The direct air support during the Battle of the Java Sea, as seen from the allied side (2015, revised May-June 2016, revised July-August 2016)

Introduction [1]

After a failed air campaign fought in the period of 18 February up to and including 27 February 1942 the allied forces in Java, former Netherlands East Indies, had only one instrument left to try to prevent a Japanese invasion of Java, the Combined Striking Force (CSF) of the combined allied navies. The battle of the Java Sea between the CSF, a naval squadron consisting of cruisers and destroyers from The Netherlands, United States, United Kingdom and Australia commanded by Rear-Admiral K.W.F.M. Doorman and a Japanese war fleet led by Rear-Admiral Takagi Takeo on 27 February 1942 is well known, as is its outcome. Less well known is the fact that during the larger part of the so-called day fight of the battle the allied air forces of the joint combined Java Air Command (JAC) succeeded in keeping up a local air superiority with 15 fighters from Ngoro in eastern Java. The number of 15 consisted of 10 Curtiss P-40Es of 17 Pursuit Squadron Provisional, 17 PS (P), of the United States Army Air Force (USAAF) and five Brewster 339 fighters of the Militaire Luchtvaart KNIL (ML/KNIL, Army Aviation Corps of the Royal Netherlands East Indies Army) detached to this squadron from Andir in western Java. Also little known is the activities of the allied and Japanese cruiser reconnaissance and artillery spotting planes. For the purpose of this paper the support of cruiser float planes is also considered to be direct air support; the paper does not deal with the long range reconnaissance support by flying boats and other aircraft.

Already on 25 February the first three Brewster 339 aircraft were seconded to 17 PS (P), followed by three more the following day. Also six Hawker Hurricanes of the ML/KNIL arrived on the latter day, with a seventh following on the 27th, but these could not be used for air defence tasks yet as their radios were not serviceable. [2] The fighter cover for the allied CSF had been strengthened to the maximum. Per 27 February 05:00 hrs all available P-40 and Brewster 339 fighter aircraft in Java were committed to the protection of the CSF which received priority over the normal air defence tasks. [3] This meant that, for instance, the staff of the Commandant Marine Soerabaja—(Royal Netherlands)

Navy Commandant Soerabaja (CMS, the local Navy commander) could scramble until sunset, through the Commando Luchtverdediging Soerabaja—Air Defence Command Soerabaja (CdoLvd Soerabaja), all available fighters at Ngoro in eastern Java. There was a secure special military telephone line between the two staffs since at least 1940 for just this purpose, while the CdoLvd Soerabaja had a direct secure so-called ABDAIR line to Ngoro. Training before the war had shown that fighters could be in the air within five minutes after an alert from the Navy. [4]

Research questions to be answered in this paper are the following. 1. Was the direct air support for the CSF planned and organised in an efficient way? 2. Did the local air superiority during a large part of the so-called day fight in any way influence the outcome of the sea battle? And 3. Did the "organic" air support of the allied and Japanese war fleets (cruiser float planes) in any way influence the outcome of the sea battle?

Planning

The final arrangements for the air support for Rear-Admiral Doorman during its coming attack on the Japanese invasion fleet approaching eastern Java were decided on around 14:00 hrs (27 February) between ABDA-FLOAT (the allied combined naval headquarters, commanded by the Dutch Vice-Admiral C.E.L. Helfrich) and JAC. This was in fact an update of the previous night's planning of the air support requested by the staff CMS for the CSF. A complete squadron from Ngoro, consisting of 15 fighters was to give support to Doorman during his attack. Douglas A-24 dive bombers of the USAAF based at Malang were to first locate the transport fleet and then carry out the initial attack. East Group of JAC (air units located in central and eastern Java, mainly USAAF units) had been given the task to further work out the planned air support mission and the initial attack by Douglas A-24 dive bombers. The JAC and ABDA-FLOAT staffs were to coordinate the time of Doorman's taking to sea and the take-off times of the aircraft. [5]

In consultation with Major W.P. Fisher, the USAAF officer in charge of "Interceptor Control" (the fighter controllers) at the CdoLvd Soerabaja and Commandant Luchtstrijdkrachten—(local) Air Officer Commanding for fighter operations, East Group planned the deployment of the fighters and A-24s as

one mission. The fighters were to escort the A-24s to the operating area (escort not meant as a military term here, the fighters were to follow the A-24s, with the crew of the lead A-24 doing the navigation for the fighter pilots), part of the fighters first giving air support during the initial attack by the A-24s. The aircraft were to fly ahead of the allied war ships giving the fighter pilots the time to "cleanse" the air in the operating area just before the CSF would arrive. All fighters were to stay above the CSF as long as possible to give Doorman cover against attacks from the air during the naval battle that was expected to evolve. The number of fighters was considered sufficient to defeat a Japanese fighter cover expected to be above the convoy and to break up possible enemy bomber attacks on ships of the CSF. Dependent on the outcome of the sea battle, JAC's heavy bombers were to come into action. [6]

Communications

The normal reporting was altered somewhat for this special joint operation. Normally the commanding Headquarters was to receive a report by (secure) telephone line after landing or during flight by a (coded) morse code message in case of bomber or reconnaissance aircraft, as voice radio was considered insecure, a concise written action report to be sent as soon as possible after landing, simultaneously, to the Algemeen Hoofdkwartier (AHK, the Dutch led joint War Headquarters that had succeeded ABDA Command), JAC, Reconnaissance Group (RecGroup, the staff of the joint, combined force of flying boats of JAC) and the Combined Operations and Intelligence Centre (COIC, the combined interservice ops room keeping track of positions and movements of enemy and own units in the ABDA Area). [7]

In this case the commanding pilot was to report, nevertheless, by voice radio and during the mission to the CdoLvd Soerabaja, more specifically to "Interceptor Control", which was to sent the written out reports by telegram or as a telephone message through the (secure) network of ABDAIR lines and special military lines simultaneously to AHK, JAC, RecGroup and COIC. ABDA-FLOAT, whose operations officers directed the CSF, was to receive the reports via its liaison officers at AHK. (The latter was the normal procedure. ABDA-FLOAT gave the CSF its operational orders while Staff CMS was responsible for the support of the CSF, including logistics as well as part of the information supply as it re-broadcasted all received air reconnaissance reports, including

those of fighters and bombers received from the CdoLvd Soerabaja and COIC, on a Dutch Navy radio frequency for war ships). [8]

