PART 2

LUFTWAFFE OPERATIONS

First Phase: 1 - 5 September.
INTRODUCTION

This second part of the present study is a presentation of the operations of the Luftwaffe. It is restricted to the first but decisive phase of the Polish campaign, from 1-5 September 1939, for the following reasons:

Relatively reliable documentary evidence is available in such profusion covering this period that a detailed and practically complete account can be rendered. In contrast, the documentary evidence available on the rest of the campaign is so incomplete that it appears advisable to cover that period in its entirety in a third part alone.

Another factor which seems to justify a separate treatment of the first phase of the campaign is that within the first five days of air warfare against Poland practically all problems were clarified which had a bearing on the operational and tactical conduct of air operations, such as the testing of the various combat tactics, the problems of cooperation with the other two branches of the Wehrmacht, and the evaluation of experience by the Supreme Command; all later operations by Luftwaffe forces thus were nothing but a repetition or modification of the methods which had evolved during the first five days.
the operational Luftwaffe in this special undertaking will be mentioned incidentally only insofar as it affected other activities of the operational Luftwaffe in the main areas because of the necessity to detach air units to support the Navy. Voluminous accounts are available, prepared by the German Navy, dealing with the secondary area of operations in the Baltic Sea.\textsuperscript{2}

The forces allocated for air defense also cannot be dealt with in this present part, since they were not involved in any way throughout the duration of the Polish campaign in activities in the east. The activities of air units assigned to the Luftwaffe General with the Commander in Chief of the Army can be dealt with only very briefly.\textsuperscript{3}

\begin{itemize}
\item[1.] Von Tippelakirch, Geschichte des Zweiten Weltkriegs, Bonn 1951, Athenäum Verlag.
\item[2.] Karlsruhe Document Collection.
\item[3.] The account will be found at the end of Part 3, see Chapter 11.
\end{itemize}
After the almost total elimination of Polish air power, the main mission of the Luftwaffe was to be one of direct and indirect support for the Army. This situation actually materialized on the second day of combat, on 2 September. From then on all air operations can be examined and properly understood only if viewed as closely integrated with the operations of the ground forces. A precise knowledge of these army operations thus is indispensable for a presentation and study of air operations in the Polish campaign. The presentation of army operations given here is based almost exclusively on the account given by General der Infanterie von Tippelskirch, from whose work the outline maps included in the present text on army operations also have been taken. The account thus presented at the same time provides the pattern for the corresponding air operations.

There was no cooperation with the Navy in the first phase, from 1 - 5 September, with the only exception of the Baltic area of Danzig - Gdynia - HELA. In this area, which was completely separate and independent from the general operations against Poland, there was some small-scale air-naval cooperation, which will be disregarded in general here. The employment of elements of
Presently available material permits only an account of these units in support of the Fourteenth Army. An overall presentation of the activities of these units will follow later in a separate study.

The overall account presented here is based on authentic documents. A large number of statements were obtained by letter or orally by the present author from qualified persons. These, and contributions by unit commanders dealing with matters of general experience, personal views, and numerous specialized problems have been worked into the text presented here either in part or in their entirety. The original source of such information is stated specifically only where matters of basic importance are concerned.

German publications on the Polish campaign have been disregarded in general. Most of these publications are propaganda pamphlets, wartime reports by propaganda companies, or personal reminiscences printed shortly after the end of the war, and their reliability as source material appears at least questionable. Foreign sources were not available at the time of writing.

In detail, this presentation of the first phase of the campaign is based primarily on the following main
documentary sources and accounts:

1. *Der Polenfeldzug 1939*, a study by the 8th (Military Science) Division of the Luftwaffe General Staff, Berlin, December 1939. This is a comprehensive Luftwaffe study of the 1-5 September 1939 phase of the Polish campaign based exclusively on orders, war journals, situation and other reports, and official written correspondence. The study was prepared shortly after the event; it can be considered as a preliminary work, an assembly of material. It therefore is incomplete and requires critical examination.

2. *Fliegerführer z.B.V. im Polenfeldzug*, a compilation by Colonel H. W. Deichmann, Munich 1953. This compilation is based on the personal diary of Field Marshal von Richthofen, and was written 14 years after the event. At the time von Richthofen, then a colonel, was in command of the Special Purposes Air Command (Fliegerführer z.B.V.), and most of the entries in his diary were made during the actual operations. Although presented only in excerpts, these entries are the most reliable source available from intermediate levels of tactical command. In many cases the personal views expressed in the original diary entries are presented with a great measure of reservation, since
Field Marshal von Richthofen was known to be highly temperamental and given to frequently drastic expression of his opinions on persons and matters. The author of the compilation served for many years as the field marshal's adjutant and is still in possession of the complete collection of his diary sheets.

3. Der Einsatz des Fliegerführers z.b.V. im Polenfeldzug 1939, General der Flieger Hans Beidmann, February 1952. The author served during the Polish campaign as Chief of Staff of the Special Purposes Air Command (Fliegerführer z.b.V.). This fact lends great weight to his work, prepared 14 years after the event.

4. Betrag zur Operationen in der Polenfeldzüge 1939, Generalleutnant Schmid, Januar 1953. The author of this study served for many years as Chief, Branch 5, Luftwaffe General Staff and later as Chief Intelligence Officer, Office of the Commander in Chief of the Luftwaffe. According to him "the study is based on personal recollections supported by not too incomplete notes made during the 1939-45 period. Original documents from the time under study were not available."

5. Diary Entries by Wing Commander McInerle, 27th Bomber Wing, Concerning His Assignment in the East on
15 September 1939. It is edited by Wing Adjutant First
Lieutenant Thor, and is of particular value as an authen-
tic source because it was written under the immediate
impression of combat events and is based on authentic
combat records.

6. Operations of the Luftwaffe in the Polish Campaign:
With Special Consideration of Their Relation with
Army Operations. This lecture, delivered by the present
author, at the time in the rank of Generalmajor and serv-
ing an assignment as Chief of Staff, First Air Fleet,
is dated Berlin 1939. It is the only source giving an
account on a high level of command at the time. It is
based on all official records available at the time.

7. Directives of the Commander in Chief of the Luft-
waffe to the First and Fourth Air Fleets. This compila-
tion, prepared by the present author and completed on 25
September 1954, contains the directives for the conduct
of operations, including warning and interim orders, in
the original wording, taken from photostat copies of the
original teletype messages.
8. Operations of the 3rd Group, 27th Rucks Brg, (Bolesław), in Poland. This is a study by Generalleutnant Nielsen, who at the time under report was in command of the group and held the rank of major. It is an important source, but since it was only written in 1953 it suffers from the usual defects of works written from memory.

9. Geschicht der Zweiten Wehrmacht. General der Infanterie von Tippelskirch, Bonn 1951. This is considered generally as one of the basic works on the operations of the German Army in World War II.

10. Heeresgeschichte, neue Folienfolgen. This army account of the Polish campaign is by an unknown author and the time at which it was prepared is also unknown.


In addition to the above sources, wide use was made of numerous maps in the preparation of the present overall study, although this part, Part 2, suffers from a lack of usable maps. A complete set of maps of Poland from the US Army and Air Force Central Europe 1:250,000 series (26 Sheets) was available for the detailed preparation of this study, but it has only been possible to include in the finished version a limited number of
map with a scale of 1:2 000 000, on which entries could be made with only approximate accuracy, although the use of the first named series above seems indispensable for a proper understanding of the text. The spelling of place names in the text is often not quite precise and in many cases seems even contradictory. The old German

4. All main sources listed here are available in the Karlsruhe Document Collection.

5. This source is alluded to in writing by General der Flieger Paul Deichmann on 31 May 1955 as completely reliable.
maps of the former German-speaking Polish territories contain only German place names, whereas the American maps give only the Polish place names. Furthermore, all maps available frequently give differing spellings for one and the same place name. For this reason errors are possible in the geographical descriptions and therefore also in the tactical details.

Unfortunately "The Polish Military Forces in World War II," an apparently important work prepared by the General Sikorski Institute in London, was available to the present writer for only a brief period during a conference. The Historical Commission of the Polish General Staff in London in the meanwhile has published the second part of the first volume of this work, in which an account is given of military operations from 1 to 8 September 1939.

6. See treatise by Dr. Bruno Maurach in Wehrkunde, V Year, Munich, January 1956, Volume 1; Karlsruhe Document Collection.
CHAPTER 1

CHANGES IN THE PLAN OF OPERATIONS AND
THE INITIAL SITUATION

Hitler Directive #17 contained nothing new concerning the operations of the Luftwaffe, but was merely a confirmation of former directives and orders. The mission assignments and the operational objective remained the same. In like manner the proclamation published simultaneously by Hermann Goering, the Commander in Chief of the Luftwaffe contained nothing new. The 1939 Operational Study (Planstudie 1939) and the directives for Operation Weiss (Fall Weiss) were the only basis. In them a basic definition was given of the operational objectives and the allocation of missions.

Two main principles remained valid in determining the development of power concentrations in operational planning. The first principle stated was: "The first attack by the bulk of all forces will be directed at the Polish air forces." This had made it possible at an early stage for the air fleets to assign the individual tactical units their missions for the first day of attack, subject only to minor modifications arising from later

7. Appendix 23.
8. Appendix 22.
reconnaissance information. The second principle was: "after this main emphasis in operations will be on support for the Army."

On the basis of these directives issued by the Commander in Chief of the Luftwaffe, the First and Fourth Air Fleets in the past weeks and months had worked out the operational orders for their units concurrently with the orders for the concentration. These orders, only a few of which are still available, applied initially only to the operational and target areas defined by the Commander in Chief of the Luftwaffe so far as this was at all possible in the case of an initial mission. The result of this operational planning was the deployment of Luftwaffe forces which later actually took place.

From this deployment of forces, however, new operational plans had developed in the last few weeks before the campaign which had not been intended and, in fact could not have been visualized, in the original operational study. It is impossible in retrospect to obtain a reliable impression, so far as the time and the causal circumstances are concerned, of the organic development of this extended planning, although the reasons for the modifications are fairly apparent: While preparations were
in progress by all three branches of the Wehrmacht, new ideas, new plans, new considerations, and new variations were discussed and new demands were made by the army and the Navy on the Luftwaffe. In all likelihood, the new demands were approved by Hitler and the Wehrmacht High Command and took the form of orders to the Luftwaffe, although no documentary evidence is available to substantiate this assumption. The results of all this new planning crystallized in the last operational orders and directives issued shortly before the opening of the campaign, which are still available in documentary form.

On 31 August the First and Fourth Air Fleets again issued consolidated and supplementary operational orders, from which the final overall plan for the first time becomes evident.
I. FIRST AIR FLEET.

On the afternoon of 31 August the Commanding General, First Air Fleet gave the liaison officers of Luftwaffe Command Eastern Prussia and of the 1st Air Division oral instructions for the first day of attack to the effect that the first strike would be against the Polish air forces, but that the second air strike must be in support of the army. To break Polish resistance at the frontiers he instructed the 1st Air Division to attack the Polish forces at Tuchel, south of the Netze River, and at the Eise River, Luftwaffe Command Eastern Prussia to attack the Polish forces at Grudenz, Bromberg, and Strassburg, in both cases in direct support of the army operations. These oral instructions contained nothing basically new, but they show that the First Air Fleet intended committing some of its forces in direct support operations already while the attack was being launched against the Polish air forces and their ground service organization. The following points, in contrast, were new:

1. Luftwaffe Command Eastern Prussia received instructions to transfer the 1st Group, 1st Dive-Bomber Wing, from the Insterburg tactical airfield to the Elbing
base air port. The lst Group was assigned the mission of
destroying the detonation stations for the Vistula bridge
at the Dirschau railroad depot and the local electric
power station early on the first day of attack in order
to prevent demolition of the bridge by the Polish bridge
guards. In low-altitude attacks directed at the barracks
of the Polish light infantry battalion at Dirschau the
planes were also to neutralize the Polish ground defenses
at the bridge. This air action was to prepare the way for
a surprise attack by army units under the command of
Colonel von Medem directed at the rail and road bridge
across the Vistula at Dirschau, which was of strategic
importance.

2. The lst Air Division received confirmation of a
special mission, apparently included in the operational
plan shortly before, in support of the Navy. According
to the Directives for the Attack Forces, the Navy had
been assigned the main mission of "Destroying or elimi-
ating the Polish naval forces, cutting Polish sea routes,
and preventing Polish seaborne trade." It can be assumed
that this original mission had been expanded during the
preparatory stages to include an amphibious operation aim-
ing at seizure of Gdynia, Danzig, and Hela. In its special
mission assignment the 1st Air Division received instructions to attack and neutralize Polish naval units—chiefly submarines—in ports, the Polish air units stationed in the Gdynia-Ramnel-Putzig-Hela area, and the coastal artillery batteries on Cape Hela, Cape Oxhoeft, and Hohenredlaeu early on the first day of attack. The port installations of Gdynia and a number of similar targets were not to be attacked without express orders from the Commander in Chief of the Luftwaffe because they might prove useful to the German war effort.

