Supply Staff Pitomnik had once been the command staff of the 104th Flak Regiment, a unit which had been seriously decimated in the Soviet spring offensive. Elements of the regiment had escaped destruction by withdrawing to the south, but the light battalion and the regimental staff had been driven into the Stalingrad pocket, where Colonel Rosenfeld assumed responsibility for the technical supervision of the airlift.

The approximately 10,000 men of the 9th Flak Division and the remnants of a dive-bomber group were stationed within the pocket. In addition, there were elements of two groups of Fighter Wing "Udet" and four tactical reconnaissance aircraft.[87] It is impossible to give too much credit to the outstanding services rendered at Stalingrad by these units. Never were such gigantic demands made upon flight personnel. Under constant strain of combat in the air and possible danger on the ground, suffering from exposure in the severe cold, and from physical exhaustion because of lack of sleep and food, these German airmen carried out their tasks by sheer force of will.

No mention will here be made of individual acts, since to do so would minimize the other events of the time. Let it therefore suffice to say that all Luftwaffe personnel performed in an exemplary manner under the most adverse conditions. By 15 January 1943 the German fighter squadron stationed in the Stalingrad pocket (a unit operating at less than 50 percent of its authorized strength) had shot down 130 Soviet aircraft, and four days later the 9th Flak Division announced that it had destroyed 63 enemy planes. These great performances compelled the Russians to exercise extreme caution in making daylight fighter or bombing attacks upon the airheads.

The fighter squadron* in the Sixth Army area was far too weak, however, to carry out escort missions for incoming or departing Luftwaffe transport planes. A small reinforcement of this fighter organization could not have materially altered the situation, and a substantial reinforcement was out of the question because of acute aircraft shortages in the theater and inadequate ground servicing facilities within the Sixth Army area. The latter factor was responsible, in part, for the rapid attrition rate of German fighter aircraft operating from the pocket.

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*Formed from elements of two groups of Fighter Wing No. 3, "Udet."

Luftwaffe transport planes flew out wounded personnel on their return flights from the pocket. It should be mentioned, however, that the evacuation of wounded in such circumstances requires a firm organization and strict police supervision. Wounded personnel without written medical authorizations should not be flown out, and, hard as it may seem, it is more important to fly out slightly wounded personnel who would soon be fit for duty than those for whom there is little prospect of recovery,[88] even though the removal of lightly wounded men had a tendency to reduce the fighting strength of an encircled force. On the other hand, the retention in the pocket of seriously wounded might eventually place a critical burden upon existing medical facilities and personnel. Be this as it may, it is most important to give careful and prudent consideration to the formulation of regulations governing the air evacuation of personnel from the surrounded area, and to enforce these rules with firmness. As General der Panzertruppe Hans Hube remarked, "The more serious a situation becomes within an enveloped pocket, the greater will be the number of shirkers who attempt to leave the fortress under all sorts of excuses . . . posing as medical, courier, or similar personnel." This can only be combated by placing offenders before a firing squad, and by issuing passes only at division level and above.[89]

Heinz Schroeter, in his book Stalingrad bis zur letzten Patrone, mentions the extreme difficulties involved in supervising air evacuation at Stalingrad and the numerous tragedies resulting therefrom:

> Every casualty eligible for air evacuation was marked by a note pinned to his breast, generally called a "life insurance certificate." Those who could walk or crawl found their plane for themselves, the others were carried. Orders were that they were to be evacuated in accordance with their consecutive numbers. However, things usually turned out differently, since the number of wounded personnel waiting in tents and in the snow at the edge of the airfield who could be evacuated at a given time was regulated by the number of aircraft landing. Later, the organization deteriorated noticeably. Casualties mounted to thousands, the aircraft were stormed, and many a man found his death at that place.[90]

Roads from Karpovka, Gonshara, Vorponovo, and Gorodishche led toward the airfield at Pitomnik, but the circuit railroad stopped seven miles short of the field, and those seven miles had to be traversed by the exhausted and wounded men in order to secure berths on the "good-natured Ju-52's" and thereby "the promise of a way back to life."[91]

According to Schroeter:

> . . . the effort to do this was made by privates and by generals, by sick, wounded, and lame, and by healthy personnel, by persons with and without orders, and by those clothed in furs, skins, burned uniforms, or skin vests, with blood-soaked blankets around their bodies or heads, by courageous men and by cowards. Some drove in armored vehicles and others crawled on their hands and knees. First there were a few hundred of them who could still manage to walk. Most of them arrived at the airfield, and only a few remained lying in the snow, where they were frozen hard as wood by the next morning. In those days passing vehicles still used to stop and at least allow a weary wayfarer to ride on the fenders.
>
> Then there were more who wanted to get to Pitomnik. Each one trod in the tracks of the one ahead of him in order to go more safely and easily. . . . Ambulances and other vehicles drove around the frozen corpses in the road, . . .
>
> After five days, ten dozen men were lying in the road, stretching forth their arms toward passing vehicles, calling, screaming, bellowing. And all the time the snow fell, its flakes covering the gray overcoats. Anyone who came by vehicle during a storm or at night failed to see the covered corpses and got stuck. Occasionally a vehicle tipped over, a motorcycle was abandoned, a chain broke, a crankshaft, a wheel, or a coupling failed. And other vehicles made their arcs around the obstacles in the snow and the bodies on the ground. One does not intentionally drive over dead men. But before they died the men crawled forward foot by foot upon boards and sacks; their comrades hauled them along in tent sections, ammunition boxes, or other receptacles.
>
> And all the time the snow continued to fall, and at night vehicles bumped over the obstacles lying in the road, producing a cracking, snapping sound. Frozen bones break like glass. . . .
>
> Items of equipment were lying around. Weapons, and blood-clotted blankets and overcoats which had frozen stiff, were thrown away. The motors of a bomber, a transport plane, and two fighters gave up the ghost and fell on the road

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> or in the ditches alongside, killing and injuring many of those on the road. The others simply walked around them, so that the road became wider and wider. . . . Death was just behind them, hunger gnawed at their vitals, the cold was in their blood, and the awful swallowing in their throats. . . .
>
> A few thousand managed to make it. Fourteen thousand remained along the way of death to Pitomnik, where . . . they prayed and no one heard them, they cursed and nobody heeded their curses. 92*

Cold, storms, and ice changed in severity and intensity daily, but the bitter wind was always there. On one of these days, a very low cloud ceiling was noted over the airfield and any icy cold fog was rising from the Volga River. The runways at Pitomnik were still free of ground fog as two incoming Ju-52's approached for their landings. They reached the field without fighter escort, made a few circles, dropped through the wisps of fog, and descended. Medical personnel at the field had already commenced their work and had carried about 40 seriously wounded men to the runway. This, unfortunately, was the signal for all of the other wounded. Hundreds of them limped and stumbled as fast as they could from the casualty tents to the airstrip. One Ju-52 had rolled to a stop, its motors still running as it stood on the field. When the cabin door opened the unloading operation began. Meanwhile the second plane touched down, spraying snow to both sides, while the seriously wounded who were still able to see and had the strength to look watched the proceedings with the most rapt attention. Theodor Plivier/ in his book Stalingrad, describes the amazing scene which followed:

> Thirty-eight of them were lying there, each with his cardboard label on his breast, each on a stretcher, waiting to be flown out. . . .

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*See Figure 62.

/Plivier, a German Communist who was in the Soviet Union during World War II, presented the Stalingrad episode in a narrow and tendentious manner, in faithful accord with the "accepted" Soviet views. His description in this instance, however, very closely coincides with the statements made by many German survivors who were witnesses to these events.

Figure 62
The road to Pitomnik airfield

Hundreds of feet shuffled through the snow, wrapped in rags, strips of blanket, or canvas. Then there were others who were faster. They broke through the men suffering from foot injuries or otherwise seriously wounded, and came closer with enlarged blinking eyes, wide open mouths, and distended nostrils. . . . the air was filled with the lamentations not only of those who had been thrown to the ground and trampled--for they were lying face down in the snow--but of those who were too slow and had to remain behind.

Sacks of beans, chocolate, and bread, and brandy demijohns, all stamped to pieces, were interspersed with bodies and faces, scarcely discernible from the sacks. There was no chance for them to rise again. Trodden under foot by feet wrapped in felt, they were churned to a mass, and became the bridge to the cabin door and the interior of the plane. And the bridge grew so high that the "strong," the "winners," the "victorious" had to bend to enter the cabin door.

Even the men on guard were numbed by the piercing screams and from the death-laden atmosphere. They used the butts of their rifles, and once they had arrived at the top they, themselves, threw away their rifles and slipped into the plane. Stragglers, wounded, stretcher bearers, enlisted men, and officers; all of them crowded forward, knowing that there was only space for 20 passengers.

As yet the plane's cargo was still half unloaded, but the pilot had no other choice. Unaided, and with no time to spare since the fog was rising, he climbed into his cockpit. The roar of the props mingled with the shrieks of the retreating crowd. The cabin door was open, and legs, arms, and bodies were hanging out. Twice the plane bumped heavily on the ground, then it rose clumsily into the air. . . .[93]

On 15 January 1943 the southern perimeter of the Stalingrad pocket buckled, allowing the Red Army to move in close to the Pitomnik airfield, where, during part of the night, Soviet air forces prevented German transport planes from making landings. The earlier lack of foresight in failing to construct and outfit alternate airfields now hampered the entire airlift. Gumrak and one or two other airfields should already have been prepared for operations. The Fourth Air Fleet, however, anticipated the threats by Soviet ground forces once the southern front had collapsed, and ordered

all Luftwaffe aircraft arriving in the vicinity of the airhead after 0700 hours 16 January to land at Gumrak, while the dive-bombers, fighters, and reconnaissance planes which were regularly based at Pitomnik were directed to continue operations there until Soviet ground fire should force them to move to Gumrak.[94] During the morning of the 16th enemy artillery units were advanced and these batteries began to lay heavy barrages upon the Pitomnik airfield.

Richthofen ordered all Luftwaffe units to operate from Gumrak until imminent danger of capture or destruction by Red Army units forced them to leave. They were then to take off with full loads of fuel and ammunition, attack advancing Soviet ground forces, and land at bases within the Fourth Air Fleet's operational area.[95] The transfer to Gumrak was senseless, since no preparations had been made for air operations. Five Me (Bf) 109's of the 1st Squadron, Fighter Wing "Udet," flew to Gumrak, but the field was in such poor condition that all of them were badly damaged in landing. By noon, however, one runway had been leveled and rolled, and three He-111's of the 55th Bomber Wing successfully landed on the strip. No other preparations had been made, and the crews had to unload their own planes.

The Sixth Army's failure to prepare the Gumrak field in advance was allegedly because the field was considered to be too close to the command posts of the Sixth Army and two of its corps, as well as supply installations and hospitals. Whether the field was well situated was beside the point, since there was no other choice. This act of negligence was to have serious consequences.

The air command within the pocket was at least co-responsible for this state of affairs, since it failed to insist with sufficient vigor upon the preparation of this field while there was still time to do so. General Pickert, as the senior Luftwaffe officer in the pocket, had been appointed by General Paulus to direct all local air operations. Pickert, although unquestionably well qualified as an artilleryman and Commander of the 9th Flak Division was hardly a "fully competent" authority on matters involving aviation, especially air transportation.*

(A captain of the 16th Tactical Reconnaissance Group and several other officers, most of them lieutenants, were in the Stalingrad pocket

*Editor's Note: Flak Artillery and Parachute units were arms of the Luftwaffe, but Pickert had never been in a flying organization.

until 15 January 1943. All of these men were qualified in aviation, and had been especially trained in cooperative efforts with ground forces. They were thus well equipped to understand the requirements and mentality of the ground forces and the cardinal operating principles of air units. There were also several air signal officers within the Sixth Army area and a large number of experienced NCO aircrewmen, many of them enlisted pilots or technical experts who could have been used to insure a proper establishment and operation of the ground service organization.)[96]

Although it would have been advisable as a general military principle to have a senior flight officer of general's rank within the pocket, the author believes that General Pickert, despite his good intentions and abilities, could not have influenced the execution of air operations originating from the outside, or done anything to increase the amount of supplies flown into the pocket, the all-important requirement from the Sixth Army's viewpoint. Actually, any Luftwaffe general could only have been a scapegoat for Paulus' unreasonable complaints, made without any appreciation of either the potentialities or capabilities of air power.* Quite apart from the fact that the presence of such a general would merely serve as a "lightning rod" for Paulus' anxieties and fault-finding, what decent, soldierly-thinking officer could have stood up under the nervous strain of this abuse? All he could have done was to relay by radio the constant, and justifiable, demand by the defenders for more supplies. Here again, however, the question arises whether the German High Command would have been stimulated to greater efforts by the pleas of this Air Force general, when it had already received identical reports from the Sixth Army Command? Would such a general have been able to have imparted an added impulse to the High Command of the Luftwaffe?

Available evidence indicates that the Luftwaffe leaders outside of the pocket were fully aware of the critical nature of the airlift operation. On 13 January 1943 General Fiebig made a clear expression of the Luftwaffe's determination to make every effort to help the beleaguered Sixth Army:

> The Sixth Army is fighting its last battle. It might be another six days or even only two days before the end comes.

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*Editor's Note: The largest air delivery was on 19 December 1942, when 289 tons were brought in to the pocket. See Generalmajor Hans-Detlef Herhudt von Rohden, Die Luftwaffe ringt um Stalingrad (The Air Force Contends for Stalingrad), Wiesbaden: Limes Verlag, 1950, pp. 35-36.

I believe that no heart was more filled with concern over the fate of the Sixth Army than the hearts of the men assigned to organize and carry out the air supply operation for the army. We have done our best. When I examine my actions I find nothing that I have done wrong, nothing that could have been done otherwise.[97]

Fiebig also flew into the pocket to orient himself on the spot concerning the situation. Since he was responsible for the airlift operation, the Sixth Army also had a chance to discuss the air supply situation and local problems with him. But, incredible as it seems, neither Paulus nor his Chief of Staff, General Schmidt, ever visited the logistical airheads within the pocket or made any real effort to secure a personal impression of the conditions under which the men at those places were working and risking their lives, although these points were the very nerve centers of the Sixth Army.[98]

At the outset (22 November) the VIII Air Corps had drawn up recommendations for the organization of an air supply unit to support the surrounded army:*

(1) The command staff was to be located within the pocket under the direction of a General der Flieger as Commanding General, Air Supply Command Stalingrad. This commander was to be assisted by a General Staff Corps officer who was to act as operations officer, and by an intelligence and a meteorological officer to direct air activities, as well as by a headquarters signal officer, a staff officer, a radio specialist, and a transportation officer. The mission of this organization was to maintain the operational status of airfields and technical facilities, to direct all air traffic, air communications, direction-finding equipment, and technical and maintenance activities.

(2) A combined Luftwaffe-Army supply and administration section was to be established similar to the organization at VIII Air Corps Headquarters and directly under the command of the above-mentioned air supply staff and the Sixth Army. The mission of this section was to process supply requisitions, establish priorities, supervise loading and unloading and the distribution of supplies, procure personnel and transportation facilities, expand the existing ground service organization, and direct all army labor details.

*See also Pickert Diary, 22 November 1942.

Von Richthofen had approved these VIII Air Corps recommendations and forwarded a teletype message to that effect to the Sixth Army. The assignment of a general officer from the flying forces was considered essential by both VIII Air Corps and the Fourth Air Fleet, since a difficult type of operation was involved, calling for supervision by a highly qualified expert. General Paulus, however, replied that he had assigned General Pickert as commander of all Luftwaffe elements in the pocket--this was done without air fleet consultation--and therefore rejected Richthofen's suggestion that another general be flown in.

This decision, obstinately upheld by Paulus, was largely responsible for the extremely poor showing of the airlift, at least from an organizational point of view. Just before the extermination of the Sixth Army, Paulus complained to the Luftwaffe that there had been no general of the flying forces inside the pocket. While he was correct in assuming that this would have materially assisted the entire program of logistical support, it should be noted that Paulus not only never requested the assignment of such an officer, but, in fact, twice rejected attempts to have such a person assigned. This shows in essence how frivolous was the Sixth Army Command's belief in its ability to decide air command problems on its own responsibility.

On 17 January 1943 numerous radio messages were transmitted concerning the suitability of the Gumrak airfield for landing. The Sixth Army maintained that the field was in operational condition, stating that it had a length of 3, 300 feet and a width of 330 feet. Luftwaffe officers were sent in to ascertain the exact state of affairs.[99] Although reports had already come back to the VIII Air Corps that the field was not suitable for landings, aircrews had to make the effort to land in order to sustain the army as long as possible. Complete formations of aircraft were unable to use the field, and, although single planes could land, they could not do so in quick succession as is essential for airlift operations. At the most, two or three planes could be accommodated on the strip at one time, and great care had to be taken to avoid getting off the runway into one of the numerous shell and bomb craters which pock-marked the entire area. Only experienced pilots could successfully land on the strip.

On clear nights the field was under constant surveillance by Soviet airmen in harassing aircraft (generally U-2's), and every incoming plane and every moving thing on the field was immediately bombed. If a landing or taxiing aircraft was hit on the field, the wreckage stopped all operations for several hours, compelling other planes to air-drop their supplies. The landing strip was thus usable only during daylight hours, and since the

required 25 transports could not land, unload, and take off within an hour, the needed 200 to 300 tons of supplies could not be delivered daily to the pocket.

The Sixth Army, however, failed, or refused, to recognize the difficulties encountered in landing operations. Quite naturally, all the army wanted was supplies and still more supplies, since its very existence and ability to resist attacks depended exclusively on this thin logistical lifeline. Furthermore, the army wanted the deliveries to be made by landing aircraft, rather than air-drop, knowing that this meant larger delivery quotas and better opportunities for supply control. Supplies which were air-dropped were often irretrievably lost in the snow, and sometimes fell outside the Sixth Army's perimeters into enemy hands.

The Sixth Army's complaints, leveled at the Luftwaffe, were loud and outspoken. They also were unjust, since they were not directed at the person who had frivolously promised to supply the army by air (Goering), nor at the person who had given the decisive order for an entire army to hold out in perimeter defense (Hitler), nor even at the person who had failed to exercise sufficient independence and personal responsibility to abrogate the Fuehrer's orders and break out while there was yet time to have done so (Paulus). Instead, these recriminations were directed against, and deeply offended, the men of the Luftwaffe who ceaselessly continued to fly their costly missions, even in the face of fierce antiaircraft fire and fighter opposition, in incredibly bad weather, including snow and sleet, and those men on the ground who continued to keep the aircraft operational despite the intense cold and acute shortages of equipment. Many of these men at the base airfields remained at their posts until they collapsed from fatigue, yet rallied again and again to help their surrounded comrades.

From the beginning of the Sixth Army's encirclement, its General Schmidt had been told by Fiebig, Richthofen, and Pickert that such a large army unit could not be supplied by air for a long period of time. These Luftwaffe generals pointed out that a breakthrough in the direction of the German lines was the only logical and possible solution of the dilemma.[100] Schmidt, however, brushed aside all such suggestions with his comment that the unit had to be supplied by air, and that the army could solve part of its problems by first "consuming all of the many horses inside the pocket."[101] Despite such statements as "betrayed by the Luftwaffe," it is possible that Schmidt's lack of judgment and self-control was not just due to a petty desire to take revenge upon the Luftwaffe, but, rather, because of his wish to conceal his own feelings of guilt. There can be no doubt that Paulus was influenced on more than one occasion by his more

forceful Chief of Staff, especially during the most crucial periods. Schmidt's early opinion that the army should first defend itself in perimeter defenses (Igelstellung), and his later opinion that a breakout by the Sixth Army would not be possible, became the decisions taken by Paulus.

Manstein's representatives attempted to convince Paulus that air supply for any length of time could not be counted upon, and that the only course was that of an eventual breakout. Paulus seemed to be impressed by the logic of these appeals, but Schmidt's attitudes prevailed in the end. It was Schmidt's opinion that the High Command or the army group had to free the Sixth Army, since it had become enveloped through no fault of its own, and, in the meantime, higher commands had to furnish the army with whatever supplies it required. Major Eismann's* statements that everything possible had been done, and that the army group could neither control the weather nor conjure up additional transport aircraft, left Schmidt cold. Even a careful description of the tactical and strategic conditions on the entire front which made it essential for the army to break out failed to move the Chief of Staff. The Commanding General of the Sixth Army was far better trained in operations and had a more logical mind than his Chief of Staff, but Schmidt was clearly the stronger personality of the two, a factor which proved to be decisive--and fatal.

Because of the constant complaints coming in from the Stalingrad fortress concerning inadequate supply deliveries, and the steady bickering over suitable landing fields, the highest commands apparently lost confidence in the supply operation. The Supreme Command finally doubted everyone's word and believed nothing that it was told. As a result, Hitler decided to dispatch Field Marshal Erhard Milch to the area as commissioner to give direct reports to the highest authorities.[102] On 15 January 1943 Milch attended a situation conference where Hitler gave him the following assignment:

> Since the decision has been taken to hold Stalingrad, all means available must be employed for this purpose. I admittedly have the impression that everybody there is making a great effort, and that, viewed as a whole, everything has been done that could be done.

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*Intelligence Officer (Ic) for Army Group Don.

I demand, nevertheless, that in the future 300 tons must actually be delivered in the fortress, so that it can hold out and so that the purpose will thereby be achieved of tying down strong Soviet forces.

You are receiving from me the appropriate special powers and authority to issue orders and to give instructions to all headquarters of the Wehrmacht.[103]

On the following day Milch arrived at Taganrog aboard the Fourth Air Fleet's command railway train, and on 18 January he assumed command over all airlift operations for Stalingrad. The activities of Generaloberst von Richthofen were then restricted to the direction of the combat operations of units assigned to the air fleet. Milch, a new man with new ideas, was to try to increase the air deliveries to the required level, but, despite his well-known ruthless, iron will, even he was unable to do much to boost the total tonnages or even to bring about a decisive increase in them. He was forced to concede that the Fourth Air Fleet had done everything humanly possible to support the Sixth Army and that the failure of the airlift operation was due to forces beyond its power of control.

General der Panzertruppe Hans Hube's view that "Field Marshal Milch and his staff would have had a decisive effect on the movement of supplies to Stalingrad if they had been appointed sooner" must be rejected. Weather, and not personnel, was the deciding factor which limited operations and decreased the operational status of aircraft. Even Field Marshal Milch could not have prevented the Soviet ground advances and the resulting retirement of the German lines, thereby necessitating a continuous rearward displacement of the base airfields and a cessation of air supply operations for several days. Upon resuming operations the fortress was ever farther away, reducing the total number of flights which could be made per day to the pocket. And, even if all of the forces of the Luftwaffe had been committed in supply and combat operations in the Stalingrad area, which would have been strategically impossible, this would not have lessened the effects of snow and ice and storms.

It is true that Milch's first efforts met with some success, but losses of aircraft and crews and bad weather soon reversed the situation.[104] The operational status of German units continued to decrease in spite of Milch's ruthless and rigorous methods, which included depriving unit headquarters, party agencies, training establishments, and replacement units of their planes, and reinforcing the air transport units with extra large planes.[105*] Although a total of 363 Ju-52's and He-111's were actually

*Ju-90's and -290's and Fw-200's. See Figure 61 and p. 296.

at the base airfields on 29 January 1943, this initial operational status amounted to only 35 to 40 percent, which soon sank to 10 to 20 percent because of the intense cold, the lack of special equipment (much of which had been lost when the Russians overran the German airfields in November and December), and enemy action.

Milch scarcely intervened in the command activities and functions of the air fleet, but confined his efforts mainly to visitations to air transport units, which he assisted chiefly by assigning Luftwaffe engineer personnel to the project.* During this time, however, Milch's statements concerning the possible use of cargo gliders for the air transport movement were voiced so often and so openly that they served to give false hopes to the Sixth Army. Gliders could be used only under certain conditions, only during the night, and not at all during bad weather. Soviet air forces made it impossible to employ gliders during daylights hours unless considerable numbers of fighters or fighter-bombers were provided for cover. Fighter cover could not be provided, however, because the steady retirement of German lines had placed the Stalingrad fortress out of the operating range of German fighters. Before Me-109's and Me-110's designated for escort duties could be used, they first had to return to the Z. I. for the installation of makeshift reserve fuel tanks./

Another deciding factor against the use of gliders was that the Pitomnik airfield was exceedingly overcrowded and could not have been used by Ju-52 and He-111 units during glider landings. If the gliders landed in the open terrain, on the other hand, it would not have been possible to have recovered the supplies. Furthermore, since there was no possibility of towing the gliders out of the pocket, they could only have been abandoned there; the vast numbers of gliders necessary to permit this simply were not available. By the time a number of gliders were ready (which included efforts to equip them for blind flying), the Pitomnik

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*Milch arrived with a small staff, consisting of Col. Wilhelm Polte, his personal pilot, and a medical officer (a reserve colonel) who acted as the keeper of his diary at air fleet headquarters. With this small staff and the given adverse circumstances it was impossible to bring about any real changes.

/The Fourth Air Fleet had already initiated the employment of cargo gliders before Milch's arrival. The XI Air Corps, which controlled airborne units, had sent forward some glider squadrons, some of which were at Makeyevka, but they could not be used because no long-range fighters were available to provide escort services.

base had been lost.[106] It is also true that towing gliders would have slowed down the tow planes, making them more vulnerable to attack and causing a much greater fuel consumption. All things considered, it was far more economical to use powered aircraft for supply deliveries. Despite these difficulties, it appeared by the end of January that gliders might be a partial answer to the airlift problem, but experiments to render them capable of instrument flying were never completed and the glider project was abandoned.[107]

In spite of every effort to expedite matters, it was 27 January before the first nine Me-109 and five Me-110 planes arrived from the Z. I. equipped with reserve fuel tanks as long-range fighters. Within 24 hours these planes were ready for action and assigned to the command of Maj. Wolf-Dietrich Wilcke, an experienced fighter leader. Although the number of aircraft was far too meager to permit continuous escort missions,[108] on 29 January this unit was ordered to ready itself for long-range missions to be carried out on the next day in the vicinity of Stalingrad. Wilcke had reported that 1st Lieutenant Tratt* (commanding the 1st Group, 1st Twin-Engine Fighter Wing) continued to maintain that several of his Me-110 aircraft were unsuited for combat because they were equipped with Type A engines, which were 60 miles per hour slower than the others.† This report was summarily rejected by Field Marshal Milch, who declared, "Everything will be sent into action without reservation, and a detailed report will be submitted to me after the action."[109]

Early on the morning of 30 January 1943, six Me-109's and five Me-110's, all with the special tanks, took off for Stalingrad. From 1045 to 1115 the units maintained a long-range patrol over the pocket area without encountering Soviet aircraft. On the return flight they shot down two Russian planes. Lieutenant Tratt, however, had trouble with his Me-110, and, with one engine out, crashed. By evening only six of the Me-109's were ready for takeoff; the next day only two of them took off, and these soon had to cease their operations over the Don River bend area because

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*Editor's Note: Lieutenant Tratt could not be more fully identified at the time of publication of this study.

†Editor's Note: Messerschmitt Bf-110's, then used for night fighter and long-distance fighter operations, were of two types, the 110-C-1 and the 110-F. The 110-C-1 was powered by two liquid-cooled, Daimler-Benz DB 601-A engines developing 1,020 h.p. each (the above-mentioned Type A engine), while the 110-F had two Daimler Benz DB 601-F engines capable of developing 1,350 h.p. each. The 110-C's were considerably slower than the F series. See Kens and Nowarra, pp. 433-439, 532-533.

the cloud ceiling was too low. It was found that the Me-110 units could no longer be used for long-range fighter missions owing to their poor operational condition. These planes, and what was left of the Me-109's, were therefore turned over to the Fourth Air Fleet for use in airfield defense actions at bases which had come under frequent Soviet air attacks during this time.

The efforts to carry out long-range fighter operations failed because of the inadequacies of the aircraft employed, which had merely been conditionally equipped for long-range missions. A real long-range fighter (something that the Luftwaffe General Staff had long demanded) was clearly lacking, and without such aircraft no escorts could be provided for two planes and gliders. Thus another hope of increasing the supply shipments to Stalingrad was dashed.

The transfer of cargo gliders from the Zone of the Interior was halted on 24 January, and Field Marshal Milch released those already in the Fourth Air Fleet area for use in an airlift operation for the First Panzer Army from the Krasnodar area to Kerch and Mariupol-Taganrog.[110]

After 10 January Soviet pressures from the south against the Don River line again made it necessary for He-111 units to move farther to the rear, this time from Novocherkassk to Taganrog, thereby increasing to 252 miles the distance to the Stalingrad pocket.[111] Yet, despite this adversity, the tremendous efforts of the air command, both flying and ground personnel, resulted in an increase in delivered tonnage from 60 to 78 tons. This increase was maintained until 16 January.[112] Thereafter, pressures upon the Sixth Army's perimeters threatened the base at Gumrak.

The Gumrak airfield was captured by the Red Army on 21 January, and landing was no longer possible at the Gorodishche airfield because it was now situated on the main line of resistance and had come under heavy artillery and infantry fire. At the last possible moment, efforts were made to equip a landing area, the Stalingradskiy airfield, in the immediate vicinity of the city of Stalingrad, an extremely desperate measure. This was hardly an airfield in the real sense of the word, but by the evening of the 21st reports from the Sixth Army indicated that the field was in condition to receive aircraft.

Most of the supplies were by this time delivered by air-drop, but aircrews made landings again and again at the new airfield, despite heavy artillery fire and numerous shell and bomb craters on the strip. It was, of course, inevitable that heavy losses of aircraft and personnel resulted

from crash landings. During one landing episode, six transports were wrecked because of deep snow which obscured the craters from view. Night landings were especially hazardous.[113] The last Ju-52 to land came in at 1220 hours on 22 January 1943, and was fortunate enough to be able to take off again. At this stage, however, no organized efforts were any longer being made to recover supplies from wrecked aircraft.*

On 23 January 1943 the Soviet forces succeeded in breaking through the western perimeter of the fortress, dividing it into a northern pocket, held by remnants of the XI Corps and comprising an area of about 7 by 9 miles in the area of the Gorodishche tractor works, and a southern pocket, held by remnants of the IV, VIII, and LI Corps, and the XIV Panzer Corps, situated in the southern sector of the city. From this time on supplies could only be delivered to the army by air-drop, and many of the sacks and supply containers fell into Soviet hands or were otherwise lost.

Every effort was made to master the difficulties encountered in the air-drop operations, but some problems almost defied solution. In the city area, the tall ruins of houses made it impossible for aircraft to fly low, so that many loads had to be dropped from altitudes of 160 to 270 feet. He-111 aircraft had to make two approach runs, and Ju-52's about four. Part of the loads had to be dropped by hand, and the missions were further hampered by poor communications between the rear areas and the front units during the course of the operations. This resulted in drop delays and wide misses of the drop areas. Even if the drops were made in approximately the right areas, the sacks or containers were difficult to find because of the high walls. Nor did the newly-introduced colored parachutes seem to help appreciably.† There was a definite need for more new devices such as mounted searchlights for containers.[114] Yet, despite these adversities, the Luftwaffe maintained the supply operations as long as signs of life were either detected or suspected in the ruins of the city. Good examples of the Luftwaffe's efforts were the missions flown at the end of January, when on the night of the 26th-27th 60 aircraft dropped their loads, 120 (out of 142 which took off) followed suit on the following night, and on the 29th 80 transports delivered supplies to the still available drop areas.

On 28 January the southern pocket was severed in twain by Red Army forces, creating three pockets at Stalingrad, each of which was

*Editor's Note: Stalingradskiy airfield was taken by the Russians on 23 January 1943.

†Efforts were also made to improve the air-ground liaison by use of beacons and radio-telephones.

isolated from the other, and all of them miles from Army Group Don. Holding out in the extreme northern sector were weak remnants of the 60th Motorized Division, the 16th and 24th Panzer Divisions, the 389th Infantry Division, and some still battle-worthy elements of the 100th Light Infantry Division. In the middle pocket (the northern part of the former southern pocket) were located parts of the 76th, 113th, and 305th Infantry Divisions, 400 men of the 384th Infantry Division, elements of the 29th and 3rd Motorized Divisions, the IV Corps (which existed in name only since it had no more divisions), and the VIII Corps with extremely weak remnants of the 79th and 295th Infantry Divisions.

The command posts of the 71st Infantry Division (under Generalmajor Alexander von Hartmann) and the Sixth Army (under Generaloberst Paulus) were situated in the ruins of a large Stalingrad department store on Red Square. The approaches were blocked by sand bags, crates, and barricades made of street lamp poles, balcony railings, iron girders, wrecked tanks, pieces of iron stair railings, and interspersed sections of barbed wire.[115]*

Luftwaffe units still tried to air-drop supplies to these pockets. On 29 January the Fuehrer's headquarters received a message from the Sixth Army that all air-drop containers had been found with the exception of about 20 tons. Field Marshal Milch added a postscript to the message, declaring:

> This is further proof of the precision with which supplies are being air-dropped, and of the fact that previously the air-dropped supplies landed within the fortress area, but were not properly recovered.[116]

During the night of 29-30 January 1943, 151 Luftwaffe transports took off, and 132 succeeded in accomplishing their missions, dropping a total of 130 tons of supplies to the dwindling forces in the several pockets.[117] No matter how cold it was, nor how deep the snow, nor how

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*Editor's Note: Heinz Schroeter gives a gruesome description of some of the German redoubts in and around Stalingrad, including the cellar of the merchant Simonovich in which 800 seriously wounded men lay dying. Rank had come to mean nothing, and references to units as "corps," "divisions," and "regiments" had no meaning whatever. See Stalingrad bis zur letzten Patrone (Stalingrad Until the Last Cartridge).

threatening the weather, German airmen made gallant efforts to carry out their assigned tasks. The drop zones had to be found.*

Plivier describes the reception of these air-dropped supplies in the southernmost pocket during the closing days of January 1943:

> At the lower end of the field was a wrecked airplane, and next to it was a car with strong searchlights, and the entire field, surrounded by the serrated line of destroyed buildings, was brilliantly lighted by searchlights. It was the hour of the commander of the guard troops. His men carried carbines or submachine guns and were placed on patrol around the field or hidden behind some of the remains of the walls.
>
> Then came the scream of propellers! A plane came hurtling down from the dark of night, dropped its load, and soared upward again at a steep angle. Again the droning of an airplane became audible, first nearby and then farther off. A plane circled the field and also dropped its load. The loads didn't come down on parachutes; everything plummeted down on the drop zone like stones, preserved meat, chocolate, hard sausages, hams, and loaves of bread, and not everything fell within the confines of the field. . . .
>
> Orders stated: Shoot without warning. And so, he [a guard] squeezed the trigger and a [German] soldier fell to the ground, where he lay with his face down in the earth, a few feet from the loaf of bread toward which he had stretched out his hand.[118]

Things were no different in Stalingrad North. There too a field or drop zone had been developed which was not far from the whitened houses. There too the field was flooded by the beams of searchlights, and there also were stationed a receiving detail and guard forces to insure that the precious air-dropped cargoes were not hoarded or misused. In this area as well, many packages of food rained down outside the drop zone and fell into Soviet positions. Some of it, however, landed

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*Heavy antiaircraft fire complicated this task greatly, and frequently only a wall stood between the German lines and contested ground. This situation, within a built-up, urban area, made the Luftwaffe's job immensely difficult.

just beyond the drop zones in "no man's land" among the ruins and back courtyards. In this northern sector it was not the men of the guard detachments, with their white arm bands, who waited for the supplies, but men of military police units, recognizable by their metal breast shields which they wore suspended by chains around their necks. These were the troops who waited in ambush for plunderers and hoarders:

> . . . And a hard sausage lying in the road could lead a man into imminent danger from both sides. It could be the bait which lured a starving man into line for a Soviet bullet or into the field of vision of a German military policeman. For the man in question either of these possibilities was equally fatal.
>
> There in the areas where bread, sausages, or canned meat fell down upon the crooked passages and paths, and broke through the house tops, and where dark shadows would appear out of the night and then suddenly disappear into one of the innumerable holes in the ground, were the hunting preserves of the military police. In pairs or in groups of four they patrolled at all hours the underground world of cellars. . . .
>
> Army orders called for plunderers to be shot within 24 hours, and in this case not even 24 minutes had elapsed. A burst of fire from the submachine guns, and eight men lay dead. Snow fell silently on the bodies of the suicides and on the corpses and coats of the men who had been shot.[119]

On the fighting front, thousands of men stumbled from one line of resistance to another. Sometimes these lines were many miles apart, and sometimes they existed only in the imagination of general staff officers. Yet the men continued to hurl themselves against the tanks and attacking infantry, and stood by their antitank or antiaircraft guns, firing as long as they were able or as long as they had a single round left.

There were, of course, some men of another type, men who concealed themselves in the ground, among groups of vehicles, or in cellars. They appeared only when they heard the sound of German aircraft engines, when the supply containers were dropped. Then they stole whatever they could lay their hands on and filled their bellies with sausage and pumpernickel. Within the command sectors of four divisions in the western and southern parts of Stalingrad, 364 death sentences were carried out within

eight days.* The committed offenses leading to this fate included cowardice, absence without leave, desertion, and even the theft of food. These 364 executions must be included in the balance sheet of blood which flowed at Stalingrad.[120]

Resistance continued in the northern pocket where, pursuant to orders, German airmen still dropped supplies on the nights of 30 January through 1 February 1943. The drop zone was easily recognizable there, and most of the transport planes got through to the pocket, although 15 to 20 aircraft were lost on each mission.[121]

As the battle drew to a close, the last radio message arrived from the southernmost pocket, bringing final greeting to families at home in Germany and solemn avowals of faithfulness to the Fatherland, a unique devotion to duty which remained to the very end.

On 30 January Red Army forces steamrolled from the west and north against the remaining fragments of the Sixth Army, overwhelming the 76th Division, and seizing the southwestern sector of the city. The staff of the XIV Panzer Corps was surrounded, without troop units or heavy weapons, and forced to surrender. Soviet units then compressed the staffs of the VIII and LI Corps, together with some very weak forces, into the smallest possible area, from which further resistance was senseless. By evening a T-34 Russian tank stood before the bunker in which these staffs were confined and demanded immediate capitulation. This was the first pocket to surrender, and on 31 January General der Artillerie von Seydlitz and seven other German generals walked into Soviet captivity.

In the southernmost area Red Army forces had reached Red Square by 30 January and sealed the fate of the defenders of the southern pocket. On the following day Paulus, now promoted to field marshal,† was captured with his entire staff.†† The Soviet radio announced on 1 February the biggest bag of officers in the war, including one field marshal, 14 German generals, and two Rumanian generals.[122]

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*According to official Wehrmacht figures.

†Editor's Note: Hitler did not believe Paulus would surrender as a field marshal, since no German field marshal had ever gone into captivity. See Schroeter, p. 226.

††Editor's Note: General Schmidt counseled Paulus to resist until 31 January, when he urged him to get "in touch with the Russians."

During the night of 31 January-1 February, 110 transport planes took off for the still fighting northern pocket. Here a lighted triangular-shaped drop zone, marked with a red-lighted swastika, was easily discernible, and the radio beacon was in operation. About 95 of the aircraft succeeded in dropping their loads on target. On the following evening 108 aircraft took off for the northern pocket, and approximately 85 accomplished their missions. The drop zone was still clearly defined on the night of 2 February, and remained visible until about 2400 hours, after which it was seen no more. The last message from the pocket was received at army group headquarters at 2315 hours:

> XI Corps has fought with its divisions to the last man against a manifold superiority. Long live Germany![123]

The first 12 He-111's dispatched on the night of 2 February were sent to deliver their loads and to report their impressions of conditions in the pocket by three prearranged code words. Seven reported that they had detected nothing and made no drops, three dropped part of their loads, and one reported that he had still detected signs. Thereupon the remaining 16 Heinkels were dispatched. Oral interrogation of the returning crewmen revealed that the pocket area was no longer defined, that a fire was raging in the northwestern corner of the tractor works, that lights appeared evenly distributed throughout the area, that a vehicle column with lights was observed moving from the northeast into the tractor works, that signal fire in all colors was visible in the tractor works, that parachute flares were observed, and that there were no signs of continued fighting. This, coupled with the end of radio transmissions, indicated that resistance in the northern pocket had come to an end.

Facing fierce combat and the ravages of starvation and intense cold on the bitter steppes, soldiers of the Sixth Army had surrendered only after they had become too weak to carry arms, after their hands were so frostbitten that they could no longer handle their weapons, and when they had found themselves without ammunition against vastly superior enemy forces. For the survivors their suffering was to become complete in Soviet captivity. Thanks to the devoted efforts of German aircrews, however, it had at least been possible to fly about 30,000 wounded men out of the pocket.[124*]

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*Editor's Note: Over 90,000 men fell into Soviet captivity in the Stalingrad battles, few of whom ever lived to return, or were permitted to return, home. See Manstein, pp. 337, 347, 395. For most of the Sixth Army, Hitler's comments ironically came true: "Where the German soldier stands, he remains, and no power on earth shall drive him from it." See Schroeter, p. 235.

