

The 'Omnipresent Luftwaffe' - A Realistic Assessment of the Actual Luftwaffe Forces Available to Support German Ground Operations during Operation Barbarossa

When one reads Red Army officers' accounts of Red Army operations during Operation Barbarossa, it is striking how often German air support is credited with destroying and/or disrupting a particular defence line or attack formation. In many cases the impression is given that the failure of this or that Red Army ground assault was due to enemy air-attack, that no Red Army units could move in daylight without being attacked by dive-bombers, and that supply was almost always being severely disrupted. These reports are strikingly similar to those from the British and French Armies following the German invasion of France in May-June 1940, and those from the German Army following the Normandy campaign in June-July 1944 (the Allied Operation Overlord).

However, any objective analysis of the Luftwaffe strengths available to support Operation Barbarossa, along with some other pertinent facts, shows conclusively that it would have been **physically impossible for the Luftwaffe to have achieved the level of air interdiction or air support claimed by the Red Army in 1941**. This is a rather strong statement, so in order to illustrate this point we will briefly look at the 'air interdiction and ground support intensity' in the aforementioned campaigns. The results of this process are shown in the table below.

Aircraft Interdiction and Ground Support Intensity in Selected Campaigns					
Campaign	Nationality considered	Number of available bombers, ground attack aircraft & ftr-bombers*	Men to support per aircraft	Men to attack per aircraft	Front area in km2 to cover per aircraft
Western USSR, June-July 1941	German	1,427	2,354	2,320	488
France, May-June 1940	German	1,530	1,307	1,503	45
Normandy, June-July 1944	Allied	6,360	322	91	1

* Numbers at start of the campaign. © Nigel Askey, 2014

For the French campaign (the German Operation Case Yellow - *Fall Gelb*) the Luftwaffe had 410 dive-bombers and 1 120 twin engine bombers available (out of a total of 3 385 combat aircraft).¹ This means that for Operation Barbarossa the Luftwaffe actually had around 100 fewer ground-attack aircraft, bombers and fighter-bombers than it had for Operation Fall Gelb over a year earlier.² Operation Barbarossa may have been the largest land invasion in history, but from the German point of view it certainly wasn't the largest air invasion! This was primarily due to three factors: the Luftwaffe's loss of 961 dive-bombers and bombers over Britain from 10th July to 31st October 1940, the commitment of significant dive-bomber and bomber units to the Mediterranean theatre and in France, and the rather remarkable failure of the German aerospace industry to gear up for total war (which it didn't manage until 1943).³ The Luftwaffe figure used in the table above for Operation Barbarossa also includes all Bf 109Es used as fighter-bombers, all Bf 110 fighter-bombers in all *Schnellkampfgeschwader* (High speed bomber) units, and all Bf 110s in all *Sturzkampfgeschwader* (Dive bomber) units. During the Battle of France it was still hoped that the Bf 110 would be able to perform in its designed role of long-range fighter (*Zerstorer*), but by June 1941 it had been largely relegated to the ground attack role.

The RAF and USAF figures for Operation Overlord are, in comparison, nothing short of astonishing: the size of this force dwarfs the entire Luftwaffe during 1940/41 and for that matter at any time during WWII. For Operation Overlord the Allies assembled the Allied Expeditionary Air Force with the combined forces of the RAF 2nd Tactical Air Force, the US 9th Air Force, and large elements of RAF Fighter Command, RAF Bomber Command and the US 8th Air Force. Throughout most of the June to July 1944 period, the heavy bombers in RAF Bomber Command and the US 8th Air Force were mostly diverted from their strategic bombing campaigns against Germany to support the invasion of France. These bombers contributed to the pre-invasion interdiction attacks on all infrastructure in northern France, and were mostly responsible for the massive 'carpet bombing' operations (each involving 500 to 1000+ bombers) during the Normandy Campaign. Examples included

¹ Includes 640 long and short range reconnaissance aircraft. J. Ellis, WWII: A Statistical Survey, Facts On File Inc, New York, 1993, p. 238, table 28.

² Data from Volume IIB 5. 2).

³ Ibid, p. 259, table 61.

Operation Goodwood, Operation Totalise, Operation Epsom and Operation Cobra. By June 1944 the RAF and USAF forces supporting Overlord had 112 fighter-bomber squadrons (excluding another 113 fighter squadrons), 79 medium and light bomber squadrons, 233 heavy bomber squadrons, and at least another 63 squadrons of transport and reconnaissance aircraft.⁴ In June 1944 this force contained at least 6 360 first-line bombers and ground-attack aircraft, out of a total of more than 12 000 combat aircraft.⁵ These figures are supported by the respective air-force strength returns for 1944: in December 1944 the RAF reported a strength of 8 395 front-line combat aircraft, while the US Army Air Force (alone) reported a strength of 19 892 first-line combat aircraft deployed overseas.⁶

