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WORKING DRAFT

AN AIRBASE GROUND ATTACK SCENARIO
IN CENTRAL EUROPE

Thomas C. Tompkins

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PREFACE

This Working Draft forecasts a possible ground attack scenario by Soviet and Warsaw Pact (SWP) forces against a USAF airbase located in NATO's central region. It was written in support of RAND's Project Air Force study on Enhancing the Enduring Continuity of Air Operations for NATO's Central Region. It suggests a series of hostile events which might be directed against a NATO airbase at two phase points: on D-day, and a period a few days later when there is likely to be a perceptible change in the SWP ground threat following a large-scale invasion of Western Europe by SWP combined arms forces.

This study may prove useful to those refining or designing present or future ground defense systems.

SUMMARY

As part of The RAND Corporation's continuing research into methods to keep NATO airbases operating in the face of a Soviet/Warsaw Pact (SWP) conventional or chemical attack in Europe's central region, this Working Draft looks at the enemy ground threat directed against airbases in particular. It assumes the Soviets do not wish to totally destroy all NATO airbases, preferring to keep some in near-usable condition for their own air assets assigned to support advancing ground units. This study outlines two attack scenarios, one on D-day (the day SWP combined arms forces cross into West Germany), and another three to five days later.

Ground threats on D-day are projected to include enemy special operations warfare elements (ESOW) and local terrorist and communist party elements. After three days, however, SWP combined arms ground force elements (tank, motorized rifle, airborne, or air assault units) may appear on the horizon. These forces, by comparison, represent significantly more manpower, more firepower, and a greater number of maneuver elements than either the ESOW elements of three days earlier or, more ominously, the airbase defenders.

The format used is to first describe a generic USAF main operating base housing a tactical fighter wing located in West Germany some distance from the East-West border. Then base defenses are outlined along with a potential enemy order of battle. The D-day attack is presented in a time phased sequence from H-24 hours incrementally to the point of the arrival of SWP air attack assets at H-hour.

The major hostile events by the special operations, terrorist, and communist party elements include assaults or sabotage against critical off-base targets (e.g. utility structures servicing the airbase), bombings of local hangouts for base personnel, and disruption of lines of communication between the base and its surrounding geography. In addition, ESOW forces can be expected to attempt assassinations of key first and second echelon military personnel, to attack and attempt to destroy the base's antiaircraft defenses, and to implant beacons for

attacking enemy aircraft or missiles. Additionally, ESOW elements are depicted launching a mortar attack against the base near to time of H-hour to keep the base's aircraft grounded. All of these actions are designed to either destroy the base's flying assets or, at a minimum, keep them out of the air. The chances of success for these enemy actions are conjectured; in the case of the mortar attack, as well as an attack by trained sappers just prior to the arrival of enemy conventional ground combat units, the Air Force's experiences with airbase attacks during the Vietnam War are used for comparison purposes.

The ground threat faced by the Airbase Ground Defense (ABGD) forces three or more days later assumes that SWP combined arms forces have been able to penetrate NATO forward defenses in large numbers. By virtue of this SWP success, our generic installation thus becomes threatened by any of several types of combined arms units: tank, motorized rifle, airborne, or air assault, plus the remnants of the ESOW units deployed prior to D-day. For purposes of this study, the enemy threat is assumed to be mainly from an airborne battalion parachuted some distance from the airbase.

At first glance, the possibility of ABGD units successfully defeating a Soviet airborne battalion seems questionable. The enemy has more manpower and his suspected upgrades in weaponry, specifically that carried by airborne forces, increase the odds in his favor. Nevertheless, it is posited that if ABGD units, in concert with forces from the host nation and the U.S. Army, maintain a mobile defense employing initiative, surprise, and its available firepower outside the perimeter wire, the enemy may not be able to advance fast enough to successfully attack the base as planned.

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I. INTRODUCTION

This Working Draft outlines a hypothetical, yet eminently possible, ground attack plan which an invading Soviet Union and Warsaw Pact (SWP) force might carry out against a NATO airbase in central Europe. The study's purpose is to provide a foundation for the development of future ground defense programs in NATO's central region. The analysis is based solely on unclassified source material.