For the execution of the above mission the 1st Air Division organised Reinforced Wing Kessler, the commander of which was a former naval officer and therefore had the necessary nautical knowledge and experience. The wing

9 Weisungen Weiss, Karlsruhe Document Collection.
included units of various types. The necessity to detach such strong elements naturally reduced the striking power of the 1st Air Division considerably, at least on the first day of attack, so far as its own specific mission was concerned. To compensate for this weakening, the 27th Bomber Wing, under Colonel Behrendt, was to be transferred from the command of the Second Air Fleet--in the western theater--to the First Air Fleet with a force of three groups as soon as the campaign began.

The wing was assigned directly to the First Air Fleet, which with wise foresight committed it to attack targets around Warsaw, in the combat sector of the Luftwaffe Training Division. The mission assignment for the 27th Bomber group is the only operational order issued by an air fleet of which the original is still in existence.

II. FOURTH AIR FLEET.

In preparations for the campaign plans provided for main emphasis in the first attacks by the Fourth Air Fleet to be on targets west of the Vistula. Consequently, the 2d Air Division had received orders to attack and destroy the Polish air forces stationed at Lodz, Kielce, and Krakau, and their ground service organization. To support the offensive operations of Army Group South,
which were to take the form of a swift drive on Warsaw by the motorized units of the Tenth Army, the Fourth Air Fleet had assumed responsibility for the following missions: (1) To provide direct support for the motorized units at their initial penetration into hostile territory; (2) to provide air protection for the units during their advance to the Vistula; and (3) to insure speedy support by bomber units in battle for the numerous river barriers and in battle against Polish forces which might be moved in from the east.

10. 1st Air Wing, under Colonel Kessler, with the 1st Group, 1st Bomber Wing, 1st Group, 153d Bomber Wing, 2d and 3d Groups, 2d Dive Bomber Wing, 4th Group, 1st Air Wing, and the 4th Naval Dive-Bomber Squadron, with a total of 186 bomber aircraft.

The execution of this mission was assigned to the Special Purposes Air Command which was also required to keep Polish troop movements, particularly by motorized units, in the front and near rear areas, as well as the rail and road routes under air observation as far as a line from Nau Smands-Tarnow-Kielce and Lodz. These agreements had been reached at an early stage with the Army and the last directives for the Fourth Air Fleet were supplemented on 31 August by the written instructions contained in Air Fleet Order #1. The boundary line between the First and Fourth Air Fleets established on that day was as follows: from Wollestein-Kosten-Fzydrow-Kutno through Loviz railroad-Skierniewice-Grocenko-confluence of Pilica and Vistula Rivers-Radzyn-Kaloryta (24 miles southeast of Brest).

III. RECONNAISSANCE RESPONSIBILITIES OF THE OPERATIONAL FORCES OF THE LUFTWAFFE.

The Commander in Chief of the Luftwaffe had established the following rule regulating the reconnaissance responsibilities of the operational Luftwaffe, effective 31 August: The First and Fourth Air Fleets were responsible for air reconnaissance in their separate areas on either side of the boundary line stated above. Air Fleet


13. For details see map, appendix 26.
responsibility for reconnaissance extended as far east as the line Stryi-Ivov-Kamionka-Strumilov-Kovel-Kaloryta-Erest-Slonim-Lida-Vilna—the Lithuanian frontier. The reconnaissance responsibilities which operational activities included were roughly as follows: the detection of targets essential for the continued conduct of operations; establishment of the whereabouts of Polish air forces and air defense forces; detection of traffic on Polish assembly and supply rail and road routes and the detection of other Polish troop movements, particularly by motorized units. Special arrangements had been made between the army groups and the air fleets to insure a quick exchange of Army and Luftwaffe intelligence information. Three overlapping zones of reconnaissance activities thus existed: (1) the zone of tactical reconnaissance by the air reconnaissance units allocated to the army; (2) the zone of tactical and operational reconnaissance by the two air fleets; and (3) the zone of strategic air reconnaissance by G.H.Q. units. Adequately complete reconnaissance coverage of all three zones, both laterally and in depth, thus seemed assured from the very outset.

IV. THE COMMANDER IN CHIEF OF THE LUFTWAFFE.
In addition to the operations planned by the two air fleets, the Commander in Chief of the Luftwaffe had planned an attack against military installations in Warsaw by the combined units of both of them, escorted by twin-engine fighters, on the afternoon of the first day of the campaign. This attack was to be staged on receipt of the code word "Wasserkante." The first condition for an undertaking of this sort was suitable weather. This mass attack was to be followed up by harassing raids throughout the night carried out by the 100th Bomber Group, under the direct command of the Commander in Chief of the Luftwaffe, against specified individual targets. The 100th Bomber Group was a special type unit designated during peacetime as the 100th Air Signal Battalion for reasons of concealment, and included in the Luftwaffe Training and Experimental Regiment stationed at Kothen.
At mobilization the unit automatically assumed its new designation. The bomber group had two squadrons equipped with He-111-H-3 aircraft. The main purpose of this group was to carry out the initial operation with what was at the time a newly developed method, known as the X-method, in which the use of radar made blind pin-point bombing possible. For the time being the group was earmarked as a strategic GHQ unit for use in Operation Weiss.

Generalmajor Student, in command of the 7th Air Division, had received instructions in August to study the feasibility of an airborne operation to seize the important Vistula River bridges at Dirschau and Graudenz. These bridges were essential for an immediate restoration of rail traffic between Germany proper and Eastern Prussia, which would make the quick movement of reinforcements and supplies to the forces operating from Eastern Prussia possible. Seizure of these bridges already on 1 September therefore was of paramount importance. Pursuant to these plans the 7th Division (air) reinforced by the 1st Battalion, 16th Infantry Regiment, moved by air and road into an assembly area around Liegnitz on 1 September. This late assembly was due to the necessity for concealment. The orders regulating this assembly are unknown.
V. POLISH SITUATION ON 31 AUGUST.

The information available to the higher and intermediate commands of the Luftwaffe concerning the disposition of the Polish Army forces was the same as that available to the German Army commands. Target and other combat data was available in adequate measure for the Luftwaffe units assigned to provide direct and indirect support to the Army. By evening on 31 August numerous reports were received on the Polish mobilization, rail and road movements of Polish troops, and the disposition of the Polish divisions. Even at this early stage two areas of concentration in the Polish Army assembly were clearly recognizable, the one in the general area of Miawa-Bromberg, the other in the Chnestochau-Krakau area. In all essential points the information on the location and disposition of the Polish air forces had remained unchanged. The intensified air reconnaissance operations against the Polish ground service organization during the last few days of August served merely to confirm the already available data, apart from a few changes in the units stationed on specific airfields and the detection of a few new airfields. The overall impression was that

the Polish air forces, on the whole, were still at their
peacetime base airfields.

VI. GERMAN SITUATION ON 31 AUGUST.

The information available on the Polish situation
provided conditions for the initial concentrated attack
by the operational Luftwaffe to destroy the Soviet air
forces and their ground service installations, and no
basic changes were necessary to the prepared plan of
operations. In contrast, the last detail operational
orders issued by the two air fleets reveal clearly that
the primary concept of the Commander in Chief of the Luft-
waffe for the conduct of operations, namely, the neces-
sity to annihilate the hostile air forces in their bases,
has been modified considerably in the meanwhile by orders
from the Supreme Command favoring the Army and the Navy.
This circumstance had the following effects: The only
dive-bomber group available to Luftwaffe Command Eastern
Prussia was diverted to support Special Operation Dir-
schau; Fifty percent of the forces of the 1st Air Divi-
sion, namely, five-and-one-third bomber and dive-bomber
groups were committed for a number of days to support
naval operations against the Baltic coast; The Special
Purposes Air Command was committed in its entirety from
the first day of the campaign on in direct support of the Army, so that its forces most probably would not be available for the all-out attack against the Polish air forces. In addition, the two air fleets, pursuant to directives received on 31 August, designated specific areas of main effort for immediate army support operations, so that a certain percentage of the attack air forces were committed from the very outset.

The result of the above measures was that the "bulk" of the operational Luftwaffe forces provided for in plans was in actual fact reduced to approximately one-half of their original striking power. In addition, the Commander in Chief of the Luftwaffe planned a concentrated attack on Warsaw by the combined forces of the First and Fourth Air Fleets for the second half of the first day of the campaign, an operation motivated in all likelihood by political and personal reasons rather than operational objectives.

15. See Appendix 27 concerning air reconnaissance reports on the Polish ground service organization at the end of August.
Weather conditions, which might influence the success of the initial all-out air attack decisively, worsened on 31 August. However, weather was not the only factor which would determine the commencement of air operations. On the contrary, the only deciding factor was the political decision taken by the highest political level and that decision was that operations were to commence on 1 September.

Apart from very minor modifications, the Army concentration in the meanwhile had been carried out as described in Part 1 of the present study.

After the strategic concentration of the operational forces of the Luftwaffe had been initiated as early as on 24 August, the attack was ordered exactly one week later for 1 September.

16. According to the weather forecast on 31 August, at 1700, heavy clouds were expected over Poland on the next day. It was predicted that the cloud banks would extend as far south as Warsaw, and would consist of several layers, the lowest of which would be irregular at an altitude of 3000 feet.
CHAPTER 2

THE SURPRISE ATTACK AGAINST THE POLISH
AIR FORCES ON 1 SEPTEMBER

In the early morning on 1 September, at 0445, units
of the Luftwaffe crossed the German-Polish frontier to de-

liver their all-out blow against the Polish air forces,
and at the same time the German army divisions took off
for their attack across the Polish frontier.

Weather conditions upset the German plans for the
synchronized take-off of all operational air forces, so
that only few units were able to take-off punctually ac-
cording to schedule. As a result, the planned large-scale
attack disintegrated into individual actions during the
initial stages. At 0550 the Commander in Chief of the
Luftwaffe issued the order: "Operation Wasserkante will not
be launched today." Counter-air action will continue, par-
ticularly against air ports around Warsaw, concurrent with
army-support operations as planned." In detail, the det-

eriorating weather produced the following results in the
case of the two air fleets.

1. FIRST AIR FLEET.

17. The weather was even worse than had been predicted on
31 August, with a cloud ceiling of 600 feet and a visi-

bility range of 3,000 feet at Warsaw.

18. Compare previously quoted sources and literature. In
addition the present author was able to draw on his
personal experience as First Air Fleet CO.
Operational air reconnaissance activities were restricted seriously and soon had to be halted altogether, particularly in the area ahead of Warsaw. In the area of Luftwaffe Command Eastern Prussia only four groups were able to take off as scheduled. These were the 2d bomber wing HQ units with the wings own 1st and 2d Groups, and the 2d Group of the 3d Bomber Wing and the 1st Group of the 1st Dive-Bomber Wing, the latter reinforced by a squadron from the 3d Group, 3d Bomber Wing. Only one bomber group of the 1st Air Division was able to take off. This unit, the 1st Group, 1st Bomber Wing, was part of Reinforced Wing Kessler, the bulk of which was grounded in Eastern Pomerania by dense fog and only succeeded in taking off in the direction of the Baltic Sea in the afternoon. Of the fourteen-and-one-third attack groups concentrated for the attack only five groups, representing only one-third of the available effective strength were thus able to take off for their missions as scheduled. 19

On the forenoon of 1 September units of the First Air Fleet carried out the following attacks:
<table>
<thead>
<tr>
<th>Unit</th>
<th>Target</th>
<th>Time at Target</th>
<th>Results Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Gp, 1st Dive-Bomber Wing, with 3d Gp of 3d Gp 3d Bomber Wing</td>
<td>Dirschau</td>
<td>0430</td>
<td>Fighter barracks struck</td>
</tr>
<tr>
<td>1st Gp, 1st Bomber Wing</td>
<td>Putzig-Raimel</td>
<td>0600</td>
<td>Airfield, runway, sheds, shelters hit</td>
</tr>
<tr>
<td>1st Gp, 2d Bomber Wing</td>
<td>Brest-Terespol airfield</td>
<td>0600</td>
<td>9 aircraft destroyed</td>
</tr>
<tr>
<td>2d Gp, 2d Bomber Wing</td>
<td>Zambrov-Louza</td>
<td>0600</td>
<td>Barracks &amp; rail installations hit</td>
</tr>
<tr>
<td>2d Gp, 3d Bomber Wing</td>
<td>Kutno &amp; Grudenz</td>
<td>0600</td>
<td>Airfield; sheds destroyed; ammo depot hit</td>
</tr>
<tr>
<td>2d Gp, 1st Air Wing-30</td>
<td>Airfield Warsaw Okocie</td>
<td>0900</td>
<td>Sheds on fire</td>
</tr>
</tbody>
</table>

19. The 27th Bomber Wing, stationed in the west, had also not been able to take off for transfer to the east because of weather conditions.