Field Marshal von Manstein's last words on the battle of Stalingrad are cited here as a fitting close to this great struggle and the operations of the Luftwaffe in sustaining the fighting men of the Sixth Army:

> By their unprecedented courage and steadfastness in the performance of their duty, the officers and men of the Sixth Army erected a memorial to German soldiering which, although not carved out of stone or metal, will last through the ages. An intangible monument on which are inscribed the words prefacing this account of the greatest military tragedy in history:
>
> O Wanderer, if you come to Sparta,
> Proclaim there that you have seen us lying here
> As the law ordained. [125]

The Most Important Lessons Learned From Luftwaffe Operations in the East During 1942

Combat Zone South

Until the end of July 1942 all forces of the Fourth Air Fleet were used exclusively in direct or indirect support of Army operations. Bombers attacked presumed or located Soviet troop and materiel concentrations, supply columns, and railroads. Close-support units, reinforced by all available dive-bombers, fighter-bombers, and bombers, halted Soviet forces if they penetrated German lines and supported operations to regain lost territory. German fighters countered Soviet aircraft whenever they appeared, although the operational areas involved were so vast that absolute Luftwaffe coverage could not always be maintained.

In the autumn, especially after November, Soviet air activities steadily increased. Ground-attack planes appeared in ever greater numbers. However, despite the increasing numerical strength of Russian air units, Soviet forces never succeeded in establishing an actual or continuous air superiority over the entire area of Combat Zone South.

Luftwaffe operations in support of the German Army were not consonant with the soundest concepts of aerial warfare. Even the battle for air superiority--the essential condition for effective air operations--remained restricted in time and place to local areas closely connected with ground operations. The air superiority which was sought was the kind which would allow free or almost free air support of the German Army, without Soviet air interference.

During the Luftwaffe's aerial operations in 1940 in the Western Theater of Operations against Britain there was some evidence of the strategic use of air power. To a certain extent this was also true of air operations in the East in 1941. Thus, the attacks flown against Moscow and industrial targets in Voronezh, in the Tula area, in Leningrad, and against the locks of the Stalin Canal and Black Sea ports can be considered as strategic in character. However, by the winter of 1941-42 the strategic mission of air power had been completely eclipsed by the vast expanses of Russia. During the severe crises in which the German Army found itself, the Luftwaffe was obliged to expend its power exclusively in operations against Soviet ground forces and Soviet air forces based on or near front airfields. Support of ground operations in all areas had become the order of the day.

No one at the highest command levels of the Luftwaffe had opposed this exclusive use of air power in support of the Army. On the contrary, Goering and Jeschonnek supported this employment of the weapon which had originally been created in consonance with the true strategic concepts of Douhet.

Having no specific strategic mission of its own, the Luftwaffe in the Eastern Theater of Operations gradually became nothing but a supporting arm of the ground forces, being used more or less as long-range artillery. One Army group commander later demanded that "it was high time to place it under Army command."[126] This view was long held by higher ranking Army officers.

Actually, from the Army's point of view, constant close air support, both in defense and attack, had become an inescapable necessity because of the paucity of heavy weapons such as artillery, mortars, and antitank guns available to ground force units. The Luftwaffe was then obliged to assist them. Plans for the summer offensive of 1942 thus prescribed support of Army units as the "sole mission" of the Fourth Air Fleet, and this concept of operations was considerably strengthened by the command changes made in the Fourth Air Fleet at the end of July 1942.

Freiherr von Richthofen considered tactical victory as the basis for success in the overall conduct of the war. His gift for quick understanding, his ability to size up situations and make quick decisions, his versatility, and his willingness to demand the utmost from himself and others in combat provided the best conceivable conditions for success in this type of operation. It was only pursuant to orders from higher headquarters that he carried out operations designed to produce strategic effects, such as attacks against ports and Soviet shipping on the Black and

Caspian Seas, or against oil-producing installations. And, since the necessary forces for such operations were lacking and could not be furnished by the Commander in Chief of the Luftwaffe, and since the ground situation seemed constantly full of crises, the few strategic missions carried out by the Fourth Air Fleet remained isolated actions and failed to produce significant results.

In the days preceding 13 July 1942, the Supreme Commander had changed his views concerning his objectives with nervous haste, and this found its expression in the changing and countermanding of orders, only to change them again. All this was intended to shuffle entire regiments and even armies around the front sectors as though on a drill field.[127] July 23 can probably be given as the day on which the Supreme Military Command openly revealed that it had renounced its adherence to the traditional maxims of warfare in order to pursue its own course. This was dictated by the irrational and demoniacal powers of Hitler rather than by the logical and rationally sound thinking processes of experienced military leaders. Once again the lesson of history has been proven correct, that demoniacal forces and faith are more powerful than logic. The trained military men around Hitler were almost powerless against him.[128*]

It was on 23 July that Hitler issued Directive No. 45, outlining the general objectives of the lower Volga industrial network and the Caucasus oil fields for the offensive in Combat Zone South. This can probably be considered the turning point of the war. Although entirely out of keeping with actual conditions, this plan did envisage a certain concentration of effort, in that Army Group "A" was to operate with three and Army Group

*Editor's Note: While Hitler clearly exerted a tremendous influence upon all of his subordinates, it should be pointed out that military leaders of the Third Reich created a number of their own problems. One dares not overlook Goering's frivolous promise to "support the Sixth Army by air," and other similar blunders. Perhaps it is also worth noting that while the Luftwaffe has criticized the German Army for "inflexibility," and "rigidity of thought," it was only in the ranks of the Army Officer Corps that early and active opposition to Hitler and his ideas became manifest. With the possible exception of Goering's eleventh-hour grab for power at the close of the war, no top commander of the Luftwaffe seriously opposed the Fuehrer.

"B" with one German army. Hitler's order of 30 July, however, jettisoned the last shred of strategic conception, for now two equally strong army groups were to operate in drives at right angles to each other. These moves were in no way correlated with each other, since it was neither essential to seize Stalingrad if seizure of the Caucasus was the end objective, nor to attack the Caucasus if Stalingrad was to be the objective.[129]

Since the two drives were at right angles to each other, and since both objectives were to be seized simultaneously, the area of operations expanded to a size that could not be controlled by the available military forces. Calculations made it clear to every logical-minded military leader that there was also no chance for the German High Command to secure from other sources the requisite forces for such a venture.

The Fourth Air Fleet assigned its IV and VIII Air Corps to support the ground offensive, which meant that the Fourth Air Fleet also had to spread its available forces over the entire operational area covered by the advances of the two armies. The real difference, however, between the Luftwaffe and Army responsibilities in this instance was that the Fourth Air Fleet had an infinitely larger area of responsibility than did the Army. This area comprised the Black Sea, the Caucasus, the Kuban area, the Caspian coast line, the Kalmyk Steppe, the Ural River, the Volga River from Saratov to the river's estuary, and the Don River extending to the mouth. The Fourth Air Fleet's front thus extended for more than 2,700 miles.[130] This fact, plus the manifold tasks assigned to the air forces, should have made it obvious from the outset that the Fourth Air Fleet could not accomplish its mission with its available air power.

Before the summer offensive was launched, and therefore prior to the planning stages, the Luftwaffe High Command should have performed its duty by informing Hitler that it could not carry out the numerous defensive and offensive assignments in Combat Zone South, namely, supporting the Second, Sixth, Eleventh, and Seventeenth German Armies, the First and Fourth German Panzer Armies, one Hungarian army, one Italian army, and two Rumanian armies. Although the Fourth Air Fleet always endeavored to develop power concentrations in the employment of its forces, it was far too weak to break the way for all units spearheading the advances on the ground.

It is not known whether Goering tried to exert an influence upon the planning for the above-mentioned offensives. However, in view of the customary affirmative attitude taken by both Goering and Jeschonnek with respect to Hitler's plans, it can be assumed with considerable certainty that neither of them submitted any solid objections on this occasion. It

is also improbable, considering the time allowed for possible operations and the forces available to the Luftwaffe, that any dissenting opinions would have decisively influenced Hitler, whose plans were already so excessive.[131] Thus the highest levels of command continued to expect impossible achievements from the Luftwaffe, without regard to the forces which were supposed to accomplish these miracles.

The impression is often inescapable that the highest command levels of the Luftwaffe demanded everything and issued all appropriate orders, no matter how impossible and excessive, in order to avoid any chance of being held responsible at a later date if the desired objectives were not achieved. Those responsible wanted to be able to say, "Attention has been paid to every detail! All orders were issued! I neglected nothing, and am in no way to blame! Vae Victis!"* The following example will illustrate the effects of making such excessive demands upon lower commands.

Orders from the Fourth Air Fleet on 24 November 1942 demanded the following:

(1) the immediate transfer of the IV Air Corps from a mountainous area to a steppe area several hundred miles distant;

(2) the commitment of the VIII Air Corps to support an enveloped army (the Sixth, whose front had been breached), the Third Rumanian Army, and the Fourth Panzer Army, then engaged in defensive action;

(3) the support of forces establishing a defensive front along the Chir River;

(4) the commitment of flak forces in ground combat and air defense missions;

(5) the provision of ground defenses for all airfields; and

(6) the airlifting of supplies to both the beleaguered Sixth Army and the attacking Fourth Panzer Army.[132]

This order took care of everything. Everything was demanded, including the commitment of forces in ground combat, commitment of

*Editor's Note: Plocher's comment is drawn from Livy, meaning "Woe to the vanquished!"

air forces in combat, and massive airlift operations, all of which were to be performed in a gigantic area.

Insofar as air operations were concerned, the effects of the diagonally divergent direction of the main Army attacks became increasingly evident as time passed. It was clear that the forces available to the Fourth Air Fleet were numerically too weak to perform these manifold tasks in such a large sector, and the existing ground service organization was too weak and inadequate to permit the development of concentrations of air power in current areas of main effort. Although an adequate number of airfields or airstrips were available, the requisite number of technically trained men and the necessary amount of the right types of materiel were lacking. These were not to be found in sufficient amounts in the entire Fourth Air Fleet area, and, despite the best of intentions and most strenuous efforts, could not be procured elsewhere and moved into Combat Zone South.

This was clearly a case of faulty disposition by the Commander in Chief of the Luftwaffe, who should have transferred air base operating companies, ground service equipment, all-terrain vehicles, tents, prefabricated buildings, construction units, and appropriate specialists from the Zone of the Interior and the Western Theater of Operations in consonance with the principle of power concentrations in areas of main effort.

Each displacement of German air units and ground service units over a long distance naturally resulted in a considerable reduction of the already meager operational strength of the units concerned, irrespective of the climatic conditions. The divergent Army operations and the necessity of transferring Luftwaffe units back and forth over great distances reduced both the strength and the attack capabilities of the German Air Force.

In early 1942 the forces of the Luftwaffe were fairly evenly distributed in the various zones of operations in the Eastern Theater of Operations. However, large-scale Soviet offensives soon necessitated a concentration of air power in the areas of main effort, such as the Crimea, the Izyum area, and in the battle of Kharkov. Later, the planned German summer offensive necessitated a redistribution of forces, and the wording of Fuehrer Directive No. 41 of 5 April 1942 left no room for doubt concerning the intentions of the Wehrmacht High Command to develop positive and clearly defined concentrations of air and ground power at the decisive points of battle in all future areas of operation.

A comparison of strengths, as compiled from reports by the Chief of Luftwaffe Supply and Administration, situation maps, war diaries, and other similar sources, reveals that Goering took steps to develop power concentrations because:

(1) There was no chance of withdrawing additional forces from the Mediterranean Theater of Operations. Instead, the VIII Air Corps was later required (even during the battle for Stalingrad) to transfer a bomber wing to the Mediterranean.[133]

(2) There was no possibility of obtaining additional air forces from the Western Theater of Operations, since units had already been withdrawn from there and transferred to Combat Zone Center of the Eastern Front during the winter of 1941-42, while other units had been sent to the Far Northern Combat Zone for use against the increasing Anglo-American convoys.

(3) It might have been possible, at least temporarily, to have transferred a few fighter units from the Zone of the Interior to the area of Combat Zone South, where the tremendous expansion of the front required more and more air and ground forces. Here, even a few extra squadrons would have had a most favorable effect.

The only question remaining open is whether a better distribution of forces within the Eastern Theater of Operations would have been possible, or whether the available forces could have been better concentrated. In the Far North and North, the First Air Fleet's weak forces were completely committed in the fierce struggles around Demyansk, along the Volkhov River, in anti-convoy operations, and at Leningrad, and no units whatever could be withdrawn for employment in other sectors.

The newly established Air Command Don, operating from the Voronezh area, initially had very weak forces. Later, when the Russians had overrun the Italian and Hungarian armies in Combat Zone South, it became necessary for the Fourth Air Fleet to support the ground forces in this area with additional air power. A withdrawal of air units from this area was out of the question in the existing circumstances.

With all other possibilities ruled out, only Air Command East, situated in the central sector, remained. Army forces in this area, however, were also engaged in heavy defensive fighting, such as at the Yukhnov bulge, at Rzhev, and in the Toropets area. While continuous air support was required by the ground forces in these battles, this was the only area which could have spared a few units for transfer to the Fourth

Air Fleet for commitment at the most crucial places. This could probably have been done, if only temporarily, although experience has shown that units thus transferred to another command are usually retained longer than was originally intended because of selfish reasons, or because tactical developments in the new area have tied them down. It also frequently occurs that units which are temporarily transferred are seriously reduced in operational strength during the sojourn with the new command or are weakened as an effect of the transfer itself. A new type of command organization would have made it possible to transfer certain elements from Combat Zone Center to the southern sector.*

With the organization of the German Command as it was in 1942, no possibility existed for bringing about a basically different distribution of forces, and, without a change in this distribution, no concentration of air power could have been created in the southern sector. The overall military situation and the situation in the Eastern Theater of Operations made such basic changes virtually impossible. The central problem was, of course, the fact that the Luftwaffe was numerically far too weak for its assigned tasks. The Fourth Air Fleet was clearly aware of this.

During the entire period of operations against Stalingrad and against the Soviet forces in the Caucasus, von Richthofen had consistently drawn Goering's attention to the necessity of developing clear-cut areas of main effort and, in this connection, had repeatedly and urgently requested the reinforcement of both Army and Luftwaffe. When Paulus, at Stalingrad, unexpectedly decided to halt all offensive operations/ pending arrival of reinforcements and the regrouping of his army, Richthofen repeatedly begged for a decision on the disposition of air forces in the area, but his entreaties made little impression on the Luftwaffe High Command. As a result, he decided on his own to move his entire air fleet south and commit it in support of the advance of the Seventeenth Army until the resumption of the attack at Stalingrad. After this order had been given, Goering issued a new directive, affirming the primacy of the Stalingrad effort no matter what, with the Seventeenth Army action at Tuapse being clearly secondary. Nevertheless, Richthofen stuck to his decision to send support to the Seventeenth Army.[134//] On 15 October 1942, Richthofen and Goering,

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*See Figure 41.

/Editor's Note: This was prior to the encirclement of the Sixth Army by Russian forces, probably about 5 October 1942, while German fortunes were still untarnished by a major defeat.

//Editor's Note: Even when time was not a factor Luftwaffe commanders in the field often had to make decisions of a strategic nature because of the failure of higher commands to act.

together with Jeschonnek, met with the Fuehrer to discuss the problem of concentration of forces. Hitler was in a good humor because of the successful achievements at Stalingrad, and approved Richthofen's recommendations. At the same time the Reichsmarschall disparaged the leadership of Army units in the Caucasus (Army Group "A"), and "cursed profoundly at List, Kleist, and Ruoff."[135*]

At the inception of the summer campaign the Fourth Air Fleet was able in its relatively small zone to use its forces in consonance with the principle of power concentration, initially deploying the VIII (Close-Support) Air Corps ahead of the Second Army advancing upon Voronezh, and later ahead of the Fourth Panzer Army, which was then wheeling southward, the IV Air Corps being at first in advance of the Sixth Army. The divergent directions of the main attack on the ground and the constant expansion of the zone of operations soon compelled the Fourth Air Fleet to commit its forces in a similar pattern. The VIII Air Corps, being the strongest, was assigned to the march on Stalingrad, the IV Air Corps to the general Caucasus area, and Air Command South (numerically the weakest unit) was ordered to carry out armed reconnaissance in the Black Sea area.

Unfavorable weather added to the air fleet's problems, since it prevented the rapid transfer of organizations and thus made the concentration of air power more and more difficult to achieve. Being spread increasingly thin, the Luftwaffe continued to lose its striking power, which, coupled with its inability to reinforce air units in Combat Zone South, meant that the air fleet could not contribute decisively to the accomplishment of the strategic objectives. Since these goals were not attained by the onset of winter, the eventual cessation of the offensive placed the enemy in a strong position to seize the initiative and turn the campaign into a gigantic and costly German retreat.

In the Caucasus, the German Army, supported by the considerably weaker IV Air Corps, had not succeeded in its efforts to destroy large Soviet units. The Russians were able to withdraw the bulk of their forces and, in the trackless mountains, to bring the German advance to a halt before Tuapse and along the Terek River. The increasingly stiffening resistance of Red Army forces was supported and facilitated by the arrival of Anglo-American materiel, which was already beginning to make itself felt. Thereafter, the small forces available to the IV Air Corps and the I Flak Corps were unable to destroy or otherwise effectively strike all of

*Editor's Note: Commanders of Army Group "A," First Panzer Army, and Army Group Ruoff (Seventeenth Army and Third Rumanian Army), respectively.

the targets in the Caucasus, the eradication of which would have had an important effect upon the successful outcome of operations.

The IV Air Corps was unable to accomplish either its strategic mission of interdicting logistical life lines of Soviet forces from Iran, on the Caspian Sea, and in the Caucasus, or its tactical mission of breaking the way for Army units through the mountains to the Black and Caspian Seas. General von Richthofen committed the concentrated power of the IV Air Corps alternately before the Seventeenth Army in the western Caucasus and before the First Panzer Army in the eastern Caucasus. However, these methods had no decisive results.

In the closing days of 1942, when the IV Air Corps was required to support the relief attack of the Fourth Panzer Army, designed to free the encircled Sixth Army, all air support in the Caucasus came to an end. From that time on, the Russians had a clear superiority over the few German harassing air units which were left in the area.

In the Don River-Stalingrad area, the relatively much stronger forces of the VIII Air Corps, which were especially trained and equipped for support missions, flew in support of Army forces advancing at right angles to the Caucasus units. This air corps was soon worn down by its constantly changing missions of close support and airlifting supplies for the Sixth Army.[136]

If for no other reason, the factor of numerical strength ruled out any possibility of assigning strategic missions to the VIII Air Corps or elements of that corps. There were enough strategic targets in the area, but the constantly dangerous ground situation necessitated the continuous employment of all air power for tactical operations, most of which were in direct support of the Army.

From the outset of the summer offensive, the strategic mission here would have been the interdiction of the rail and road routes from the Soviet back areas to the Stalingrad area, especially after repeated aerial reconnaissance had revealed the concentration of strong Russian forces to the west and northwest of Stalingrad. Assuming that the Soviet Command could conceive proper strategic plans--they had given evidence of this ability very often in their counteroffensives--it had to be expected that they would launch a counterattack from northwest of Stalingrad. A drive of this nature would strike the rear of the Sixth Army and meet opposition only from Rumanian and Italian units, which were considerably less efficient in combat and less able by training and equipment to offer resistance than was the Wehrmacht. In such circumstances the counterattack was likely to lead to success. A Soviet counteroffensive from the

Caucasus or Kalymk Steppe was unlikely because of the remoteness of those areas and inadequate routes of communication. Moreover, continued air reconnaissance indicated no signs of a Soviet buildup there.

The targets which would then have produced strategic effects were located in the areas to the north and west of Stalingrad, and along the road and rail communications leading into them, but the Fourth Air Fleet lacked the requisite forces in number and capabilities to take timely action in these strategically important areas. A cardinal factor in the matter was the lack of a well-armed, long-range bomber, and, equally important, the lack of a long-range fighter arm. None of the bombers then in service were capable of reliable, long-distance, strategic operations such as were needed in the East, and, without long-range fighter escorts, missions of this sort would be difficult to perform.

Yet, in view of the great importance attached to Stalingrad by both the German military and political leaders and the Allied commanders--with the entire world regarding this city as the possible turning point of the war--the demand that every available air, infantry, and artillery unit be released from other missions to participate in the offensive against Stalingrad was more than justified and should have been fulfilled. Because this was not done, the Luftwaffe, with its manifold responsibilities in far-flung areas, was not in a position to take suitable action against the innumerable tactical and strategic targets involved.

In planning the distribution of forces with a view toward developing a main concentration of air effort prior to the opening of the summer offensive, the question had arisen whether more forces could have been assigned to the Fourth Air Fleet. From personal experience, the author believes that this would have been possible, but that it would have been necessary to establish a different command organization for the control of air forces in the theater to meet the demands of all sectors. A possible solution might have been to have avoided establishing the new headquarters, Luftwaffe Command Don. This organization was built up with personnel drawn from the I Air Corps, was designed to take the place of the temporarily established headquarters of Tactical Air Command North (Buelowius), and was to have directed air operations in the Voronezh area.

In the opinion of the author, this headquarters was established only to raise the status of General Korten, the Commanding General of the I Air Corps. Possibly there was also the tangible reason of hoping to deceive the Soviet Command by creating an additional high-level Luftwaffe command.

If this new headquarters had not been set up, the headquarters staff of the I Air Corps could have remained within the command area of the First Air Fleet in Combat Zone North. This would have been advantageous, since this staff had been in that sector since the beginning of the Russian campaign and was thoroughly familiar with local conditions and operational requirements. In addition, it would not have been necessary to create a new command staff with people who were badly needed in the First Air Fleet or to have enlarged this staff with highly qualified personnel from other units.[137]

Tactical Air Command North should have been left in the Voronezh area, and its status as a provisional staff should have been changed to that of a regular air division headquarters. This division should then have been placed under the command of Luftwaffe Command East, and all of the Voronezh sector should have been within this area of command. Certain advantages would have accrued from this arrangement. First of all, there would have been no necessity for a new headquarters or for personnel changes or expansion requiring additions of personnel, since Buelowius' staff already had all of the characteristics of an air division with respect to organization, composition, and mission, and staff personnel were already familiar with the area and were committed to action there. Besides this, the appearance of a new divisional headquarters would have served to deceive the enemy, and units could then have been temporarily assigned to the division from Luftwaffe Command East, as the situation required. No long-distance personnel transfers would have been necessary.

The two or three bomber groups and one fighter group assigned to the existing command could then have been released for transfer to the Fourth Air Fleet, where they would have been at least a small reinforcement to the air units of that organization.

Luftwaffe Command East should have been redesignated as the Sixth Air Fleet, and have simultaneously assumed responsibility over the Voronezh area and command over the newly established air division. Some of the same advantages achieved by the organization of the air division would then have been gained by the establishment of the new air fleet headquarters:

(1) Additional personnel would not have been needed for the staff, since Luftwaffe Command East was already set up as an air fleet headquarters.

(2) If the operational area was increased only by the addition of the Voronezh sector, a flexible conduct of operations (which had been deemed

impracticable), employing the then available forces, would have definitely been possible.[138]

(3) Quicker transfers could have been made over shorter distances, and the Soviet forces would probably have been deceived by a new air fleet, just as they might have been with the appearance of a new air division.

The organization outlined here would have been simpler in character and more clearly defined, and would have averted the disturbances caused by constant alterations and a continuous shuffling of command staffs. Air command staffs could have remained in areas with which they were familiar, and continuous expansions of staffs or reassignments of personnel would have been unnecessary.

Every action fought in the southern sector of the Eastern Theater of Operations in 1942 confirmed the lessons of previous experience that ground forces could only achieve tactical, and thus ultimately strategic, success with strong air support. As has been seen, the main mission of the Luftwaffe was, therefore, and remained, that of providing direct, and occasionally indirect, support to the Army. The performance of this mission was contingent upon close cooperation and mutual understanding at all levels between the air commands and the ground organizations they were to support. This absolutely essential cooperation was achieved in an exemplary manner between the Eleventh Army and the VIII Air Corps at Feodosiya, Kerch, and Sevastopol, and produced outstanding results.[139] Later in the campaign, however, there were occasional instances of friction and disagreement which naturally influenced the conduct and success of the combat operations.

It is an acknowledged fact that close cooperation and mutual agreement often depend upon the character and personalities of individual commanders at various levels and upon that of their chiefs of staff. A good spirit of comradery or even personal friendship dating back to former times is auspicious for fruitful cooperation, and air support for ground forces will be most effective if all operational preparations are arranged mutually in detail between the ground and air commands concerned, with experiences being exchanged for everyone's benefit.

Cooperating army and air commands should have their headquarters in close proximity to each other and, if at all possible, should establish joint command posts. This would facilitate frequent, brief discussions which are so necessary in changing situations.

Past operations produce experiences and lessons which must be critically examined and applied by both ground and air forces. Frequently this might call for severe criticism, which both parties must be willing to accept as long as it is constructive in character. However, if air support is to be really successful, the air command must be allowed a greater measure of influence than is customary, particularly in such matters as the choice of the area in which the ground forces are to attack, the timing of the attack (weather conditions and the time of day), and the execution of the operation.

Very close cooperation is particularly essential during the execution of offensive operations, and air strikes carried out by tactical support units must be immediately and properly exploited by ground forces, or the effort will be useless and senseless and the effects thereof will be lost. Failures to follow up air strikes were often noted during operations in the Stalingrad and Caucasus areas. An example of good cooperation and effective air support can be found in the progress made by German Army forces in the northern Don River bend area during August of 1942.[140] On 23 August the VIII Air Corps participated in a mass attack in this area against Soviet tanks and infantry, enabling the German forces to advance 36 miles unopposed.[141] On the other hand, progress without air support was generally poor. Von Kleist's lack of achievement in the Caucasus in early September 1942 is an example of the inability of ground forces to advance freely without adequate air support.[142]

On 22 September 1942 von Richthofen refused to give air support to the planned operation of the First Panzer Army, since the plan held out no prospects for success and little chance that air support would be used to advantage.[143] In this instance, the terrain of the area under attack and the attack capabilities of the ground forces were of the greatest significance, for they prevented the Seventeenth Army in the Caucasus from taking advantage of air support in the forested mountains.[144]

A further example of the failure of ground forces to exploit the effects of air strikes was described during Richthofen's meeting with Paulus and Seydlitz on 1 November 1942:

> Von Richthofen informed them that the air forces were wrongly employed in this area because the artillery was not firing and the infantry failed to exploit the effects of the bombing attacks. Our aircraft are now dropping their bombs within hand-grenade range of our infantry forces, which are doing nothing. . . .

> Some troops are so far forward that our artillery cannot risk firing. Our bombs are very well placed. Following the attack by the entire air fleet, the army attacked with a force of 37 men and, after initial losses, halted the [enemy] attack![145]

At Armavir in the Caucasus three missions were flown on 6 November 1942 by all available air units, yet the German armored units failed to follow up the air attacks.[146] In this area the Fourth Air Fleet was often asked to carry out direct support operations which were so close to friendly troops and in such poor terrain that Richthofen refused to order his units out. Suggestions by the Fourth Air Fleet Commander that ground power be more properly concentrated to take advantage of air strikes were rejected by Army commanders.[147] Worthwhile results from air attacks can only be obtained if circumstances are favorable with respect to available ground attack forces, terrain conditions, and the enemy situation, so that aerial strikes can be rapidly exploited by a commensurate ground advance.

Lessons Learned at Stalingrad

Goering should have made Hitler completely aware of all of the factors which would be involved in an airlift operation at the time he made his unconditional (and irresponsible) promise to the Fuehrer that the Sixth Army could be supplied by air. Some of these factors were: climate and weather conditions in Russia during the winter, the paucity of available air transport space, changes in the tactical situation on the ground and the impact of this upon air operations, the necessity to confine the airlift to a specified time limit, the air power available to the enemy, and the combat air forces available to the Luftwaffe.

Particular stress should have been placed upon the effects which failure to make allowances for these factors in planning would have upon the entire Luftwaffe. Russian winter conditions and their impact were well known since the critical winter of 1941-42, which should have suggested the strong possibility that weather conditions would eventually make airlift operations impossible because of rising clouds, icy rains, and snowstorms. Obviously many days would have to be ruled out for any flying activity.

The daily minimum logistical support for the Sixth Army was known to be 550 tons daily. The amount of available air transport space was also known. Thus it had to be borne in mind that past experiences had already shown that not more than 50 percent of the available aircraft would be

operational on an everyday basis. Furthermore, allowances had to be made for extra flying time and for additional missions which would have to be made on good flying days to compensate for days when all units were weathered in. That the Sixth Army could not be adequately supplied under these conditions should have been obvious. It was also evident that aircraft shortages could not be made up by "robbing" replacement units and training installations of their last aircraft, [148] or by converting bombers to transports. Measures of this sort could only curtail the training program and reduce the flow of replacements to field units everywhere, and eventually weaken the effectiveness of the bomber forces.* Combat support of Army Group Don proved to be as necessary as the air transport services.

It was also to be expected that the ground situation would change, since Soviet forces were advancing all along the line and heavy attacks had to be expected in all areas. The distances to which the German lines would have to be withdrawn because of the pressure of vastly superior enemy forces, and the resulting distance increases from base airfields to the airheads, should have been taken into account. [149] The maximum practical distance for airlift operations could only be determined by the operational ranges of the transport aircraft. Each transfer to a more distant base airfield reduced the carrying capacity of the transports as far as supplies for the Sixth Army were concerned, and normally even halted airlift operations for a short time. Thus it would not have been possible to maintain the air supply movement indefinitely, even if the German lines were not withdrawn toward the rear.

The duration of the airlift could have been limited by a breakout of the enveloped forces in the pocket, or by a counterattack from outside to break the envelopment. In either case it was certain that airlift operations in the meantime would result in losses of aircraft and crews. These losses could not have been calculated in advance, but they were sure to be heavy, requiring continuous replacement from the Luftwaffe in other areas. The replacement problem alone justified a strict limitation of the duration of the airlift.

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*Editor's Note: Aircraft and aviation instructors were required by the Chief of Training of Bomber Crew Replacements. Long absences of these instructors, and even outright losses of them, because of front line duty hampered the instruction of replacement crews to such an extent that training was brought almost to a standstill. This was a serious problem which had later, and highly important, implications.

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Luftwaffe forces should have had clear air superiority by day and night over the entire area involved in the air logistical movement. The fighter arm should especially have been strengthened in view of the steady increase of Soviet air power, and strong antiaircraft units should have been added to German airfields to provide security for transports. As long as Stalingrad remained within the operational range of German fighters, air superiority was easily maintained.

But, in spite of all this, it should be remembered that the Soviet air forces were never farther from enjoying air superiority than they were at the time the Red Army stopped Guderian's panzer forces before Moscow in 1941 and von Manstein's forces at Stalingrad a year later. The drive on Moscow had been preceded by a four-month-long devastating attack against the Soviet air forces both on the ground and in the air, and during the attack on Stalingrad, Richthofen's Fourth Air Fleet held uncontested air superiority. Russian studies concerning their own counterattacks reveal that the Red Army, which altered the entire situation at the front after 19 November 1942, had astonishingly little air support (only a few hundred planes) in each instance.

The explanation is to be found in the fundamental difference between limited tactical missions, requiring only temporary and local air superiority, and continuous missions of the sort demanded of the Luftwaffe at Stalingrad, which can be accomplished only with complete and continuous air superiority.[150]

It was Jeschonnek's responsibility, as Chief of the Luftwaffe General Staff, to try to modify Goering's ideas on air supplying the Sixth Army, or at least to urge him not to make unconditional promises to the Fuehrer. Failing this, he should have gone to Hitler himself and presented the opposing views. If both Hitler and Goering rejected his opinions, he should have resigned.[151] Without question, Jeschonnek had excellent opportunities to broach the subject to the Fuehrer, since Goering was frequently absent from Fuehrer conferences, and Hitler usually paid more attention to the views of his other advisors than to those of Goering.*

*Editor's Note: By June of 1942 Goering had lost considerable favor with the Fuehrer, and he found himself obliged to do anything necessary to "save his position." Jeschonnek still had faith in Hitler until after Stalingrad, so it is unlikely that he would have taken an independent position at an earlier time. It is also worth noting that Hitler did not always lend an "attentive ear" to his Army advisors after December 1941.

Because Jeschonnek, a man in a high and responsible position failed to report with full emphasis to Hitler concerning the views opposing an airlift, he cannot be exonerated from a share in the blame for that fateful decision to try to supply the Sixth Army by air.

Circumstances were different in Goering's case. The Reichsmarschall never dared contradict Hitler, and it seems likely that he felt compelled to make his promise because of the overpowering personality and influence of the Fuehrer. Possibly Goering suspected that Hitler had already decided to leave the Sixth Army in Stalingrad in any case and was not willing to reconsider.

It is well known that Hitler, since the winter crisis of 1941-42, rigorously adhered to any decision, once it was made, and obstinately insisted upon execution of his orders once they had been issued. The order to "hold the ground at any cost" and to "resolutely hold the farthest line of advance" had always been the Fuehrer's last resort. Since these methods had achieved success before Moscow in the winter of 1941, he applied them as a general cure-all for every disaster, including Stalingrad.[152] However, he required Goering's promise as a basis for his decision.

That the Fuehrer was determined to hold the Stalingrad area, even if it meant the loss of the entire Sixth Army is demonstrated by his refusal to approve the breakout requests at a time when Hoth's army had driven within reasonable limits to the southern perimeter of the pocket in an effort to relieve Paulus. By that time (about 20 December 1942), it was already obvious that only an adequate supply movement could sustain the Sixth Army, and this was clearly beyond the abilities of the Luftwaffe to perform. Hitler's confidence in the capabilities of the Luftwaffe was jarred by its failure to accomplish the required airlift mission,[153] but worse, perhaps, was the fact that many Army commands and troops also lost confidence in the air forces.

Confidence is always the first condition for success in army-air force cooperation. It was only natural that many troops and unit commanders were unable to properly understand why the airlift operation had been bound to fail, or how great an impact this failure would have upon the overall course of the war, since their knowledge of the basic factors was superficial and their experiences in this area limited. Nevertheless, considerable harm was done to the ground force-air force relationship.

Once Goering had given unequivocal assurances to Hitler that the Sixth Army could be supplied by air, all measures should have been taken

to reinforce the selected air transport units. Yet, on the day before his promise (23 November 1942), the Fourth Air Fleet had only four Ju-52 and one He-111 transport groups. Only after dispatching Field Marshal Milch as a "Commissar" invested with special powers did the Supreme Command actually try to exploit the Fourth's last resources to improve airlift performance. By then it was already too late. Hoth's relief attempt had failed, the German lines had been retired far to the west, and the base airfields were situated so far from Stalingrad that the pocket was at the extreme operational ranges of the transport planes. The final phase of battle had already begun in the Sixth Army area.

Generalmajor Morzik, an air transport expert and probably the best qualified man in Germany on the subject (especially with respect to Stalingrad), has written the following account of the organic problems involved in organizing and carrying out the Stalingrad airlift:

> Owing to unfavorable weather conditions, particularly while crossing the Alps, units from northern Africa and southern Italy first had to proceed to Staaken.* There, the aircraft were equipped for winter operations, which included the installation of de-icing systems for the wings and control surfaces, and devices to protect the engines against the cold, during which time the crews were issued winter clothing. Then the units could be moved individually to the operational area of the Fourth Air Fleet, a movement which often took weeks because of bad weather. Aircraft which did not belong to a transport unit almost always had to be refitted within the operations area.
>
> Milch's staff thus obtained the impression that a large number of aircraft were now available within the area of combat employment. However, only a small portion of these were operational.
>
> At the time in question the very last resources had already been exploited and exhausted, and measures ordered long before were beginning to take effect. There was hardly anything left that Milch and his staff could do. The various technical specialists brought in to visit the airfields did nothing but add to the existing confusion and tension. They

*Editor's Note: Staaken is a suburb of Berlin, situated on the west side, immediately south of Spandau.

had no means to insure the starting of engines in temperatures of from 28° to -22° Fahrenheit.* None of them had brought along heating wagons or other starting units. Instead, threats of court-martials and death sentences were the order of the day.[154]

Generalmajor Karl-Heinrich Schulz, who, at the time of the Stalingrad disaster was Supply and Administration Officer of the Fourth Air Fleet, believes that the criticisms leveled at Goering have been unduly harsh. He refers specifically to the variety of measures introduced by the Reichsmarschall to provide appropriate transport means to the Fourth Air Fleet. This included efforts to secure aircraft, service units and auxiliary equipment, winter equipment, and stocks of aviation gasoline. Schulz points out that the great difficulty in this connection was the already heavily taxed transportation system. In the Lvov area, the transit point for supply trains from the Zone of the Interior, innumerable trains loaded with all kinds of supplies were held up. The low capacities of the Polish-Russian rail lines made it impossible to move all of these supplies forward to the combat units. According to Schulz:

> . . . as I remember, the Luftwaffe at that time had an allocation of only four trains per day. Since these four trains had to carry supplies for all Luftwaffe forces in the areas north of the Don River as well as in the Caucasus, the allocation of rail priorities required extremely careful consideration. For this reason, trains carrying reinforcements and materiel for the ground services unfortunately had to take second place to trains carrying more urgently needed commodities, such as fuel, ammunition, and air drop containers.[155]

The dispatch of "Commissars" from General der Flieger Hans-Georg von Seidel, Chief of Luftwaffe Supply and Administration, to the Fourth Air Fleet produced no tangible results. While these officers were useful in protecting the air fleet against unjust reproaches, they were not always able to provide von Seidel with an accurate picture of the developments in the East. Assuming incorrectly that these officials were not doing their utmost, Seidel once remarked that "Saul had become a Paul."[156/]

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*Editor's Note: These were by no means the minimum winter temperatures in the Stalingrad area.

/The reference was made concerning Colonel Hoffman, one of von Seidel's representatives.

Von Seidel should have oriented himself on the spot concerning the adverse supply situation and critical military situation in general in the Stalingrad area. It would have been advisable for him to have then flown an experienced staff officer, conversant with air transport, supply, and ground service problems, into the pocket.

The question can rightly be asked why the Soviets were able, on more than one occasion, to move troop and materiel trains in close sequences, even over routes with low carrying capacities, while the Germans were unable to do likewise? In the author's opinion this would have been possible if the Germans had brushed aside all formalized safety regulations and other impediments in the interest of rushing vital supplies to the front. Exceptional circumstances call for exceptional remedies.

Proof that success could have been achieved with the elimination of bureaucratic "red tape" and by the use of expedient measures can be seen in the problem of the Chir River rail line. Base airfields for the airlift operation were all located along the railroad leading from the West through Tatsinskaya and the rail depot at Nizhne-Chirskaya to Stalingrad. This rail route was already in full operation as far forward as Nizhne-Chirskaya. Bridge sections intended for the construction of a new railroad bridge across the Chir River toward Stalingrad had been on hand at the site for a considerable period of time without any effort being made to complete the bridge. These sections were later used by the Russians to complete the job for their purposes, a task which took only a few days.[157] The immense, and in fact decisive, effect which the timely construction of this bridge would have had on the movement of supplies to the Sixth Army, then still advancing on Stalingrad, is obvious. German construction personnel and bridge experts should have been brought in at once to finish the job. What was later possible for the Russians should not have been beyond the abilities of German bridge construction units.

To improve the supply situation of Luftwaffe units stationed in the vicinity of Stalingrad and to assist German ground forces in moving vital supplies to the Sixth Army, the Fourth Air Fleet in August of 1942 ordered the temporary organization of additional transport columns from the motor vehicles available within the air fleet. As early as 10 August 1942 air signal units of the fleet were ordered to make 3,000 tons of transport space available from their organizational vehicles for the movement of supplies to critical areas. One flak division was ordered to move to Stalingrad with all of the transport columns of the Fourth Air Fleet. In addition, bonuses were provided for exceptional transport and vehicle maintenance performances.[158] Engineers were also provided to strengthen and give technical assistance to the operation. Moving supplies by vehicle columns alone was

a unique experience for German bomber units, which had theretofore been supplied by rail.

Strong direction by Richthofen enabled him to raise from 2,000 to 5,000 tons the total tonnages of supplies carried on the road by motor vehicles of the air fleet. He also increased the speeds of all convoys and routed them so that the overall distances were materially shortened. These motor columns and associated air transport units enabled German ground forces to cross the Don River on 21 August and to advance upon Stalingrad and the Volga River Front.* Rail facilities were limited and not functioning up to required standards.