The CdoLvd Soerabaja would also report directly to the Staff CMS when a report of the lead dive bomber pilot or the lead fighter pilot was related to operations at sea. Unfortunately, direct communications between A-24s or fighters and allied war ships were impossible because of technical reasons. During his final briefing on 26 February, before taking the CSF to sea in the evening of that day for a search mission, Rear-Admiral Doorman had specifically mentioned that he trusted that the staff of the CMS would keep him informed about the air support and the intelligence they would receive from the air crews. The CMS, through the CdoLvd Soerabaja, was also allowed (contrary to the normal passive listening and re-broadcasting) to forward messages of Doorman to the fighter pilots. Staff CMS would also receive the reports by the lead pilots from ABDA-FLOAT as this staff shared all relevant air reconnaissance reports received via AHK and COIC with Staff CMS, although with a considerable time lag. [9]

Briefing at Ngoro

Major Fisher came over to Ngoro himself for the mission briefing. After a call to his office in Soerabaja to check the latest information from Bandoeng and 5th Bomber Command (USAAF heavy and dive bombers, which headquarters did also sent copies of received concise mission reports directly to the CdoLvd) he briefed Lt G.E. Kiser, acting commander of 17 PS (P) and Lt G.J. de Haas, the commander of the detachment of Dutch Brewster 339 fighters at approximately 14:30 hrs. Fisher detailed all the known intelligence on Japanese ship movements near Bawean Island, talked them through the execution of the mission and gave the planned take-off time and rendezvous time for their meet-up with the available four A-24s near Soerabaja. (These times could be delayed, depending on new information from the Dutch Navy, but Malang airbase would notify Ngoro immediately, by secure ABDAIR telephone line, when the A-24s had taken off). He also told them the mission plan had been talked through (probably by one of his subordinates) with the Royal Netherlands Navy at Soerabaja. Fisher also briefed the Dutch liaison officer at 17 PS (P), Lt A.J.A. Geurtz, and one or two other USAAF officers about the set-

up of the mission during his visit to Ngoro, phoning the Staff CMS to tell them the details of the final mission set-up before returning to Soerabaja.

Subsequently Kiser and De Haas briefed their subordinates. Lt J. D. Dale of 17 PS (P) would lead one of the P-40 flights (five aircraft) and Lt Kiser would act as overall commander and also lead the other P-40 flight (five P-40s). The five available Brewster fighters to be led by De Haas were addressed to as Dutch Flight. To be expected were Japanese Navy O fighters patrolling above the Japanese convoy of transport ships and probably Japanese bomber attacks on ships of the CSF when these were not in combat with Japanese naval units. Also to be expected were Japanese cruiser spotter planes but there would be no allied cruiser aircraft in the air. [10]

The latter seems a bit strange, as the CSF would normally sail with at least five cruiser float planes. The cruiser planes could communicate with their cruisers directly but these airplanes could not communicate by radio with the allied fighters. ABDA-FLOAT had possibly assumed that the CSF, which was at sea since the evening of 26 February and approaching Soerabaja again after its search mission, would be unable to take her aircraft (taken to a shore dispersal base probably in the morning of 26 February) back on board again. However, two planes were still on board of the British cruiser Exeter respectively the Australian cruiser Perth, while the Dutch and American cruiser aircraft were at least in part (the remaining Curtiss SOC-3 of the American cruiser Houston), but possibly all, brought up from the shelter base to the Morokrembangan naval aviation base in the afternoon of 26 February and on stand-by for possible deployment. [11] The rather vulnerable biplanes could easily be deployed from the shore but to be effective they needed a temporary own local air superiority. Whether that could be established remained to be seen.

Air support for Doorman

The 15 fighter aircraft took off from Ngoro at approximately 15:15 hrs and by using both runways simultaneously all were airborne and forming up in record time. They flew directly to the planned rendezvous point near Soerabaja to link up with the Douglas A-24 dive-bombers which were to attack the transport ships of the invasion fleet and had taken off from Malang airbase according to plan at 15:00 hrs. Only three A-24s were circling at the rendezvous, though, the

fighters immediately forming up behind these as the lead A-24, piloted by Captain H. Galusha, was to do the navigation for the fighter pilots, as mentioned already. Shortly after 15:30 hrs the formation set out from the western tip of Madoera Island to the northwest, Galusha searching for the Japanese invasion fleet and its escorts reported to the west of Bawean Island. The rather bad weather had steadily improved since the take-off from Ngoro and the A-24s and the fighters flew in one formation at 4,800 metres with a clear view at the sea after passing Madoera Island. [12]

Between around 16:15 hrs and 16:20 hrs at an estimated 100 kilometres northwest of the western tip of Madoera Island the formation passed two lines of war ships (with roughly 20-30 kilometres between them) exchanging fire, the CSF being, obviously and contrary to the planning, already in combat. [13] (The CSF did arrive early as Doorman had not waited until he received the formal order to attack from ABDA-FLOAT, but had the CSF turn around in the Westervaarwater, the waterway leading to the Navy docks of Soerabaja, as soon as he received a re-broadcasted reconnaissance report from a JAC flying boat with the position of the invasion fleet at 14:27 hrs). [14] Close by, some 18 to 36 kilometres further to the northwest, the Japanese transport fleet with its escorts were found. [15]

Lt Kiser had already ordered the flights, each flying in a standard combat formation split up in a pair and a section of three, to spread out. He now ordered Lt Dale leading B Flight (five P-40s) to cover the A-24s during the attack on the transport ships. Kiser, leading A Flight (five P-40s) and Dutch Flight (five Brewsters), climbed out to 7,500 respectively 8,000 metres to provide air cover for Rear-Admiral Doorman. The two flights then passed directly over the battling war fleets (being above the Japanese line at approximately 16:30 hrs and past the CSF line at approximately 16:38 hrs) and, being shot at by both the Japanese and the CSF, settled in a wide rectangular pattern around the two fleets with the flights and the pairs and sections of them spread out to the maximum. [16]

Having made inventory of the convoy and its escorts the A-24 crews carried out their attack at 16:47 hrs, the dive-bombers, one with light damage, returning unescorted to Malang directly after. Their crews had not been very successful, with only one hit on a transport ship, which kept sailing on (although the

escorting fighter pilots, after their return to Ngoro, reported it as left sinking) and two near-misses. This meagre result was probably expected beforehand and in the briefing for the fighter pilots it was mentioned that the most important task for the A-24 crews was to map out as precisely as possible the composition, position and course of the convoy and its escort units. [17]

About 10 minutes later at or just before 17:00 hrs Capt Galusha radioed his report on the attack results and the data on the convoy and its escort units to Interceptor Control, also giving some details on the sea battle passed first. Reported were about 43 transports protected by about three cruisers and 12 destroyers (changed after his return in the combat report into about 15 destroyers) at 6 degr. 30 min. S, 113 degr. 40 min. E, sailing a course south. At 112 degr. E the A-24 crews saw 18 Japanese vessels in two lines (12 and 6) in combat with 11 allied vessels. Three or four destroyers (believed to be Japanese) were burning. [18].