The 'men to support' and 'men to attack' columns give an indication of the size of ground force the respective air-forces had to support and attack during a particular campaign. The manpower figures used are based on the peak manpower fielded during the campaign, except for Operation Barbarossa where the initial Red Army figure on 22nd June 1941 is used. For the Battle of France the Germans fielded close to 2 000 000 men in 117 divisions and support units, while the Allies (the French, British, Dutch, and Belgium Armies) fielded around 2 300 000 men in 136 divisions.⁷ The Germans invaded the USSR with around 3 359 000 men (strength from 22nd June to 4th July 1941), while the Red Army in the Western Special Military Districts had around 3 310 000 personnel on 22nd June 1941.⁸ The Allied Armies in Normandy grew to over 2 050 000 men, while the accumulated German strength in Normandy never exceeded 580 000 (contrary to many poorly researched accounts which still state the Wehrmacht had over 1 000 000 men in Normandy).⁹

The 'front area' column is to give an indication of the geographical area that the respective air-forces were forced to cover during a particular campaign. The relevant data is derived from the maps shown in the West Point Atlas for WWII.¹⁰ The French campaign in May 1940 involved an area of approximately 69 000 square kilometres, Operation Barbarossa in June and July 1941 involved a massive front and an area in excess of 696 000 square kilometres, while the Battle for Normandy in June and July 1944 was fought in the relatively small area of around 7 000 square kilometres.

All this data is used in the table above, and reveals some startling results. Most obvious is the fact that the Luftwaffe forces fielded in support of Operation Barbarossa were relatively small by WWII standards, and were in fact minimal when one considers the magnitude of the task facing them. In 1941 the Luftwaffe was expected to support close to twice as many men per (ground attack) aircraft as during their French campaign, while the equivalent RAF and USAF figure in Normandy was over seven times smaller. To put it another way: in the USSR a single Luftwaffe (ground attack) aircraft was available to support the equivalent of around a regiment, in France a single Luftwaffe aircraft was available to support the equivalent of say two battalions, while in Normandy a single Allied aircraft was available to support every company fielded.

In terms of targets (to be attacked), we find that in the USSR an average of around 2 300 Red Army soldiers (around a regiment) faced an enemy aircraft, in France an average of 1 500 Allied soldiers faced an enemy aircraft, while in Normandy an Allied (ground attack) aircraft was available to attack every 90 German soldiers! In other words, in order to achieve a similar level of air interdiction and air-support, each Luftwaffe (ground attack) aircraft in the USSR in June/July 1941 would have had to attack around 25 times more enemy soldiers than their counterparts in the RAF and USAF during the Normandy campaign.

The final nail in the coffin of any argument that the Red Army suffered from unusually heavy air attacks is the geographic area concerned. In France the Luftwaffe's forward bases were for the most part concentrated in western Germany, and were within easy range of Holland, Belgium and northern France. Similarly, the RAF and USAF bases were mostly in southern England and Normandy was just across the channel. Even fighters of the 1944 period were able to loiter around the battlefield looking for targets, while the fighter-bombers literally

⁴ S. Badsey, *Normandy 1944*, Osprey Military, Reed International Books Ltd, London, 1990, p. 21.

⁵ Ibid. Also J. Ellis, *WWII: A Statistical Survey*, Facts On File Inc, New York, 1993, pp. 231-243.

⁶ J. Ellis, *WWII: A Statistical Survey*, Facts On File Inc, New York 1993, p. 231, table 17, and p. 242, table 42. This equates to around 28 300 combat aircraft of which around 5 000 were in the Mediterranean theatre (mainly Italy) and several thousand in the Pacific. Note, the US Navy and Marine Corps reported a strength of 13 065 combat aircraft in the Pacific theatre in December 1944 (which is in addition to the US Army Air Force strength).

⁷ The German figures include their reserve of 42 infantry divisions. J. Delaney, *The Blitzkrieg Campaigns*, Caxton Editions, London, 2000, p. 76. Allied divisions included 94 French, 10 British, 10 Dutch and 22 Belgian divisions. A. Shepperd, *France 1940*, Osprey Military, Reed International Books Ltd, London, 1993, p. 13.

⁸ Data from the German and Soviet FILARM models (Volumes II and III). Includes personnel in the Stavka Reserves deployed within the Western Special Military Districts on 22nd June 1941.

⁹ N. Zetterling, *Normandy 1944: German Military Organisation, Combat Power and Organisational Effectiveness*, J.J. Fedorowicz Publishing Inc, Winnipeg, Canada, 2000, p. 31, diagram 4.1.

¹⁰ The West Point Atlas for the Second World War: Europe and the Mediterranean, Ed. T.E. Griess, Square One Publishers Inc, New York, 2002, maps 11, 12, 13, 19, 58, 59 and 63.

lined up in 'cab-rank' fashion and attacked targets whenever and wherever the Allied ground forces required. The Normandy battlefield was so small that it didn't take long for any area to be covered by air-support when needed. From the table we can see that in Normandy an Allied (ground attack) aircraft was literally available for every square kilometre of battlefield! Similarly, in France a Luftwaffe bomber or dive-bomber was available for almost every 45 square kilometres of battlefield.