The Fourth Air Fleet took action to stockpile supplies for emergency use by its units. Because of this, the 9th Flak Division was able to participate in all offensive operations of the Army without suffering from ammunition shortages. When this division was later surrounded in the pocket with Sixth Army units, its supplies were adequate enough so that it required no additional replenishment from outside. In fact, it was even able to release certain supplies to other units in the enveloped area. When the forces in the last pocket surrendered, the division still had a stockpile of 10,000 rounds of 8.8-cm. ammunition.

Other ground units of the Army should have been able to do the same thing, especially by judicious handling of their supplies and by cutting through the "maze of red tape" and bureaucratic rules, many of which were too rigid in character and needed serious revision.

Ground service organizations of the Luftwaffe were short of badly needed equipment and materiel, and the properly qualified and trained personnel who made up these units were forced to work in the harshest of conditions, without winter clothing, without sleep, and without adequate shelter while at work. Because of this, there were large numbers lost to frostbite and a host of other ailments. Suitable replacements were, of course, most difficult to obtain. The Commander in Chief of the Luftwaffe should have immediately assigned all available construction units to develop the ground service organization as a precautionary measure, in both the near front and rear areas. Proper clothing for winter conditions should also have been made available. All of these measures should have been

*The air transport effort in the assault on Stalingrad (before the initiative went over to the Red Army) brought 42,000 tons of supplies to the combat area. Of this, 7,000 tons went to front line Army units.

boldly initiated and accomplished in good time, and the Stalingrad area should have been included in these operations. That this was not done was a grave omission on the part of Reichsmarschall Goering.

There were far too few motor vehicles in the Eastern Theater of Operations and most of them were unsuited for all-weather transport duty. As early as 1941 all agencies in the Zone of the Interior, in Italy, and in the Western Theater should have been stripped of all of their multi-purpose and all-weather vehicles and given in return the vehicles which were unsuitable for the Russian areas. When the author was transferred to the West in late 1943, he found still on hand large numbers of vehicles which were ideally suited for operations in the Soviet Union, all assigned to units which could have used any type of commercial motor vehicles.

Numerically, the forces of the Fourth Air Fleet were far too weak to consistently accomplish their missions of providing air support for the forces of Army Group Don while airlifting supplies to the Sixth Army and, for a time, to the Fourth Panzer Army. Thus only partial successes were achieved in all areas of responsibility. Reinforcements could not be brought in in sufficient numbers since Wehrmacht forces were tied down in other theaters of war. It would have been advantageous to have had a small force of fighters, including night fighters and reconnaissance units, inside the Stalingrad pocket. However, this would have required a well-developed ground service organization, and the forces and facilities available in the pocket were far too meager.

Before closing this account of so tragic a chapter in German military history, it is essential that the Luftwaffe be exonerated of the stigma of blame for the Stalingrad catastrophe as described by General der Panzertruppe Hans Hube in his statement that "the fall of the fortress was due not to enemy action, but solely to the faulty air delivery of supplies."[159] The destruction of the Sixth Army was by no means exclusively a result of the failure of the airlift operation. It is true that the inadequacy of the airlift resulted in a weakening of the striking power and the powers of resistance of the Sixth Army, but other important factors contributed to the tragedy which befell the German defenders of Stalingrad. These were: (1) the overwhelming superiority of enveloping Soviet forces, especially in tanks, artillery, and mortars, (2) the inadequacy of supplies available to the Sixth Army during its drive on Stalingrad prior to the envelopment, (3) the continuous retirement to the west of the main line of resistance under crushing Soviet superiorities, (4) the failure of the relief drive to accomplish its objectives, largely because of inadequate forces, and (5) the unwillingness of the Sixth Army Command to defy Hitler's order and to try for a breakout.

One thing is certain, all Luftwaffe forces tried their very best to succor and save their unfortunate comrades, a fact which has been confirmed many times by both ground and air commanders.[160] This writer was impressed again and again by the unbounded determination of aircrews to support the enveloped forces at Stalingrad, even under the most hazardous conditions with little prospect for success.

Between 25 November 1942 and 11 January 1943, the Luftwaffe flew 3,196 missions for the logistical support of the Sixth Army. During these flights, 1,648 tons of fuel, 1,122 tons of ammunition, 2,020 tons of rations, and 129 tons of miscellaneous supplies (a total of 4,919 tons) were brought in to the pocket.[161]* In addition, 24,910 casualties were evacuated by air from the enclosure, men who had no other chance of care and rehabilitation.

He-111 units of the 55th Bomber Wing carried out 2,566 supply missions from 29 November 1942 to 3 February 1943, 2,260 of which were successfully accomplished. This unit delivered 3,295.9 tons of supplies, averaging 48.4 tons per day. Of this total amount, 1,541.14 tons were foodstuffs, 767.59 tons were ammunition, and 1,110.02 tons consisted of fuel. On the return flights, 9,208 casualties were flown out.[162]

Generalmajor von Rohden, the Chief of Staff of the Fourth Air Fleet, gives the following figures on supplies flown in to the pocket between 22 November 1942 and 16 January 1943. Von Rohden accounts for the delivery of 5,400 tons of supplies in 3,400 missions, an average of 100 tons daily.[163]

Field Marshal Milch notes the disparity between the Army and the Luftwaffe in figures on delivered supplies, and points out that while the Luftwaffe claimed to have delivered 150 to 160 tons per day, the Sixth Army claimed the delivery of only 110 tons per day. This is, in part, due to faulty registration of supplies received by air-drop, and also to the fact that supplies for Luftwaffe units within the pocket were not included in the Sixth Army's calculations. The Luftwaffe figures, however, correspond to those given by the Supply and Administration Officer, Army Group Don.

Under favorable weather 200 to 300 tons could have been flown daily to the pocket, but such was not the case. Serious losses resulted from attempting to fulfill the surrounded forces' supply needs. Between 24

*A daily average of 102 tons delivered.

November 1942 and 31 January 1943 the Luftwaffe lost 488 aircraft, including 266 Ju-52's, 165 He-111's, 42 Ju-86's, 9 Fw-200's, 5 He-177's, and 1 Ju-290. Of this number, 166 were outright losses, 108 were reported missing, and 214 were so badly damaged that they could not be repaired. 164*

In all of these considerations, one must not underestimate the immensely potent influence of the Asiatic-Russian weather regime in winter and its highly adverse effects upon military operations. The snows, sleets, icy winds, and sub-zero weather hampered all ground and air undertakings in the Stalingrad sector, but especially the airlift operations.

Every post factum analysis of the Stalingrad disaster brings up the question of whether paratroopers or airborne forces could have been employed during those crucial days, or whether the use of such troops could have produced any basic or decisive effect upon the Sixth Army's situation. The only possible answer is "yes" in theory, but "no" in practice. In the existing circumstances it would have been futile to have dispatched special forces of this type into the pocket. The striking power of the airborne units would then have been spent along with that of the already encircled ground forces.

On the other hand, if such troops had been employed between 18 and 22 December 1942 (while the Fourth Panzer Army was at the zenith of its relief drive and within 30 miles of Stalingrad), the effect might have been most salutary. This would have been especially true if these airborne forces were landed either in the southern pocket or immediately in advance of the Fourth Panzer Army, whose impetus had by then been spent. The additional strength of the airborne units would no doubt have roused the Stalingrad forces to make a last desperate effort to break through, provided, of course, that the Sixth Army Command had the necessary will to take action despite Hitler's demands, and that Paulus had given the appropriate order to break out.

However, all of these hypothetical "ifs" are balanced off by the fact that it was impossible in practice to execute an airborne operation of this type. First of all, the few existing paratroop units which would have been available for an airborne landing were then engaged in ground combat in other precarious parts of the theater, and even these units included in

*About 1,000 aircrewmen were lost in these operations, enough to make up five squadrons or more than a large air corps.

their ranks personnel who had little or no jump training. Furthermore, in order to have pulled them out of the front, replacements would have been needed, and these were simply not available. In any case, troop movements to new areas would have taken time, just as time would have been required for the preparation of the airborne forces for their new mission. Without such preparation the entire operation would have been doomed from the outset. It must also be remembered that the essential transport aircraft needed for an airborne undertaking of this magnitude were lacking. All resources and every reserve of aircraft had already been exhausted in order to continue the air movement of supplies to the Sixth Army. Moreover, since the supplies brought in by air for the Sixth Army were so far below the minimum required tonnages, despite the Luftwaffe's best efforts under the conditions, it would have been utterly impossible to have released any of the transport planes from the air transport units for use in an airborne operation. Therefore, there was no practical possibility for the execution of an airborne effort.

Under the most trying conditions, the Luftwaffe did its job well. Air and ground crews worked around the clock in the hope that their efforts would somehow turn the tide or enable the surrounded troops to break out. Even in the pocket German airmen carried on this tradition. The 9th Flak Division, for example, contributed greatly to the defense of the pocket, and demonstrated the highest state of combat readiness and morale. Between 21 November 1942 and 19 January 1943, batteries of this division destroyed 174 enemy tanks and 63 Soviet planes.[165]

Air signal units also exhibited an untiring and most commendable willingness to work under difficult conditions and to improvise all sorts of signal communications, thereby maintaining firm contact with friendly forces outside to the very end. Navigational facilities provided for incoming transport planes were not only ingenious but were quite outstanding, considering the adverse conditions and the acute lack of materials at hand. The spirit and efforts of these signal troops were never found wanting up to the day of capitulation.

Stalingrad was not an immortal event such as the historic Battle of Thermopylae, nor was it a case of willing self-sacrifice, as in the case of Numantia. Rather, it is destined to go down in history as one of the gravest mistakes ever made by a military command, a classic example

of the grossest misuse of the living substance of a nation's defense potential by a national government. [166]*

In war a command should never obstinately insist upon executing a plan or an operation if the circumstances and time are not favorable for its execution. In a gravely precarious situation, any effort to bring about a favorable change of existing circumstances and fortune by force is tantamount to an endeavor to "sail against the wind and the tides." Therefore, any effort of this sort is a clear sign of a deluded and presumptuous condition of the mind. [167]

*Editor's Note: The Stalingrad disaster will always have a profound meaning to those who lived through it, but it should be borne in mind that it was hardly the "greatest misuse of manpower" in military history. The Battle of Verdun (21 February-11 July 1916) cost both sides about 650,000 men for negligible gains. The Battle of the Somme (1 July-18 November 1916) gave the Allies only 125 square miles of territory along the front, but more than 1,000,000 men fell in the fighting. British forces advanced their lines five miles in the Third Battle of Ypres (31 July-10 November 1917) at a cost of 400,000 men. Consider also Napoleon's catastrophic retreat from Moscow in 1812, during which his Grand Army of 600,000 men was decimated to less than 100,000, preparing the ground for the collapse of his empire in 1813-1814. While Stalingrad may have been equally senseless, its total effect was surely much less than these great battles.

FOOTNOTES

Chapter 1

1. State Secretary Paul Koerner (Ret.), "Aussage des Staatssekretaers Koerner vom 19. 9. 55" ("Statement of State Secretary Koerner of 19 September 1955"), made to Prof. Richard Suchenwirth, G/VI/4d, Karlsruhe Document Collection. See also Der Fuehrer und Oberste Befehlshaber der Wehrmacht, OKW/WFSt/Abt. L. (I), Nr. 33 408/40, g. Kdos. Chefsache, F. H. Qu., den 18. 12. 40, Weisung Nr. 21, Fall Barbarossa (The Fuehrer and Supreme Commander of the Armed Forces, High Command of the Armed Forces/Armed Forces Operations Staff/National Defense Branch [Operations], No. 33 408/40, Top Secret Command Matter, Fuehrer's Headquarters in the Field, 18 December 1940, Directive No. 21, Operation Barbarossa), G/b, G/VI/1, G/VI/3a, Karlsruhe Document Collection.

2. OKL, Fuehrungsstab Ic, g. Kdos., Lageberichten Nr. 652-660, Juni 1941 (High Command of the Luftwaffe, Intelligence Operations Staff, Secret, Situation Reports No. 652-660, June of 1941), Karlsruhe Document Collection.

3. Generaloberst Franz Halder, The Private War Journal of Generaloberst Franz Halder, Chief of Staff of the Supreme Command of the German Army, 14 August 1939 - 24 September 1942, Vol. VII, 22, 29, 30 November, 1, 7 December 1941 (translated from the German by Arnold Lissance), Washington: Department of the Army, Office of the Chief of Military History, 1950. Cited hereafter as Halder, Diary, VII.

4. Generaloberst Otto Dessloch (Ret.), "Aufsatz ueber die Winterschlachten im Mittelabschnitt der Ostfront 1941-42" ("Essay on the Winter Battles in the Central Sector of the Eastern Front 1941-42"), dated 2 June 1947, Karlsruhe Document Collection.

5. Generaloberst Heinz Guderian (Ret.), Erinnerungen eines Soldaten (Recollections of a Soldier), Heidelberg: Kurt Vowinckel Verlag, 1951, pp. 239-240, 243-245. Cited hereafter as Guderian, Recollections.

6. General der Infanterie Guenther Blumentritt, "Die Ueberwindung der Krise vor Moskau im Winter 1941/42" ("The Mastery of the Crisis Before Moscow in the Winter of 1941-42"), Wehrwissenschaftliche Rundschau (Military Science Review), Darmstadt: Vol. 4, p. 105. Cited hereafter as Blumentritt, Winter War. See also General der Infanterie Kurt von Tippelskirch (Ret.), Geschichte des Zweiten Weltkrieges (History of the Second World War), Bonn: Athenaeum Verlag, 1951, p. 237. Cited hereafter as Tippelskirch, War History.

7. Blumentritt, Winter War, p. 144.

8. Ibid., p. 112.

9. Tippelskirch, War History, p. 248.

10. Auszug aus den Quartiermeistermeldungen, zusammengestellt vom ehemaligen General Quartiermeister der Luftwaffe von Seidel (excerpt from the Quartermaster Reports, compiled by the former Quartermaster General of the Luftwaffe, General von Seidel), G/VI/4b, Karlsruhe Document Collection.

11. OKL, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftliche) Abt., 1944, "Die Deutsche Luftwaffe in Russland," I. Halbjahr 1942 (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, 1944, "The German Luftwaffe in Russia," 1st Half-Year 1942), G/VI/4a, Karlsruhe Document Collection.

12. _____, "Militaerischer Werdegang der fuehrenden deutschen Luftwaffen-Offiziere an der Ostfront" ("Military Careers of the Leading German Luftwaffe Officers on the Eastern Front"), "Der Feldzug im Osten 1941-45" ("The Campaign in the East 1941-45"), a list probably drawn from official Luftwaffe personnel records, with which it compares, 4d, Anlage 84, Karlsruhe Document Collection. Cited hereafter as Military Careers.

13. Oberbefehlshaber der Luftwaffe, Fuehrungsstab Ic, Nr. 5860/42, Geheim, vom 7. Maerz 1942, "Feindnachrichten Blatt Nr. 19" (Commander in Chief of the Luftwaffe, Intelligence Operations Staff, No. 5860/42, Secret, of 7 March 1942, "Enemy Reports Sheet No. 19"), C/IV/A, Karlsruhe Document Collection.

Chapter 2

1. General der Infanterie Waldemar Erfurth (Ret.), Der Finnische Krieg 1941-1945 (The Finnish War 1941-1945), Wiesbaden: Limes Verlag, 1950, pp. 36-37. Cited hereafter as Erfurth, Finnish War.

2. Ibid., pp. 47-50. See also Halder, Diary, VII, 15 December 1941 to 10 January 1942.

3. Earl F. Ziemke, The German Northern Theater of Operations 1940-1945, DA Pamphlet No. 20-271, Washington: Department of the Army, Office of the Chief of Military History, December 1959, pp. 125-126.

4. Ibid., pp. 179-182.

5. Ibid., p. 183.

6. Erfurth, Finnish War, pp. 97-103.

7. Halder, Diary, VII, 25 April 1942. See also Erfurth, Finnish War, pp. 115-117.

8. Halder, Diary, VII, 25-28 April 1942. See also Erfurth, Finnish War, pp. 117-120.

9. Der Fuehrer und Oberste Befehlshaber der Wehrmacht, OKW/WFSt/L Nr. 441696/41, g. Kdos. Chefsache, F.H.Qu., vom 10.10.41, Weisung Nr. 37 (The Fuehrer and Supreme Commander of the Armed Forces, High Command of the Armed Forces/Armed Forces Operations Staff/National Defense Branch, No. 441696, Top Secret Command Matter, The Fuehrer's Headquarters in the Field, 10 October 1941, Directive No. 37), Gb, Karlsruhe Document Collection.

10. Ibid.

11. Military Careers.

12. OKL, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftlichen) Abteilung, "Die Luftwaffe in Feldzug gegen Russland, 1941," 1944 (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, "The Luftwaffe in the Campaign Against Russia, 1941," 1944, G/VI/3a, Karlsruhe Document Collection. See also various organizational charts A/III/2, Karlsruhe Document Collection.

13. Prisoner-of-war interrogations witnessed by the author in the course of the war.

14. OKL, Luftflottenkommando 5, Fuehrungsstab Ia, Nr. 91/41, g.Kdos. (High Command of the Luftwaffe, Fifth Air Fleet Command, Operations Staff, No. 91 of 1941, Secret), G/VI/4a, Karlsruhe Document Collection.

15. Major Arnulf Blasig (Ret.), "Einsatzerfahrungen einer Stuka-Gruppe im Kampfraum Hoher Norden," "Der Feldzug im Osten 1941-45," Anlage 77 ("Operational Experiences of a Stuka Group in Combat Zone Far North," "The Campaign in the East, 1941-45," Appendix 77), 4d; also G/VI/3d, Karlsruhe Document Collection. Cited hereafter as Blasig, Stuka Operations.

16. OKL, Luftflottenkommando V, Gefechtsstab/Ia, B., Nr. 994/42 (High Command of the Luftwaffe, Fifth Air Fleet Command, Combat Staff [Operations Officer], No. 994 of 1942), Karlsruhe Document Collection.

17. OKL, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftlichen) Abteilung, "Zusammenstellung von Feindnachrichten ueber die Fliegertruppe der UdSSR 1942," (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, "Compilation of Enemy Reports Concerning the Flying Troops of the Soviet Union 1942"), G/VI/2bb, Karlsruhe Document Collection.

18. Ibid.

19. OKL, Luftflottenkommando V, Fuehrungsstab Ia, Nr. 10422/42, g.Kdos. (High Command of the Luftwaffe, Fifth Air Fleet Command, Operations Staff, No. 10422 of 1942, Secret), Karlsruhe Document Collection.

20. OKL, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftlichen) Abteilung, "Erfolge der Geleitzug-Bekaempfung 1942 im Nordmeer" (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, "Results of Combating Convoys in the Arctic Ocean 1942"), G/VI/4c, Karlsruhe Document Collection. Cited hereafter as Combating Convoys 1942.

21. Ibid.

22. OKL, Luftflottenkommando 5, Kriegstagebuch Luftflotte 5 (High Command of the Luftwaffe, Fifth Air Fleet Command, War Diary of the Fifth Air Fleet), 28, 29 March 1942, G/VI/4c, Karlsruhe Document Collection.

23. Ibid., 29 February, 10 March, 3, 4, 8 May 1942.

24. Ibid., 27 May 1942.

25. Ibid., 8 June 1942.

26. Ibid., 8, 9 June 1942.

27. Generalleutnant Andreas Nielsen (Ret.), "Beitrag zur Studie 154" ("Contribution to Study 154"), Karlsruhe Document Collection. Cited hereafter as Nielsen Contribution.

28. Lt. Col. Werner Kluempner (Ret.), "Einsatz des KGs 26 als Torpedotraeger gegen Geleitzuege im Nordmeer 1942" ("Employment of the 26th Bomber Wing as Torpedo Carriers Against Convoys in the Arctic Ocean 1942"), G/VI/4c, Karlsruhe Document Collection. Cited hereafter as Kluempner, Torpedo Planes.

29. Halder, Diary, VII, 7 July 1942.

30. Kluempner, Torpedo Planes.

31. Ibid. See also Combating Convoys 1942.

32. Fifth Air Fleet, Diary, 14-18 September 1942.

33. Capt. S. W. Roskill, R.N., The War at Sea 1939-1945, Vol. II, "The Period of Balance," History of the Second World War, London: Her Majesty's Stationery Office, 1956, pp. 353-354.

34. Ibid., p. 288.

35. OKL, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftlichen) Abteilung, Karte "Kampfraum Hoher Norden 1942" (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, Map "Battle Area Far North 1942"), G/VI/4c, Karlsruhe Document Collection.

36. Ibid.

37. Combating Convoys 1942. See also Kluempner, Torpedo Planes.

38. Kluempner, Torpedo Planes. See also Blasig, Stuka Operations.

39. Personal recollections of the author. See also Nielsen Contribution.

40. Combating Convoys 1942.

Chapter 3

1. Halder, Diary, VII, 9 January 1942.

2. Military Careers.

3. Ibid.

4. Der Fuehrer und Oberste Befehlshaber der Wehrmacht, OKW/WFSt/Abt. L. (I Op.), Nr. 442090/41, g. Kdos. Chefsache, F.H. Qu., vom 8.12.41, Weisung Nr. 39 (The Fuehrer and Supreme Commander of the Armed Forces, High Command of the Armed Forces/Armed Forces Operations Staff/National Defense Branch, Operations, No. 442090 of 1941, Top Secret Command Matter, The Fuehrer's Headquarters in the Field, 8 December 1941, Directive No. 39), Gb, also G/IV/1, Karlsruhe Document Collection. Cited hereafter as Directive No. 39.

5. Luftflottenkommando I, Lageberichten des I. Fliegerkorps im Kampfraum Nord der Ostfront, Januar-April 1942 (First Air Fleet, Situation Reports of the I Air Corps in Combat Zone North of the Eastern Front, January-April 1942), Karlsruhe Document Collection. Cited hereafter as I Air Corps, Situation Reports. See also Halder, Diary, VII, 5 February 1942.

6. I Air Corps, Situation Reports, 28 March 1942.

7. Ibid., 8 April 1942.

8. Ibid., 10 May 1942.

9. Karlheinz Kens und Heinz J. Nowarra, Die Deutschen Flugzeuge 1933-1945 (The German Aircraft 1933-1945), Muenchen: J. F. Lehmann Verlag, 1961. See also records of D. F. S. (Deutsche Forschungsanstalt fuer Segelflug) (German Institute for Research in Glider Aviation).

10. Halder, Diary, VII, 13-20 February 1942. See also Lageberichten (Situation Reports) of the 4th Bomber Wing, February 1942, Karlsruhe Document Collection.

11. Halder, Diary, VII, 4, 5 May 1942.

12. Ibid., 9 March 1942.

13. Ibid., 22 February 1942.

14. Ibid., 13 February 1942.

15. Ibid., 17 February 1942.

16. Generalmajor Fritz Morzik (Ret.), "Luftbruecken-Unternehmen Demjansk," 8. 1. 42 - 19. 5. 42, Auszuege aus einem Bericht von Generalmajor a. D. Fritz Morzik ("Airlift Operation Demyansk," 8 January - 19 May 1942, excerpt from a report by Generalmajor Fritz Morzik [Ret.]), G/VI/4b, Karlsruhe Document Collection. Cited hereafter as Morzik Report. See also Halder, Diary, VII, 20 March 1942. See also I Air Corps, Situation Reports.

17. Halder, Diary, VII, 21, 28 March, 3 April 1942.

18. Ibid., 22 April 1942. See also Tippelskirch, War History, p. 248.

19. Morzik Report.

20. Halder, Diary, VII, 15 January 1942.

21. Ibid., 2 February 1942.

22. Ibid., 9, 11 March 1942.

23. Ibid., 13 March 1942.

24. Ibid., 15 March 1942.

25. I Air Corps, Situation Reports. See also Halder, Diary, VII, 22 June 1942.

26. I Air Corps, Situation Reports, 10 May 1942.

27. Ibid., 20 July 1942.

28. Der Fuehrer und Oberste Befehlshaber der Wehrmacht, OKW/WFSt/Abt. L (I Op.), Nr. 55616/42, g.Kdos. Chefsache, F.H.Qu., vom 5.4.42, Weisung Nr. 41 (The Fuehrer and Supreme Commander of the Armed Forces, High Command of the Armed Forces, Armed Forces Operations Staff/National Defense Branch, Operations, No. 55616 of 1942, Top Secret Command Matter, The Fuehrer's Headquarters in the Field, 5 April 1942, Directive No. 41), G/VI/4a, Gb, Karlsruhe Document Collection. Cited hereafter as Directive No. 41.

29. Halder, Diary, VII, 4 August 1942.

30. Ibid., 25-28 August 1942.

31. Ibid., 10-23 September 1942. See also Generalfeldmarschall Erich von Manstein (Ret.), Verlorene Siege (Lost Victories), Bonn: Athenaeum Verlag, 1955, pp. 296-297. Cited hereafter as Manstein, Lost Victories.

32. Military Careers.

33. Lt. Col. Hellmut Schalke, "Bericht des damaligen Ia, Oberstleutnant Schalke, ueber den Einsatz des E.F.O. (vom 24.8 - 23.10.42)," ("Report of Lt. Col. Schalke, at that Time Operations Officer on the Employment of Ferry Operations Staff East from 24 August to 23 October 1942"), Karlsruhe Document Collection. See also documents pertaining to the preparations for Operation SEALION (SEELOEWE), Karlsruhe Document Collection.

34. Directive No. 41.

35. Ibid.

Chapter 4

1. Fuehrer Directive, 16 December 1941. See Appendix I.

2. Tippelskirch, War History, p. 248.

3. OKL, Lagekarte, "Die sowjetische Gegenoffensive im Winter 41/42, Kampfraum Mitte," Anlage 56 zum Studie "Der Feldzug im Osten 1941-1945" (High Command of the Luftwaffe, Situation Map, "The Soviet Counteroffensive in the Winter of 1941-42, Combat Zone Center," Appendix 56 to the Study "The Campaign in the East 1941-1945," Karlsruhe Document Collection.

4. Halder, Diary, VII, 25 December 1941.

5. Guderian, Recollections, pp. 238-243. See also Halder, Diary, VII, 25-26 December 1941.

6. Halder, Diary, VII, 29-31 December 1941. See also Blumentritt, Winter War, pp. 112-115.

7. Halder, Diary, VII, 2, 3, 8 January 1942. See also Guderian, Recollections, pp. 247-248.

8. Generalkommando II. Flakkorps, Ic, Br. B. Nr. 033/42, g. Kdos. vom 19. 1. 42., Anlage zum Korpbefehl Nr. 96 (Corps Headquarters, II Flak Corps, Intelligence Branch, Brigade B, No. 033/42, Secret Command Matter, of 19 January 1942, Appendix to Corps Order No. 96), Karlsruhe Document Collection. See also Halder, Diary, VII, 6, 11, 13 January 1942; Tippelskirch, War History, pp. 244-245.

9. Halder, Diary, VII, 24, 26 January 1942.

10. Ibid., 28, 29 January 1942.

11. Ibid., 28-31 January 1942.

12. Ibid., 20-24 February 1942.

13. Ibid., 15 February 1942.

14. Ibid., 1, 2 March 1942.

15. Generaloberst Franz Halder (Ret.) and Generaloberst Gotthard Heinrici (Ret.), et al., The German Campaign in Russia - Planning and Operations 1940-1942, DA Pam. No. 20-261A, Washington: DA, Office of the Chief of Military History, U.S. Army, March 1955.

16. Halder, Diary, VII, 13, 16, 20 February 1942.

17. Ibid., 2 March 1942.

18. Ibid., 14 March 1942.

19. Ibid., 28 March 1942.

20. Ibid., 31 March 1942.

21. Ibid., 5 April 1942.

22. Ibid., 10 April 1942.

23. Ibid., 13-18, 25 April 1942.

24. Tippelskirch, War History, p. 292.

25. Halder, Diary, VII, 24-28 May 1942.

26. Ibid., 11 June 1942.

27. Ibid., 16 June 1942.

28. Ibid., 17, 18 June 1942.

29. Tippelskirch, War History, p. 291.

30. Halder, Diary, VII, 2 July 1942.

31. Ibid., 4 July 1942.

32. Ibid., 7 July 1942.

33. Ibid., 8 July 1942.

34. Ibid., 9 July 1942.

35. Tippelskirch, War History, p. 291. See also Halder, Diary, VII, 11, 12, 13, 19 July 1942.

36. Halder, Diary, VII, 30 July 1942.

37. Ibid., 4 August 1942.

38. Ibid., 11-28 August, 1-2 September 1942. See also OKW/WFSt, Lagekarte der Ostfront, Stand. 15. 8. 42. (High Command of the Wehrmacht, Wehrmacht Operations Staff, Situation Map of the Eastern Front, 15 August 1942), Karlsruhe Document Collection.

39. Tippelskirch, War History, pp. 327-328.

40. Ibid., p. 328.

41. Halder, Diary, VII, 2 February 1942.

42. Generalkommando VIII Fliegerkorps, Ia, Nr. 6712/42, Geheim (537), Gef. Qu. 16. 2. 42., "Befehl ueber Fehlwuerfe beim Bomber-Einsatz," (Corps Headquarters, VIII Air Corps, Operations Staff, No. 6712 of 1942, Secret [537], Command Post, 16 February 1942, "Orders on [bombing] Misses in the Employment of Bombers"), G/VI/4b, Karlsruhe Document Collection.

43. General der Flieger Wolfram Freiherr von Richthofen, "Der Einsatz des VIII Fliegerkorps vom 1. 1. 42-9. 4. 42 im Mittelabschnitt der Ostfront," Auszuege aus dem Aufzeichnungen des VIII Fliegerkorps und seines Kommandierenden Generals, Freiherr von Richthofen, herausgegeben durch Oberst a. D. Hans-Wilhelm Deichmann ("The Employment of the VIII Air Corps from 1 January 1942 - 9 April 1942 in the Central Sector of the Eastern Front," excerpts from the accounts of the VIII Air Corps and its commanding general, Freiherr von Richthofen, edited by Col. Hans-Wilhelm Deichmann [Ret.]), Karlsruhe Document Collection. Cited hereafter as Employment of the VIII Air Corps.

44. Ibid., notations of 8, 17 January 1942.

45. Ibid., notations of 5, 6 March 1942.

46. OKL (Karte), Gliederung des II. Flakkorps zugleich ab 6. 1. 42 Nahkampffuehrer (Nakafü) Nord, Anlage 60 zum Studie "Der Feldzug im Osten 1941-1945" (a chart of High Command of the Luftwaffe provenance, Organization of the II Flak Corps on 6 January 1942 Cojointly with Close Support Commander North, Appendix 60 to the Study "The Campaign in the East 1941-1945"), Karlsruhe Document Collection. See also Generalkommando II. Flakkorps, Ib, Br. B. Nr. 014/42, g. Kdos. vom 6. 1. 42, "Befehl; Ueber Gliderung und Befehlsfuehrung des II. Flakkorps ab 6. 1. 42" (Corps Headquarters, II Flak Corps, Personnel, Brigade B, No. 014/42, Secret Command Matter of 6 January 1942, "Order Concerning Organization and Command Leadership of the II Flak Corps from 6 January 1942"), G/VI/4b, Karlsruhe Document Collection.

47. Employment of the VIII Air Corps, notations of 21 March 1942.

48. Ibid., notations of 5-9 April 1942.

49. Military Careers.

50. Der Kommandierende General des II. Flakkorps, Korps Gefechtsstand, den 10. 4. 1942, "Tagesbefehl" (The Commanding General of the II Flak Corps, Corps Command Post, the 10th of April 1942, "Order of the Day"), Karlsruhe Document Collection.

51. Halder, Diary, VII, 31 May, 11, 16, 18 June 1942.

52. Ibid., 8 July 1942.

53. Personal experiences and recollections of the author. The exact date of this action cannot be recalled.

54. Generalleutnant Adolph Galland (Ret.), "Die Luftverteidigung des Reiches," einer Ausarbeitung zum Thema "Der Feldzug im Osten," 1946 ("The Air Defense of the Reich," a composition on the theme "The Campaign in the East"), Karlsruhe Document Collection.

55. Capt. Gustav Weber (Ret.), "Aufstellung und erster Einsatz von deutschen Stoerkampfstaffeln," Auszug aus einem Bericht ueber die Entwicklung der Nachtschlachtgruppe 2 ("Creation and First Employment of the German Nuisance Bomber Squadrons," excerpt from a report on the development of the 2nd Night Ground-Attack Group), F/V/1c, Karlsruhe Document Collection.

56. Tippelskirch, War History, pp. 327-328.

57. Employment of the VIII Air Corps, notations of 7-20 March 1942.

58. Personal experiences of the author, who observed repeated commitment of two Luftwaffe ground combat organizations in this area.

59. Generalfeldmarschall Wolfram Freiherr von Richthofen, "Kriegstagebuch des Generalfeldmarschalls Freiherr v. Richthofen" ("War Diary of Field Marshal Freiherr von Richthofen"), notations of 15 October 1942, Karlsruhe Document Collection. Cited hereafter as Richthofen, Diary.

60. Personal recollections of the author of documents seen in the 8th (Military Science) Branch of the Luftwaffe High Command.

61. Helmuth Greiner, Die Oberste Wehrmachtfuehrung 1939-1943 (The Highest Armed Forces Leadership 1939-1943), Wiesbaden: Limes Verlag, 1951. Cited hereafter as Greiner, Wehrmacht Leadership.

62. Tagesnotizen Luftwaffenkommando-Ost, Jan.-Maerz 1942 (Daily Notations of Air Command East, January-March 1942), G/VI/4b, Karlsruhe Document Collection.

63. Personal notes of the author, at this time Chief of Staff of Air Command East, in collaboration with the Operations Officer of the time (and later Chief of Staff), Lt. Col. (GSC) Fritz Kless.

Chapter 5

1. Tippelskirch, War History, p. 236. See also Halder, Diary, VII, 20-28 November 1941.

2. Halder, Diary, VII, 10-16 January 1942. See also Tippelskirch, War History, pp. 244-245.

3. Generalmajor Otto Hoffmann von Waldau, "Kriegstagebuch des Generalmajors Otto Hoffmann von Waldau, Chef des Luftwaffenfuehrungsstabes" ("War Diary of Generalmajor Otto Hoffmann von Waldau, Chief of the Luftwaffe Operations Staff"), H/I/1, Karlsruhe Document Collection.

4. Halder, Diary, VII, 24 January 1942.

5. Ibid., 26-28, 30 January, 2 February 1942.

6. Ibid., 2 February 1942.

7. Generalmajor Hans Doerr, "Der Ausgang der Schlacht um Charkow im Fruehjahr 1942," Wehrwissenschaftliche Rundschau ("The Outcome of the Battle for Kharkov in the Spring of 1942," Military Science Review), 4th Year, Vol. 1, Darmstadt: E.S. Mittler & Sohn, G.m.b.H., 1954, p. 9. Cited hereafter as Doerr, Battle for Kharkov.

8. Tippelskirch, War History, pp. 275-276. See also Manstein, Lost Victories, pp. 242-243.

9. Manstein, Lost Victories, p. 240.

10. Military Careers.

11. Map, "Kaempfe auf der Krim, Januar-Februar 1942" ("Battles in the Crimea, January-February 1942"), a document of unknown provenance, but probably taken from official Luftwaffe records, G/VI/4b, Karlsruhe Document Collection. Cited hereafter as Map, Crimean Battles.

12. Ibid. See also Tactical Air Command Reports, January-February 1942, Karlsruhe Document Collection.

13. Directive No. 39.

14. Halder, Diary, VII, 15-16 January 1942.

15. Manstein, Lost Victories, p. 250.

16. Ibid. See also Halder, Diary, VII, 24-29 January 1942. See also Tippelskirch, War History, pp. 276-277.

17. Halder, Diary, VII, 30 January-10 February 1942.

18. Manstein, Lost Victories, pp. 250-251. See also Map, Crimean Battles.

19. Halder, Diary, 12 February 1942.

20. Personal recollections of the author. (In the beginning of April 1942 orders were received in Combat Zone Center for redesignation and expansion of the air forces there into Air Command East. The VIII Air Corps was pulled out of action for rest and rehabilitation.)

21. Military Careers.

22. Sonderstab Krim, Ia, Auszug aus einem Befechtsbericht des Sonderstabes Krim, Zweites Buch, "Der Einsatz der deutschen Luftwaffe 1941," Seite 408 (Special Staff Crimea, Operations, excerpt from a combat report of the Special Staff Crimea, second book, "The Employment of the German Luftwaffe, 1941," p. 408), G/VI, Karlsruhe Document Collection.

23. Manstein, Lost Victories, p. 251. See also Halder, Diary, VII, 27, 28 February, 1 March 1942.

24. Manstein, Lost Victories, pp. 252-253.

25. Ibid., p. 252. See also Halder, Diary, VII, 3, 6, 14, 26 March, 2 April 1942.

26. Manstein, Lost Victories, p. 253.

27. Directive No. 41.

28. _____, Karten, Anlagen 4 und 6, "Der Feldzug im Osten 1941-1945" (Maps, Appendices 4 and 6 of "The Campaign in the East 1941-1945"), documents of unknown provenance, but in all probability of official Luftwaffe origin, Karlsruhe Document Collection. See also charts in G/VI/4b, Karlsruhe Document Collection.

29. Military Careers.

30. Doerr, Battle for Kharkov, pp. 12-13.

31. Halder, Diary, VII, 14 May 1942.

32. Ibid., 14-15 May 1942.

33. Doerr, Battle for Kharkov, p. 13.

34. Halder, Diary, VII, 13, 18 May 1942.

35. Tippelskirch, War History, p. 280. See also Doerr, Battle for Kharkov, pp. 14-15. (Doerr personally took part in the attack as Chief of Staff of the LII Corps.)

36. Doerr, Battle for Kharkov, pp. 16-17.

37. Halder, Diary, VII, 25-28 May 1942.

38. Doerr, Battle for Kharkov, p. 18. See also Halder, Diary, VII, 28 May-1 June 1942.

39. Generalleutnant Karl Veith (Ret.), "Flakeinsatz waehrend des Krieges gegen Russland" ("Employment of Antiaircraft Artillery During the War Against Russia"), G/VI/4a, Karlsruhe Document Collection.

40. OKW, I Flakkorps, Wehrmachtbericht vom 5. 6. 42 (Auszug aus Zusammenstellung der fuer Wehrmachtbericht, Rundfunk, und Presse gemeldeten besonderen Leistungen) (High Command of the Wehrmacht, I Flak Corps, Armed Forces Report of 5 June 1942, excerpt from the compilations of reported outstanding achievements for Armed Forces reports, radio, and the press), G/VI/4c, Karlsruhe Document Collection.

41. Ibid., 20 May 1942. See also reports from 29 May 1942.

42. Ibid., 29 May 1942.

43. Halder, Diary, VII, 28 May 1942.

44. Tippelskirch, War History, p. 280.

45. Directive No. 41.

46. Manstein, Lost Victories, pp. 253-254.

47. OKL, Chef des Generalstabes der Luftwaffe, g. Kdos. Chefsache, vom 17.4. 42, "Notiz ueber die Besprechung beim Fuehrer am 17. 4. bezueglich Einsatz der Luftflotte 4" (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, Top Secret Command Matter of 17 April 1942, "Notations on the Discussion

with the Fuehrer on 17 April Regarding the Employment of the Fourth Air Fleet"), G/VI/4c, Karlsruhe Document Collection.

48. Military Careers. See also a number of reports concerning the characteristics, production, and use of the SD-2 fragmentation bomb in C/VI/2, Karlsruhe Document Collection.

49. Ibid. See also Manstein, Lost Victories, pp. 256-258.

50. Manstein, Lost Victories, pp. 256-259.

51. Ibid., p. 259.

52. Halder, Diary, VII, 9 May 1942.

53. Ibid., 11 May 1942. See also Manstein, Lost Victories, pp. 259-260.

54. Halder, Diary, VII, 12 May 1942.

55. Ibid., 13-19 May 1942. See also Manstein, Lost Victories, pp. 260-261.

56. Manstein, Lost Victories, p. 258.

57. Tippelskirch, War History, pp. 277-278. See also Manstein, Lost Victories, p. 261, and Halder, Diary, VII, 20-21 May 1942. See also OKL, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftlichen) Abt., "Einsatz der fliegenden Verbaende des VIII Flieger-Korps im Kampf um Sewastopol vom 2. 6. -6. 6. 1942" (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, "Employment of Flying Units of the VIII Air Corps in the Battle for Sevastopol from 2 June to 6 June 1942"), G/VI/4c, Karlsruhe Document Collection. Cited hereafter as VIII Air Corps at Sevastopol.

58. Manstein, Lost Victories, p. 262.

59. Baron Cesar de Bazancourt, L'Expedition de Crimée jusqu' à la prise de Sébastopol (The Crimean Expedition up to the Seizure of Sevastopol), Vol. I, Paris: 1856.