After B Flight had linked up and shortly after Galusha, also Lt Kiser radioed his first report, noting a change of course of the Japanese invasion fleet to west, and giving the relative positions and number of war ships in combat that could be seen at that moment. He reported a Japanese cruiser (possibly a light cruiser or a destroyer) burning aft but did not note the burning destroyers (these had possibly been Japanese destroyers withdrawing after having laid a smoke screen). Kiser also asked to inform the Navy that the aircraft circling above were allied and that the fighters would have to return within the foreseeable time to be able to land at last light. [19]

The weather in the operating area was fair with hardly any clouds and so was the visibility, offering a good view on the battling war ships, especially the wakes of manoeuvring ships showing very clearly. [20] Japanese aircraft were nowhere to be seen and also Lt Dale had only encountered much anti-aircraft fire from escorting war ships when above the transport fleet but the expected fighter cover had not been there. [21] The P-40s and Brewsters operated at their service ceiling, 7,500 metres respectively 8,000 metres, to be in the best possible battle position, knowing that the Japanese bombers could not bomb ships with any accuracy from altitudes above approximately 5,000 metres. Nevertheless, the fighter pilots flying the highest in the rear end position were especially keen on scanning the 9,000 metres level known to be the

approximate service ceiling of the Japanese fighter and bomber aircraft. A fresh supply of oxygen bottles for both the P-40s and the Brewsters, to make operating at these altitudes possible, had arrived from the Maospati depot of the ML/KNIL in the early afternoon. [22]

From their rectangular circuit around the battling war ships the flights from time to time performed a reconnaissance with a "pair" at approximately 4,500 metres. Also the Japanese cruiser spotter planes expected at lower altitudes (those not already in the air and serviceable would have been catapulted off before the sea battle started) were nowhere to be seen, however. Spotting these when flying low above the sea was difficult even for sharp-eyed fighter pilots but Dutch Brewster pilots had repeatedly proven that spotting a small moving dark spot from 4,000-5,000 metres could be done given a calm sea and little cloud. During the descents half circles were flown for 360 degree coverage. Flying over the Japanese war ships was impossible as whenever the aircraft as much as neared these a dense barrage of anti-aircraft fire was put up. Worse, when flying in the vicinity of the CSF also the allied cruisers fired with their heavy anti-aircraft guns at the P-40s and Brewsters. [23] Doorman obviously did not know that the fighters above were allied.

That should have been easy to correct. As already mentioned Lt Kiser, shortly after 17:00 hrs, had radioed Interceptor Control in Soerabaja his first report and also asked to inform the Dutch Navy that the fighters circling above were allied. The radio connection was good and Interceptor Control had acknowledged the message and said it would inform the Navy. [24] Nevertheless the first time the CSF was approached at lower altitude, the allied cruisers again fired at the aircraft. Kiser repeated the message at approximately 17:10-17:15 hrs when he again gave a report on the naval battle, giving position and course information on the war ships of both sides in relation to a smoke screen just laid by the CSF, but Interceptor Control replied that the Navy had already been informed. [25] The shooting did not stop although it became more sporadic and in any case proved inaccurate, the allied fighter pilots during a low reconnaissance now climbing out somewhat before passing along the ships at some 5,000 metres, just to be on the safe side, and otherwise kept their service ceiling. [26] Doorman, perhaps, did receive the message but may

have been unable to transfer it to his other ships. The Japanese cruisers kept firing at the P-40s and Brewsters with all they had whenever they came near.

Blunders from ABDA-FLOAT?

The CSF had already left the minefields just north of the Westervaarwater when at 15:00 hrs Doorman received the formal order from ABDA-FLOAT "Enemy observed west of Bawean, attack". [27] Had he awaited this order there would, perhaps, have been time to take the Dutch and American cruiser planes back on board but this was not necessary. The aircraft could be deployed from the shore, while the cruisers Exeter and Perth still had their Supermarine Walrus aircraft on board, as said. There was no mentioning at all in the order from ABDA-FLOAT of the air cover arrangements decided on between the ABDA-FLOAT and JAC staffs about an hour earlier, the telegram of ABDA-FLOAT was just sent on the agreed time of the departure of the CSF ships and A-24 dive-bombers. Possibly an earlier telegram about the air support had been sent, which did not survive time, but at approximately 16:00 hrs Doorman asked by radio for fighter support. This he would almost certainly not have done had he known of the planned air support for the CSF. It is possible that a telegram from ABDA-FLOAT in western Java did not reach Doorman in the east. There were problems with radio connections due to bad weather in certain parts of Java and parts of the Java Sea from time to time. The Signal Service of the Royal Netherlands Navy also had serious overload problems giving large delays, although it can be assumed that ABDA-FLOAT messages must have had a high priority. [28]

The staff of the CMS advised Doorman that the available fighters had already been deployed to cover an air raid on the invasion fleet, suggesting with this wording that they were not available to support Doorman while his fighter cover was, in fact, and exactly according to plan, on its way. [29] The above strongly suggests that not only Doorman did not know of the joint planning by the staffs of ABDA-FLOAT and JAC of his fighter cover but also staff CMS. Staff CMS further did not have the right picture of the mission set-up, although the staff was briefed by Major Fisher, as mentioned above. [30] This would also explain why the crews of the CSF ships thought that the aircraft circling overhead were Japanese. Again, a telegram from ABDA-FLOAT might not have reached the CMS staff or did reach the staff but with a large delay.

