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## The Battle of Memmingen: July 18, 1944

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By July 18, 1944, the Fifteenth Air Force was in the midst of an extensive strategic bombing campaign against enemy targets in Nazi Germany and other areas of Europe under Hitler's control. It marshaled 21 bombardment groups in five wings, and 7 fighter escort groups in one wing, all based at various airfields in the Foggia area of east central Italy, near the Adriatic Sea. From those bases, the Fifteenth Air Force launched bombing missions to various strategic targets in Germany, Austria, Hungary, Rumania, northern Italy, Czechoslovakia, and occupied parts of France.<sup>1</sup>

Only one of the five bombardment wings, the 5<sup>th</sup>, with six bombardment groups, flew B-17 Flying Fortresses. The other four bombardment wings, with a total of 15 bombardment groups assigned to them, flew B-24 Liberators. Both the B-17 and the B-24 were four-engine heavy bombers, of similar size but with slightly different advantages. The B-17 could fly higher and was more survivable if hit, and the B-24 could fly farther and faster.<sup>2</sup> Each of the 21 bombardment groups had four bombardment squadrons assigned to it.<sup>3</sup>

Of the seven fighter escort groups, four flew P-51 Mustangs, the fastest and longest-range fighters in the Army Air Forces' inventory, and the other three flew P-38 Lightnings, twin-engine fighters that were also fast and had a considerable range. By July 1944, the Fifteenth Air Force had relinquished its P-47 fighters because they had less range and speed. Each of the seven fighter groups had three fighter squadrons assigned to it, except one-- the 332d Fighter Group—which had four: the 99<sup>th</sup>, 100<sup>th</sup>, 301<sup>st</sup>, and  $302^{nd}$  Fighter Squadrons. The 332d was unique in other ways. It was the only one of the Fifteenth Air Force combat groups composed of African-Americans. In fact, it was the only black Army Air Forces group to enter combat in World War II. Because the pilots trained at Tuskegee, Alabama, they are sometimes called the "Tuskegee Airmen."<sup>4</sup>

The mission of the Fifteenth Air Force on July 18, 1944 was really a set of missions to different targets. The four B-24 wings, and their 15 bombardment groups and 60 bombardment squadrons, were to bomb targets in the Friedrichshafen area of southern Germany, including the Lowenthal airdrome, the Manzell aircraft components factory, the Ober-Raderach synthetic fuel factory, and the Maybach engine factory. Four of the seven fighter escort groups, including the 1<sup>st</sup>, 14<sup>th</sup>, 31<sup>st</sup>, and 82<sup>nd</sup>, were to escort the B-24 wings to, over, and/or from their targets. The 1<sup>st</sup>, 14<sup>th</sup>, and 82<sup>nd</sup> flew P-38s, while the 31<sup>st</sup> flew P-51s. The only B-17 wing, the 5<sup>th</sup>, with its six bombardment groups, was originally assigned to bomb the Memmingen airdrome in Germany, not far from Friedricshafen, because intelligence reports showed it to be filled with 70 to 75 enemy aircraft, including ME 110s and ME 410s, "not too well dispersed." The report noted that the installation was used "for major repair and probably assembly. This makes the airdrome one of the highest priority counter-air targets." The 5<sup>th</sup> Bombardment Wing Intelligence Annex for its operations order for the Memmingen mission noted that if the weather was favorable, the enemy could and probably would put up 125 single engine fighters and 115 twinengine fighters. It also predicted that a possible 30-40 additional enemy fighters might confront the bombers from bases in northern Italy.<sup>5</sup>

The Fifteenth Air Force assigned the mission of escorting the B-17s of the 5<sup>th</sup> Bombardment Wing that day to the 332d Fighter Group, the Tuskegee Airmen. Their mission was, in the words of their own narrative mission report, "to furnish penetration,

target cover, and withdrawal for the 5<sup>th</sup> Bomb Wing to Memmingen A/D." In other words, the Tuskegee Airmen were to provide escort to the B-17s to, over, and from the target at Memmingen.<sup>6</sup>