The scenario assumes that the Soviets do not wish to totally destroy the target installation, as they may want to do at other bases. Rather, the assumption is that as enemy ground forces penetrate farther west, their air forces require landing and air support facilities farther and farther west also. Captured NATO airfields, whether totally intact or almost so, satisfy that need.

This paper looks at two separate ground attacks: one taking place on or about D-Day (the day SWP forces invade Western Europe by crossing the East German border), and a second three or more days later. The reason for two attacks is the expected difference in the SWP threats at these two different times. In the earlier period, the ground threat is reasoned to be primarily from Soviet or Pact special operations forces. Later, more conventional ground or airborne forces become the primary problem. In either case, the basic mission of the enemy forces is the same: either destroy NATO's aircraft or keep them on the ground.

A generic USAF base located some distance from the East-West border provides the setting. Such a base was picked so that USAF ground defense strategy and policy can be discussed. Both are currently in a state of flux and the subjects of on-going examination at many levels in the Air Force.

Base defenses and a possible enemy order of battle are outlined. Against the base's defenses, the D-Day attack is sequentially outlined from H-hour minus 24 hours incrementally to the point of the arrival of SWP air attack assets at H-hour. Hypothetical, but reasoned, probabilities of success are given for each stage of enemy action leading up to H-hour; these probabilities are derived from the author's

previous examination of terroristic actions and from analysis of airbase attacks suffered by U.S. Air Force bases in South Vietnam during the Vietnam War.

Subsequent to the actions leading up to H-hour, the ground threat faced by base defenders three or more days later is assumed to be mainly from SWP combined arms forces which have penetrated NATO forward defenses and have neared the target installation. Soviet military writers are fond of claiming an ability to advance 50 kilometers per day with their tank and motorized rifle units. The reality of what SWP forces can actually achieve may be far less--maybe as low as three to four kilometers per day--depending on NATO's defensive success and a number of other factors. Here, however, D+3 was arbitrarily picked as the day on which the enemy threat perceptibly changes from a special operations threat to one from a more conventional force, embodied in a Soviet airborne battalion targetted against the base.

II. THE BASE--A GENERIC INSTALLATION

Pictured for this scenario is a USAF main operating base (MOB) housing a tactical fighter wing (nuclear capable), located some 250 kilometers inside West Germany from the East German border. Water is supplied from both on-base wells (20%) as well as off-base sources (80%). Electricity, as well, comes mostly from off-base sources. On-base generators can supply critical electricity requirements for short periods during times of emergency. Petroleum (POL) products are piped and trucked in. While some munitions are trucked in from nearby storage sites, an on-base storage area, located within sight of the perimeter fence, contains sufficient aircraft and small arms munitions for two days normal combat by the wing's aircraft, anti-aircraft forces, and ABGD forces.

The base perimeter is 13 kilometers long, demarked by an eight-foot chainlink fence topped with double outrigger 6-strand barbed wire. The fenceline is interspersed with defensive bunkers and fighting positions located approximately every 200 meters around its length. A perimeter road just inside the fenceline circles the base. One main gate serves regular vehicular and pedestrian traffic. Two secondary gates serve as a munitions entry point and entrance to family housing, respectively. The housing area is located inside the base's perimeter fence.

The surrounding countryside is typical West German central region land: cleared farm areas interspersed with patches of rolling, heavily wooded terrain. Some nearby wooded terrain abuts the perimeter fence, limiting fields of fire in that area. Farm buildings, averaging four per farm, are heavily constructed of stone and concrete; many farms are outlined with fences or trees. A river, 100 or more meters across, runs south to north nearby. A number of bridges traverse it within a few kilometers of the installation. Within a five kilometer circle of the base are located several small towns with populations ranging from 300 to 1500 persons, and 40 to 100 buildings; a mid-sized city (population: +10,000) is located a short distance to the east.

BASE DEFENSES

Airbase ground defense (ABGD) is provided by a 600-man Security Police (SP) squadron augmented by 100 base personnel in time of emergency. The SP squadron has three 44-man mobile defense flights assigned with an authorized a total of 30 High Mobility Multipurpose Wheeled Vehicles (HMMWVS--HumVs) each mounting a Mark 19 40mm grenade machinegun. However, there is the likelihood that the squadron's full compliment of HumVs has not been received and the SP's residual mobility needs must be met with a combination of jeeps, quarter-ton pickup trucks, and other vehicles, some with M-60 machineguns mounted. Besides Mk 19s and M-60s, the squadron has 81mm mortars. There are limited numbers of night vision devices in the squadron inventory.

