

Boeing-built DB-7B similar to the twelve transferred to the Dutch East Indies MLD by the U.S. government in December 1941. Boeing built 240 DB-7Bs on a contract originally placed by the French in 1940, that was assumed by the British in June 1940, many of which were diverted to the U.S. Army Air Corps after December 7, 1941. (Douglas)

There has been much confusion in accounts of the acquisition and use of the Douglas DB-7B and DB-7C by the Netherlands East Indies Navy between October 1940 and May 1941. It was a confusing period and there are few primary sources available. In an effort to provide a more complete account of this subject, though, the following combines material from primary sources, particularly the archives at the Douglas Aircraft Co., with some secondary source material that directly cites primary sources. From these records, a reasonably-complete account of the 32 DB-7Bs and 48 DB-7Cs that were planned to be placed in service with the *Marine Luchtuaartdienst* (MLD), or Naval Air Service of the Netherlands East Indies, and is presented here.

# Background

After September 1939, the threat posed by Nazi Germany to western Europe was quite clear. Indeed, both Britain and France had declared war on Germany on September 3, 1939, after the German army invaded Poland. Despite the 'phony war' period that followed the Polish surrender in early October 1939, the British and French continued frantically trying to rearm. The Netherlands joined the French and British effort, and all three turned to the United States as an untapped resource for weapons, particularly aircraft. For the Netherlands government, it combined several initiatives to procure arms from the U.S. into the Netherlands Purchasing Commission (NPC), based in New York. Efforts to place orders for aircraft were necessarily complicated by the clamor for production from the expanding but still limited output of American factories. The priority offered to the British and French in the rearming effort often pushed the NPC to the back of the line.

In October 1939, just as Poland was surrendering, the NPC placed an order for 24 Curtiss Model 75 Hawk fighters, the export version of the Air Corps P-36. However, efforts made to place orders with other manufacturers were frustrated by priorities and engine shortages. The situation radically changed in May 1940 with the German invasion of the Netherlands, Belgium, and

France. The Netherlands army surrendered on May 14, 1940, but its government went into exile in London and the Dutch colonies, including the Netherlands East Indies (NEI), continued the effort to rearm.

The following month, in June 1940, the NPC ordered 108 Brewster Model 340s, the export version of the U.S. Navy SB2A, for the MLD.<sup>1</sup> In October 1940, 72 Brewster Model 339 Buffaloes, the export version of the U.S. Navy F2A, were ordered for delivery to the NEI (commonly called the Dutch East Indies) to equip the *Militaire Luchtvarrt KNIL* (ML-KNIL), the equivalent of the Dutch East Indies Army Air Force.<sup>2</sup> Engine shortages remained as a production roadblock and in many cases the engines to equip these orders had to be obtained through second-hand channels. Though these two production orders were placed in the summer and fall of 1940, deliveries were not scheduled until 1941.

On June 30, 1941, the NPC placed an order for 162 B-25s with North American Aviation for delivery beginning in November 1942.<sup>3</sup> Orders for other aircraft, including Consolidated Model 28s (PBYs) were also placed with expected deliveries in the last part of 1941 or later.

Through the fall of 1941, though, the situation in southeast Asia and the south Pacific became dire. With the threat of a common enemy looming in Japan, the British and Dutch allied themselves increasingly closer, with the former committing ever scarcer resources to aid in the defense of the Dutch East Indies. Besides being strategically located between Singapore and Australia, the NEI was rich in the natural resources, particularly oil, rubber, and tin, that the Japanese desperately needed.

### The Douglas DB-7

In October 1941, the NPC came to Douglas Aircraft at Santa Monica, California, to negotiate the purchase of Douglas DB-7s. This negotiation resulted in the sale of 48 airplanes for delivery to the MLD for use as torpedo bombers in the Dutch East Indies. Douglas had already enjoyed a working relationship with



Unidentified Boeing-built DB-7B most likely seen at Boeing Field in Seattle. Boeing delivered its DB-7Bs between August 1941 and January 26, 1942, with twelve of the earlier deliveries ultimately being transferred to the Dutch MLD in December 1941. (AAHS Photo 56077)

the Dutch government, having built eighteen Northrop 8A-3Ns for them in 1939.

The Douglas DB-7 was a very capable twin-engine attack bomber. It was derived from the development of the Douglas Model 7B, which first flew in October 1938, in response to a U.S. Army Air Corps request for proposals. Even before the 7B flew, though, it was already under extensive redesign to meet Air Corps requirements. The redesign become the Douglas DB-7 and the Air Corps A-20 series.

In February 1939, the French government received permission from the U.S. government to purchase 100 DB-7s, the initial version of the upgraded design. The French DB-7 was powered by a pair of 900-hp Pratt & Whitney SC3-G Twin Wasp engine. (Note: in this text the engine manufacturer's designation is used for those aircraft/engines not originally ordered by the U.S. government and thus did not have U.S. military engine designations. Contract and other document details for such non-U.S. government orders specify the manufacturer's designation.)

Douglas was already working on a version of the DB-7 for the U.S. Army using the Wright R-2600 powerplant. In May 1939, the U.S. Army placed an order for its version of the DB-7, designated as the A-20, ordering 63 A-20s and 123 A-20As.

Then, in October 1939, the French Purchasing Commission placed a second order for an additional 170 DB-7s. The second order specified that later production DB-7s would be equipped with the 1,000-hp civil Pratt & Whitney S3C4-G engines with two-speed superchargers.