Plans called for two other fighter escort groups, besides the 332d, to play a part in the Memmingen mission. The 52d Fighter Group was assigned to help escort the B-17s to Memmingen, but once in the target area, around 1030 hours, it was to leave the bombers and conduct a fighter sweep out in front of them, leaving the 332<sup>nd</sup> Fighter Group alone to escort the bombers. The plan also called for the 325<sup>th</sup> Fighter Group to meet the bombers in the target area at 1110 hours, after the bombing, and escort the rear groups of bombers home. The 332d, 52d, and 325<sup>th</sup> Fighter Groups all flew P-51 Mustangs.<sup>7</sup>

The 5<sup>th</sup> Bombardment Wing did not launch all six of its bombardment groups of B-17s, as originally planned. The 97<sup>th</sup> Bombardment Group bombed the Casarsa railroad bridge in northern Italy instead, and the 99<sup>th</sup> Bombardment Group did not fly a mission at all that day. The other four B-17 bombardment groups of the 5<sup>th</sup> Bombardment Wing included the 2d, 301<sup>st</sup>, 463d, 483d.<sup>8</sup> Each of the four groups launched 28 bombers, for a total of 112 B-17 Flying Fortresses.<sup>9</sup> Each group included four squadrons of seven bombers. Two fighter groups, the 52d and 332d, embodying seven fighter squadrons, were assigned to escort four bombardment groups, with sixteen bombardment squadrons, to the target at Memmingen. The 325<sup>th</sup> Fighter Group ultimately did not play a role at all in the battle, because instead of escorting the bombers back from Memmingen after the bombing, it was recalled back to Italy at 0940, before the bombing.<sup>10</sup>

The 332d Fighter Group launched 66 P-51 Mustangs from Ramitelli Airfield, its base in Italy, at 0750 hours. Eight of the fighters returned early, six because of mechanical difficulties and two because they were spares. That left 58 P-51s of the 332d Fighter Group to escort the bombers, along with the P-51s of the 52d Fighter Group until the initial point (I.P.) at Kempten, just before the target of Memmingen.<sup>11</sup>

The Axis maintained a major fighter base at Udine, in northern Italy, north of Venice. When the 332d Fighter Group flew over the area, at 0950 hours, large numbers of enemy fighters emerged. Some of the 332d Fighter Group P-51s engaged the enemy aircraft in combat, hoping to prevent them from reaching the B-17s preparing to rendezvous with them. During the air battle, members of the 332d Fighter Group claimed to have shot down several enemy aircraft over Udine and Treviso. Those P-51 pilots who took part in the aerial combat over northern Italy that day dropped their wing tanks to increase their speed and ability to maneuver, depriving them of the extra fuel they needed to go all the way to Memmingen, Germany. Twenty-one of the 332d Fighter Group's P-51s turned back toward Ramitelli. This left only 36 Tuskegee Airmen to escort the 5<sup>th</sup> Bombardment Wing. However, at least on the way to the target, the 52<sup>nd</sup> Fighter Group was also escorting the B-17s.<sup>12</sup>

The four bombardment groups were difficult to escort because not all of them followed the planned route to Germany and because the last two groups in line became widely separated from the others. The 52<sup>nd</sup> Fighter Group mission report noted that the groups were spread out for a distance of twenty miles.<sup>13</sup> The 483d Bombardment Group flew northward over the Italian mainland, where the air was more clear, instead of the planned route over the cloudy Adriatic Sea.<sup>14</sup> The 5<sup>th</sup> Bombardment Wing showed up at

the rendezvous point late, but by 1005, the 332d Fighter Group had rendezvoused with them.<sup>15</sup> The 52d Fighter Group had also rendezvoused with the lead groups of the B-17s.<sup>16</sup> After the 52d Fighter Group left the lead groups of bombers at 1030, as planned, for their assigned fighter sweep out ahead of the bomber formations, only 36 fighter escorts from the 332d Fighter Group were left to escort the scattered four groups of the 5<sup>th</sup> Bombardment Wing, with their 112 bombers, over Memmingen.<sup>17</sup>