20. Operating from Eastern Prussia.
As will be seen, only five airfields could be taken under attack. Sizable air forces were found on only one of these, the Warsaw-Okocie airfield. The reconnaissance planes of the attacking forces and also operational reconnaissance planes found fifteen airfields deserted. The attack by the 1st Group, 1st Dive-Bomber Wing against the detonating stations for demolition of the Dienachau bridge was carried out as scheduled. However, the purpose of this attack was not achieved and two hours later the Poles blasted the bridge and thereby succeeded in hampering and delaying the German ground operations. The question poses itself on the mind why this mission (Operation Dienachau) was not assigned to a paratrooper unit. Relatively small forces would have been required for this purpose, because it could be anticipated that army forces would have arrived soon to relieve the airborne unit.

Improving weather conditions around midday in Northern Poland made the dispatch of all Luftwaffe units possible, some of them in repeat missions. These missions were carried out automatically without any necessity for new orders because all units had received their orders in advance.

At 1325 the air fleet commander ordered the 27th Bomber Wing, stationed in the west, to attack. The bombers were
to be over their targets at 1630, where they were protected by the 1st Twin-Engine Group, 1st Air Wing. After returning from its mission the bomber wing was ordered to report to the 1st Air Division for further orders. The units of the wing took off from west German base airfields at Delmenhorst, Munster, and Langenhagen. The route to the target area, Warsaw, was longest from Delmenhorst, a distance of over 450 miles. At this juncture all forces of the air fleet were committed in action, seven groups from Luftwaffe Command Eastern Prussia and thirteen from the 1st Air Division, making a total of twenty groups. All attacks at this stage were against the Polish ground service organization, in direct support of army operations, or against Polish ammunition depots in indirect support of the Army and the Navy. Indirect support missions also included attacks against rail installations, radio installations, and against the presumed Polish headquarters.

22. Fordetails given in connection with later circumstances see p.
In detail, the following can be said of these operations: The airfields at Graudenz, Thorn, Bromberg, Gnesen, Posen-Lwica, Putzig-Rahmel, Lida, Warsaw-Okocie, Warsaw-Molotov, Goslaw, Polock, Biala-Podlaska, and Brest-Terespol were attacked, some of them twice, with good results. Army operations were affected materially by the results obtained in attacks at Dirschau and Graudenz, against rail installations around Poznan, and against the casernes in Zamborv-Lomza. Attacks against Orthoefl—including the naval port there—and against shipping supported the operations of the German Navy; these attacks were carried out by five dive-bomber groups, which also attacked Putzig-Rahmel, and the southern tip of Cape Helia.

Other attacks were directed against the assumed Polish headquarters southwest of Warsaw, against the ammunition depot at Rembertov, and against the Polish radio stations at Babice and Lacy. The radio stations were taken under attack pursuant to a report from Army Group North that they were transmitting in code orders of the Polish Army High Command, and the German ground forces reported that after the air attacks, which were carried out by
dive-bombers, there was a noticeable interruption in Polish radio traffic.

In summarizing, it is found that on the forenoon and afternoon of 1 September units of the air fleet flew a total of thirty group-size missions, since a considerable number of the 17 1/3 groups committed were dispatched repeatedly. In addition, fighters and twin-engine fighters flew seven group-size missions to protect the bombers during their operations.

More important than the number of groups committed in attack is the nature and the number of the targets attacked. Here it is noticeable that seventeen missions were flown against the Polish ground service organization, eight in support of the Army, and five in support of the Navy. Thus, the effort in support of the Army and Navy equalled 56 percent of all missions flown against the Polish air forces and their ground service organization.

II. FOURTH AIR FLEET.

Weather conditions were more favorable in the southern than in the northern areas of the theater of operations, so that the majority of the air units earmarked for attack missions were able to take off as scheduled early on 1 September. The command was flexible enough
to insure speedy adjustment to fluctuating weather conditions, and a number of units initially unable to take off were dispatched later in the forenoon, although against other targets than those originally planned. Only three groups of the 4th Bomber Wing remained grounded by the weather, and elements of the 76th Bomber Wing had to return to their bases because of deteriorating weather conditions. Between 65 and 75 percent of all offensive units participated in the initial attack. The rest of the missions flown were distributed over the whole day, for which reasons it appears futile to separate them into forenoon and afternoon missions.

Concerning the overall air effort, the following can be said:

Under the 2d Air Division eight bomber and one dive-bomber groups flew a total of twenty-one missions, delivering a total of 250 tons of bombs on hostile targets. During these missions the 1st Group, 2d Dive-Bomber Wing, not in evidence in the plans for the assembly, made its first appearance under the division. Under the Special Purpose Air Command three dive-bomber and one ground-attack groups comprising a total of 352 aircraft flew thirteen missions, delivering 139 tons of bombs on assign-
assigned targets. Accordingly, thirteen groups of the air fleet participated in 34 attack missions, making an average of two-and-one-half attack missions per group. A relatively high percentage of this overall effort was in direct support of the Army. Only seventeen missions, in which twelve Polish airfields were attacked, some of them repeatedly, were directed specifically against the Polish air forces. Thus, only fifty percent of the overall air effort was in counter-air missions, even less than in the northern areas under the more northerly air fleet.

It remains to be said that the operations of the 2d Air Division must be considered separately from those of the Special Purposes Air Command. Although, nominally under the division, the assigned combat missions and the type of operations of the Special Purposes Command differed so fundamentally from those of the division and the influence of the divisional commander was so small on these activities that

25. (Footnote on p. 24) The missions flown by Reinforced Air Wing Kessler against Polish naval air bases around Danzig have been counted as counter-air targets in this compilation.

26. With one single exception, all units of the Special Purposes Air Command participated exclusively in Army Operations. Units of the 2d Air Division flew between four and six missions against army-type targets.

27. The air division had strategic missions, whereas the Special Purposes Air Command had exclusively close support missions for the Army.
the separation of these two commands, which was formally pronounced shortly thereafter, was a virtual fact on the first day of combat.

Already on the first day of the campaign the air division found itself compelled to make certain changes in its theoretical plans and to recast its plan of operations more flexibly and in a form more adapted to the existing weather conditions. The direction of the attack missions shifted steadily farther south, with main emphasis on the Polish ground service installations in the Lvov-Krosno-Krakau area, the southernmost part of Polish territories. The bulk of three bomber wings were committed against this new target area, with only weak elements operating concurrently against targets in the northern area of operations as far as Lodz and Radom. The main attacks were directed against the airfields at Krakau (where 200 tons of bombs were unloaded in five group-size attacks), Chenstochau, Kattowitz, Krosno, Moderovka, Lvov, Kielce, Radom, and others. In addition, attacks were directed at rail depots and factories in the assigned target areas.

According to the mission assignment, the targets for the units of the Special Purposes Air Command were

26. 4th, 75th, and 77th Bomber Wings.
directly ahead of the Tenth Army. In spite of this, direct orders from air fleet headquarters early on 1 September diverted the 77th Dive-Bomber Wing, which constituted one-half of the command's offensive power, to the attack against the Krakau airfield as part of the ordered all-out attack against the Polish air forces. The command initially thus had only one dive-bomber and one fighter group available to provide direct support for the Tenth Army. Seen in retrospect, this air fleet interference in the command authority of the Special Purposes Air Command appears justified, (1) because of the necessity to concentrate all available forces for the initial attack, and (2) because in the initial phases of the attack on the ground by the Tenth Army no worthwhile close air support targets in the form of hostile troops were in evidence.

The command's ground-attack group (2d Group, 2d Air Wing) was dispatched, simultaneously with the opening of the attack by ground forces, to attacks settlements known to be occupied by Polish troops and during the day flew several missions against troop concentrations and marching columns behind the Polish front. The dive-bomber groups also were committed repeatedly against Polish troop concentrations, particularly in the general area
Chenstochau. In one of these missions, the air units were particularly successful in completely scattering a Polish cavalry brigade at Wislum.

During these initial operations the Special Purposes Air command in a growing measure commenced committing its units in accordance with its own interpretation of the ground situation without awaiting army requests for air strikes, since the army command had not yet accustomed itself to the original idea of planned cooperation with the air forces. For this reason, army requests arrived too late, if at all. This type of cooperation between the Special Purposes Air Command and the various Army command agencies will be dealt with in more detail in the critique which is to follow.27

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The total results achieved in operations against
ground targets, primarily in the rear of the Polish front
on the first day of the campaign, were highly satisfactory
and led to the complete disorganization of the Polish
ground forces thus attacked. Entire Polish units disintegrated,
the troops fleeing in wild disorder from the
burning settlements, only to come under repeated air
attack in their wild eastward flight. The impressions of
the first day of combat thus revealed clearly that the
new close support air arm had supported the army’s ad-
advance decisively and in numerous cases had made the ad-
advance possible at all. The losses incurred by the Special
Purposes Air Command in matériel on this first day of
combat were small: 1 aircraft was missing, 16 were dam-
ged by Polish defensive fire, and 14 had made forced
26
landings.

III. CRITIQUE OF OPERATIONS AND THE POLISH SITUATION.

Any review, from the operational viewpoint, of air
operations on the first day of attack must take as its
starting point the fact that the primary operational
concept of the Commander in Chief of the Luftwaffe was
weakened considerably by the subsequently ordered large-
scale attack against Warsaw. Another factor was the
unexpectedly unfavorable weather which (1) prevented or
delayed the take-off of sizable offensive forces in the
early morning and (2) made the execution of Operation
Wasserkante impossible. This latter circumstance made
it possible to continue their attacks against the hostile
ground service organization in the afternoon and thus to
a certain extent compensated for the unfavorable effects
of the original plan by the Commander in Chief of the
Luftwaffe. In this way only approximately one-half of

28a.

28. The damaged aircraft were Ju-87s; those which made
forced landing were twin-engine fighters which had
completely lost their way on their first combat mis-
sion.

29. See p. 10 above.
the operational Luftwaffe, instead of the originally intended bulk of all air forces, was committed against the Polish air forces, which remained the primary target of the German Luftwaffe.

Accepting as established the fact, which was clearly evident in advance, that the Luftwaffe was considerably superior to the Polish air forces in numerical strength, in the quality of its materiel and personnel, and in morale and command, it seems only right that the Luftwaffe was assigned other missions, such as direct support for the Army in areas of main effort, concurrently with its primary mission. Such a decision to split forces in this manner was also fully consonant with the principles laid down in the Service Manual on the Conduct of Air Operations. However, the methods adopted in implementing this decision were contrary to the basic principle of power concentration, a principle also stressed in the same service manual and which had been adhered to in the original plan of operations. The use of air power in indirect support of the Army seemed fully justifiable in the existing circumstance to facilitate the breakthrough on the ground and the deployment in the Polish rear.

However, this support developed into direct support from
the very outset and, what is more significant, it took the form of attacks on (presumed) hostile command centers, rail installations, ammunition depots, and armament factories. The overall impression is one of a serious dissipation of effort in planning and in effectiveness.

The tactical results achieved in operations against the Polish ground service organization as measured in casualties inflicted, material destroyed, and the impact on morale, can only be estimated. It is to be assumed that, in their first actual combat missions, the individual aircraft crews, the units, and also the intermediate and higher commands overestimated their achievements. There was no possibility at the moment to check their reports, and later checks were uncertain and difficult. After the occupation of Poland by the German Army the Luftwaffe took over the Polish airfields and it was found that the destruction caused in the attacks would not have been serious enough to prevent their use by Polish air forces. In many cases it was found that the bombs dropped had landed within the target area but had not damaged the runways, and many airfields had not been found because of poor visibility, so that the German units had attacked alternate
targets. Owing to unfavorable weather conditions the attacking crews had been unable to observe and report accurately the results of their bombing. Furthermore, the crews in some cases were inadequately trained in aimed bombing. The reports of "aircraft destroyed on runways," therefore must be accepted and evaluated with caution. It is to be assumed that such reports included training, courier, commercial, sports, and other civilian planes. Furthermore, some of the assumed fighter and bomber planes may have been dummies. The photo reconnaissance carried out immediately to ascertain the target effects produced no reliable evidence.

The best standard by which to measure the effects of the attacks on the first day of the campaign is probably the actual behavior of the Polish air forces following the German attacks, and to draw the appropriate conclusions.

30. Added to which were the support given to the Navy in Baltic areas, and the missions against spot targets such as the Breslau bridge and radio stations.
On the first day of attack the Polish air forces remained surprisingly inactive. No complete bomber units went into action and no bombers participated in ground action. In contrast, Polish fighters were encountered and accepted battle in all areas, but their efforts were scattered. It soon became evident that the Polish fighter planes were no match for the German planes in point of flight performances, and even the German Do-17 aircraft proved faster than the Polish fighters.