Also in October 1939, the French placed a third order, this one of 100 improved DB-7As, the major change being an engine switch to the 1,600-hp Wright GR-2600AB Cyclone. Then, in short order, the British placed an order for 150 DB-7Bs, also equipped with the Wright Cyclone engines, with an option of an additional 150 aircraft. This contract was signed in February 1940. RAF serials assigned were W8252-W8401, inclusive, with Douglas msn assigned as 3300-3449. On April 17, 1940, the British exercised that option and ordered another 150 DB-7Bs, these assigned the RAF serials of Z2155-Z2304, inclusive, with the Douglas msn assigned as 3450 to 3599.

Also in April 1940, the French came back and ordered 480 revised DB-7s that the French called the DB-73 and Douglas called the DB-7C. These 480 aircraft were to be equipped with the smaller Pratt & Whitney S3C4-G engines as of the latter French



The Douglas flight line outside the factory at Santa Monica in 1941. Air Corps A-20s and British DB-7Bs are seen, along with two DC-3s. (Douglas)



The Douglas factory at Santa Monica produced the majority of the DB-7s and A-20s, though some were built at the nearby (old) Northrop factory in El Segundo and the new Douglas plant at Long Beach. (Douglas)

DB-7 production. These were planned with armament changes that included a solid gun nose and other refinements. Because the French were desperate for aircraft, particularly the DB-7s, an arrangement was worked out whereby Douglas would build 240 DB-7s and Boeing at its Seattle plant would build the other 240 DB-7s.

So, by April 1940, there were 1,336 DB-7s or A-20s on order: 100 DB-7s on the first French contract; 170 DB-7s on the second French contract; 186 A-20s and A-20As for the Air Corps, and then 100 DB-7As on the third French contract; 300 DB-7Bs on British contract; and 480 DB-73s on the fourth French contract.

However, as it happened, none of the 480 French DB-73s from the fourth French contract were built as ordered. Instead, the British assumed the contract on June 17, 1940, after the fall of France, and all 480 aircraft were instead built to the British DB-7B standard. The RAF assigned serials of AL668-AL907 (Douglas msn 3600-3839) and AL263-AL502 to the Boeing-built aircraft (Douglas msn 3840-4079; Boeing msn 2130-2203 and 2718-2883). For Douglas, production was slotted directly in after the original British Purchasing Commission contract for 300 DB-7Bs and were delivered between September 8, 1941, and November 19, 1941. For Boeing, its first DB-7B was delivered in August 1941, and its last DB-7B on January 26, 1942.



Another of the MLD DB-7Cs on the ramp at Santa Monica. This is msn 6266 delivered to the Army Air Forces at Las Vegas, Nevada, on May 9, 1942. It also was soon enough on its way to the Soviet Union as a Lend-Lease transfer. This airplane was probably initially painted with the Dutch inverted orange triangle insignia but was delivered with the AAF insignia. It would then carry the Red Star of the Soviet Union. (Douglas)

## The Dutch Order The DB-7

So, after all of this, the NPC came to Douglas in October 1941 to order a torpedo-carrying version of the DB-7. After working out the design details, Douglas designated the design as the DB-7C (one it had also initially applied to French airplanes in April 1940 that ultimately were built as DB-7Bs). The MLD DB-7Cs were to be built in accordance with Douglas specification DS-421, dated October 10, 1941, and were similar to the DB-7B, having Wright GR2600-A5B engines, with modifications made as needed to accommodate the Dutch-ordered American-built Mark XIII aerial torpedoes and other custom equipment. A cash payment of \$2.93 million, or 35 percent of the estimated contract amount, was paid to Douglas on October 28, 1941. The actual contract to purchase the airplanes was not signed until January 15, 1942, but the order was expeditiously placed on October 16. Delivery of the aircraft was scheduled for April and May 1942.<sup>4</sup>

The terms of the contract specified a total price, including 20 percent spare parts, of \$8.395 million, \$5.457 million of which was paid before the contract was even signed. The contract assumed the performance guarantees of the British DB-7B and mandated no additional tests. The first aircraft was to be used to check the torpedo installation and conduct dropping tests. Otherwise, each aircraft was to be fabricated, assembled, test flown, and then disassembled for shipping. The contract specified that the aircraft were considered delivered when on the dock at San Pedro and available for shipping.<sup>5</sup>

Douglas scheduled production on the DB-7C contract from Santa Monica, and assigned company serials from 6265 through 6312. In the production sequence, this was after a second Air Corps A-20A contract for twenty aircraft and before any A-20C production. The contract specified delivery dates of 20 aircraft in April 1942 and 28 aircraft in May 1942.<sup>6</sup>

After the first payment was made Douglas placed orders with all the necessary vendors, including Curtiss-Wright for the engines and Hamilton Standard for the propellers. On December 3, 1941, however, the NPC advised Douglas that it wanted to utilize 96 of the 120 GR2600-A5B engines already delivered to the Brewster Aeronautical Corp. and planned for installation on their Model 340 dive bomber then being built for the MLD. The NPC



One of the MLD-bound, RAAF-diverted DB-7Bs was A28-5, shown here in RAAF service, date unknown. It rolled off the production line at Santa Monica as msn 3825 with RAF serial AL893 on November 1941. It was slated to go to the MLD, probably as D-68 but was instead diverted again to Australia when the NEI capitulated in early March 1942. It served with RAAF 22 Squadron until September 1943 when it suffered sufficient battle damage on a mission to cause it to ultimately be scrapped for parts. (Douglas)

decided to use upgraded engines in the Brewster aircraft, leaving the GR2600-A5B engines available. Douglas canceled their contract with Curtiss-Wright for engines and worked out an arrangement with Brewster to take delivery of the available engines.<sup>7</sup>

It is interesting to note that another source indicates that the NPC was having difficulties obtaining any engines for the Model 340 production by Brewster, as the U.S. government deemed that the Royal Air Force order of Model 340s had a priority and NPC-earmarked engines were instead sold to the British for their aircraft.<sup>8</sup> Tying the NPC instructions to Douglas together with the engine shortage is not obviously resolved.