The 332d Fighter Group reported "Bomber formation was good and easy to cover," which is mysterious, because only the two lead bombardment groups, the 2<sup>nd</sup> and 463<sup>rd</sup>, were in a close enough formation to make them easy to escort. The 332<sup>nd</sup> Fighter Group's four fighter squadrons included the 99<sup>th</sup>, 100<sup>th</sup>, 301<sup>st</sup>, and 302<sup>nd</sup>. The mission report notes that the 301<sup>st</sup> was the lead squadron, the 99<sup>th</sup> was flying low, the 302<sup>nd</sup> was flying middle, and the 100<sup>th</sup> was flying high.<sup>18</sup> The fighters could not provide as much protection for the last two of the four groups of bombers, the 301<sup>st</sup> and the 483<sup>rd</sup>, because they were so far behind the others. The bomber formations of the four groups were too widely separated to really be "easy to cover." Two groups of bombers, with a maximum of 56 B-17s, were easier to protect than four groups of bombers, with 112 of the Flying Fortresses.

The first groups of bombers approached the initial point at Kempten, just before the Memmingen target, around 1030 hours, at which time the 52d Fighter Group left them, as noted earlier, to the protection of the 332d Fighter Group. At 1045, the 483d Bombardment Group finally arrived over Kempten. At that time and place, approximately 100 German fighters, mostly single-engine Fw 190s and Me 109s, attacked the 483d Bombardment Group, because it appeared to be without escort. The

enemy fighters began shooting down the B-17s of the 483d from the rear, using cannon and rocket fire, and at first were very successful.<sup>19</sup>

One of the 332d Fighter Group squadrons, the 100<sup>th</sup> Fighter Squadron, reported a few days after the mission: "Escorting a flight of bombers over Memmingen, Germany, July 18, 1944, the pilots fondest hopes were realized when enemy aircraft came up to attack our bomber formation. During this attack our pilots succeeded by a victory of six (6) enemy aircraft. Lt. Lester was accredited with three (3) victories, Lt. Holsclaw two (2) and Lt. Palmer one (1)."<sup>20</sup> Fifteenth Air Force general orders also confirm four other aerial victories by members of the 332d Fighter Group's 302d Fighter Squadron, one each by 1<sup>st</sup> Lt. Weldon K. Groves and 2<sup>nd</sup> Lts. Lee A. Archer, Jr., Roger Romine, and Hugh S. Warner. In other words, members of the 332d Fighter Group's 100<sup>th</sup> and 302d Fighter Squadrons shot down ten enemy aircraft that day. The records strongly suggest, however, that all ten of these aerial victories occurred over the Udine and Treviso areas of northern Italy, in the air battle on the way to Germany, and not over Memmingen, and all of the aircraft destroyed were Me 109s.<sup>21</sup> Apparently only two of the aerial victories of 332d Fighter Group members that day occurred over Memmingen. Captain Edward L. Toppins and 1<sup>st</sup> Lt. Charles P. Bailey, both of the 99<sup>th</sup> Fighter Squadron, each shot down one Fw-190 in the target area.<sup>22</sup> In other words, the 332d Fighter Group was with the B-17s bombers of the 5<sup>th</sup> Bombardment Wing, which it was assigned to escort, when they were attacked by enemy fighters on July 18, 1944, but most of the aerial victories of the group that day had been scored over northern Italy on the way to Memmingen, and not in the target area in Germany. However, missing air crew reports indicate that two of the members of the 332d Fighter Group, 2d Lieutenants Gene C. Browne and Wellington G.

Irving, both of the 301<sup>st</sup> Fighter Squadron, were last seen in the Kempten area at 1045 in the vicinity of enemy aircraft. This suggests that of the four squadrons of the 332d Fighter Group, the 99<sup>th</sup> and 301<sup>st</sup> Fighter Squadrons were more involved in the air battle over Memmingen than the 100<sup>th</sup> and 302d Fighter Squadrons, which were more involved in the air battle over Udine and Treviso.<sup>23</sup>

