-engine] flying boat, while six [other] Type-0 fighter planes of the group conducted an attack on Yogyakarta and Malang and blew up two twin-engine aircraft.
- 3 March:** Twenty-four land-based attack planes of the Takao Air Group carried out an attack on the Bandung airfield and set two aircraft ablaze. Six Type-0 fighter planes of the Tainan Air Group attacked Cilacap and set one PBY flying boat ablaze, while twelve [other] Type-0 fighter planes of the group carried out an attack on Bandung and brought down one P-40 fighter plane and blew up eight aircraft [on the ground]. Twelve Type-0 fighter planes of the 3d Air Group provided cover for the units carrying out a bombing on the Bandung [airfield], and also blew up seven large and two smaller aircraft.

4 March: Twenty-three land-based attack planes of the Takao Air Group carried out an attack on the naval vessels at anchor in the port of Cilacap, sank four merchantmen and one cruiser, while destroying five merchantmen.

From 5 March onwards, [the Air Unit] spotted almost no enemy, except for a few merchantmen and submarines [on the waters] near Java, and by 9 March, no enemy was in sight. During this period, the Takao Air Group carried out search missions in the Indian Ocean day after day, whereas the Tainan Air Group and the 3d Air Group busily patrolled in the air over the convoy anchorage as well as over the Bali base while providing cover for the land-based attack plane units to attack [enemy] airfields.

The 3d Air Raid Unit from 1 March onwards also day after day carried out search missions in the eastern parts of the Indian Ocean as well as on the waters south of the Sunda Strait, reconnaissance attacks in western Java, a reconnaissance over the Cocos Islands, and attacks on Christmas Island, while conducting patrols in the air over Patrol as well as over the convoy. In the attack on Bandung on 4 March, twenty-five land-based attack planes of the Kanoya Air Group made a sortie and reported having inflicted damage on eight large, four mid-sized and four small aircraft as well as setting ablaze one hangar. Meanwhile, the main body of the Kanoya Air Group was transferred to the Northern Task Force as of 5 March and took off from the Gelumbang base [first] for the Thủ Dầu Một base to head back for Tokyo Bay. Also, the Genzan Air Group moved to Saigon from the 7th to the 10th of March, in order to participate in the operations in the Burma area.⁽⁷¹⁾

As for the Mihoro Air Group of the Malaya Unit, it put five of its Type-96 carrier-based fighter planes under the command of 22d Air Flotilla (3d Air Raid Unit) Commander R. Adm. Matsunaga Sadaichi on 4 March and advanced them to Kalijati, leaving Gelumbang at 0915. Although one of them was seriously damaged at the time of the advance, the fighter plane unit actively conducted patrols in the air over the convoy from Kalijati, and then headed for the Penang base on the 6th by way of Mentok.⁽¹³⁵⁾ Four land-based attack planes, which had been dispatched [from the air group] to Sungai Petani as well as the land-based attack plane unit of the Mihoro Air Group, which had been stationed at the Kuantan base, also presumably moved to the Penang base on the 6th.

[In the meantime,] the major operations of the 1st Air Group (the 12th Seaplane Tender Division) were as follows.

At 0400 on 1 March, 3d Escort Unit Commander Rear Admiral Hara reported the successful landing in the Patrol area. On receiving this report, 1st Air Unit Commander R. Adm. Imamura Osamu sent an order to the Toboali Base Commander: “[They] successfully landed. Promptly advance [the aircraft].”⁽¹²²⁾ Accordingly, all aircraft stationed at the Toboali base left by 1115. Three Type-0 observation seaplanes and one Type-0 reconnaissance seaplane each of the *Kamikawa-maru* and the *San'yō-maru* arrived in Bantam Bay one after another a little after noontime and provided guard against enemy submarines at the anchorages in Bantam Bay as well as for Merak.⁽⁵⁵⁾ At 1905, [a] Type-0 reconnaissance seaplane of the *Kamikawa-maru* spotted a periscope on the waters southwest of St. Nicholas Point [Tanjung Pujut], carried out a bombing and scored a direct hit. Following that, [a] Type-0 observation seaplane of the *San'yō-maru* also attacked the submarine and scored a direct hit. Then they dropped a smoke marker to guide two friendly destroyers and have them attack the submarine, judging that fatal damage had been inflicted. Since no location along the coast of Bantam Bay was

found suitable for a base, [the unit] narrowly managed to set up a base by the evening on an uninhabited island in the western part of the bay.

However, because the base did not have adequate space to set up a camp, [the personnel] slept in an enemy gunboat which had run aground on the island. Since the sea was calm and had an appropriate depth, the place was about fit for use.

In the meantime, two Type-0 observation seaplanes each of the *Kamikawa-maru* and the *San'yō-maru* advanced to the Patrol area as well to provide guard over the convoy anchorage against enemy submarines. During that time, they fought off frequent raids by enemy fighter planes. However, enemy strafing set ablaze one Type-0 observation seaplane that was in the middle of refueling and inflicted damage on another which made it unable to fly. Since also the waves were high at Patrol, which made it difficult to set up a base there, the remaining two Type-0 observation seaplanes called off the use of the Patrol base and shifted to the Bantam base.⁽¹²²⁾

Thereafter, the 1st Air Unit provided every day direct guard over the anchorage against enemy aircraft as well as submarines. On the 2d, the unit reported having sunk three enemy submarines and driven back enemy bombers, which had come for a raid. On the 4th, at the request of the Army, the unit provided support for the ground combat, in which it bombed enemy strongholds and attacked [enemy] tanks. Meanwhile, the *Kamikawa-maru* and the *San'yō-maru* had left Anambas at 1900 on the 2d and put in at Bantam Bay at 1130 on the 5th. Although the *Kamikawa-maru* had been removed from the Dutch East Indies Unit and transferred to the Malaya Unit on the 4th, she continued her operations.⁽¹²²⁾ On that day [the 4th], at 1420, the oiler *Erimo* (14,050 tons) was sunk by enemy torpedo attacks at 4°S 108°E; reconnaissance seaplanes of the *Kamikawa-maru* and the *San'yō-maru* were dispatched to reconnoiter the situation and neutralize the enemy submarines, but they spotted no enemy. From that time on, neither enemy aircraft nor submarines were spotted either in Bantam Bay or [near] Patrol.⁽⁵⁵⁾

On the 8th, Southern Task Force Commander Vice Admiral Kondō removed the *Kamikawa-maru*, which he had earlier transferred to the Malaya Unit, from the Malaya Unit, and transferred the *San'yō-maru* to the unit instead.⁽⁵⁵⁾ On that day, the *Kamikawa-maru* left Bantam Bay for Singapore (and put in at Seletar on 11 March). The *San'yō-maru*, who was at anchor in Bantam Bay until the 10th, participated in the Andaman operation from the 22d. [Meanwhile] it was decided that the *Kamikawa-maru* should operate as designated by the Fourth Fleet commander in chief; she headed for the southeastern theater.⁽⁶³⁾

The 2d Air Unit (the 11th Seaplane Tender Division), which was operating on the waters near the west coast of Bawean Island on 1 March (as previously told [p. 458]), set up a base at Karangdawa about three nautical miles west of Cape Awarawar on the 2d.⁽⁷¹⁾ Thereafter, the *Chitose*, the *Mizuho* and the aircraft of the *Sanuki-maru* day after day provided guard in the air above the convoy, and conducted patrols against enemy submarines as well as search missions over the Java Sea, while [also] supporting the ground combat. The military gains the unit reported in the Surabaya invasion operation were as shown in the following table.⁽⁷⁹⁾

Participating Forces	Number of Sorties in Total	Number of [Enemy] Aircraft Shot Down	Number of [Enemy] Aircraft Destroyed	Number of [Enemy] Vehicles Destroyed	[Enemy] Naval Vessels
11th Seaplane Tender Div	643	3	19	About 21	Rendered 1 Destroyer abandoned; sank 1 merchantman and destroyed another; destroyed 2 submarines, the latter was unconfirmed
<i>Sanuki-maru</i>	77	1	0	0	0

In this period, on the 4th, the *Mizuho* sailed to Kendari to repair her hull and engine; after she underwent maintenance until the 9th, she headed back for the Surabaya area. After the overall surrender of the Dutch East Indies on the 9th, the 2d Air Unit put in at Kragan on the 12th, dismantled the Karangdawa seaplane base and left Awarawar at 2000 for Makassar, where the unit put in at 1130 on the 14th.⁽¹⁶⁹⁾ The aircraft unit of the *Sanuki-maru* presumably returned to the *Sanuki-maru* at anchor in Balikpapan on 12 March.

As for the 4th Carrier Division, it had reached a point to the north of the Karimata Strait on the morning of 1 March⁽⁷²⁾ and supported the 5th Cruiser Division's attack on the enemy cruiser unit [*HMS Exeter*, p. 445, 461]. Then on the 2d and the 3d, it carried out search missions in the western parts of the Java Sea, in the Karimata Strait as well as in the coastal areas of northern Java, while searching for remnant [enemy] vessels [in] Cilacap, and reported military gains of having sunk one 6,000t-class merchantman, and having two 500-ton class merchantmen run aground.⁽⁷¹⁾ Then in accordance with the telegraphic order of the Southern Task Force issued at 2040 on the 3d that [the 4th Carrier Division] should be removed from the Dutch East Indies Unit and transferred to the Malaya Unit as of 5 March,⁽⁵³⁾ the division left the western part of the Java Sea that night for Singapore, and put in at the port on 5 March.⁽⁷²⁾

The Engagements of the Army Air Units⁽¹¹⁷⁾

At 2000 on 28 February, [Army] Third Air Force Commander Lt. Gen. Sugawara Michiō had given orders to the 12th Air Division and the 3d Air Division that the former should cover the sailing of the convoy and provide guard over the anchorages against enemy aircraft, while the latter should from 1 March onwards mainly provide direct support to the operations of the main force of the 2d Division and the Shōji Detachment. In accordance with these orders, the 12th Air Division took charge of providing anti-aircraft guard over the anchorages with a total of fifty-five aircraft on 28 February, a total of ninety aircraft on 1 March and a total of seventy-four aircraft on the 2d. From the 3d onwards, the division provided anti-aircraft guard over the Merak and Bantam Bay anchorages with its main force, while guarding the Palembang refineries from the air.

Meanwhile on 1 March, the 3d Air Division directly supported the engagements of the 2d Division and the Shōji Detachment with its full force. Upon the seizure and conditioning of the Kalijati airfield by the Shōji Detachment on 2 March, the 3d Air Division commander

advanced one element of the 59th Air Group and the main force of the 27th Air Group, which was followed by the advance of the main force of the 3d Air Division to the airfield as early as on the 3d. On that day, [the air division] carried out attacks on mechanized enemy units coming for a counterattack toward the airfield, destroyed and set ablaze the major part of it, and completely crushed the intentions of the enemy [Vol. 3, p. 513, 521]. From the 4th onwards, the air division supported the engagements of the Shōji Detachment with its main force and those of the 2d Division with one element, while carrying out attacks on the airfields near Bandung, thereby facilitating the Shōji Detachment's charge toward Bandung.

The Eastern Java Units Clear [the Sea of] the Enemy

At 0235 on 1 March, the 1st Escort Unit led the convoy carrying the main force of the 48th Division into the Kragan anchorage with the direct support of the 5th Cruiser Division unit and the 2d Destroyer Squadron unit, and the army unit successfully made its first landing at 0400. After that, the surface unit mainly engaged in guarding near the anchorage of the convoy as well as watching the area at the north entrance of the port of Surabaya, ready against escaping enemy vessels. At that time, no chain of command existed between the 1st Escort Unit Commander (4th Destroyer Squadron Commander Rear Admiral Nishimura) and 2d Destroyer Squadron Commander Rear Admiral Tanaka; the 2d Destroyer Squadron unit [simply] supported the 1st Escort Unit.

At 0405 on 1 March, the *Natsugumo* of the 9th Destroyer Division spotted an enemy torpedo boat and fired at the latter using her searchlights, but she was not able to sink the boat. At 0605, again an enemy torpedo boat intruded into the anchorage; the *Murasame* of the 2d Destroyer Division immediately responded by firing at the boat but the enemy escaped, spreading a smoke screen.⁽⁶²⁾ Following the persistent [air] raids of the previous night, on this day again from around 0735 onwards ten four-engine bombers and more than a dozen enemy fighter planes raided the anchorage of the convoy. Although the fighter planes repeatedly strafed the convoy and the landing craft from a low altitude for about twenty minutes, fortunately no damage was sustained. At 0815, right after the enemy fighter planes had left the scene, nine friendly observation seaplanes and two Type-0 fighter planes finally appeared in the sky over the convoy.⁽⁶²⁾

At 1120, the 4th Destroyer Squadron commander received orders from Dutch East Indies Unit Commander Takahashi that he should take the 2d Destroyer Squadron commander under his command regarding the guarding [of the waters] surrounding the anchorage of the transport ships off Kragan.⁽⁶²⁾ In line with this order, 4th Destroyer Squadron Commander ([and] 1st Escort Unit Commander) Nishimura gave orders to assign the guarding of the waters to the west of 112°E to the 4th Destroyer Squadron and the 2d Base Force, while that of the waters to the east of 112°E to the 2d Destroyer Squadron.⁽⁵³⁾ It was around that time that the 5th Cruiser Division spotted the enemy cruiser and two destroyers to the west of Bawean Island. (The daylight engagement on 1 March.)

On that day, the following enemy raids occurred:^(53, 62)

0935: The *Jintsū* spotted two wakes of enemy torpedoes at 100° starboard* and evaded them; the 1st Section of the 8th Destroyer Division guarding the patrol area conducted an attack

* In the Action Report of the 2d Destroyer Squadron: *port*.

with depth charges at the point where the torpedo wakes had started. However, in the subsequent search no clues were detected, and the section reported having almost certainly sunk [the enemy] ([at] forty-eight nautical miles 230° [SE] of Bawean Island).

1343: Enemy aircraft raided and bombed the convoy anchorage but inflicted no damage.

2223: The *Jintsū* spotted a surfaced enemy submarine; the *Amatsukaze* and the *Hatsukaze* immediately pursued and attacked her with depth charges, but the results were unclear ([at] forty-eight nautical miles 230° [SE] of Bawean Island).

2332: The *Natsugumo* and the *Minegumo* detected an enemy submarine and attacked her; having spotted oil and air bubbles welling up, they reported the results as certain ([at] the outer area of the convoy anchorage).

The small-scale minesweeping, which had been conducted on that day from early morning onwards, made smooth progress; it was roughly completed in the morning with no mines snagged. By sunset, the convoy completed shifting its anchorage to the second anchorage (an anchorage closer to the shore). Meanwhile at 2305, the *Tomozuru* of the 21st Torpedo Boat Division put in at Kragan from Banjarmasin without incident, escorting the *Sasako-maru* carrying the Sakaguchi Detachment on board.⁽⁶²⁾

The situation on 2 March was as follows:^(53, 62)

0438: The *Jintsū* spotted a surfaced enemy submarine; the *Yukikaze* and the *Tokitsukaze* headed for an attack but since she submerged at a point 1,000 meters* from them, the result of their depth charge attack was unclear ([at] fifty nautical miles 235° [SW] of Bawean Island).

0532: The *Tokitsukaze* spotted a surfaced enemy submarine. As she was approaching, the enemy submerged at a point 5,500 meters from her. She conducted a depth charge attack, but with unknown results.

0655: The *Yukikaze* spotted an enemy submarine which was about to submerge and conducted a depth charge attack, but with unknown results ([at] thirty-four nautical miles 200° [SSW] of Bawean Island).

2040 The *Yukikaze* spotted a surfaced enemy submarine, but the enemy submerged shortly. She conducted a depth charge attack but with unknown results ([at] thirty-one nautical miles 233° [SW] of Bawean Island).

On that day, the aircraft of the *Naka* took off at 1250 for a search mission over the outer sea areas of the anchorage ranging from the north entrance of the port of Surabaya to Bawean Island to the Karimunjawa Islands, but spotted no enemy. At 1540, 1st Escort Unit Commander Nishimura reported the progress of the disembarkation of the transport ships to the chief of staff of the Third Fleet: "The disembarkation of the Army transport ships in our area has been making very smooth progress. It is expected that [the disembarkation of] about fifteen ships will be completed by tomorrow evening, the 3d, and that of the remaining ships by around the 6th."

The situation on 3 March was as follows:

2002 The *Jintsū* spotted a surfaced enemy submarine. The *Amatsukaze* headed for an attack; at 2026, at a range of 2,000 meters, she started firing at [the submarine] using her searchlights and scored a number of hits. Then she carried out a depth charge attack at the center of the spot where oil and bubbles were welling up and spreading all over the area, and reported

* In the Action Report of the 2d Destroyer Squadron: 10km.

having sunk [the enemy submarine] with certainty. While engaging with this enemy, she spotted the wake of a torpedo and evaded it. ([at] forty-one nautical miles 234° [SW] of Bawean Island)

2105 Having detected a submerged [enemy] submarine, the *Yūdachi* carried out a depth charge attack, spotted flames and black smoke arising, and reported the result as certain ([at] 700 meters 333° [NW] of Cape Petokol).

On that day, the aircraft of the *Naka* took off to guard the outer sea area of the convoy anchorage and the north entrance of the port of Surabaya but spotted no enemy other than [one] patrol boat of about 200-ton [along] the west coast of the north entrance channel. Meanwhile, the destroyers took turns heading for Banjarmasin for replenishment.⁽⁵³⁾

At 1100 on 4 March, 1st Escort Unit Commander Nishimura sent the following telegram to the chief of staff of the Third Fleet after having discussed with the Army side the escort of the transport ships after their disembarkation had been completed:⁽⁶²⁾ "Since the disembarkation of the Army transport ships in our area has made such smooth progress that it is likely that everything will be completed by the end of the 6th, it was decided in principle that the ships should [be sent back] to mainland Japan by way of Saigon, and that one element should directly sail to Gaoxiong after sailing part of the route along with the others. Therefore, we would like you to know that we have agreed that our unit shall directly escort the above convoy until it passes through the Karimata Strait and that indirect escort shall be provided thereafter." On that day, aircraft of the *Jintsū* searched for the enemy on the waters nearby, but spotted no enemy other than one patrol boat at the north entrance of [the port of] Surabaya, and it was judged that most of the enemy surface vessels had been destroyed. However, enemy submarines were still considered to be around. Concerning [the mission of] destroying [enemy] submarines, the 1st Escort Unit received the following telegram.⁽⁶²⁾ (Third Fleet Classified Telegram No. 638)

Putting together the statements of a captured U.S. submarine captain, we may conclude that British, Dutch and U.S. submarines are crowding near our landing points in an unorganized way, and that, moreover, due to their prolonged operations ([for example,] the submarine *USS "Baachi,"** which was sunk on 21 January, had replenished only once at Balikpapan, after having left Manila on 11 December), their fighting power has remarkably deteriorated. Although we are more than aware that the crew of our destroyers and lesser vessels are exhausted from prolonged engagements for days and nights on end, taking this opportunity, I would like you to more aggressively hunt enemy submarines, thoroughly carry out attacks until their sinking is confirmed, and thereby produce adequate military gains. Moreover, it seems that U.S. submarines [usually] surface some (illegible) hours after sunset and their battery charging would finish in four or five hours. In such a case, conducting clearing operations at night will be a particularly effective method.