#### **Pearl Harbor: All Plans Altered**

Four days later, on December 7, 1941, the Japanese unleashed an onslaught that not only brought the United States into the war, but also marked the beginning of an offensive that quickly swept over much of Southeast Asia and into the South Pacific. The Japanese conquest spread south and eastward and reached the NEI on March 1, 1942, when units of the Japanese Army landed on Java, the Dutch colony's main island. Allied forces still remaining on Java were evacuated to Australia and within a few weeks, the island had been overrun and the bulk of the NEI surrendered by March 8. This was at least a month before the first MLD DB-7C was even scheduled to be delivered.

However, in the U.S. war emergency that began on December 7, any and all available military aircraft were up for grabs for the most critical needs. Of the group of 480 DB-7Bs (half built by Douglas, half built by Boeing), approximately 163 were actually delivered to the RAF as Boston IIIs.<sup>9</sup> The remaining 317 DB-7Bs were instead diverted to the U.S. Army Air Corps on December 15, 1941. These 317 RAF-earmarked aircraft were either still under construction at the Boeing factory or still in the continental U.S. awaiting transport to England. There were numerous DB-7Bs at east coast airfields, specifically Floyd Bennet Field in New York and Grenier Field, New Hampshire, where these aircraft were being marshalled for delivery to the RAF. Instead, these diverted DB-7Bs were assigned to the jurisdiction of the U.S. Army Air Corps for its use as needed to meet the war emergency.

On about December 24, 1941, a group of 32 diverted



Creative work by a Douglas darkroom turned a photo of AAF A-20As into DB-7C destined for the Netherlands East Indies. The photo was used to illustrate the type wearing the Dutch insignia. Some of the actual DB-7Cs were most likely painted with the Dutch insignia prior to deliveries that began in May 1942, but they all had AAF markings when actually delivered as the U.S. government had taken over the aircraft. Most, if not all, of the DB-7C built went directly to the Soviet Union as part of Lend-Lease. (Douglas)

DB-7Bs, mostly delivered from the both Boeing and Douglas in the middle of November 1941, was assigned for delivery to the MLD. (See Table 1 for allocated aircraft.) One source indicates that these 32 DB-7Bs were originally slated to go as emergency aid to the Chinese but were re-diverted to the MLD instead.<sup>10</sup>

Seven of these DB-7Bs<sup>11</sup> were located at the Ogden Air Depot and immediately flown to Long Beach to Douglas for conversion to Dutch use and quick preparation for shipping.<sup>12</sup> The other 25 DB-7Bs were gathered and ferried to Long Beach for subsequent conversion.<sup>13</sup>

What is more interesting is that things may have been moving even faster than the documented dates suggests. One of the allocated aircraft (AL902) was destroyed by a crash near Taft, California, on December 10, 1941,<sup>14</sup> and another (AL905) was badly damaged the same day.<sup>15</sup> Even though both were allocated supposedly on December 24, both of these aircraft are shown in a USAAF export report as being earmarked for the MLD.<sup>16</sup> Neither were actually transferred to the MLD due to the accidents but it would seem the allocation to the MLD occurred in some fashion earlier than December 10. It was a confusing time and other available information does not always reflect what the catch-up paperwork documents.

Even though the official transfer was not approved until late January 1942, the urgent need for the aircraft moved ahead of the paperwork, and DB-7Bs were ferried to Long Beach by December 27, 1941,<sup>17</sup> and probably earlier. However, as noted above, two of the aircraft crashed or were damaged prior to arrival, and one late delivery from Boeing (AL457) apparently never made it either. One other earmarked DB-7B (AL889) also was not transferred from the U.S. for an unknown reason. This left only 28 DB-7Bs that were actually being prepped for MLD service.

One item of interest is that the NPC requested that Douglas order 32 complete sets of "new-type" self-sealing fuel tanks for the earmarked DB-7Bs, including fuel lines. The documentation for this order is dated February 7, 1942, and noted that payment for the tanks would be made when delivered from the Douglas factory



The original source of this photo remains unknown, but it shows one of the two MLD DB-7Bs that fell into Japanese hands when the NEI capitulated in March 1942. One was tested by the Japanese Army at Tachikawa and the second by the Japanese naval air forces at Atsugi, both in Japan. (Douglas)

ready for shipment at San Pedro. Whether this order was fulfilled is doubtful, given the rapidly changing situation.<sup>18</sup>

At Long Beach, Douglas worked on the 28 DB-7Bs and prepared them for shipping. This involved at least the installation of Dutch radios and instruments, where available, plus other details to make the aircraft combat ready after assembly from the shipping crates at their destinations. The 32 (originally) earmarked DB-7Bs were assigned the MLD serials of D-47 though D-78, inclusive, which is detailed below. If and when the Dutch markings and serial numbers were actually painted on has not been conclusively determined. Evidence does suggest that the RAF markings were overpainted on all aircraft. The first six DB-7Bs being readied for shipment had no MLD markings or serials added.<sup>19</sup> These six were quickly disassembled and crated, and sent to San Pedro for shipment (Some sources state San Francisco but San Pedro is more likely). There was a seventh DB-7B in this group (AL889) but, for an unknown reason, it was not kept with the others and never shipped from the U.S.

For the other earmarked DB-7Bs, at least one source states that they had their RAF markings and serials removed and replaced by Dutch markings and serials by Douglas while at Long Beach. As can be seen later, none of these DB-7Bs actually made it to MLD service. Instead, they ended up being diverted to Australia after the NEI surrendered, and all were assigned to the Royal Australian Air Force (RAAF).