In any case, according to the 483d Bombardment Group mission report, "The attack lasted 20 minutes and practically all passes were made from level rear and from five, six, and seven o'clock (positions, not time). The fighter escort arrived about 8 minutes after the initial attack, and was very effective from then on, despite the fact that they were heavily outnumbered."<sup>24</sup> When pilots of the 52d Fighter Group became aware of the battle, they reported seeing German fighters attacking the B-17s, and 332d Fighter Group fighters already battling with the enemy.<sup>25</sup> Although the 52d Fighter Group had already begun its fighter sweep fifteen minutes earlier than the initial enemy attacks on the 483d Bombardment Group, its fighter pilots returned to the B-17s they had earlier escorted to help the 332d Fighter Group in defending them. The German pilots generally ignored the American fighters and concentrated on the bombers.<sup>26</sup>

According to German records, 151 fighters rose to attack the B-17s of the 5<sup>th</sup> Bombardment Wing groups raiding Memmingen Airdrome on July 18, 1944. They came from five units, two with Fw 190s and three with Me 109s, that were based at Memmingen, Holzkirchen, Bad Woerishofen, Goetzendorf, and Fels am Wagram airfields. In other words, there were more than four times as many German fighters coming to attack the B-17 formations heading for Memmingen that day than there were 332d Fighter Group escort fighters, which numbered only 36. It is no wonder that many

B-17s went down that day, despite the arrival of help from friendly fighters of the 1<sup>st</sup>, 31<sup>st</sup>, and 52<sup>nd</sup> Fighter Groups as the battle went on. The 483d Bombardment Group reported that it was unescorted when it was attacked by the huge number of enemy airplanes, but it is possible that the bomber crews might have confused some of the friendly fighters with the many enemy fighters coming at them.<sup>27</sup>

As the battle raged between the German and American fighters, two other American fighter groups also became aware of the battle and joined in. Both the 1<sup>st</sup> Fighter Group, which flew P-38s, and the 31<sup>st</sup> Fighter Group, which flew P-51s, were circling in the same vicinity, waiting for the B-24s they had been assigned to escort to targets in the Friedrichshafen area, which was to the southwest. Since the B-24s had not shown up (some of them had received recall messages), fighters of the 1<sup>st</sup> and 31<sup>st</sup> Fighter Groups eventually joined those of the 332d and 52d Fighter Groups in defense of the B-17s of the 5<sup>th</sup> Bombardment Wing.<sup>28</sup> The 1<sup>st</sup> Fighter Group observed what appeared to be unescorted B-17s and diverted to escort them. After enemy aircraft attacked the B-17s, the 1<sup>st</sup> Fighter Group joined the battle. The P-38 pilots reported seeing at least twelve B-17s going down after they were attacked by about 90 single-engine enemy aircraft, including Me 109s and Fw 190s. and claimed to have shot down 14 enemy aircraft that day.<sup>29</sup> The 31<sup>st</sup> Fighter Group, which flew P-51s, also reported seeing B-17s instead of B-24s between 1030 and 1045 hours, and shortly thereafter observed approximately 70 enemy fighters attacking the Flying Fortresses. The 31<sup>st</sup> Fighter Group pilots attacked the enemy airplanes and claimed to have shot down 12 of them in an air battle that lasted during the 20 minutes between 1055 and 1115. The group also reported seeing P-38s escorting the B-17s.<sup>30</sup> No doubt those P-38s were with the 1<sup>st</sup> Fighter Group.

The 5<sup>th</sup> Bombardment Wing continued its mission against Memmingen, and inflicted heavy damage on the airfield and the planes on the ground there that were not able to escape. In addition to 170 personnel killed and 140 injured, the Germans suffered the loss of 50 aircraft on the ground, three hangars, two workshops, the ready room, and a barracks.<sup>31</sup> For its role in the mission, the 483<sup>rd</sup> Bombardment Group earned a Distinguished Unit Citation.<sup>32</sup> As mentioned earlier, the 325<sup>th</sup> Fighter Group, which was originally assigned to cover the B-17s from the target area back to Italy, never escorted any of them, because the 325<sup>th</sup> was recalled at 0940 hours, before the battle began.<sup>33</sup>

The battle was costly for the 5<sup>th</sup> Bombardment Wing and its escorts. German fighters shot down at least fourteen B-17s of the 483d Bombardment Group, as well as one of the 301<sup>st</sup> Bombardment Group, which had arrived at Kempten and Memmingen last.<sup>34</sup> Fifteen Flying Fortresses, with 150 crew members, fell to enemy aircraft fire that day. Not all of the bomber crew members died. Many parachuted from their doomed flaming aircraft.