The contrast to the situation facing the Luftwaffe in Operation Barbarossa could not be starker. In this case the Luftwaffe was deployed along a front stretching from the Baltic Sea to the Black Sea, a distance of over 1 450 kilometres. The thousands of additional square kilometres covered by Luftflotte 5 on the Norway/Finland/USSR border is ignored for this purpose. In addition the VVS and Red Army forces were deployed in depth; up to 480 kilometres to the east. The distances involved were so great that the various Luftflotte commands along the front were unable to effectively support each other, and as the front rapidly moved east the distances aircraft had to fly to reach their targets rapidly increased. This meant individual airbases had to disrupt their air operations to move forward, increased the overall flying time and wear and tear on aircraft, and limited the number of possible missions per day. From the table above we see that the average Luftwaffe (ground attack) aircraft during Operation Barbarossa had to 'cover' around 11 times as much area as in France in 1940, and a staggering 488 times as much area as an RAF or USAF aircraft in Normandy.

On top of all this, the Luftwaffe bombers in Operation Barbarossa had to contend with neutralizing the largest air-force in the world in 1941 (the Soviet VVS which started with approximately 20 450 combat aircraft), before they could even think about serious ground support and interdiction attacks. This meant they were initially operating under conditions of air parity bordering on inferiority, and only later under conditions of air superiority. The Luftwaffe in France started in a similar situation although it won air superiority fairly quickly (the Allies started the campaign with around 1 200 French, 600 British, and several hundred Dutch and Belgian combat aircraft).¹¹ In contrast, the RAF and USAF started the Normandy campaign with complete air-supremacy over northern France (a condition never achieved by the Luftwaffe on the East Front): Luftflotte 3 had only 891 aircraft (including 315 day fighters and 64 transports) on 30th May 1944, of which 497 were serviceable.¹²

Lastly, it is again worth pointing out that **all** the German *Sturzkampfgeschwader* (Dive Bomber) units in the east on 22nd June 1941 were concentrated in Luftflotte 2, except for IV.(St)/LG 1 with 42 Ju 87s in *Luftwaffenkommando Kirkenes* (northern Norway). Even then, Luftflotte 2 had only 273 Ju 87 and 22 Hs-123A dive-bombers on 21st June 1941. This number is a very far cry from the 'hordes of Stuka's acting as flying artillery' impression obtained when reading accounts of Red Army battles in 1941, especially when one considers they were spread out over a 1 450 km front line. It gets worse. Luftflotte 4, attacking against the far stronger Red Army forces in the Kiev Special and Odessa Military Districts, initially had no dedicated ground attack aircraft at all. This meant that it had to use its already over-stretched and far less effective high level medium bombers in this role. And yet, many Red Army mechanised corps commanders in the Kiev Special Military District (Southwestern Front) reported "heavy tank losses due to air strikes" and "devastating enemy close air-support" in the huge tank battles across the Ukraine in June-July 1941.¹³ The question is therefore; what possible aircraft were the Germans using to destroy Soviet tanks in Southwestern Front in June-July 1941? Bf 109 fighters, Ju 88s and He 111s were very poor to the point of useless in this role! This is all apart from the multitude of other tasks these aircraft were meant to be simultaneously doing.

In conclusion, it is therefore very hard to believe the many Red Army records for 1941 which repeatedly refer to attacks being 'spoiled' or 'broken up' or 'hindered', etc, by German air power. It seems much more probable that Red Army officers could explain away their own (and their army's) shortcomings by attributing them to enemy air power. If German air power was the main cause of defeat, then this was outside the realm of the Red Army and hence the responsibility for failure was not on their (the Red Army officers') shoulders. It should always be borne in mind that in 1940-41 any admission of failure by a Red Army officer, no matter how small, had potentially fatal consequences. This was very true in 1939-40 following Stalin's purges, and this fear continued to grip and hence debilitate all levels of command within the Red Army well into 1942. It is of course equally arguable that German Army officers in Normandy could use the same 'excuse' regarding Allied air power. However, as we have seen from the data presented here, it was unusual for the average Red Army soldier to even see a German bomber during 1941; while it is remarkable that the German ground forces in Normandy weren't simply obliterated by Allied airpower alone in a matter of weeks.

¹¹ A. Shepperd, *France 1940*, Osprey Military, Reed International Books Ltd, London, 1993, p. 15.

¹² S. Badsey, *Normandy 1944*, Osprey Military, Reed International Books Ltd, London, 1990, p. 17.

¹³ E.g., D.M. Glantz, *Barbarossa, Hitler's Invasion of Russia 1941*, Tempus Publishing, Stroud, Gloucestershire, 2001. Also, B.I. Fugate, *Operation Barbarossa*, Presidio Press, Novato, CA, 1984. Also, C. Pleshakov, *Stalin's Folly*, Houghton Mifflin Company, New York, 2005.