Also, 2d Destroyer Squadron Commander Tanaka expressed his views as to [the mission of] destroying [enemy] submarines in his action report of 12 March in the following way:

* Probably *USS Perch* is meant. However, she was not sunk on 21 January, but scuttled by her crew on 3 March near Bawean Island after having been badly damaged by Japanese depth charges on 1 March. Her entire crew was captured by the Japanese. See: [https://en.wikipedia.org/wiki/USS_Perch_\(SS-176\)](https://en.wikipedia.org/wiki/USS_Perch_(SS-176))

1. In the mission to completely destroy enemy submarines in this operation, we were able to achieve phenomenal results because the dispositions of the clearing units were appropriate, the [bright] moonlight made it easy to spot enemy submarines at an early stage, the enemy was totally exhausted from our clearing [operations] carried out for days and nights on end, and because the power of the depth charges was enhanced due to shallowness of the waters. It was very efficient to relentlessly conduct day and night attacks on "enemy submarines that would gather to get their prey in sight," and, above all, to carry out rapid clearing operations around one hour after sunset, when they would surface.
2. It seemed that the enemy submarines swarmed around without any direction, simply taking aim at our convoy. It did not look like an organized deployment. On top of that, their skills in launching torpedoes were poor; the torpedo wakes were obvious (like those running on compressed air) and their speed was thought to be about thirty-five knots at best.

This is also evident from the fact that since the opening of hostilities no enemy torpedoes have hit [Japanese] naval vessels sailing at high speed (sixteen knots or more).

If we sail at an appropriate speed, appropriately use a [destroyer] screen and take appropriate evasive actions, I consider it easy to force our way through waters where so far enemy submarines have appeared and are likely to be hiding underwater.

At 0415 on 5 March, the *Tokitsukaze* of the 16th Destroyer Division, who was on her way back to her patrol area after refueling at Banjarmasin, came under a torpedo attack by an enemy submarine at a point eighteen nautical miles 300° [WNW] of Bawean Island. She promptly evaded the attack and carried out a depth charge attack. When she spotted a large amount of heavy oil and many bubbles welling up, she reported having confirmedly sunk the submarine.⁽⁵³⁾ At 0630 1st Escort Unit Commander Nishimura received the following telegram from Dutch East Indies Commander Takahashi.⁽⁵⁶⁾⁽⁶³⁾

Third Fleet Classified Telegram No. 643

1. After putting together various kinds of information, it seems that as a result of the recent engagements, the enemy fleets in the Dutch East Indies area have all been destroyed except for some of the smaller vessels.
2. All units shall continue their previous tasks other than [those specified] below and particularly strive to completely destroy enemy submarines and capture enemy vessels:
 - (a) The main unit (the *Ashigara* and the 1st Section of the 7th Destroyer Division) shall leave the site on the night of 4 March and put in at Makassar on 5 March.
 - (b) The 5th Cruiser Division shall sail to Makassar after replenishment.
 - (c) The 1st Base Force commander shall sail to the Batavia area leading the *Nagara*, the *Tsukushi*, the 2d Subchaser Division, the 21st Minesweeper Division (minus Minesweepers No. 11 and No. 12) and the 21st Subchaser Division and put himself under the command of the 3d Escort Unit commander.
 - (d) Submarine Chaser No. 1 shall sail to Makassar to take charge of guarding the place.
 - (e) The 8th Destroyer Division (minus the *Ōshio* and the *Michishio*) and the 21st Destroyer Division (minus the *Hatsuharu*) shall continue their previous tasks under the command of the 8th Destroyer Division commander.
 - (f) The 4th Destroyer Squadron commander shall continue his previous tasks leading the 2d Destroyer Squadron and the forces of the 2d Base Force operating near Kragan, while watching the northern channel of Surabaya.
 - (g) The 11th Seaplane Tender Division commander shall support the 4th Destroyer Squadron commander with one element of his force in watching enemy vessels evacuating from Surabaya.



The Miserable State of the Port of Surabaya at the Time of the Invasion

On that day, aircraft of the *Naka* searched the vicinity for the enemy, but spotted none, other than one patrol boat near the mouth of the bay.⁽⁶²⁾

On 6 March, no enemy was spotted in either the patrol areas or the convoy anchorage. On that day, 1st Escort Unit Commander Nishimura sent [the following] telegram about the schedule of the return of the transport ships: "It was decided in the talks with the Army that the Army transport ships in our area should leave Kragan on the morning of the 8th and pass through the Karimata Strait, and that the major part of them should return to mainland Japan by way of Saigon, while one element should sail to Gaoxiong or Singapore." Along [with this telegram], he issued the 1st Escort Unit Order concerning the escort of the convoy.⁽⁶²⁾

At 1430 on 7 March, 1st Escort Unit Commander Nishimura sent the following telegram to 2d Destroyer Squadron Commander Tanaka and 2d Base Force Commander Hirose Suétó:⁽⁶²⁾

1. I shall leave the anchorage at 0900 on the 8th leading the 1st Escort Unit (4th Destroyer Squadron (minus the 4th Destroyer Division, the 24th Destroyer Division, the *Asagumo* and the *Yamagumo*), the 11th Minesweeper Division, Minesweeper No. 20, the 31st Subchaser Division (minus Submarine Chaser No. 11)) to escort the transport convoy of thirty-nine ships up to the north entrance of the Karimata Strait, except for the *Tokushima-maru*, who was beached due to leaks and will be left behind under a guard. I shall return to Kragan on the morning of the 13th. During my absence, the 2d Base Force commander and the 2d Destroyer Squadron commander shall cooperate with each other and continue the tasks given in Dutch East Indies Unit Classified Telegram No. 643.
2. The three Army transport ships to be sent to Balikpapan shall be escorted by naval vessels designated by the 2d Base Force commander.

On that evening, a report came from 11th Seaplane Tender Division Commander Rear Admiral Fujita, "One element of the main force of our Army charged into Surabaya at 1550 and seized one half of the city (reconnoitered by aircraft)."⁽⁶²⁾ The guard against escaping [enemy] naval vessels was tightened, but nothing unusual was spotted.

At 0900 on 8 March, the 1st Escort Unit left the Kragan anchorage for the Karimata Strait escorting thirty-nine transport ships returning to mainland Japan. On that day, no enemy was spotted either in the Kragan anchorage or in the patrol areas to the north of Surabaya.

At 0230 on 9 March, the 8th Destroyer Division commander guarding the waters near Bali reported having sunk one enemy minesweeper (attacked by the *Arashio*), and requested 2d Destroyer Squadron Commander Tanaka to dispatch one destroyer for guarding the Bali channel. At 0400, the [2d Destroyer Squadron] commander hurriedly dispatched the *Hatsukaze*, who was patrolling her [assigned] patrol area, to the north entrance of the Bali channel, while he had the *Tokitsukaze* at the Kragan anchorage leave the anchorage area to be deployed at Patrol Area A.⁽⁵³⁾ In the meantime, considering the enemy movements in the Bali area, the commander of the 1st Escort Unit, who had almost reached midpoint between Cape Putting and the Karimunjawa Islands escorting the returning transport convoy, promptly had the 9th Destroyer Division (minus the *Asagumo* and the *Yamagumo*) return to be put under the command of 2d Destroyer Squadron Commander Tanaka in order to tighten the guarding of the area. However, no enemy was spotted since then.⁽⁶²⁾ On that day, the Dutch East Indies forces on Java came to accept a general unconditional surrender, and the Combined Fleet announced the completion of the stage-one, phase-three operations.

On 10 March, judging from the unconditional surrender of the Dutch East Indies forces and other intelligence that almost no operational enemy vessels remained in the Surabaya area, 2d Destroyer Squadron Commander Tanaka offered his opinion to 1st Escort Unit Commander Nishimura that the deployment to watch the north entrance of [the port of] Surabaya and the east entrance of Madura Bay should gradually be withdrawn.⁽⁵³⁾ Meanwhile on the early morning of the 10th, 1st Escort Unit Commander Nishimura received Third Fleet Classified Telegram No. 779 (sent at 1520 on 9 March), concerning the [change of] operations of all units and vessels in consequence of the forming of the Second Southern Expeditionary Fleet, which read as follows:⁽⁶³⁾

In consequence of the reorganization of the Second Southern Expeditionary Fleet on 10 March, all units (vessels) shall operate as follows:

1. The 5th Destroyer Division and the *San'yō-maru* [shall operate] as designated by the commander in chief of the First Southern Expeditionary Fleet.
2. The *Nichiyū-maru*, the *Seian-maru*, the *Sanuki-maru*, the 30th Minesweeper Division, the 32d Minesweeper Division, and the 31st Subchaser Division [shall operate] as designated by the commander in chief of the Third Southern Expeditionary Fleet.
3. The *Kamikawa-maru* [shall operate] as designated by the commander in chief of the Fourth Fleet.
4. Other units (vessels) shall continue current tasks until a new disposition of forces is announced.
5. The following units shall be added to the disposition of forces of the Dutch East Indies Unit: Submarine Unit ([under the command of] the 6th Submarine Squadron commander): 6th Submarine Squadron
 - (a) The 13th Submarine Division and Submarine *I-23* [correctly: *I-123*] shall return to mainland Japan for maintenance as designated by the commander [of the Dutch East Indies Unit].
 - (b) Other units (vessels) shall operate as designated by the [squadron] commander.

In accordance with this telegram, 1st Escort Unit Commander Nishimura removed the 31st Subchaser Division at 0810 and also removed the 11th Minesweeper Division and Minesweeper No. 20 at 0825 from the line to return to their original units.

At 1400, at the north end of the Karimata Strait, the 1st Escort Unit commander ordered the 2d Destroyer Division to escort the convoy, which was returning to mainland Japan, up to Singapore, while he himself reversed course for the Kragan anchorage, leading the *Naka*. As of that day, the stage-one, phase-four disposition of forces [of the Combined Fleet] was put into effect as follows:⁽⁶³⁾

Southern Task Force Telegraphic Order No. 127 (issued at 1010 on 10 March)

The disposition of forces of the Southern Task Force in the Combined Fleet stage-one, phase-four disposition of forces shall remain as they are except for those mentioned below, until ordered otherwise by special order:

1. The Third Fleet shall become the Second Southern Expeditionary Fleet, and the Third Fleet commander in chief shall become the Second Southern Expeditionary Fleet commander in chief.
2. As of 12 March, the 5th Destroyer Division shall be removed from the Dutch East Indies Unit and transferred to the Malaya Unit, while the 24th Destroyer Division shall be removed from the Malaya Unit and transferred to the Philippines Unit.

Accordingly, Dutch East Indies Unit Commander Vice Admiral Takahashi issued the following order:^{(63)*}

Dutch East Indies Unit Classified Telegram No. 21 (issued [at] 2000 [on] 10 March)

1. Each base force [incorporated] in the 1st and the 3d Escort Units shall respectively return to the 2d and the 1st Base Units.
2. The 1st and the 3d Escort Unit commanders shall respectively be relieved of the command of the 2d and 1st Base Units.
3. The 1st and the 3d Escort Unit commanders shall have the forces, other than those required for the escort of Army transport ships, sail to Makassar in such a way as designated by the commander [of each force].
4. The 2d Destroyer Squadron (minus the 8th, the 15th and the 18th Destroyer Divisions) shall gradually withdraw from its deployment in watching the north entrance of [the port of] Surabaya and the east entrance of Madura Bay, and send the [deployed vessels] to Makassar.
5. The 1st Base Unit commander shall continue his previous tasks, leading his own forces as well as the forces of the 2d Base Unit in the Java Sea area (minus the 22d Special Base Force headquarters and the *Itsukushima*).
6. After handing over his current tasks, the 22d Special Base Force commander shall sail to Balikpapan via Makassar, leading the *Itsukushima*.
7. The 2d Air Unit shall dismantle its provisional base and sail to Makassar.

On 11 March, having received this order, 1st Escort Unit Commander Nishimura called off his plan to return to Kragan, changed it in such a way as to sail to Makassar after refueling at Banjarmasin on his way. He withdrew the 9th Destroyer Division from the command of 2d Destroyer Squadron Commander Tanaka and ordered the division to join the *Naka* at Ban-

* Note 63 refers to the journal of the 5th Destroyer Squadron. However, the same order is also quoted in the journal of the 2d Destroyer Squadron. Both texts differ slightly. We have followed the most likely redaction.

jarmasin.⁽⁶²⁾ All units left their patrol areas one after another for Makassar. On that day, the 2d Destroyer Squadron was removed from the Dutch East Indies Unit and transferred to the main body of the Southern Task Force, and [its divisions and vessels were told] to sail to their home ports as soon as possible for maintenance as designated by the [2d Destroyer Squadron] commander.⁽⁵³⁾

The Western Java Units Clear [the Sea of] the Enemy

With the direct support of the 7th Cruiser Division, the 3d Escort Unit had put the convoy carrying the main force of the Sixteenth Army into the Merak and the Bantam Bay anchorages at 0000, and into the Patrol anchorage at 0140 on 1 March. After having sunk two enemy cruisers who had come raiding Bantam Bay, the unit mainly guarded the waters surrounding the anchorages of the convoy. The major engagements on that day were as follows:⁽⁶³⁾

Area No. 1

1. At 0330, the 12th Destroyer Division ([consisting of] the *Shirakumo* and the *Murakumo*), patrolling Area G, spotted an enemy destroyer (*HNLMS Evertsen*) at a point about five nautical miles west of Thwartway Island [Pulau Sangiang], engaged her and scored more than a dozen hits. Sinking from the stern, the enemy threw up smoke screens and escaped into Lampung Bay. Later investigations revealed that *HNLMS Evertsen* had run aground on Sebuku Island and sunk around 1700 after huge explosions.
2. Simultaneously at 0330, the 11th Destroyer Division (the *Fubuki* and the *Hatsuyuki*) patrolling near Babi Island spotted one 5,000t-class oiler sailing south of the island, shelled and sank her.
3. At 0400 the 1st Defense Unit and the *Myōkō-maru* put a landing force on Panjang Island and seized the whole area along the coast. Also, minesweeping of Bantam Bay using large-sized motorized landing craft was carried out, but no mines were snagged as of around 0600.
4. At 1023, the *Hatsuyuki* detected an enemy submarine at a point thirty-five nautical miles 170° [SSE] of the lighthouse on Babi Island and promptly attacked her with depth charges, but the results were unclear.
5. Although the *Tsurumi* sustained some damage from a torpedo attack by [an] enemy submarine at 1355 at the mouth of Bantam Bay, she was still able to sail at slow speed and supply oil [to the other ships]. The *Natori* as well as the *Harukaze* and the *Hatakaze* of the 5th Destroyer Division attacked the submarine with depth charges, guided by aircraft of the *Natori*, and reported having sunk her with certainty.
6. At 1922, the 22d Destroyer Division (the *Fumizuki* and the *Satsuki*) attacked [an] enemy submarine with depth charges at a point three nautical miles 325° [NW] of the lighthouse on Toppers Island [Pulau Tampurung], guided by a Type-0 reconnaissance seaplane of the *Kamikawa-maru* and a Type-0 observation seaplane of the *San'yō-maru*, but the results were unclear.
7. At 2000, the 1st Minesweeper Division detected [an] enemy submarine at a point five nautical miles 78° [ENE] of St. Nicholas Point [Tanjung Pujut] and attacked her with depth charges; after spotting many bubbles and a large amount of oil welling up, they reported that the results were certain.
8. At 2125, the *Hatsuyuki* and the *Fubuki* spotted one British destroyer and one minesweeper* accompanied by two torpedo boats, promptly attacked them, and at 2200 sank the destroyer and had the minesweeper run aground.**

* According to the War Journal of the 5th Destroyer Squadron: *gunboat*.

** Idem: *set the destroyer ablaze and made her run aground, while sinking the gunboat*.

Area No. 2

1. At 1605, the *Yura* came under attack from [an] enemy submarine at 6°4'S 108°0'E; she evaded the attack and sustained no damage. Promptly, she carried out a depth charge attack on the point where the [enemy] torpedoes had been launched, while having the *Nagatsuki* sweep the waters but both obtained no clue [about the movements of the enemy submarine].
2. From the previous night onwards, a total of fifty enemy bombers in groups of three to seven aircraft at a time came raiding more than a dozen times during the night and the day, and attacked the convoy (mainly with torpedoes). However, every time the 1st Section (the *Akatsuki* and the *Hibiki*) of the 6th Destroyer Division, the *Nagatsuki* and Minesweeper No. 5 shelled them and drove them back. Minor damages and casualties were sustained by a few transport ships, but they caused no hindrance to the disembarkation operation.
3. The search for and clearing of mines at the Patrol anchorage on that day resulted in no mines snagged.

The major actions taken on 2 March were as follows:

Area No. 1

1. At 1145, the *Hatakaze* of the 5th Destroyer Division conducted a depth charge attack against [an] enemy submarine at a point 8.5 nautical miles 339° [NNW] of St. Nicholas Point [Tanjung Pujut] guided by a Type-0 reconnaissance seaplane of the *Kamikawa-maru*, but the result was unclear.
2. At 1300, the *Hatsuyuki* of the 11th Destroyer Division detected [an] enemy submarine at a point 7.2 nautical miles 178° [S] of Pebelokan Island. She carried out a depth charge attack, spotted a small amount of oil welling up, and concluded that [the attack] had to some extent been effective.
3. At 1515 the *Fumizuki* of the 22d Destroyer Division conducted a depth charge attack on [an] enemy submarine at a point fifty-five* nautical miles 325° [NW] of the light house on Toppers Island [Pulau Tampurung] led by [a] Type-0 reconnaissance seaplane of the *Kamikawa-maru*. She felt sound of explosions below her bottom and considered that [the attack] had to some extent been effective.
4. At 1810, the *Hatsuyuki* detected an oil trail and the propeller sound of a submarine at seven nautical miles 135° [SE] of Babi Island, and conducted a depth charge attack in cooperation with [a] Type-0 reconnaissance seaplane of the *Kamikawa-maru*. Having spotted a large amount of oil welling up and the surfacing of a part of the upper structure [of a submarine], she reported the result as certain.

In Area No. 2, neither enemy submarines nor surface units were spotted; only a total of twelve aircraft came for a raid.