The only two of the 5th Bombardment Wing's six B-17 bombardment groups that clearly lost aircraft to enemy fighters on the July 18, 1944 Memmingen mission were the 483d and the 301<sup>st</sup>.<sup>35</sup> They were the last two groups to reach the Memmingen area, and they were the ones most vulnerable to enemy aircraft. Another group in the 5<sup>th</sup> Bombardment Wing that was flying farther ahead, the 2<sup>nd</sup>, also lost one B-17 on July 18, 1944 Memmingen mission. The cause of that loss was officially listed as "unknown" instead of "enemy aircraft" or antiaircraft artillery. Witnesses reported seeing the airplane mysteriously slowing down, jettisoning its bombs, and heading southward. One

witness noted that a couple of red-tailed P-51s followed the bomber to offer it the protection it would lack from being out of formation.<sup>36</sup>

The four Fifteenth Air Force fighter groups that took part in the air battle over Memmingen on July 18, 1944 in defense of the B-17s of the 5<sup>th</sup> Bombardment Wing earned a total of 41 aerial victory credits. In other words, they earned official credit for shooting down 41 enemy airplanes on the mission that day. The 1<sup>st</sup> Fighter Group, which flew P-38s, shot down 14 German fighters; the 31<sup>st</sup> and 332<sup>nd</sup> Fighter Groups, which flew P-51 Mustangs, shot down 12 each; and the 52d Fighter Group, which also flew P-51s, shot down 3.<sup>37</sup> The gunners aboard the B-17s of the 483d Bombardment Group claimed to have shot down 28 additional enemy airplanes.<sup>38</sup> In the air battles over Memmingen, the Americans claimed to have shot down at least 69 German fighters. This number is probably considerably larger than the actual number of enemy aircraft lost. German records show only 28 of their aircraft shot down in the area that day.<sup>39</sup>

The four fighter groups of the Fifteenth Air Force that took part in the air battle over Memmingen on July 18, 1944 reported in their own mission reports as having lost a total of 7 of their own fighters that day, including three each from the 332<sup>nd</sup> and 31<sup>st</sup> Fighter Groups, and one from the 52<sup>nd</sup> Fighter Group. The 1<sup>st</sup> Fighter Group reported none of its fighters lost that day.<sup>40</sup>

Adding all the aircraft losses of the Fifteenth Air Force in the Memmingen mission, we get a total of 15 bombers shot down by enemy aircraft and as many as 7 fighters shot down by enemy airplanes, for a total of 22 aircraft losses to enemy aircraft fire. This compares to between 28 and 69 fighters the enemy lost to American fighters and bombers in the air that day, not to mention the 50 German airplanes destroyed on the

ground by the bombing at Memmingen. However, even if the Americans shot down more aircraft than the Germans, the Germans shot down more men. Most of the German losses were single-engine fighters, each with one pilot, while most of the American losses were four-engine bombers with a crew of 10 each. In other words, 150 American bomber crew members went down with the 15 bombers, and 7 fighter pilots with their P-51s, for a total of 157 personnel lost. German losses included at least 28 and possibly as many as 69 pilots in the air, and 170 personnel killed and 140 wounded on the ground, for a total of 338 to 379 personnel killed, wounded, or shot down.<sup>41</sup> Both sides claimed victory. The records suggest that at least 50 airplanes, and as many as 91, fell in air combat on the Memmingen mission on July 18, 1944, not to mention the 50 airplanes destroyed on the ground from the air. It was a magnificent air battle that must be considered as one of the greatest of World War II.

14 June 2010

Note: Most of the sources in the end notes below come from the Fifteenth Air Force mission folder for July 18, 1944, call number 670.332, 18 Jul 1944, at the Air Force Historical Research Agency, which includes the narrative mission reports of the groups involved as well as the planning documents of the wings over those groups.