In the foremost Polish ground defenses were extremely feeble, but became increasingly effective as the day wore on. Antiaircraft artillery concentrations were encountered by First Air Fleet units at Thorn, Lodz, Warsaw, Grodno, Modlin, Kutno and other points. In the command area of the Fourth Air Fleet, antiaircraft artillery concentrations were at Radom, Deblin, Lvov, Krosno, and Chenstochau. Lively machinegun fire was delivered against German low-level attacks, but German personnel losses were small in spite of numerous hits.

For reasons which cannot be established definitely, the Polish air forces made no appearance at all on the first day of the campaign. The causes contributing to this relative inactivity may have been the decentralized
organization, in which the air units were allocated to the various army commands; the partial destruction of the command and general signal communications networks; the losses in personnel and material inflicted by the attacking German forces and resulting from crash landings on emergency airfields; and the demoralizing effects of the surprise German attacks.

However, the German attack had not achieved the desired measure of surprise, as far as the Polish air forces were concerned, because the planned large-scale German attack had deteriorated into a series of individual attacks isolated in timing and area.

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31. First Air Fleet reported 14, Fourth Air Fleet 11 aircraft lost.
At no time had the German command succeeded in attacking all Polish airfields simultaneously to deal the entire Polish air forces an annihilating blow. The direct result of the scattered German effort was that the Polish air forces gained time to transfer their units to alternate airfields, to redistribute them, and to provide protection for them through a reorganization of their fighter and antiaircraft artillery defenses. In part these transfer movements were only assumed by the German command, in part they were confirmed by reconnaissance, and can be considered as one cause for the inactivity of the Polish air forces on the first day of the campaign and their feeble reaction to the German attack. Reports by German air units contain only rare references to Polish aircraft shot down while airborne.

It can therefore be established that on the first day of attack the German side did not succeed in destroying or completely neutralizing the Polish air forces on the ground and in the air, but that the partial elimination of the Polish ground service organization and the losses inflicted on the Polish air forces airborne and on the ground so far paralyzed them that all they could do was transfer their units to hitherto undetected airfields,
so that their operability was almost completely cancelled.

In spite of this temporary paralysis, the German command on the evening of the first day expected with certainty that the Polish air forces would put in an appearance somewhere and somehow on the following day, and the only question open was when, where, in what strength, and with what combat tactics they would participate in the campaign. Another established factor was the unquestionable superiority of the German over the Polish airforces. In this respect it is only just to emphasize that this superiority was due not alone to the performances and excellence of the German command, crews, and material, but also largely to the completely passive behavior of the Polish air forces on the first day of battle, no matter what the reasons for that passivity might have been.

The execution of the second air mission, that of direct support for the Army, produced a great although hardly gained tactical victory, which in some respects also had strategic impacts. The operations of the close support units of the Special Purposes Air Command in particular played a decisive role in breaking Polish resistance in the line of advance of the main German attack army and opening the way for that army from the border
battle to areas where it could operate freely.

Thus far the present critique of the first day of battle has been exclusively from the viewpoint of a Luftwaffe critic. A valuable supplement to that critique is contained in the interpretation of the air situation at the end of the first day contained in the consolidated daily bulletin issued by the Wehrmacht High Command on 32 September. A passage dealing with the Luftwaffe in the bulletin reads:

In repeated powerful blows the Luftwaffe attacked and destroyed the military installations on numerous Polish airfields. In addition, a number of ground-attack wings effectively supported the advancing army. The Luftwaffe thus today secured air supremacy over Poland although strong forces are still held in reserve in central and Western Germany.

An Army historian summarizes his estimate of the activities of the Luftwaffe on the first day as follows:

The conditions for the surprising pace at which the German advance broke forward at all points were created by the Luftwaffe through its action in destroying the bulk of the weak Polish air forces on their airfields on the first day of battle. From
then on the Luftwaffe was free to accomplish its other assigned missions.

33. von Tippelskirch, p. 25.
CHAPTER 3

2 SEPTEMBER—OPERATIONS IN SUPPORT OF THE ARMY COMMANDE

On the evening of the first day of the campaign the German Supreme Command arrived at a relatively correct interpretation of the air situation and, accordingly, issued appropriate directives and orders consonant with the requirements of the overall situation for the operations of the committed air forces. Directive #1, the basic directive, was issued by the Commander in Chief of the Luftwaffe already at 1455 on 1 September and read as follows:

On 2 September the First and Fourth Air Fleets will continue counter-air operations. Warsaw and Rüben will be kept under constant observation by weather reconnaissance planes and, whenever possible, will be attacked by bomber groups maintaining a constant alert. The advance by the Army will be given strong support.

Besides its continued mission of counter-air and

34. In addition attacks were to be directed at radio stations in Warsaw, Thorn, Lodz, Radom, Rüben, Lvov, and Krakau. Operation Wasserkanze was planned for the afternoon.
tactical support for the Army, this directive assigned
the Luftwaffe the new missions of attacking what were cal-
led rail interdiction targets—important key points and
junctions of the strategically important rail network—,
radio stations (altogether ten), and Warsaw, the latter
being a belated execution of Operation Wasserkante. This
early issue of orders took place at a time when the exe-
cution and results of the planned attacks of the first
day were known to an extent of barely 50 percent. How-
ever, time requirements made it necessary to issue orders
for the next day so early so that they could reach the
lowest echelons in time, and the early issue of orders
was possible because the Commander in Chief of the Luft-
waffe was perfectly clear on the ruling principles in
the conduct of operations.

What is less easily understood is that the order for
the all-out attack on Warsaw was maintained and that new
combat missions were assigned, which resulted in a further
dispersal of the air effort in spite of the fact that the
first and foremost missions of air warfare had not yet
been accomplished fully, namely, counter-air operations
and tactical support for the Army, and were in fact still
in the initial stages of execution.
Only two hours later, at 1647, a teletype message ordered a change in Directive #1, cancelling the order for attacks on rail interdiction targets. Instead, air attacks also were to be directed against Polish troop concentrations and movements farther in the Polish rear. Presumably, operations against rail interdiction targets were no longer thought necessary because the German Supreme Command in its interpretation of the situation had arrived at the conclusion in the meanwhile that the Polish rail movements connected with the strategic assembly were practically completed. This meant that the Luftwaffe could turn its attention to areas closer to the front lines.

35. In Operation Wasserkante, to be carried out in the afternoon, the bombing of densely populated districts of Warsaw, such as the suburb of Praga, was to be avoided.

36. To emphasize observance of the requirements of international usage in respect to non-attack of civilian populations, a requirement stated in the altered order, a verbal note was delivered to the Polish Embassy on 1 September to the effect that German air forces operating in Poland had been instructed to restrict their attacks to military targets.
The third operational order from the Supreme Command arrived by teletype at midnight of 1-2 September and read as follows:

1. By order of the Commander in Chief steps will be taken to discover the whereabouts of the Polish bombers on 2 September, for which purpose adequate reconnaissance will be conducted from daybreak on so far as weather conditions permit;

2. First and Fourth Air Fleets will maintain bomber groups ready for an immediate take off to attack Polish bomber forces as soon as possible as their position has been determined;

3. As soon as weather permits units will be dispatched to attack busy ports without regard for the boundary line between the two air fleets;

4. No matter what the circumstances might be, the Fourth Air Fleet will attack Dublin. The attacking bombers will be given twin-engine fighter escorts.

At this time the Supreme Command was able to base itself on a more sound interpretation of the situation, after having received all reports on combat and reconnaissance activities of both air fleets. In particular, it had been

37. Fuehrungsstab Ia # 4195/39, Karlsruhe Document Collection.
realized in the meanwhile that the German attack had failed to strike the entire Polish air forces. This was why the GHQ reconnaissance group at the same time received the special order to establish the whereabouts of the Polish multi-engine bombers in the Kosno-Berlin-Luck-Stanislaw area and report results immediately by radio to the Luftwaffe Operations Staff.

Finally, in the late evening on 1 September, Operation Wasserkante—the all-out attack against Warsaw—was cancelled for the second time, for reasons still unknown. It can be assumed as possible that it was realized that the Polish air forces were by no means completely annihilated and that, for this reason, it was necessary to concentrate all forces again on the second day for counter-air action.

After receiving the above directives and orders from the High Command, the two air fleets issued the appropriate orders to their units. The First Air Fleet ordered Luftwaffe Command Eastern Prussia to continue its counter-air operations and its operations in direct support of the Army as requested from time to time by the army field headquarters. Operations indirectly supporting the Army were to be conducted independently in the form of attacks on all troop movements and concentrations detected by the opera-
operational air units. In addition bombing attacks were to be launched to render the radio stations at Thorn, Warsaw, and Posen inoperable. The 27th Bomber Wing was transferred to the command of the 1st Air Division immediately after returning from its attack mission.

The Second Air Fleet also ordered the 2d Division to attack the Polish air forces on the ground, to destroy hostile radio stations, and to continue operations in direct and indirect support of the Army. The Special Purposes Air Command was to continue independent action in direct support of the Tenth Army; additional elements of the 2d Air Division were dispatched against worthwhile targets in support of the Fourteenth Army and a liaison officer was dispatched by plane to Fourteenth Army Headquarters. The 2d Air Division committed its 76th Bomber Wing against the air port and radio station at Radom and the air ports at Mielec and Chorzów, a bomber group from its 77th Bomber Wing--escorted by two
squadrons from the 75th Twin-Engine Fighter Wing—against
the air port and radio station at Lodz, and the 4th Bomber
Wing against the air ports at Deblin and Lublin. From 0500
on two groups of the 77th Bomber Wing were to be kept under
constant alert for operations in direct support of Army
Group South. Judging by the time they were issued, these
two orders were in implementation of Directive # 1 of the
Commander in Chief of the Luftwaffe dated 1455, 1 September.

The reconnaissance results obtained on the first day
provided the basis for the detail assignment of targets and
for air operations as a whole on 2 September. These results
have been compiled in special lists. Two significant
facts can be deduced from these compilations which are of
importance in assessing the situation and the decisions re-
garding coming operations: (1) 14 airfields were detected
with at least 240 aircraft on them, most of them in the
command zone of the First Air Fleet; (2) in the entire area
of operations at least 25 airfields were definitely estab-
lished without any aircraft on them.

Although operations were seriously handicapped on the
first day by unfavorable weather, particularly by patches of
fog, adequate data was secured for the planning of counter-
attacks.

36 Appendix 27. For better intelligibility, reconnaissance
reports for the 1-9 Sep period have been listed chronol-
logically.
air operations. In the night of 1-2 September weather conditions improved and the clouds began to clear. In the southern areas, however, operations of the Fourth Air Fleet were curtailed by ground fog early on 2 September, which prevented the take off of units until 0300. Later in the day low-hanging clouds complicated reconnaissance in all areas.

The situation on the ground is revealed by the situation report for 1 September, issued at midnight. According to this report German ground forces had penetrated 12 miles into Polish territory on an average, in most cases without encountering serious resistance. Only the I Corps of the Third Army was halted by strongly developed positions north of Miawa. Other data for the drafting of operational orders to the air units was provided by the operational reconnaissance reports on the early morning of 2 September. These reports revealed clearly that there were no aircraft on the airfields at Debica, Moderovka, Toromovka, Luck, Brody, Laslofka, Sandominiec, and Mielec. Two twin-engine and two single-engine aircraft were reported on the Skitov airfield. Reconnaissance conducted later in the day showed that aircraft were on only three Polish airfields.

The pattern of air operations on 2 September was as
follows: The day started with a clearly defined concentration on counter-air operations, a circumstance which changed later in the day. Talking strictly in numbers, the missions flown during the day can be broken down as follows: In bomber, and dive-bomber forces the First Air Fleet committed 110 aircraft in counter-air missions, 325 in direct, and 45 in indirect support of army operations; and 95 in support of naval operations; the Fourth Air Fleet committed 254 aircraft in counter-air operations, and 295 in direct support and 125 in indirect support of the Army. All in all the First Air Fleet committed 1,575 and the Fourth Air Fleet 4,574 aircraft in operations of these two types.

The ratio of aircraft committed in counter-air operations to aircraft committed in support of the Army and the Navy was thus lower than on the previous day; out of a total of


40. Twenty aircraft were detected at Deblin-Jolap, 13 single- and 17 twin-engine aircraft at Warsaw-Okecie, and 20 at Strassburg.
1247 missions flown by the units of both air fleets only 364, or 29 percent, were counter-air missions (at First Air Fleet 20 percent, at Fourth Air Fleet 38 percent). The reason for the secondary role of counter-air operations on the second day of the campaign was no longer one of scattered effort, but mainly one of a lack of real targets for such operations.

On 2 September the overall air situation within the entire Polish theater was as follows: Again, Polish bombers were not in evidence at all. This statement is not altered by the fact that a few bombs were dropped on German territory in Silesia—without doing any damage—since they apparently were dropped by Polish reconnaissance planes operating singly. Compared with the previous day, attacks by Polish fighters were less frequent, by smaller units, and more cautious, and resulted in eight Polish fighters downed.