That source states that:

"All of these Bostons (that arrived in Australia) had their British national marking over-painted with Dutch insignia and the legend "Kon Marine" painted in small black letters on either side of the fuselage, beneath the cockpit windows. The British fin flashed had been over-painted with the relevant camouflage colors. ... Problems had to overcome with translations of instruments, placards, and manuals, which were all in Dutch. Some items had to be replaced with ones manufactured locally."<sup>20</sup>

There is other evidence that confirms this. When, in the late 1980s, the Royal Australian Air Force (RAAF) museum restored one of the 22 diverted DB-7Bs it operated (AL907), it



Another view of captured DB-7B AL904 probably on a ramp at Yokuska, Japan. When found by the Japanese in March 1942, this airframe was still in disassembed crates at the port of Tjilatjap in Java. It was assembled by POWs and ferried to the base at Andir in May 1942, then on to Japan for testing and display. (P.C. Boer Collection)

was found that the fuselage had several layers of insignia on the aft fuselage: the first layer had the standard RAF roundel (yellow, blue, white, and red), applied by Douglas; the second was the NEI black and orange triangular insignia applied most likely by Douglas at Long Beach, and the third was the reapplication of the standard RAF roundel applied in March 1942 when it was re-diverted to the RAAF. At some point shortly afterwards, the yellow and red were painted out to leave the blue and white roundel of the RAAF.<sup>21</sup>

Interestingly, there is also a published photo of the same aircraft, AL907, recovered from Goodenough Island in 1987, that faintly shows the Douglas-applied white fuselage number "240" to the nose of the aircraft under the cockpit. This production line fuselage number was applied to early DB-7 and A-20 production by Douglas.<sup>22</sup> Fuselage number 240 denotes the last of the Frenchordered, Douglas-built, RAF diverted DB-7Bs and was delivered at Santa Monica on November 19, 1941.<sup>23</sup>

As for MLD serial numbers for this original group of 32 DB-7Bs, as noted above they were assigned serials D-47 through D-78, inclusive, in the MLD series. Though not confirmed by photographic evidence, one source states that two DB-7Bs captured by the Japanese had MLD serials in this series: AL904 had "D-51" painted on it and AL906 had "D-52" painted on it. Considering that these 32 aircraft were assigned to the MLD in late December 1941, it also fits with the MLD serial scheme being used. Also, manifests for the shipping of the DB-7Bs had MLD serial number notations which seem to provide the most direct evidence of

the actual assigned MLD serials and confirms the reports of the markings on AL904 and AL906.<sup>24</sup> (It should be noted that the 46 Dornier Do J Wal's carried the MLD serials of D-1 through D-46, inclusive, and that in the MLD serial scheme, the prefix letter was an abbreviation for the manufacturer.)

The basic RAF camouflage specified for the original British DB-7B had been carried forth to the DB-7Bs built for the RAF from the French order, and thus were carried forth to those DB-7Bs diverted to the MLD. For at least the 240 Douglas-built DB-7Bs from the French contract, the specifications were for the standard RAF Temperate Land scheme using U.S. equivalents (or close to equivalents) Brown (Fuller #TL-8713), Green (Fuller #TL 8714), and Duck Egg Blue (Fuller #TL-8715) as outlined on Douglas drawings.

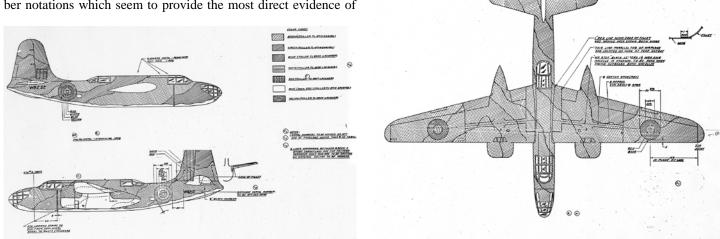
Whatever work that was done by Douglas at Long Beach on these aircraft was done quickly. As noted above, the first six were expeditiously modified, disassembled and crated. They shipped from San Pedro aboard the *Kota Baroe* on or about January 15, 1942.<sup>25</sup> Also aboard the *Kota Baroe* were four Lockheed 12A light transports and four Curtiss Wright CW-22B Falcon trainers.<sup>26</sup>

Thus, in summary, the available records conclude that of the 32 earmarked aircraft, two were lost in accidents on December 10, another (AL889) was held at Long Beach, and one (AL457) was a late delivery from Boeing and seems never have been incorporated. This left a total of 28 DB-7Bs that actually were shipped to the NEI in January and February 1942.

## The DB-7 in the NEI Campaign

As the first six DB-7Bs were being shipped from Long Beach in mid-January, the remaining 22 aircraft were also converted for Dutch use. Seventeen were then ferried from Long Beach to Floyd Bennet Field in New York, disassembled, crated, and shipped out to the NEI aboard four ships with departures between late January and mid-February. The remaining five DB-7Bs were shipped from San Pedro on the *Tarakan*, departing on or about February 9, 1942.<sup>27</sup>

Including the six ships carrying crated DB-7Bs, there were a total of ten ships each carrying a variety of disassembled aircraft, including P-40Es, Brewster 339s, Curtiss-Wright CW-22Bs, all



Paint specifications for the DB-7B as detailed by Douglas drawings. The 300 British DB-7Bs ordered in February 1940 and the 480 DB-7s taken over by the British from the French and built as DB-7Bs were all finished with these painting specifications. The Dutch MLD received 32 DB-7Bs from the assumed French order. (Douglas)