After the messages of Lt Kiser via the CdoLvd Soerabaja to the staff of the CMS this should have been cleared up, but it was not. First an unknown Dutch navy officer phoned LCol H.J. Ente van Gils, the CO of the CdoLvd Soerabaja, who did not exactly know how the mission of the fighters and the A-24s had been set up (he was not to interfere with missions other than air defence, these were planned and controlled by the local Air Officer Commanding, Major Fisher). He did check for the CMS, though and phoned 17 PS (P) somewhere between 17:15 and 17:30 hrs for information, talking among others to Lt Geurtz, the Dutch liaison officer of the unit. Geurtz confirmed that the P-40s and Brewsters were above the CSF providing air cover. [31] By then valuable time had been lost, the message that the fighters were on the way back to be able to land at last light was received at Ngoro about five minutes after Geurtz put down the phone. [32] The opportunity to deploy the CSF cruiser spotters which, as mentioned above, contrary to the allied fighters, could communicate directly to the allied war ships, was gone.

Allied temporary local air superiority

The allied fighter pilots remained more or less spectators, although far from inactive as constantly checking for enemy aircraft and events at sea. The two war fleets were shooting at each other continuously. It could be seen that the enemy was at the advantage, having a larger number of ships, including two battle ships, as the pilots thought (in fact the Japanese heavy cruisers Nachi and Haguro of Sentai 5, Cruiser Division 5, of the Imperial Japanese Navy). As already mentioned, one of the Japanese ships was visibly hit (a smoke column was seen rising upwards just when the allied fighters were settling in their circuit at 7,500-8,000 metres around the two war fleets) and left the enemy line with a fire on board, to return after a while when the fire had been extinguished. Also on a CSF ship a fire developed after a hit, but this vessel maintained its position in the allied line. [33] As time passed it became increasingly difficult to see which ships were own and which ones were enemy, especially after the CSF had laid the above mentioned (slowly expanding) smoke screen, reporting consequently becoming more global.

Although Kiser reported at least three times, there were no messages from the Staff CMS forwarded through the CdoLvd to the fighter pilots. Kiser radioed his last update on the battle at approximately 17:20-17:25 hrs, also mentioning

that he would have to leave the area shortly to be able to land at last light. He again reported the position and course of the Japanese transport fleet which were approximately 36 km west of Bawean Island and west. At approximately 17:30 hrs the allied fighters started to leave the battle area for Ngoro, leaving flight by flight with the last aircraft gone at approximately 17:40 hrs. [34] The so-called day fight of the battle in the Java Sea ended about an hour later. By then all allied fighters had already safely landed at Ngoro.

The fighters had been providing a fighter cover for a little less than one and a half hours and were in the area almost from the start of the day battle, preventing from at least approximately 16:30 hrs artillery observation (fire control) with Japanese cruiser spotters. Although six Japanese aircraft were in the air (four Nakajima E8N scout-observation aircraft and one Aichi E13A and one Kawanishi E7K scout-reconnaissance aircraft) those in the battle area must have been kept at a large distance as they would not have the slightest chance against the P-40s and Brewsters and were, consequently, not spotted by the fighter pilots. Japanese crews, undoubtedly, did send observation reports to their respective gunnery officers on board of the Japanese cruisers after the allied fighters had passed the Japanese line and settled in a circuit around the two war fleets, but as the observation can only have been carried out from large distances the value of these must have been questionable. [35] That there was no longer any artillery fire control from spotter planes (in the sense of continuously reporting the distance off target of exploding grenades to bring the fire on target) was obvious as there were only very few grenades that actually hit the allied cruisers, although one unfortunate lucky one landed in No 1 boiler room of the British heavy cruiser Exeter, causing her to lose speed and her return to Soerabaja escorted by a Dutch destroyer. It was to save Exeter that CSF ships had laid the above mentioned smoke screen. [36]

As soon as the allied fighters were leaving the scene the Japanese convoy was ordered to resume its course south to the landing sites near Kragan. Also some of the Japanese cruiser biplanes were directed over the CSF and at approximately 17:45 hrs one and at approximately 17:50 hrs two more cruiser scouts dropped two light bombs each above four American destroyers, while being shot at with their anti-aircraft guns by allied cruisers. Without hitting anything, though. Two Japanese destroyer squadrons each led by a light cruiser

regrouped and broke through the by now relatively large area covered with smoke between 17:50 hrs and 18:00 hrs, while at the same time three British destroyers of the CSF moved in the opposite direction for a counter-attack. In front Electra, which just came out of the smoke when three Japanese destroyers were moving into it, receiving a fatal hit in No 2 boiler room in the ensuing artillery fight. The operational situation fast became a very confused one with little or no use for observation planes and consequently no more Japanese cruiser spotters were reported by allied ships during the remainder of the day fight.

The two Japanese light cruisers with their destroyers carried out torpedo attacks and fought a short range gunnery duel before the day fight ended at around 18:40 hrs after the war fleets had lost sight on each other. The Dutch destroyer Kortenaer hit earlier by a torpedo sank at 17:15 hrs, the British destroyer Electra sank at approximately 18:00 hrs, Doorman trying to end the fight at about the same time in a renewed effort to reach the convoy. The Japanese forces did not lose any ships during the day fight but the destroyer Asaguma was seriously damaged and had to be withdrawn, while at least two other destroyers had sustained less serious damage. [37]

Direct air support for Rear-Admiral Takagi

Due to very bad weather above the airbases at Balikpapan (Borneo), Makassar (Celebes) and Den Pasar (Bali) the fighters and bombers of the attack groups of the Japanese Navy air force had not been able to play any role during the day fight. The combat air patrol of Mitsubishi Navy O fighters above the convoy was ended after three Navy Os which had taken off at 12:30 hrs had become missing, although the pilots had been able to make emergency landings as it turned out later. A total of 14 sorties had been sent out, with normally three Navy Os above the transport ships at any time. A bombing mission to Soerabaja from Bali had to be cancelled as were several reconnaissance missions. [38]

After approximately 17:50 hrs as far as is known no Japanese cruiser aircraft ventured above the CSF ships, although some were employed in the search for the regrouping CSF. The first time allied ships reported Japanese planes again was when flares were dropped during the night fight (see later). Also the Japanese regrouped, around sunset (c. 18:17 hrs), and at 18:57 hrs the two

heavy cruisers started hoisting back on board the four Nakajima E8Ns and one Aichi E13A they had launched, a time consuming process for which the vessels had come to a (near) complete stop. The light cruiser Jintsu had recalled its scout shortly after 18:10 hrs already to prepare it for a night mission. Its Kawanishi E7K2 “night scout” was launched again at approximately 18:40 hrs. [39]