Air defense is provided by five or six Army-manned Chaparral, Vulcan, or other antiaircraft weapon's sites generally circling the base out to distances of approximately 7 km. Each site is manned by 3-10 men.

Counterintelligence (which includes counterespionage and countersabotage) is provided by a resident Air Force Office of Special Investigations (AFOSI) detachment of 12 people. This detachment is also responsible for criminal and fraud investigations on the base.

III. THE D-DAY ATTACK

ENEMY GROUND THREATS BEFORE D-DAY

NATO airbase are threatened by forces operating both inside and outside their perimeter wire. Those outside include conventional and unconventional special operations force elements; internal threats come from espionage or sabotage agents working undercover. Enemy forces which directly and immediately threaten the base prior to a SWP invasion are different from those confronted after the war has started.

Estimating which external SWP forces most threaten a European NATO airbase prior to war's start is not overly difficult. *Enemy special operations warfare* (ESOW) forces are that threat. (Soviet or Warsaw Pact tank, motorized rifle, or airborne units are unlikely to suddenly materialize outside a base's main gate at H-hour). Known under the generic name of *SpetsNaz*,¹ Soviet special operations forces are highly trained, politically reliable, operationally independent forces whose missions include strategic reconnaissance, sabotage, intelligence gathering, raids on C³ installations, and assassination of government and military leaders. Ranking very high on SpetsNaz priorities (as with any Soviet military unit) are NATO's nuclear weapons. Thus, a nuclear-capable air force installation is a prime Soviet target, one that will almost assuredly receive detailed and careful pre-war attack planning. In all likelihood, the Soviets would assign only their SpetsNaz units against such a base, not trusting such work to Pact conventional or special operations forces. SpetsNaz could, of course, work in concert--albeit in a commanding position--with similar units from Pact countries.

¹Derived from the Russian *spetsialnoe naznachenie*, translated as special purpose, SpetsNaz is defined by some authors to mean any Soviet or Warsaw Pact special operations force element regardless of military service or controlling government organization. Others define SpetsNaz as special operations forces formed, trained, and controlled exclusively by the GRU, the Soviet General Staff's military intelligence organization. In this study, ESOW refers to special operations elements from any Warsaw Pact nation; SpetsNaz refers to Soviet GRU-owned forces.

In addition to formally constituted ESOW forces, airbases may be threatened by leftist political terrorists or members of local communist party infrastructures. In these cases, though, it seems unlikely the Soviets would trust these entities with major mission responsibilities. Rather, their functions are more likely to be in a support role.²

Thus, the external enemy force structure threatening the airbase, and regularly operating outside it, might include:

- Two 10-man SpetsNaz teams, each broken into three 3-man elements and a senior team leader, yielding six operational subunits. Their arms include silenced handguns, handgrenades, explosives in the form of mines and boobytraps, sniper rifles, AKR-74 assault rifles, SA-7 Strellas or equivalents, RPG-18s (LAWS), and 82mm mortars.³ Most of their weapons would be smuggled into West Germany and cached, probably with terrorist or communist party assistance some months prior to D-day.
- One 3-person cell from a Marxist-Leninist terrorist organization.
- One 3-person support cell from local communist political entity.

Internal threat forces are composed of hostile intelligence and sabotage agents, previously inserted and positioned, working as foreign nationals on the airbase. With five agents,⁴ they might be assigned as follows (with noted duty assignments):

²Another Working Draft is forthcoming on terrorism's potential impact on airbase continuity of operations.

³Equipment attributed to SpetsNaz elements operating in Afghanistan include: silenced AKM assault rifles (an improved version of the venerable AK-47), AK-74 and AKR assault rifles (the latest, most recent Soviet assault rifle), PK general purpose machineguns, RPG-7 and RPG-18 grenade launchers, AGS-17 automatic grenade launchers, a spring loaded "fireable" knife able to launch its blade at an nearby target, and sophisticated tactical communications equipment. The author has not found evidence of a silenced version of the SVD sniper rifle in the public press.