The faint "240" on the nose in the lower left of this photos signifies it was the 240th, or last DB-7B built by Douglas on the French contract assumed by the British. This would make it msn 3839 and RAF serial AL907. (Douglas painted the production fuselage numbers on its DB-7Bs that often carried forth into their operational service.) This aircraft was earmarked to go to the MLD in December 1941 but was diverted enroute to the RAAF instead, being received in March 1942 and assigned the RAAF serial of A28-8. It served in 22 Squadron with the RAAF until a September 1943 crash landing at an airfield in New Guinea. It was written off but then recovered by the RAAF in 1987 and restored for display at the RAAF Museum at Pt. Cook in Australia. (J.W. Smith Collection/J.L. Horsthuis via P.C. Boer's paper on the Dutch DB-7s)

enroute in a desperate attempt to stem or at least slow the Japanese advance.  $^{\rm 28}$ 

The freighters were still in transit in late February as the Japanese invasion loomed near. The ships loaded with the DB-7Bs were enroute to the port at Tjilatjap on the southern coast of central Java. The *Kota Boroe* arrived at Tjilatjap on February 27 carrying its load of the first six MLD DB-7Bs plus the other aircraft.<sup>29</sup>

Over the next two days, the aircraft crates were unloaded and dispersed around the harbor to protect them from Japanese air raids. The original intent was for the crated aircraft to be sent by rail to a base at Djocjakarta on Java for assembly. Due to Japanese air raids, though, the plan was changed and three of the disassembled DB-7Bs were sent by rail to Bandoeng (now Bandung), about 150 miles to the west, for assembly at the Andir airfield.

The other three DB-7Bs were planned for assembly right at Tjilatjap and even though the port lacked an airport, a makeshift runway was created to handle departures of P-40s being similarly assembled as well as the DB-7Bs. A Japanese air raid on March 4th caused significant damage to the port area but the three DB-7Bs, two still largely in crates, were not damaged. That evening, one of the DB-7Bs was ready for flight and it departed the following morning to fly to the base at Tasikmalaja where it was to be refueled, However, the 100-octane fuel was not available there, and it ended up being destroyed on March 8 by NEI personnel before it fell into the hands of the invading Japanese.

Meanwhile, efforts underway to assemble the other two DB-7Bs at Tjilatjap continued but another Japanese raid on March 5 destroyed the makeshift runway. Attempts were made to damage or destroy the two DB-7Bs before the harbor was evacuated on March 8. However, as it turned out, the Japanese were able to assemble one DB-7B from the wreckage of the two, and it (RAF AL904/MLD D-51) was made airworthy and flown out in May 1942. It ended up in Japan for testing for the Japanese Navy.<sup>30</sup>

The three created DB-7Bs at Bandoeng were assembled by MLD personnel beginning on March 4. One aircraft was completed on March 6 and it was moved onto the nearby base at the Andir airfield. When the NEI surrendered on March 8, that DB-7B (RAF AL906/MLD D-52) was found intact by the victorious Japanese forces. It also ended up being ferried to Japan for study and test flights with the Japanese Army.<sup>31</sup>

The two remaining DB-7Bs at Bandoeng were destroyed by MLD personnel prior to the surrender and the wreckage later proved of little use to the Japanese victors.<sup>32</sup>

After the NEI surrendered on March 8, 1942, the ships with the remaining 22 crated DB-7Bs and other disassembled aircraft were diverted to Australia. These DB-7Bs were ultimately reassigned to the Royal Australian Air Force (RAAF). There is quite a story behind the use of its 22 DB-7Bs by the RAAF, but it is beyond the scope of this material to detail.

# Camouflage and Markings of the DB-7s

On February 7, 1942, Douglas was advised by the NPC that MLD serials D-79 through D-126, inclusive, were assigned to the DB-7Cs.<sup>33</sup> This serial assignment is also verified in the Douglas Airplane Delivery Record and the Douglas Record of Airplanes documents.<sup>34</sup> Some sources indicate the assigned serials were D47 through D94, or DO-101 through DO-148 which, as can be seen, are incorrect. And, as noted earlier, the MLD serials of D-79



Another view of DB-7C D-6282 in May 1942 on the ramp at Douglas during engine runs. These aircraft were painted in accordance to the British DB-7B scheme. The primary difference between the RAF DB-7Bs and the MLD DB-7Cs was the provision to carry the U.S. Mark XIII torpedo, as the MLD planned to use their 48 DB-7Cs as torpedo bombers. (Douglas)

through D-126 would logically follow the 32 DB-7Bs assigned to the MLD in late December 1941, those being D-47 through D-78. The MLD serials were to be applied to the DB-7Cs in accordance with the size and location as shown on a Douglas drawing that specified paint and markings.<sup>35</sup>

In mid-February, as all this was occurring, the NPC asked Douglas to study the development of a nose gun configuration that consisted of four 20-mm cannon and four .303 Colt MG-40 machine guns. On February 21, Douglas provided a cost quote of \$10,700 each for forty-eight modified gun noses for the DB-7Cs. There is no indication from the record if the modification was ordered.

Even as the situation rapidly deteriorated for the NEI, progress on the DB-7C contract continued at Santa Monica. On March 10, 1942, the NPC requested that Colt .303 machine guns be used instead of the Browning .303 guns in the fixed nose guns and upper flexible twin gun in the upper rear cockpit.<sup>36</sup> Also on March 10, it requested that Douglas develop an underbelly reconnaissance fuel tank and install provisions for such a tank on their DB-7Cs. Capacity of the tank is unknown, but it was most likely similar in configuration to the AAF 374-gallon ferry tank later used on A-20s.<sup>37</sup>

#### The Dutch DB-7Cs

Production of the 48 DB-7Cs began in late spring 1942. Douglas assigned its manufacturer's serials as 6265 through 6312, inclusive. The first DB-7C was delivered on May 9, 1942, and the last one on July 14, 1942.<sup>38</sup>

The DB-7Cs were finished at the factory in the standard RAF-type camouflage scheme similar to that applied to the DB-7Bs (as per the original contract). The wartime Dutch insignia of the orange triangle with a thick black outline may have been applied by Douglas to at least some of the DB-7Cs (as British roundels had been applied to the RAF DB-7Bs). Despite the situation in the NEI, the production of the DB-7Cs remained under the jurisdiction of the NPC, at least on paper, until late April 1942, so it is probable that the production continued with the torpedo-carrying modifications, Dutch instruments and placards, and Dutch markings.