60. _____, "Sewastopol und seine Festungsanlagen," Deutsche Soldaten Zeitung, Nr. 27, vom 3. 7. 52 (article of unknown authorship entitled "Sevastopol and Its Fortifications," German Soldiers' Newspaper, No. 27 of 3 July 1952), p. 6, Karlsruhe Document Collection.

61. Manstein, Lost Victories, pp. 262-264.

62. Ibid., pp. 263-264.

63. Ibid., pp. 266-267.

64. Ibid. p. 266.

65. OKL, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftlichen) Abteilung, "Erfahrungen aus dem Einsatz der Luftwaffe gegen Festungen," Bericht des Generaloberst Loehr an Generalfeldmarschall von Reichenau vom 5. 1. 42 (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, "Experiences from the Employment of the Luftwaffe Against Fortresses," report of Generaloberst Loehr to Field Marshal von Reichenau of 5 January 1942), a study completed by the 8th Branch of the Luftwaffe, G/VI/4b, Karlsruhe Document Collection.

66. Manstein, Lost Victories, p. 266.

67. Ibid., p. 268.

68. Generalkommando VIII Fliegerkorps, Ia, Geheim, Nr. 7519 vom 2. 6. 42 (2125 Uhr) (Headquarters VIII Air Corps, Operations, Secret, No. 7519 of 2 June 1942 at 2125 hours), G/VI/4a, Karlsruhe Document Collection.

69. Ibid.

70. Fliegerfuehrer Sued, Einsatzmeldungen des Fliegerfuehrers Sued waehrend des Kampfes um Sewastopol 1. 6-4. 7. 1942 (Air Commander South, Operation Reports of the Air Commander South During the Battles for Sevastopol 1 June-4 July 1942), 2 July 1942, Karlsruhe Document Collection. Cited hereafter as Air Command South Operation Reports.

71. Fernschreiben der Wetterzentrale Sarabus vom 1.6.42, 2035 Uhr (a teletype message of the Meteorologist Center at Sarabuz of 1 June 1942, 2035 hours), Karlsruhe Document Collection.

72. Halder, Diary, VII, 2 June 1942. See also Manstein, Lost Victories, pp. 267-268.

73. Air Command South Operation Reports. See also VIII Air Corps after action reports.

74. VIII Air Corps at Sevastopol.

75. Richthofen, Diary, 31 May-4 June 1942.

76. Capt. Herbert Pabst, "Berichte aus Russland 1942," Auszug aus d. Kriegstagebuch des Hauptmanns Herbert Pabst, Staffelkapitaen und Gruppenkommandeur in einer Sturzkampfgruppe ("Reports from Russia, 1942," excerpts from the War Diary of Capt. Herbert Pabst, Squadron and Group Commander in a Dive-Bomber Group), G/VI/4a, also H/I/4, Karlsruhe Document Collection. Cited hereafter as Pabst Reports.

77. Manstein, Lost Victories, p. 272.

78. Halder, Diary, VII, 11 June 1942. See also Tippelskirch, War History, p. 298.

79. Friedrich-August von Metzsch, Die Geschichte der 22. Infanterie Division 1939-1945 (The History of the 22nd Infantry Division 1939-1945), Kiel: Hans-Henning Podzun Verlag, 1952, p. 43. Cited hereafter as History of the 22nd Infantry Division.

80. Halder, Diary, VII, 17 June 1942. See also Manstein, Lost Victories.

81. Halder, Diary, VII, 18-19 June 1942.

82. Manstein, Lost Victories, p. 272.

83. Ibid., p. 274.

84. Halder, Diary, VII, 21 June 1942. See also Manstein, Lost Victories, pp. 275-276; History of the 22nd Infantry Division, pp. 43-44.

85. Generalkommando VIII Air Corps, Fernschreiben Ia Nr. 7641, Geheim, vom 23. 6. 42 (Headquarters VIII Air Corps, Teletype Message, Operations, No. 7641, Secret of 23 June 1942), Karlsruhe Document Collection.

86. Generalkommando VIII Air Corps, Meldung an der Oberbefehlshaber der Luftwaffe vom 12. 7. 42 (Headquarters VIII Air Corps, Communication to the Commander in Chief of the Luftwaffe of 12 July 1942), G/VI/4c, Karlsruhe Document Collection. Cited hereafter as VIII Air Corps, Report of 12 July 1942.

87. OKL, Abschlussmeldung an den Oberbefehlshaber der Luftwaffe, Fuehstab Ia, "Kurfuerst," ueber den Einsatz der Luftwaffe im Kampf um Sewastopol vom 2. 6 bis einschliesslich 3. 7. 42, 2130 Uhr, deutsche Sommerzeit, Geheim (High Command of the Luftwaffe, Concluding Report to the Commander in Chief of the Luftwaffe, Operations Staff, "Kurfuerst" [a cover name for the Headquarters of the Commander in Chief of the Luftwaffe in Wildpark-Werder near Berlin] on the Employment of the Luftwaffe in the Battle for Sevastopol from 2 June to 3 July 1942 Inclusive, Message sent at 2130 Hours, German Summer Time, Secret), G/VI/4a, Karlsruhe Document Collection.

88. Pabst Reports.

89. Lt. Col. Werner Baumbach (Ret.), Zu Spaet? Aufstieg und Untergang der deutschen Luftwaffe (Too Late? Rise and Fall of the German Luftwaffe), Muenchen: Richard Pflaum Verlag, 1949, pp. 181-182.

90. History of the 22nd Infantry Division, p. 44.

91. VIII Air Corps, Reports of 12 July 1942.

92. Manstein, Lost Victories, pp. 280-282. See also History of the 22nd Infantry Division, pp. 44-45.

93. Tippelskirch, War History, p. 278.

94. Air Command South Operation Reports.

95. _____, Aktennotiz aus einer Besprechung des OB der 11. Armee, Generaloberst von Manstein mit dem Kommandierenden General des VIII Fliegerkorps, Generaloberst Freiherr von Richthofen vom 11. 4. 42, 0700 Uhr (document of unknown provenance, probably VIII Air Corps, documentary memorandum of a conference of the Commander of the Eleventh Army, Generaloberst von Manstein with the Commanding General of the VIII Air Corps, Freiherr von Richthofen of 11 April 1942, 0700 hours), Karlsruhe Document Collection.

Chapter 6

1. Directive No. 41.
2. Ibid. See also Appendix II.
3. Employment of the VIII Air Corps, operations to 20 June 1942.
4. Halder, Diary, VII, 21 June 1942.
5. Ibid., 22 June 1942.
6. Ibid., 22, 23 June 1942.
7. Ibid., 24 June 1942.
8. Ibid., 24, 25 June 1942. See also Employment of the VIII Air Corps, 20-25 June 1942.
9. Halder, Diary, VII, 25 June 1942.
10. Ibid., 27 June 1942.
11. Karte, Lage beim Eintreffen des Fuehrerbefehls vom 13. 7. 42 (a map of unknown provenance, but probably of official Luftwaffe origin, entitled "Situation Upon the Arrival of the Fuehrer Order of 13 July 1942"), G/VI/4d, Karlsruhe Document Collection.
12. Halder, Diary, VII, 7 July 1942.
13. Directive No. 41. See also Map No. 19.
14. Military Careers.

15. Tippelskirch, War History, p. 283.

16. Generalkommando VIII Fliegerkorps, Ia Nr. 7718/42 Geheim, Gef.Qu., 12.7.42, Befehl des VIII Flieger-Korps vom 12.7.1942 betr. Belegung neuer Flugplaetze (Headquarters VIII Air Corps, Operations, No. 7718 of 1942, Secret, Combat Command Post, 12 July 1942, Order of the VIII Air Corps of 12 July 1942 regarding transfers to new airfields), G/VI/4c, Karlsruhe Document Collection.

17. Halder, Diary, VII, 17 July 1942.

18. Ibid., 21 July 1942.

19. Ibid., 24 July 1942.

20. Richthofen, Diary, 21 July 1942.

21. Ibid., 22 July 1942.

22. Manstein, Lost Victories, p. 290-292.

23. Richthofen, Diary, 23 July 1942.

24. Walter Goerlitz, Der Zweite Weltkrieg 1939-1945 (The Second World War 1939-1945), Vol. I, Stuttgart: Steingrueben Verlag, 1951, pp. 356-357. Cited hereafter as Goerlitz, Vol. I. See also Richthofen, Diary, 24 July 1942. See also Tippelskirch, War History, p. 284.

25. Richthofen, Diary, 25 July 1942.

26. Ibid., 23-25 July 1942.

27. Generalkommando I Flakkorps, Ia, Geheim, Meldung des I Flakkorps vom 19.7.42 (Headquarters I Flak Corps, Operations, Secret, Report of the I Flak Corps of 19 July 1942), Karlsruhe Document Collection.

28. 21. Kriegsberichterzug, "Bericht des 21. Kriegsberichterzuges," Luftwaffenring, Nr. 11, Nov. 1955 (21st War Correspondent Detachment, "Report of the 21st War Correspondent Detachment," published in the Luftwaffe Circle, No. 11, November 1955).

29. Richthofen, Diary, 2 August 1942.

30. Generalkommando I Flakkorps, Ia, Geheim, Meldung des I Flakkorps vom 27.7.42 (Headquarters I Flak Corps, Operations, Secret, Report of the I Flak Corps of 27 July 1942), G/VI/4c, Karlsruhe Document Collection.

31. Halder, Diary, VII, 30 July 1942.

32. OKW, WiRüAmt/Wi, Karte, Erdoelgebiete im Kaukasus (High Command of the Wehrmacht, Economics and Armament Office, War Economy, Earth Oil Areas in the Caucasus, a map of unknown date), Karlsruhe Document Collection. See also OKL, Der Inspekteur des Luftschutzes, Az. 41 Nr. 2099/42, Geheim, vom 21.8.42, Betr. Meldung der Luftflotte 4 vom 19.8.42 (High Command of the Luftwaffe, the Inspector of Air Defense, Document Symbol 41, No. 2099 of 1942, Secret, of 21 August 1942, Concerning a Report by the Fourth Air Fleet of 19 August 1942. A review of damage to the oil fields of Maykop and Krasnodar), G/VI/4c, Karlsruhe Document Collection.

33. Evaluation of available Luftwaffe situation maps by the author.

34. Halder, Diary, VII, 2, 9 September 1942.

35. Tippelskirch, War History, p. 285.

36. Halder, Diary, VII, 9, 10 September 1942.

37. Richthofen, Diary, 4-11 November 1942.

38. Military Careers.

39. The Fuehrer und Oberste Befehlshaber der Wehrmacht, OKW/WFSt/Op., Nr. 551288/42, g.Kdos. Chefsache, F.H.Qu., vom 23.7.42, Weisung Nr. 45 (The Fuehrer and Supreme Commander of the Armed Forces, High Command of the Armed Forces, Armed Forces Operations Staff, Op. No. 551288 of 1942, Top Secret Command Matter, The Fuehrer's Headquarters in the Field, 23 July 1942, Directive No. 45), G/VI/4a, Karlsruhe Document Collection. Cited hereafter as Directive No. 45.

40. Manstein, Lost Victories, pp. 324-327. See also Generalmajor Hans Doerr (Ret.), Der Feldzug nach Stalingrad (The Campaign to Stalingrad), Darmstadt: E. S. Mittler & Sohn, G. m. b. H., 1955, pp. 34-39. Cited hereafter as Doerr, Stalingrad Campaign.

41. Halder, Diary, VII, 21 August 1942.

42. Heinz Schroeter, Stalingrad, bis zur letzten Patrone (Stalingrad, to the Last Cartridge), Osnabrueck: In Selbstverlag des Verfassers, Heinz Schroeter (in the private publication of the author, Heinz Schroeter), Schnatgang 23, Osnabrueck, n. d., p. 24. Cited hereafter as Schroeter, Stalingrad.

43. Richthofen, Diary, 23 August 1942.

44. Ibid., 29 August 1942.

45. OKL, Chef des Generalstabes der Luftwaffe, i. (kriegswissenschaftlichen) Abteilung, Einsatz der Luftflotte 4 vom 20. 7. 42-2. 2. 43, Vormarsch auf Stalingrad und in den Kaukasus (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, Operations of the Fourth Air Fleet from 20 July 1942 to 2 February 1943, Advance Upon Stalingrad and Into the Caucasus), Karlsruhe Document Collection. Cited hereafter as Fourth Air Fleet Operations.

46. Manstein, Lost Victories, p. 258.

47. Generalmajor Hans-Detlef Herhudt von Rohden (Ret.), Die Luftwaffe ringt um Stalingrad (The Luftwaffe Contends for Stalingrad), Wiesbaden: Limes Verlag, 1950, p. 12. Cited hereafter as von Rohden, Stalingrad Operations.

48. Generalmajor Fritz Morzik (Ret.), Beitrag zur Studie vom 27. 2. 1956 (Contribution to the Study, dated 27 February 1956), Karlsruhe Document Collection. Cited hereafter as Morzik Contribution.

49. Generaloberst Erwin Jaenecke (Ret.), Beitrag zur Studie vom 30. 3. 1956 (Contribution to the Study, dated 30 March 1956), Karlsruhe Document Collection. Cited hereafter as Jaenecke Contribution.

50. Col. Hans-Ulrich Rudel, Trotzdem (Nevertheless), Waiblingen, Wuerttemberg: Verlag Lothar Leberecht, 1950, p. 67. Cited hereafter as Rudel, Nevertheless.

51. Generalmajor Wolfgang Pickert (Ret.), Beitrag zur Studie vom 2. 3. 56 (contribution to the study, dated 2 March 1956). Cited hereafter as Pickert Contribution.

52. Generalkommando Luftdivision 16, Luftkriegfuehrung, Ziffer 131 (Headquarters Air Division 16, Air War Leadership, Numeral 131), Karlsruhe Document Collection.

53. Richthofen, Diary, 1 November 1942.

54. Ibid., 1-2 November 1942.

55. Personal recollections of the author.

56. Ibid.

57. Tippelskirch, War History, pp. 287-288.

58. Richthofen, Diary, 16 November 1942.

59. Greiner, Wehrmacht Leadership, p. 410.

60. Von Rohden, Stalingrad Operations, pp. 12-15.

61. Richthofen, Diary, 23 October 1942.

62. Von Rohden, Stalingrad Operations, pp. 13-15. See also Richthofen, Diary, 25 October 1942.

63. Richthofen, Diary, 26 October 1942.

64. Ibid., 2 November 1942. See also Rudel, Nevertheless, p. 69.

65. Generalmajor Karl-Heinrich Schulz (Ret.), Beitrag zur Studie, zum Entwurf dieses Kapitels, vom 12. 3. 56 (contribution to the study, for the draft of this chapter, dated 12 March 1956), Karlsruhe Document Collection. See also Pickert Contribution.

66. Col. Lothar von Heinemann (Ret.), Beitrag zum Entwurf dieses Kapitels, vom 24. 4. 1956 (contribution for the draft of this chapter, dated 24 April 1956), Karlsruhe Document Collection. Cited hereafter as Heinemann Contribution.

67. Lt. Col. Heinz J. Jaehne (Ret.), "Bericht des Oberstleutnants a. D. Jaehne vom 19. April 1954" ("Report of Lt. Col. Jaehne (Ret.) of 19 April 1954"), Karlsruhe Document Collection.

68. Richthofen, Diary, 11 November 1942.

69. Ibid., 12 November 1942.

70. Ibid., 12-13 November 1942.

71. Ibid., 14 November 1942.

72. Ibid., 16 November 1942.

73. Ibid., 16-17 November 1942.

74. Generalkommando Luftdivision 16, Luftkriegfuehrung, Ziffer 27 (Headquarters Air Division 16, Air War Leadership, Numeral 27), Karlsruhe Document Collection.

75. Doerr, Stalingrad Campaign, pp. 62-69. See also Map No. 24.

76. Richthofen, Diary, 19 November 1942.

77. Ibid., 19-20 November 1942. See also Tippelskirch, War History, pp. 312-313.

78. Doerr, Stalingrad Campaign, pp. 68-69.

79. Richthofen, Diary, 20 November 1942.

80. Schroeter, Stalingrad, pp. 19-23, 51-56. See also Richthofen, Diary, 20-21 November 1942.

81. Rudel, Nevertheless, p. 69.

82. Richthofen, Diary, 21 November 1942.

83. Ibid., 20-21 November 1942.

84. Ibid., 22 November 1942.

85. Ibid., 20, 23 November 1942. See also Schroeter, Stalingrad, pp. 23-24.

86. Heinemann Contribution.

87. Manstein, Lost Victories, p. 328.

88. Ibid., pp. 328-329.

89. Doerr, Stalingrad Campaign, pp. 73-77.

90. Schroeter, Stalingrad, pp. 81-82.

91. Doerr, Stalingrad Campaign, pp. 76-80.

Chapter 7

1. Manstein, Lost Victories, p. 334.

2. Generalleutnant Martin Fiebig, "Kriegstagebuch des Generalleutnants Fiebig, Befehlshaber der VIII Fliegerkorps" ("War Diary of Generalleutnant Fiebig, Commander of the VIII Air Corps"), 21 November 1942, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as Fiebig, Diary. See also Manstein, Lost Victories, p. 337.

3. Fiebig, Diary, 21 November 1942.

4. Ibid., 22 November 1942.

5. Von Rohden, Stalingrad Operations, p. 20. See also Oberkommando der Luftwaffe, Chef des Generalstabes der Luftwaffe, 8. (kriegswissenschaftlichen) Abteilung, Kriegsgeschichtliche-Vernehmung des Generalleutnant Fiebig sowie des Major i.G. Stollberger vom 26.1.43 (High Command of the Luftwaffe, Chief of the General Staff of the Luftwaffe, 8th [Military Science] Branch, War-historical Interrogation of Generalleutnant Fiebig as well as Major (GSC) Stollberger of 26 January 1943), Karlsruhe Document Collection. Cited hereafter as Interrogation of Fiebig and Stollberger. See also Fourth Air Fleet Operations.

6. Generalmajor Wolfgang Pickert, "Kriegstagebuch des Generalmajors Wolfgang Pickert, Befehlshaber der 9. Flakdivision" ("War Diary of Generalmajor Wolfgang Pickert, Commander of the 9th Flak Division"), 23 November 1942, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as Pickert, Diary. See also Pickert letter of 4 January 1956.

7. Manstein, Lost Victories, p. 346.

8. Richthofen, Diary, 21 November 1942. See also Fourth Air Fleet Operations, 21-22 November 1942.

9. Fiebig, Diary, 26 November 1942.

10. Interrogation of Fiebig and Stollberger, p. 7.

11. Doerr, Stalingrad Campaign, p. 70.

12. Ibid., p. 71. See also Pickert, Diary, 27 November 1942.

13. Schroeter, Stalingrad, pp. 92-94.

14. Ibid., p. 94.

15. Ibid., p. 94. See also Manstein, Lost Victories, p. 392.

16. Jaenecke Contribution.

17. Ibid.

18. Ibid.

19. Doerr, Stalingrad Campaign, pp. 71-72. See also Manstein, Lost Victories, p. 341.

20. Manstein, Lost Victories, pp. 334-337.

21. Richthofen, Diary, 25 November 1942. See also Tippelskirch, War History, p. 313.

22. Generalfeldmarschall Albert Kesselring (Ret.), et al., "Aussagen zum Problem der Luftversorgung von Stalingrad" ("Statements on the Problem of the Air Supplying of Stalingrad"), 30 January 1956, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as Statements on Stalingrad.

23. General der Flieger Hans-Georg von Seidel (Ret.), Contribution in Statements on Stalingrad, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as von Seidel Contribution.

24. Col. (GSC) Kurt von Greiff (Ret.), Contribution in Statements on Stalingrad, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as von Greiff Contribution. See also Goerlitz, Vol. I, pp. 398-410.

25. Generaloberst Kurt Zeitzler (Ret.), letter to the author, dated 11 March 1955, G/VI/4d, Karlsruhe Document Collection.

26. Manstein, Lost Victories, p. 347.

27. General der Flieger Bruno Loerzer (Ret.), Contribution in Statements on Stalingrad, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as Loerzer Contribution.

28. General der Flieger Paul Deichmann (Ret.), deposition made to the author, dated 2 February 1956. Cited hereafter as Deichmann Deposition.

29. Manstein, Lost Victories, p. 324; Doerr, Stalingrad Campaign, p. 96; Tippelskirch, War History, pp. 313-314.

30. Manstein, Lost Victories, p. 395.

31. Pickert, Diary, 22 November 1942.

32. Tippelskirch, War History, p. 313. Doerr, Stalingrad Campaign, p. 74.

33. Deichmann Deposition.

34. Doerr, Stalingrad Campaign, pp. 76-77.

35. Kriegstagebuch des Stuka-Geschwaders 2 "Immelmann" (War Diary of Dive-Bomber Wing 2 "Immelmann"), 27 November 1942, Karlsruhe Document Collection.

36. Ibid.

37. Rudel, Nevertheless, p. 74. See also Fiebig, Diary, 26-28 November 1942.

38. Fiebig, Diary, 29 November 1942. See also Heinemann Contribution.

39. Generalmajor Karl-Heinrich Schulz (Ret.), Contribution to Statements on Stalingrad, G/VI/4d, Karlsruhe Document Collection. Hereafter cited as Schulz Contribution.

40. Generalkommando VIII Fliegerkorps, "Taegliche Wetterlage vom 25.11.42 bis 2.2.43" (Headquarters VIII Air Corps, "Daily Weather Situation from 25 November 1942 to 2 February 1943"), G/VI/4d, Karlsruhe Document Collection. Cited hereafter as Daily Weather Reports.

41. Fiebig, Diary, 5 December 1942.

42. Ibid., 8 December 1942.

43. Ibid., 9 December 1942.

44. Ibid., 11 December 1942.

45. Manstein, Lost Victories, pp. 360-361.

46. Fiebig, Diary, 12 December 1942.

47. Ibid., 17 December 1942.

48. Manstein, Lost Victories, pp. 361-363.

49. Doerr, Stalingrad Campaign, pp. 90-91. See also Fiebig, Diary, 18 December 1942. See also Manstein, Lost Victories, p. 364.

50. Manstein, Lost Victories, p. 367. See also Fiebig, Diary, 20 December 1942. See also Richthofen, Diary, 19-20 December 1942.

51. Manstein, Lost Victories, pp. 368-371.

52. Ibid., p. 367.

53. Ibid. p. 369.

54. Ibid., p. 374.

55. Doerr, Stalingrad Campaign, p. 98.

56. Fiebig, Diary, 24 December 1942.

57. Ibid., 21 December 1942. See also Richthofen, Diary, 23 December 1942.

58. Von Greiff Contribution.

59. Doerr, Stalingrad Campaign, p. 101.

60. Ibid., p. 105.

61. Manstein, Lost Victories, pp. 380-381.

62. Fiebig, Diary, 30 December 1942.

63. Map, Basen der Luftflotte 4 um Stalingrad (Map, Bases of the Fourth Air Fleet Around Stalingrad), G/VI/4d, Karlsruhe Document Collection. Hereafter cited as Map of Air Bases.

64. Manstein, Lost Victories, pp. 381-382. See also Schulz Contribution.

65. Ibid., pp. 383-384.

66. Morzik Contribution. See also Fiebig, Diary, 15 January 1943.

67. Morzik Contribution.

68. Doerr, Stalingrad Campaign, p. 96.

69. Manstein, Lost Victories, p. 368.

70. Ibid., pp. 353, 367, 655.

71. Ibid., p. 652. See also pp. 369-370.

72. Richthofen, Diary, 12 December 1942.

73. Ibid., 18 December 1942.

74. Ibid.

75. Ibid., 19 December 1942.

76. Ibid., 23 December 1942.

77. Ibid., 24 December 1942.

78. Ibid., 26 December 1942.

79. Tippelskirch, War History, pp. 315-316. See also Manstein, Lost Victories, p. 365. See also Personnel Records pertaining to Field Marshal Paulus, Karlsruhe Document Collection.

80. Tippelskirch, War History, pp. 315-317.

81. Von Rohden, Stalingrad Operations, p. 51.

82. General der Panzertruppe Hans Hube, "Erfahrungsbericht ueber die Luftversorgung der Festung Stalingrad," vom 13. 3. 43, Geheim ("Experience Report Concerning the Air Supplying of the Fortress of Stalingrad" of 13 March 1943, Secret), a report made for the Army High Command, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as Hube Report.

83. Heinemann Contribution.

84. Ibid.

85. Pickert, Diary, 24 November 1942.

86. Von Rohden, Stalingrad Operations, p. 64.

87. Ibid., pp. 142-144. See also Pickert, Diary, 22-25 November 1942.

88. Schroeter, Stalingrad, p. 145. See also von Rohden, Stalingrad Operations, p. 65. See also Hube Report. See also Kriegstagebuch des Jagdgeschwaders 3. "Udet" (War Diary of Fighter Wing 3, "Udet"), Karlsruhe Document Collection.

89. Hube Report, p. 17.

90. Schroeter, Stalingrad, p. 144.

91. Ibid., p. 163.

92. Ibid., p. 164.

93. Theodor Plivier, Stalingrad (translated from the German), Ueberlingen: Werner Wulf Verlag, 1948, p. 257. Cited hereafter as Plivier, Stalingrad. See also Statements on Stalingrad.

94. Fiebig, Diary, 15-16 January 1943.

95. Generalmajor Hans-Detlef Herhudt von Rohden, Kriegstagebuch d. Oberkommando der Luftwaffe, Aktennotiz vom 15. 1. 43 (Notations of 15 January 1943 by Generalmajor von Rohden in the War Diary of the Luftwaffe High Command), G/VI/4d, Karlsruhe Document Collection.

96. Pickert, Diary, 15 January 1943.

97. Fiebig, Diary, 13 January 1943.

98. Heinemann Contribution.

99. Generalfeldmarschall Erhard Milch, Kriegstagebuch (Field Marshal Erhard Milch, War Diary), 17 January 1943, G/VI/4d, Karlsruhe Document Collection. Cited hereafter as Milch, Diary.

100. Ibid., 18-19 January 1943. See also Heinemann Contribution. See also Major W. Thiel, Bericht des Kommandeurs III./K. G. 27 "Boelcke" Major Thiel vom 21. 1. 43 (Report of the Commander of the 3rd Squadron, Fighter Wing 27 "Boelcke" Major Thiel of 21 January 1943), G/VI/4d, Karlsruhe Document Collection.

101. Pickert, Diary, 22 November 1942.

102. Milch, Diary, 15 January 1943. See also von Rohden, Stalingrad Operations, pp. 72-73.

103. Milch, Diary, 15 January 1943.

104. Von Rohden, Stalingrad Operations, p. 72. Milch, Diary, 15-18 January 1943. See also Hube Report.

105. Morzik Contribution.

106. Ibid.

107. Schulz Contribution.

108. Milch, Diary, 27 January 1943.

109. Ibid., 29 January 1943.

110. Ibid., 24-30 January 1943.

111. Map of Air Bases.

112. Hube Report.

113. Milch, Diary, 22 January 1943.

114. Ibid., 23-28 January 1943.

115. Fiebig, Diary, 26-29 January 1943. Schroeter, Stalingrad, pp. 80-81, 95, 221-222.

116. Milch, Diary, 29 January 1943.

117. Ibid., 30 January 1943. See Fiebig, Diary, 30 January 1943.

118. Plivier, Stalingrad, p. 438.

119. Ibid. pp. 438-439.

120. Schroeter, Stalingrad, pp. 174-175.

121. Von Rohden, Stalingrad Operations, p. 118. See also Fiebig, Diary, 31 January 1943. See also Daily Weather Reports.

122. Doerr, Stalingrad Campaign, p. 116. See Manstein, Lost Victories, p. 396. See also Josef Folttmann and Hanns Moeller-Witten, Opfergang der Generale (The Sacrifice of the Generals), Berlin: Bernard & Graefe, 1952.

123. Milch, Diary, 28-31 January 1943. The last radio messages received from Stalingrad.

124. Manstein, Lost Victories, p. 395.

125. Ibid., p. 319.

126. Directive No. 41.

127. Doerr, Stalingrad Campaign, pp. 19-20, 24.

128. Directive No. 45. See also Map of Air Bases.

129. Directive No. 45.

130. Doerr, Stalingrad Campaign, pp. 50-51.

131. Personal evaluations and interpretations of the author.

132. Generalkommando Luftflotte 4., Nr. 5013/42, g.Kdos., Flottenbefehl vom 26. 11. 42 (Headquarters Fourth Air Fleet, No. 5013 of 1942, Secret Command Matter, Air Fleet Order of 26 November 1942), G/VI/4d, Karlsruhe Document Collection.

133. Richthofen, Diary, 14 November 1942. See also Generalleutnant Hermann Plocher (Ret.), "Kraefteverglеich an der Ostfront, 1942" ("Equalization of Forces on the Eastern Front, 1942"), prepared 1956, G/VI/4b, Karlsruhe Document Collection.

134. Richthofen, Diary, 3, 5 October 1942.

135. Ibid., 15 October 1942.

136. Ibid., 12 December 1942.

137. Personal experiences of the author and his ideas concerning organization of the Luftwaffe on the Eastern Front.

138. Map, Lage beim Eintreffen des Fuehrerbefehls vom 13. 7. 42 (Situation at the Time of Arrival of the Fuehrer Order of 13 July 1942), G/VI/4d, Karlsruhe Document Collection.

139. Manstein, Lost Victories, pp. 258-261.

140. Richthofen, Diary, 16 August 1942.

141. Ibid., 23 August 1942.

142. Ibid., 10 September 1942.

143. Ibid., 22 September 1942.

144. Ibid., 9 October 1942.

145. Ibid., 1 November 1942.

146. Ibid., 6 November 1942.

147. Ibid., 19 November 1942.

148. Manstein, Lost Victories, p. 337. Tippelskirch, War History, p. 315. See also von Rohden, Stalingrad Operations, pp. 24, 29.

149. See von Seidel Contribution. See also Map of Air Bases, and Milch, Diary, 15 January 1942.

150. Camille Rougeron, extract from Forces Aériennes, translated and reprinted in the Military Review, February 1950.

151. Dr. Paul Koerner, Staatssekretaer, Auszug aus einer Befragung des Staatssekretaers a. D. Paul Koerner ueber Generaloberst Jeschonnek am 19. 9. 55 in Muenchen (excerpt from an Inquiry of State Secretary (Ret.) Paul Koerner about Generaloberst Jeschonnek on 19 September 1955, Munich), G/VI/4d, Karlsruhe Document Collection. See also Frau Lotte Kersten, damals Sekretaerin bei Generaloberst Jeschonnek (Mrs. Lotte Kersten, at that time Secretary to Generaloberst Jeschonnek), Contribution to Statements on Stalingrad, G/VI/4d, Karlsruhe Document Collection.

152. Loerzer Contribution. See also Enno von Rintelen, Mussolini als Bundesgenosse: Erinnerungen des deutschen Militaerattachees in Rom 1936-1943 (Mussolini as an Ally: Recollections of the German Military Attaché in Rome 1936-1943), Stuttgart: Rainer Wunderlich Verlag Hermann Leins, n. d., p. 213.

153. Richthofen, Diary, 19-21 December 1942. See also Dr. Lammers, Reichsminister (Ret.), Contribution to Statements on Stalingrad.

154. Morzik Contribution.

155. Schulz Contribution.

156. Ibid.

157. Heinemann Contribution.

158. Richthofen, Diary, 10 August 1942.

159. Hube Report, p. 18. See also Richthofen, Diary, 15, 23 August, 16 September, 13 October, 1, 3 November 1942.

160. Milch, Diary, 18 January 1943.

161. Hube Report.

162. Pickert, Diary. See also Fiebig, Diary, 29 November 1942 - 3 February 1943.

163. Von Rohden, Stalingrad Operations, p. 75.

164. Milch, Diary, 18 January 1943 (taken from the Fiebig, VIII Air Corps report of the same date).

165. Pickert, Diary.

166. Doerr, Stalingrad Campaign, p. 119.

167. Ibid., p. 119 (from the War Discourses of Lazarus Freiherr von Schwendi, who was born in 1522 and died in 1584).

APPENDIX I

Wehrmacht High Command/1792

Top Secret Military Document

The Fuehrer and Supreme Commander in Chief of the Wehrmacht

Hitler's Field Headquarters
16 December 1941

No. 442182/41 Top Secret Command Matter
Wehrmacht Operations Staff/Branch L (I Op)

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I Order:

1.) Army Group North: is authorized to withdraw the inner wings of the Sixteenth and Eighteenth Army behind the Volkhov Sector and to take back the railway leading from St. Volkhovs to the northwest. The connection to the right wing of the XXVIIth Army Corps is to be established along the course of this railroad line.

Task of the Army Group is to defend this front to the last man, not one step backward, thereby maintaining the isolation of Leningrad.

I call special attention to the reinforcing of the antiaircraft defenses south and southeast of Leningrad.

2.) Army Group Center: Larger evasive movements cannot be carried out. They lead to the complete loss of heavy arms and equipment.

By personal activity of the commanders in chief, commanders, and officers, the troops are to be compelled to display fanatical resistance in their positions without regard to the enemy breakthroughs in the flanks and rear. Only by such conduct can the saving of time be achieved which is necessary to bring the reinforcements, as I have already commanded, from the Zone of the Interior and from the West.

Not until after reserves have arrived in the immediate rear positions can a settling down in this sector be considered.

3.) Army Group South: will hold its entire front. The capture of Sevastopol must be pushed with the utmost effort in order to secure reserves from the Crimea for Army Group South.

4.) Luftwaffe:

a. The Commander in Chief of the Luftwaffe will immediately assign the following as reinforcements for the VIIIth Air Corps:

3 combat groups from the new activation,
1 combat group (rehabilitated) from the west front,
1 fighter group from the pursuit operations by night (for the rest and rehabilitation of the 2nd fighter groups of all wings of the VIIIth Air Corps),
1 transport group of the Fourth Air Fleet,
4 newly activated transport groups.

b. The new activation of the 4 transport groups is to be carried through as far as absolutely necessary, courier planes to be withdrawn down to the last Ju 52 from the area of the Chief of the Training System, and total confiscation from authorities and staffs.

c. The transport group is to be transferred by Fourth Air Fleet to the VIIIth Air Corps and will be conveyed a personnel replacement battalion of Army Group South according to telephone instructions of the Army High Command.

d. The transport groups which are to be newly activated should be concentrated as far as possible in Krakow, in order to be able to transfer from there major parts of the 4th SS Regiment, being held in readiness in Krakow for Army Group Center.

5.) Reinforcements for the front:

a. The most important thing is the bringing of rifle men (personnel replacement battalions) to the exceptionally weakened divisions. The evacuation of tanks is secondary to this. Next, the scheduled western divisions are to be transferred to Army Group Center with full winter equipment possibly by depriving the other western divisions of winter clothing. They are to be employed where a lack of units exists.

The infantry units of several divisions having weak artillery forces must be taken at the start. Besides all transports must be furnished with stoves and stocks of ample supplies.

The speed of advance of these units will be made at the expense of the supply transports and will be determined by the Army Groups. They are to be driven with accelerated speed as far as the borders of the Reich.

b. All forces in the Zone of the Interior which can construct, safeguard, or fight, and which are employed in a nonessential function, are to be organized. They are to be provided with winter equipment from their momentary whereabouts and are to be held ready for transport (guard battalions of the Army, the Luftwaffe, and SS in Berlin, and Reichs Labor Service (RAD) from the west and Poland). The final assembly of these units must be reported.

c. The Chief of the Army Armaments and Commander of the Replacement Army is to organize, besides the already ordered 4 divisions from the Replacement Army, as large a number as possible of mobile winter combat teams in the force of battalions, with ski and sleigh equipment. Number of units and readiness for action is to be reported to me.

(signed) Adolf Hitler

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APPENDIX II

Wehrmacht High Command/1793

Top Secret Military Document

The Fuehrer and Supreme Commander of the Wehrmacht

Fuehrer Headquarters
5 April 1942

No. 55616/42 Top Secret Command Matter
Wehrmacht High Command/Wehrmacht Operations Staff

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Directive No. 41

The winter battle in Russia is nearing its end. Owing to the outstanding gallantry and devotion shown in combat by the soldiers at the Eastern Front, a defensive success of greatest dimensions has been achieved by German arms.

The enemy sustained extremely heavy losses of personnel and materiel. In the endeavor to exploit apparent initial successes, the enemy also used up during this winter the major part of his reserves intended for commitment in later operations.

Now, the superior German Command and troops must again take the initiative to force their will upon the enemy as soon as weather and terrain conditions permit.

The objective will be to definitely destroy the manpower potential still left to the Soviet Russians and to deprive them, to the largest extent possible, of the most important resources of their war economy.

All available forces of the Wehrmacht and of the allied powers will be employed for this purpose. It must be assured, however, that the occupied areas in western and northern Europe, in particular the coastline, remain guarded, in any case.

I. The General Objectives

The basic objective of the eastern campaign will be adhered to. In the North, Leningrad will be captured and overland contact will be established with the Finnish forces while Army Group Center stops its advance. On the southern wing of the front a breakthrough into the Caucasus will be achieved.

In view of the situation existing at the end of the winter battle, and the forces, equipment, and transportation facilities available, this objective can only be attained by having the forces advance by sectors.

For this reason, all forces available for the main operation will be initially concentrated in Combat Zone South, with the objective of annihilating the enemy along the Don River in order to occupy the oil fields in the Caucasian area and the passes across the Caucasus Mountains.

The definite isolation of Leningrad and the occupation of the Inkerman area may be taken into consideration as soon as the development of the situation in the pocket area, or the availability of other forces of adequate strength, permit such action.

II. The Conduct of Operations

A.) It will be the primary mission of the Army and the Luftwaffe to create the preconditions for the conduct of the main operation as soon as the mud period has come to an end.

This would require the settlement and consolidation of the situation on the entire Eastern Front as well as in the rear areas to make available for the main operation as many forces as possible and to be able to simultaneously resist any enemy attack with a minimum effort.

Wherever it should be necessary for this purpose to conduct, upon my orders, offensive operations with a limited objective, an overwhelming offensive effort of all available Army and Luftwaffe forces must be insured to achieve rapid and highly effective results. Above all, such action will only strengthen the absolute confidence of our troops in their own invincibility before the beginning of the large-scale springtime operations, and the enemy will be thoroughly convinced of his hopeless inferiority.

B.) The next missions in these areas will be to clear the peninsula of Kerch in the Crimea of enemy forces and to conquer Sevastopol. To

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prepare for this operation, the Luftwaffe and, later on, the Navy as well will have the mission of effectively disrupting the enemy supply traffic in the Black Sea and in the Straits of Kerch. In Combat Zone South enemy forces which have gained a breakthrough on both sides of Izyum will be cut off along the Donets River and will be annihilated.

It will not be possible definitely to find out where the front line in the central and northern combat zones has to be adjusted and to make appropriate decisions until the current combat operations, as well as the mud period, have come to an end. For this purpose, however, the required forces must be made available by straightening out the front line as soon as the situation permits such measures.

C.) The Main Operation on the Eastern Front

It is the objective of this operation--as it was previously pointed out--to decisively beat and annihilate the Russian forces employed from the area of Voronezh to the south and west or north of the Don River in order to make it possible to take the positions of the Caucasus front. Since the units available for this action will not arrive at once, this operation can only be conducted in the form of successive attacks which are coordinated with each other or complement one another. For this reason, they will be coordinated with respect to their echeloning from the north to the south in such a manner that during each individual attack a maximum concentration of Army and, in particular, Luftwaffe forces can be assured at the points of main effort.

Since the Russians have so far sufficiently demonstrated their immunity from strategic encirclements, emphasis must be placed on the endeavor--similarly to the method applied in the double battle of Bryansk-Vyazma--to conduct the individual breakthroughs in the form of close encirclements.

The forces employed in the encirclement must avoid wheeling around too late, thereby permitting the enemy to escape annihilation.

It must not occur that the armored or motorized units advance too fast and in too wide a circle, thus losing contact with the infantry forces following them, or that the armored or motorized units lose the possibility of supporting the infantry forces of the Army advancing in fierce combat by directly attacking the rear of the encircled Russian armies.

Consequently, regardless of the overall strategic objective, the annihilation of the attacked enemy forces must, under all circumstances, be already assured in each individual case by the manner in which friendly forces are employed and the way in which their operations are conducted.

The overall operation will be started with an encircling attack or breakthrough from the area south of Orel in the direction of Voronezh. The northern one of both the armored and motorized units committed for the encirclement will be stronger than the southern one. The objective of the breakthrough will be the capture of Voronezh, while it will be the mission of some of the infantry divisions to establish a strong defense front from Orel (where the attack is to start in the direction of Voronezh), with their left flank at the Don River to the south in order to support a second breakthrough operation, to be conducted toward the east from the general area of Kharkov. Here, too, it will be the primary objective not to push back the Russian front but to annihilate the Russian forces in co-ordinate action, with the motorized units advancing downstream at the Don River.