From the 3d onwards, attacks by enemy submarines and air raids drastically decreased. However, at 1325 on the 4th, the oiler *Erimo* came under a torpedo attack by [an] enemy submarine in the Java Sea (at 4°22'S 108°23'E) and eventually sank at 1505 (as previously told [p. 499]). Although 162 members of the crew including the captain were rescued by the *Yura*, eighteen shared the fate of the ship. The ship was heading for Singapore alone after finishing refueling the 7th Cruiser Division unit.⁽⁶³⁾ Other than this, the Japanese side sustained no loss. On the 6th, the aircraft of the *Natori* spotted sixty or more mines at an area four nautical miles 10° [N] of the lighthouse on the jetty of Tanjung Priok, which were disposed of with the forces of the 1st Defense Unit.

* According to the Action Report of the 5th Destroyer Squadron: 5.5 nautical miles.

From the 4th onwards, all units shifted one after another [to their designated locations] to prepare for the subsequent operations in the following way:⁽⁶³⁾

[March]

4th: The 11th Destroyer Division and the *Yura* left for Singapore.

The 1st Section of the 22d Destroyer Division escorted fourteen returning [transport] ships [up to] the north end of the Karimata Strait, after which the section sailed for Cam Ranh Bay.

The *Nagara*, the *Tsukushi*, the 2d Subchaser Division, the 21st Minesweeper Division (minus Minesweepers No. 11 and No. 12), and the 21st Subchaser Division, which had been operating in the eastern Java area, sailed to Batavia, led by the 1st Base Force commander, where they were put under the command of the 3d Escort Unit commander.

5th: The *Kamikawa-maru* and the *San'yō-maru* put in at Bantam Bay.

The *Nagatsuki* of the 22d Destroyer Division escorted eight [transport] ships returning to Singapore [up to] the north entrance of the Karimata Strait, from where she headed for Cam Ranh Bay.

6th: The 6th Destroyer Division was removed from the Dutch East Indies Unit and transferred to the Philippines Unit.

7th: The *Minazuki* of the 22d Destroyer Division escorted ten [transport] ships returning to Singapore [up to] the north entrance of the Karimata Strait, from where she headed for Cam Ranh Bay.

8th: The *Hatakaze* of the 5th Destroyer Division headed for Singapore escorting the *Tsurumi*.

10th: The *Asakaze* of the 5th Destroyer Division headed for Singapore escorting eleven [transport] ships returning to Singapore.

The *Harukaze* and the *Matsukaze* of the 5th Destroyer Division sailed toward Singapore.

The 3d Escort Unit commander was relieved of his command over the 1st Base Force and the forces of the latter returned to their original units. Meanwhile, it was decided that the 3d Escort Unit should head for Makassar, leaving behind the forces required to escort the Army transport ships.

11th: The *Nagara* sailed for Makassar.

12th: The 3d Escort Unit commander headed for Makassar, leading the *Natori*.

In the meantime, when the sea engagements off Batavia took place, the 1st Section of the 7th Cruiser Division and the 19th Destroyer Division (minus the *Ayanami* and the *Shikinami*) had taken up position in an area about thirty nautical miles north of Bobos Point to support the Area No. 2 Unit. Then, joined by the 2d Section [of the 7th Cruiser Division] and the 4th Carrier Division at 0100 on the 4th at a point of 4°48'S 107°34'E, they pulled out of their deployment and headed for Singapore to get ready for subsequent operations. At 1900 on the 5th, they put in at Singapore without incident and completed their support operations in the Java [invasion] operation.⁽¹²⁶⁾

The Formation of Special Base Forces

On 9 March, stage-one, phase-three operations ended with the fall of Java, the last stronghold of the Dutch East Indies, and the focus in the tide of the war for the Southern Task Force shifted to the area west of Java, i.e. the Burma Sea [Andaman Sea], and the eastern part of the eastern Indian Ocean. That is to say, among the plans drawn up were the northern Sumatra invasion operation (Operation T), which before the opening of hostilities had [already] been planned for execution after the fall of Singapore, the Burma operation, which after the

smooth progress of the Southern operation was decided to be launched ahead of schedule, the Andaman Islands operation (Operation O), which was to be dealt with along with the Burma operation, and the surprise attack operations in the Ceylon Area (Operation C), to be conducted mainly by the Carrier Task Force in early April.

From 10 March onwards, the Combined Fleet put the stage-one, phase-four operations in motion (by means of Combined Fleet Telegraphic Operation Order No. 87), in which the Dutch East Indies Unit was assigned to guarding the areas in its charge, clearing away remnants of the enemy, protecting the shipping lanes, developing natural resources, implementing a military administration and conducting the second or later transports of army units. In the Army-Navy Central Agreement Concerning the Implementation of a Military Administration in the Occupied Areas⁽¹⁴⁶⁾ of 26 November 1941, it was stipulated that the military administration in Borneo, Celebes, the [Lesser] Sunda Islands, and the Moluccas was mainly assigned to the Navy. In the subsequent Army-Navy Central Agreement Concerning the Guarding of British Malaya and the Dutch East Indies Areas as of 20 January 1942,⁽⁴³⁾ it was laid down that [all areas] in Java and Sumatra, except for naval zones and premises as well as air bases assigned to the Navy, should be assigned to the Army, whereas [all areas] in the Dutch East Indies other than Java and Sumatra should be assigned to the Navy, except for posts and stations of Army units.

In early January 1942, in line with these agreements, the following plan for the organization of base forces had been taking shape in the Naval General Staff:

Surabaya

A base force consisting of the current 1st Base Force as the core shall be stationed [there] to take charge of Java and the Lesser Sunda Islands area (The guarding of Java itself is assigned to the Army).

Balikpapan

A base force consisting of the current 2d Base Force with the 2d Kure Special Landing Force added as the core shall be stationed [there] to take charge of Dutch Borneo.

Makassar (including the guard on the land)

A base force consisting of the current Sasebo Combined Special Landing Force with some surface defense forces added as the core shall be stationed [there] to take charge of the area of Celebes (including the guard on land).

Ambon

A base force consisting of the current 1st Kure Special Landing Force with some surface defense forces added as the core shall be stationed [there] to take charge of the areas to the north of Australia (including the guard on land).

Among them, first of all the 24th Special Base Force was formed on Ambon as of 5 February. Then, following a partial revision of the Wartime Formation of the Imperial Japanese Navy of the fiscal year 1941, made as of 10 March [1942], the Third Fleet was disbanded and the Second Southern Expeditionary Fleet was newly established. Simultaneously, the 21st, the 22d, and the 23d Special Base Forces were formed respectively at Surabaya, Balikpapan and Makassar, and together with the 24th Special Base Force incorporated into the Second Southern Expeditionary Fleet.

The forces at the time of their formation were as follows:^{(164)*}

* The text contains a number of mistakes. We have revised the text based on the original sources.

21st Special Base Force (Surabaya; Commander: R. Adm. Kubo Kyūji)

The *Shirataka*, Minesweepers Nos. 8, 11, and 12, the 1st Subchaser Division (Submarine Chasers Nos. 1, 2 and 3,) the 2d Subchaser Division (Submarine Chasers Nos. 13, 14 and 15,) the *Ikushima-maru*, the 1st Port Administration Department (the above [from] the 1st Base Force)

The *Tatsumiya-maru*, the 33d Air Group ([formerly] attached to the Third Fleet)

The 21st Signal Unit, and the 21st Submarine Base Unit (the above newly formed)

22d Special Base Force (Balikpapan; Commander: R. Adm. Hirose Suéto)

The *Wakataka*, Minesweepers Nos. 15 and 16, and the 21st Subchaser Division (Submarine Chasers Nos. 4, 5, 6, 16, 17, and 18), the *Tatsuharu-maru*, the *Imizu-maru*, the 2d Port Administration Department (the above [from] the 2d Base Force)

The 2d Guard Unit (newly formed with the 2d Kure Special Landing Force)

23d Special Base Force (Makassar; Commander: Capt. Mori Kunizō)

The *Aotaka* and the 12th Subchaser Division ([from] the 1st Base Force)

The *Chidori*, the *Manazuru*, the *Shinkō-maru* [A] and the 54th Subchaser Division ([from] the 2d Base Force)

The 3d Guard Unit (newly formed with the 2d Sasebo Special Landing Force)

The 35th Air Group ([formerly] attached to the Third Fleet)

24th Special Base Force (Ambon; Commander: R. Adm. Hatakeyama Kōichirō)

The *Hatsukari*, the *Tomozuru*, and the *Seian-maru* ([from] the 2d Base Force)

The 52d Subchaser Division ([from] the 1st Base Force)

The 24th Navy Signal Unit

The 4th Guard Unit

Revision of the Disposition of Forces of the Dutch East Indies Unit

After the revision of the Wartime Formation on 10 March, the Dutch East Indies Unit greatly changed in character from being up to that time an invasion operation unit with the Third Fleet as its basis into a unit with defense forces as its core (the Second Southern Expeditionary Fleet).⁽¹⁶⁴⁾ That is, since the Java invasion operation was mostly completed, the forces of other units, which had been incorporated into the Dutch East Indies Unit to participate until that time in the operation according to the Southern Task Force phase-three disposition of forces, left the command of the Dutch East Indies Unit commander one after another from the beginning of March. Some returned to their original units, while other units were transferred to different units or made to operate as designated by the commander in chief of the Combined Fleet, and other units again were put in the main body of the Southern Task Force to return to mainland Japan for repairs and the maintenance of hulls, engines and ordnance. Meanwhile on 7 March, the Dutch East Indies Unit had been given orders to carry out operations to clear enemy remnants from and seize important places in Dutch New Guinea after the fall of Java.⁽¹⁰⁰⁾

The phase-four disposition of forces of the Dutch East Indies Unit announced on 15 March was as follows:⁽¹⁶⁵⁾

Dutch East Indies Unit Classified Telegram No. 132

The disposition of forces of the Dutch East Indies Unit shall be changed as follows:

1. [The units] under the direct command of the main unit: The *Ashigara* and the 16th Destroyer Division 2d Section shall support all operations.

2. The Java Guard Unit: [led by] the 21st Special Base Force commander; the 21st Special Base Force, the *Tsubame*, the *Kamome*, the *Tsukushi*, the 1st Survey Unit, and the *Myōkō-maru*.
3. The Borneo Guard Unit: [led by] the 22d Special Base Force commander; the 22d Special Base Force, the *Itsukushima* and the *Kenryū-maru*.
4. The Celebes Guard Unit: [led by] the 23d Special Base Force commander; the 23d Special Base Force.
5. The Ambon Guard Unit: [led by] the 24th Special Base Force commander; the 24th Special Base Force (except for those transferred to the N invasion unit).

The tasks of 2, 3, 4 and 5: Guarding the assigned areas, the clearing of enemy remnants, as well as protecting shipping lanes and implementing the military administration (except for 2) in their assigned areas.

6. The N Invasion Unit: [led by] the 11th Seaplane Tender Division commander; the 11th Seaplane Tender Division (minus *Mizuho*), the *Nagara*, the 2d Gunboat Division (minus *Kamitsu-maru*), the 16th Destroyer Division 1st Section, the *Tomozuru*, the *Hatsukari*, Patrol Boats Nos. 1, 2, 38, and 39, the *Seian-maru*, the *Hokuriku-maru*, and the 4th Guard Unit shall capture strategic places on Ceram Island, Halmahera Island as well as the former Dutch New Guinea. The N invasion unit shall assemble in Ambon by 27 March. The *Tomozuru* shall escort the *Hayatomo* from a point off Davao (5°40'N 127°40'E, where she will be sailing southwards at noon on the 21st) to Ambon.
7. The 1st Escort Unit
[Led by] the 4th Destroyer Squadron commander; the 4th Destroyer Squadron (minus the 2d, the 4th, the 24th Destroyer Divisions and [minus] the 9th Destroyer Division 2d Section) shall escort the transport of reinforcements of the 48th Division.

8. The 3d Escort Unit
[Led by] the 16th Cruiser Division commander; the 16th Cruiser Division (minus the *Nagara*) and the 22d Destroyer Division shall escort the transport of reinforcements of the main force of the Sixteenth Army.

Note by the author: Along with the revision of the Wartime Formation as of 10 March, the 5th Destroyer Squadron was disbanded, and with the *Natori* the flagship of the squadron, the *Nagara* (formerly [in] the 16th Cruiser Division) and the *Kinu* (the former flagship of the 4th Submarine Squadron), the 16th Cruiser Division was [re]organized and transferred to the Second Southern Expeditionary Fleet.

9. Attached Units: Other than those specified otherwise, [attached units] shall continue their presently assigned tasks.

Remarks:

- (1) Those currently operating in the Java area, except for those to be transferred to the N invasion unit, shall, after completion of their current tasks, shift to the disposition of forces given above as designated by the 21st Special Base Force commander.
- (2) The *Taikō-maru* shall take on board two large-sized motorized landing craft as well as special service personnel for four landing craft.
- (3) When the invasion of Christmas Island [is decided], [the operation shall be carried out by] the 1st and 3d Escort Units as the core. Details of the operation shall be given later.

10. The Lessons of War in the Air Campaign in the Dutch East Indies [Operation]

Lessons of War; General [Issues]

From “The Greater East Asia War’s Lessons of War ([section] Air Operations)” prepared in October 1942 by the Naval Investigation Committee on Engagements and Lessons of War

(Subcommittee on Air Operations), the following passages may be extracted concerning the Dutch East Indies [campaign]:^[75]

The Operations of the Enemy

1. Air Forces

Although not as unenterprising as the U.S. air forces in the Philippines, the enemy was very slow in implementing his air operations.

- (1) He may not have had a [clear] idea of [how to conduct] air campaigns to destroy the air power [of the opponent], or [maybe] his implementation of such campaigns was very inconsistent. It was plain to see that we pushed our forces forward while capturing [certain areas] in order to seize the bases [there] and advance our air forces. Also, it was evident that [the enemy could have attained] very effective results if he had attacked [us] at the small bases we had seized, where we had concentrated as many aircraft as could be accommodated. Nevertheless, the enemy only sporadically came to make attacks with just a small number of aircraft. At first, the air forces of the Dutch East Indies and Australia often raided our convoys as well as our bases. However, interception by our fighter planes inflicted on them immense losses, ending in all or most of their aircraft being shot down. No sooner had our fighter planes advanced to the bases we had captured than they disappeared. After our invasions of Balikpapan and Menado, [enemy aircraft] seldom came to make raids.

On learning through several air engagements that the American four-engine bombers were seldom brought down by our fighter planes owing to their heavy armor, [the enemy] tenaciously continued attacks with a small number of these aircraft. Nevertheless, [these attacks] never constituted a [true] air campaign to destroy the opponent's air power.

- (2) [The enemy] did not conduct powerful air operations when there was a major opportunity to attack. Even at such critical moments to attack as when our invasion convoys had started sailing, and the enemy faced an emergency, he did not attack them while they were under sail. Even after [our convoys] reached the invasion points, the enemy did nothing more than conducting raids with a small number of aircraft only at dawn and dusk, taking advantage of the absence of patrols in the air [over the landing points] by our fighter plane units (which had to take off from the bases in the rear). Only our invasion of Bali created a situation where the enemy seemed to feel as if a dagger had been pointed at his throat, which [finally] made him to repeatedly conduct attacks on us. But even then, he stopped his attacks after a number of our fighter planes had advanced there.
- (3) [The enemy] used his forces [only] in small-scale [units] (the largest number of aircraft in his formations was twelve; usually his aircraft flew in groups of four or five, or in groups of even smaller numbers). He did not seem to have an idea of how to make the most of collective power. Consequently, his attacks [only] produced small and indecisive results.
- (4) [The enemy] was not seen to strongly keep up his attacks.

Although repeated attacks were conducted on our convoy carrying the forces to capture Menado as well as [on our forces] at the Bali base, both attacks lasted only for a few days and stopped once our fighter plane units had advanced. In the other cases, his attacks were even less tenacious.

Attacks by such large land-based attack planes as B-17s and B-24s were also sporadic.

- (5) When [enemy] aircraft in small numbers raided the bases where our fighter planes had been advanced, they conducted relatively brave attacks.

Many of them bravely and determinedly carried out bombings from a low altitude, though presumably one of the reasons was that there was almost no antiaircraft [artillery] fire at all at these bases.

2. Surface forces

- (1) Although the major part of the U.S. Asiatic Fleet as well as the Dutch surface vessels generally used Surabaya as their base, they conducted almost no operations, other than one or two small-scale actions, that should be considered aggressive. It seems that after the operational range of our air force had reached as far as Surabaya, [the enemy vessels] ordered into action sustained considerable damage from attacks by our [air] units, and that the major part of them evacuated to Australia or to the western parts of the Dutch East Indies, while some damaged vessels remained in Surabaya to undergo repairs.

Then, prior to [our] launch of the Java invasion operation, the major part of them again assembled on the waters near Surabaya. [However,] in the course of the operation, our forces gained command of the eastern and western ends of the Java Sea, which cut off the escape routes of the enemy and [then] the sea engagement off Surabaya took place.

- (2) As our Malaya invasion operation made progress, the major part of the British naval surface vessels [first of all] took charge of escorting escaping vessels. Then, other than some which escaped to the Indian Ocean, [most of] the vessels remained in the areas of Batavia and Surabaya, and operated almost in the same way as the U.S. and Dutch naval vessels.
- (3) Although enemy submarines appeared in all operational areas, their power was not great, and they inflicted [only] insignificant damage on us.

Replenishment

1. Replenishment of aviation fuel, bombs, and machinegun ammunition

- (1) [The replenishment in] the eastern Borneo and Java areas

Since the Tarakan airfield was too small and had no space for expansion and Balikpapan had been swiftly seized, the fighter plane units shifted [to Balikpapan] in just ten-odd days. Because of that, the supply of fuel, bombs, etc. could more or less be covered by the amounts that had been carried as the first reserve supply (note by the author: the amounts transported on the ships carrying the construction squad at the time of the invasion [operation]). However, at Balikpapan, due to the loss of the *Nan'a-maru* on 23 January, who had been bombed by enemy aircraft right before putting in at the port, caught fire and sunk in the end, and the *Tatsugami-maru*, who had also sunk on the next day the 24th at the anchorage due to enemy torpedo[es], large amounts of aviation fuel, bombs, machinegun ammunition, etc. that should have been disembarked there were totally lost. On top of that, because the ship that advanced to Balikpapan carrying the construction squad was not loaded with the first reserve [supplies], the advance of the aircraft units was temporarily impeded. However, they took stopgap measures by landing the aviation fuel carried on the *Kamogawa-maru* and the *Okitsu-maru*, who had advanced there next, and [also] by hurriedly sending there the *Rakutō-maru* (attached to the Navy Ministry) who was in the port of Tarakan after loading her with the aviation fuel kept at the island.

After that, the *Nagisan-maru* (attached to the Combined Fleet), who was on her way to Davao with a full load of aviation fuel, and the *Yūbari-maru* (attached to the Navy Ministry) with a full load of bombs and machinegun ammunition were [also] added to the Air Unit of the Southern Task Force and hurriedly diverted to Balikpapan, which helped the operation to be conducted without hindrance.