As explained above, the Japanese cruiser aircraft could hardly have played a useful role during a large part of the day fight, but this changed during the so-called night fight of the sea battle. The Jintsu scout reported for the first time at 18:46 hrs after it had spotted the remaining CSF cruisers and destroyers. It shadowed the CSF with the help of parachute flares which were regularly dropped, a first series of eight flares being reported at approximately 19:30 hrs and the final series of seven were dropped after the E7K2 night scout of the cruiser Naka had relieved the Jintsu plane at 21:20 hrs. The Jintsu aircraft then withdrew to a position near Bandjermasin for a rendezvous with a naval vessel for refuelling. [40]

A parachute flare was dropped at 21:50 hrs followed by a series of about six flares shortly after but, unfortunately, all communication with the Naka airplane was lost at approximately 22:00 hrs. It probably had to make an emergency landing at sea. [41] Until 22:00 hrs there had been only some artillery skirmishes with some non-serious hits on either side. The CSF nevertheless lost the British destroyer Jupiter which blew up at 21:25 hrs probably after hitting a floating mine. There was, however, quite some uncertainty with the Japanese command about the location and the manoeuvre of the remaining CSF ships, last spotted near the Java coast, after 22:00 hrs. Approximately at 22:30 hrs Rear-Admiral Takagi ordered two destroyer squadrons to join up with his Sentai 5 for a search. At 23:03 hrs the spotters on the Japanese war ships located the four allied cruisers in the moon light. After an artillery duel the two heavy cruisers both launched torpedo’s at 23:23 hrs. [42]

Without any air reconnaissance and by sheer luck Takagi had not only found back the CSF cruisers but also found his Sentai 5 in a good position for a torpedo attack. Two of the cruisers of the CSF, the Dutch ships De Ruyter and Java, received hits shortly after 23:30 hrs and both sank after explosions. The

two remaining allied cruisers withdrew from the battle, the remaining CSF destroyers having already been sent back to Soerabaja earlier. At 00:15 hrs the heavy cruiser Nachi launched its Aichi E13A, the only night capable scout still available. Its crew could not find any trace of the enemy. The CSF had been defeated with great loss of lives. [43]

Conclusions

JAC's air support for Doorman during the larger part of the day fight of the sea battle had been well planned and utilized all operationally serviceable fighters and A-24 dive-bombers available in eastern Java. As shown above, the Japanese cruiser spotters could have had only a very limited impact on the day fight of the sea battle, the allied fighters effectively banning them from altitude-distance positions suitable for artillery fire control from at least approximately 16:30 hrs (about 15 minutes after the start of the sea battle) while none were being reported in the air by allied war ships after approximately 17:50 hrs (about 10 minutes after the last of the allied fighters left). Their effectiveness for artillery spotting lasted for about 25 minutes only.

Unfortunately, and probably because of serious communication errors or problems between ABDA-FLOAT and the Commander CSF, as well as between ABDA-FLOAT and Staff CMS, Doorman had had no support during the day fight from the allied cruiser aircraft. These airplanes could have been deployed for reconnaissance because of the established local air superiority and could have realised more effective artillery results during at least a part of the day fight.

The allied cruiser planes all had only a limited night capability and as far as is known deployments for reconnaissance and artillery observation was only practised during day light hours. The effectiveness of the Japanese cruiser float planes during the night fight was also limited. The most important part of the night fight began only after 23:00 hrs but already at approximately 22:00 hrs all communication with the only night scout in the air (if it was still there) had been lost.

Direct air support had certainly played an important role during the day fight, to the benefit of the CSF, although the effect might have been greater had the allied cruiser aircraft been deployed during the temporary own air superiority. It had played only a limited role during the night fight, Rear-Admiral Takagi

winning the sea battle not because of his cruiser aircraft but because he had more ships and was lucky.

Endnotes

[1] All geographical names are spelled as they were at the time; all times are Midden Java Tijd-Central Java Time (MJT), all dates are given day, month, year or month, year. For air support by flying boats and bombers see P.C. Boer, The loss of Java (Singapore, 2011, hereafter Boer, Java), chapters 2.1, 2.2 and 2.3. The paper only concerns the direct air support and does not deal with the deployment, manoeuvres etc. of naval assets. Mentioning of specific ships and manoeuvres/actions of naval vessels is kept to a minimum.

[2] Boer, Java, p. 174.

[3] Ibid., pp. 177-78.

[4] Interviews author with A.J.A. Geurtz (06.84) and W. Boxman (06.84, led several practise scrambles from Tandjoeng Perak when serving with ML/KNIL squadron 1-VI.G.IV; Boxman was also responsible for the camouflage of Ngoro and visited this concealed airfield regularly). The allied fighters as well as the Japanese fighters did not operate at night. Reader is advised that Commandant Marine Soerabaja was officially abbreviated CMR Soerabaja to prevent misunderstandings with the (Dutch) Chef Marine Staf-Chief of the Naval Staff, but the somewhat informal CMS was more widely used at the time.

[5] Boer, Java, p. 191.

[6] Ibid.; interviews author with A.J.A. Geurtz (01.84, 06.84) and G.J. de Haas (12.72, 02.77).

[7] Reporting scheme as described in “Beschrijving oorlogsoperaties H.F. Zeylemaker”, diary notes of Lt H.F. Zeijlemaker, March 1942; descriptions by H. Creutzberg, LL.M. (02.75, Creutzberg was Lt Adjutant of the AOC JAC at the time) and W. Mulder (07.85, Mulder served with COIC at the time).

[8] Interviews author with H. Creutzberg, LL.M. (02.75), A.J.A. Geurtz (06.84) and G.J. de Haas (12.72).

[9] Ibid.; F.C. van Oosten, “Overzicht besprekingen op de voor- en namiddag van 26 Februari 1942 van sbn Doorman met CMS en commandanten en stafofficieren van de CSF” (letter 19.09.1969). The radios of war ships and the fighters and A-24s worked at different frequency bands that did not overlap. The first radio messages from the lead A-24 pilot and the lead P-40 pilot of approximately 17:00 hrs reached Staff CMS from the CdoLvd Soerabaja directly within 5 minutes but only reached the staff by telegram from ABDA-FLOAT at 17:45 hrs.