The third attack within the framework of these operations will be conducted in such a manner that the units advancing downstream at the Don River will link up in the area of Stalingrad with those forces advancing across the Donets River in an easterly direction from the area of Taganrog-Artemovsk between the lower course of the Don River and Voroshilovgrad.

In the final phase of this operation, the latter forces are to establish contact with the panzer army advancing towards Stalingrad.

Should these operations, especially the capture of the bridges still intact, provide the possibility of establishing bridgeheads east or south of the Don River, such possibility will be exploited. In any case, the attempt should be made to reach Stalingrad or, at least, to move our heavy weapons within reach of this city, thus preventing it from serving any longer as an armament and communications center.

It would be especially desirable either to capture the bridges at Rostov undamaged, or to succeed in establishing safe bridgeheads at the southern bank of the Don River for the conduct of subsequent operations.

To prevent considerable elements of the Russian forces operating north of the Don River from escaping across the river to the south, it would be important to reinforce the right wing of the group advancing to the east from the area of Taganrog by moving in armored and mobile forces which, if necessary, are to be formed from improvised units.

In accordance with the progress of these attacks, not only the provision of a strong cover for the northeast flank of the offensive operation must be taken into consideration, but also the construction must be started for the positions at the Don River. In building these positions, decisive emphasis is to be placed upon extremely effective antitank defenses. From the very outset, these positions are to be established in anticipation of their possible use during the winter, for which they must be prepared by all available means.

For occupying the Don River front, which will be more and more extended during this operation, units of the allied powers will be employed in the first position. However, German troops will be committed to constitute a strong support between Orel and the Don River as well as in the narrow area at Stalingrad, and a number of individual German divisions will be kept available as an operational reserve behind the Don River front.

The allied forces will be employed as far as possible in our sectors in such a manner that the Hungarians will be committed in the northernmost sector, the Italians in the middle, and the Rumanians in the extreme southeast.

D.) The rapid progress of the movements to the south across the Don River to accomplish the objectives of the operation must be assured in view of the seasonal conditions.

III. Luftwaffe

In addition to close air support for the Army, it will be the mission of the Luftwaffe to protect, by intensifying the air defenses, the concentration of forces in the area of Army Group South. This applies especially to the rail crossings over the Dnepr River.

Whenever enemy concentration movements are recognized, the enemy main communication routes, as well as railway lines, leading into the battle area will be effectively interdicted far in the rear of the enemy territory. For this purpose, destructive attacks will be primarily directed against the railway bridges across the Don River.

In the initial phase of the operation, the enemy air force and its ground organization in the attack area will be raided with concentrated forces and destroyed.

The possibility of rapid transfers of air units into the central and northern combat zones must be assured and the ground organization required for such transfers must be maintained as far as possible.

IV. Navy

It will be the primary mission of the [German] Navy in the Black Sea to relieve in the greatest measure possible by sea transportation the supply of the Army and the Luftwaffe, commensurate with the combat and security forces, as well as the shipping space, available.

In view of the unbroken fighting power of the Russian Black Sea Fleet, it will be of particular importance that the light naval forces to be transferred to the Black Sea be ready for action in that area as early as possible. The Baltic Sea will be covered by blocking the Russian naval forces deep in the Gulf of Finland.

V. All personnel participating in the preparations will be again bound by duty to adhere to the basic directives which I issued to insure secrecy. The policy on the maintenance of secrecy to be pusued towards our allies will be outlined in supplements to this directive.

VI. The preparatory measures planned by the different branches of the Wehrmacht, including their time schedules, will be reported to me through the Wehrmacht High Command.

APPENDIX III

Wehrmacht High Command/1796

Top Secret Military Document

The Fuehrer and Supreme Commander of the Wehrmacht

Fuehrer Headquarters
21 July 1942

No. 55 1275/42 Top Secret Command Matter
Wehrmacht High Command/Wehrmacht Operations Staff

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Directive No. 44

Subject: Conduct of Combat Operations in Northern Finland

1.) The operations against the armies of Timoshenko, which could be conducted rapidly and successfully, justify the hope that we shall, before long, succeed in cutting off Soviet Russia from the Caucasus, by which she would be cut off from her main oil supply and from a major approach route for British and American materiel deliveries.

This, as well as the loss of the entire industries in the Donets River area, will be a blow to Russia the consequences of which cannot yet be foreseen.

2.) Now it will be necessary to cut off also the northern supply route by which Soviet Russia is linked with the Anglo-Saxon powers. This supply route is principally the Murmansk railroad line over which the greater part of the materiel shipments from America and England was transported during the winter. The importance of this supply line will increase again when the season, as well as the weather conditions, will no longer permit successful operations against the convoys in the North.

3.) For this purpose the Twentieth Mountain Army Headquarters will, in accordance with its suggestion and in cooperation with the Fifth Air Fleet, prepare an attack to be carried out this fall in order to capture the Murmansk railroad line at Kandalaksha.

The preparatory work for this attack can be based on the assumption that:

a) Leningrad will be captured at the latest in September, whereby Finnish forces will be disengaged.

b) The 5th Mountain Division will have been transferred to Finland by the end of September.

The operation will be given the code name "Lachsfang" (Salmon Catch). The day of the attack will be designated "L-Day."

4.) It is desirable that the attack of the Twentieth Mountain Army be coordinated with an advance of Finnish troops towards Belomorsk.

The Liaison Staff North will, in cooperation with the Twentieth Mountain Army Headquarters, clarify the intentions of the Finnish Command with respect to this attack.

5.) The primary task of the Twentieth Mountain Army Headquarters will be the most effective protection of the Finnish nickel production.

It should again be seriously emphasized that a discontinuation of the deliveries of nickel to Germany could deprive us of any possibility to produce high-quality steel to be used principally for the manufacture of aircraft and submarine engines. Such development could have decisive consequence upon the outcome of the war. Therefore, the Twentieth Mountain Army Headquarters must always be able to provide the Mountain Corps with the reserves required for the accomplishment of the latter's mission.

Likewise, the Luftwaffe (Fifth Air Fleet) will have to direct its main effort to the support of the defenses, regardless of its other missions, whenever the nickel production establishments should be attacked.

6.) The operation "Wiesengrund" (meadowland) will not be conducted this year. However, the preparatory measures will be continued and intensified in a manner permitting the conduct of this operation next spring after only a limited period of final preparations (about 8 weeks).

Particular emphasis is to be placed on the completion and reinforcement of the air and supply base, since the latter constitutes the basis for the conduct of the operation "Wiesengrund" (meadowland) as well as for the repulsion of large-scale enemy attack in the northern area.

7.) The Twentieth Mountain Army Headquarters and the Commander in Chief of the Luftwaffe will submit reports on their intentions as soon as possible. The Liaison Staff North will report on the intentions of the Finns regarding the attack on Belomorsk.

APPENDIX IV

Wehrmacht High Command/1798-

Top Secret Military Document

The Fuehrer and Supreme Commander of the Wehrmacht

Fuehrer Headquarters
18 August 1942

Wehrmacht High Command/Wehrmacht Operations Staff/Op. No. 00 2821/42 Top Secret Command Matter

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Directive No. 46

Guiding Principles for the Intensification of Military Action Against the Guerrillas in the East

A. General Information

I. During the last months, the guerrilla plague in the East has developed to an extent no longer bearable, and threatens to become a serious danger for the supply of the front and for the economic exploitation of the country.

Most of these guerrilla bands will have to be annihilated by the beginning of winter to restore peaceful conditions in the rear of the Eastern Front, which is necessary in order to prevent decisive disadvantages for the Wehrmacht's combat activities during the winter.

To achieve this objective, the following measures must be taken:

1.) Rapid and effective operations against the bands by concentrated action by all suitable forces of the Wehrmacht, SS, and police which can be released from other engagements for this purpose.

2.) Concentration of all propagandistic, economic, and political efforts on the necessity of fighting the guerrilla bands.

II. The following general principles will be adhered to by all agencies concerned with respect to their military, police, and economic action:

1.) The conduct of the operations against the guerrilla bands is, like the conduct of the regular combat operations, a concern of the military command. The anti-guerrilla operations will be prepared and conducted by the command staffs appointed for this purpose.

2.) The annihilation of the bands requires effective operations and harsh measures against all those persons guilty of being engaged in organizing guerrilla bands. Combat directives for the conduct of anti-guerrilla operations will follow.

3.) The necessary confidence in the German command must be gained by a severe but just treatment of the indigenous population.

4.) An effective annihilation of the guerrilla bands requires the securing of the minimum subsistence level of the indigenous population. A failure in this respect and, in particular, in the equitable distribution of the available means of subsistence would lead to an increase of the number of persons joining the guerrilla bands.

5.) The collaboration of the indigenous population in the action against the guerrilla bands is indispensable. Generosity must be shown in rewarding persons who rendered us good services. Such rewards should be a real incentive. Harsher, punitive measures, however, must be taken against those elements supporting the bands.

6.) The misplaced blind confidence in the indigenous population, particularly in those persons employed by German agencies, should be energetically combated.

Although the major part of the population takes a hostile stand with respect to the guerrilla bands, agents must be everywhere expected whose mission it is to inform the bands early enough of all measures planned to be taken against them.

B. Command Authority and Responsibility

I. Reich's Leader of the SS and Chief of the German Police:

The Reich's Leader of the SS will be the central authority for the collection and evaluation of all experiences regarding action against guerrilla bands.

In addition, the Reich's Leader of the SS will be delegated the entire responsibility for the anti-guerrilla action in the Reich's Commissariats. The Wehrmacht Commanders will support him in the

accomplishment of the missions resulting from this responsibility by coordinating their measures and, if necessary, by placing command staffs as well as command and supply facilities at his disposal. Wehrmacht units will also be assigned, if necessary, to senior SS and police officers for the conduct of their operations whenever the local military security missions, which are to be carried out as effectively as possible, permit such assignment. The closest contact between the senior SS and police officers and Wehrmacht Commanders is the prerequisite for success.

II. Army:

In the theater of operations the sole responsibility for the anti-guerrilla action rests with the Chief of the Army General Staff. For the accomplishment of the missions resulting from this responsibility, the police forces stationed in the theater of operations will, in addition to the Army forces employed for this purpose, be assigned to the Commanders concerned.

These Commanders will delegate the conduct of the operations to the Commanders of the Army or to the senior SS or police officers according to the situation, strength of forces to be employed, and seniority of the officers available for these operations.

C. Forces

I. Forces of the Reich's Leader of the SS:

The police and SS units available and intended for anti-guerrilla action will be primarily employed in offensive action. Their employment for other types of security missions will be avoided. A reinforcement of the police and SS forces in the East and large-scale transfers of other establishments of the Reich's Leader of the SS into the endangered areas will be endeavored. Those units which are still employed in the front line, but are indispensable for anti-guerrilla action, will, as soon as possible, be disengaged from their present duties by the Army and placed at the disposal of the Reich's Leader of the SS for commitment in their mission proper.

II. Forces of the Army:

To make it possible to reinforce the troops occupying the large eastern territory in the rear of the fighting front, I hereby order the following measures:

a. Two replacement divisions will be stationed in the Gouvernement Général [Poland] as soon as this territory becomes a part of the Zone of the Interior.

b. Five replacement divisions will be transferred into the areas of the Wehrmacht Commanders in the eastern territory and in the Ukraine by 15 October 1942.

c. All units, agencies, establishments, and schools of the Field Army will be transferred into the Reich's Commissariats or into the theater of operations by 1 October 1942, provided they are not to be placed under the control of the Commander of the Replacement Army. Necessary exceptions will be subject to approval by the Chief of the Wehrmacht High Command.

d. A field replacement organization, which is to be formed from the Replacement Army and is to be brought to a final strength of 50, 000 men, will be transferred into the theater of operations in the East by the end of October.

e. The necessary directives for implementation with respect to a to d will be issued by the Chief of the Wehrmacht High Command.

III. Forces of the Luftwaffe:

To reinforce the occupation forces in the East, the Commander in Chief of the Luftwaffe will direct the transfer of Luftwaffe installations into the areas endangered by guerrilla bands.

IV. Indigenous Forces:

Indigenous units which have an especially good record in anti-guerrilla activities can be maintained, provided volunteers absolutely reliable and willing to be operationally employed are available. Their front line commitment as well as the employment of emigrants or leaders of the former intellectual circles, however, will remain prohibited.

The Army General Staff will issue, insofar as this has not yet been done, uniform directives for these units with respect to matters of general discipline and administration, uniforms to be provided for them, and training in conformity with the guiding principles issued for the Turkish units. These directives will have to be approved by the Chief of the Wehrmacht High Command. German rank and other insignia as well as shoulder straps will be forbidden. Directives will be issued providing

aid and support for the relatives of those men. The amount to be paid as allowance and the extent of the support should conform to the accomplishments shown during commitment. Generosity will be exercised within the scope of the directives and possibilities with respect to the allotment of land. These men will be granted priority regarding these allotments.

V. Other Types of Forces:

The equipment of the Reich's Labor Service, railroad personnel, forest administration personnel, agricultural administration personnel, etc., with arms will be improved insofar as is necessary. These personnel are to be enabled to defend themselves as effectively as possible with weapons.

In the area endangered by guerrilla bands there should be no German who is not actively or passively engaged in anti-guerrilla activities.

Signed: Adolf Hitler

APPENDIX V

MARITIME SHIPMENTS TO THE SOVIET UNION 1942

In 1942, slightly more than half of all supplies and materiel imported into the Soviet Union from points overseas were brought in via the northern ports, as shown below:

Tonnages Imported:

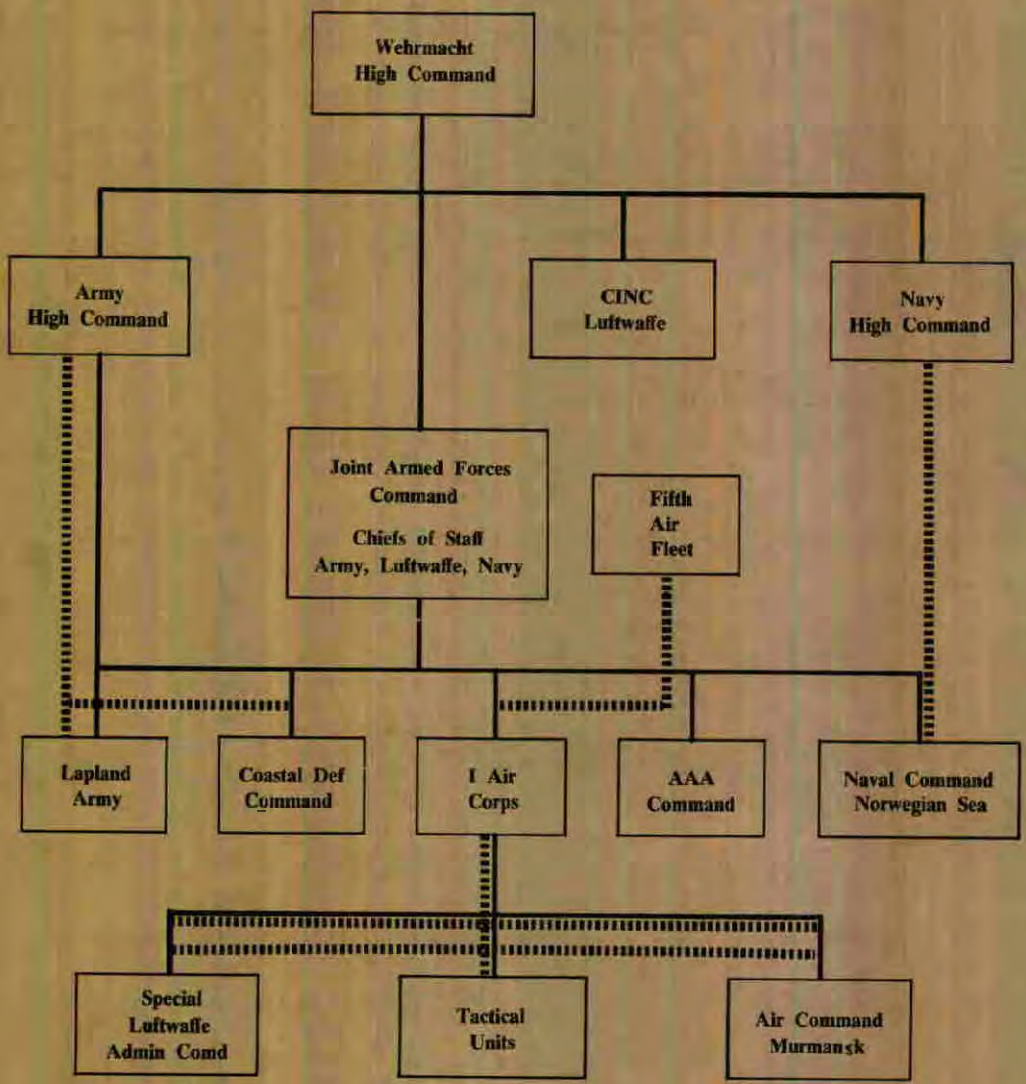
Total imports of the USSR	2,300,000 tons
Imports through White Sea Ports (Murmansk and Arkhangelsk)	1,200,000 tons
Imports through Iranian Ports (Karachi, Bushir, Bender-Shapur) . . .	600,000 tons
Imports through Far Eastern and Arctic Ports (Vladivostok, Nikolayevsk, Lena, Yennisei)	500,000 tons

Percentages of Imports by Category (White Sea) 1942:

Military materiel*	210,000 tons	(18% of total)
Raw goods for industry	1,600,000 tons	(49% of total)
Foodstuffs	240,000 tons	(20% of total)
Mineral Oils	160,000 tons	(13% of total)

*The military materiel consisted of the following:
1,880 aircraft
2,350 tanks
8,300 trucks
6,400 other motor vehicles
2,250 pieces of artillery

Suggested JOINT ARMED FORCES COMMAND ORGANIZATION
for the FAR NORTH AREA



Legend:

Tactical control

Administrative control

Tactical and administrative control

Appendix VI

APPENDIX VII

BIOGRAPHICAL SECTION OF IMPORTANT PERSONALITIES

Lt. Col. Werner Baumbach

Entered Luftwaffe, 1936; commissioned, 1938. With 30th Bomber Wing in Poland and France. Commander of the 30th, June 1942; August 1942 became only German bomber pilot to receive the Oak Leaf and Swords to the Knight's Cross. Later worked with remote-controlled bombs in collaboration with Dr. Speer. After the war published Zu Spaet? (Too Late).

(Soviet) General Pavel Alekseevich Belov

Red Army, 1918; attended various schools in the twenties. In the 1930's commanded a cavalry division. At outbreak of World War II, led a cavalry corps which, in 1941, was renamed the First Guards Cavalry Corps, a unit that played an important role in the battle for Moscow. December 1941 commanded the defenses near Kashira. Later participated in the offensives on the Dnieper and in the Vistula-Oder operations. Following the war he became Commander of the Southern Urals Military District, a post he held until the end of 1956. Elected Deputy of the U.S.S.R. Supreme Soviet, 1946, -50, -54; Chairman in 1957.

General der Infanterie Guenther Blumentritt

Served in World War I, and after the war in the German General Staff of the Reichswehr. December 1941, Chief Quartermaster (Oberquartiermeister I) in the Army High Command. September 1942 until 5 September 1944, Chief of the General Staff of German Command in the West; February to March 1945, head of the German Twenty-Fifth Army. Rendered valuable assistance to the German Historical Monograph Project of the U.S. Army, and has written a number of significant military works.

Field Marshal Fedor von Bock

Nephew of General von Falkenhayn, who headed Germany's Imperial Army Command, 1914-16. In World War I. Commander, Army Group North in Polish Campaign of 1939; directed Army Group "B" in the West in 1940; in invasion of Russia, commanded Army Group Center;

January 1942 assumed command of Army Group South, a post he held until he was sent to the Reserve Army 15 July 1942. Killed with his family on a road in northern Germany by Allied fighters 5 May 1945.

General der Gebirgstruppe Franz Boehme

An Austrian; began service career in 1900, graduating from War Academy in Vienna in 1911. Service during World War I. Rose to become Chief of the General Staff of the Austrian Army. After the Anschluss, 1938, was integrated into the Wehrmacht; by 1940 was in command of the 30th Division. October 1940, Commander of the XVIII Mountain Corps. Took over Second Panzer Army, June 1944, and served in the Balkans. January 1945 until war's end, was Commander of German Armed Forces in Norway and, at the same time, Commander of the Twentieth Mountain Army. Indicted at Nuremberg; committed suicide on 29 May 1947.

General der Flieger Rudolf Bogatsch

Served during World War I. April 1933, assigned to the Reichs Air Ministry. Thereafter he held numerous important posts in the new Luftwaffe, including command positions in flak artillery forces, and in air administrative and training commands. Holder of the Knight's Cross.

General der Flieger Alfred Buelowius

Entered the Royal Prussian Service in 1912; served during World War I. Discharged in 1919 with the honorary rank of captain. Entered new Luftwaffe in 1933; assigned to Luftwaffe Bomber and Dive-Bomber Schools until 1942, then was in Russia with the VIII Air Corps. September 1942, Commander of Luftwaffe Command North, and October 1942 of the 1st Air Division. From December 1944 until the war's end he commanded various Air Administrative Areas.

Field Marshal Ernst Busch

Served during World War I, and in various staff positions in the Reichswehr Ministry during 1920's and early 30's. Commanded the Sixteenth Army in the West October 1939 to end of March 1941, and at the end of May moved with the Sixteenth to the East. October 1943, relinquished command of Sixteenth Army to assume command of Army Group Center, and on 15 April took command of German Forces in the North (Western Front). Long suffering from a heart ailment, he died in British custody in 1945.

Col. (GSC) Torsten Christ

Began service as an officer in the Bavarian Artillery Regiment No. 7 (Mountain), 1925. Later took flying training. Began full time service for the Luftwaffe, 1935. June 1936, became Chief of the Inspectorate of Military Schools (Dresden and Berlin-Gatow), and, after attending the Luftwaffe War College, served as Operations Officer with "Legion Condor" in Spain. In 1939, became Deputy Operations Officer, and Operations Officer, Luftwaffe General Staff. Chief of Staff of the VIII and the IV Air Corps, 1941. From 1943 until war's end was successively Commander of the First and Fourth Air Fleets, Chief of Supply of the Fourth Air Fleet, Chief of Staff of the Second Air Fleet, Base Commander at Cologne, Bonn, and Duesseldorf, and finally Chief of Supply, Luftwaffe High Command.

Admiral Otto Ciliax

German Imperial Navy, 1910; in World War I. January 1939, commanded battleship Scharnhorst, and in December became Chief of Staff of Naval Forces Command West. June 1941, Commander of Battleships, a post he held until June 1942, when he became Inspector of Torpedoes. Commander of German Naval Forces in Norway, March 1943 to war's end. Holder of Knight's Cross; discharged, February 1946.

General der Flieger Paul Deichmann

Infantry officer and aerial observer in First World War; later a Reichswehr officer. Transferred to Reichs Air Ministry as a technical advisor, 1934. World War II, served as Chief of Staff of the II Air Corps in the West and later in Russia. August 1942 to June 1943, Chief of Staff of the Wehrmacht Command South under Field Marshal Kesselring. Subsequently held other important posts in the Luftwaffe, including command of IV Air Administrative Command (Austria). Recipient of the Knight's Cross. Lent invaluable assistance to the USAF Historical Division's GAF Monograph Project in Karlsruhe as well as to the Fuehrungsakademie of the Bundeswehr. In 1964, he became the first foreigner to be awarded the Air University Award.

Generaloberst Eduard Dietl

In the Bavarian Army in World War I, and remained in service in the new Reichswehr. Active in the formation of the German Mountain Troop organization. In 1941, after a successful campaign around Narvik,

took command of the XIX Mountain Corps in northern Norway and Finland. January 1942, assumed command of the German Army Command Lapland; June 1942, of the Twentieth Mountain Army. Killed in an air accident 25 June 1944.

Generalmajor Hans Doerr

Lieutenant in Field Artillery during World War I; discharged, 1920. Returned to the Army, May 1924, in Artillery Regiment No. 4. Became a General Staff Officer, and by October 1935 had become a member of the staff of the VII Corps. In 1937, attended the War Academy (Kriegsakademie); by the outbreak of World War II was Chief of Military Transportation of the German Army. June 1941, Chief of the General Staff of the LII Corps; Chief of the German Army Mission to Rumania, September 1942, and in October became Chief of the German Liaison Staff to the Fourth Rumanian Army. Served from late 1943 as Military Attaché at the German Embassy in Madrid. Has written several military histories of worth since the end of the war.

General der Flieger Karl Drum

Entered military service, July 1913, and served in World War I as a company officer in the infantry and as a flying observer. Between the wars was trained as a General Staff Officer, and held a number of technical and advisory posts, the last being Chief of the Inspectorate of Air Reconnaissance Forces and Operations with the Reichs Air Ministry. As specialist in army-air cooperation, began Second World War as Chief of Staff to the Luftwaffe General with the Commander in Chief, Army. Chief, Air Support Command, Army Group South (Russian Front), 1941-42. From then until the end of World War II, was Commander in Chief of Wehrmacht Forces in Holland, Commanding Officer of the 11th Luftwaffe Field Division, and held several administrative commands, the last being Commanding General and Commander in Chief, Luftwaffe Administrative Area, Western France. Participated in writing studies for the GAF Monograph Project in Karlsruhe.

Generaloberst Nikolaus von Falkenhorst

Served in World War I. In the Norwegian Campaign, 1940, commanded XXI Army Group, and in April 1941 assumed command of Army Command Norway in Norway and Finland. January 1942, Commander of all Wehrmacht forces in Norway, a post he held until December 1944. Sentenced to death by a joint British-Norwegian court after World War II,

his sentence was first commuted to life imprisonment, then to ten years, and on 23 July 1953 was remitted.

General der Flieger Martin Fiebig

Trained in the Soviet Union in late 1920's. Specialist in close support operations. Commanded Air Division 1, and the VIII Air Corps, succeeding von Richthofen. He then bore the heavy responsibility of trying to support Army Group Don and to supply the Sixth Army at Stalingrad. December 1942, awarded Oak Leaf to his Knight's Cross. Later led II Air Corps, and ended his wartime service as Commander in Chief of Luftwaffe Command Northeast.

General der Flieger Stefan Froehlich

Rumanian; entered the military service of Austria-Hungary, August 1908. Served during World War I, and continued in the Army under the Austrian Republic. May 1933, became a full-time air officer. After the Anschluss of 1938, entered the German Luftwaffe in grade and became Commander of the 1st Group, 76th Bomber Wing at Wiener-Neustadt; November 1939, assumed command of this wing. In 1941, served on the staff of Air Command Africa, and in March 1942 became Commander of the 2nd Air Division. Later served as Commander of IX Air Corps, Air Administrative Area XVII, Luftwaffe Command Southeast, and finally as head of the Tenth Air Fleet.

Reichsmarschall Hermann W. Goering

Credited with 20 aerial victories in World War I; last Commander of the famous Richthofen Fighter Wing No. 1. After the war, promoted aviation ventures in Germany and Sweden, avidly supporting the Nazi Party. Fled to Sweden after Hitler's 1923 "Putsch" in Munich; returned to the Reich and soon became a leading political figure. Commander in Chief of the Luftwaffe; promoted in 1938 to Field Marshal. July 1940, became the only Reichsmarschall in Germany. Removed from his post 23 April 1945, and only escaped a worse fate by the intervention of his own troops. Tried and sentenced at Nuremberg; took his own life 15 October 1946.

Field Marshal Robert Ritter von Greim

World War I flyer; won 28 aerial victories and a hereditary title from the King of Bavaria. Helped organize Chiang Kai-shek's Chinese

Air Force in the 1920's, and organized the German Commercial Pilots' School in Wuerzburg. Reentered the Service in 1934 as a major in command of Fighter Wing "Richthofen." In 1939, commanded Air Division 5; 1940-43, commanded the V Air Corps. July 1943, Commander of Luftwaffe Command East (later designated Sixth Air Fleet). Field Marshal, 25 April 1945; given Goering's post as Commander in Chief of the (then almost nonexistent) Luftwaffe. A Knight's Cross winner, he took his life in 1945, shortly after his capture by American forces.

Generaloberst Heinz Guderian

World War I soldier; between wars served in the Truppenamt (Troop Office, a cover for the General Staff) of the Reichswehr, under Col. Freiherr von Fritsch. During the Polish and Western campaigns, commanded an armored group. May to October 1941, commanded the 2nd Panzer Group in Russia. Was then retired because of differences with Hitler. February 1943, recalled to duty as General Inspector of Armored Forces, a position he held until the end of the war. Wrote a number of books and articles of note after World War II concerning German military history. Died in the 1950's.

Generaloberst Franz Halder

Served in World War I and as member of the German General Staff between wars. In early 1938, became Chief Quartermaster I in the High Command of the German Army; August 1938, appointed Chief of the General Staff of the Army, a post he held until his resignation 24 September 1942. An eminent strategist, Halder often found himself at odds with Hitler, which led to his decision to resign. After World War II he served as the driving force in the U.S. Army's German Historical Monograph Project under the direction of the Office of the Chief of Military History. He also lent assistance to the USAF Historical Division's German Monograph Project.

Col. (GSC) Lothar von Heinemann

Enlisted in the 5th Prussian Infantry Regiment, 1925. Commissioned 1 September 1930. Served in his old regiment as a company officer until 1934, when he became a company commander in the 5th Panzer Regiment. In 1936 attended the War Academy in Berlin and transferred to the Luftwaffe for pilot training. Squadron leader of the 4th Bomber Wing in Poland; Operations Officer of the VIII Air Corps in the West in 1940. Became special duty officer with the staff of the Commander in Chief of the Luftwaffe for the Voronezh offensive, April 1942; later

served at Stalingrad, the Kuban, and Kursk. Served in various staff positions of importance; ended his war service as Commander of the 14th Air Division.

Generaloberst Gotthard Heinrici

Commissioned August 1906, as lieutenant of infantry. In World War I held various staff positions, rising to captain. Between the wars, served in the Reichswehr. September 1939, assigned as Commander, 16th Division; June 1940, assumed command of the XXXXIII Corps. January 1942, assumed command of the Fourth Army in Russia; August 1944, took over the First Panzer Army. Later commanded Army Group Vistula and on 30 April 1945 went to the Fuehrer Reserve. Holder of the Knight's Cross with Oak Leaf and Swords.

Generaloberst Erich Hoeppner

Served during World War I, and held various staff positions in the Reichswehr between wars, becoming one of Germany's best tank experts by the outbreak of World War II. From November 1938 until September 1939, served on staff of General Command XVI (Berlin); after service in Poland and France, commanded Fourth Panzer Group in the invasion of Russia. Degraded and dismissed, January 1942, by Hitler, because his unit (then the forward Wehrmacht force before Moscow) was withdrawn to better defensive positions without the Fuehrer's approval. Subsequently took part in the attempt to kill Hitler on 20 July 1944, was tried, convicted, and hanged 8 August 1944.

Generalleutnant Alexander Holle

Enlisted November 1915 in Infantry Regiment No. 13. After the war became a lieutenant in the new 100,000-man Army (Reichswehr). Served with the 16th Infantry Regiment until 1931, when he attended the War Academy. April 1934, assigned to the Luftwaffe; by March of 1938 he had the command of the 1st Group, 3rd Dive-Bomber Wing "Immelmann." January 1940, Chief of Staff, IV Air Corps. He served thereafter as Commander, 26th Bomber Wing; Chief of Staff, Air Commander North (East); Chief of the Luftwaffe Staff in Greece; Commander of the X Air Corps, Fourth Air Fleet, and Luftwaffe Command West. From December 1944 until the war's end, Holle commanded the German Luftwaffe (IV Air Corps) in Denmark.

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Generaloberst Hermann Hoth

Veteran of World War I. In World War II participated in the Polish and Western campaigns, and on 22 June 1941 commanded the Third Panzer Group in Russia. October 1941, assumed command of Seventeenth Army; June 1942, took charge of the Fourth Panzer Army (Eastern Front). November 1943, Commander of German Forces Erzgebirge (Ore Mountains) in Bohemia. Hoth was tried in Nuremberg, and sentenced to 15 years' imprisonment at Landsberg.

Generaloberst Hans Jeschonnek

Served in World War I. Between wars, served in the Reichswehr and promoted aviation groups. September 1933, transferred to the Luftwaffe as a captain. By February 1939, had become Chief of the Luftwaffe General Staff. Although a protégé of General Wever, Jeschonnek remained an opponent of strategic air power. Differed at times with Goering, and sometimes even with Hitler, whom he considered to be a genius. His appointment as Chief of the Luftwaffe General Staff represents the first clear break with the older traditions of the Reichswehr. The circumstances surrounding his suicide 19 August 1943 provide an interesting insight into command and policy problems in the Luftwaffe.

Field Marshal Wilhelm Keitel

Service prior to and during World War I; remained in service with the new Reichswehr. By September 1939, had risen to the post of Chief of the High Command of the Wehrmacht, an office he held until the end of World War II. Hitler found him useful chiefly because he could rely upon him to be a "Yes man," and one who might help to keep the old Reichswehr officers in line. Held in low esteem by the professional officer corps. Tried and convicted at Nuremberg, and executed 16 October 1946.

Generaloberst Alfred Keller

Won the highest decorations during World War I as Commander of Bomber Wing I, and was an "old eagle," having flown before 1914. Advanced civil aviation enterprises in the 1920's; in 1934 returned to the Army as a major. March 1935, transferred to the Luftwaffe; March 1939, took command of the IV Air Corps. From 22 June 1941 to 28 July 1943, commanded the First Air Fleet in Russia.

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Field Marshal Albert Kesselring

Undoubtedly the best known Luftwaffe combat commander to Americans. Served in World War I and later in the Reichswehr. Transferred to the Luftwaffe, October 1933, and became a general in 1934. Commander of the First Air Fleet, 1938; Commander of the Second Air Fleet, 1940, and served in the West and in Russia. December 1941 to June 1943, commanded the Second Air Fleet and German Forces in the Mediterranean; July 1943 to 10 March 1945 commanded Army Group "C" and German Forces in Italy, as well as defense forces in the West and South. Rendered great assistance to the USAF Historical Division's GAF Monograph Project in Karlsruhe, where his presence encouraged other German military officers to support the program. Died 16 July 1960.

Field Marshal Ewald von Kleist

Member of a famous Prussian family, 31 of whom had won the coveted Pour le Mérite. Served in World War I. Transferred from cavalry forces to armored units after the war. Retired 28 February 1938. Recalled to duty as Commander of the XXII Army Corps 1 September 1939. Served in the West and in the Balkans with armored units. On 22 June 1941, took part in the invasion of Russia at the head of the 1st Panzer Group; November 1942 assumed command of Army Group "A" (East), with which he served until March 1944. Kleist was delivered to the Tito Government in 1946 by the Americans, and in 1948 was turned over to the Soviet Union, where he is reported to have died in a Russian prison.

Field Marshal Guenther von Kluge

Mountain artillery officer, World War I. Between the wars served in the Reichswehr. Commanded the Fourth Army in Poland, in the West, and along the German-Soviet border. December 1941, Commander of Army Group Center, which post he held until his transfer October 1943 to the Fuehrer Reserve. From July 1944 to August 1944, commanded Army Groups "B" and "D" in the West. An avowed enemy of Hitler, he participated in the plot of 20 July 1944. Summoned to appear in Berlin, obviously for Gestapo interrogation, von Kluge took poison on 19 August 1944.

Generaloberst Guenther Korten

Served in the First World War. By 1939 was one of the leading personalities in the Luftwaffe. September and October 1939, served as Chief of the General Staff of the Fourth Air Fleet in Poland; early 1940 to July 1940, Chief of the General Staff of the Third Air Fleet in the West;

April 1941, Chief of the General Staff of the Fourth Air Fleet in the Balkans, later in Russia. From July 1942 he held the commands of the I Air Corps, Air Force Command Don, First Air Fleet; August 1943 became Chief of the General Staff, Luftwaffe, a post which he held until 22 July 1944. Seriously wounded in Count von Stauffenberg's bomb attempt on Hitler's life, and died two days later.

Field Marshal Georg von Kuechler

Served in World War I and in the Reichswehr, and held various administrative posts until World War II. Commanded Third Army in Poland, Eighteenth Army in the West; directed the Eighteenth Army in the invasion of the Soviet Union. January 1942 until January 1944, Commander of Army Group North. Sentenced to 20 years' imprisonment at Nuremberg. Freed February 1955.

Field Marshal Wilhelm List

One of the more senior officers in the entire German Wehrmacht. Served during World War I; by 1927 had become a Branch Chief in the Reichswehr. Head of Military District IV (Dresden), 1933 to 1938. Commanded Army Group Command 5 in Vienna, April 1938 until outbreak of World War II. Commander of Fourteenth Army in Polish Campaign, Twelfth Army in the West in 1940, and later in Rumania. June to October 1941, Wehrmacht Commander Southeast (Balkans); July 1942, Commander of Army Group "A" in Russia. Removed by Hitler and sent to the Fuehrer Reserve, 1942. February 1948, sentenced to life imprisonment at Landsberg, but was pardoned in 1952.

Generaloberst Alexander Loehr

Austrian national, born in Croatia. Flying officer and member of the Austro-Hungarian General Staff during World War I. Commander in Chief of the Austrian Air Force, 1938. March 1939 to June 1942, commanded the Fourth Air Fleet in Vienna, Poland, the Balkans, and Russia. Thereafter he commanded German Armed Forces in the Southeast and Army Group "E." His efforts to protect pro-German Croatians in the closing days of World War II was the principal reason for his earning the enmity of Tito's followers. After a flimsy trial by the Yugoslavs, executed 16 February 1947.

Field Marshal Baron Carl Gustaf Freiherr Mannerheim

Finnish statesman and military leader. One of the top cavalry officers in the Imperial Russian Army prior to and during World War I, and was a member of the Imperial War Council. December 1917, left the Czar's service and took command of the Finnish Army of Liberation; joined by German units, drove the Russians from Finnish soil. Doctor of Philosophy; made substantial contributions in the field of geography. Commander in Chief of Finnish Armed Forces during Russo-Finnish War of 1939-40 and World War II.

Field Marshal Fritz Erich von Manstein

Served in World War I. Chief of Staff, Army Group South (von Rundstedt), 1939; September 1941 assumed command of the Eleventh Army in the East; November 1942, Commander of Army Group Don, and February 1943 of Army Group South. Rated by many as the best strategist in the German Army during World War II. On 30 March 1944, following a final disagreement with the Fuehrer, Manstein resigned. His Verlorene Siege (Lost Victories) is one of the best military histories of German operations in World War II.

General der Flieger Rudolf Meister

Aerial observer during World War I; served in Field Flying Detachment 420 of the Free Corps (Freikorps) after the war. Trained in the Soviet Union in military aviation, 1928 to 1930. Served with various schools and in the General Staff of the Luftwaffe. December 1939, Chief of the General Staff, I Air Corps; October 1940, Chief of Staff of the VIII Air Corps; September 1943, Commander of the IV Air Corps. Became Commander of Luftwaffe forces in Denmark, October 1944, and finished his service as Chief of the Luftwaffe Personnel Office.

Field Marshal Erhard Milch

Served during World War I as a member of Fighter Group 6. After the war, left the service and entered private aviation business. February 1933, appointed State Secretary of Aviation with rank of colonel in the Luftwaffe. Field Marshal, July 1940. A competent technical officer, with great talents in this field. He was also the person who blocked the route of subordinates seeking access to Reichsmarschall Goering.

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Field Marshal Walter Model

Held various staff positions during World War I and rose to the rank of captain. After the war, served in the Reichswehr; September 1939, Chief of Staff of the IV Corps; October 1939, Chief of Staff of the Sixteenth Army; November 1939, commanded the 3rd Panzer Division. October 1941, commanded the XXXXI Corps; January 1942, the Ninth Army (with the Second Panzer Army as well, as of July 1942); January 1944, commanded Army Group North in Russia; March 1944, Army Group North Ukraine, and June 1944, Army Group Center. Holder of the Knight's Cross with Oak Leaf, Swords, and Diamonds; an ardent Nazi. August 1944 until end of the war, Commander of Army Groups B and D in the West.

Generalmajor Fritz Morzik

Entered military service April 1907. May 1914, transferred to the 2nd Air Force Battalion and served throughout the war in various flying units on the Eastern and Western Fronts and in Turkey. Commissioned 1919; flying instructor at the German School of Aviation. From 1939 on, Wing Commander, Chief of Air Transport (Office of Chief of Supply and Administration), Commandant of Instrument Flying Schools, Commander of 1st Air Transport Section, Commanding General of First Parachute Army, General with special duties to the Seventh Air Administrative Command, and Chief of Air Transport of the Wehrmacht. Contributor to the USAF Historical Division's GAF Monograph Project.