As for the Banjarmasin [airfield], it was decided that, due to changes in the plan for the subsequent operation [to seize it], the amount of fuel, machinegun ammunition, etc. required for the advance of the aircraft units for [just] a short period of time should be forwarded [from Balikpapan]. And since it was considered that it would be fine to do this by small vessels [because the operation was to be conducted] by maneuvering small craft along the coast, the transport was carried out using a dozen or more fishing boats requisitioned by the

Eleventh Air Fleet and the Third Fleet. Concerning the Makassar [airfield], it was decided to transport the amount of fuel required for the advance of about twenty fighter planes for about one week. [Eventually,] the fuel was transported on the ships carrying the construction squad and the military supplies department at the time of the advance.

As for Bali, since the decision to capture the place was made in late January based on the progress of the [other] operations, the first reserve of fuel [to be sent] there was loaded at Jolo on the transport ships *Sagami-maru* and *Sasako-maru*, both carrying the army unit that was to capture the island, and transported to the island. However, due to the conditions at the Bali anchorage, it was difficult to quickly disembark the fuel from the ships, and it was not possible to disembark the entire load. Then, due to a coal supply problem, the *Rakutō-maru* and the *Okitsu-maru*, who [were supposed to] advance to Bali next [were delayed, which caused] a delay in the transport of fuel and bombs. On top of that, the *Kamogawa-maru* was sunk on 2 March by a torpedo attack of an enemy submarine in the Lombok Strait and all the fuel, bombs, etc. that she carried were lost. [These circumstances] led to a temporary suspension of the advance of land-based attack plane units [to the Bali airfield] and the airlift of machinegun ammunition together with the maintenance personnel from Makassar.

(2) The Ambon area

As soon as the Ambon [base] was captured on 31 January and readied, one element of the 3d Air Group as well as the 1st Air Group advanced there. Since the amount of the first reserve loaded along with the construction squad on the ship was too small, it was supplemented by hurriedly disembarking what was loaded on the *Hino-maru No. 5* and the *Lyons-maru*, who had advanced there first, and what was loaded on the *Komaki-maru*, who had advanced there next.

(3) The eastern Celebes and Timor areas

The first reserve loaded along with the construction squad on the ship carrying the squad for Menado did not include bombs, and the ship with the construction squad for Kendari had not loaded bombs, fuel, etc. at all. Therefore, the amount [of fuel and ammunition] required for the Menado base was disembarked mainly from the *Amagisan-maru* and the *Katsuragi-maru*, which accompanied the Menado invasion units, whereas in Kendari, the preparations for the operation were made by disembarking all [remaining fuel and ammunition] from the *Amagisan-maru*, who had advanced there first, and part [of the supply] loaded on the *Nisshun-maru*, who had advanced there next.

As for the Kendari [base], where all land-based attack planes [operating in this theater] were to be concentrated in early February to launch Operation Z, large amounts of fuel, bombs, etc. had become necessary. Therefore, in addition to the above two ships, the *Tenzan-maru*, who had been added on 15 January, was fully loaded with aviation fuel and bombs at Sasebo and sent to Kendari.

As soon as the major part of the 1st Air Raid Unit had advanced to Kupang after the capture of the place on 20 February, the *Nisshun-maru* and the *Tenzan-maru* were advanced from Kendari, and the *Hino-maru No. 5* from Ambon to take charge of providing supplies.

In late February, the 1st Air Group was shifted to Rabaul, which was followed by the shift of the 21st Air Flotilla headquarters and the Kanoya Air Group Detachment to Kisarazu. Replacing them, the 2d Air Raid Unit advanced to Kupang from Bali; the *Yūbari-maru*, the *Nagisan-maru*, the *Okitsu-maru*, and the *Rakutō-maru*, who were deployed in the Bali area, followed, and thereafter the supplies in this area were provided from the load on these ships.

2. The supply of provisions (omitted by the author)

3. The replacement of aircraft

From around the time of shifting to the Dutch East Indies area, all units suffered from a gradual attrition of aircraft, which was caused not only by the damage or loss sustained but also caused by their intensive use as well as wear and tear. On top of that, a shortage of spare parts delayed

the complete repair of aircraft. Under these circumstances, upon the completion of replacement aircraft, air crews from the front [were dispatched] to fly the replacement aircraft from Taiwan or mainland Japan.

However, after the [air units'] advance to Kendari and Balikpapan, the distance became markedly long while operations gradually increased, which made the air transport of replacement aircraft more and more difficult. Due to such circumstances, eighteen replacement Type-0 fighter planes [had to be] transported by sea up to Davao on the *Zuihō* to supplement [the air units].

As for spare parts, those for the Type-0 fighter planes and tires for the Type-96 land-based attack planes in particular were not smoothly supplemented. Therefore, [the maintenance of] aircraft was [sometimes] completed by cannibalizing other aircraft, whose repair lagged behind time, by using [parts] of different types of aircraft, or by reusing nondurable parts. In such ways, every measure was taken to prepare for the day-to-day engagements.

4. The supply of fuel and clear water for the naval vessels (omitted by the author)

Matters That Affected Operations

1. Weather

The plan was that after the capture of Balikpapan, Bali should be captured by [first] destroying the enemy air power in eastern Java or neutralizing the major part of it. However, as previously told, bad weather in the eastern part of the Java Sea seriously impeded the execution of the operation, and the capture of Bali was inevitably postponed for one day.

2. The condition of the seized bases

(1) Davao and Jolo

Both airfields had large inclinations (a part of the Davao [airfield]: 1/25 and the Jolo [airfield]: 1/25 - 1/50) and were narrow. On top of that, the Davao airfield had a soft ground, which was frequently swept by sudden showers in the earlier period [after our capture]. [Consequently,] it took respectively sixteen and fifteen days before our land-based attack plane units were advanced to Davao and Jolo.

Even after their advance, due to the steep gradients, our land-based attack planes were unable to take off [from the airfields] with a full load, and they were never able to display the full capabilities of the aircraft. However, the enemy's inactivity during this period helped them to complete the operations without major frustrations.

(2) Tarakan

Use of this airfield by land-based attack planes had not been part of the plan. However, due to the soft ground and frequent torrential rains, even its use by fighter planes was seriously impeded. It not only led to a miscalculation about [the plan of] dispatching aircraft to cover the air over the units to capture Balikpapan, but also caused damage to not a few aircraft at the time of their take-off or landing.

3. The use of the airfields on Sumatra

In connection with the condition of the airfields in western Borneo, the First Southern Expeditionary Fleet and the Air Unit of the Southern Task Force repeatedly negotiated with the Army side on the 22d Air Flotilla's use of the Palembang airfield, but they did not reach an agreement and it was decided that [the Navy] was to use the Gelumbang airfield. However, due to the difficulty of [transporting] supplies to the airfield, it became practically impossible to execute the air campaign to destroy the enemy air power in western Java as scheduled.

4. Replenishments

The plan was that after the capture of Davao on 20 December, the necessary facilities should swiftly be set up there so as to make it a supply base for the units advancing toward the southern theater. However, it was not easy to realize it. In early January, the major part of the 1st Air Raid Unit had advanced to the place and conducted air campaigns day after day, which was followed

by the advance of the supply ships of the Air Unit to Menado and Tarakan after their capture in mid-January. Even then, the mid-sized land-based attack plane units and seaplane units still used [Davao] as their base from where to conduct operations.

Due to these circumstances, the amounts of fuel and bombs kept in Davao had gradually decreased and it became impossible to cover the attrition only with the capacity of the supply ships that occasionally put in at the port. Therefore, [the Navy] used the *Matsumoto-maru* of the Third Fleet to hurriedly transport the aviation fuel kept on Palau. They [also] disembarked part of the first reserve of the auxiliary aircraft transport vessels that happened to be at anchor, and even put into drums the aviation fuel loaded in bulk on the oiler *Hishi-maru*, who had put in at the port on her way back to mainland Japan, and transported them to the airfield. [As seen from the above,] it was felt quite difficult to provide supplies there.

That is, after one month or more had passed since the capture of Davao, the city had not yet substantially assumed its role as a supply base. Since it turned out impossible to have the place provide supplies for the [air] units advancing [to Davao] and further south, the air units became entirely dependent on mainland Japan or Taiwan for supplies.

The Lessons of War [Drawn] by the Commander of the Genzan Air Group

The lessons of war below represent the personal view of Cdr. Maéda Kōsei, commander of the Genzan Air Group based on his experiences from the opening of hostilities until July 1942. The passages relating to the Dutch East Indies operation may be excerpted as follows:

I. Air operations

1. Patrol and Search [Missions]

(1) Weather

{1} The weather in the South China Sea and the Java Sea

We learned from experience in December, January, February and March that over the southern oceanic areas cumulonimbi clouds develop and rise very quickly with the top of the clouds often reaching 10,000 meters, while bringing on fierce squalls [to the area] below them. [Even if] we saw just a few clouds on our way to a patrol [mission] in the morning, on our return in the afternoon, we were often forced to make a long detour due to the development of cumulonimbi clouds.

The clouds sometimes linger over the sea at night. When flying aircraft, caution is required.

{2} The weather in the northern part of the Indian Ocean

From our experience in March, fair weather generally continued in the northern part of the Indian Ocean during this period, which made it easy to conduct patrols.

However, [dense] mist often caused poor visibility. When drawing search mission patterns, caution is required.

(2) Prohibition of using radio communications

Despite strict controls, [some] crews had the bad habit of secretly using it. It is necessary to see to it [that it will not be used].

2. Reconnaissance

(1) Many mistakes occurred when identifying types of vessels. It needs to be done carefully.

In general, large cruisers were often mistaken for battleships and destroyers for light cruisers. An extreme case was that [an] Army aircraft reported a number of fishing boats it had spotted in the Malacca Strait as a large transport convoy. There was even a case of having mistaken lighters in the naval port of Singapore for aircraft carriers. There may possibly be a case in the future that the enemy uses decoy carriers. [Identification of types] requires attention.

- (2) When conducting reconnaissance, not only visual reconnaissance but also photo reconnaissance is absolutely necessary.
(Examples omitted by the author)

3. Probing

It is necessary to have a skilled officer crew with excellent tactical insight conduct probing.

In general, the usual exercises tend to make [crews] think light of probing. [However,] probing an enemy who deploys fighter planes is by far the most difficult [mission] of all.

4. Attacks

- (1) When conducting an attack with a large number of aircraft, it is better to assign the targets of the attack to them beforehand.

In actual engagements, [attacks] generally tend to concentrate on easy targets, which creates a risk that attacks are over-concentrated on some [targets], while leaving others intact. When the enemy situation is known, I think we need to roughly assign targets [to the attack units] before takeoff according to the number of aircraft [available].

- (2) Since it is very unlikely that bombing attacks on [enemy] naval vessels under sail by single aircraft produce results, [bombing attacks] should be carried out by a team of nine to twenty-seven aircraft in formation that drop bombs all at once.

The bombing results of our group in the seven months from the opening of hostilities are as follows:

Type of Bombing Attack	Number of Attacks on Naval Vessels	Number of Ships Sunk or Destroyed	Success Ratio
Bombing by a single aircraft	22	2	2/22
Bombing by a team of three aircraft in formation	4	2	2/4
Bombing by a team of six aircraft in formation	4	1	1/4
Bombing by a team of eight or nine aircraft in formation	16	7	7/16
Bombing by a team of eighteen or nineteen aircraft in formation	4	3	3/4

5. Operations to Destroy [Enemy] Sea Lines of Communication

It is difficult to thoroughly destroy [enemy] sea lines of communication with land-based aircraft, unless considerably large forces are employed. When the air strength is insufficient, it is essential to also deploy surface forces, particularly submarines. On top of that, it is better to have air unit commanders take a unified command of both [the air and naval forces].

As the fate of Singapore was about to be sealed, the enemy was desperately conducting last-minute rescue [operations] or trying to escape, which made the traffic between Singapore and Java as well as Sumatra very busy.

That is, the total number of enemy naval vessels that the patrol aircraft of our group spotted in the Bangka and the Karimata Straits between 1 and 17 February reached seventy-six or more (including destroyers). Although we were able to attack thirty of them, the number of vessels we [actually] sank or destroyed were only nine in total. The reason for this was that due to its cramped conditions and the poor quality of its ground at that time, the Kuching airfield allowed in the beginning only about a section of the group to advance. Since it was anticipated that bombing attacks had to be conducted mainly by single patrol aircraft, we requested the cooperation of friendly surface vessels, only to find out that eventually no vessels were dispatched at all. If the condition of the Kuching airfield had been good and fit for use by a large number of aircraft, we could have destroyed most of those enemy vessels.

II. The air units' shift of bases

1. The air units' method of shifting bases needs to be studied for drastic improvements.

Needless to say, winning or losing air operations solely depends on appropriate preemptive strikes and a concentration [of forces]. In order to make the most of the advantage of inner lines in a [vast] operational area that stretches for close on five thousand nautical miles [only] with a small number of air units, nothing is more important indeed than the swift shift of bases.

Whereas the shifts of our aircraft units [in this operation] were easily and swiftly carried out without accidents, the embarkations and disembarkations for the transfer of our base personnel and matériel took considerable days and much effort at some places. [Partly due to] the speed of the transport ships, [shifts] took many days and were not easily [accomplished].

In view of the [current] situation in the transportation of base matériel, [we need to do the following] for a swift shift of bases:

- (1) The [current] shifting system where all units transport their own stuff every time they shift, should be changed in such a way that, like bombs and fuel, military supplies departments and the Yokosuka Naval Air Technical Arsenal shall prepare [equipment and matériel] at the bases concerned, and that the shifting unit shall borrow and use it at the site and return it when they are shifting [somewhere else].
 - (2) Whereas warrant and higher-ranking officers can in general bring [a minimum amount of] personal items necessary for the shift and leave other belongings in their houses, non-commissioned officers and men bring [not only] their duffle bags [but also] all their other belongings, taking transfers to [other] sites into consideration. Moreover, unmarried men bring all their stuff including even the stuff they use at their lodgings, which adds up to a considerable amount. We need to keep these unnecessary things at military supplies departments in mainland Japan and they should [only] be sent on to another place on request at the time of a transfer [of personnel].
 - (3) At least five transport aircraft should be assigned to each unit so that base personnel needed for ongoing operations right after the shift can be airlifted.
 - (4) Since others have to be transported by transport ships, we need to assign fast transport ships specified for the purpose with the right set of equipment for embarkation/disembarkation.
2. Sometimes [air units] need to rapidly advance only their aircraft unit to a base with no facilities in order to execute operations for several days.

Our unit had to advance twice to the Gelumbang airfield which had no base facilities at all, the first time for the attacks on Java from 24 to 26 February and the second time for the support of the Carrier Task Force's [operation in] the Indian Ocean from 3 to 6 March. In

view of these experiences, we keenly felt that the following points need to be studied and prepared from early on:

- (1) If in addition to the regular crews, base personnel, signal personnel, nurses as well as portable radio equipment parts, spare tires, beddings and provisions were to be put on vacant seats of the aircraft, operations with only the aircraft units may be implemented for a couple of days at best; it is difficult to implement them any longer due to fatigue of the crews.
- (2) One blanket per person will do for bedding in the tropics; even if it is impossible to carry blankets due to the loading capacity, it is absolutely necessary to carry mosquito nets.
- (3) Although we camped under the wings of the aircraft hanging mosquito nets from them, sometimes we could not sleep due to squalls at night. Simple portable tents fit to be carried on aircraft are required.
- (4) If machine gunners take up positions at the machineguns [on the aircraft on the ground] at the time of enemy air raids, it is likely that they will also be killed or injured along with [the damage to] the aircraft. It is better to bring simple ground mountings for 20-mm machineguns which will enable them to be used as antiaircraft artillery, appropriately set them up around the airfield to be ready against enemy aircraft.
- (5) Although rifles are necessary for guarding on the ground, it is difficult to load and carry them on aircraft. Therefore, it is better to supply portable ground stands for the 7.7-mm machineguns that are fitted on the aircraft so that they can be used for the guarding on the ground.
- (6) Since bomb carts for 250-kg [bombs] cannot be loaded on aircraft, it is necessary for the Yokosuka Naval Air Technical Arsenal to always provide carts together with the bombs. Since the bombs were ready but the carts were not provided this time, we managed to mount the 250-kg bombs on the aircraft using carrying pole[s]. In a case like this, it would be convenient if simple portable carrying pole[s] for 250-kg bombs would be manufactured and supplied. Also, I think that we need to research [and work on] a simple knock-down cart for 50-kg bombs.
- (7) When military supplies departments prepare [aviation] fuel, they also need to provide fuel trucks as well. This time, fuel was provided but the trucks were not, and we had to manually fuel [each aircraft]. Although it [usually] takes much time to manually refuel, we managed to do it relatively swiftly since we had brought along gasoline filters, which we had specially built by cutting drums in halves. In order to deal with such situations, [air units] need to be supplied with large light-weight gasoline filters suitable to be carried on aircraft.
- (8) It is not easy to implement operations in circumstances where air crews [have to] cook their own meals without adequate cooking utensils. Moreover, it is difficult to bring their own eating utensils. I think it would be easy and convenient if such mess gear as used in the Army is provided.

Some of the canned sweet red bean rice among the canned food we had brought along this time as part of our provisions had gone bad and turned black.

- (9) Air crews need to be supplied with a regulation light-weight case of a fixed size like the wicker trunk provided to Army officers [to facilitate] the shift of aircraft units.

III. Replacement of aircraft

It should be made a principle that personnel from mainland Japan should fly replacement aircraft to battlefronts.

At the outset of the war, [replacement aircraft] were flown to battlefronts by personnel of units from the mainland. However, it was changed afterwards in such a way that front personnel were dispatched to the mainland to fly them back [to the battlefronts]. But even when we dispatch personnel to fly back replacement aircraft that have reportedly completed their test flights

at the Yokosuka Naval Air Technical Arsenal in mainland Japan, the fact remains that none of these planes have been tuned perfectly enough to meet the demands in actual fights (particularly, their performance was unsatisfactory when they were flown at a high altitude), and the dispatched personnel need to spend another several days performing maintenance work on the aircraft they flew [to the front].

During these periods [of transport and maintenance], unexpected enemy movements really worry us. It is of course not absolutely impossible to dispatch personnel from operational units to fly [replacement aircraft], considering the number of crews in reserve at the [less] busy moments of an operation. There might be some advantage anyways in having part of crews return to mainland Japan in turns and let them have an opportunity for some mental rest. However, from another point of view, not a few [personnel] are feeling uncomfortable at returning to mainland Japan alone, leaving many brothers in arms at the front, which means [returning to mainland Japan to fly replacement aircraft] does not necessarily give mental rest to those assigned. When considering that the operations are the top priority, we need to make it a principle that replacement aircraft should be flown [to the fronts] by personnel of the units in the mainland.