However, by late April 1942, seven weeks after the NEI was overrun and weeks before the first DB-7C was delivered, there were indications that changes were coming to the contracted delivery of the aircraft. The first indication found on paper that reflected ongoing discussions between Douglas, the NPC, and the AAF was on April 30 with an internal Douglas memorandum that specified:

"1. With the exception of existing camouflage scheme,



A view of a Soviet DB-7C in service in 1943. The Douglas-applied fuselage number on the nose (17) indicates this is msn 6281, earmarked to become D-95 in MLD service but diverted to the Army Air Forces and then on to the Red Air Force via Lend-Lease. (C.F Geust/G. Petrov Collection)

all Netherlands Purchasing Commission's insignias and markings shall be deleted from the subject airplanes and full complement of Army Air Force's (sic) insignias and markings shall be permanently installed.

2. Army Air Force's (sic) serial numbers will be forwarded as soon as they are available.

3. No insignias are to be applied to the spare wings prior to the spare wings prior to packing and shipping."<sup>39</sup>

In another Douglas memorandum dated the same day, the contractual agreement between Douglas and the NPC was clarified:

"We are advised by the Export Sales Department, who have been conducting all negotiations with the Netherlands Purchasing Commission and the Air Forces relative to the contract for our shop order #600, that to date, the contract for this order is presently between the Netherlands Government and Douglas, and it is indicated we may anticipate that it will remain so. It is our understanding that the airplanes and spare parts on this order will be transferred to the air forces by separate negotiation between them and the Netherlands Purchasing Commission."<sup>40</sup>

Finally, on May 8, the NPC formally advised Douglas that it had negotiated an agreement to transfer all DB-7Cs to the AAF. The commission noted in a letter to Douglas that:

"We have decided not to ship [the DB-7Cs] to the Netherlands East Indies, as originally contemplated, because we have been compelled to agree to transfer possession of and legal title to said airplanes to the United States Army Air Forces. We desire, accordingly, that reference Agreement be hereby amended so as to provide (1) that you shall (instead of delivering said airplanes to us (at) F.A.S. San Pedro, California, boxed and crated for export shipment, as aforesaid) deliver said airplanes to us, fully assembled, complete, and ready for flight at Las Vegas, Nevada, and (2) that the purchase price of each of said airplanes shall, because of such change as to delivery, be decreased by the amount of \$1,350."<sup>41</sup>

A few days later, the AAF advised Douglas that the contractor's serial number prefixed by the letter "D" was to be applied to the DB-7Cs in lieu of AAF serial numbers.<sup>42</sup> The airplane data blocks carried the type as "DB-7C' and the serial as requested by the AAF. Since these aircraft were not built on AAF contracts and did not have AAF equipment installed, they were not considered for assignment with AAF serials.

It should be noted that the NPC did fulfill its contractual obligations, issuing checks on May 15 and May 28, 1942, to pay the adjusted purchase amount in full. They then turned their interest in the airplanes over to the AAF.

## **Epilogue: Fates of the Dutch DB-7Cs**

The actual assignments of the DB-7Cs are difficult to track because a diligent search of AAF record cards has yet to turn up any records on individual aircraft using the assigned serials of D-6265 through D-6312. However, there are suggestions of some AAF operation, including one crash report of a DB-7C with the serial reported as D2690 (possibly transposed from D6290?) that

crashed on June 13, 1942, at the Atlanta, Georgia, airport while assigned to the 6th Ferrying Group at Long Beach, California.<sup>43</sup> Another crash report lists D-6284 destroyed on July 12, 1942, at Newark, New Jersey, in a ground accident. Curiously, that aircraft is shown as assigned to the United Nations Depot.<sup>44</sup> However, the early dates of these crashes suggest these two aircraft may have been in the process of being delivered for foreign assignment, most likely to the Soviet Union.

There is one brief mention of one of the DB-7Cs being used by the U.S. Navy for torpedo dropping tests in Rhode Island. This aircraft is recorded with the serial of "DO-104" (D-104??) but there is no other as-yet uncovered information about this possible use of a DB-7C.<sup>45</sup>

It is probable that most, if not all, of the 48 DB-7Cs were transferred to the Soviet Union in the initial stages of Lend-Lease, though documentation is very sketchy at best. One of the most authoritative sources of information about the Lend-Lease program and the Soviet Union only mentions that "…even a couple of DB-7Cs originally ordered for the Dutch AF were included…" in those DB-7s and A-20s sent under Lend-Lease.<sup>46</sup> No serial number information is available.

In all, a total of 3,128 DB-7/A-20s were delivered to the Soviets during the war, so whatever DB-7Cs were included in that total was a small percentage. It is presumed that none of the 48 DB-7Cs survived the war or its immediate aftermath.