Generalleutnant Andreas Nielsen

Served during World War I and in the Reichswehr between wars. November 1923, participated in the Hitler "Putsch" in Munich; 1928, went to Russia for flying training; 1939, to Spain as a Bomber Group Commander in "Legion Condor." October 1940, became Chief of Staff, Fifth Air Fleet (Norway and Finland); December 1943, German Luftwaffe Commander Denmark. May 1944, Chief of Staff, Air Fleet Reich; assisted in the demobilization of the Luftwaffe in northern Germany in 1945. After two years of imprisonment under the British, he was released and became one of the principal contributors to the USAF Historical Division's GAF Monograph Project. Died April 1957.

Field Marshal Friedrich Paulus

World War I and Reichswehr staff officer; Chief of Staff, Army Group 4 and Quartermaster I of Army High Command by 1 August 1939. January 1942, Commander of Sixth Army in Russia, which he surrendered February 1943 at Stalingrad. First German Field Marshal captured in World War II. His actions during the Stalingrad campaign are still controversial. A brilliant staff officer, he seemed to lack the independence of spirit necessary to contradict Hitler's order to stand fast "at all costs." After his capture, perhaps not by his own choice, he took part in the "Free Germany Committee" of captured German officers who sought to "sell" Communism and to induce Germany to surrender. He also served as an Inspector of People's Police in East Germany. Died in Saxony in 1957.

(Soviet) General of the Army Ivan Yefimovich Petrov

Became Communist Party member in 1918. After fighting in the Civil War, attended the Frunze Military Academy. Commanded First Maritime Army in defense of Sevastopol, the Maritime Army Group on the Southern Front, 1943-1944, Crimean operations in 1944, Fourth Ukrainian Front in late 1944, and operations for seizing the Carpathians, parts of Hungary, and Czechoslovakia. After World War II, commanded the Turkestan Military District, served on the Ministry of Defense, was a Deputy of the U.S.S.R. Supreme Soviet, and Communist Party Delegate.

General der Flieger Kurt Pflugbeil

World War I flyer; in the Reichswehr in 1920. March 1928, went to Russia to receive aerial bombing training. Early 1930's, served in Germany and Italy; 1935, officially transferred to the Luftwaffe. August 1939, Commander of the VIII Air Corps. January to August 1940, directed the Air Administrative Command which served Luftwaffe units in France and Belgium. Thereafter, until September 1943, commanded the IV Air Corps, much of which time he served in the East. Completed his service as Commander of the First Air Fleet. Died May 1955.

General der Flakartillerie Wolfgang Pickert

Served on both Eastern and Western Fronts during World War I. With the 100,000-man Reichswehr, 1919; held various command and staff positions during the 1920's and early 30's. Joined the Flak Artillery arm of the Luftwaffe, 1935, and by 1937 was Inspector of Flak Forces of the

Reichs Air Ministry. Autumn 1939 to April 1940, commanded the Rhine-Ruhr Air Defense District; during the French Campaign served as Chief of Staff, I Flak Corps. Served as Chief of Staff, Air Fleet Reich, until May 1942, when he took command of the 9th Flak Division (Stalingrad, Kuban Bridgehead, Crimea). Commander of the III Flak Corps (Normandy, Ardennes, Rhine), 1944; Commanding General of Flak Forces, Luftwaffe High Command, March 1945, and in April was present at the capitulation negotiations of Army Group Italy. A Knight's Cross winner, Pickert contributed after the war to the USAF Historical Division's GAF Monograph Project.

Generalleutnant Hermann Plocher

See "About the Author" in the front section of this study.

General der Flakartillerie Richard Reimann

Served during First World War; by September 1939, Commander of Flak Regiment 8. Commanding officer of the Luftwaffe Flak School, 1940; Commander of the I Flak Corps, 1941; Commander of the 18th Flak Division (Motorized), 1942; early 1943, Inspector of Flak Artillery Forces in the Eastern Theater of Operations. In 1943, again took command of the I Flak Corps. One of the most talented antiaircraft officers in the Wehrmacht.

Generaloberst Hans Reinhardt

Service during World War I and in the Reichswehr. By October 1941 he had become Commander of the Third Panzer Army, which he directed until August 1944. Served until January 1945 as Commander of Army Group Center. January 1945, assumed command of Army Group North, a post he held just two days. Sentenced in 1948 at Nuremberg to 15 years' imprisonment. July 1952, pardoned and released.

Field Marshal Dr. Ing. Wolfram Freiherr von Richthofen

Cousin of the famous Baron Manfred, Wolfram also served in Fighter Wing No. 1 during World War I and scored 8 aerial victories. Served in the Reichswehr; during 1920's earned his doctorate in engineering at Hanover. In Spain with "Legion Condor," 1936; in last year of Civil War, Commander of "Legion Condor." Served in the Polish and Western Campaigns. June 1941, Commander, VIII Air Corps in the East; July 1942, assumed command of Fourth Air Fleet. Took command of the Second Air Fleet, 1943. Promoted to Field Marshal February 1943.

Once an enemy of dive bombing, but later became a staunch enthusiast of such operations, which he carried out so effectively in southern Russia. Died of a lingering illness in Austria, July 1945.

Generaloberst Richard Ruoff

Beginning his military career in 1903, was a company commander by the end of World War I. In the Reichswehr in 1920's and 1930's. At outbreak of World War II, Commander of V Corps. January 1941, Commander of the Fourth Panzer Army, May 1942, of the Seventeenth Army; June 1943, sent to the Fuehrer Reserve because of illness. Only other active position was in the closing days of the war as Commandant of Town Commandanteur 196 at Riga, Latvia. He was taken by the Russians and hanged in 1946 with 19 other general officers.

Generaloberst Hans von Salmuth

Infantry officer in World War I and in the Reichswehr. In Polish Campaign, Chief of Staff of Army Group North, and in the West in 1940 was Chief of Staff of Army Group B. Remained with Army Group B until May 1941. April 1942, Commander of Seventeenth Army in the East; June 1942, Commander of the Fourth Army; July 1942, Commander of the Second Army, until February 1943. Again took command of the Fourth Army, July 1943. Assigned to lead the Fifteenth Army in the West, August 1943. Sentenced to 20 years at Nuremberg; freed 23 July 1953.

Generalleutnant Arthur Schmidt

Enlisted in the Army in 1914. After the war became an officer in the new Reichswehr. Participant in the early campaigns of World War II; replaced General Heim as Chief of Staff, Sixth Army, May 1942. According to von Manstein, was main source of opposition to breakout at Stalingrad. Captured with Field Marshal Paulus on 31 January 1943, and six years later was still in Soviet captivity.

Generaloberst Rudolf Schmidt

Army and panzer army leader with service dating back to World War I. Remained in the Reichswehr between the wars. Held several prominent positions during the Polish and French Campaigns. November 1941, Commander of Second Army in Russia, until January 1943, a month after he had also taken command of the Second Panzer Army. Commanded this unit until July 1943; Commander, November 1944, of Twenty-Fourth

Army in the West, which he led until the capitulation in 1945. After the cessation of hostilities he was carried off from his home in Weimar by Soviet agents.

Admiral Hubert Schmundt

Served in Imperial Navy in 1908, World War I, the Weimar period, and World War II. August 1939, Chief of Staff of Naval Group Command East and, concurrently, Commander of Naval Forces in Bay of Danzig. April 1940, Commander of Naval Reconnaissance Forces; August 1940, Commander of Cruisers; and November 1941, commanded Naval Command Norwegian Sea in operations against Anglo-American convoys bound for Murmansk and Allied raiding parties striking at German positions in Norway. September 1942, Chief of Naval Ordnance Office; March 1943, Commander of Naval Command Baltic; and June 1944 served as Special Purposes Officer for the Navy. Knight's Cross winner in 1940.

Generaladmiral Otto Schniewind

Entered Imperial German Navy in 1907; served in both world wars and in the interim period between wars. October 1938 to June 1941, Chief of Staff of Naval Operations; October 1938 to June 1939, also held the post of Chief of the Naval Command Office. June 1941 to July 1944, Fleet Admiral, and from March 1943 to May 1944 also Commander of Naval Group Command North. August 1944, sent to the Fuehrer Reserve, from which he was recalled to active duty April 1945. A Knight's Cross winner, Schniewind was tried at Nuremberg and freed, October 1948.

Generalmajor Karl-Heinrich Schulz

Began military career, March 1942, in German Navy. October 1935, transferred to the Luftwaffe as a captain and Adjutant for the Inspector of Flying Reserves, Reichs Air Ministry. June 1939, sent to the General Staff of the Luftwaffe, and in September 1939, joined the staff of Air Administrative Command VI. Commander of Bomber Wing 126, 1940; October 1940, Chief of Branch I, General Staff of the Fourth Air Fleet; June 1943, Chief of Staff, Fourth Air Fleet. Knight's Cross winner. Last position, May 1945, was Deputy Chief of the Luftwaffe Operations Staff.

General der Flieger Hans-Georg von Seidel

General Staff of the Army High Command before the end of World War I. Left the Army in 1920 as a captain of cavalry; returned to military

service April 1934 as a major in the new Luftwaffe. Quartermaster of the Luftwaffe, June 1941. His final assignment, June 1944, which he held until the war's end, was Commander in Chief of the Tenth Air Fleet.

General der Artillerie Walter von Seydlitz-Kurzbach

Began his career in 1908 with Field Artillery Regiment 36; served in World War I; remained in the artillery in the Reichswehr. September 1939, went into Poland as Commander of Artillery Regiment 22. March 1940, Commander of the 12th Infantry Division. January to May 1942, Chief of Personnel Office, Army High Command (Fuehrer Reserve). Then became Commanding General, LI Corps, with which unit he fought at Stalingrad until captured 31 January 1943. Considerable disagreement can be found concerning his character and motives, especially after he became chairman of the "Free Germany" Committee, sponsored by the Soviet Union to indoctrinate captured German officers and to urge Germans everywhere to lay down their arms.

Generalleutnant Hans Emil Otto Count von Sponeck

Born Duesseldorf 1888; cavalry officer World War I; held staff and command positions in Reichswehr; Generalmajor and CG 22nd Inf. Div., 10 February 1939; Generalleutnant and CG XXXXII Corps, 30 January 1940. Called by Manstein, "a very decent character. . . . and an especially able and considerate superior." Imprisoned January 1942 for exercising own initiative in withdrawing unit from Kerch Peninsula; tried; condemned to death; sentenced to life upon pleas by Army leaders; although clearly innocent of complicity, taken from prison and shot after 20 July 1944 plot along with conspirators.

Vizeadmiral Rudolf Stange

Entered Imperial Navy April 1916. Remained in service after World War I, and by 1937 was posted at the High Command of the Navy as a Group Chief of the Naval Operations Staff. Early 1941, in command of the heavy cruiser Luetzow (formerly the Deutschland). In 1942, assigned to the staff of the Fleet Command of the Admiral's Staff; November 1943, Chief of Staff of Naval Group Command South. December 1944, became See Commandant of East and West Prussia and also Fortress Commandant of Gotenhafen, ending his service as Admiral Commanding in the Netherlands area. Released from prison in 1948.

Generaloberst Adolf Strauss

Served during World War I. By 1928 had risen in the Reichswehr to the Staff of the Infantry School in Dresden. November 1938 to outbreak of World War II, Commander of Army Administrative Area II (Stettin). Service in the Polish conflict and in the Western campaign. May 1940, Commander of Ninth Army (which he later commanded in invasion of Soviet Union) until his retirement in January 1942. Released from British custody 5 May 1949 on grounds of age and ill health.

Generaloberst Hans Juergen Stumpff

Military service before and during World War I. General Staff officer in the Reichswehr. In 1933, transferred to the Luftwaffe as Chief of the Personnel Office, Reichs Air Ministry. June 1937 to January 1939, Chief of the General Staff of the Luftwaffe. During the first part of 1940, commanded the First Air Fleet. May 1940, Commander of the Fifth Air Fleet (Norway and Finland) until November 1943. Later commanded defense units of the Reich until the capitulation.

[Soviet] Marshal of the Soviet Union Semen Konstantinovich Timoshenko

Joined the Red Army in 1916 and worked with Partisan detachments in the Crimea and the Kuban area. By 1918, had risen to Commander, Second Brigade, under Budenny's Cavalry Corps. In 1920, commanded the 8th Cavalry Division in Budenny's Cavalry Army in the offensive against Poland; later commanded the 4th Cavalry Division against General Wrangel's "White" Army. In 1939, Commandant of the Kiev Military District, which was involved in the march into Poland after the Molotov-Ribbentrop Pact. December 1939, commanded the Karelian Front against Finland; in 1940, became People's Commissar of Defense. In 1941, commanded the Western and Southwestern Fronts, in 1943, the Northwestern Front near Demyansk, and in 1944-45 coordinated the operations of the Second and Third Ukrainian Fronts. A Hero of the Soviet Union with four Orders of Lenin.

[Soviet] Lt. General Andrei Andreevich Vlasov

Drafted into Red Army in 1919 and fought on the Don and Manych River lines against Wrangel's White Army. In 1920, fought against this force in the Caucasus and the Ukraine, after which he helped to liquidate anti-Communist irregulars in the Ukraine. Military Advisor to China in 1938; late 1939, commanded the 99th Division. June 1941, his IV Armored Corps (Lvov) fought its way out of encirclement, and elements thereof

fought at Kiev and then near Kursk. Commanded Twentieth Army in defense of Moscow. While in command of the Second Guards Army on the Volkhov Front was captured by the Germans. Autumn 1942, suggested a plan for a Russian Liberation Movement from Bolshevism, and appealed to Hitler to train and equip selected Russian prisoners for an "army of liberation." This idea was never fully accepted until 1944, when two divisions were equipped as the "Vlasov Army" and thrown into the lines on the crumbling Oder River Front. Having been "taken advantage of" by Hitler, Vlasov sent his forces to Prague, liberating the city of German rule. The Czechs, however (with Soviet backing), demanded that Vlasov's force leave the city. Vlasov was soon captured by the Red Army, given a spectacular public trial in Moscow, and hanged in May 1945 as a "war criminal."

Field Marshal Maximilian Freiherr von Weichs auf Glonn

Cavalry officer in First World War, and remained in service. Served in Poland; commanded Second Army in the Western campaign, the Balkans, and Russia. July 1942, Commander of Army Group "B," and vainly tried to persuade Hitler to permit withdrawal of Paulus' Sixth Army from the Stalingrad area. Took over German Forces in the Southeast (Balkans) 22 August 1943. Tried at Nuremberg, he was released because of poor health 3 November 1948.

Generalmajor Wolfgang von Wild

Naval cadet in World War I; commissioned in the German Navy in 1923. In mid-1930's, transferred to the Luftwaffe. Participated in the Polish campaign with coastal air units; April 1941, Air Commander Baltic. October 1941, Commander of the post Air Commander Atlantic until November 1942, when he became Air Transport Commander I (Southeast) at Athens. Ended career as Air Attaché to Tokyo.

General der Infanterie Otto Woehler

Army Officer Candidate February 1913; service in World War I. Between wars in various infantry and cavalry units and staff positions. At outbreak of World War II, was on the staff of Fourteenth Army; October 1939, Chief of Staff, XVII Corps. October 1940, Chief of Staff, Eleventh Army; May 1942, Chief of Staff, Army Group Center. Commanding General, I Corps, June 1943; November 1943, Commander of the Eighth Army.

(Soviet) Marshal of the Soviet Union Georgi Konstantinovich Zhukov

Drafted into Czar's Army in 1916. Served after 1917 in the Red Army against the Don Cossacks and Wrangel's White Army. August 1939, successful operation against Chinese in Mongolian area. Chief of the General Staff of the Red Army, January 1941; later organized the defense of Leningrad. November 1941, Commander of the Western Front at Moscow and led successful counterattack which relieved the city of German threats. As Deputy Commander in Chief, U.S.S.R. Armed Forces, prepared the Stalingrad, Kharkov, and Smolensk operations in 1942, 1943, and 1944. Conducted main advance from Warsaw to Berlin and directed the attack on Berlin. Became Commander in Chief, Soviet Occupation Forces in Germany, U.S.S.R. Minister of Defense, Member of Central Committee of the Communist Party in the Soviet Union.

APPENDIX VIII

LIST OF GAF MONOGRAPH PROJECT STUDIES

I. Published

Study No.	Title
153	The German Air Force versus Russia, 1941
154	The German Air Force versus Russia, 1942
163	German Air Force Operations in Support of the Army
167	German Air Force Airlift Operations
173	The German Air Force General Staff
175	The Russian Air Force in the Eyes of German Commanders
176	Russian Reactions to German Air Power
177	Airpower and Russian Partisan Warfare
189	Historical Turning Points in the German Air Force War Effort

II. To Be Published (in approximately the following order)

155	The German Air Force versus Russia, 1943
174	Command and Leadership in the German Air Force (Goering, Milch, Jeschonnek, Udet, Weber)
161	The German Air Force versus the Allies in the Mediterranean
158	The German Air Force versus the Allies in the West (1)

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Study No.	Title
159	The German Air Force versus the Allies in the West (2)
178	Problems of Fighting a Three-Front Air War
164	German Air Force Air Defense Operations
185	Effects of Allied Air Attacks on German Air Force Bases and Installations

III. Not To Be Published but Will Be Made Available to Researchers in the Historical Division Archives

150	The German Air Force in the Spanish War
151	The German Air Force in Poland
152	The German Air Force in France and the Low Countries
156	The Battle of Britain
157	Operation Sea Lion
162	The Battle of Crete
165	German Air Force Air Interdiction Operations
166	German Air Force Counter Air Operations
168	German Air Force Air-Sea Rescue Operations
169	Training in the German Air Force
170	Procurement in the German Air Force
171	Intelligence in the German Air Force
172	German Air Force Medicine

Study No.	Title
179	Problems of Waging a Day and Night Defensive Air War
180	The Problem of the Long-Range Night Intruder Bomber
181	The Problem of Air Superiority in the Battle with Allied Strategic Air Forces
182	Fighter-Bomber Operations in Situations of Air Inferiority
183	Analysis of Specialized Anglo-American Techniques
184	Effects of Allied Air Attacks on German Divisional and Army Organizations on the Battle Fronts
186	The German Air Force System of Target Analysis
187	The German Air Force System of Weapons Selection
188	German Civil Air Defense
190	The Organization of the German Air Force High Command and Higher Echelon Headquarters Within the German Air Force
194	Development of German Antiaircraft Weapons and Equipment up to 1945
Extra Study	The Radio Intercept Service of the German Air Force

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LIST OF MAPS

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20. Battles in the Caucasus and Kalmyk Steppe, July-December 1942

21. German Summer Offensive, 28 June-22 July 1942

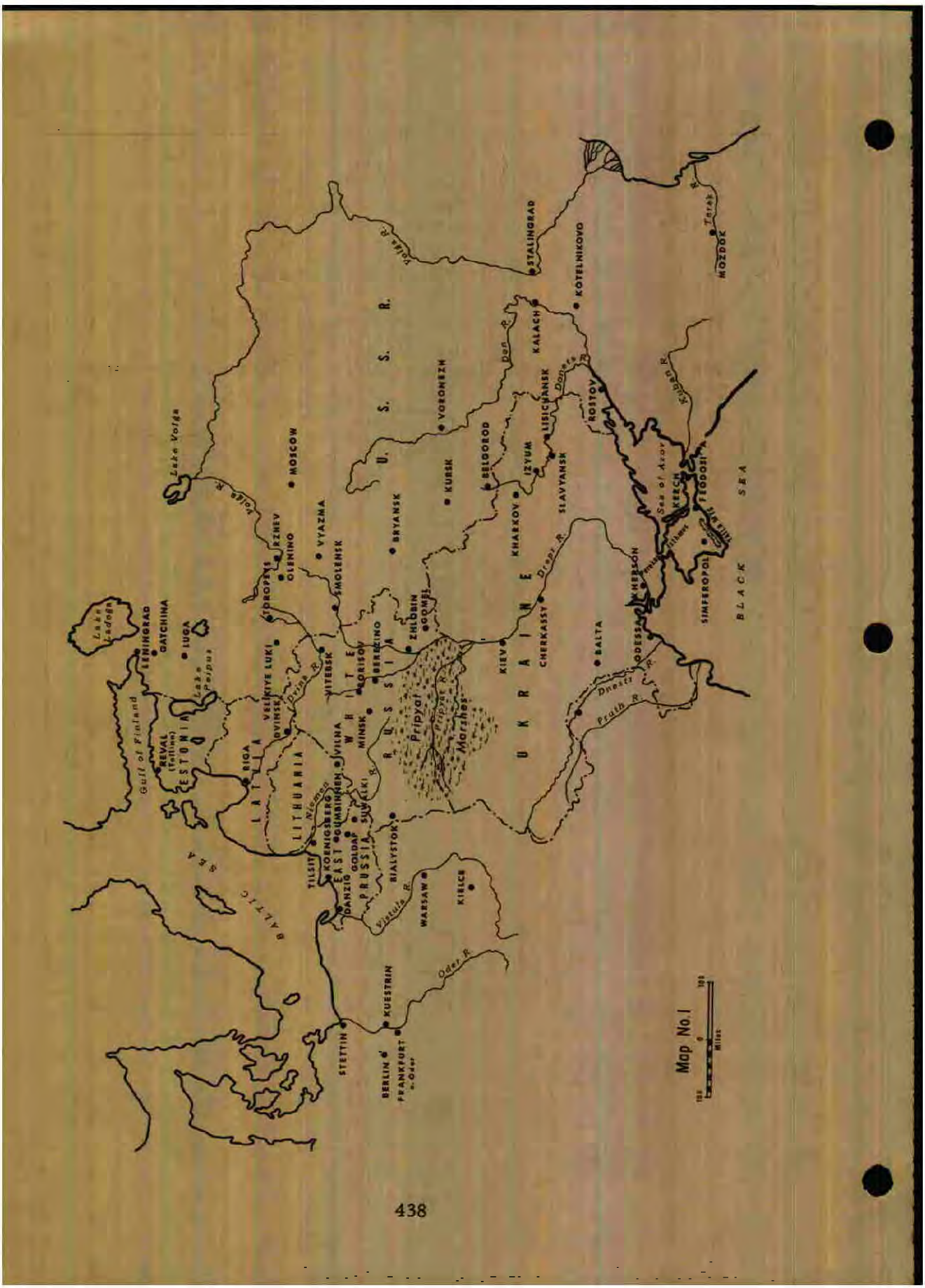
22. German Summer Offensive, 23 July-23 August 1942

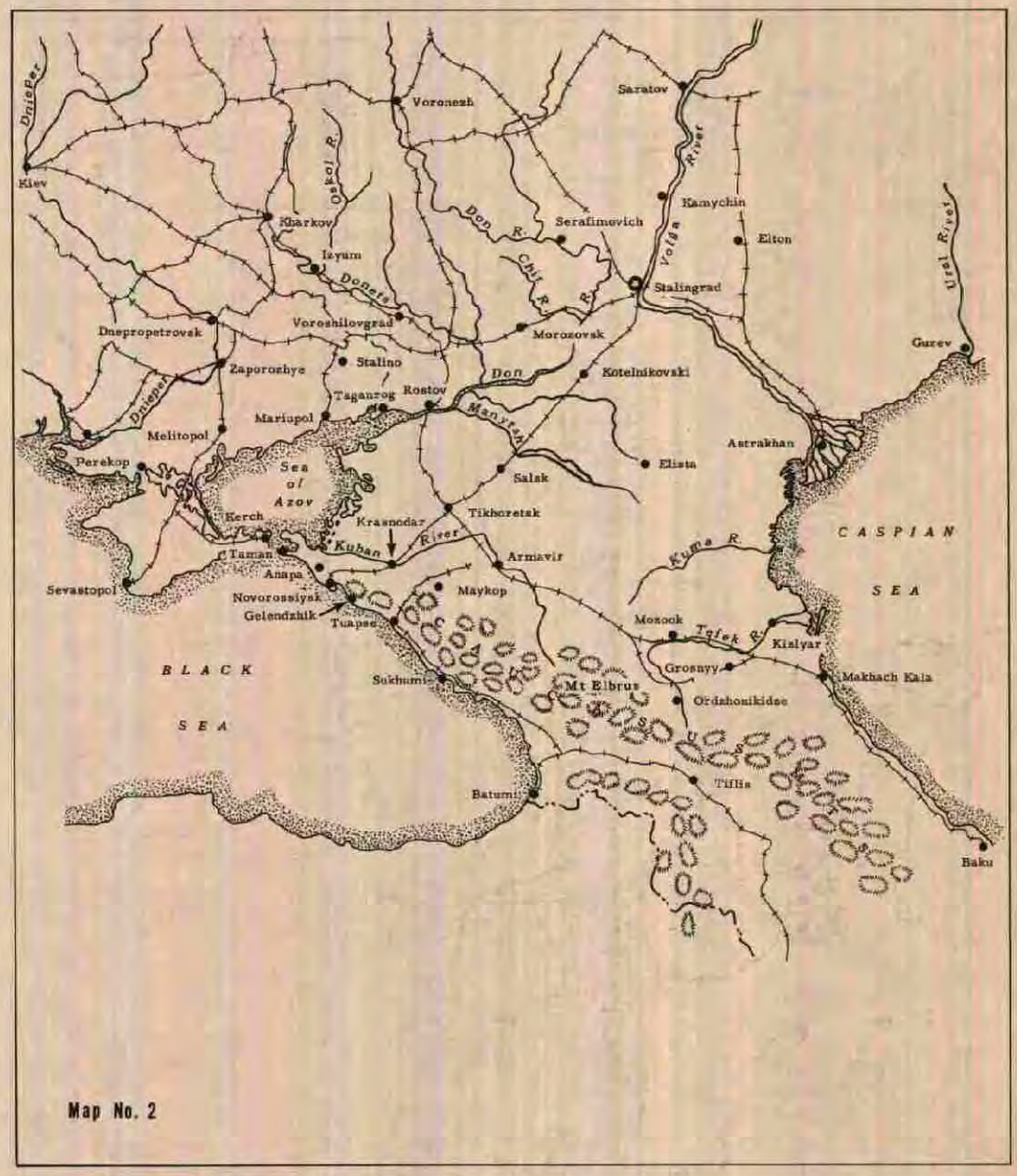
23. Battle of Stalingrad, 24 August-18 November 1942

24. Soviet Offensive, 19 November to Envelopment of Sixth Army, 1942

25. Air Logistical Support of the Sixth Army at Stalingrad, November-December 1942

26. Operations in the Eastern Theater, November 1942-January 1943





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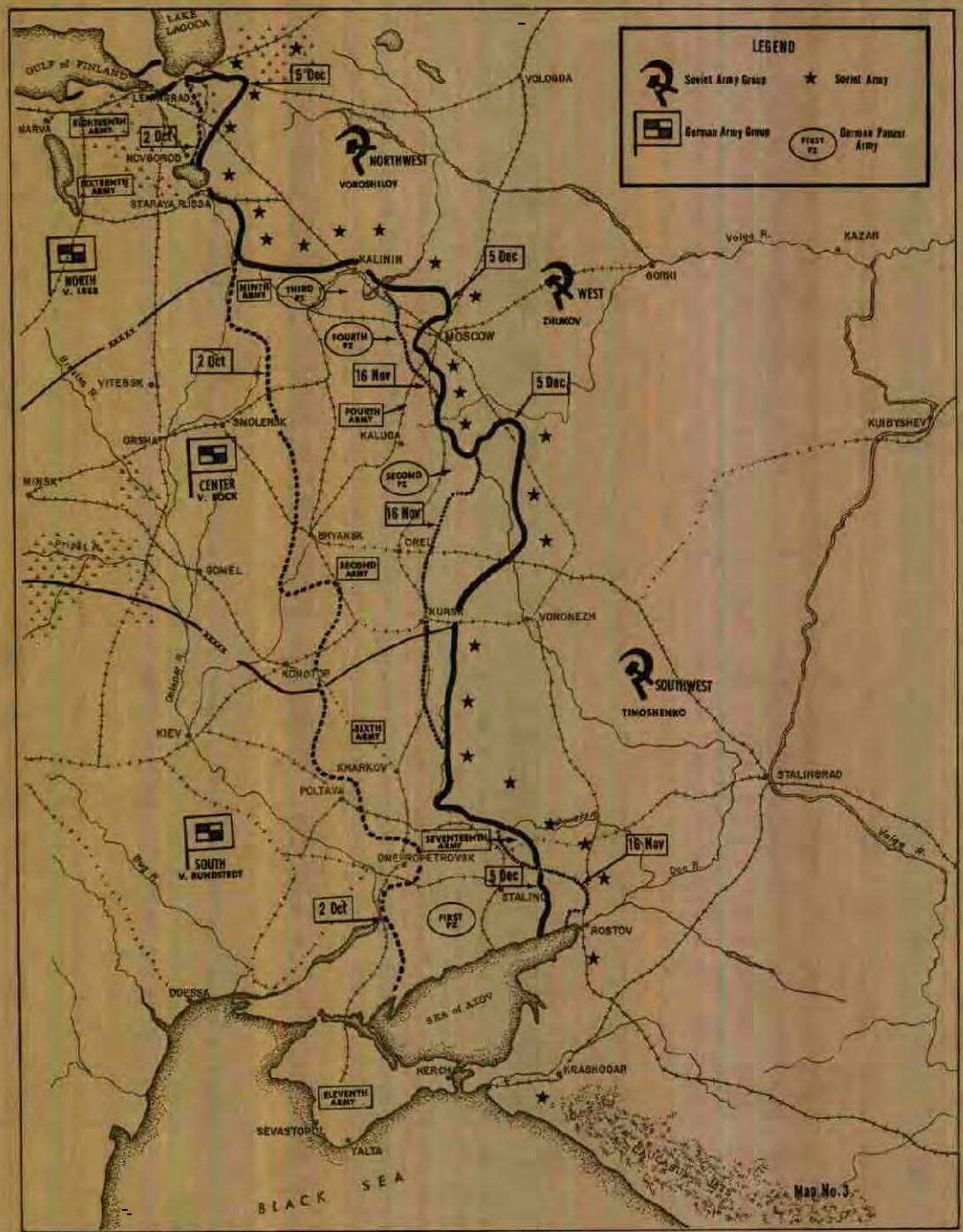

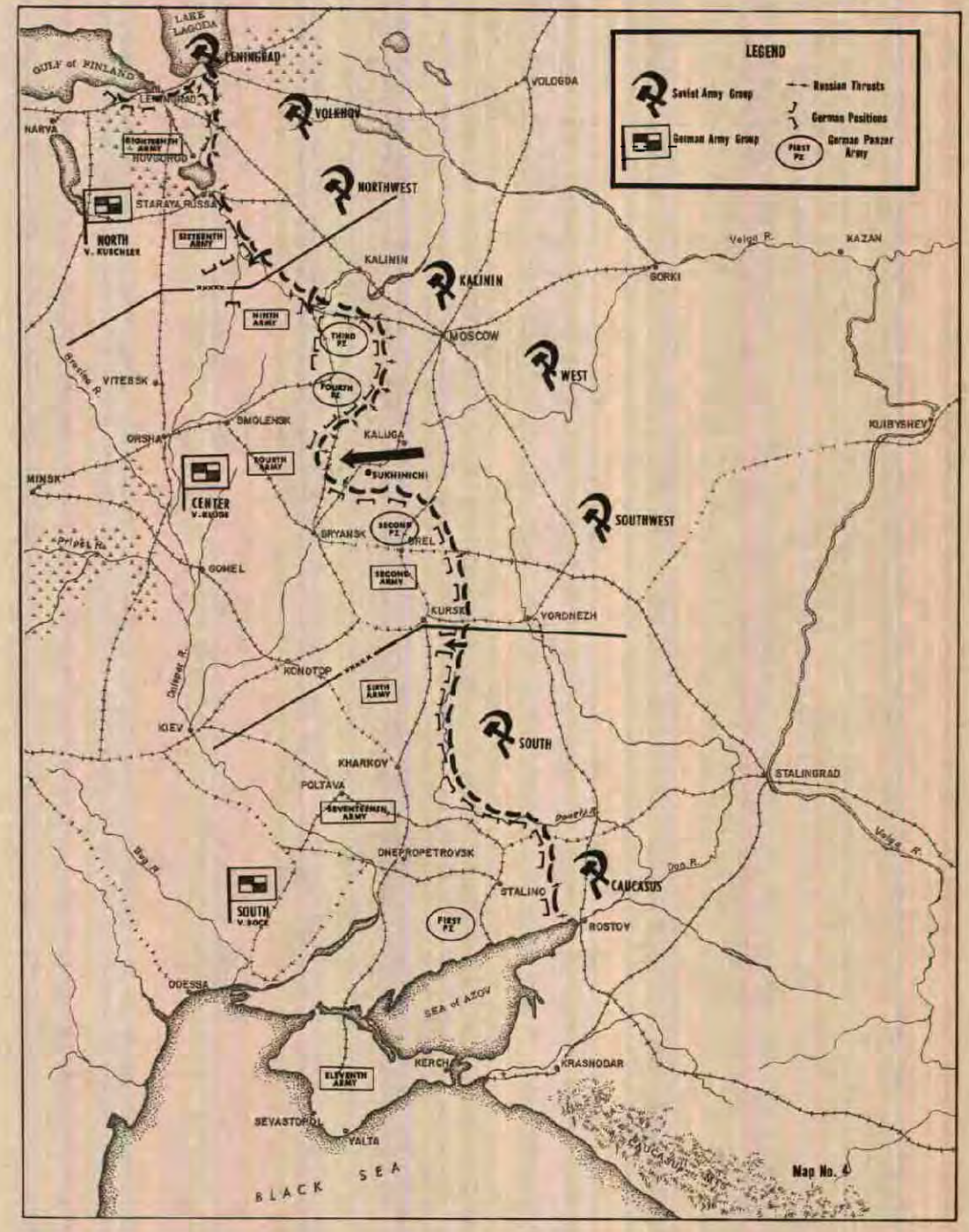

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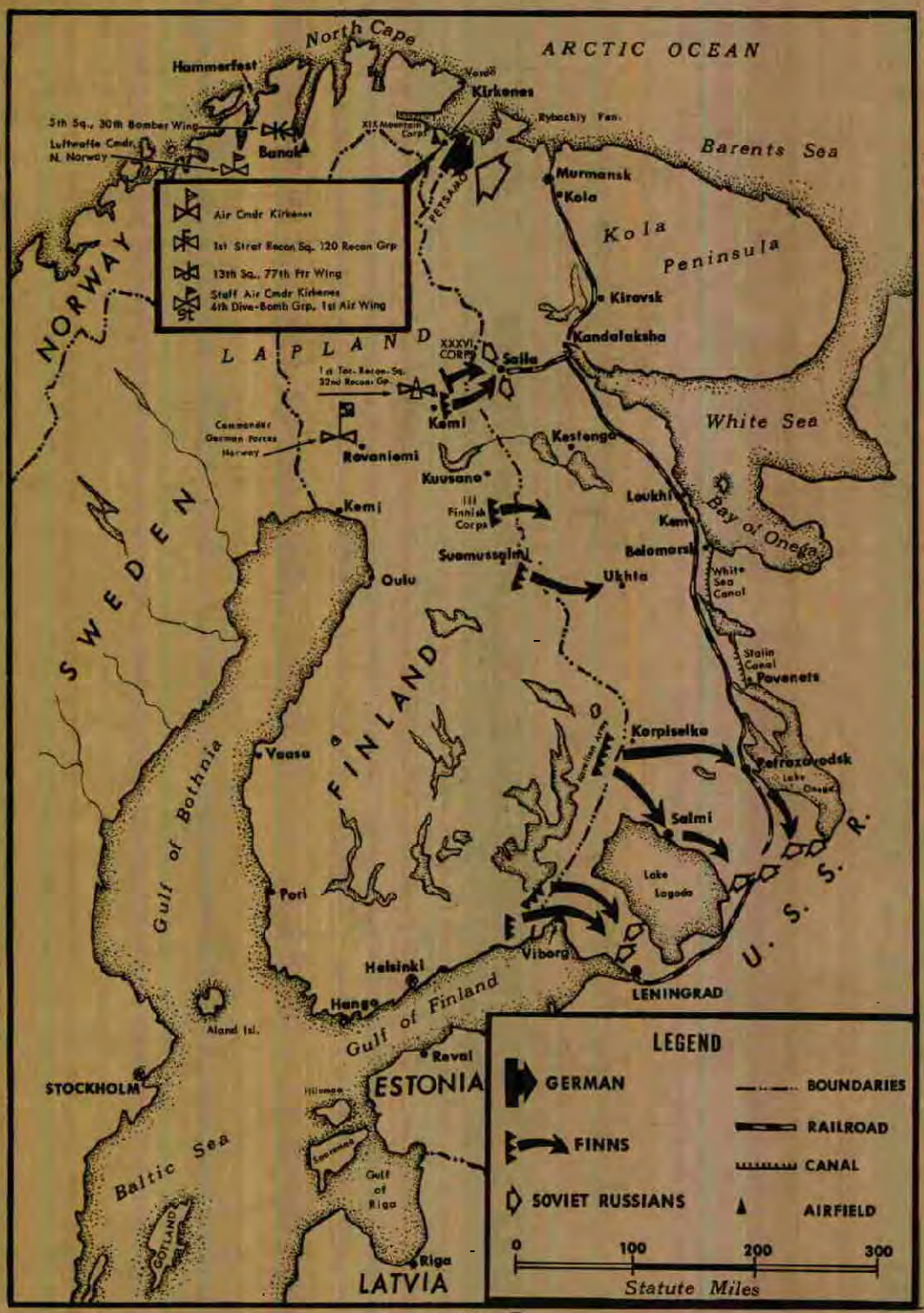

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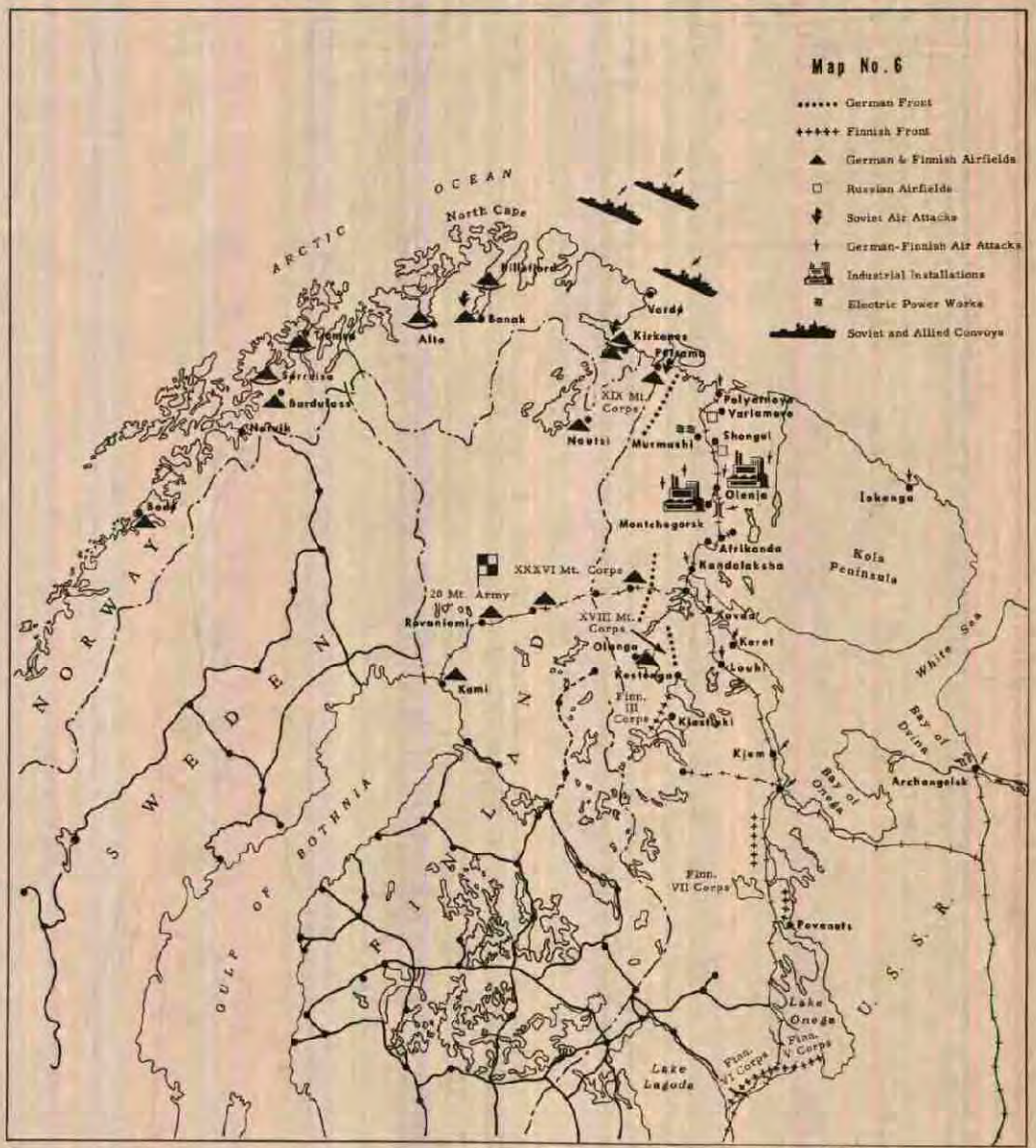