IV. Drills

1. I think that we need to set up a training base suitable for every theater of operations, deploy a suitable target ship, at suitable moments pull back elements of an aircraft unit depending on the progress of the operations and have them conduct drills.

In my opinion, the bombing drills against the *Settsu*, conducted from 10 October until the end of November before the opening of hostilities, were very effective in that the drills gave [the participants] the confidence to face the enemy and destroy him. Bombing and torpedoing always require tireless trainings. Although [my men] have been making efforts to maintain and improve their skills by faithfully conducting as many drills as possible in their spare moments between missions [even] after the opening of hostilities, they were not able to produce the results they had hoped for, since it was often impossible to obtain suitable targets regardless. The need for such [drills] is keenly felt, [particularly] under current circumstances where a large number of new crews are being allocated to operational units and where trainings to upgrade copilots to [full-fledged] pilots are constantly required as in mid-sized land-based attack plane units.

2. I [also] keenly felt that the regular studies and drills for reconnaissance and probing are remarkably deficient. From now on, we need conduct drills that are more useful in actual engagements.
 - (1) In regular exercises, enemy movements can easily be gathered from the so-called exercise situations, while this is not the case at all in actual engagements. Also, whereas in regular exercises not much attention needs to be paid to obstruction by enemy aircraft, in actual engagements we do. Since both reconnaissance and probing are inevitably conducted from afar at a high altitude, they consequently take place under conditions that are very different from everyday conditions, for which reason we experienced failure so often.
 - (2) As a result of [reconnaissance and probing] conducted from a long distance at high altitudes, it is extremely difficult to identify types of ships, etc. We need to regularly practice solid basic trainings in identifying types of enemy naval vessels.
 - (3) Photo reconnaissance is absolutely necessary. [However,] photographing skills are generally not sufficient. Trainings in photo reconnaissance [skills] from a high altitude are required.
 - (4) We need to thoroughly conduct drills in how to probe with probing aircraft.
3. I [also] keenly felt our lack of study and drills in [improving] our capacity to operate at night and execute night attacks. I think we need to stage from now on more exercises [on night operations].

V. Aircraft and ordnance

1. I keenly felt that not only the performance of our Type-96 land-based attack planes but also even that of our Type-1 land-based attack planes do not meet the requirements of modern warfare. I think we need to swiftly work on a mid-sized land-based attack plane that will meet the following conditions.

(1) In order to deliver effective attacks on the enemy while eliminating interceptions by enemy fighter planes with a single land-based attack plane, fast speed is absolutely necessary; its cruising speed needs to be 250 knots or more and its maximum speed needs to be 300 knots or more when flying at an altitude of 4,000 meters.

Also, [the fuselage of] the plane needs to be strong enough to enable [us] to dive at an angle of 30 degrees or more when engaging enemy aircraft.

(2) [The plane] needs to be able to carry at least two No. 50 bombs or one 1-ton torpedo as offensive weapons.

(3) Considering the geographical features of the Greater East Asia Co-Prosperity Sphere which stretches over a vast area close on 5,000 nautical miles, [the plane] needs to have a practical action radius of 1,500 nautical miles at minimum in offensive conditions in order to adequately display our offensive power.

(4) In order to break through bad weather and fully demonstrate its cruising range, [the plane] needs to be able to fly at an altitude of 10,000 meters or more.

(5) Defensively, [the plane] needs to be [as flame-proof] as U.S. B-17s so as not to easily catch fire by attacks of enemy fighter planes. It needs no saying that the more machineguns are fitted for its defense, the better. Nevertheless, in my opinion it is adequate to equip it with 13-mm machineguns (with a high rapidity of fire) at its nose and tail as long as they do not harm its previously-mentioned performance [requirements].

2. The currently used Type-98 land-based reconnaissance planes are [already] wanting in performance. In my opinion, we need to promptly work on a [new] reconnaissance aircraft with a cruising range of at least 1,500 nautical miles, putting top priority on its speed.

3. We need to work on a telescope that is easily usable for reconnaissance on aircraft.

After coming through several sea engagements in this [operation], I keenly felt that the drills for crews to identify types of naval vessels were insufficient. Moreover, unlike in regular exercises, in actual engagements we were often compelled to conduct reconnaissance from a [long] distance at high altitudes; for such cases, we need telescopes that are usable on aircraft. They should be swiftly worked on.

4. When taken from a high altitude, the currently used air photos are unclear, and in most cases, they are so unclear that it is difficult to identify types of naval vessels on them. We need to work on an on-board camera suitable for [photographing from] high altitudes.

5. My group has installed in the aircraft fuselages a simple space for processing photo films where during the flight we can process the reconnaissance results or the impact of shells, and present them upon landing, which has enabled us to promptly obtain very precise knowledge. In my opinion, large land-based reconnaissance aircraft as well as mid-sized land-based attack planes need to be outfitted with such equipment.

6. In some cases, [even] two direct hits from 60-kg regular bombs at the bow only listed a mid-sized merchantman, without easily sinking her. Also, 60-kg bombs are too small for light cruisers or submarines. In my opinion, we need to newly manufacture and provide 150-kg regular bombs.

I think that the appropriate standard [sizes of] bombs to be used are the following:

a battleship:	500-kg to 800-kg regular bombs
a large cruiser:	250-kg to 500-kg regular bombs

a large merchantman:	}	150-kg regular bombs
a submarine:		
a small merchantman:	}	60-kg regular bombs
a destroyer:		
an attack on an airfield:		150-kg to 250-kg regular bombs
a stronghold:		500-kg to 800-kg regular bombs
a city:		use of a mix of various types of bombs
troops on the ground:		regular bombs with a size of 150 kilograms or more

[In my opinion], it is in general more expedient to drop a small number of large bombs with a wider damage radius than dropping a large number of small bombs with a smaller damage radius in attacking airfields or [enemy] troops on land.

When in the future large land-based attack planes are to be put into service, we need to work on 1.5-ton bombs.

7. We need to work on a light torpedo with a total weight of 500 kilograms for attacks on merchantmen.

During the period from 1 until 17 February mainly at the Bangka and Karimata Straits, our unit bombed as many as thirty merchantmen, who were conducting rescue [operations] or were trying to escape from Singapore, but those we scored hits on and sank were just nine ships. In view of the fact that the strike accuracy was very poor in bombings by a single aircraft, I think we need to work on such a torpedo. In regard to merchantmen, I think that we can produce certain results even if such a torpedo runs on the surface of the waters. Therefore, a simple one with a running range of [as short as] 500 meters needs to be worked on.

8. We need to work on a large antisubmarine machinegun to be fitted on mid-sized land-based attack planes.

Although mid-sized land-based attack planes were often employed for guarding against or attacking enemy submarines, antisubmarine bombing attacks by mid-sized land-based attack planes produced very few results. I think we need to work on a large machinegun [effective enough to] make it impossible for enemy submarines to submerge.

11. The Conclusion of the Java Invasion Operation

Military Gains and Losses

Although it is impossible to show the military gains and losses of each unit during an identical period of time due to a lack of data, the gains and losses thought at that time to have been gained or sustained mostly during the period of the Dutch East Indies operation were as follows (some numbers only cover the period of the Java operation while others include periods after the Java operation):*

* The following lists and tables contain a number of problems when compared to data given earlier in the present volume or to data found in the archival records, Japanese or Allied. For the sake of consistency, we have silently corrected some of the data, but left most of them as they are in the Japanese text. These lists should be handled with caution. It is beyond the scope of the present translation project to try to solve the problems which these lists present.

1. The military gains and losses of the Dutch East Indies Unit, Part I

The military gains and losses in the operations to capture Tarakan, Balikpapan, Menado and Kendari from 16 December 1941 until 24 January 1942 as reported at that time were as follows:⁽⁶⁸⁾

(1) The military gains

Sank:	1 Minelayer
	4 Submarines
[Aircraft] brought down:	6 aircraft
[Ships] captured:	3 (1 merchantman, 1 light ship, and 1 steam launch)
Abandoned bodies:	about 520 men
Captured ordnance:	
Armored cars:	4
Field guns:	a few
Bombs, machineguns and rifles:	large numbers
Disposed mines:	325

(2) The losses

Sunk: The *Tatsugami-maru* (auxiliary personnel transport ship), the *Sumanoura-maru* (oiler), the *Nan'a-maru* (transport ship), the *Myōken-maru*, the *Kankō-maru* (auxiliary gunboat), and Minesweepers No. 13 and No. 14

Shot down:	2 Aircraft
Seriously damaged:	Patrol Boat No. 37 and 2 aircraft
Killed in action:	258 men
Wounded in action:	361 men

2. The military gains of the Dutch East Indies Unit, Part II

The military gains of the Dutch East Indies Unit during the period from the capture of Ambon until the completion of the Java operation, i.e. from 24 January until 10 March 1942 were as shown in the following table:⁽⁶⁸⁾

Unit Name	Attacking Vessel	Dates	[Enemy] Cruisers	[Enemy] Destroyers	[Enemy] Submarines	[Enemy] Transport Ships or Merchantmen	[Enemy] Aircraft etc.	Location
Main Unit	<i>Ikazuchi</i>	18 Feb			Sank 1			72 NM north-east of Manui Island
	<i>Ushio</i>	2 Mar			Sank 1			75 NM west of Bawean Island
		3 Mar			Sank 1			85 NM north-west of Bawean Island

Eastern Support Unit	Yamakaze	6 Feb			Sank 1			Outside the port of Kendari
		11 Feb			Sank 1			120 NM east of Menado
1st Escort Unit	Yukikaze, Tokitsukaze	28 Feb			Sank 1			Near the Kragan anchorage
	Natsugumo, Minegumo	1 Mar			Sank 1			Ditto
	Harusame	Ditto					Sank 1 tor- pedo boat	Ditto
	Yūdachi	3 Mar			Sank 1		Ditto	
	Wakaba	8 Mar			Sank 1		South of the Kangean Islands	
2d Escort Unit	Amatsukaze	4 Feb			Sank 1			Outside the port of Ambon
	Patrol Boats No.1 and No. 2	21 Feb				Captured 1 mer- chantman and 1 oiler	The Semau Strait of Timor	
	Amatsukaze, Hatsukaze	1 Mar			Sank 1		Near the Kragan Anchorage	
	Hatsukaze	Ditto			Sank 1		Ditto	
	Arashio, Asashio	Ditto			Sank 1		Ditto	
	Amatsukaze	3 Mar			Sank 1		Ditto	
	Tokitsukaze	5 Mar			Sank 1		North of Bawean Island	

3d Escort Unit	<i>Harukaze</i>	1 Mar				Sank 1 transport ship		Off Bantam
	<i>Natori, Harukaze, Hatakaze</i>	Ditto			Sank 1			Ditto
	Minesweepers No. 3 and No. 4	Ditto			Sank 1			Ditto
	<i>Matsukaze, Shiokaze</i>	2 Mar					Sank 1 gunboat	80 NM south of Cape Belitung
	11th Destroyer Div (minus <i>Hatsuyuki</i>)	1 Mar		Sank 1			Sank 1 gunboat	Bantam Bay
1st Air Unit	Aircraft of the <i>Kamikawamaru</i>	1 Mar			Sank 1			Off Merak
	Ditto					Sank 1 transport ship		Off Cape Batang
							Destroyed 1 aircraft on the ground	Makassar
							19 aircraft	Surabaya
							Shot down 3 aircraft	Ditto
2d Air Unit		1 Mar		Destroyed 1 U.S. destroyer				Off Surabaya
		8 Mar				Sank 1 merchantman		Cilacap
							Shot down 9 aircraft Destroyed 3 aircraft	

1st Base Unit	Antisubmarine net	1 Feb			Sank 1			The Bangka anchorage (contacted mines)
	Submarine Chaser No. 3	2 Feb			Sank 1			Northeast of the Bangka anchorage
	<i>Michishio</i>	7 Feb			Sank 1			East of Butung Island
	8th Destroyer Div	20 Feb	Caused minor damage to 1	Sank 4 and seriously damaged 1				Sea engagement off Bali
	<i>Fukuei-maru</i> No. 15	21 Feb			Sank 1			7 NM northeast of Batang Island
	<i>Asashio</i>	2 Mar			Sank 1			50 NM north of the east point of Madura Island
	Submarine Chaser No. 2	3 Mar			Sank 1			North entrance of the Lombok Strait
	21st Destroyer Div	28 Feb				Sank 1 transport ship		South entrance of the Lombok Strait
	Submarine Chaser No. 14	5 Mar			Sank 1			North entrance of the Lombok Strait
	<i>Arashio</i>	9 Mar					Sank 1 mine-sweeper	East of the Madura Strait
	<i>Michishio</i>	21 Feb					Shot down 1 bomber	North of the Lombok Strait

2d Base Unit	Mine-sweeper No. 20	1 Feb			Sank 1			Outside the port of Balikpapan
	Submarine Chaser No. 4	7 Feb			Sank 1			Western part of the Celebes Sea
	<i>Minegumo, Asagumo</i>	8 Feb			Sank 1			Off Makassar
Sea Engagement off Surabaya Phase-One			Sank 2 (caused some damage to 1)	Sank 4				
Ditto Phase-Two			Sank 1	Sank 2				
Sea Engagement off Batavia			Sank 2	Sank 1		Sank 1 transport ship		
	[Total]		Sank 5 (caused minor or some damage to 2, which later sank)	Sank 13 Destroyed 1	Sank 29 (note by the author: 28 in total)	Sank 7	Sank 1 torpedo boat Sank 2 gunboats Sank 1 minesweeper Shot down 13 [aircraft] Destroyed 20 [aircraft] (Note by the author: 22 in total)	

That is, [the Dutch East Indies Unit]

Sank: 7 cruisers, 13 destroyers, 29 submarines, 7 merchantmen/
transport ships and 4 other types of ships

Destroyed: 1 destroyer

Brought down: 13 aircraft

Inflicted damage to: 20 aircraft

However, despite the [reported] number of sunken submarines (twenty-nine submarines), according to the documents made available to the public by the United States after the war,⁽¹⁷⁶⁾ the submarines sunk during the Dutch East Indies operation were just the following four submarines:

1. U.S. submarines

SS-174 *USS Shark*: sunk on 11 February off Manado

SS-176 *USS Perch*: sunk on 3 March north of Surabaya

2. Dutch submarines

K-XIX: Sunk on 26 January in the Makassar Strait

K-XIII: Sunk in the eastern part of the Indian Ocean in early 1942

3. The losses sustained by the Dutch East Indies Unit, Part II⁽⁶⁸⁾
(between 24 January and 10 March)

Vessel (Ship) Type	Vessel/Ship Name	Date	Degree of Damage	Cause
Cruiser	<i>Nagara</i>	25 Jan	Minor damages (will withstand military operations after emergency repairs at Davao)	Minor collision with the <i>Hatsuharu</i> near the mouth of the Bay of Kendari
Destroyer	<i>Hatsuharu</i>	25 Jan	Ditto (ditto)	Minor collision with the <i>Nagara</i> near the mouth of the Bay of Kendari
Ditto	<i>Suzukaze</i>	4 Feb	Ditto (emergency repairs provided by the <i>Akashi</i>)	Leaks caused by a torpedo attack from an enemy submarine, while patrolling the mouth of the Bay of Kendari
Ditto	<i>Natsushio</i>	8 Feb	Sunk	Sunk by a torpedo attack from an enemy submarine at 50 NM southwest of Makassar
Ditto	<i>Michishio</i>	20-21 Feb	Minor damages (engines inoperable)	Hit in the sea engagement off Bali
Ditto	<i>Ōshio</i>	20-21 Feb	Ditto (will withstand engagements and cruising, though hit at the searchlights and the powder handling room)	Hit in the sea engagement off Bali and in an air raid the next morning
Ditto	<i>Asagumo</i>	27 Feb	Ditto (able to cruise on her own)	Hit in the first phase of the sea engagement off Surabaya

Ditto	<i>Harukaze</i>	1 Mar	Ditto (will withstand engagements)	Hit in the sea engagement off Batavia
Ditto	<i>Shikinami</i>	Ditto	Ditto	Ditto
Minesweeper	No. 9	2 Feb	Sunk	Sank after contacting mine[s] while sweeping the port of Ambon
Ditto	No. 11	Ditto	Some damage (unable to cruise on her own)	Sustained some damage by mine[s] while sweeping the port of Ambon
Ditto	No. 12	Ditto	Ditto	Ditto
Ditto	No. 2	1 Mar	Sunk	Sunk by a torpedo attack in the sea engagement off Batavia
Auxiliary Seaplane Tender	<i>Sanuki-maru</i>	27 Jan	Some damage (emergency repairs provided)	Leaks and ran aground in an [enemy] air raid at Balikpapan

That is, [The Dutch East Indies Unit sustained the following losses:]

Sunk: 1 Destroyer and 2 minesweepers
 Sustained minor or some damage: 1 Cruiser, 7 destroyers, 2 minesweepers and 1 auxiliary seaplane tender

4. The military gains and losses reported by the Carrier Task Force⁽⁶⁸⁾

- (1) The first carrier operation (attack on Port Darwin)
 Brought down 8 enemy aircraft, set 10 aircraft ablaze and inflicted serious damage on 5
 Sank 2 destroyers and 8 auxiliary naval vessels
 Inflicted serious damage on 7 naval vessels
 Set 3 hangars ablaze
- (2) The second carrier operation (carrier operation [on the waters] south of Java)
 Sank 1 destroyer, 5 merchantmen, 1 minesweeper, 13 special service vessels and others
- (3) Losses sustained (aircraft): 1 carrier-based bomber and 1 carrier-based fighter plane, which crashed themselves

5. The military gains reported by the main body of the Southern Task Force⁽⁶⁸⁾

Sank [enemy] vessels [of] 1 cruiser, 1 destroyer, 1 gunboat, 1 sloop, 1 oiler, 1 minesweeper and 6 merchantmen
 Inflicted damage on 1 armed merchantman
 Captured 4 merchantmen

6. The military gains and losses reported by the Air Unit of the Southern Task Force⁽⁷⁵⁾ (4 January - 6 April)

- (1) Losses inflicted on the enemy air force (as shown in the following table):

Shot down (unconfirmed within parentheses)				Set ablaze on the ground (destroyed within parentheses)			
Large Aircraft	Small Aircraft	Flying Boats	Others	Large Aircraft	Small Aircraft	Flying Boats	Others
24 (12)	111 (37)	19 (0)	3 (0)	77 (31)	34 (33)	38 (18)	28 (4)
157 (49)				177 (86)			
334 (135)							

469 aircraft in total

(2) Enemy naval vessels sunk or destroyed (as shown in the following table):

Sunk, Set Ablaze, Listed or Seriously Damaged				Considerable Damage Inflicted by Direct Hits			
Naval Vessels	Destroyers	Submarines	Merchant-men of 10,000t or more	Naval Vessels	Destroyers	Submarines	Merchant-men of 10,000t or more
2 Heavy cruisers 2 Light cruisers 1 Auxiliary carrier 1 Minelayer 1 Gunboat	0	3	18	2 Heavy cruisers 4 Light cruisers 1 Minelayer	8 Destroyers 1 Torpedo boat	2	17

(3) The Losses [of the unit itself]

{1} Aircraft

Type of Loss	Land-based Attack Planes	Land-based Reconnaissance Planes	Fighter Planes	Flying Boats	Total
Crashed themselves	12	6	14	2	34
Hit or marked by bullets	2	0	2	0	4
Total	14	6	16	2	38

{2} Naval vessels

4 Transport ships were sunk

7. The military gains and losses reported by the Submarine Unit of the Southern Task Force⁽⁶⁰⁾

- (1) The military gains of Submarine Unit A
 - Sank 6 merchantmen
 - Inflicted damage on 1 oiler
- (2) The military gains of Submarine Unit C
 - Sank 3 merchantmen
- (3) The losses
 - Submarine I-5 (Submarine Unit C) sustained damage by friendly fire from our aircraft

8. The military gains and losses reported by the army units⁽¹⁶⁶⁾

- (1) The military gains obtained on Java (until 25 March)
 - Prisoners of war: 82,618 men in total
 - Captured goods:
 - 177 Aircraft
 - A total of 940 [large] guns
 - 4,228 Heavy and light machineguns
 - 80,778 Rifles and pistols
 - 5,153 Searchlights
 - 1,728,585 Shells and ammunition
 - 89,071,820 Cartridges for machineguns and rifles
 - 36,000 Bombs
 - Vehicles, tanks, armored cars and special service vehicles, 1,059 in total
 - 9,500 Automobiles
 - 7,108 Train carriages
 - About one-year [supply] of medicines for 100,000 men
- (2) The losses sustained in the Java operation

Unit	Up to 1 March		2-5 March	
	Killed	Wounded	Killed	Wounded
Shōji Detachment	63	165	19	26
Sakaguchi Detachment	1	18	2	28
2d Division	15	10	64	180
48th Division	91	254	0	21
Total	170	447	85	255

Meanwhile on 10 March, the Emperor granted the following Imperial Rescript to the commanders in chief of the Combined Fleet and the Southern Army.⁽⁶²⁾

The Army and Navy units operating in the Dutch East Indies theater have in close and effective cooperation and covering enormous distances overcome numerous difficulties, fought bravely, and destroyed the enemy's air power and fleets, while at the same time determinedly carrying out the most difficult landing operations in various areas, crushing strong enemy [forces] every-

where, and by completely and boldly demolishing every major base of the enemy with great speed, they swept away the military forces of the enemy. We highly approve of them.