<sup>&</sup>lt;sup>1</sup> Maurer Maurer, *Air Force Combat Units of World War II* (Washington, DC: Office of Air Force History, 1983); Martin W. Bowman, *USAAF Handbook, 1939-1945* (Mechanicsburg, PA: Stackpole Books, 1997), p. 76.

<sup>&</sup>lt;sup>2</sup> Jim Winchester, editor, *American Military Aircraft* (New York: Metro Books, 2005), pp. 43 and 89.

<sup>&</sup>lt;sup>3</sup> Maurer Maurer, *Air Force Combat Units of World War II* (Washington, DC: Office of Air Force History, 1983); Martin W. Bowman, *USAAF Handbook, 1939-1945* (Mechanicsburg, PA: Stackpole Books, 1997), p. 76.

<sup>&</sup>lt;sup>4</sup> Maurer Maurer, *Air Force Combat Units of World War II* (Washington, DC: Office of Air Force History, 1983), pp. 212-213; Martin W. Bowman, *USAAF Handbook, 1939-1945* (Mechanicsburg, PA: Stackpole Books, 1997), p. 76.

<sup>&</sup>lt;sup>5</sup>5<sup>th</sup> Bombardment Wing Operations Order 628 dated July 17, 1944 for July 18, 1944 mission; 306<sup>th</sup> Fighter Wing Operations Order 138 dated July 17, 1944 for July 18, 1944; Fifth Bombardment Wing Intelligence Annex dated July 17, 1944 for Operations Order 628 for July 18, 1944 mission.

<sup>6</sup> 332<sup>nd</sup> Fighter Group Narrative Mission Report 28 dated July 18, 1944; 306<sup>th</sup> Fighter Wing Operations Order 138 dated July 17, 1944 for July 18, 1944 mission.

<sup>8</sup> 5<sup>th</sup> Bombardment Wing history for July 1944; 99<sup>th</sup> Bombardment Group history for July 1944; Fifteenth Air Force Mission Folder for July 18, 1944.

<sup>9</sup> Fifth Bombardment Wing Operations Order 628 dated July 17, 1944 for July 18, 1944 mission.

<sup>10</sup> 325<sup>th</sup> Fighter Group Narrative Mission Report 30 dated July 18, 1944.

<sup>11</sup> 332<sup>nd</sup> Fighter Group Narrative Mission Report 28 dated July 18, 1944; 52<sup>nd</sup> Fighter Group Narrative Mission Report 47 dated July 18, 1944; Fifth Bombardment Wing Operations Order 628 dated July 17, 1944, for July 18, 1944 mission.

<sup>12</sup> 332<sup>nd</sup> Fighter Group Narrative Mission Report 28 dated July 18, 1944.

<sup>13</sup>52<sup>nd</sup> Fighter Group Narrative Mission Report 47 dated July 18, 1944.

<sup>14</sup> 483<sup>rd</sup> Bombardment Group Tactics Report dated July 18, 1944.

<sup>15</sup> 332<sup>nd</sup> Fighter Group Attack Sheet, July 18, 1944.

<sup>16</sup> 52<sup>nd</sup> Fighter Group Narrative Mission Report 47 dated July 18, 1944.

<sup>17</sup> 52<sup>nd</sup> Fighter Group Narrative Mission Report 47 dated July 18, 1944; 332<sup>nd</sup> Fighter Group Narrative Mission Report 28 dated July 18, 1944; 306<sup>th</sup> Fighter Wing Operations Order 138 dated July 17, 1944 for the July 18, 1944 mission; 5<sup>th</sup> Bombardment Wing Operations Order 628 dated July 17, 1944 for the July 18, 1944 mission; The 1<sup>st</sup> Fighter Group, which was originally assigned to escort B-24s to another target, met the B-17s of the 5<sup>th</sup> Bombardment Wing instead and noted "Bomber formations were scattered to the point where it was impossible to give them good escort. Some groups were fifteen miles away from the main formations." 1<sup>st</sup> Fighter Group Attack Sheet, July 18, 1944.