⁴Not an unreasonable number given both the pervasive nature of Soviet controlled and directed intelligence operations and the high targetting priority assigned to nuclear-capable airbases.

- Civil Engineering Squadron (Blueprints, Electrical Shop, Dispatch)
- Supply Squadron (POL Division)
- Transportation Squadron (Motorpool, Driver, Mechanic)
- Housing Office (Assignments Clerk, inspector)
- Janitorial Service (Wing Headquarters, Deputy for Operations)

THE ATTACK

The ground attack threat on or about D-Day surfaces at least 24 hours prior to H-hour and that, for purposes of this study, is when this scenario begins. Probabilities of success are based on general knowledge of terrorist success rates (in the case of off-base attacks) and, for attacks against on-base targets, on results of Viet Cong/North Vietnamese Army (VC/NVA) attacks against U.S. airbases in RVN during years 1964-1973. The D-Day events outlined here are carried out entirely by special operations forces, with some assistance from local terrorists and communists, all of whose missions are dictated by the Soviet high command. Their goals are, in order of importance:

1. Neutralize or destroy NATO's nuclear capability, particularly air deliverable nuclear weapons and nuclear-capable aircraft.
2. Zero air sorties from all NATO TACAIR assets.
3. Destruction of NATO air assets.
4. Render NATO airbases temporarily useless for sortie generation.

H-24 to H-20 hours:

- Two 3-man SpetsNaz teams attack off-base utility installations (water, power, POL, telephone transmission facilities) with explosives and/or rocket propelled grenades. Explosives and/or weapons identified as similar to those common in previous terrorist attacks in the region are used, hopefully causing incorrect assumptions about the true nature of the perpetrators. Probability of success: 70%

- One 3-man terrorist cell places timed explosives at local hangouts for airbase airmen and timed to explode at peak evening business hours as close to H-hour as practical. A 3-man SpetsNaz team kidnaps/kills both key and second echelon command/management personnel know to reside or habituate off-base locations. Probability of success in bomb killing or disabling some unknown number of airmen: 90%; probability of success in kidnapping/killing critical personnel: 20% of those targeted.

H-20 to H-16 hours:

- One 3-man SpetsNaz team retrieves cached mortars, RPG-18s, and handheld SAMs, and proceeds to designated distribution or attack positions. Probability of success: 95%
- Two 3-man SpetsNaz teams plant radio-controlled or timed explosives at bridges, overpasses or tunnels whose destruction or impairment would disrupt key roadnets into and around the airbase; the devices would be keyed to explode just prior to H-hour. Probability of success: 90%

H-16 to H-12 hours:

- The base is under continual observation from this point until H-hour, both on and off-base assets being used. Status of base is relayed via high-speed burst satellite link. External forces report information on aircraft status, base ground defenses, and air defense activity. Internal agents locate key mobile sabotage targets (such as fuel trucks, rapid runway repair equipment, explosive ordnance disposal vehicles, communications/satellite equipment) in anticipation of disabling them just prior to H-hour. Probability of success-- external: 90%; internal: 75%

- Vehicles stolen or otherwise acquired by either terrorists or communist party functionaries provide transportation for operational elements. Probability of success: 95%

H-12 to H-8 hours:

- SpetsNaz operations elements disperse to general vicinity of H-hour mission sites, but remain hidden. They use safe houses provided by or homes of communist party/sympathizer cell members. Probability of success: 99%

H-8 to H-4 hours:

- SpetsNaz elements assigned to attack air defenses move to designated target areas. Probability of success: 95%
- Sabotage agents plant timed/radio-controlled explosives on designated targets, set to explode at H-30 minutes. Probability of success: 50%
- One 3-man SpetsNaz team kidnaps and kills three or four off-base airmen for purpose of stealing military identification cards and uniforms so the team may gain access to the airbase. Probability of success: 75%

H-4 to H-2 hours:

- Three 3-man SpetsNaz teams, organized as 82mm mortar teams, set up weapons for standoff attack of airbase beginning at H-1 hour. Will use three different urban firing locations in nearby towns to hide firing sites and thwart counterbattery fire because of adjacent civilian population.