An Assessment of the Enemy Movements in the Southwestern Theater

According to the "Greater East Asia War's Lessons of War ([section] Air Operation)," the assessment of the enemy movements after the Dutch East Indies operation was virtually completed as follows:

I. Australia

1. Air forces

(1) U.S. Air Forces

It seems that reinforcements from the mainland of the United States had finally gotten on track and that they were trying to bring aircraft [to the front], when the swift invasion of Java by the Japanese forces took them by surprise. (The *USS Langley*, which was sunk at a point south of Cilacap on 27 February, had been transporting a full load of reinforcement aircraft. It is also presumed that about thirty large aircraft destroyed on the ground at Broome on 3 March had been on their way to Java as reinforcements, too.) Accordingly, we expect that in Australia, not only a remarkable number of reinforcements for Australia and the Dutch East Indies have been assembled but that also a considerable number of U.S. air forces will be transported and assembled there in the future.

(2) The forces that escaped from Java to Australia

Since both [the routes between Java and] the Lesser Sunda Islands and [between Java and] Sumatra were cut off and Java was swiftly captured, it is presumed that the enemy air forces on Java that had [successfully] escaped to Australia were limited to a very small number of large aircraft.

(3) The Australian Air Force

Although it is clear that [some of the] Australian Air Force had been dispatched to the Dutch East Indies, details are not known. Accordingly, it is difficult to assess its current power.

According to an estimate by the Navy General Staff, the Australian Air Force is being reinforced with about 150 aircraft per month on average, including those which returned from overseas deployment, reinforcements provided by the United States and Britain and those which are domestically manufactured (2 February).

2. Surface Forces

Apart from the naval vessels proper to the Australian Navy, we may assume that roughly the following vessels are present in the area:

(1) U.S. Naval vessels

{1} Reinforcements

Although it is difficult to confirm the [number of U.S.] naval vessels [mentioned] in the intelligence reports of early January, in view of the intelligence report communicated right before the sea engagement off Surabaya (27 February) that a considerable number of U.S. naval vessels had been [seen at anchor] in Sharks Bay on the west coast of Australia, it is thought that a certain level of reinforcements has been provided on top of the remaining forces of the Asiatic Fleet.

{2} Task Force

Although the force seems to have returned to Hawaii after its operations in the Rabaul area, in view of the [past] case of having returned to Sydney after the first surprise attack [operation] (in the Marshall Islands on 1 February), we cannot exclude the possibility that the force is operating in Australian waters.

- {3} The forces that escaped from Java
 - About four destroyers, [which escaped] after the sea engagement off Surabaya, and a few destroyers and submarines that had escaped prior to the engagement seem to be staying in the Australia area.
- (2) British and Dutch naval vessels
 - {1} It is thought that part of the British vessels (the bulk of them [were operating] in the India area) as well as some of the Dutch destroyers, who were in the Java area before the [Japanese] invasion operation against Java, have escaped to Australia.
 - {2} The British battleship *HMS Warspite* is likely to have left the west coast of the United States and be operating in the Australia area or in the Indian Ocean.

II. India and Burma

1. Air forces in the India area
 - (1) Currently deployed forces: about 230 aircraft
 - (2) Reinforcements
 - About 150 aircraft from North Africa as well as from the Middle and the Near East (anticipated to be completed in early April)
 - About 100 aircraft reinforced by Britain and the United States
 - About 80 aircraft in preparation to be sent as reinforcements from Britain and the United States
2. Air forces in the Burma area (Intelligence provided by the Army 5th Air Force)
 - (1) Forces
 - Large aircraft: About 20 aircraft, mostly Blenheims.
 - Small aircraft: 50-60 aircraft, of which Hurricanes were largest in number; about 20 of them were P-40s.
 - (2) Replacement air forces
 - So far, it seems that replacements other than those required to keep up the strength [in the area] as shown in the previous item will not be brought in.
 - (3) Deployment of the forces
 - {1} Magwe (60 nautical miles about 210° [SW] of Mandalay)
 - It seems to be a core base of enemy forces retreating from Rangoon; 12-13 large aircraft, a few mid-sized aircraft and forty-odd small aircraft.
 - {2} Akyab: about 20 [aircraft], mostly small.
 - {3} The Taunggyi area (85 nautical miles about 140° [SE] of Mandalay)
 - Sometimes two or three aircraft appear. There are five airfields in the area.
 - {4} Lashio: Two or three aircraft sometimes appear.
 - (4) The operational movements of enemy air forces
 - {1} Bombing of cities
 - [The enemy] has executed bombing attacks on the border areas with Thailand. The bombing attacks on Bangkok are only conducted on moonlit nights with two or three aircraft.
 - No air raids have been conducted since early February.
 - {2} Bombing of bases
 - No particular bombing attacks have been conducted other than those by P-40s on the Chiang Mai [base] (330 nautical miles north north-west of Bangkok).
3. Surface forces
 - (1) Forces
 - 2 to 3 Battleships (both [or either one of] *HMS Royal Sovereign* and *HMS Ramillies*, and *HMS Revenge*)
 - 2 Carriers (*HMS Hermes*, *HMS Indomitable*)
 - 4 Class-A cruisers (*HMS Cornwall*, *HMS London*, *HMS Sussex* and *HMAS Canberra*)

About 10 Class-B cruisers

About 13 destroyers

Several submarines

Other than the above, it seems that the enemy has a few auxiliary aircraft carriers.

The Battleship *HMS Warspite* is likely to operate in this area. Another battleship and two aircraft carriers are anticipated to be sent in as reinforcements in the near future.

(2) Bases

Colombo, Bombay, Mombasa (the east coast of Africa) and Durban (the southeast coast of Africa)

(3) Submarines

Having lost all their bases in the Dutch East Indies and Malaya areas, it is thought that enemy submarines will use bases in Ceylon and Perth (western Australia) in the future.

Since the enemy may turn places in the Dutch East Indies that we have not yet seized into supply bases for submarines, it is necessary to be on guard against this [possibility].

Evaluation of the World Situation and the Fundamental Principles in Conducting the War

On 7 March 1942, the following evaluation of the world situation was agreed upon at the liaison conference between IGHQ and the Government:⁽¹⁴⁴⁾

Evaluation of the World Situation (excerpt)

I. Measures the United States and Britain are likely to take

From now on, the United States and Britain will cooperate all the more closely in military, economic, financial and other fields. While unitedly striving to degrade the military power of the Axis [Powers] on the one hand, they will on the other hand strive for a rapid buildup of their own military power. By making the conduct of the war against the Axis Powers in Europe their top priority, they will try in conjunction with the Soviet Union to turn the war situation in that theater to their advantage, while striving to secure and strengthen the bases that will enable them to strike back at and attack Japan. And when their power becomes superior, they will plan a counterattack against Japan at a stroke. That is,

1. For the time being, along with the United States and the Soviet Union, Britain will first of all try to rapidly destroy the military capabilities of Germany and Italy, while securing the Mediterranean Sea and western Asia, so as to block Japan, Germany and Italy from cooperating [with each other].

In the east, Britain will strive as much as possible to maintain her naval supremacy in the Indian Ocean as well as to secure India and Australia in order to make counterattacks against Japan and to keep the British Empire united.

2. For the time being, along with Britain and the Soviet Union, the United States will first of all try to rapidly destroy the military capabilities of Germany and Italy, while in Australia and the Indian Ocean areas, striving to secure and strengthen the bases from where to launch counterattacks against Japan. It also will strive to concentrate powerful naval and air forces in the Pacific and with one element try to conduct guerrilla-type actions, such as sabotaging Japanese shipping lanes, or conducting surprise attacks on pivotal areas of Japan.
3. While supporting the Soviet Union and the Chiang [Jiang] regime [on the one hand], the United States and Britain are on the other hand pinning their hopes on a move by the Soviet Union to check Japan or its participation in the war against Japan and they are doing their

utmost to realize this. For the time being, they may also plan to obtain bases in the eastern part of the Soviet Union from where to attack Japan.

4. At an appropriate moment when their military strength has become strong enough, the United States and Britain will shift to large-scale offensives against the Axis [Powers]. It is highly likely that against Japan they will in conjunction with the Soviet Union and China, try to directly attack pivotal areas in Japan from the continent, while with their main force launching counterattacks to recapture one strategic point after another [in the southern areas] from the direction of Australia and the Indian Ocean.

[However,] it will be by and large in 1943 or later before they will be able to execute such large-scale offensives.

Reference: Situation in Australia and India (Omitted by the author)

- II. The measures the Soviet Union is likely to take (Omitted by the author)
- III. The measures Germany and Italy are likely to take (Omitted by the author)
- IV. The movements of the Chongqing regime (Omitted by the author)
- V. The movements of neutral countries (Omitted by the author)
- VI. The changes in the national strength of the countries

1. The United States and Britain's war potential

- (1) The United States

The United States is likely to devote all its energies to improving bottlenecks in its production sectors and getting ready for a total war. Generally speaking, until the end of 1944 its military readiness and production capacity [to supply] military demand will have made dramatic progress.

However, after that, due to shortages of resources that are dependent on the outside world, of labor and transport capacity, the rise in production capacity may gradually come to a standstill.

- (2) Britain

If current conditions continue, a slight increase in its military capacity will still be likely in the future.

However, in terms of human resources, the British mainland has almost reached its limit. Since in terms of physical resources, it further has to depend on overseas countries particularly the United States, and with the loss of its naval supremacy as well as its [overseas] territories and colonies, its war potential will inevitably show a tendency to decline.

- (3) An overall observation about the United States and Britain's war potential

The United States and Britain's total war potential when combined is very strong; they have the capacity to rapidly create a war capability superior to that of Japan and prosecute the war for a longer period of time.

Although they are on the whole also very strong in their fighting spirit, they have the following weak spots.

- {1} Their human military potential is not as [excellent] as their physical military potential.
- {2} Although [they] have a massive military potential, the political and economic systems of the United States and Britain, those of the United States in particular, have not yet been put on a footing essential for prosecuting a total war. From now on, numerous conflicts and complications will arise before such a footing is established.
- {3} Although they have superior armaments, the loss of operational bases has markedly reduced their value.
- {4} Britain's war potential very much depends on its maritime transport capacity.
- {5} The maritime transport capacity of the United States is poor compared to its national power, which makes it impossible for the country to give Britain all-out support.

- {6} The impact of isolating and separating the United States and Britain from each other on their ability to prosecute the war is incomparably greater than that of isolating and separating Japan and Germany from each other.
- {7} It is possible that isolating and separating Britain from its self-governing dominions and colonies may lead to the fall of the country in the end.
- {8} Since the living standards of the people of the United States and Britain are high and a fall in these standards may cause much pain, a continuation of the war with no hope for [immediate] victory will foment social instability and bring about a decline in morale in general. Particularly, the defeat of Britain will have a huge impact on [the morale of] the United States.
- {9} While the ties between the United States and Britain are natural, the alliance between the United States, Britain and the Soviet Union is unnatural, and contains many contradictions.
- {10} Since the policies adopted by Roosevelt and Churchill tend to be speculative and adventurous, not all people necessarily are willing to follow their leadership.
- 2. The Soviet Union's war potential (Omitted by the author)
- 3. Germany and Italy's war potential (Omitted by the author)

Following this evaluation of the situation, Japan decided on the following fundamental principles in conducting the war to be adopted from now on (excerpts).⁽¹⁴⁴⁾

The Fundamental Principles in Conducting the War to Be Adopted from Now on (7 March 1942)

1. In order to make Britain surrender and the United States lose its will to fight, [Japan] shall continue expanding the military gains it has already achieved, and at appropriate opportunities take aggressive measures, while preparing a political and military system that will be invincible for a long time.
2. By securing the occupied areas and the main lines of communication, [Japan] shall expedite the development and use of [natural] resources essential for its national defense, establish a condition of self-sufficiency and strive to strengthen the military power of the nation.
3. A concrete plan for a more aggressive conduct of war shall be decided upon after having taken into consideration such circumstances as the Japan's national power, the progress of the operations, the war situation between Germany and the Soviet Union, the relations between the United States and the Soviet Union, and the movements of the Chongqing [regime].
4. The measures to be taken against [movements of] the Soviet Union (Omitted by the author)
5. The measures to be taken against [movements of] the Chongqing [regime]. (Omitted by the author)
6. The cooperation with Germany and Italy (Omitted by the author)

Evaluation of the Achievements of the Initial Operations

On 11 March 1942, IGHQ and the [Japanese] government made the following evaluation of the achievements of the initial operations:⁽¹⁴⁴⁾

What are the differences in the achievements of the initial operations, compared to the plans in terms of [Japan's] military, economic, and political [goals]?

I. Military

1. [Achievements] against the United States, Britain and the Netherlands

As a result of the fact that the [Japanese] Army and Navy have achieved far greater initial military gains than expected, both the United States and Britain have been put on the de-

fensive for the time being, which has created a situation that is advantageous [to Japan] in terms of the defense of its territory and securing its vital shipping lanes. Moreover, it has brought an opportunity to be now able to shift to an offensive strategy by making use of the current tide of the war, contrary to the expectations that [Japan] would be forced to adopt a defensive strategy in order to carry on a drawn-out war to a successful finish.

Explanation:

- (1) Except for some delay in the Philippines (note by the author: the capture of Bataan Peninsula), the army operations have progressed on the whole by about one month faster [than planned]. Also, the losses of our forces were unexpectedly light.

Above all, this made it possible to already launch the Burma operation, which was expected to be conducted after the rough completion of the southern operation, with the reserve strength that had been spared early on in the southern theater.

- (2) Whereas our naval operations have not just dealt a great blow to the main forces of the U.S. and British fleets in the Pacific area at the beginning of the hostilities but [actually] destroyed most of the enemy surface forces in the East, our own losses were unexpectedly small. For the time being, this has led to a reversal of offensive and defensive positions in the military power balance between the enemy and us in the Pacific and Indian Oceans.
 - (3) Also, the air operations of the [Japanese] Army and Navy have destroyed the huge enemy air power at a relatively low cost and produced more military gains than expected. Therefore, [the Japanese forces] will be ready to deal with a rapid reinforcement of enemy air forces and prevent a massive enemy air power from being deployed in the Pacific and Indian Oceans in the future.
 - (4) It is likely that when the United States and Britain regain their military power in the future, they will plan large-scale offensives, making use of their remaining bases for counterattacks.
 - (5) Particularly the psychological blow dealt [by Japan] to the enemy military at the beginning of the hostilities must have been immense.
2. [Achievements] against the Chongqing [regime]
Concerning [the achievements against] the Chongqing [regime], the enormous military gains in the initial operations, particularly the quicker-than-expected cutting of the Burma route [to supply the Chongqing regime] (note by the author: the capture of Rangoon, the starting point of the Burma route on 8 March) have led us to expect that they will have a considerable impact on the [regime's] power of resistance.
 3. [Achievements] against the Soviet Union (Omitted by the author)
 4. [Effects] on Germany and Italy (Omitted by the author)

II. Politics

If, with a focus on the [Japanese] Empire, we compare the current world situation with what had been expected before the opening of the hostilities, there is on the whole not much difference with what had been expected at the beginning, though most developments have been more favorable to the Empire than expected.

Explanation (Omitted by the author)

III. Economics

Owing to the huge military gains at the beginning of the hostilities,

1. Securing the [natural] resources in the areas specified in the plans and cutting off the supply of essential materials to the United States and Britain were for the most part achieved earlier [than planned].
2. The maritime transport capacity was on the whole maintained as planned.
3. The prospect is certain that compared to the plans, the acquisition of materials, oil in particular, is likely to achieve excellent results.

Although it may be expected, as shown in the above, that our war capacity in terms of materials will on the whole be strengthened more than planned, our food security still needs consideration.

Explanation

1. Maritime transport capacity

Although there are some differences in the factors by which the [total] tonnage is calculated, the shipping capacity on the whole has mostly stayed [on the level] specified in the plans.

Namely, the decrease in the use of captured ships and the larger-[than-expected] number of requisitioned ships and ships which need repair are offset by the increase in the number of charters from foreign countries and the smaller number of lost or destroyed ships (C ships). Moreover, the ships returning to mainland Japan from now on will be counted as an increase in shipping capacity.