[10] Boer, Java, pp. 191-92; interviews author with G.J. de Haas (12.72, 02.77) and A.J.A. Geurtz (06.84). The “Unclassified report of the 17th Pursuit Squadron (P) activity in Java, 14 Jan-Feb 1942”, p. 11 (via AHRA), made up in Australia after the evacuation of the squadron personnel to that country, asserts that A Flight of 17 Sq (P) operated with four P-40s and B Flight with six. This, however, is at odds with the opinion of P-40 pilot L.J. Johnsen (interview with author 12.72) and the interviewed Dutch pilots G.J. de Haas, H.H.J. Simons, B. Wink and G.M. Bruggink, while also W.H. Bartsch in his Every Day a Nightmare (Texas A&M University Press, 2010), p. 295, confirms that Lt Kiser was leading four others as was Lt Dale.

[11] Boer, Java, p. 190; P.M. Bosscher, De Koninklijke Marine in de tweede wereldoorlog, vol. 2 (Franeker, 1986, hereafter Bosscher, 2), p. 610 note 358, p. 289-290; information received from N. Geldhof about the fleet scouts and the training of the crews (1985), telcom author to N. Geldhof 02.06.2016 (with thanks to Nico Geldhof). As far as is known the allied cruiser planes only had a limited night capability. They did not, for example, carry parachute flares.

[12] Boer, Java, p. 194; Army Air Forces Historical Studies No 29A: summary of air actions in the Philippines and Netherlands East Indies 7 December 1941-26 March 1942, Assistant Chief of Air Staff, Intelligence-Historical Division, Washington, 1945 (via AHRA, hereafter Volume 29A, the report only mentions the USAAF aircraft on the mission, three A-24s and 10 P-40s); interviews author with A.J.A. Geurtz (01.84, 06.84), L.J. Johnsen (12.72), G.J. de Haas (12.72, 02.77), H.H.J. Simons (12.72), B. Wink (06.84, 01.85) and G.M. Bruggink (06.84); letter G.M. Bruggink to author 12.08.2003; interview C.A. Vonck by W. Bosman (1946, this short interview report does contain errors, I received comments from B. Wink). In their original 17 respectively 18 April 1946 reports made up in

Brisbane about their active duty with the ML/KNIL in the period January-March 1942 (Netherlands Institute for Military History, collection Ward) De Haas and Simons wrongly mention the take-off time as 16:00 hrs. De Haas copied this from Simons, however, who changed his opinion in December 1972, while the other interviewed former fighter pilots said the time of the first take-offs was shortly after 15:00 hrs, c. 15:10 hrs or take-off was at 15:15 hrs. The "Unclassified report of the 17th Pursuit Squadron (P) activity in Java, 14 Jan-Feb 1942", p. 11 (via AHRA), made up in Australia after the evacuation of the squadron personnel to that country, puts take-off at 16:15 hrs. This is impossible, however, as the Operations Journal of 19th Bomb. Group (see endnote 17) confirms that the attack by the three A-24s was carried out at 16:47 hrs, while it took already one hour of flying from the take-off at Ngoro to the passing of the war ships. Wink and Bruggink suggested to me that the then current abbreviation t.o.t. for time over target may have been wrongly read as take-off time.

[13] Boer, Java, p. 194 (it should be remarked that due to an editing error in the 1st par., 2nd sent. Madoera is wrongly called Bawean); interviews author with G.J. de Haas (12.72), H.H.J. Simons (12.72), B.Wink (06.84, 01.85) and G.M. Bruggink (06.84). Simons also called Madoera, Bawean in his 18 April 1946 report, see note 12.

[14] Boer, Java, p. 190.

[15] Interviews author with H.H.J. Simons (12.72) and B. Wink (06.84, 01.85). The estimates by the former fighter pilots varied as given in the text.

[16] Spence Johnson diary and Gambonini diary, 27 February 1942 (via W.H. Bartsch, Lt R.S. Johnson flew wing to Lt Dale during the mission); Operations Journal 19th Bombardment Group, 8 December 1941-19 March 1942, p. 60 (via AHRA, wrongly mentions 11 P-40s, although the journal is based on original combat reports); Volume 29A (mentions 10 P-40s, the historical study is based upon original telegrams and other messages but only mentions the USAAF aircraft involved); interviews author with L.J. Johnsen (12.72, noted the time 16:38 hrs as he took a few photographs of the battling war ships with his private camera after having passed the CSF line), G.J. de Haas (12.72, 02.77), H.H.J. Simons (12.72), B. Wink (01.85, gives approximately 16:30 hrs as the time

Dutch Flight was above the first line of -Japanese- war ships) and G.M. Bruggink (06.84, 08.2001); letter G.M. Bruggink to author 12.08.2003.

[17] Boer, Java, p. 196; Operations Journal 19th Bombardment Group, 8 December 1941-19 March 1942, p. 60 (via AHRA, mentions the time of attack); interview author with G.J. de Haas (02.77); Military History Office of the Defence Agency's Defence College, Senshi Sosho, vol. 26 (Tokyo, 1969, hereafter Senshi Sosho, 26), p. 635ff mentions an attack on the convoy by 10 bombers at 17:04 MJT reported by Destroyer Division 24 (but also mentions that some ship to ship messages arrived with delays); Capt. Tameichi Hara of the Imperial Japanese Navy with Fred Saito and Roger Pineau, Japanese Destroyer Captain (Ballantine Books, New York and Toronto, 1961), mentions eight Dutch light bombers appearing at 16:57 MJT and also that approximately 12 Zero fighters from Balikpapan shot them down before they could drop a single bomb (which, of course, is far from what actually happened; readers are advised to use this source in combination with other Japanese sources such as the Senshi Sosho volumes).

[18] Boer, Java, p. 196; Operations Journal 19th Bombardment Group, 8 December 1941-19 March 1942, p. 60 (via AHRA); Bosscher, 2, p. 288 and p. 610 note 356; interview author with G.J. de Haas (02.77). According to De Haas it was briefed that the lead A-24 pilot was to report first about the composition, course and location of the convoy and its escort units after which the lead fighter pilot would take over the reporting.