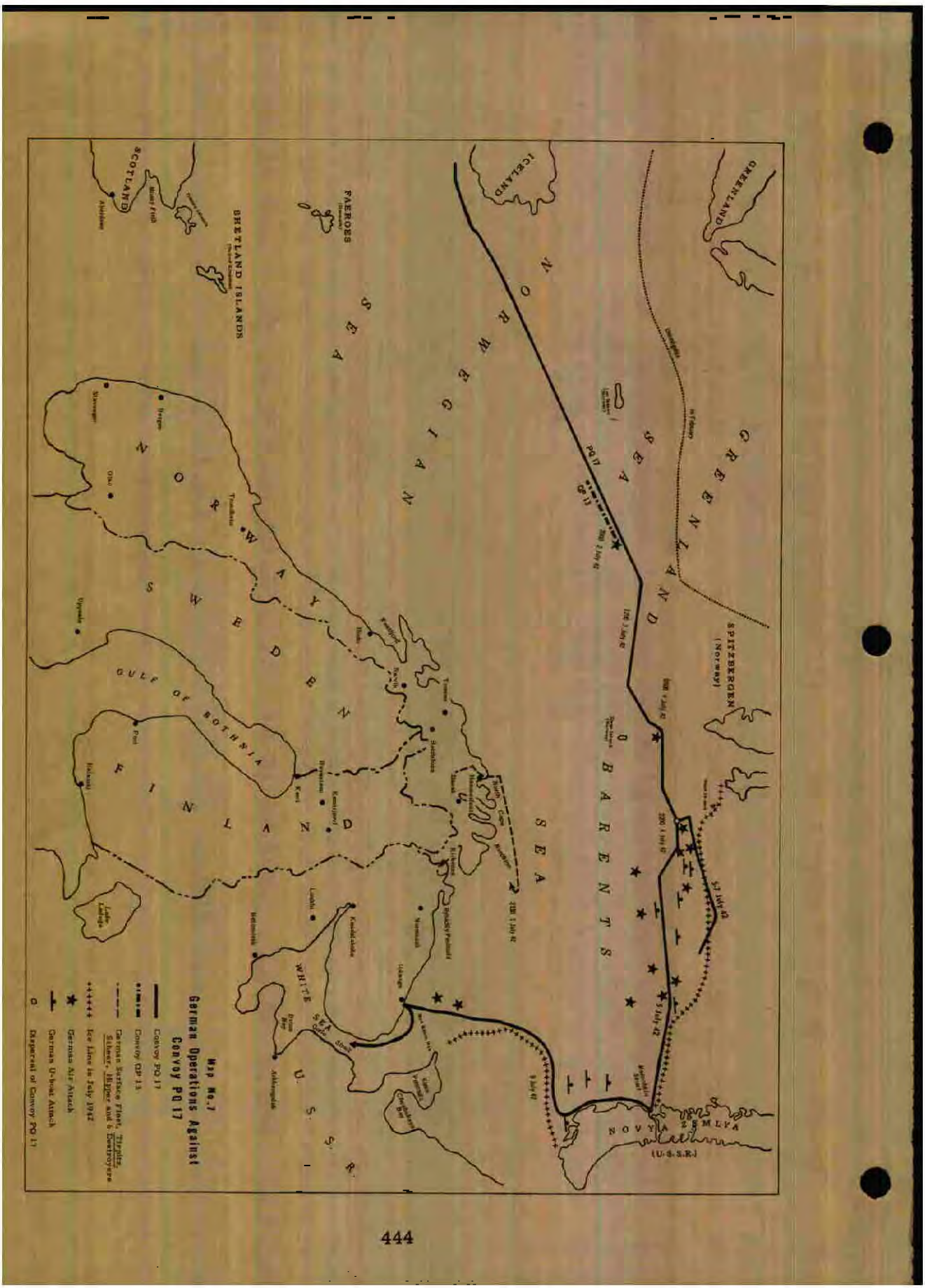

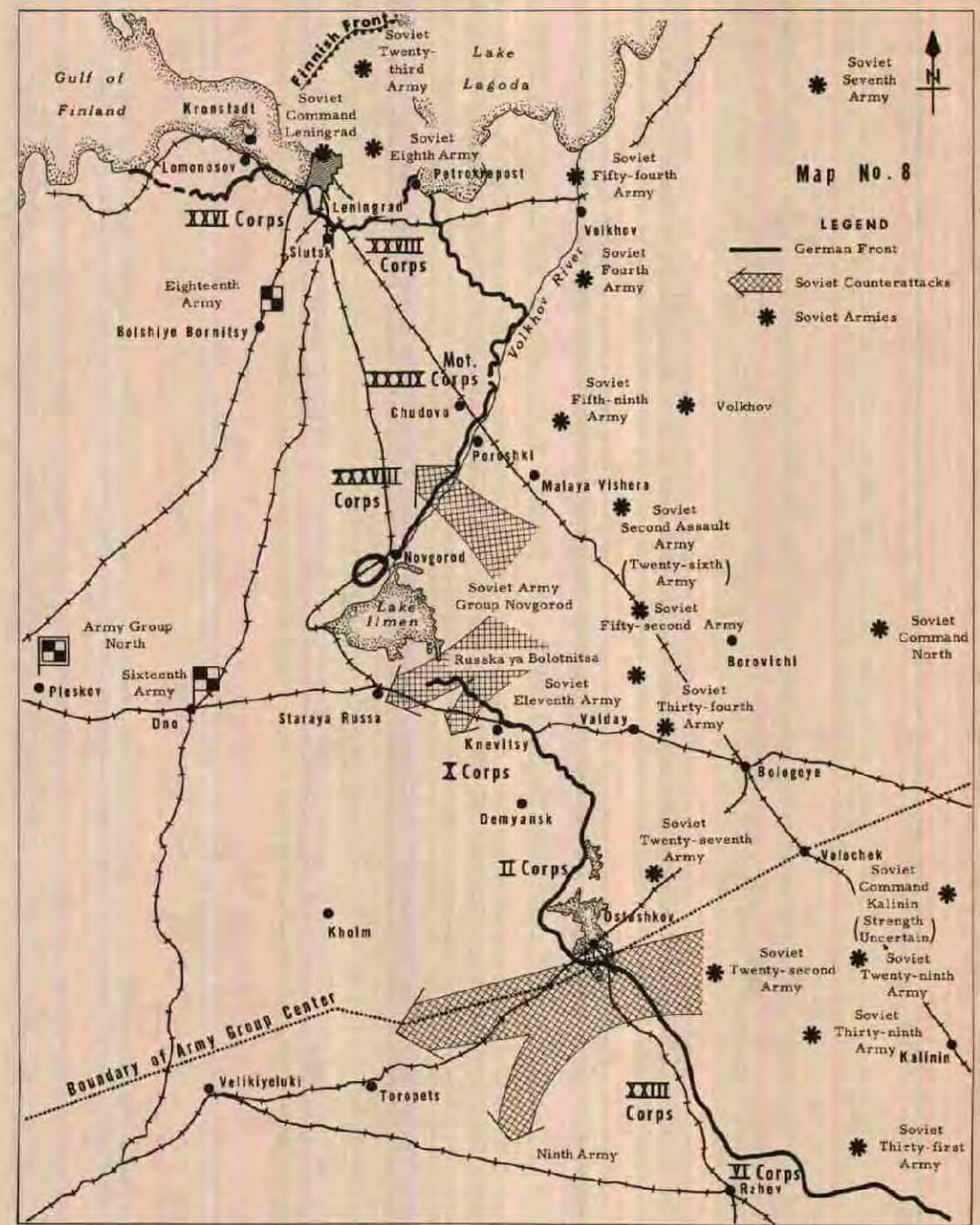

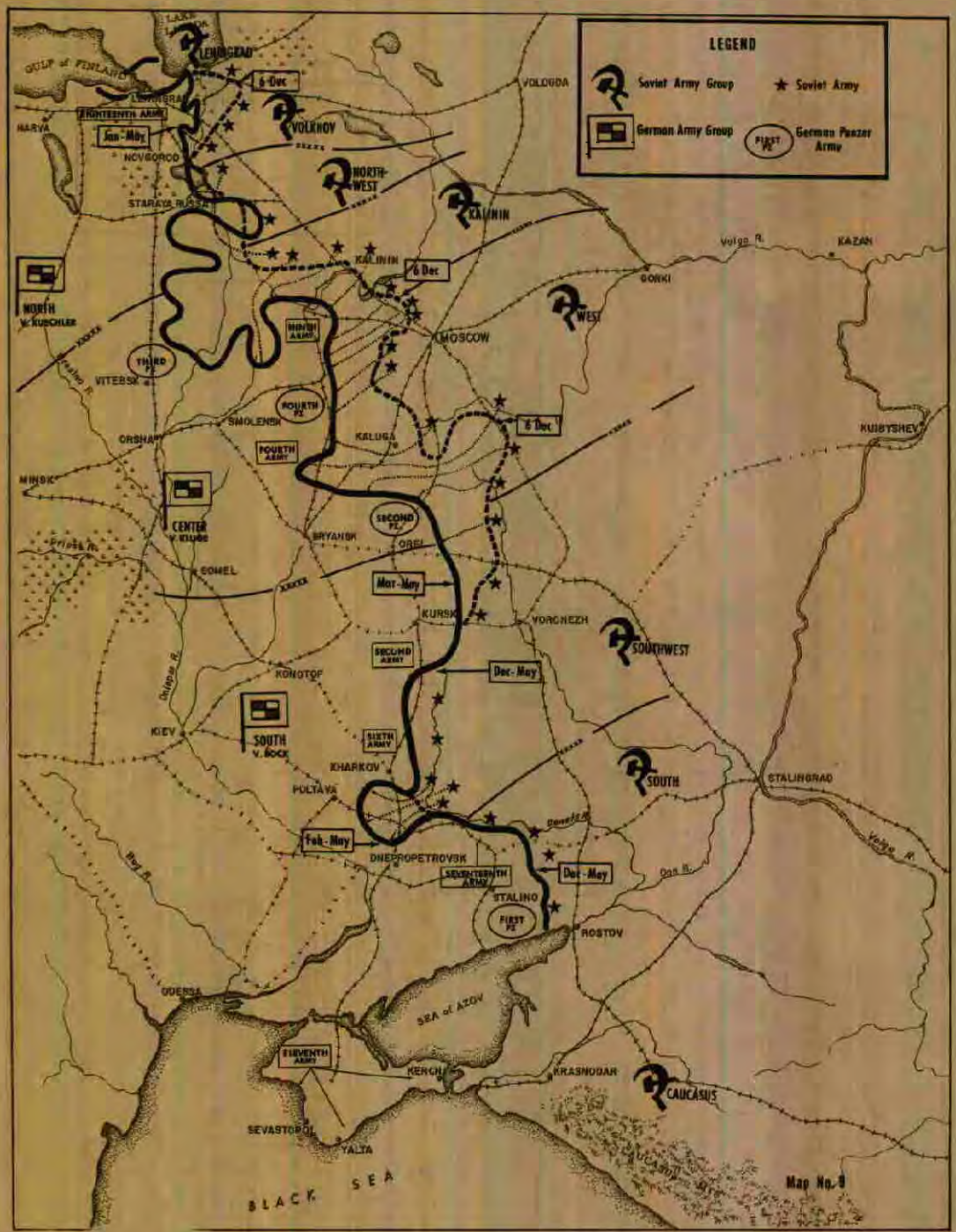

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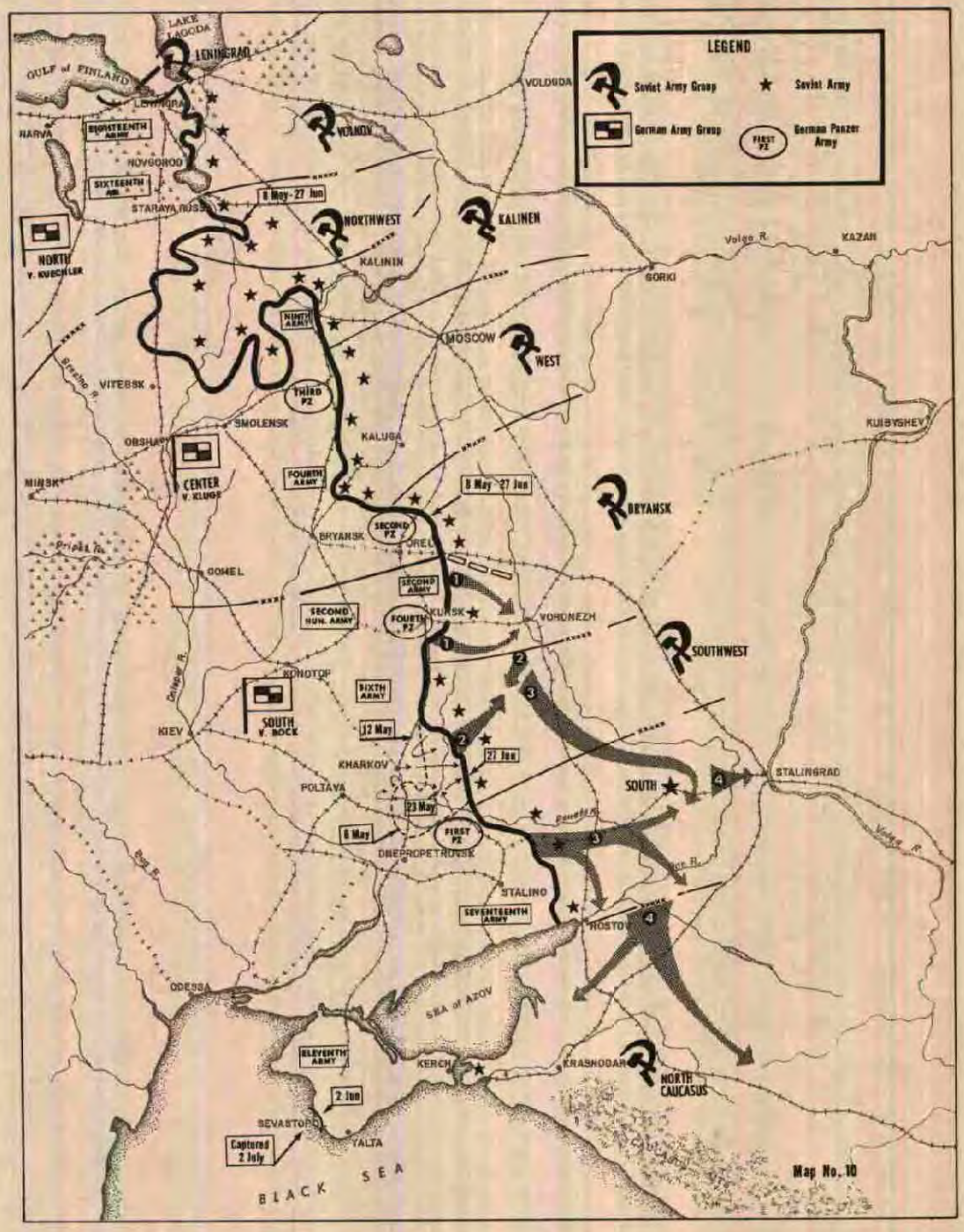

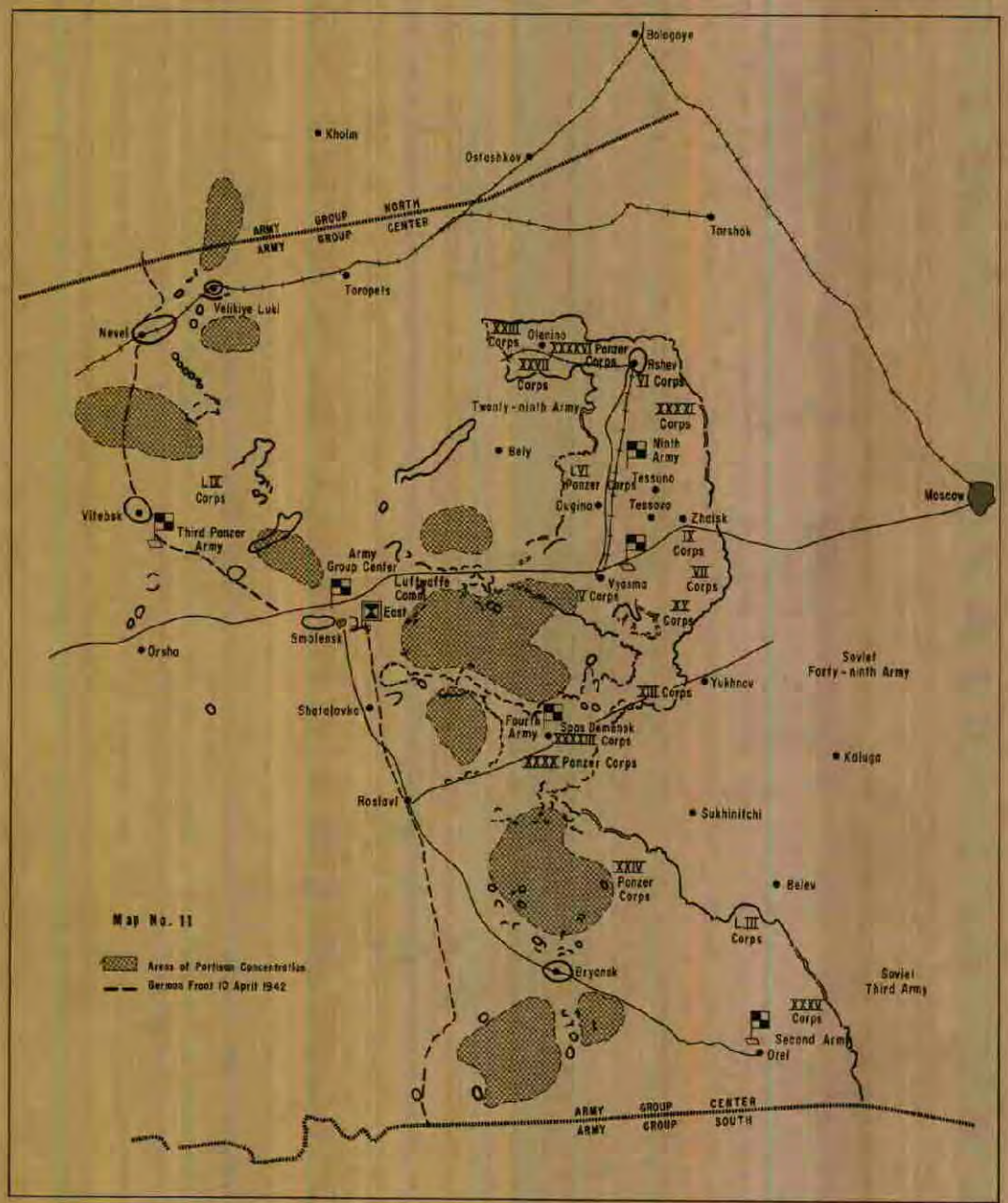

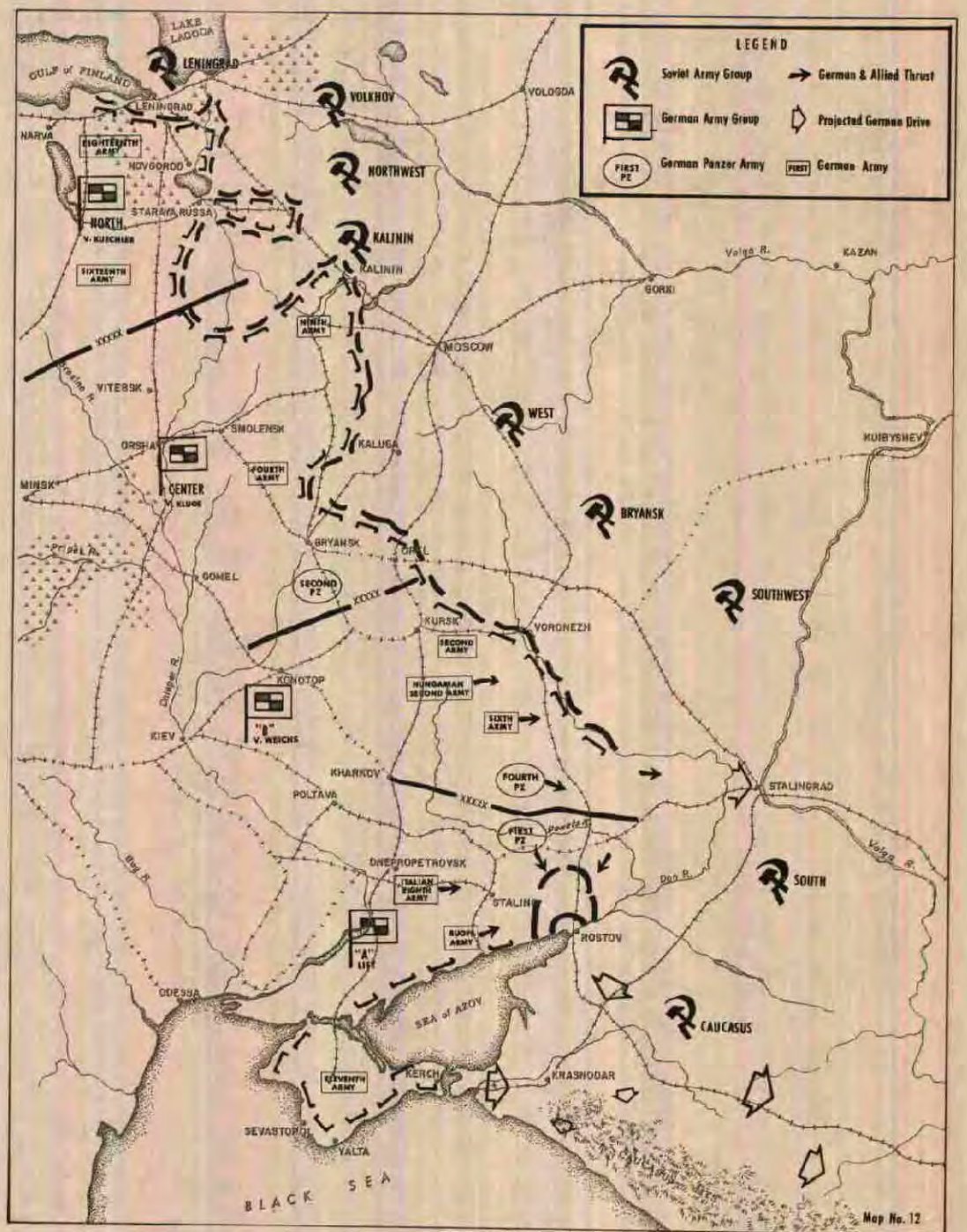

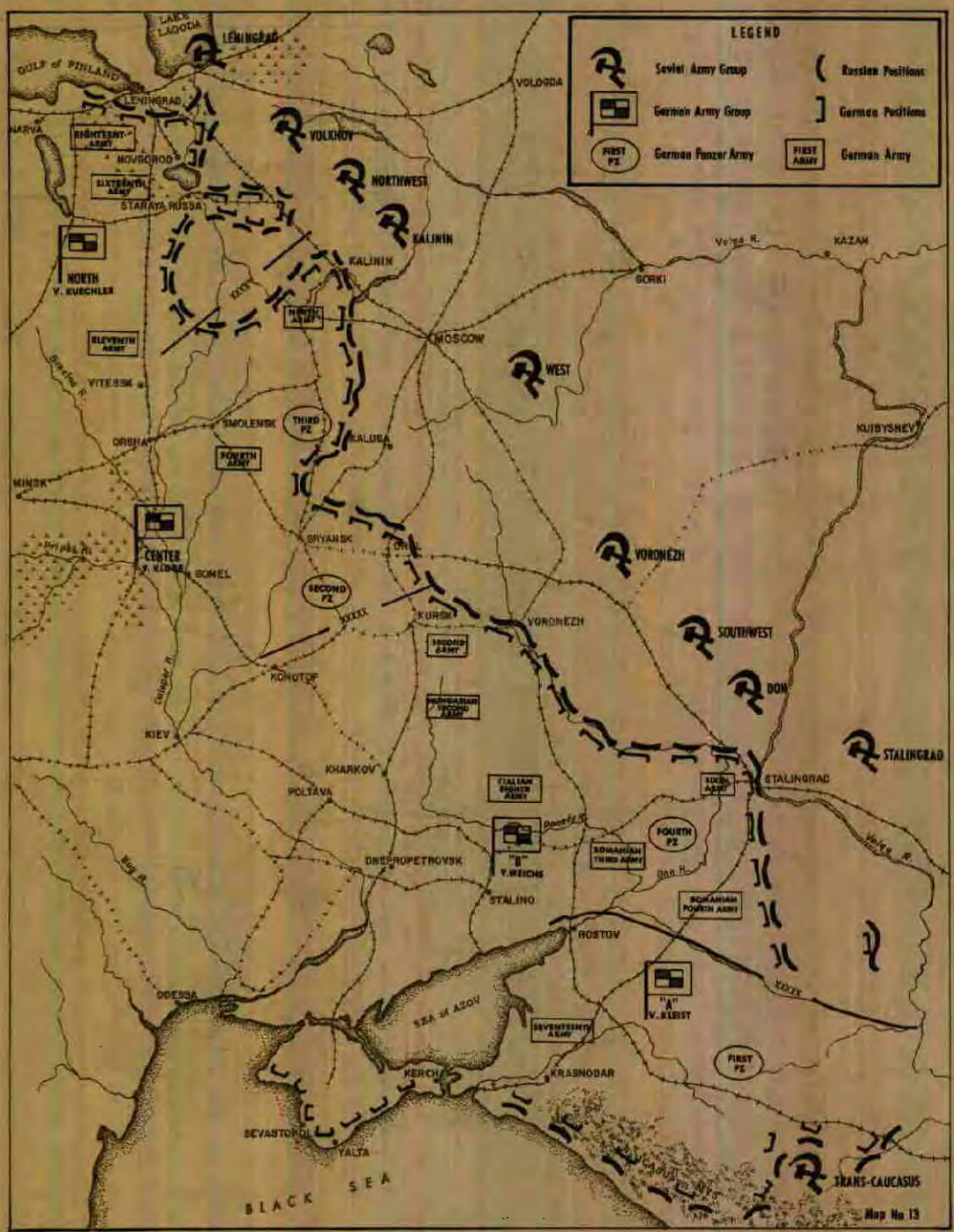

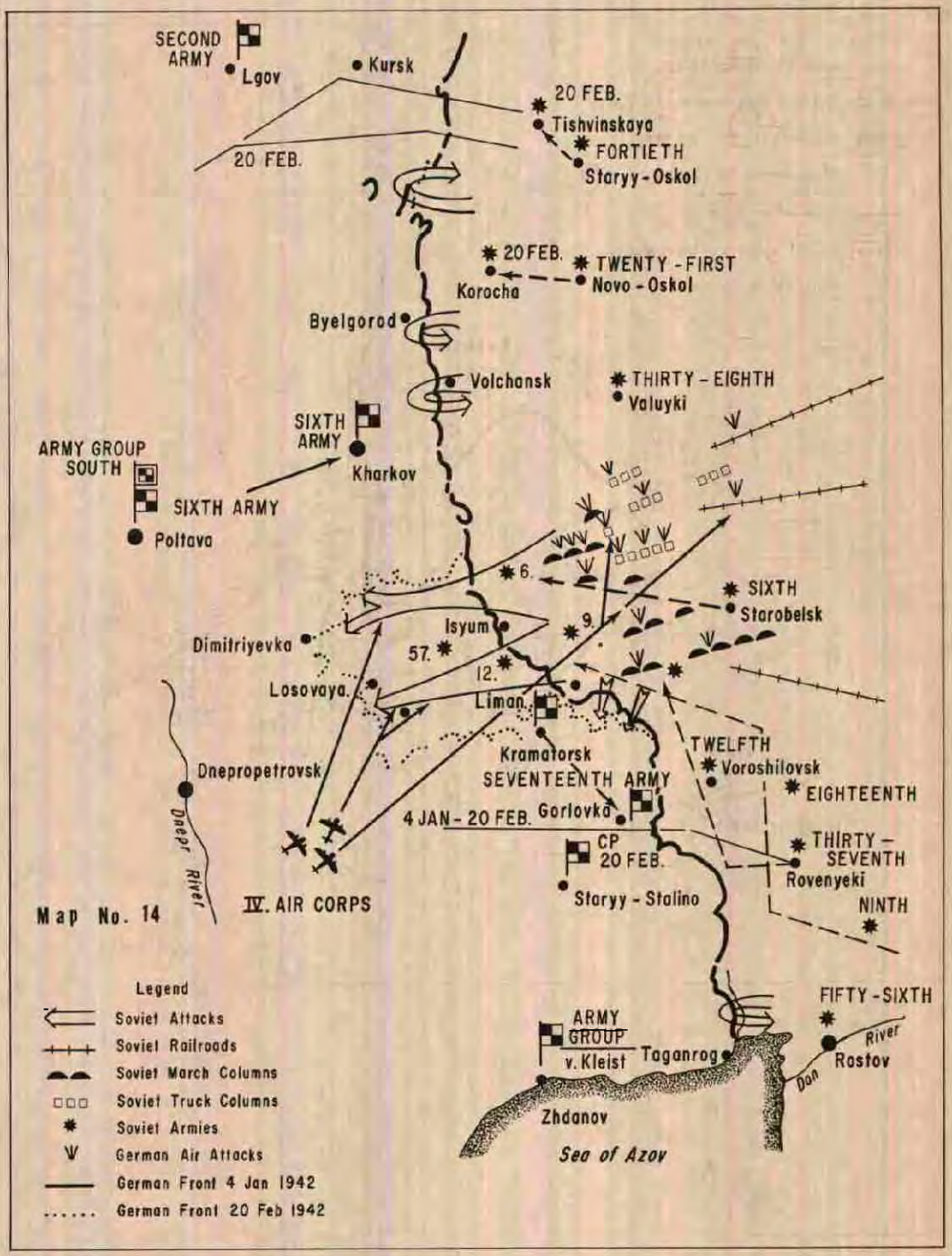

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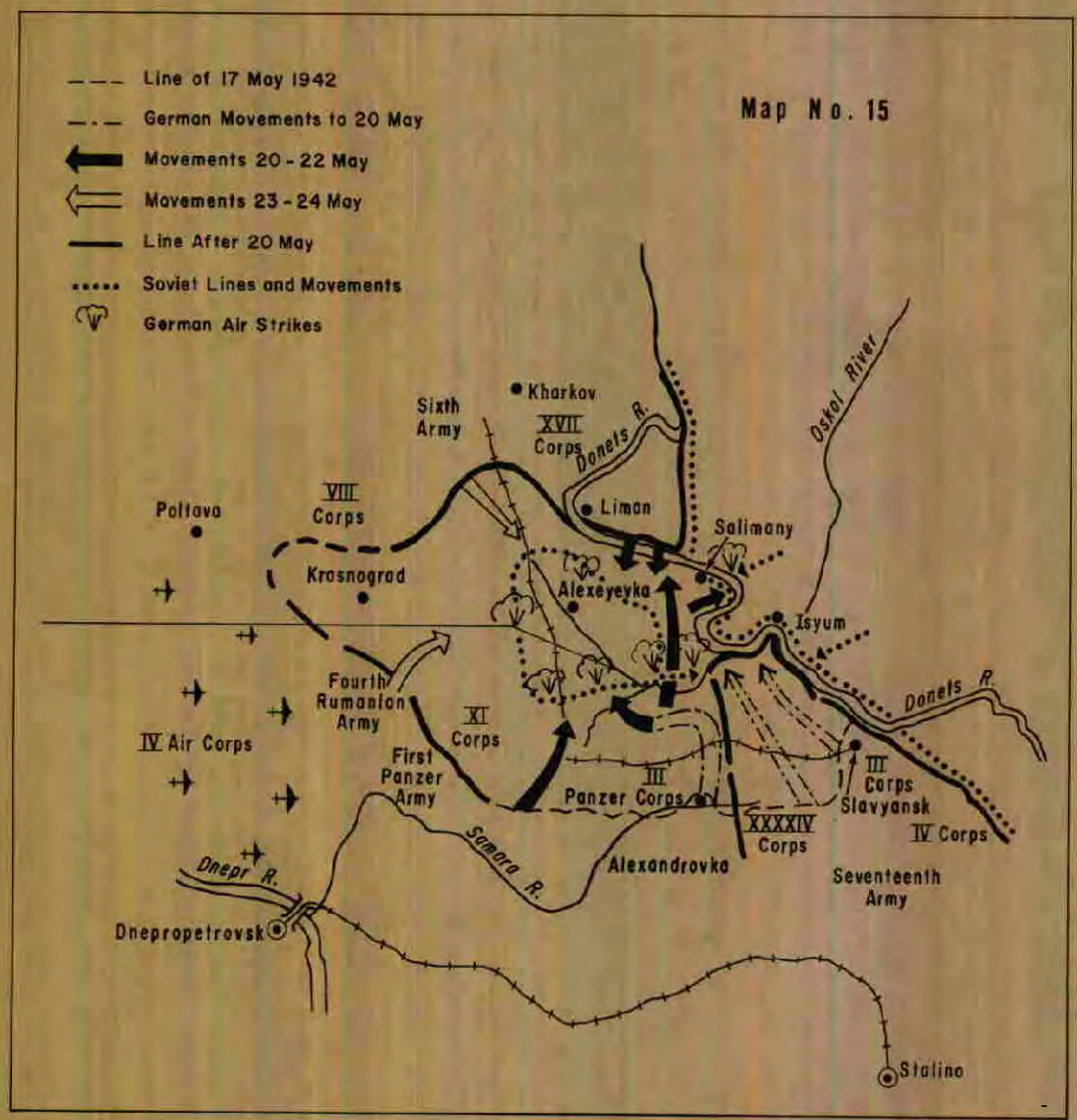
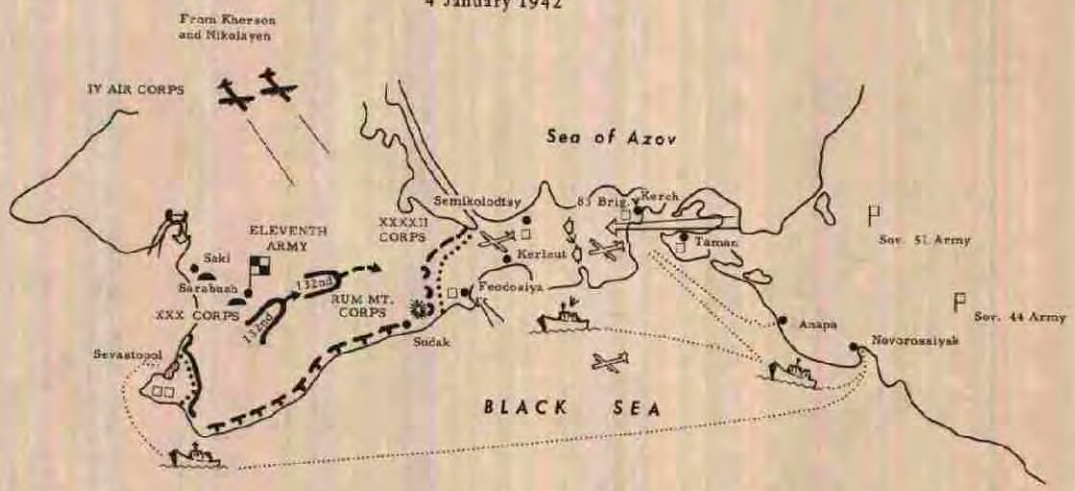
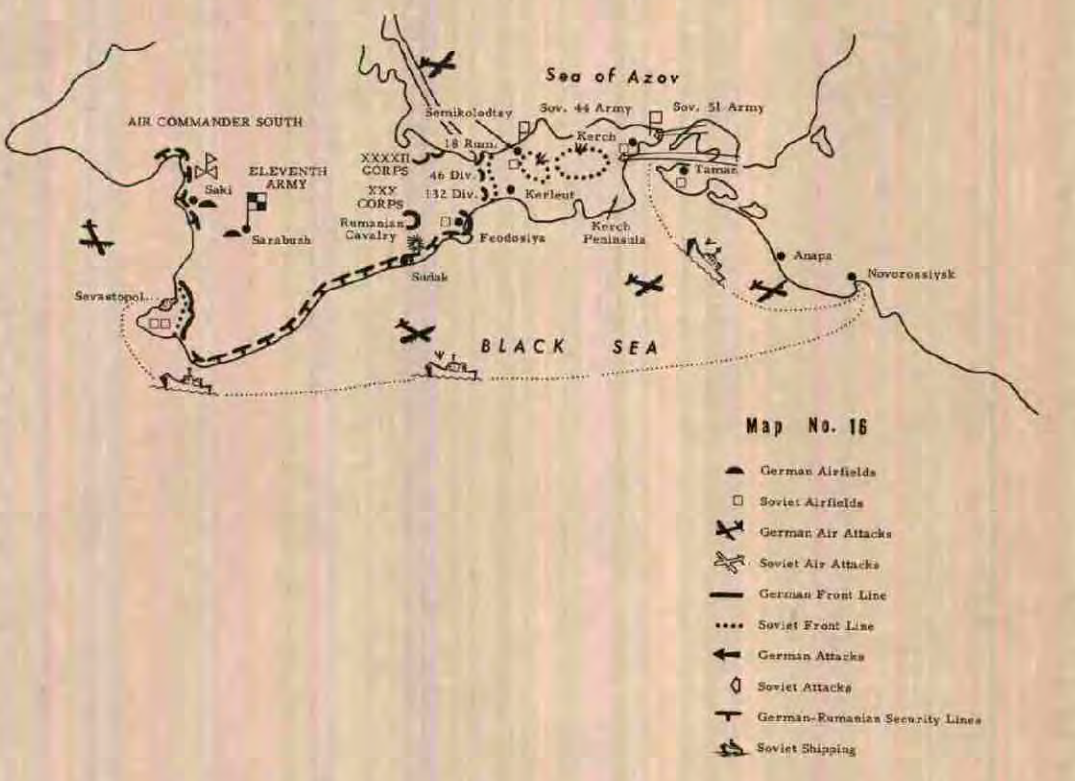