Units of the First Air Fleet committed in counter-air missions attacked the airfields at Kutno, Lida, Wilna, Bialystok, Brest-Izerspol, and Biała-Parta, setting sheds and fuel installations on fire. Units also attacked the airfield at Warsaw-Okecie and the State-owned aircraft factories located there. Those of the Fourth Air Fleet attacked the airfields at Lodz, Deblik, Radom, Lublin, and
Fourth Air Fleet. As on the previous day, the units committed in direct support of the Army again concentrated on the area of the Tenth Army, in the area of main effort. Here, the units of the Special Purposes Air Command were dispatched in continuous missions mainly in support of the 1st Panzer Division advancing on Radom. Concurrently, units protected the right flank of this important spearhead division against surprise attack. Repeated attacks also were

42. In this area particularly in the Tucheler Heide (heather).
43. In order to clarify the situation the Commander in Chief of the Luftwaffe at 1245 ordered reconnaissance of rail routes, roads, and troop concentrations in the Konitz-Graudenz-Posen-Behtsohen area.
reported 10-12 aircraft destroyed at the last named field. In addition, 50 aircraft were reported damaged on the runways at Dublin, and hits were reported on the aircraft factory at Mielec. On the evening of the second day of the campaign it could be assumed with safety that the Polish air forces no longer represented an important factor in the Polish conduct of operations, although nothing definite had been established as to the whereabouts of these forces.

The surprisingly quick establishment of air supremacy by the Luftwaffe in the entire Polish theater soon made it possible to place main emphasis in air activities on operations supporting the advance of the German ground forces. This was done already on the 2 September, and this shift of emphasis in air operations coincided in time and causatively with the clearly defined development of areas of main effort in the operations of the Army.

In direct support operations the shift in emphasis took the following form:

First Air Fleet. During the day the bulk of the air forces, beginning with the units of the 1st Air Division, were committed in steadily increasing numbers against the
Polish forces on the ground (vehicle columns, concentrations, marching troops, withdrawing troops and even fortified positions) in the Polish Corridor\textsuperscript{42} to support the German Fourth Army in its breakthrough towards Eastern Prussia and the Vistula River. In the early forenoon already Army Group North had informed Luftwaffe Command Eastern Prussia that the Polish forces evidently were on the point of evacuating the corridor and withdrawing towards Danzig. Thereupon, air units operating from Eastern Prussia also immediately dispatched elements to attack the withdrawing Polish troops in this area of main effort. This development in the situation even influenced the Commander in Chief of the Luftwaffe to shift main emphasis for the GHQ reconnaissance squadrons to this area. This measure is indicative of the shift in top level planning from operations to tactics. In the northern areas, the emphasis in air operations on the 2 September had thus already clearly shifted to support of the Army operations. So far as indirect support for the Army was concerned, the air fleet restricted itself to a few missions against rail depots, rail routes, and transport movements, particularly east and southeast of Eastern Prussia. The units of Reinforced Wing Kaseler, however, remained involved in action in the Baltic around Danzig.
directed against Polish retrograde movements in the general area of Chełmno and south of Radomsko, and against Polish troops detaining around Piotrków. The bulk of the air forces were committed north of the Warthe River. This action again was taken by the Special Purpose Air Command on its own initiative because the individual requests by army commands appeared unfounded and at times even senseless. Fighters on roving missions over Lodz shot down three Polish aircraft. On the second day of the campaign sizable elements of the 2d Air Division also participated directly in combat on the ground. On the whole, however, more indirect support missions were flown than farther north, in the zone of the First Air Fleet. Thus, rail depots, rail junctions, trains, armament factories, radio stations, cross-roads, and bridges offered a profusion of worthwhile targets. A well defined area of main effort developed in the general area of Tarnów-Kraków, where numerous railway trains were taken under attack to facilitate the advance of the Fourteenth Army.

A new departure in almost all air missions against ground targets by the forces of both air fleets was the breakdown of both bomber and dive-bomber units into their smallest sub-units, down to the level of the flight, with
squadron size missions gradually becoming the general rule. Besides the bomber and dive-bomber forces, fighter and twin-engine fighters at this stage also commenced participating in the ground operations by means of low-level attacks, thus increasing the effectiveness of the high-altitude attacks. A highly important feature of developments in the air situation was that twin-engine fighters could now participate in ground combat. They were no longer required to escort bomber units on long-range missions, although a few of these missions were still flown with escorts on the second day.

In comparison with army support activities the missions flown against targets assigned by the Commander in Chief of the Luftwaffe, such as radio stations, played only a minor role. Most of them were executed in combination with local operations against other targets.

The main targets attacked on the second day were as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Targets attacked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Gp,152d Wing</td>
<td>Long-range missions</td>
</tr>
<tr>
<td>2d &quot; 26th Wing</td>
<td>Tactical</td>
</tr>
<tr>
<td>1st &quot; 2d Bomber Wing</td>
<td>Rail depot at Bromberg, numerous rail depots, rail sections, and bridges in the Polish corridor area and already with-</td>
</tr>
<tr>
<td>27th Bomber Wing</td>
<td>Troop trains at Suwalki in the ground rail depot and between combat zone, Gustovo and Grodno; Novy Dvor rail depot</td>
</tr>
<tr>
<td></td>
<td>Rail depots and installations at Wreschen,</td>
</tr>
<tr>
<td>Unit</td>
<td>Long-range missions</td>
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<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------</td>
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<tr>
<td>27th Bomber Wing</td>
<td>Kutno, Konin, Wongo-</td>
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<td><strong>--- cont.</strong></td>
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<tr>
<td>In Fourth Air Fleet</td>
<td></td>
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<tr>
<td>4th Bomber Wing</td>
<td>Rail section Krakau-Zernow (one transport train derailed)</td>
</tr>
<tr>
<td>77th &quot;  &quot;</td>
<td>Rail depots Lovicz and Kutno (set on fire)</td>
</tr>
<tr>
<td>76th &quot;  &quot;</td>
<td>Rail routes from Radom to Deblin and Warsaw (One B-17 plane reported especially effective hit on part of the Skarzysko-Kamienna ammunition factory)</td>
</tr>
<tr>
<td>1st Bomber Op of 1st TG Wing (Eastern Russia)</td>
<td>Night attacks against Narie Canal bridge to interdict Polish southeastward withdrawal from corridor area; squadron-size night attack against Warsaw-Okocin airfield.</td>
</tr>
</tbody>
</table>

44. Since a number of radio stations, such as those at Lodz, Krakau, and Radom, remained silent after the day on which they were attacked, the bombing can be assumed to have been successful.

45. In view of the fundamental importance of these first night attacks, the subject will be dealt with separately in Chapter 8, pp. 143-4.
By evening on the second day air reconnaissance produced some results which were of significance in the issue of orders for the next day of combat. The reports concerned the strength of Polish airforces at various airfields and of the Polish antiaircraft defenses. In the zone of the First Air Fleet 7 airfields were reported vacant; in that of the Fourth Air Fleet aircraft were reported on 5 airfields and 15 airfields were reported vacant. The runways on three of the latter were to be destroyed. Polish antiaircraft artillery forces were detected only in the zone of the Fourth Air Fleet, particularly around Deblic, Radom, Warsaw, Lodz, Chenstochau, and Tarnov.

In broad outline, the results of the second day of air warfare can be summarized as follows: The situation as interpreted at headquarters of the Commander in Chief of the Luftwaaffe on the evening of 2 September was stated in the situation report issued by this highest air command agency. The report opened with the statement that, as on the previous day, the superiority of the German over the Polish airforces had not been in jeopardy for a single moment. Through its attacks against the Polish ground service installations the Luftwaaffe made further progress in driving the Polish air forces from their peacetime air bases, in reducing their
The report contains:

- The evaluation of potential influences of various military means.

Let it be clear that military means were reported already in the

Doctrine of the Party, and these means were reported already on 2

on pages of the text, were to be expanded. Better still:

Strategic military forces were classified only in the zone of

Ways and means, openly open, and secret.

In particular, the report at the second day of the

Arms. can be summarized as follows: The situation is-

Secretary of the Federal Ministry of the Commander in Chief of the

affairs on the avenue of a separate area, under the command of

influence. The report opens with the statement that, as on the

get the authority of the German over the Polish

the attempt to manage the Polish foreign service interference

the Polish attempts to remain in peace, in retaining fact
combat capabilities seriously by compelling them to disperse to generally unprepared airfields, in decisively disrupting their command and general communications networks, and in inflicting on their heavy personnel and material losses which could hardly be replaced from Polish resources. The impression of the first day remained confirmed. The assumption that the Polish air forces on the second day of warfare might take an active part in combat in accordance with a new plan and new tactics and with new forces had not materialized.

It seemed definitely established now that Polish air power as a means of combat available to the Polish High Command no longer existed in a form meriting serious consideration. The realization that this implied uncontested air supremacy over Poland logically produced in the German command and troops a feeling of psychological, personnel, and material superiority. The troops had passed their first test by fire and, quite justifiably, did not concern themselves much with the problem of the reason for their quick and complete success. The feeling of superiority over any possible opponent, which now had been proved and to which they had been trained, strengthened the morale of the troops and their confidence that they could master all missions assigned them. This
spatial of confidence was increased even further by the relatively small cost in losses at which success had been achieved. The command, educated to and blessed in favor of operational warfare, considered the results of the first two days of combat as complete confirmation of its command theories. The fears of the previous day that a serious scattering of effort might have to be expected had not materialized: the concept of main effort against the Polish air forces and their ground service organization had remained in the foreground. The small numerical strengths employed against actual counter-air targets did nothing to disprove this fact but served rather to prove that the opponent had already been eliminated to a large extent. If it is found in retrospect that the air successes had been achieved against an opponent inferior in every way, this finding in no way detracts from the performances and fame of the command and troops.

However, the successes of the second day of warfare should not be appraised from the viewpoint of the Luftwaffe alone. They should be appraised from the higher vantage point of cooperation between all three branches and thus from the viewpoint of the overall conduct of the war. Viewed from this angle confirmation of the decisive effects of
the Luftwaffe success comes again from an army source: 46

One important result of the successful operations of the Luftwaffe was that the Polish command no longer was able to complete its mobilization according to plans or to carry out any sizable strategic movements by use of rail transportation, and that the Polish command was rendered almost completely powerless from the outset through the serious damage done to the Polish signal communications networks.

The Wehrmacht Bulletin for 2 September in turn confirms the large contribution of the Luftwaffe to the successes achieved in this day of combat. 47 The passages relating to the Luftwaffe read as follows:

46. von Tippelskirch.
47. For complete text see Karlsruhe Document Collection.
Today the Luftwaffe delivered lightning-like and powerful blows against military targets in Poland. Numerous Polish aircraft were destroyed in air combat. On the ground a large number of military air bases were taken under attacks, in particular at Gdynia, Krakau, Lodz, Radom, Deblin, Brest-Teresopol, Lublin, Luck, Got- tab, Warsaw-Okcice, and Posen-Levica.

Polish aircraft in hangars and on runways were set on fire.

In addition, installations were destroyed and military transport trains derailed on the most important rail routes, and troops marching to the rear were bombarded.

Following an air attack, the Skaryszko-Kamienna ammunition factory exploded.

After today's successes the Polish air forces can be assumed to have suffered seriously in substance.

The Luftwaffe maintains absolute air supremacy over all Polish territories, and is now available for other missions in defense of the Reich.

In retrospect it can be confirmed that by the end of the second day the Luftwaffe had almost completely executed its first main mission, that of neutralizing the opposing
air forces and destroying them and their ground service organization. From the third day of the campaign, 3 September on, emphasis in air operations thus could be shifted completely to support of the army.
CHAPTER 4
3 SEPTEMBER
MAIN EMPI SiS ON SUPPORT FOR THE ARMY

Basing his decisions on the interpretation of the situation on the previous day, the Commander in Chief of the Luftwaffe issued a number of directives and orders in preparation for operations on 3 September. The first of these was a warning order issued already at 1335 on the previous day: "Attacks against aircraft industry. Details to follow. Then, continued action against hostile air forces and in support of the Army according to reconnaissance results." These instructions to attack the Polish aircraft industry, obviously intended as a major mission, established an entirely new operational objective, which in no way could be brought into inherent relation with the actual developments. At the time when the order was issued these developments were already clearly obvious. If for no other reason, action against the Polish aircraft industry at this juncture was a completely senseless undertaking because the Blitz warfare methods planned and executed would have stopped the Polish aircraft production automatically. Orders for special

missions against these targets necessarily would lead to a further scattering of effort and to the destruction of highly important factory installations which were to be consolidated with the German war potential in a short space of time. For reasons unknown the warning order was cancelled three hours after issue.