[19] Boer, Java, p. 196; interviews author with L.J. Johnsen (12.72), G.J. de Haas (12.72), H.H.J. Simons (12.72), B. Wink (06.84, 01.85) and G.M. Bruggink (06.84, 01.85, 08.2001).

[20] Interviews author with L.J. Johnsen (12.72), G.J. de Haas (12.72) and G.M. Bruggink (06.84); "Report by Commodore Commanding China Force, 17th March, 1942" in Supplement to the London Gazette of Tuesday the 6th of July, 1948, Wednesday, 7 July 1948, p. 3939 Admiralty footnotes.

[21] Spence Johnson diary, 27 February 1942 (via W.H. Bartsch).

[22] Interview author with G.M. Bruggink (06.84); discussion author with B. Wink (01.85) and G.M. Bruggink (01.85), both remembering vividly the tiring

look-out. The oxygen available at Ngoro had been all but expended during earlier operations on 26 February and a total of two hours of air cover at high altitude above the CSF in the first half of the morning of 27 February by two different pairs of Brewster 339 fighters.

[23] Interviews author with L.J. Johnsen (12.72), G.J. de Haas (12.72, did a reconnaissance at c. 4,500 m. with G.M. Bruggink as wing man), H.H.J. Simons (12.72); description by B. Wink (01.85). All of the interviewed pilots were confident that if there had been Japanese cruiser float planes around doing artillery observation and fire control, they should have been seen (and shot down) by the fighter pilots. Already in January 1942 Brewster 339 pilots of the ML/KNIL proved that it was possible to spot Japanese float planes flying in fair weather at 500 m.-1,000 m. above a (calm) sea from an altitude of 4,200-4,500 m. (interviews by author with A.A.M. van Rest, P.A.C. Benjamins, B. Wink, R.A. Sleeuw and P.C. 't Hart). A Fokker C-XIW float plane of the Dutch naval air service was spotted from c. 5,000 m. when it was on final approach to land besides a cruiser, also in January 1942 (interviews by author with P.G. Tideman and A.E. van Kempen, pilots with 3-VI.G.V at the time who almost shot the plane down). According to "Report by Commodore Commanding China Force, 17th March, 1942" in Supplement to the London Gazette of Tuesday the 6th of July, 1948, Wednesday, 7 July 1948, p. 3939 Admiralty footnotes, there were less than 3/10th cloud and a sea state and swell of 2 I – practically calm, during the battle. Also according to the interviewed fighter pilots there was very little cloud, highly scattered and the clouds too small and thin to conceal a float plane. Identifying the allied fighters as such from the allied ships was nearly impossible in view of their operating altitude. At 7,500-8,000 m. they must have looked almost the same as Japanese cruiser aircraft which were also single-engine aircraft, the E7K and the E8N also being of roughly the same size as a Brewster 339 fighter.

[24] Boer, Java, p. 196; interviews author with H.H.J. Simons (06.84), B.Wink (01.85) and G.M. Bruggink (01.85, 08.2001); letter G.M. Bruggink to author 12.08.2003.

[25] Ibid.

[26] Interview author with B. Wink (01.85).

[27] Boer, Java, pp. 190, 193.

[28] Ibid., pp. 192-93. See for instance Boer, Java, p. 211 for a short description of the communication problems.

[29] Boer, Java, p. 192.

[30] Interviews author with G.J. de Haas (12.72, 02.77) and A.J.A. Geurtz (01.84, 06.84); both confirmed that Fisher had told during the briefing at Ngoro that the planning of the mission (among others the take-off times) had already been talked over with Staff CMS. After the briefing Fisher phoned Staff CMS himself about the details of the final mission set-up. According to Geurtz there had, perhaps, been misunderstandings at Staff CMS because of language problems. That Staff CMS was convinced that the air support requested for the CSF would not come is confirmed in the war diary of the staff, "Oorlogsdagboek Commandant Marine Soerabaja, opgesteld door LTZ1 C.J.W. van Waning, 18 december 1941 tm 29 maart 1942" (Netherlands Institute for Military History, NIMH, collection Van Waning).

[31] Boer, Java, p. 192; interviews author with A.J.A. Geurtz (01.84, 06.84).

[32] Boer, Java, p. 192. According to A.J.A. Geurtz (interview with author, 06.84) the American duty ops officer was phoned by Interceptor Control five min. after his telephone conversation with Ente van Gils ended with the message that Lt Kiser had radioed the start of the withdrawal to Ngoro. The fighters had to land at last light as the runways of Ngoro were relatively short and concealed in the surroundings. It was considered dangerous to land in the dark with only some storm lanterns for runway lighting.

[33] Interview author with G.J. de Haas (12.72); description by B. Wink (01.85); report H.H.J. Simons, Brisbane, 18 April 1946 (NIMH, collection Ward); interview C.A. Vonck by W. Bosman (1946).

[34] Boer, Java, p. 196; interviews author with B. Wink (06.84, comments on the interview with C.A. Vonck by W. Bosman, 1946, remembered being one and a half hour in the battle area from the moment the fighter pilots passed the first line of war ships and having been in the air for one hour until that moment) and B. Wink (01.85, remembered that the withdrawal was flight by

flight, Dutch Flight, having the most fuel left, being the last one to go, having left the area at c. 18:40 hrs).

[35] Senshi Sosho, 26, p. 635ff confirms a number of six scouts (one from the light cruiser Jintsu, three from Nachi and two from Haguro) were in the air during the sea battle but one (from Nachi) is thought to have been tasked with surveillance duties elsewhere, probably Soerabaja harbour. A seventh available scout (from the light cruiser Naka) could not be readied for launch in time as it was still being serviced after a reconnaissance mission. Information about the deployment of the cruiser scouts received from the Military History Office, National Defence College, Tokyo (23.02.83, via P.G. Tideman), the office concluded at the time that there was no documentary evidence of any kind which supported a conclusion that scout airplanes were in or close to the area of the sea battle and able to perform artillery observation duties (unfortunately, due to a translation error, I asserted in previous publications, including Boer, Java, chapter 2.2. endnote 17, that the office confirmed that there were no Japanese float planes near the area of the sea battle). I asked the historians of the Military History Office, NIDS in 1989-90 whether there were any scout to cruiser observation or reconnaissance reports that had survived the war, but there were none. There only was a report of scout pilot Utsunomya Michio from the heavy cruiser Haguro but (although he speaks of "gunnery information") this does not say whether or not he was able to control artillery fire in any way and although he suggests a continuous stream of useful reports, he does not give any details. The relevant part of his report seems to concern only the initial day fight period before Haguro fired its torpedoes (16:52 MJT according to Senshi Sosho, 26) and when there were no allied aircraft above the war fleets (until approximately 16:30 hrs MJT, see endnote 16, interview with B. Wink). The (then, 1990) head of the Military History Office, dr. Takeshi Hara, suggested that the scout crews might have exaggerated their contribution to the victory over the CSF somewhat as they found it inconceivable that the flying crews played such a marginal role in the victory.