Situation
4 January 1942

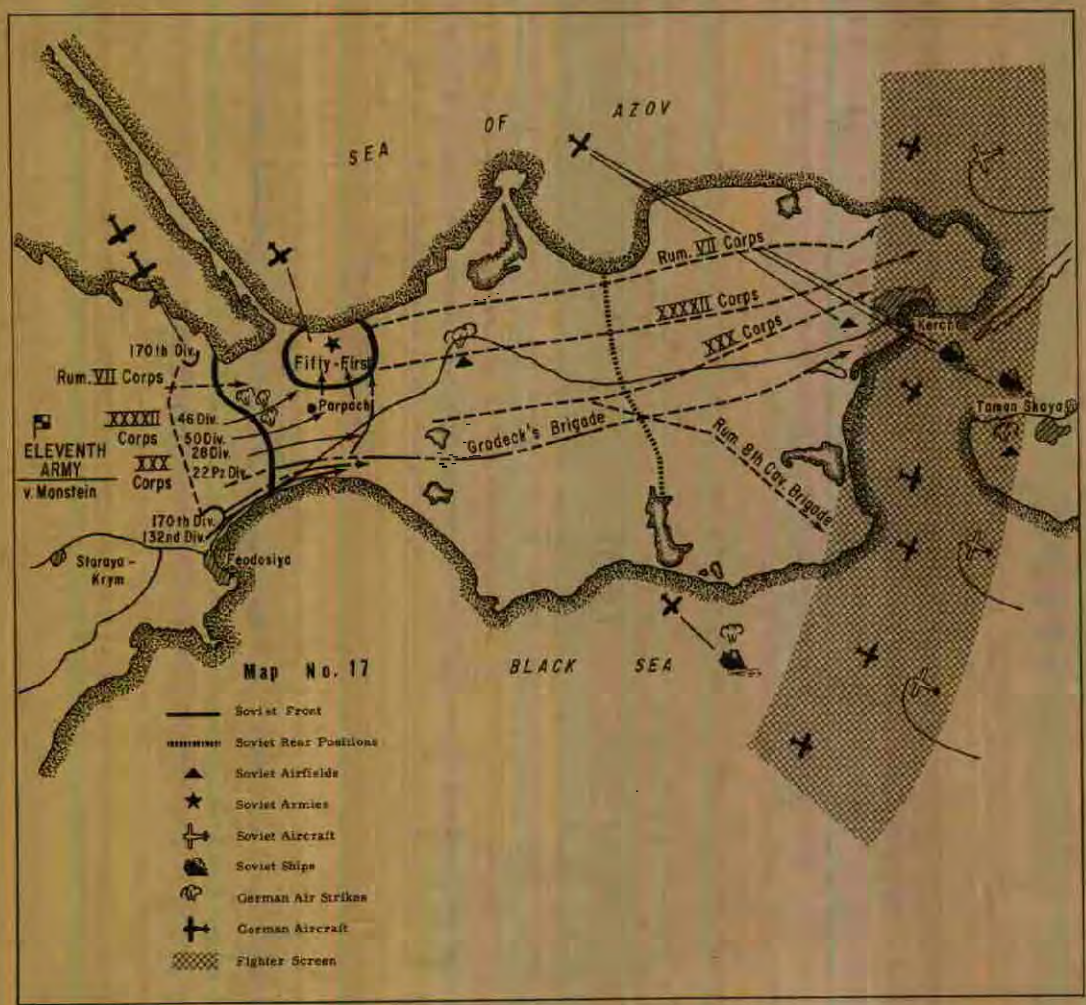


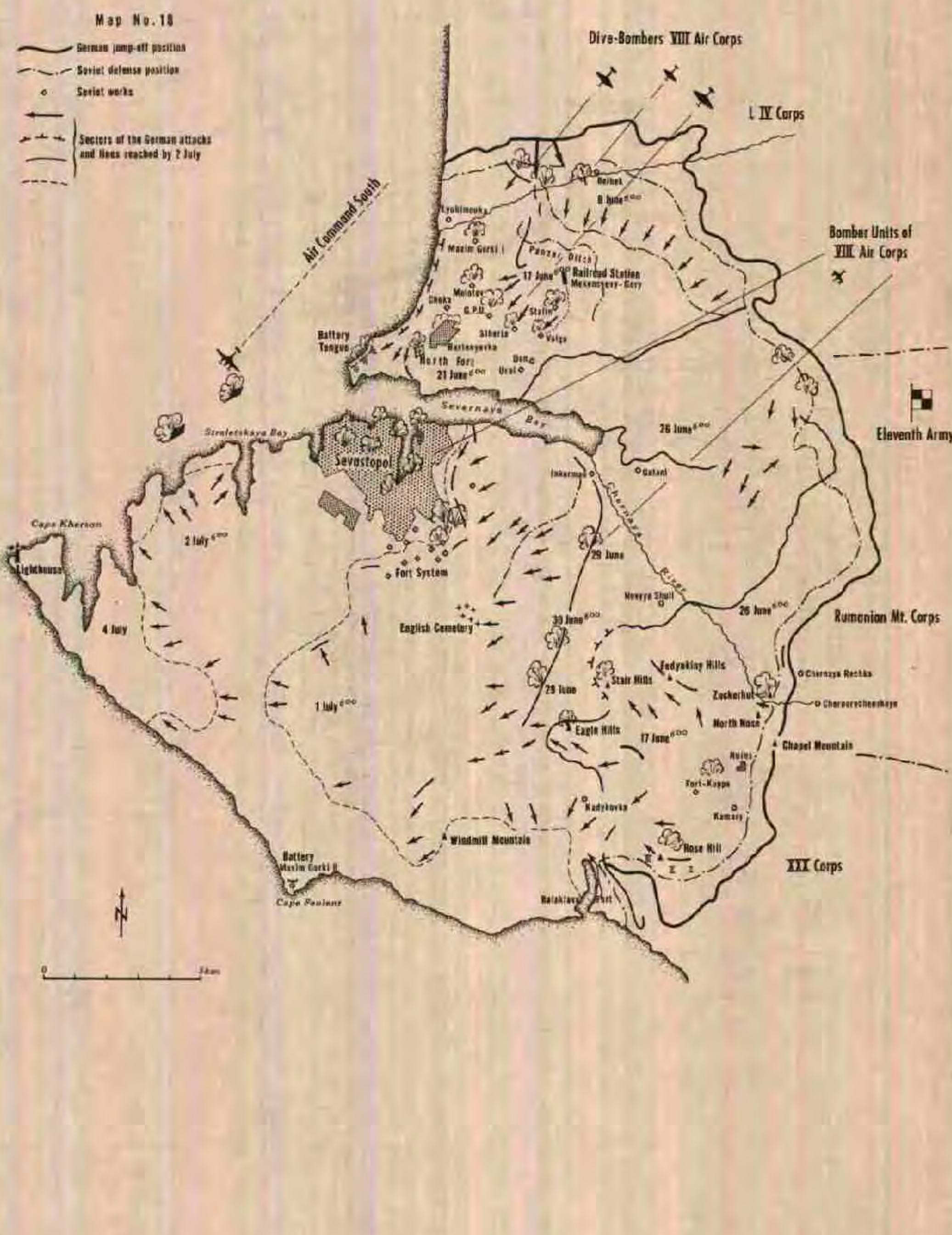
Situation
20 February 1942



Map No. 16

- German Airfields
- Soviet Airfields
- German Air Attacks
- Soviet Air Attacks
- German Front Line
- Soviet Front Line
- German Attacks
- Soviet Attacks
- German-Rumanian Security Lines
- Soviet Shipping





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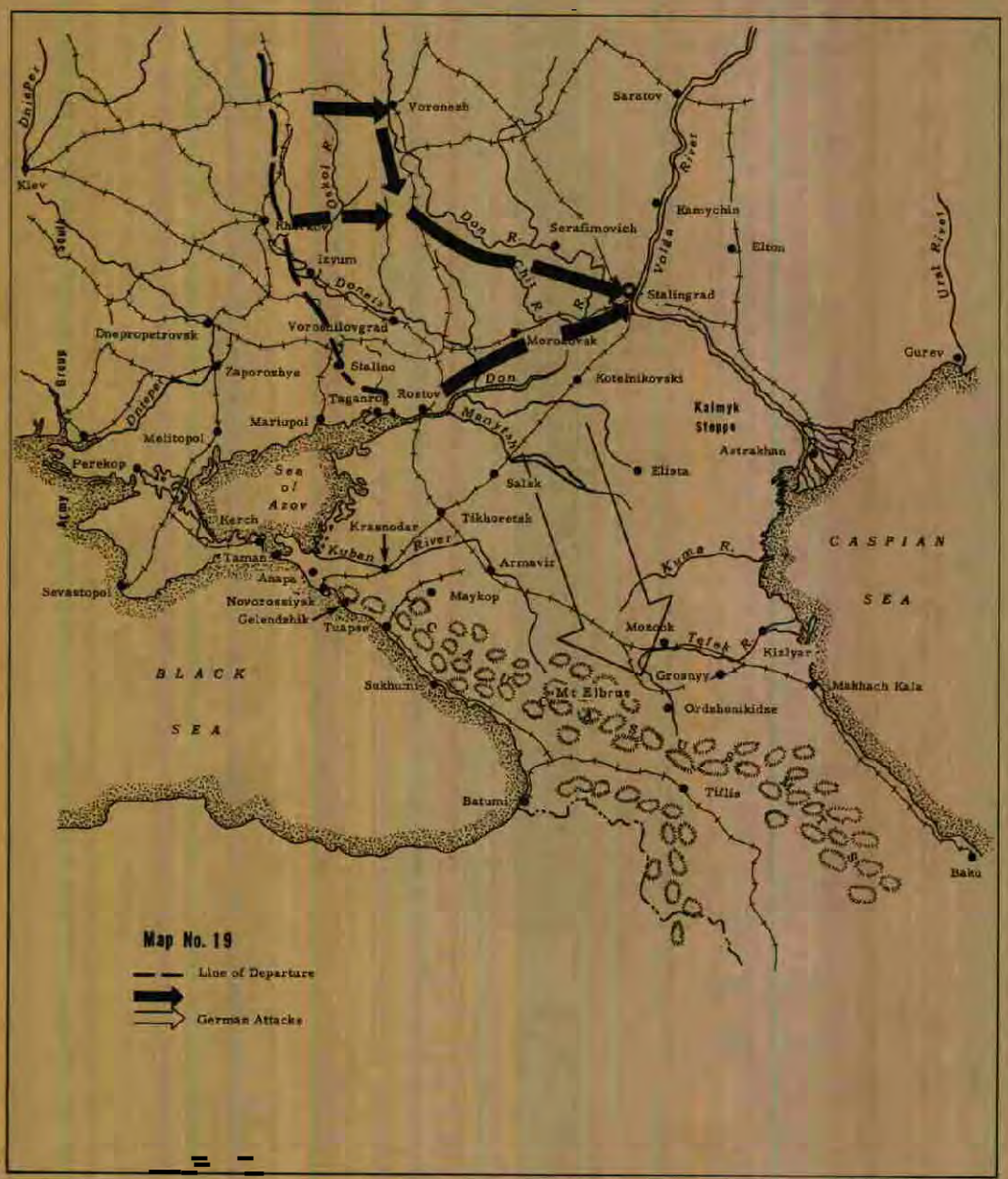

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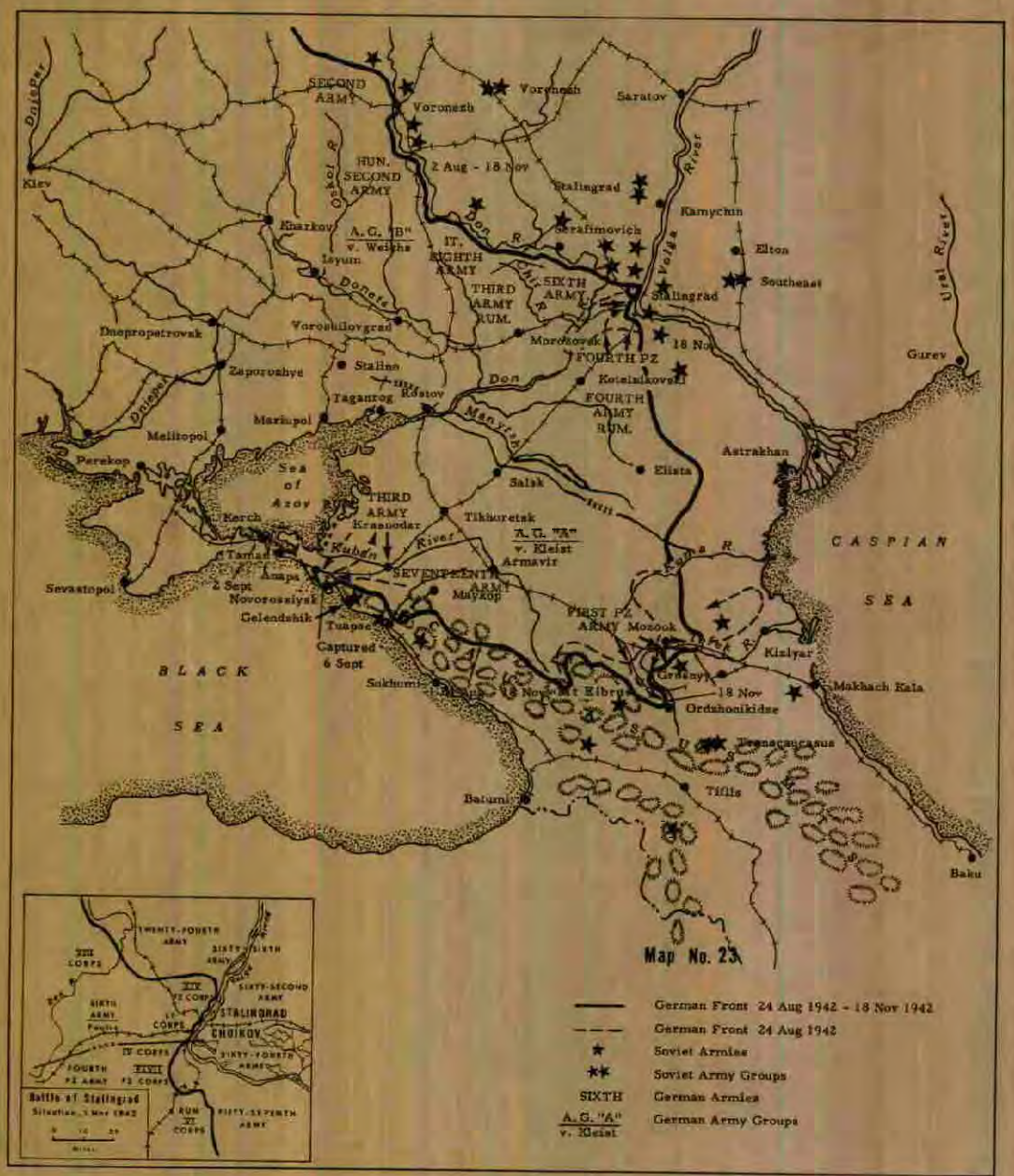
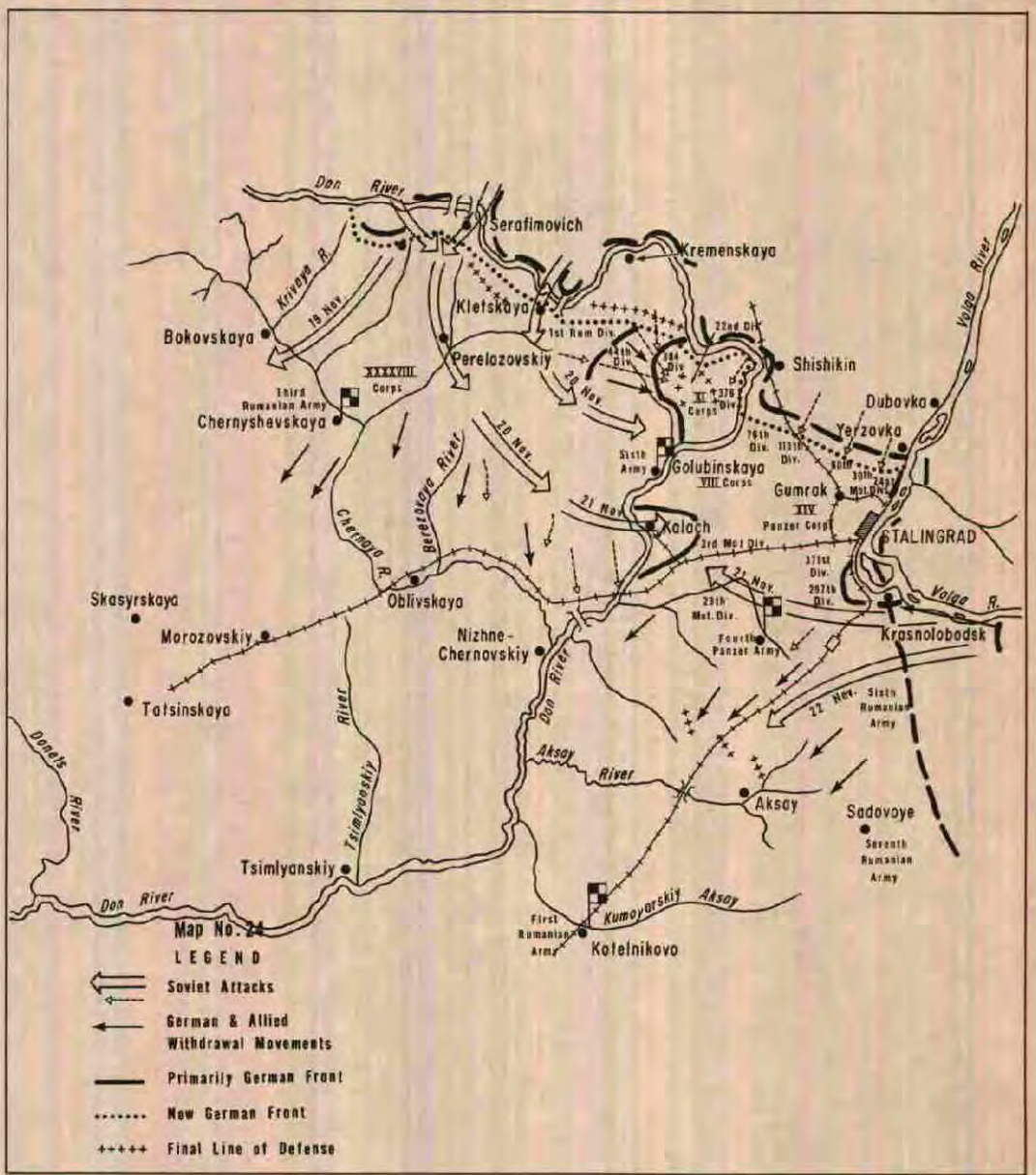
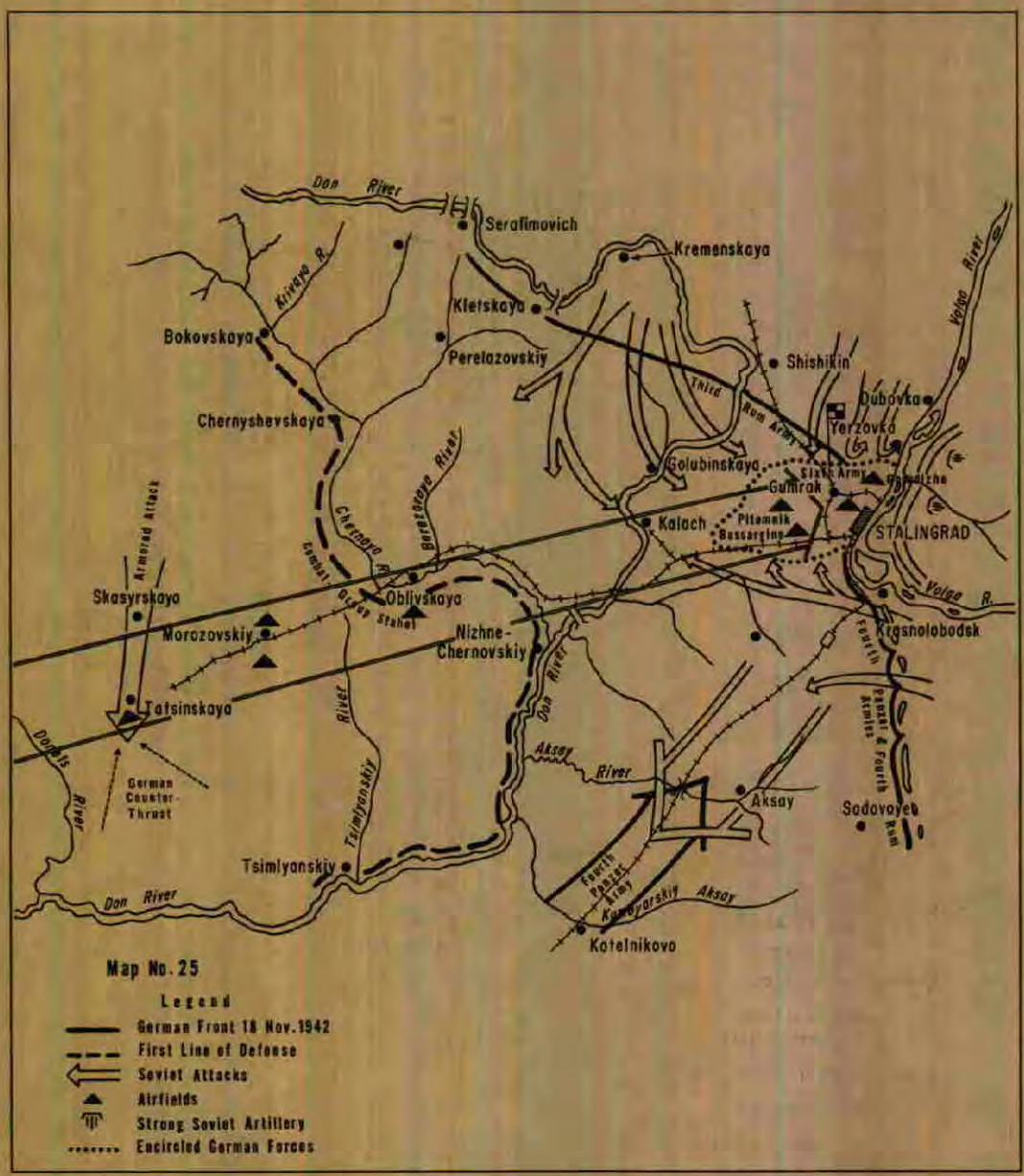
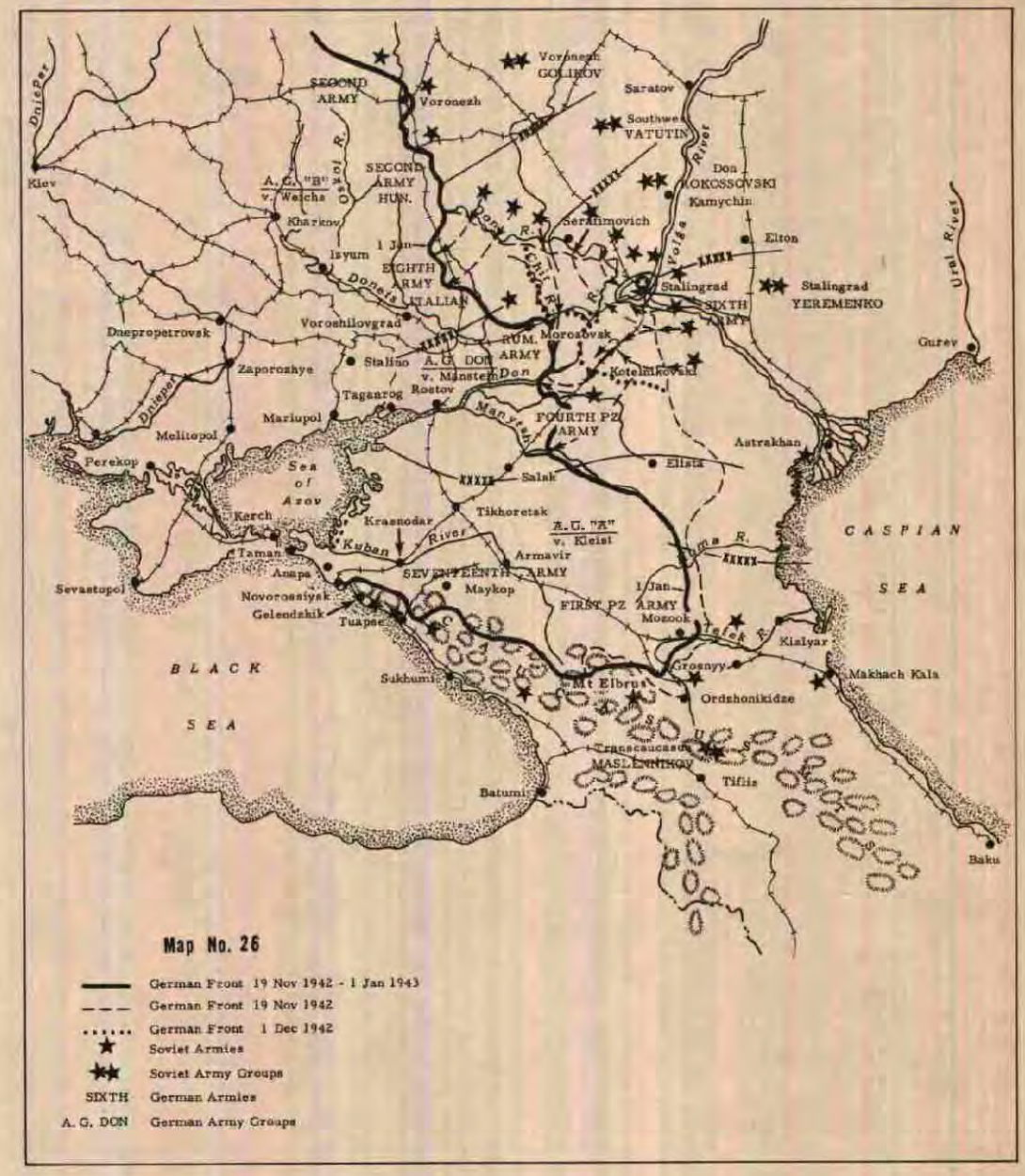








LIST OF CHARTS

Chart 1.

Organization and Command Relationships, Combat Zone
High North, 1942

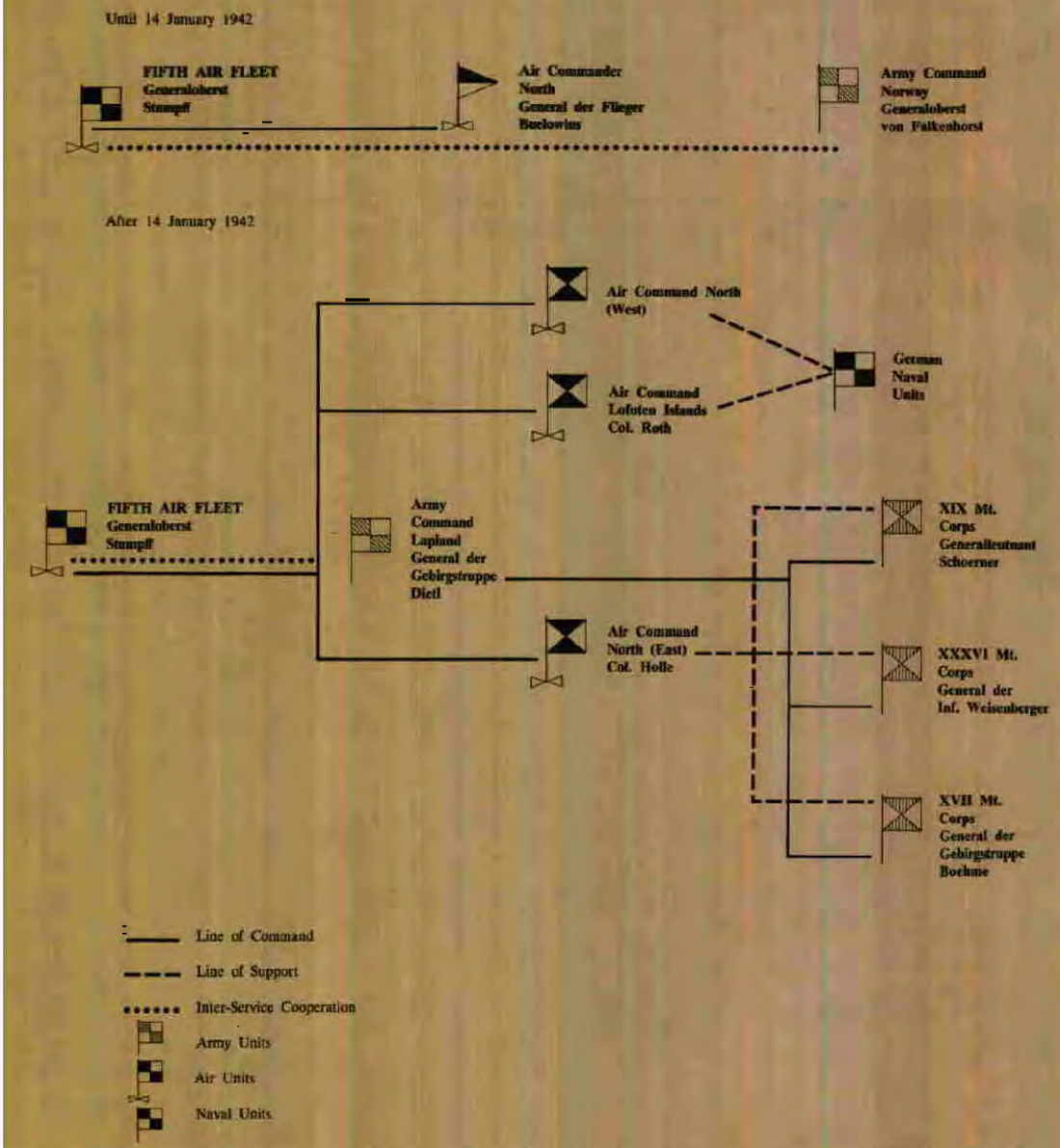
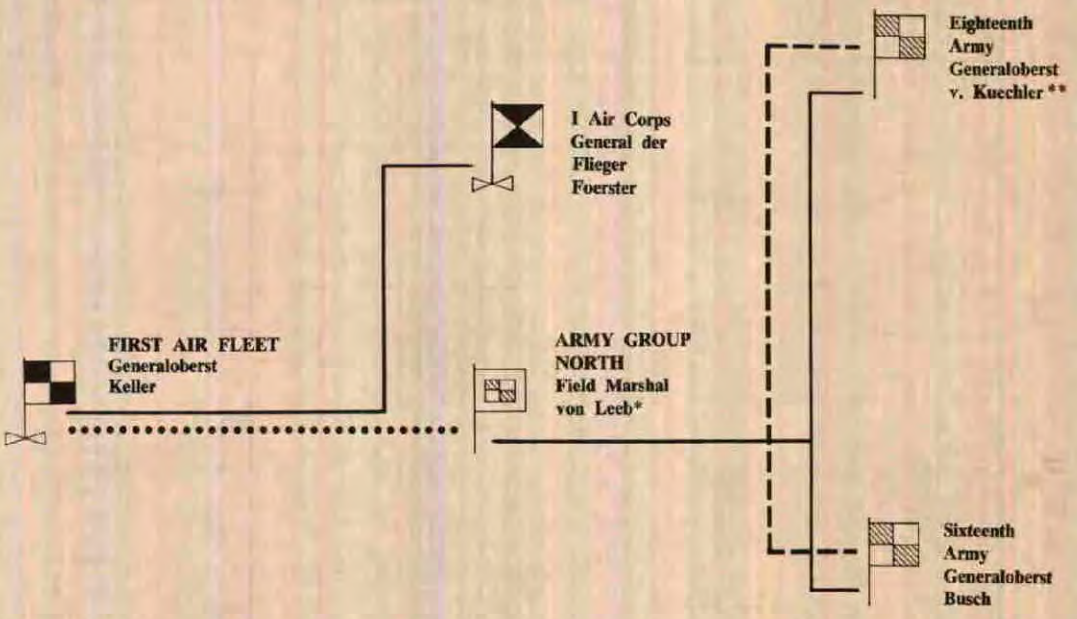


Chart 2.

Organization and Command Relationships, Combat Zone North, January 1942



*Replaced 16 January 1942 by Generaloberst von Kuechler

**Replaced 17 January 1942 by General der Infanterie Lindemann

Line of Command

Line of Support

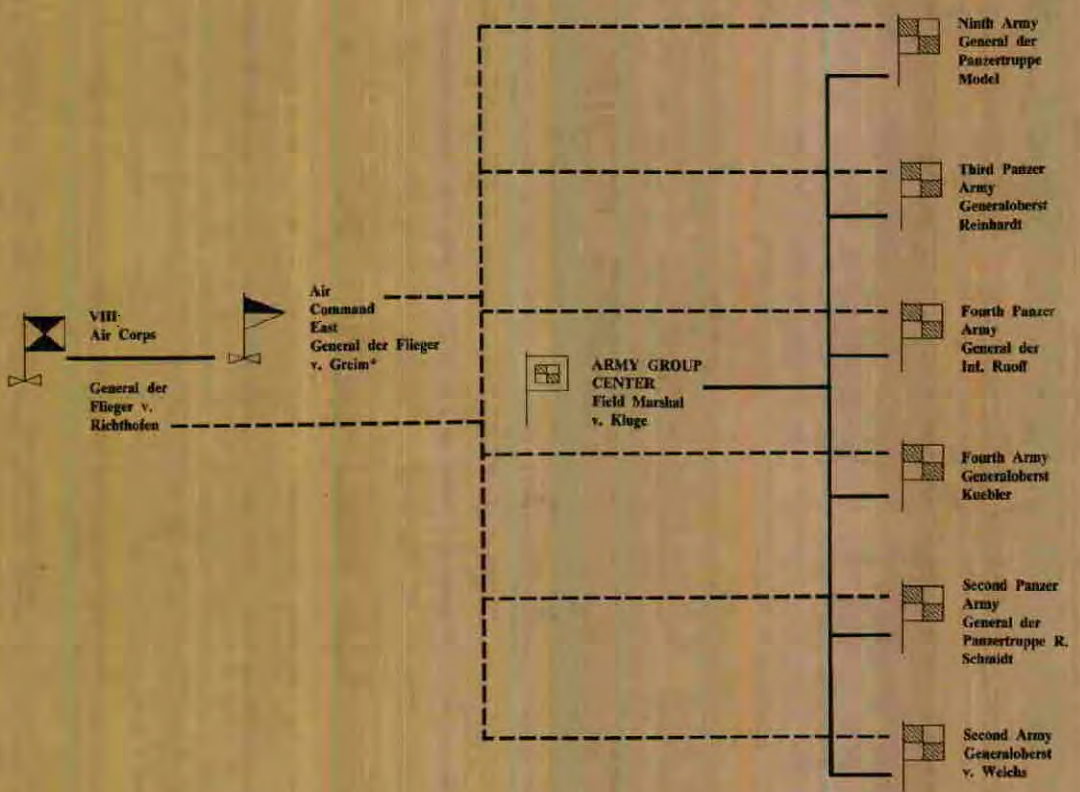
Inter-Command Cooperation

Army units

Air units

Chart 3.

Organization and Command Relations, Combat Zone
Center, January 1942



*Air Command East set up 10 April 1942. At first it was under the command of the VIII Air Corps, but soon became independent under the High Command of the Luftwaffe.

Line of Command
Line of Support
Inter-Command Cooperation
Army units
Air units

Chart 4.

Organization and Command Relationships, Combat Zone South, January 1942

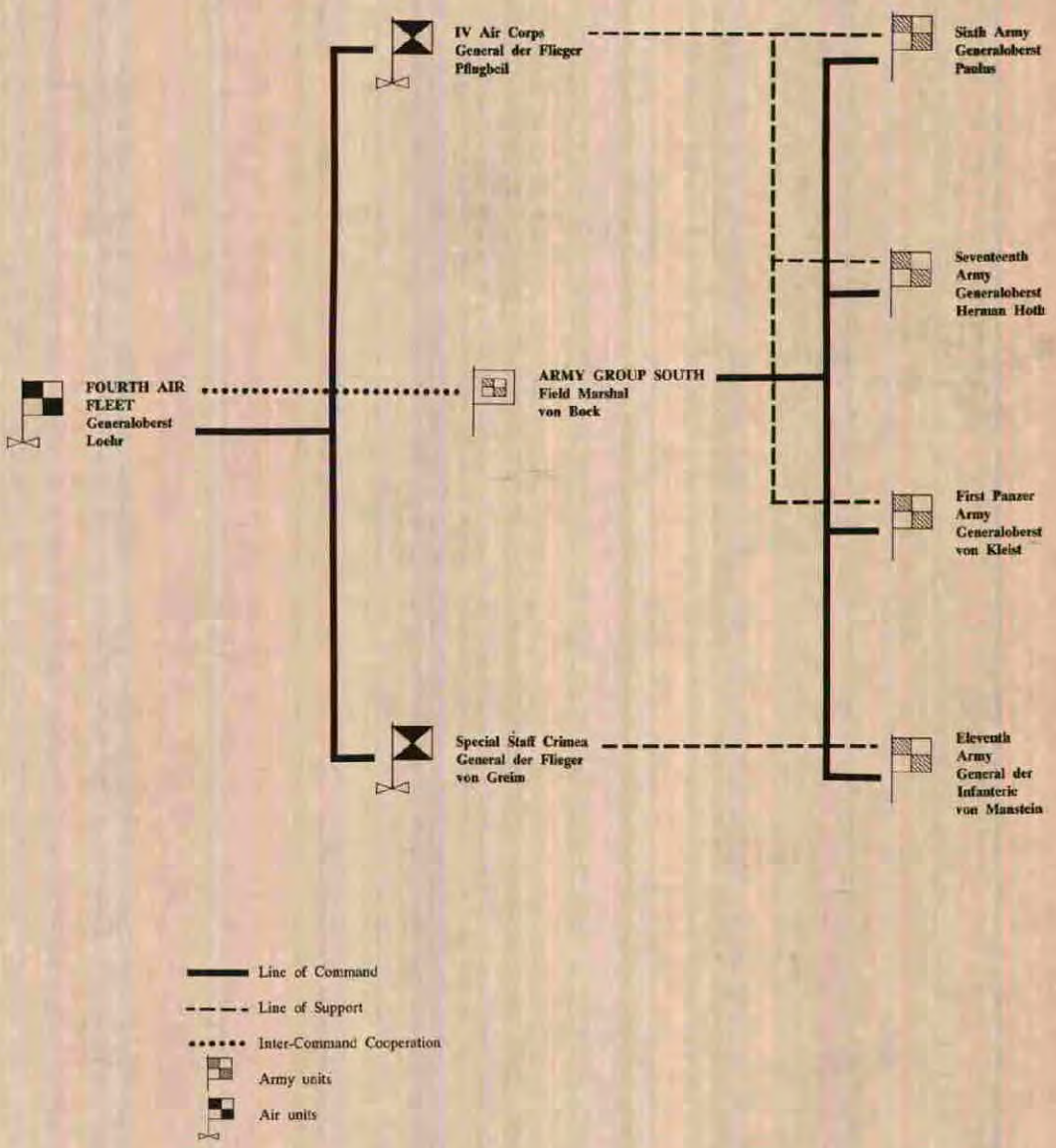
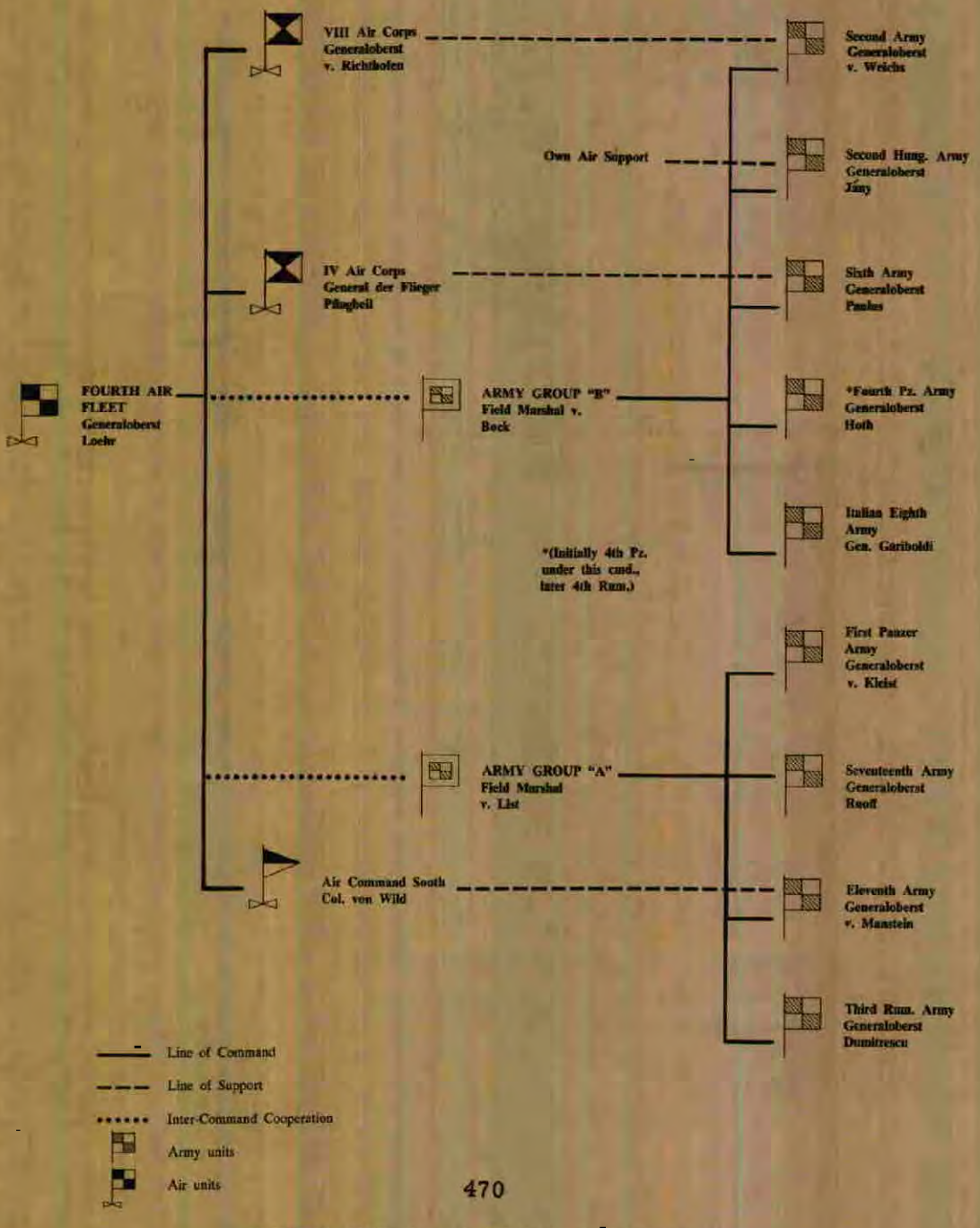


Chart 5.

Command Relationships in Combat Organization and Zone South

End of June 1942 - Beginning of the Summer Offensive



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