The final directive for the two air fleets also was issued on the previous day, at 1630, and was more in keeping with the current situation. It read as follows:

On 3 September First and Fourth Air Fleets will conduct intense reconnaissance to establish whereabouts of hostile air forces and detect road and rail movements. All bomber and dive-bomber forces and the greatest possible number of twin-engine and other fighter units will be maintained ready for early dispatch in accordance with reconnaissance reports. Only airfield on which a large number of aircraft are detected will be attacked. The strongest possible forces will be committed against troop movements. Long-range fighter missions will be avoided. 27th Bomber Wing will be held available to the Commander in Chief of the Luftwaffe and under constant alert. Direct signal communications will be established.
according to this directive, counter-air operations were still considered important, but attacks were to be directed only against worthwhile targets detected by air reconnaissance. Emphasis was shifted unequivocally to Army support. Here decisive importance was attached for the first time to air reconnaissance, and units held ready for the purpose were to be dispatched only on the basis of reconnaissance reports. Why the Commander in Chief of the Luftwaffe assumed immediate control over the 27th Bomber Wing is unknown. At 2140 on the previous day the wing received the following order:


50. Order to 27th Bomber Wing, Fuehrungsstab Ia, # 4200/39, geh., Karlsruhe Document Collection, G.
27th Bomber Wing, under direct command by Commander in Chief of the Luftwaffe on 3 September, will maintain such stage of alert that it can take off against movements in Polish rear or against airfields reported in operation within one hour after receipt of tactical orders from 0700 hours on. Reconnaissance by GHQ units. Probable target area: Gnesen-Krutoshin-Lodz-Vloklavek.

Telecommunications with Luftwaffe Operations Staff have been established. Call signals, frequencies, code chart in use, and available code group for GHQ reconnaissance will be transmitted through GHQ message center.

The area designated as the probable target area was in east of Posen, the western bulge of the theater of operations, approximately half of it in the command zone of the First Air Fleet and the other half in that of the Fourth Air Fleet. The order necessarily led to confusion in the matter of command responsibilities, since the two air fleets were not relieved of their responsibility for combat and reconnaissance activities in the area. Furthermore, the area of operations for the bomber wing did not constitute an area of main effort within the overall pattern of operations, on the contrary it was to be left uncovered from the operational viewpoint. It appears that the Commander in Chief of the Luftwaffe himself later
was no longer convinced of the necessity for and practicability of this special arrangement, since the bomber wing reverted to the First Air Fleet for its first mission.

Also on the evening of 2 September the Luftwaffe High Command issued a number of special directives to the First and Fourth Air Fleets, but they contained nothing new of importance. However, they are nevertheless of interest, because they dealt almost exclusively with matters of Luftwaffe-Army cooperation and with measures to preclude the misunderstandings which had arisen in such cooperation in the past.

52. These special directives will be found in the original wording in Appendix 30.
The orders and directives issued by the Commander in Chief of the Luftwaffe and hitherto quoted reveal in essence that emphasis in air reconnaissance and in the assignment of targets for air attack had shifted to support for army operations. Counter-air targets were to be attacked only if reported by air reconnaissance as worthwhile. Such worthwhile targets would have included primarily Polish airfields on which multi-engine aircraft were stationed. This modified operational concept is clearly evident from an entry in the Luftwaffe Operations Staff War Diary stating the reasons for the final directive to the two air fleets. The train of thought expressed there probably was also the reason why the Commander in Chief of the Luftwaffe on the previous evening informed the Wehrmacht High Command of his intention, for operations on 3 September, to commit the largest possible forces against Polish troop movements and that for this purpose one bomber wing would be held available to him from daylight on for "immediate commitment in support of the Army."

The Wehrmacht High Command was obviously glad to accept this offer, but proceeded to give the new concept of power concentration a more definite form in a Fuehrer directive.

52. Appendix A1.
Shortly after midnight the Wehrmacht High Command informed the Commander in Chief of the Luftwaffe of the desire of the Fuehrer and Supreme Commander that "main emphasis was to be placed on air attacks against troop and other movements in the Polish rear. In the first place, troop transports crossing the Vistula River bridges at Thorn were to be attacked; the bridges, however, were not to be destroyed."

Since this latter requirement had been stated already in a directive of the previous day, the Commander in Chief of the Luftwaffe merely added to the Fuehrer Directive the remark that bridges were to be attacked only with fragmentation bombs in order only to disrupt traffic. Another basic order required that attacking aircraft should avoid destroying manmade structures and should not do too permanent damage to railroads so as not to interfere with the rapid advance of the German armies. The slogan now was to disrupt Polish rail traffic, not to destroy Polish railroads. In practice the dividing line between these two missions was difficult to find.

In accordance with the basic directives from the Commander in Chief of the Luftwaffe, the commanders of the two air fleets issued their own orders and directives to their units. The First Air Fleet ordered the First Air Division
and Luftwaffe Command Eastern Prussia as follows:

All available reconnaissance units will be employed to their utmost capacity to determine the whereabouts of the Polish air forces and detect Polish rail and road movements. Very close integration with army reconnaissance activities is essential. All bomber and dive-bomber units and the greatest possible number of twin- and single-engine fighters will be maintained in a state of readiness which will permit their immediate commitment in close cooperation with army command agencies on the basis of reconnaissance results. Reserves will be held ready for direct support of the Army. Main emphasis in these support operations will be around Graudenz and Elbea.

The following additional order was issued regulating the operations of the air units in detail:

Counter-air operations will be restricted to attacks against particularly heavily occupied Polish airports. The strongest possible forces will be committed against Polish troop movements. Special importance is attached to the prevention of flank threats and to the destruction of withdrawing Polish troop columns.

The operational order issued by the Fourth Air Fleet to its units read as follows: in its opening passages:
The air fleet will attack... detected rail movements, marching columns of all types, and detected Polish air units; with the units designated for such purposes, it will support the Army advance; and will continue to maintain its secured air superiority and expand it to new areas.

In the instructions which then followed for the Second Air Division, three points are of particular significance:

1. The main effort was in the same area which was designated as the area in which the 27th Bomber Wing—under direct command by the Commander in Chief of the Luftwaffe—was to operate, and the purpose of operations was destroy or halt transports from the general area of Fosen in the direction of the front or flank of the Tenth Army, the German main attack army;
2. The renewed scattering of the German air effort and of air targets is obvious; and
3. Reference to the Soviet radio station at Minsk justifies the assumption that from the very outset of the Polish campaign the Soviets had made their radio stations unobtrusively available to the Luftwaffe as navigational aids.

53. For complete text of Fourth Air Fleet operational Order see Appendix 32.
54. Appendix 32, Par. 6.
While the Luftwaffe thus had at least one radio navigation beacon behind the hostile front— and on still neutral terrain— measures were taken in German territories to complicate the use of German radio stations by hostile aircraft for navigational purposes. Thus, it was decreed that German radio stations in eastern Germany, approximately east of a line extending from Rostock-Halle on Saale-Hof (Bavaria)— would cease operating immediately on orders from the air observation centers. From the wording of this decree it is obvious that the Luftwaffe High Command still considered it possible that hitherto undiscovered Polish air forces existed which might undertake an attack against the Luftwaffe or a surprise operation against German territory.

The Wehrmacht High Command interpretation of the Polish military situation was, according to the situation report issued at midnight, as follows:

Recognized and in part assumed disposition of Polish forces:

**Urgbiete glehme**

Fourteenth Army: 13 divisions, 1 cavalry and 1 motorized brigades

Tenth Army: 7 divisions and 1 cavalry brigade

Eighth Army: 3 divisions

Fourth Army: 3-4 divisions and 1 cavalry brigade

Third Army: 8 divisions and 2 cavalry brigades

another force of approximately eight divisions and
four cavalry brigades was assumed at the Lithuanian
to border and in the Ukraine. The Wehrmacht High Command
assumed the possibility that the force hitherto known
as the Posen Army (eight divisions and one cavalry
brigade) might have been transported east or southeast
available to the German High Command.

The appearance of this last point in the situation re-
port at so early a stage is remarkable. Its effects were
expressed in the previously mentioned reconnaissance and
attack activities ordered by the Luftwaffe High Command,
and it was again to exercise an influence in the critical
situation which developed a few days later at the German
Eighth and Tenth Armies, where the Luftwaffe was destined
to find an opportunity for decisive participation in both
air and ground combat.

A deciphered radio message from the Polish rail traffic
management center at Lvov provided valuable information on
conditions in the Polish rear. The message read:

For Radom reroute through Rodzawoz, 24 miles
southwest of Sandomierz. "Alexander" transports
already between Frzowisz and Debica will be re-
directed to "Radomka" through Schoff-Sandomierz.
Transports already through Debica will be recalled
and directed to Sandomierz or through Krakau.

56. and 57. Code designations.
This was confirmation from a hostile source of the success achieved by Fourth Air Fleet units in their attacks on targets in the area. Dispatch of the message by radio also revealed that the attacks had achieved an important concurrent effect, that of the destruction of above-ground telephone lines. In many cases the Polish Army High Command thus had to rely exclusively on radio and courier services, which seriously complicated the uniform control of military operations.

On the German side, the air and ground situation presented very much the same picture as on the previous day. The German armies were continuing their brisk advance, and there was no change in the air. In spite of a close net of air reconnaissance no trace had been found of the Polish air forces, and it was assumed, therefore, that they were distributed on numerous emergency airfields and thus no longer capable of any concentrated effort. The rapid advance of the German ground forces necessitated the forward displacement of certain air units, some of them to airfields in Poland, already on the morning of 3 September. This applied in the first case to the dive-bomber and ground-attack units of the Special Purpose Air Command. Two groups moved from the west (Second Air Fleet) under the 55th Bomber
Wing to the Fourth Air Fleet were assigned by that air fleet to the 2nd Air Division and transferred to airfields at Rosen- 
bom and Gliw in Silesia. Operational air reconnaissance of Polish rail traffic already at 0950 reported large east-
ward movements on the Czestochowa route. This report was confirmed by strategic reconnaissance units of the Fourth Air Fleet which reported heavy rail traffic, with trains travelling in close sequence, from Warsaw towards Warsaw. As on the previous day, the two air fleets acted se-
parately in executing the missions assigned to the Luftwaffe. In the command zone of the First Air Fleet, indirect

58. Appendixes 26 and 27.

59. It is not possible to establish definitely whether the 55th Bomber Wing was transferred to the east with 2 or 
with 3 groups; according to available records, it appears to have had only 2 groups initially.

60. Radio message from GHQ reconnaissance squadron.
support for the Army took the following form. On the basis of reconnaissance reports received in the early morning, the Commander in Chief of the Luftwaffe returned the 27th Bomber Wing to the air fleet command for action against the reported transportation movements. This renunciation by the Commander in Chief of the Luftwaffe of his original plan for the commitment of this bomber wing is inexplicable, since both transportation movements were reported precisely in the specified probable area of operations of the wing, with the one movement, the southern, even leaving the operational zone of the First Air Fleet in an easterly direction. Nevertheless, the wing was returned to the First Air Fleet. Under orders from the air fleet the attack by the 27th Bomber Wing was carried out as follows: Wing Headquarters (under Commodore Colonel Behrendt) first sent its headquarters squadron on a target reconnaissance mission, with instructions to radio its findings. On the basis of the radio messages thus received, the wing committed all three of its groups in the course of the afternoon. The wing after-action report is revealing in several respects.

Concerning air defense, all three returning groups reported

52. Abridged version in Appendix 33.
having encountered Polish defenses, but that the Polish fighters gave little evidence of aggressiveness. All target areas were defended by antiaircraft artillery, and seven aircraft were struck by artillery fire. From the unit reports it can be assumed that they found and attacked their assigned rail targets. A remarkable point is the long time of 7 hours and 40 minutes which elapsed between the first reconnaissance report and the last action in the target area. This was due to the time required for local target reconnaissance, relay to the units, evaluation of radio messages, drafting and issue of orders, take off, assembly in the air, and approach flight. Another factor to be remembered is that the railway trains detected and assigned as targets were encountered much farther east than expected, namely immediately before Warsaw.

The Polish fronts had become fluid, and rail movements for troop transportation required in operational regroupments became increasingly prominent. For this reason, a number of air units were committed in further rail interdiction missions in the northern near front areas, with support from two groups of Luftwaffe Command Eastern Prussia operating from north against the same rail system.

63. See Appendix 34 for outline map of target area for the 27th Bomber Wing.
64. Presented in outline map in Appendix 35.
the Fourth Air Fleet, in the north, had been highly successful in the execution of similar rail interdiction missions.