<sup>18</sup> 332<sup>nd</sup> Fighter Group Narrative Mission Report 28 dated July 18, 1944.

<sup>19</sup> 483<sup>rd</sup> Bombardment Group Special Narrative Report, July 18, 1944.

<sup>20</sup> 100<sup>th</sup> Fighter Squadron report, in the July 1944 history of the 332<sup>nd</sup> Fighter Group.

<sup>21</sup> Fifteenth Air Force General Order 2202 dated 31 July 1944; Fifteenth Air Force General Order 2350 dated 6 Aug 1944; Fifteenth Air Force General Order 2484 dated 11 Aug 1944.

<sup>22</sup> Fifteenth Air Force General Order 2484 dated 11 Aug 1944.

<sup>23</sup> Missing Air Crew Reports 6973 and 7027, on microfiche at the Air Force Historical Research Agency

<sup>24</sup> 483<sup>rd</sup> Bombardment Group Special Narrative Report, July 18, 1944.

<sup>25</sup> 52<sup>nd</sup> Fighter Group Narrative Mission Report 47 dated July 18, 1944.

<sup>26</sup> 52<sup>nd</sup> Fighter Group Narrative Mission Report 47 dated July 18, 1944.

<sup>27</sup> Jean-Yves Lorant and Richard Goyat, *Jagdgeschwader 300* (Hamilton, Montana: Eagle Editions, 2008), pp. 234-239; James Kitchens. <sup>28</sup> 1<sup>st</sup> Fighter Group Narrative Mission Report 1066 dated July 18, 1944; 31<sup>st</sup> Fighter Group Narrative

Mission Report 585 dated July 18, 1944.

<sup>29</sup> 1<sup>st</sup> Fighter Group Narrative Mission Report 1066 dated July 18, 1944.

<sup>30</sup> 31<sup>st</sup> Fighter Group Narrative Mission Report 585 dated July 18, 1944.

<sup>31</sup> Donald Caldwell and Richard Muller, *The Luftwaffe Over Germany* (London: Greenhill Books, 2007), p. 222.

<sup>32</sup> 483<sup>rd</sup> Bombardment Group section of Maurer Maurer, Air Force Combat Units of World War II (Washington, DC: Office of Air Force History, 1983). <sup>33</sup> 325<sup>th</sup> Fighter Group Narrative Mission Report 30 dated July 18, 1944.

<sup>34</sup> 483<sup>rd</sup> Bombardment Group Special Narrative Report, July 18, 1944; 301<sup>st</sup> Bombardment Group Special Narrative Mission Report, July 18, 1944.

<sup>35</sup> Briefing and attack sheets for the 301<sup>st</sup> and the 483<sup>rd</sup> Bombardment Groups, among the mission documents in the Fifteenth Air Force mission folder for July 18, 1944.

<sup>36</sup> Missing Air Crew Report 6863.

<sup>37</sup> USAF Historical Study number 85, Air Force Credits for the Destruction of Enemy Aircraft, World War

<sup>38</sup> 483<sup>rd</sup> Bombardment Group narrative mission report dated July 18, 1944.

<sup>39</sup> 22 Feb 2010 e-mail message from Dr. Richard Muller of the Air University's School of Advanced Air and Space Power Studies, a noted authority on the Luftwaffe during World War II.

<sup>&</sup>lt;sup>7</sup> 306<sup>th</sup> Fighter Wing Operations Order 138 dated July 17, 1944, for July 18, 1944 mission; 52<sup>nd</sup> Fighter Group Narrative Mission Report 47 for July 18, 1944; 325<sup>th</sup> Fighter Group Narrative Mission Report 30 dated July 18, 1944.

<sup>40</sup> Daily narrative mission reports of the 1<sup>st</sup>, 31<sup>st</sup>, 52<sup>nd</sup> and 332<sup>nd</sup> Fighter Groups for July 18, 1944.
<sup>41</sup> Donald Caldwell and Richard Muller, *The Luftwaffe Over Germany* (London: Greenhill Books, 2007), p. 222.