	Table 1												
	DB-7Bs Allocated to MLD Serial Number Assignments												
RAF	Douglas msn	Boeing msn	Delivered	MLD	RAAF	Ship	Ship Date	Arrive	Remarks				
AL347	3924	2728	11/4/1941	D-53?	A28-2	Tosari (NY)	2/3/42	Melbourne c. 3/42					
AL358	3935	2739	11/10-17/1941	D-54?	A28-10	Tarakan (SP)	2/9/42	Sydney 3/21/42					
AL361	3938	2742	11/10-17/1941	D-58?	A28-15	Wettervreden (NY)	2/19/42	Sydney 4/2/42					
AL362	3939	2743	11/10-17/1941	D-59?	A28-16	Wettervreden (NY)	2/19/42	Sydney 4/2/42					
AL363	3940	2744	11/10-17/1941	D-60?	A28-17	Wettervreden (NY)	2/19/42	Sydney 4/2/42					
AL364	3941	2745	11/10-17/1941	D-55?	A28-11	Tarakan (SP	2/9/42	Sydney 3/21/42					
AL365	3942	2746	11/10-17/1941	D-56?	A28-12	Tarakan (SP	2/9/42	Sydney 3/21/42					
AL366	3943	2747	11/10-17/1941	D-57?	A28-18	Tabinta (NY)	2/10/42	Sydney 4/1/42					
AL367	3944	2748	11/10-17/1941	D-61?	A28-13	Tarakan (SP)	2/9/42	Sydney 3/21/42					
AL368	3945	2749	11/10-17/1941	D-62?	A28-19	Wettervreden (NY)	2/19/42	Sydney 4/2/42					
AL369	3946	2750	11/10-17/1941	D-63?	A28-20	Wettervreden (NY)	2/19/42	Sydney 4/2/42					
AL457	4034	2338	12/31/1941	D-75 to 78?					Not transferred				
AL887	3819		11/17/1941	D-64?	A28-3	Tosari (NY)	2/3/42	Melbourne c. 3/42					
AL889	3821		11/17/1941	D-75 to 78?					Not transferred				
AL890	3822		11/17/1941	D-65?	A28-1	Tosari (NY)	2/3/42	Melbourne c. 3/42					
AL891	3823		11/17/1941	D-66?	A28-9	Mapia (NY)	1/30/42	Melbourne c. 3/42					
AL892	3824		11/17/1941	D-67?	A28-14	Tarakan (SP)	2/9/42	Sydney 3/21/42					
AL893	3825		11/19/1941	D-68?	A28-5	Mapia (NY)	1/30/42	Melbourne c. 3/42					
AL894	3826		11/17/1941	D-69?	A28-21	Tabinta (NY)	2/10/42	Sydney 4/1/42					
AL895	3827		11/18/1941	D-70?	A28-4	Mapia (NY)	1/30/42	Melbourne c. 3/42					
AL896	3828		11/17/1941	D-47?		Kota Baroe (SP)	c. 1/15/42	Tjilatjap 2/27/42					
AL897	3829		11/18/1941	D-71?	A28-7	Mapia (NY)	1/30/42	Melbourne c. 3/42					
AL898	3830		11/18/1941	D-72?	A28-22	Tabinta (NY)	2/10/42	Sydney 4/1/42					
AL899	3831		11/18/1941	D-73?	A28-6	Mapia (NY)	1/30/42	Melbourne c. 3/44					
AL900	3832		11/19/1941	D-48?		Kota Baroe (SP)	c. 1/15/42	Tjilatjap 2/27/42					
AL901	3833		11/19/1941	D-49?		Kota Baroe (SP)	c. 1/15/42	Tjilatjap 2/27/42					
AL902	3834		11/19/1941	D-75 to 78?					crashed 12/10/41 in U.S.; not transferred				
AL903	3835		11/19/1941	D-50?		Kota Baroe (SP)	c. 1/15/42	Tjilatjap 2/27/42					
AL904	3836		11/19/1941	D-51		Kota Baroe (SP)	c. 1/15/42	Tjilatjap 2/27/42	Captured by Japanese				
AL905	3837		11/19/1941	D-75 to 78?					damaged 12/10/41 in U.S.; not transferred				
AL906	3838		11/17/1941	D-52		Kota Baroe (SP)	c. 1/15/42	Tjilatjap 2/27/42	Captured by Japanese				
AL907	3839		11/19/1941	D-74?	A28-8	Mapia (NY)	1/30/42	Melbourne c. 3/45	1987 photo: fuselage #240 (Boer)				

Douglas Built
Delivered to MLD 2/27/42
Diverted to RAAF
Not transferred

NY=Shipped	from New York			
SP=Shipped	from San Pedro			
Probable M P.C. Boer's "	D serial allocation b. The Story of the Dou	ased on Ship glas DB-7B o	Manifests as repo f the Dutch Naval	orted in Dr. Air Service"

# Notes:

1. "The Brewster Model 340 Bermuda/ Buccaneer and its ML/ KNIL (Netherlands East -Indies Army Aviation Corps), RAF, USAAF and US Navy/Marine Corps use" by Dr. Peter C. Boer, October 2011 and revised November 2014

2. "Brewster Buffaloes for the Miltarie Luchtvaart KNIL" by Gerard J. Casius as available at https://www.scribd.com/ document/514544690/Brewster-Buffaloes-for-the-Militaire-Luchtvaart-KNIL.

3. Wolf, William. North American B-25 Mitchell: The Ultimate Look; Schiffer Military History, Atglen, PA, 2008, p. 455 4. "Purchase Agreement 48 Torpedo Bombers Model (DB-7C)

for Netherlands Indies Government" dated January 15, 1941, as retrieved from the Douglas archives file on the DB-7C. 5. Ibid.

6. Ibid.

7. Correspondence from Douglas Export Sales to Douglas Estimating Division dated December 3, 1941, as retrieved from the Douglas archives file on the DB-7C. It specifies that the NPC had taken delivery of 120 "GR-2600 A5B" engines for the Brewster order but wanted to upgrade those engines to the "B" engines, thus wanting to use the "A" engines on the DB-7C. Douglas instructed that the engines they would receive would have to be reworked by Aircraft Industries, Inc. to match the requirements for the DB-7C, to be paid by the NPC or Brewster. The rework was deemed comparatively simple: "changing the baffles, removing a tongue accessory drive, and removing the gun synchronizers."