On the third day of combat the First Air Fleet was active in two separate areas of attack: (1) in the general area of Warsaw, far from the combat areas in ground operations, and (2) in the Thorn area, and very close to the fronts on the ground. The missions flown by the 27th Bomber Wing in the Warsaw area thus can be regarded as strategic action against a hostile troop transportation movement while the activities of the other attack units can be considered as tactical action against rail depots, rail routes, and rail transport movements. The location of the westerly group of targets reveals clearly the intention here to break up a new transportation movement: the assembly, entraining, and movement from the front—the Polish Corridor—of Polish troops. The easterly group of targets, in turn, is indicative of action against a transportation movement from Posen in general already in progress for some time. Operations against these two groups of targets obviously resulted from a uniform plan of attack thought out by the air fleet. In many cases all of these attack missions were executed by squad-size units and the results achieved were expressed in unit reports on destroyed rail depots, bomb and shelled
railway trains—loaded and empty—, explosions in railway trains and railroad installations, cut rail routes, derailed trains, and so forth. The only Polish defense encountered was artillery, infantry weapons, and machine guns firing from the ground. The machinegun fire was remarkably accurate, but resulted in no total losses for the attacking German units.

The emphasis in strategic reconnaissance now also shifted to rail and road reconnaissance. The GHQ squadron at 1230 received orders to also keep rail traffic in the Brest-Baranovice-Vilna-Grodno-Lomza-Bialystok area under observation. Heavy traffic was reported in both directions on the Warsaw-Bialystok route and in the Siedlow, Suwalki, and Grodno rail depots. It thus appeared that two simultaneous transportation movements were taking place in opposite directions in the northern areas of the theater. The one was the movement of defeated Polish forces from west to Warsaw, the other apparently a movement of new Polish forces from the northwestern territories of Poland also towards Warsaw. This brought Warsaw into the direct orbit of combat operations already on the third day of the campaign, although the fronts on the ground were still far distant.

At this juncture only four rail routes in Poland were
still of strategic importance, which crossed the Vistula River at Krakau, Sanomierz, Deblin, and Warsaw. In the northern half of Poland, however, Warsaw is not only the most important rail junction but the key point of the entire railroad system. All important routes from west and east converge here on the large railway bridge across the river at Warsaw. Every Polish attempt to carry out a strategic regroupment of forces, no matter in what direction, would have to depend primarily on the rail system in and around Warsaw. Thus, if rail traffic through Warsaw were blocked, this would necessarily spell failure in any future large-scale military movement by the Polish side which had to make use of rail transportation. From this viewpoint the operations initiated on 3 September in the zone of the First Air Fleet against the Polish rail system are of particular significance. Operations on the following days against the Polish rail networks must be viewed and assessed from the
same viewpoint.

The second air mission was that of indirect support for the army. Here, the air units were employed almost exclusively on the basis of local air reconnaissance and on the direct initiative of the air fleet, since requests from army commands usually arrived too late for air action before the situation requiring such action had changed. These circumstances necessarily led to an increasingly close cooperation between the Luftwaffe and the army, particularly at the intermediate and lower levels of command. The lower level unison (liaison par le bas) which now gradually developed soon took the place of unified control from above, which was hardly possible any longer because of the fluctuating ground situation, the rapid advance on the ground, and the integration of the front sectors which was beginning to take place. At the latest on this day of the campaign, the Luftwaffe thus assumed the role of the "extended artillery arm."

Two areas of main effort evolved on 3 September in these operations. One was in the Polish Corridor and the adjacent areas east of the Vistula River up- and downstream from Graudenz. Here, the 1st Air Division was committed west and elements of Luftwaffe Command Eastern Prussia east of

the river. The second area of main effort developed at
Mlava, south of Heidenburg, where the bulk of the units ope-
rating from Eastern Prussia were committed.

To support the German Fourth Army five groups of the
last Air Division were committed. Of these, two dive-bomber
groups tied up in naval support missions at Danzig-Gdynia on
the two previous days played a decisively important role. In
repeated high and low-level attacks, particularly the latter
against the Polish forces enveloped in the Polish Corridor, the
units inflicted heavy losses, and increased the existing con-
fusion, panic, disintegration, and disorderly retreat movements
of the Polish troops in the entire corridor area. According
to reports from the First Air Fleet the rapid advance by the
Fourth Army towards the Vistula River after the morning air
attack was made possible mainly by effective support from
units of the 1st Air Division.

Luftwaffe Command Eastern Prussia committed altogether
25 squadrons in 11 direct support missions, some group and
some squadron size. Two clearly defined areas of main
effort developed here. East of the Vistula River the 3d
Bomber Wing participated in the ground operations in ten
squadron size attacks on either side of Graudens. These
actions not only supported the Third Army forces
directly, which were advancing southward from southwest Eastern Prussia, but also provided indirect support for the Fourth Army forces operating in the Polish Corridor area. The wing intervened in ground battle repeatedly in high and low level attacks east and south of Graudenz directed at Polish troop concentrations of all types, artillery positions, and, at Briesen-Rhoden, a Polish division brought in for a flank attack designed to relieve the pressure on the rest of the Polish front. This division was completely scattered. The Third Army expressed its full appreciation for the action of the wing, which had decisively influenced the situation of the army. In these operations the wing lost one aircraft. Another aircraft made a forced landing between the fronts, but its crew members were able to reach the German lines.

However, the main effort in all attack from Eastern Prussia was in the Mlawa area, where 15 squadrons were committed. The German Third Army in its drive from Eastern Prussia in the general direction of Warsaw had been brought to a halt as far forward as ahead of the permanently developed fortifications around Mlawa. Heavy fighting developed on the ground here, and the Luftwaffe was then called upon to open a breach for the continued advance. In the morning all
units remained grounded by weather conditions, and it was only around midday that they could take off to the attacks for which they had been waiting since daybreak. Most of the attacks were at low level, and were decisively effective in these areas. Whereas the aircraft committed in the Vistula River bend area on both sides of the river attacked ground fronts already fluid, the air attacks around Klawa were against Polish forces still resisting in fortified positions. Although more easily detected, the targets here were less worthwhile than in the Vistula River bend. At Klawa the fronts had frozen temporarily to the conditions of position warfare and the mission of rendering the army effective support is such a situation was something entirely new and unaccustomed for the air units. The solution of this difficult problem called not only for a flexible command but also for smoothly functioning technical signal communications of all types and for exceedingly close Luftwaffe-Army cooperation. The 1st Air Wing, the 2d Bomber Wing, and the 1st Group of the 1st Dive-Bomber Wing participated in the battles around Klawa. Here, they were required to attack numerous hitherto unfamiliar targets, such as earthwork
positions, bunker lines, fortified positions in the outskirts of towns and villages, houses defended with machinegun fire, assembled tactical reserves, troop columns resting and in movement, sections of forest in which troop concentrations were suspected, and in particular the city of Klava as the center of this entire system of fortifications.

Since direct cooperation between small air and ground units in ground combat could only be perfected slowly, critical situations developed repeatedly, particularly when the German advance was first resumed, in which friendly troops were frequently endangered by air operations. Thus, in one case a bomber group was unable to determine the results of a ground attack against Klava, because the smoke and dust caused by a preceding dive-bomber attack made it impossible to recognize the target. It thus remained uncertain whether Klava at this moment was occupied by German or Polish troops.

In another case the command at the last moment was able to halt a bomber group dispatched to bomb Klava and redirect it to another target, since reports had it that German troops meanwhile had taken Klava. Again in another case the I Corps followed up two successful dive-bomber attacks against bunker positions by an attack on the ground. The attacking
made were not in vain, however, and by evening it became evident that the air action in this area had produced a decisive success: the German advance had been set in motion once more.

On this day of battle the initially assigned primary mission of the Luftwaffe, namely counter-air action, had receded completely into the background. Only one mission was flown against an air force target, namely, against the Warsaw-Okecie airfield. During the afternoon operational reconnaissance had reported 17 multi- and 13 single-engine aircraft on the airfield, and the German aircraft attacking in response to this report—the 3d Group of the 1st Air Wing escorted by twin-engine fighters—set two hangars on fire, exploded a fuel depot, and caught Polish aircraft in the act of taking off. Air battles developed against Polish fighter squadrons over the target area, in which three PZL Polish fighters were definitely and two others most probably downed. The attacking German units lost one plane. On the whole the Polish fighters remained passive and German airmen considered their aggressiveness low.
ground troops jumped off just as the next wave of dive-bombers was in the air on the way to attack the same target. Fortunately, radio messages reached the dive-bombers in time to divert them to another target. Similar cases were frequent in all areas of this front, and the experience thus gained naturally resulted in efforts to organize more firmly the initially improvised cooperation between Luftwaffe and Army units with a view to establishing a system which would ensure closely integrated joint action by both branches no matter how complicated the current situation might be. This could be achieved only through the closest possible coordination at the lowest levels of command in both services. The cooperating unit commanders had to maintain constant very close contact; the bomber wing had to be in uninterrupted contact with the army corps, the bomber group with its infantry regiment. In no other area was it as clearly obvious on this day of battle as at Klawa that the young Luftwaffe had now become the extended arm of the artillery.

The Polish ground defenses were strong and inflicted losses on the German air units, which were particularly exposed to ground fire because of the necessity to operate at low levels owing to the low-hanging clouds. The sacrifices
Other reconnaissance units reported sighting Polish fighters on the Rembertov airfield and 15 Polish bombers on the Plock airfield. These were the first Polish bombers definitely detected by German planes and units were dispatched immediately to attack the airfield. However, they arrived too late, the Polish bombers had escaped in time.

In the command zone of the Fourth Air Fleet emphasis was the same as at the First Air Fleet. The first mission was to continue railroad interdiction and direct support for the Army. In contrast, no counter-air action was taken at all. On the whole the pattern of operations and the results achieved were very similar to those in the zone of the First Air Fleet. Similar situations developed in both command zones, from which similar lessons could be learned. Operations against the Polish railroad system and against transports en route were conducted on the basis of reconnaissance reports. These reports showed the following traffic detected on the various routes:

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66. At least according to sources presently available. In general it can be stated here that considerably less source material is available on the southern areas for this part of battle than for the northern areas, and that what is available is less reliable. This is why the description of Fourth Air Fleet operations is so much shorter than in the case of the First Air Fleet.
Krakau-Koenigshutte route 10 transport trains
Railroad depot Krakau no traffic
Konin rail depot 200 railcars
Nieszawa-Krakau route no transports
Krakau-Tarnow route 4 transport trains
Lodz, southeast exit heavy rail traffic
Lodz rail depot no traffic
Debioc 4 transport trains
Trzbinia rail depot 900 railcars
Kutno rail depot approximately 1000 railcars
Kielce rail depot on fire, congested, 550
at Kamienna railcars

Guschitz-Krakau-Porzayl route 6 railway trains in close

sequence

The general impression gained from this compilation was
one of varying but generally heavy traffic loads on the main
routes. From the movement of traffic thus revealed, the
Luftwaffe command rightly assumed that the retrograde move-
ment from the Pozen area had changed into a forward move-
ment into the general area of Krakau. The command further
assumed a new Polish Army concentration on the German south
flank. This latter assumption proved incorrect, and it seems
obvious that the interpretation of the situation arrived at
by the Commander in Chief of the Luftwaffe on the basis of
reconnaissance results obtained by both air fleets was also
different. The air fleet dispatched a number of bomber
units to attack the reported railroad targets.

In the southern sector the 4th Bomber Wing destroyed the rail depot north of Rzeszów, attacked a troop train south of Biel, cut the rail route from Tarnów–Debic at several points, set the Krakau rail depot on fire, and attacked factory installations. In the northern sector the 77th Bomber Wing, escorted by the 1st Group, 2d Twin-Engine Fighter Wing, bombed Polish troop trains in the rail depots of Kamienna, Kielce, Jedrzejów, almost completely destroying the rail depots in the process. At other rail depots one ammunition train was exploded and one mineral oil and coal train was hit.

In direct support missions the Special Purposes air Command continued to cooperate very closely with the German Tenth (main effort) Army, supporting the army's advance in the general direction of Warsaw through the continuous commitment of its air units. Following German seizure of Ciechanówek and Radomsko, dive-bomber units bombed Działoszyń, ahead of the XVI Corps, Polish troop movements in the Lwówskie–Volhynia area, and troop concentrations in a forest section at Miszów and at the Piotrków rail depot, which was destroyed in the attacks. The ground-attack group also took
part in these attacks, scattering a Polish cavalry brigade.

Under the impact of these air attacks the process of
dissolution evident among the Polish troops falling back be-
fore the German Tenth Army increased steadily. Since the
Army commands, similarly to the previous day, made no re-
quests for air support, all air strikes again were carried
out on the initiative of the Luftwaffe commands. The 76th
and 77th Bomber Wings attacked Polish troop columns withdraw-
ing along a number of roads. The same two groups from the
2d Air Division broke up troop entraining operations at full
depots, and dispatched elements to attack Polish forces held
up at detected road junc, where they inflicted exceedingly
heavy losses and in some cases caused panics. In some parts
the situation on the ground was unclear, so that it was not
possible to avoid incidents in which friendly troops were
bombed erroneously, as was the case at Biala. Such incident
resulted in temporary friction between the Luftwaffe and the
ground forces; however, relations improved again during the
continued advance into Poland and the confidence of the ground
troops in the Luftwaffe was fully restored.