[36] Boer, Java, p. 196.

[37] Boer, Java, p. 197 (wrongly mentions the loss of the Haguro E13A, see hereafter); Senshi Sosho, 26, p. 635ff; "The Java Sea Campaign, Combat

Narrative", Office of Naval Intelligence (1943), p. 68; information about the deployment of the cruiser scouts received from the Military History Office, National Defence College, Tokyo (23.02.83, via P.G. Tideman, says the E13A of Haguro was damaged, not lost, in a fire on 27 February); e-mails from Don Kehn Jr., 13-15 July 2016 (with many thanks to Don Kehn Jr. who kindly checked the Sentai 5 combat records for me, published on the JACAR National Archives of Japan site, which do mention wing damage due to an accident on 26 February but do not mention any damage on 27 February to the Haguro E13A; also Senshi Sosho, 26 does not mention damage to this plane on 27 February).

[38] Senshi Sosho, 26, p. 661; Kodo Chosho (Action report) Tainan Kokutai (via Military History Office, NIDS, Tokyo).

[39] Senshi Sosho, 26, p. 635 ff; "The Java Sea Campaign, Combat Narrative", Office of Naval Intelligence (1943), p. 71-72; information about the deployment of the cruiser scouts received from the Military History Office, National Defence College, Tokyo (23.02.83, via, P.G. Tideman, the term night scout was used at the time for a "night capable" scout i.e. a scout plane with engine exhaust flame dampers and some equipment changes such as the addition of parachute flare dispensers); "Report by Commodore Commanding China Force, 17th March, 1942" in Supplement to the London Gazette of Tuesday the 6th of July, 1948, Wednesday, 7 July 1948, p. 3938, pt. 11, pt. 13; Boer, Java, pp. 196, 210 (wrongly mentions in the final par. that the Aichi's could only be deployed during the day and wrongly mentions Mitsubishi F1Ms. The latter should be Nakajima E8Ns, which were indeed replaced by Mitsubishi F1Ms but this happened some time after the sea battle. The single Aichi E13A, and also the Kawanishi E7K of the light cruiser Jintsu and the E7K of the light cruiser Naka, were "night scouts").

[40] E-mail from Osama Tagaya, 7 May 2016 (with thanks to Sam Tagaya who kindly checked the text in Senshi Sosho, 26 for me and confirmed that this states that the hand over from Jintsu's seaplane to that of Naka took place at 22:50 [JST=21:20 MJT] and that communication with Naka's plane was lost at approx. 23:30 [JST=22:00 MJT]); "The Java Sea Campaign, Combat Narrative", Office of Naval Intelligence (1943), p.71-72; "Report by Commodore Commanding China Force, 17th March, 1942" in Supplement to the London

Gazette of Tuesday the 6th of July, 1948, Wednesday, 7 July 1948, p. 3938, pt. 13; e-mail from Don Kehn Jr., 11 May 2016, about the fate of the Jintsu scout (with thanks to Don Kehn Jr. who kindly checked the data from the combat records on the JACAR National Archives of Japan site for me).

[41] Senshi Sosho, 26, p. 635ff; "Report by Commodore Commanding China Force, 17th March, 1942" in Supplement to the London Gazette of Tuesday the 6th of July, 1948, Wednesday, 7 July 1948, p. 3938 pt. 16 and Enclosure I in this report, the "Report by C.O. H.M.A.S. Perth: Action Narrative-Day and Night Action Off Sourabaya, 27th February, 1942", p. 3940 pt. 13. The report by Captain Waller of Perth was considered to be a rough initial report only by the Commodore Commanding China Force, see p. 3937; it does, indeed, contain a number of mistakes, for example the nationality of lost allied destroyers. The report was written by Waller from his own notes and probably in some haste when Perth was in the roadstead of Tandjoeng Priok on 28 February 1942.

It should be noted that Captain Waller in his report only gives the time of one (parachute) flare drop at 21:50 hrs and shortly after and then says: "This happened every time we steered a new course…" (p. 3940 pt. 13). He does NOT explicitly say the drops continued after the drop he mentions, which would have been at odds with the data given in Senshi Sosho, 26. This official Japanese government publication says that communication with the Naka scout was lost at approximately 22:00 hrs and that there was consequently confusion in the Japanese command after 22:00 hrs about the location and manoeuvre of the enemy. The latter would not have been the case had the Naka scout only lost radio contact but had continued its flare drops. Unfortunately, Commodore Collins did read in Waller's text that flare drops continued after 21:50 hrs and he states in his own report, p. 3938 pt. 16, that: "From 21:50 hrs onwards the Allied cruiser force was continuously shadowed and frequently illuminated by aircraft dropping flares…". In my opinion "From 21:50 hrs onwards…" should have read "Until shortly after 21:50 hrs…".

It should further be remarked that dr. Takeshi Hara of the Military History Office, NIDS, Tokyo, in 1990 thought that the Naka aircraft might have been crashed into the sea, as the wording of the text in Senshi Sosho, 26 suggests "missing". Recent research by Don Kehn Jr., his e-mails of 11-12 May 2016, proves, however, that the aircraft was operational again in the morning of 28

March 1942 (with thanks to Don Kehn Jr.). The aircraft probably had technical problems and survived an emergency landing at sea to be recovered the next morning.

[42] Boer, Java, p. 197-98; Senshi Sosho, 26, p. 635ff.

[43] Ibid.; e-mails from Don Kehn Jr., 13-14 July 2016 (with thanks to Don Kehn Jr. who pointed out to me that the Aichi E13A night capable scout of the heavy cruiser Haguro was non-operational after an accident on 26 February, see endnote 37).