2. Steel

(1) The planned [production amount]

{1} The [planned] amount of steel produced in the fiscal year 1941 shall be [changed] to 4,500,000 tons, which was set at the time of opening of the hostilities, from 4,760,000 tons, which was specified in the materials mobilization plan.

{2} As for the amount for the fiscal year 1942, the amount produced during the southern operation shall be reduced to 3,800,000 tons when calculated on an annual basis.

(2) An estimation based on the current [production amount]

{1} The [actual] amount of steel produced in the fiscal year 1941 reached 4,650,000 tons, which was 150,000 tons more than planned.

{2} For the fiscal year 1942, given that the shipping capacity remains as specified in the plan, the prospect is that a production level of 5,000,000 tons can be secured by intensifying the collection of scrap iron and using [the materials] in store.

3. Rice (Omitted by the author)

4. Materials to be obtained in the southern areas (except for oil)

The [amounts] specified in the plans will more or less be attained.

5. Oil

(1) Expected amounts to be obtained from the southern areas

([The numbers] in the explanation as given by the president of the [Cabinet] Planning Board at the Imperial Conference on 5 November [1941])

	1st year	2d year	3d year
Borneo:	300,000 kl	1,000,000 kl	2,500,000 kl
Sumatra: southern area	—	750,000 kl	1,400,000 kl
northern area	—	250,000 kl	600,000 kl
total	300,000 kl	2,000,000 kl	4,500,000 kl

(2) The expected amount to be obtained in the fiscal year 1942

British Borneo	700,000 kl
Tarakan	250,000 kl
Sanga Sanga	300,000 kl
Sumatra	500,000 kl
Total	1,750,000 kl

Thus, with the completion of Java invasion operation and taking the first stage of the invasion operations as completed, the prospects for the shift to the subsequent operations were very bright.

A Critical Review [of the Operation]

Although the Dutch East Indies operation looked as if it had progressed smoothly, the symptoms of the causes that would become the source of many troubles in the future were already visible, namely:

1. Offense-related [matters]

- (1) The antisubmarine attacks were often ineffective.
- (2) The accuracy of horizontal bombing deteriorated (due to a lack of training).
- (3) It was very difficult to bring down large enemy aircraft.

2. Defense-related [matters]

- (1) While the hit rate of the enemy anti-aircraft fire was good, ours was poor.
- (2) [Our forces] lacked the notion of protecting their bases, due to which no adequate countermeasures were taken and [our bases] were susceptible to enemy surprise attacks.
- (3) [Our forces] had a poor notion of emergency repairs (such as measures to fix damage caused by shots or bombs) and their skills were poor. (For instance, the case of the destroyer *Natsushio* off Makassar.)
- (4) The defensive capacity of our land-based attack planes was remarkably poor. (Note: It was impossible to increase their defensive capacity with the technology on hand at that time since longer cruising ranges to enable them to conduct operations over the open seas were given priority.)

3. Others

- (1) A serious lack of capabilities to set up bases
- (2) Insufficient communication capabilities, particularly the insufficient capability of signal communications of the rapidly constructed land bases.

Among these problems, the fact that the antisubmarine attacks were not effective became the source of enormous problems in later periods.

Reference: The actual performance of antisubmarine attacks by the Japanese Navy at that time

1. The performance of the sonar equipment (Type93 Mark I and Mark III) on the destroyers of the fleet [in a test mission to] clear [hostile] submarines (according to 'A study on the improvement of the underwater detection skills of the fleet')

The [successful] detection rate of totally submerged submarines		50%
The percentage of false detections in the total number of detections		50%
The detectable distance		1700 [meters]
Accuracy	Margin of error in terms of direction	+ -6.5°
	Margin of error in terms of distances	4%
The maximum speed at which detection [is possible]		14 knots (though noise from the direction of the bow was large)
The capability to receive sounds emitted by hostile submarines		Able to detect their direction when sailing at 18 knots
The interference of sounds emitted by other [friendly] vessels		Sometimes it is difficult to detect [the enemy] due to mutual [friendly] interference

The distance at which totally submerged submarines are acoustically locatable	500 [meters] or less to locate them with certainty
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(Findings)

Their [main] weakness is their poor reliability with too many [reports of] false detections. [Also] their performance varies very much according to the season and sea areas.

2. Findings on the maintenance of the underwater detection equipment⁽¹⁶⁷⁾ (according to ‘A study on the improvement of the underwater detection skills of the fleet’)

(1) Having served in the fleet and actually having handled underwater detection equipment and personally having made efforts to service the equipment, we keenly feel that the underwater detection equipment still possesses a great many mechanical defects, that it is too intricate [for the personnel in charge] to handle, and that the personnel are so unskilled that it is currently impossible to expect them to perfectly tune up the equipment.

When we look at the circumstances of the troubles, we found that about 130 cases of the about 330 problems [reported] in about six months were caused by poor maintenance and service.

This large number proves how important it is in the current [situation] of the fleet to service the equipment in order to fully bring into play our underwater detection skills. Although there may be various measures to counter this [situation], the following will generally be needed:

- (1) To quickly improve the current underwater detection equipment so that all mechanical defects will be eliminated.
- (2) To study and improve its installation.
- (3) To simplify the equipment.
- (4) To prepare manuals with illustrations and send them quickly to the vessels on which the equipment is installed.
- (5) To rapidly prepare textbooks for the handling of the underwater detection equipment and distribute them.
- (6) In the courses on underwater detection equipment at schools, the main emphasis needs to be put on handling the actual equipment firsthand, and it is necessary to particularly emphasize the lessons on servicing as well as on how to locate and fix problems.
- (7) All naval arsenals should swiftly train a number of skilled workers and set up acceptance test sites [for when the equipment is received from the factory], so that it will be impossible that imperfect installations, deficient equipment or incompletely tuned-up equipment will pass through [inspection].
- (8) The number of personnel attached to the staff of the fleet and in charge of underwater detection [operations] should be increased; at least one special duty officer or warrant officer should be assigned to each division, and on top of that, warrant officers with a knowledge of underwater detection [operations] should be put on board of (vessels or a vessel of) each unit as personnel attached to the unit or as a crewman.
- (9) Skilled workers should be sent on the *Akashi* to be assigned to each division.
- (10) Lectures for the torpedo chiefs in charge should be given at [antisubmarine warfare] school or other places at the beginning of [every] fiscal year.
- (11) Appropriate instruments necessary in testing and checking the equipment, such as testers, should be developed, manufactured and quickly provided to the units using the equipment.
- (12) Items concerning the periodic inspections of the underwater detection equipment should be studied, specified [and included] in the inspection regulations at the time of building or repairing vessels.

- [13] As for the hydrophones, the types and the number of spare parts as well as the tools for service and maintenance should be increased in view of the troubles reported this time.
- (2) As stated in the above, [the fact] that no detailed [wiring] diagrams nor manuals were distributed to each vessel seriously hindered maintenance. This was particularly the case with the sonar equipment.

We hope that such documents will swiftly be distributed. From my experiences this time, we suspect that [the Navy] may have left the work concerning the sonars entirely to the manufacturing companies.

In one example, the circuit of the receiver of the Type93 Mark4 sonar had been unknowingly changed. Because of this, the personnel dispatched from the Yokosuka Naval Arsenal ([an] assistant-engineer and several men), who should have been working most closely [with the manufacturing companies] and who should have had the best knowledge of handling the latest weapons, were not aware that the schematic sheet[s] they had brought along were different [from the actual wiring] until they were told by engineer[s] of the Navy Technical Department. It was a good example; it made us keenly feel that the [manufacturing] companies, the Navy Technical Department, the naval arsenals and the operational units did not even [properly] communicate, and in particular that the school, which is supposed to train the personnel handling the equipment, is least of all informed.

We decided to mention [here] the change in the circuit of the receiver of the Type93 Mark4 [sonar] (Receiver No. 14 and later [numbers]) just for reference, because it does show that not only operational units but even the school is not informed. (Separate illustrations omitted by the author.)

- (3) The number of troubles considered to be careless mistakes by [either] naval arsenals or [manufacturing] companies is significantly large. [The fact that] a large number of troubles derives from faulty equipment is most troublesome to operational units, the fleets in particular. It is quite a challenge for operational units to locate mistakes in wiring or misplaced parts. A few examples [of faults] found in the Type93 Mark3 sonars installed on [the destroyers of] the 2d Destroyer Squadron are the following:
- {1} In the sonars installed on six destroyers (the *Kuroshio*, the *Yukikaze*, the *Ōshio*, the *Arashio*, the *Shiranui* and the *Kagerō*), 500 k Ω instead of 100 k Ω resistor[s] were set at R6 in the grid of the resistors of the receiver.
 - {2} [A] 10 k Ω resistor was placed instead of a 100 k Ω [resistor] for R8 of Receiver T5 of [the sonar on] a destroyer (the *Hatsukaze*).
 - {3} [The electric current] did not pass through the resistor[s] of the projection-reception relay when the the switch circuit worked (the *Shiranui*).
- (4) Faulty installations are so-called irrecoverable mistakes. In view of the difficulty in changing equipment on already-built vessels, we hope that the installation of such equipment will be done with particularly great care and meticulousness. (The rest omitted by the author; items on faulty installations.)
- (5) It is surprising that the basic tune-up of the Type93 sonars is very much defective, which makes us suspicious about the skills of the naval arsenal workers. When Mark3 sonars installed on [the destroyers of] the 2d Destroyer Squadron were looked at, only one of [the destroyers], the *Yukikaze*, had the basic tune-up of its equipment mostly completed, while the basic tune-up of the equipment on all other vessels had to be done all over again from the beginning by [personnel] attached to the staff. Also, all the submarines of the 4th Submarine Squadron, who were equipped with Mark4 sonars, [had to] have the basic tune-up of the equipment done all over again.
- The situation of the 4th Submarine Squadron (Omitted by the author)
- (6) The tune-up of the sonars (Omitted by the author)
- (7) Maintenance and [other important] points of attention

Although many troubles derive from poor maintenance and service as mentioned in the above, the maintenance methods and [other important] points of attention do not go beyond what is [provided in] the lectures at the beginning of [each] fiscal year and the items mentioned in the reference documents handed out there.

The reason why [maintenance] is not thoroughly done is because the sonar personnel are not willing to do it. We felt that even when they notice malfunctions or the unsatisfactory operation [of the equipment], the personnel tend to leave the troubles as they are due to a lack of confidence in testing and tuning up the equipment. Since acoustic equipment is special in the sense that insignificant malfunctions will greatly affect [its operation], particularly in such intricate weapons as sonars, where [multiple] functions operate in correlated ways, just a trivial malfunction in one part will quite often disable [the entire] detection [process].

In view of this [aspect], maintenance training needs to be stressed also in the education of the trainees at schools. Just for reference and in order to grasp the general tendencies, let us give you a few examples below: (Examples omitted by the author).

(8) Findings on the maintenance of sonars on each vessel in [some] destroyer squadrons

{1} 1st Destroyer Squadron

- 1) [The personnel of] this squadron are generally able to tune up the transducers but have not yet acquired the proper tune-up methods.
- 2) Many use the latch on the headphones in an opposite way.
- 3) Not a few are inadequately installed. (Inadequate points omitted by the author.)
- 4) [They tend to] drag the wires of the resistors to control the output of the receivers or the oscillation strength, but such acts will easily disfigure the parts, which then becomes the main cause of noise while having little effect [on improving the output].

{2} 2d Destroyer Squadron

1) The maintenance of the equipment

[Personnel] of all vessels make efforts to maintain the equipment but their efforts are off the point and lack efficiency.

We recorded, as seen in the [list] of problems, inadequate checking of the circuits, inadequate checking and maintenance of the parts in immediate contact [with the personnel], and the defective tune-ups of parts. Although they carry spare parts, relatively few troubles have occurred involving those parts. They need to get a thorough training in how to handle and service sonars.

The points to be considered when servicing [sonars] (Omitted by the author)

2) The sonar personnel

The sonar personnel do not have much knowledge of or experience with oscillating currents and this kind of equipment, and their ability of locating troubles or making inferences about the condition [of the equipment] is poor. Therefore, it is necessary to give them a training as realistic as possible by training them at any available opportunity and having them do acoustic training at least one hour every day.

Concerning [the skills to] detect and locate [the enemy], their [skills to] shift from a search and detect mission to a continuous detection mission, as well as their skills to avoid false detections are still very poor. [Therefore], attaching [more] importance to such [skills] rather than to searching skills, they need to conduct exercises in sound-recognition as much as possible.

(End [of quotation])

3. Comments on the 'Findings on the maintenance of the underwater detection equipment'

Concerning the findings [quoted] in the previous item, Cdr. Tsukuda Sadao, member of the Navy Technical Department at the time of the opening of hostilities, had after the war the following recollections:

(1) Comments on the poor quality of the underwater detection equipment

- {1} Unlike other weapons, such as big guns and torpedoes, where it is common knowledge that after handling them for years or even decades, defects have been eliminated, the underwater detection equipment had clearly not yet moved beyond the stage of being a prototype weapon. The point that should absolutely be brought up as a fundamental problem is that the performance of the underwater detection equipment was affected by so many various and complicated conditions that it was impossible to show the true capability of the equipment itself without stating the environment in which it was used.

For example, if we look at the hydrophones, the transducers were theoretically to be placed on a flat surface, in reality however they were arranged three-dimensionally on the outside of a complexly curved surface, which differed according to the class of the vessel [on which they were placed]. One cannot ignore the possible effects of the three-dimensional arrangement, nor the effects of the shape of the hull of the ships on the sound waves.

As for where to install the equipment [on the vessels], it was almost impossible at that time to install it on the most desirable place to make the most of its performance; particularly in the early times, very little attention was paid to the equipment, and quite often the installation conditions were obviously very unfavorable.

On top of that, it was impossible to eliminate such external influences as the effects of the waves, underwater noises, bathymetric features and the refraction of soundwaves caused by anomalies in the underwater temperature distribution, let alone the effects of the water current [which would change] according to the speed [of the vessel] and interference by the vibration of the hull coming from the engines.

It needs no saying that [the detection results] are greatly and directly affected by the features of the target, such as the strength, frequency, and rhythm of the sound of the target in case of acoustic detection, and shape, structure and reflective power of the target in case of sound pulse detection.

Taking such conditions into consideration, upgrading and improving the performance of the equipment would only make them mechanically [more] complicated, which is an unavoidable problem with underwater detection equipment.

- {2} It was in the early years of the Showa period [late 1920s] that underwater acoustics finally attracted general attention, but just like the general attention paid to it, its history as a weapon was quite shallow and low. Consequently, piles of even fundamental problems were left unsolved.

A considerable long period is needed to improve a weapon and make it ready to such a degree that after a crash course even unskilled soldiers can handle it, and [in that sense] the [underwater detection] equipment was still quite far from the final stage [of development].

- {3} The number of troubles was astonishing; the admittedly major cause seems to me to have been the poor quality and low reliability of the numerous electrical parts that constituted the complex equipment. Compared to the present-day standards of the electronics industry, the standards at that time were quite low. Since even such words as quality control or reliable technology, which are common these days, did not exist, there must have been problems in the manufacturing processes as well as with the test techniques.

As a result, besides [poor] parts of very dubious uniformity, we have to add the variations in performance caused by temperature and humidity, or the instability caused by mechanical vibrations, etc., and that is why it was not only very difficult to tune up the equipment but also why minor causes would get the equipment out of order, or in extreme cases even the weather would affect its condition.

(2) Comments on unskilled personnel

- {1} It was true that the quality of the personnel in charge of underwater detection was so low that they did not even have a beginner's knowledge of electrical [engineering] or acoustics. However, prior to that, and taking into account the [equipment's] essential nature as a weapon, I think that we need to change our way of thinking that the weapon depends on the individual personnel's advanced training or their having a good ear for distinguishing subtle differences in sound.

However, it takes a long time for a weapon to reach a level where it can be handled [without advanced training or special skills]. The situation was that it was quite impossible to expect that the underwater detection equipment would actually reach a standard worthy of being called a weapon in only a short period of two or three years.

- {2} Simplification of weapons should be considered only after they have reached a satisfactory level of performance. As for the underwater detection equipment, it was out of the question because making it simple and handy would only worsen its already inadequate performance.
- {3} It is a big mistake to think that one could compensate for the deficiencies and faults of weapons with trainings and drills by the personnel in charge.

A U.S. technical officer in charge of radar, whom I interrogated at Corregidor, was originally a medical engineer, and electric [engineering] or wireless [technology] were out of his field.

He stated that he had been given a special training for [operating] radar for only three months. [According to him,] although he did not understand the intricate system of radar at all, he had mastered how to handle it. There was a list [for how to] deal with troubles; several causes were stated according to the types of troubles, and the measures to fix them were [also] shown in quite a simple way. It went like, "change this part," "if it does not work, then change that," "if both do not work, replace the entire sliding block with a spare;" there were no theories or textbook explanations at all. With that system, he stated, he had never felt handicapped in servicing his weapon.

This is what a real weapon is supposed to be. I keenly felt an immense difference compared to the Japanese underwater detection equipment.

You cannot call it weapons [manufacturing] technology if it cannot produce a weapon that a layman after a mere three months of training can fully handle. It is a stupid effort to give lessons on the theories of electric [engineering] or acoustics, or to explain about circuits to personnel with no basic knowledge of the subjects, and it is nonsense to expect any results from that.

(3) Comments on the measures to prepare the equipment

- {1} It is an ideal to eliminate all mechanical defects, and it is a condition for making it into a weapon. However, at that time, it was almost impossible to achieve that at the [technology] level of not only the Navy but also of the whole of Japan.
- {2} Although there were problems with the installation itself, more basically, the [level of] understanding and recognition of underwater detection equipment on the part of [naval] tacticians and ship-building engineers was also problematic.
- {3} It is true that the diagrams and manuals were incomplete and that they were not appropriately distributed. The system of those days of having engineers in charge throughout [the whole process] from conducting fundamental research, experimenting, planning, supervising manufacturing and writing manuals was quite primitive. Manuals to be read by personnel should not be written by engineers.
- {4} It is only proper that trainings should be focused on firsthand practice at the real system. However, if the equipment is intricate and its reliability low, the trainings will produce little effect despite the enormous burdens laid on the training program. The training methods may have had problems, but I think the equipment bore a heavier onus.