The first sizable air supply mission in the history of
air warfare was carried out successfully on this day, when
German transport aircraft carried 30 tons of fuel forward.
to the advancing 1st Panzer Division, restoring the division to full operability in the focal point of combat action on that day.

Under immediate direction by the Commander in Chief of the Luftwaffe the 100th Bomber Group in the night of 3-4 September carried out the night attack which had been planned for several days. The attack was directed at the MUN in the vicinity of Warsaw. The attack had no impact on current operations and will therefore be discussed in connection with other matters.

The results of this day of combat can be summarized under a few headings: Absolute German air superiority over Poland was again confirmed; Only small numbers of Polish fighters were active; their action had no effect, and their aggressiveness evidently was even lower than before; Again, no Polish bombers were in evidence; The Luftwaffe now was able to commit almost its entire power in missions of direct and indirect support for the Army.

67. See p. 144, bottom.
* Ammunition processing depot.
Strong forces were committed in missions of indirect support, such as preplanned attacks against static railroad targets and moving troop transport trains. The attacking air units succeeded in halting the transport movements, seriously damaging the rail sections in which the movements were halted, placing the entire Polish regroupment in jeopardy, throwing the entire Polish land army into confusion, and inflicting considerable losses in personnel and matériel. The impact of all this on the morale of the Polish troops was also severe.

Nevertheless, it was not possible to determine at the end of the day whether the planned Polish regroupments had only been disrupted or completely prevented. One fact was certain: for the first time in military history it had been possible to detect and take timely action against hostile regroupments on an operational scale far behind the fronts on the ground. However, the effects of the successful air operation of indirect support only became apparent in the following days through lessened Polish pressure at the front.

Direct air support, the second main mission on this day of combat, had contributed decisively towards the advance of the German Tenth Army. In addition the air action had prevented the escape of the Polish forces enveloped in the
Polish Corridor and had completely shattered their powers of resistance, and the Luftwaffe had given new impetus to the German Third army, the advance of which had bogged down. In these operations the control of local action and its effects on ground combat had shifted to lower levels. This was fully consonant with the existing situation and the exigencies of the circumstances. It was on this day of battle that real cooperation between the Luftwaffe and Army units and their commanders commenced.

In contrast, the objectives of operational air warfare had receded completely into the background by the third day of the campaign. Only very weak elements were committed to attack the state-owned aircraft factory at Warsaw-Kosice, the nitrogen works at Mischke, and the electric power station at Fruskov. The attacks were directed by the Fourth Air Fleet and produced very small results. Conversely, tactical air warfare had come decidedly to the fore on this day.

The Wehrmacht Bulletin of 3 September mentions air activities as follows:

After the decisive action by the Luftwaffe yesterday the air divisions of the two air fleets committed against Poland have unrestricted mastery of the skies.
over Poland and are again ready for action at their take-off bases. The units of the air fleets not yet committed in action are still ready for action in their air bases.
CHAPTER 5

4 SEPTEMBER

OPERATIONS AIMING PRIMARILY AT DESTRUCTION OF
THE POLISH RAILROAD SYSTEM

As he had done on the previous day, the Commander in
Chief of the Luftwaffe issued a number of general directives
and orders to the the air forces in preparation for air op-
erations on the fourth day of battle. First was "a warning
order for 4 September" issued already at 1719 on 3 September
as follows:

Emphasis will be on supporting the Army through
attacks against Polish rear communications and troop
concentrations, particularly in the line of advance of
the Tenth Army and in the Bromberg-Grundenz-Thorn area.
Counter-air action will be restricted to attacks against
airfields on which reconnaissance reports large numbers
of Polish aircraft. The 55th Bomber Wing will transfer
to the command of the Fourth Air Fleet.

This warning order was reported verbatim to the Wehr-
macht High Command at 1700 hours. The directives to the two
air fleets were issued at 1735 in the following form:

Directive # 3 for First and Fourth Air Fleets:

Emphasis in operations on 4 September will be on
support for the Army. Continuous attacks will be
directed at Polish rear communications, retrograde movements, and troop concentrations. In counter-air operations only heavily occupied Polish airfields will be attacked. This directive was followed by

Special directives governing reconnaissance on 4 September. Areas of reconnaissance responsibility:

a. First Air Fleet, the Vilna-Warsaw, Lida-Warsaw, and Saronovice-Brest/Litovsk-Dabli rail routes east of the Vistula River;

b. Fourth Air Fleet, rail routes in the Lvov-Lublin-Dabli-Radom-Krakau-Tarnov area with special emphasis on the rail junctions at Sandomierz and Podziwadz. Here it is of especial importance to watch for signs of any new Polish concentration of forces on the south flank of Army Group South. Report findings to Intelligence Division, Luftwaffe Operations Staff by 1200 4 September.

These directives and instructions reveal the interpretation placed upon the situation by the Commander in Chief of the Luftwaffe at the time. First, it is clear that absolute emphasis was to be on support for the army in every form. Similarly to the previous day, two areas of main effort were to be developed in air operations: one in front of the German Tenth (main attack) Army, the other along
the lower reaches of the Vistula River, in front of the 
German Third and Fourth Armies. As part of this develop-
ment of areas of main effort the mission of operations a-
gainst Polish rear communications was placed in the fore-
ground, although railroad interdiction was not emphasized 
as it could logically have been done in view of the rail 
reconnaissance reports of the previous day. Air reconnais-
sance over the Polish railroad system is given priority, 
and was to be conducted in the north against the assumed 
Polish troop transportation movements east of the Vistula 
and converging on Warsaw, in the south against the entire 
rail network of southern Poland.

From the mission assigned to the Fourth Air Fleet it 
can be assumed that the Commander in Chief of the Luftwaffe 
had accepted the air fleets interpretation of the Polish 
railway situation in the south and the contingent assess-
ment of the operational plans of the Polish command. At 
least the Commander in Chief of the Luftwaffe considered it 
advailable to keep these developments under continued 
observeration. In contrast, no special attention was paid to

65. Appendix 36.
the Polish rail movements in the northern areas. For the first time the assignment of targets reveals that counter-air activities have been relegated completely to the background. The Commander in Chief of the Luftwaffe considered that Polish air power as an instrument generally available to the Polish command no longer existed. The transfer of the 55th Bomber Wing was the first sign of the measures which were to follow within the next few days to steadily reinforce the Fourth Air Fleet, and thereby the first sign of the shift in command emphasis to the south.

The above interpretation of the situation by the Commander in Chief of the Luftwaffe and his intentions as deduced from the available orders is confirmed by a "Basis for Directive #3" entered in the War Diary of the Commander in Chief of the Luftwaffe, and which can be considered as a post facto definition of the trains of thought on which the orders issued were based. Probably the most important part of the "Basis" is the last paragraph, in which first mention is made of the possibility of a flank threat to the Tenth Army. It is obvious, however, that concern was felt only about the south flank, whereas a serious threat to the

70. Copy in Appendix 36.
north flank of the Tenth Army actually developed later.

This eminently important question was clarified shortly before midnight of the third day of battle in a briefing given to the Luftwaffe Operations Staff by the Wehrmacht High Command. Here it was established that a large-scale Polish transportation movement from Wreschen and Kalish to the Lecznice-Fabianice-Lodz area had commenced on 3 September, where 120 railway trains had been detected on the forenoon of this day alone. The Wehrmacht High Command expressed the opinion that these movements might be connected with the Polish concentration reported by Army Group South around Lodz, which would advance to attack the left flank of the German Tenth Army. At the same time the Wehrmacht High Command drew attention to troop movements within the southern Polish command. It appears thus that at this juncture the Wehrmacht High Command had formed a more comprehensive and more accurate interpretation of the overall rail traffic situation in Poland than that formed by the Commander in Chief of the Luftwaffe. However, this more accurate interpretation was based on reconnaissance reports from the Army, since the daily report of the Luftwaffe General with the Commander in Chief of the Army on the reconnaissance activities of the Army air units confirmed the reports of lively
eastward rail traffic on the Wreschen-Kutno-Kalisch-Lódz route on 3 September. Similarly heavy traffic had also been reported by the same units on the Lodz-Kutno industrial rail and on the Tarnov-Hroznow route. This daily report only came to the knowledge of the Luftwaffe Operations Staff at 1340 on 4 September whereas it was available to the Wehrmacht High Command much sooner. This might be the reason for the faulty orientation of the Commander in Chief of the Luftwaffe at this juncture.

The overall clarification of the situation which began to take shape around midnight naturally could not be reflected in the directives and orders of the Commander in Chief of the Luftwaffe. However, Situation Report #15 by the Commander in Chief of the Luftwaffe, issued at midnight of 3-4 September, unmistakably stated the air situation as follows:

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71. See p. 69, above.
Again on 3 September there were no Polish bomber forces in evidence. Fighters were employed exclusively in defensive missions which they executed with considerably less dash than on the previous day because of the obvious superiority of our twin-engine fighters.

...that after establishing air superiority in Poland during the previous days the Luftwaffe was now free for missions in direct and indirect support of the Army, in the execution of which it played a decisively important role contributing to the Army successes on 3 September.

It was during this phase in the campaign in Poland that the repercussions between the operations of the East and the military-political developments in the West first made themselves felt. For strategic and general psychological reasons it is therefore thought advisable to review the overall situation as it then existed.

Before noon on 3 September the Wehrmacht High Command had informed the Commander in Chief of the Luftwaffe that Britain had declared war on Germany and that France, if she received a negative German reply to the French note of 1
September would also consider herself at war with Germany from 1700 hours on. Because of this new development in the overall situation, which undoubtedly came as a political and military surprise for the Supreme German command, the Commander-in-Chief of the Luftwaffe at 2100 hours issued Directive No. 2 for the Second and Third Air Fleets, in the west, which contained instructions for the conduct of air warfare against Britain and France. The now clearly established fact of a war on two fronts changed nothing in the conduct of operations in Poland, where the objective remained that of accelerated progress and a speedy successful end of the Polish campaign.

As had been done on the previous days, the First and Fourth Air Fleets again issued their directives and orders to their subordinate units on the basis of the instructions received from the Luftwaffe High Command.

The first Air Fleet, taking the warning order for 4 September from the Commander in Chief of the Luftwaffe as a basis, at 1544 issued the following order to the 1st Air Division, Luftwaffe Command Eastern Prussia, the 135th Reconnaissance Group, and the 27th Bomber Wing:

Main emphasis will be on operations supporting the Army through attacks against Polish rear communications, columns, and concentrations, particularly in the Bromberg
Grudenz-Thorn area. Counter-air activities will be
restricted to attacks against airfields reported as
heavily occupied by reconnaissance.

In view of the quick success achieved by the Third and
Fourth Armies operating against the Polish Corridor, the
Fourth Air Fleet at the same time changed the boundary be-
tween Luftwaffe Command Eastern Prussia and the 1st Division
(Air) as follows:

Western border of Free State of Danzig-western
bank of the Vistula as far as Schwez; from there
southwest through Golup, Rybin, Soerpo, and Flock to
Kutno (settlements to lst Air Division). East of this
line will be the zone of operations of Luftwaffe Command
Eastern Prussia.

This change in the areas of responsibility was due sol-
elly to favorable developments on the ground. The change
made it possible for the lst Air Division to provide direct
air support for the Fourth Army advancing from the Corridor
towards the Vistula in the Bromberg-Culm-Thorn area; in ad-
dition, it enabled the air division to support the further
advance of the army along both banks of the Vistula in the
direction of Warsaw. The new zone assigned to Luftwaffe
73. See Map I, Appendix 38.
Command Eastern Prussia also was unmistakably oriented from the Niva area towards Warsaw, while only a narrow sector remained in the Grudenz-Strasburg area because of the necessity there for continued operations in direct support of the Third Army elements advancing through the area. Finally, the First Air Fleet ordered the transfer of the 1st Group of the 1st Twin-Engine Fighter Wing to Eastern Prussia under Luftwaffe Command Eastern Prussia, thereby initiating a shift of forces in the northern area from the Pomerania region to Eastern Prussia which was to continue for a few days.

At 1700 the Commanding General, Fourth Air Fleet issued a basic directive for the continued conduct of operations, in which instructions were given for a regrouping of the air-fleets units. This directive is significant for two reasons:

1. Reorganization of the command—the Special Purpose Air Command and its units were withdrawn from control by the 2d Air Division and placed under direct control by the air fleet and
2. Forward displacement of the tactical support units of the Special Purpose Air Command, some of them already to airfields in Poland.

74. Returning from its next mission the group was to land at Muehlia I tactical airfield.
75. For text of order see Appendix 39.