8. Boer, Model 340, p.2; he cites an "Internal NPC memo (undated but early December 1941)" that coincides with the NPC instructions to Douglas about using the 96 engines originally earmarked for the Brewster Model 340 production.

9. "The British Air Commission and Lend-Lease," volume compiled by KJ Meekcoms; Air Britain, 2000.

10. Gerard J. Casius in a detailed letter titled "Royal Netherlands Navy DB-7s" published in the Journal of the American Aviation Historical Society, Summer 1979 (p. 158).

11. See post #26 under forum topic "Dutch Ordered DB-7Cs as Torpedo Bombers" by Geoffery Sinclair at ww2aircraft.net dated January 29, 2023. With the reference being a USAAF export report, Sinclair notes RAF serials AL889, AL896, AL900, AL901, AL903, AL904, and AL906. These DB-7B serials match with other sources with six of these aircraft being those actually received by the NEI in late February 1942. AL 889 was not transferred for unknown reasons.

12. See "The story of the Douglas DB-7B Bostons of the Dutch Naval Air Service (and the Army Aviation Corps of the Royal Netherlands East Indies Army," by Dr. P.C. Boer, August 2010 and updated September 2011 and February 2012, p. 22. This paper is an excellent resource that explains the history of the DB-7 in MLD service. For this reference, Boer cites an undated but late March 1942 document titled "Explanation of DB-7B repossessions and Arnold-Portal Allocations in January" from the Munitions Assignment Committee as fou8nd in the National Archives

13. See Boer, DB-7B, p. 1.

14. Aviation Archaeology database (USAF Summary Sheet (aviationarchaeology.com).

15. Aviation Archaeology database (USAF Summary Sheet (aviationarchaeology.com)) 16. See Sinclair post (noted above) at ww2aircraft.net

17. See Boer, DB-7B, p.2.

18. Letter from NPC to Douglas dated February 6, 1942 and memorandum from Douglas Export Sales dated February 7, 1942, as retrieved from the Douglas archive.

19. See Boer, DB-7B, p.2-3; Boer references interviews with two Dutch military officers who recalled that the DB-7Bs upon arrival at Tjilatjap on February 27, 1942, were camouflaged but completely without markings.

20. See "Frend Bilong Australia Tru: The Douglas Boston in RAAF Service" by Gary Byk; Red Roo Models Publication, 2000, p.19.

21. See post #19 at Netherlands Air Force | Aircraft of World War II - WW2Aircraft.net Forums by "Sydhuey" for this explanation and two photos of each side of the aft fuselage with the painting details provided.

22. See Boer, DB-7B, p. 2.

23. Douglas "Airplane Delivery Record" as retrieved from the Douglas archives for Douglas msn 3839 (AL907).

24. See Boer, DB-7B, p.21-24

25. Casius Summer 1979 letter to AAHS Journal (as noted above).

26. See Boer, DB-7B, p. 4.

27. Casius Summer 1979 letter to AAHS Journal (as noted above).

28. See Byk p. 19.

29. Gerard J. Casius in a detailed letter titled "Japanese DB-7B Boston" published in the Journal of the American Aviation Historical Society, Winter 1977 (p. 318).

30. See Boer, pp 9-13. A detailed narrative of the MLD efforts and ultimate fate of the six MLD DB-7Bs is provided in this reference.

31. Ibid.

32. Ibid.

33. Work Release Order dated February 7, 1942 from the Douglas Estimating Division to the Office of Chief Engineer as retrieved from the Douglas archive.

34. Douglas Airplane Delivery Record and the Douglas Record of Airplanes documents retrieved from the Douglas archives35. Work Release Order dated February 7, 1942.

36. Amendment #4 to Contract D-48 for DB-7C Torpedo Bomber purchase dated March 10, 1942, as found in the Douglas archives. This changed added \$199 to the price of each of the 48 aircraft. 37. Amendment #7 to Contract D-48 for DB-7C Torpedo Bomber purchase dated March 10, 1940, as found in the Douglas archives. The contract amendment specified that the droppable fuel tank was to be as shown in Douglas drawing 5147675, and specified 48 tanks at a cost of \$1,798 per tank, or and additional \$86,304 for the contract.

38. Douglas Record of Airplanes document retrieved from the Douglas archives. This record shows the purchaser as "Dutch" and, in one case, "Dutch East Indies."

39. Memo from the Douglas Estimating Division to the Office of Chief Engineer dated April 30, 1942, as retrieved from the Douglas archive.

40. Memo from Douglas Parts Sales to Major V.E. Bertrandes entitled "Shipment from Source-Bendix Radio Parts on S.O. 607" and dated April 30, 1942, as found in the Douglas archive.

41. Letter from NPC to Douglas Aircraft Co. date May 8, 1942.

42. Douglas memo from the Estimating Division to the Office

of Chief Engineer dated May 2, 1942, as found in the Douglas archives.

43. Details of D-2690 crash from listing at Aviation Archaeology website: https://www.aviationarchaeology.com/rptAF55. asp?RecID=94094

44. Details of D-6284 crash from listing at Aviation Archaeology website: https://www.aviationarchaeology.com/rptAF55. asp?RecID=95081

45. Casius Summer 1979 letter to AAHS Journal (as noted above).

46. See "Red Stars Vol. 4: Lend-lease Aircraft in Russia," by Carl-Fredrik Geust and Gennadiy Petrov, published by Apali Oy in Finland, 2002, p. 199.