- {5} Even naval arsenals had only a few skilled workers; the reality was that technicians were dispatched from the Naval Technical Research Institute when any troubles occurred. Since [the number of workers was] increased so rapidly, training could not keep up [with the increase]. Although acceptance tests were conducted as a matter of course, I do not think the installation work was perfectly carried out.
 - {6} Although I agree with the necessity to attach special duty officers and warrant officers specifically in charge of underwater detection to the staff, I very much doubt their level of competence, [in the sense whether] special duty officers and warrant officers, who are transferred in the middle [of their careers] to take charge of underwater detection, can really be called experts.
 - {7} Although the idea of placing a large number of professional workers on repair vessels and assign workers to all units was preferable, [the Japanese forces] did not have enough reserves to permanently assign such skilled workers.
 - {8} It is true that sonar was mostly left to [the private manufacturing] companies. Although it may seem that the personnel and financial costs to the Navy were smaller if from the beginning one relied upon the private [sector] with no leadership taken by the Navy, one cannot expect that private companies would take on business that was not commercially profitable. And it is no wonder that [the Navy] ended up being pulled about by the nose at the convenience of the private companies. In all ages, there is no easy way to obtain results without making efforts and sacrifices yourself.
- (4) General comments
- {1} I wonder to what extent the [naval] tacticians understood and recognized the characteristics of the underwater detection equipment, which was based on underwater acoustics, [a technology] highly susceptible to unstable external conditions. Perhaps their lack of understanding and recognition gave rise to excessive hope and expectations, which [then] resulted in large miscalculations.
 - {2} Even graduates of the advanced general and advanced professional courses, the so-called marked-out set, were guys that fundamentally speaking had no close affinity with science or technology, and from the point of view of advanced technology, they were just amateurs.

The equipment to be handled by such men should be very simple and sturdy; prototype-kind machinery that may get out of order anytime or take much effort to locate problems, should be rejected right from the start.

(End [of quotation])

4. Findings on the drills for underwater detection⁽¹⁶⁷⁾ (according to 'A study on the improvement of the underwater detection skills of the fleet')

The underwater detection drills conducted by the fleet did not seem to be thorough at all, and records, rules and handling methods were also ill-prepared and incomplete. In order to enhance the effects of the drills, we need in view of the results of this fiscal year to study and improve them.

It is considered necessary for the fleet to conduct and execute drills on the following items and take the results into account.

- (1) In order to improve underwater detection skills, it is necessary to attach importance to drills at anchor, as previously told (omitted by the author). [In such drills,] relatively effective drills may be conducted if for the divisions or fleets the anchorages at the point of operations or the formations at the anchorages are given [careful] consideration.
- (2) Mutual drills between submarine and destroyer squadrons need to be studied and conducted.

That is, destroyer squadrons have few training opportunities where submerged submarines are set as their targets, while submarine squadrons do not get much training op-

portunities for assaulting directly escorted targets. However, from the beginning of [this] fiscal year, both have actually admitted the need for such basic drills in the first half of the year. If [such drills] that would allow both squadrons to train together are studied and worked out, it would immediately make [more] effective drills possible.

- (3) It is necessary to increase the frequency of [depth charge] projector drills so that they will be conducted twice, both in the first and the latter halves of the fiscal year.

The frequency of [depth charge] projector drills at the fleet was [only] at a rate of once a year. Even at present, when sonars are [already] installed and when the necessity of drills using sonar is recognized, the drills have not changed for a long time. In the current circumstances where sonars are going to be increasingly used, there is no doubt that an improvement of skills cannot be expected with a drill rate of only once [a year], and that, moreover, in the latter half [of the fiscal year]. On top of that, inadequate study and review will lead to the wrong handling of sonars and, along with unskilled instructions, give us no hope for satisfactory results.

Currently the least improved, studied, trained and also the least developed subject in the [operations of the] fleet must be the frequency [depth charge] projector drills. It is most regrettable that in that respect the [attack] fleets are particularly inferior even to the defense units.

It is said that the fleets have conducted drills as much as possible when under sail on alert, [particularly when operating] as clearing units to detect [the enemy]. However, such [underwater detection] drills without projecting [depth charges] will not allow an adequate review of the results, and moreover, they are not drills that include everybody from the commander down.

- (4) There is a need to study [and improve] the reviewing methods of underwater detection drills.

Although [underwater detection drills] have been conducted using explosives as a sound source and smoke-emitting shells, respectively for [the drills of] destroyers and submarines, there still seems to be a reluctance to use such [items in drills].

It is necessary to further increase the number of these [items for drills], adequately use them in all drills and see to it that the results shall be reviewed without fail. It is no exaggeration to say that drills without reviews are worth little.

In the current circumstances, I think further progress can be achieved by using sonars for mutual underwater communications between destroyers and submarines.

If this research produces considerable results, some sonars should be modified so that they can also be used as underwater telephones. By measuring the results through underwater telephones, not only [the issues concerning] the reviews of the results but also security issues can be solved, which, I believe, will have a major impact on the practice of drills.

- (5) It is necessary that rules about underwater detection drills be established at the fleet in the same way as communication rules, and that the drills be conducted under control.
(End [of quotation])

5. [Building] an imitation of a British antisubmarine weapon⁽¹⁶⁸⁾

In the early period after the opening of hostilities, following the seizure of allied naval bases such as Hong Kong, Singapore and Surabaya, investigations into [enemy] ordnance were made, and a British antisubmarine acoustic equipment device called 'ASDIC' (AntiSubmarine Detection Indicating [Investigation] Committer [Committee]) was gotten hold of. [The Japanese Navy] began research into the strong points of the equipment, the flow-straightening cover for the transducer[s] to be installed at the bottom of a ship and the distance recording indicator, and started working on a prototype. The former is expected to help to improve the detection performance under sail, and the latter to facilitate the evaluation of situations in antisubmarine attacks. However, it was not until 1944 that these devices were put into practical use.

6. Antisubmarine depth charges

- (1) On 10 December 1941, Minesweeper No. 10 of the Philippines invasion unit was strafed off Vigan by enemy fighter planes. The strafe directly hit the antisubmarine depth charges (containing Carlit explosive powder) loaded on the upper deck, inducing explosions and sinking the minesweeper. In the next two months, the sensitive Carlit explosive powder was all changed to Type1 explosive powder, which was safer. Due to this change, the explosive power was reduced somewhat compared to those which contained the Carlit explosive powder.⁽¹⁶⁹⁾
- (2) The antisubmarine depth charges in the early years had a slow descending speed (Type95: 1.9 meters [per second]). Since it was slower than the submerging speed of [enemy] submarines, they exploded [far] above them and did not display their full power.⁽¹⁷⁰⁾
- (3) The number of antisubmarine depth charges that could be loaded on a vessel was small; the charges would run out after several drops, which made it impossible to carry out adequate antisubmarine attacks. An example of the numbers of antisubmarine depth charges carried on a vessel at the time of the opening of hostilities is shown in the following table (Later the numbers were gradually increased; by the end of 1942, the number of antisubmarine depth charges carried by a coastal defense ship reached 120.)

Vessel Type	Name	Standard Displacement	Speed	Mounted Guns	Number of Antisubmarine Depth Charges
Coastal Defense Ship	<i>Shimushu</i>	860	19.7	3 x 12-cm	18
Submarine Chaser	No. 1	266	24.0	2 x 40-mm machinegun	36
Ditto	No. 51	110	23.0	1 x 40-mm machinegun	18
Auxiliary Submarine Chaser	No. 1	130	11.0	1 x 7.7-mm or 1 x 13-mm machinegun	18
Auxiliary Minesweeper	No. 1	215	9.5	1 x 8-cm	15
Auxiliary Patrol Boat	No. 1	238	9.0	2 x 25-mm machinegun	8
Patrol Boats	No. 37 (converted from the 2d class destroyer <i>Hishi</i>)	770	18	3 x 12-cm	16?

Remarks: Although antisubmarine depth charges were also loaded on destroyers, minesweepers and other vessels right before the opening of hostilities, the number of charges [per vessel] was [only] 18-20.⁽¹⁷²⁾

7. Submarine attacking methods

Sublieutenant (Later Lt. Cdr.) Mizoguchi (originally Kuzuhara) Satoshi, then torpedo chief of the destroyer *Kawakaze* recalled [the attacks on enemy submarines] as follows:

When attacking [submarines], the center method and the half-circle method were generally adopted. In the center method, we headed with increasing speed toward the point where [the submarine] was spotted or detected and, by calculating the seconds [for us] to reach the spot using charts and counting the time with a stopwatch, covered the point with antisubmarine depth charges released in a zonate way. The half-circle method was used when the direction and the speed of the target was deducible; we would describe a half-circle based on the direction in which the target would advance and calculated on the basis of its speed the distance it would advance and the time when we would encounter it, and cover the central part of the [half-]circle with antisubmarine depth charges released in a zonate way. For this purpose, every vessel measured its inertia at the time of its increase in speed or course change and prepared its own chart, which would enable you to instantly know the angle to turn your vessel and the seconds to reach the point [of encounter] by using it with such data as the distance of the target [from your vessel] when spotted or detected, your speed, the direction of the target from your vessel and the direction in which the target was moving and its speed. The chart was placed on the bridge along with a stopwatch so that the officers on duty could immediately conduct antisubmarine depth charge attacks. Since in this method the distance [to the target], the direction, and the speed of the target was measured only by eyesight, and evasive actions by the [target] submarine after its submersion were not considered at all, it was only with great luck that one could catch the enemy submarine in the zone where the charges were released. On top of that, since there was a risk that the crystals used as oscillators in the transducers at that time might break by the impact [of the blasts], it became practice to retract the transducers into the vessels when antisubmarine depth charges were dropped, which made it impossible to continue the detection up to a close distance. [The order to] "retract the transducer[s]" would be given at 1,000-1,500 meters [from the target] before the vessel gained speed and turned her bow [toward it]. Also, no particular methods based on mathematics were provided concerning [how to] resume detection after attacks. When oil circles came up after the first attack, attacks might be continued with the help of them; otherwise, in most cases they were simply called off.⁽¹⁷³⁾

Sublieutenant (later Lt.) Yoshimatsu Yoshihiko, then torpedo chief of the destroyer *Ushio*, recalled [the antisubmarine attacks] as follows:

[We] mainly located [enemy] submarines by visually spotting their periscopes or the wakes of their torpedoes. When an [enemy] submarine was spotted, we rushed toward her at the order of "full speed ahead," and dropped antisubmarine depth charges at the point where she had presumably submerged. There were four or five patterns in a zonate way to release the charges. Although these thunderous attacks were an inspiring sight, their effect was doubtful. Unlike today, few thought that by making use of underwater detection equipment enemy submarines could be caught and destroyed for certain. Thorough neutralization of [enemy submarines] was impossible also because of the shortage in escort vessels; it was customary to call off attacks at some point to follow the convoy. Although we carried antisubmarine depth charges enough to conduct a couple of [zonate] attacks, I don't recall a time when we attacked the enemy persistently until we used up the entire load of charges.

8. Comments on antisubmarine warfare in general

(1) Comments by Cdr. Tsukuda Sadao (member of the Navy Technical Department at the time of the opening of the hostilities)

On the morning of the day of the opening of hostilities on 8 December 1941, I was privately not at all ready or prepared for it. Though dismayed, I had no choice but to brace myself for the worst. In the previous years, the general use and development of underwater detection equipment had progressed beyond my expectations and to all appearances it looked as if it was ready. In reality, it was too unreliable as a weapon and it was not in a condition to be used to its full extent. As the main person in charge, I knew very well that we

could not expect effective results from it, which made me all the more anxious and kept me awake [at night].

For example, the hydrophones sometimes located a submarine [as far as] 6,000 meters away, but at other times could not locate one [as close as] 2,000 meters away. Also, the sonars sometimes detected one 3,000 meters away for certain, but at other times their performance became unreliable even if [the target was] only 1,500 meters away.

The reasons for the unstable performance were very complex; the conditions of the vessel greatly affected the performance, and so did the conditions of the target. The geographical features, the depth and the wave conditions of the sea [area], the underwater noises and even the distribution of the underwater temperatures had an impact, and in combination, they created an immense variety [of conditions]. Each of these problems could not be solved without spending a considerable amount of time conducting a series of fundamental studies and experiments while gathering and sorting out data. The nature of these problems was not such that you could master them with just skill or intuition. That the Acoustic Research Department (established in 1940) had selected the waters [off] Numazu was also because it hoped to proceed with its theoretical research in tandem with experiments. In terms of the massiveness of the research subject, our research had only just begun.

- (2) The recollections of Capt. Asahiro Hiroji ([became] member of the Navy Technical Department in April 1942)

I [started] working at the Navy Technical Department in April 1942 as a member mainly in charge of the underwater detection equipment. For half a year from February 1943 onwards, I was attached to the Combined Fleet headquarters, and with the *Yamato* as my base, I conducted research on the practical use of the underwater detection equipment at the front, while supporting and guiding the teaching and training [for the equipment].

My conclusion was that the underwater detection equipment, which had been installed with great trouble, was not fully used due to the deficiencies in the equipment and the mental attitude of the [naval] tacticians, and that it was too dangerous to be solely dependent on the underwater detection equipment.

I believe that the Naval Antisubmarine [Warfare] School had done its utmost [in training personnel], but I realized that with a few special exceptions, crash-course-trained underwater detection personnel would hardly be able to handle the equipment. On top of that, the captains of naval vessels seemed to lack an eagerness to actively use it, which, in not a few cases, made the equipment a useless possession. Particularly, it seemed that destroyers, which usually sailed fast, had not had much opportunity to use it. (Detection was possible only at fourteen knots or less.)

- (3) The recollections of R. Adm. Aruga Takeo (then head of the 6th Department of the Navy Technical Department)

The reasons why the improvement of antisubmarine weapons had fallen behind may be viewed as follows:

- {1} Misunderstanding and misjudgment of the importance of antisubmarine weapons

From the start, the Japanese Navy had a great interest in gunnery and torpedoes, and with thorough research and an abundance of talented people had reached a level that compared generally favorably to that of Britain or the United States except for some fire-control devices. It was natural since these were the main weapons in battle. However, defensive aspects, along with damage control on vessels, were considered of lesser importance, and being understaffed, research [in these fields] could not produce effective results. Although recognition of these fields finally improved around the time right before the opening of hostilities and [the Navy] started to put some effort into these fields, the reality was that everything was thrown into great confusion by the opening of hostilities.

Because in the Japanese Navy, such fields as mines, minesweeping, or damage control were essentially viewed as jobs for losers who were not marked out for navigation, gunnery, or torpedoes, those assigned [to antisubmarine warfare] seem to have had a sense of inferiority, and even if they did not, they certainly did not have a sense of superiority.

I believe that such a mindset had a great impact on the morale of the persons concerned. When looking nowadays at European and U.S. antisubmarine weapons, I realize that our point of view was childish and our research effort insufficient, but at the same time I feel a kind of bitterness that the Navy's treatment and leadership in this field at that time caused a loss of opportunities.

Those in charge of administering military affairs or directing military forces in the future must take good note of this point, follow the truth, and draw up careful and appropriate plans, without being deluded by superficial opinions or dazzled by superficial splendor.

- (2) The organizational improvement required for technological integration was too late. Although considerable attention was paid to the research of acoustic weapons, researchers in the fields of navigation or mines [separately] conducted research from their own standpoints without sharing technologies; [both fields] uselessly quarreled with each other over [research] territories, adopting the wrong course for a successful cooperation in this serious matter. It was only after the new establishment of the 6th Department of the Navy Technical Department three years before the opening of hostilities that they finally came together in one coherent team.
- (3) Lessons
 - 1) Everyone focuses on showy subjects and neglects the dull ones. But it is the dull ones that [often] contain matters of importance.
 - 2) The adoption of weapons or improvements of the system need to be approached in a far-sighted, intelligent and cautious way and never miss the right time [to implement them]. It should be done calmly and appropriately and not be disturbed by the actual situation.
 - 3) Technological [research] should be brought together and concentrated, and not be studied at different places [in a fragmentary way].
- (4) The recollections of Cdr. Koyama Tadashi (staff of a destroyer squadron and [later] member of Navy Technical Department)
 - {1} It is said that a leading member of the U.S. Navy, who was stationed in Sasebo after the war, commented on the defensive weapons of the Japanese Navy wondering that they were no different from what they had been after WWI, and that he had thought that the Japanese should have made more progress. Although his comments may have been somewhat exaggerated, it seems impossible to say that his evaluation was far off the mark in the case of mines, antisubmarine depth charges, or minesweeping devices, not to mention the underwater detection equipment, which had just marked a step toward practical use only a few years before the opening of hostilities.
 - {2} No epoch-making development or innovation can be discovered in the Japanese Navy's ideas on the defensive employment of forces from the time of the stipulation of the Sea Defense Order in 1904 until WWI. [But] this the Navy had in common with the navies of all other countries.

However, after the turning point of WWI, along with the progress in the development of naval vessels, weapons, and aircraft in the navies of every country, also in defensive warfare epoch-making changes had occurred in the field of antisubmarine warfare. However, in the Japanese Navy, which after the Russo-Japanese War had been focusing on war preparations against the United States, strategic and tactical thinking was [still] based on the concepts of interceptions and decisive battles between fleets. Especially

after the conclusion of the Washington Naval Treaty [1922], when it came to upgrading naval armaments in line with the defense restrictions included in the treaty as well as with the [Imperial] Defense Policy of 1923 and the revision of the main points of the employment of forces, defensive fields such as defensive warfare were necessarily limited to a bare minimum. These circumstances affected organization, personnel and budgets, and presumably became the main cause of the lack of thorough policies concerning defense.

- {3} Since the Japanese Navy gave priority to decisive battles between fleets, it had kept for years to a policy that matters of defense and the protection of shipping lanes should be limited to the defense of the main ports of mainland Japan and specified advance bases, as well as the protection of the commerce between the Asian continent and the mainland on the waters to the north of the Taiwan Strait.

It is fair to recognize that the armaments required for such a [minimal] degree of defense had been [properly] provided throughout the years. The painstaking efforts, with which the naval authorities had striven for years to improve [naval] armaments on a limited military budget, must have been huge.

However, in the Greater East Asia War, the face and scale [of the defense] had completely changed and become quite different from what the Japanese Navy had envisioned for years. As a result of the expansion and elongation of the sea lines of communication, and also in view of the [available] weapons for antisubmarine warfare, we may say that all the peacetime research, development and preparations were totally insufficient compared to the reality of this war.

(End [of quotation])

As [seen] in the above, the Japanese Navy's actual capability to attack [enemy] submarines was quite inadequate. However, it is impossible to deny that there also existed in the background an atmosphere of thinking lightly of the military power of U.S. submarines. On top of that, for good or for evil, due to the less aggressive operations of the enemy submarines at the beginning of the hostilities, their poor attacking methods, the poor [quality of] their torpedoes (many were duds and others passed under the bottoms of [Japanese] vessels), and their shortage of torpedoes (233 torpedoes in store were lost in the [Japanese] bombing of the torpedo warehouses in the naval port of Cavite,⁽¹¹³⁾ while mass production of torpedoes was still lacking), the Japanese side had only sustained light losses, which made the Japanese Navy further underestimate the ability of the enemy submarines (see the Action Report of the 2d Destroyer Squadron [p. 504]), and it got too late for fundamental countermeasures against enemy submarines.