H-2 to H-hour:

- Air defense sites attacked/disabled by three 3-man SpetsNaz teams using RPGs, small arms, explosives.⁵ Probability of success: 50%
- Two of three teams which attacked air defense sites assume role of antiair gunners with handheld SAMs.⁶ First launch no earlier than H-2 hours.
- Remotely activated beacons are turned on.
- One 3-man SpetsNaz team enters base by either the main gate or at the munitions gate using a phony ammunition delivery as a cover story (using the stolen ID cards) and moves to vicinity of wing base command post or other potential targets, such as the base control tower, AFOSI office, or munitions storage areas. Probability of success: 30%
- Antiair elements, with handheld SAMs, attempt to engage aircraft departing the base. Probability of success: 30%
- Standoff mortar attack commences. A well-trained mortar crew can sustain a rate of fire of 5 rounds per minute. The primary purpose of this standoff attack is to keep aircraft immobilized. Therefore, mortar targets will be flightline and revetment areas. Tables which follow reflect results of VC/NVA airbase attacks.⁷

⁵The timing of obvious military, war-like actions before the formal outbreak of hostilities--like attacks on a bases's antiaircraft sites--is a matter of critical importance to the Soviets. Surprise is an oft-stated cornerstone of their strategic thinking, and actions which may prevent achieving strategic, operational, or even tactical surprise would be viewed very dimly by Soviet planners and commanders. Thus, attacks on a base's antiair defenses might, reasonably, be delayed until just minutes before H-hour.

⁶The SA-7 Strella has been in SWP inventories since the 1970s (it was field tested in Southeast Asia during the Vietnam War). However, it appears a replacement is entering SWP inventories--the SA-14 Gremlin. With improved guidance, tracking, range, and warhead performance when compared to the SA-7, the Gremlin represents a notable increase in the ground-to-air threat to low flying NATO aircraft. The SA-7 will probably be totally replaced in SWP arsenals by the 1990s.

⁷Derived from : Roger P. Fox, *Air Base Defense in the Republic of Vietnam: 1961-1973*, Office of Air Force History, USAF, Washington D. C., 1979.

AIRBASE ATTACKS DURING THE VIETNAM WAR

During the Vietnam War (1964-1973) there were four types of airbase attack: standoff, sapper raids, battalion-sized assaults, and sabotage. The most common was the standoff attack.⁸ Sapper raids were the next most frequent.⁹ Since the other two (battalion-sized assaults and sabotage) were rare, they are not discussed here. However, a special category of attack will be included: the combination standoff-sapper attack in which off-base standoff diversionary fire covers the infiltration and operation of a sapper element.

Table 1 lists averages for the ten years 1964-1973. The column "Aircraft Lost" means U.S. or Vietnamese Air Force (VNAF) aircraft damaged or destroyed per attack; "Casualties Lost" translates as U.S. or Vietnamese killed or wounded in each attack, "VC/NVA Lost" reflects the same for those forces.

Apparently, aircraft were not always the intended target for standoff/sapper combination attacks. Two of these nine resulted in no aircraft lost, however, 460,000 gallons of aviation gas and storage tanks, and 6000 tons of munitions (\$10.3 million), were lost,

Table 1

AVERAGES PER ATTACK FOR RVN AIRBASE ATTACKS - 1964-1973

Attack Type (Number)	No. Rounds	Aircraft Lost	Casualties Lost	VC/NVA Lost
Standoff (435)	12.9	2.4	4.6	--
Sapper (16)	--	1.1	1.1	1.8
Standoff/Sapper(9)	18.1	6.3	6.5	5.5

⁸ Defined as attacks with weapons using exploding warheads at ranges greater than 1000 meters. Mortars, recoilless rifles, pack howitzers, and rockets (107mm, 122mm, and 140mm) were used.

⁹VC/NVA sappers were highly trained combat engineers expert at penetrating perimeter fences and defenses and planting explosives throughout a target area.

respectively. When aircraft were apparently the target, the combination attack did result in significantly more aircraft lost (6.3 versus 2.4 and 1.1) than when either type of attack was mounted singly. However, it should be realized that of the nine combination attacks in ten years, aircraft were lost in only four; the other five attacks resulted in no aircraft losses. The high average VC/NVA losses in combination attacks were due to 32 casualties in the lone 1966 attack and 17 during the one in 1969.

For purposes of establishing some numbers to determine standoff attack effectiveness against a modern day NATO airbase, Table 2 compares standoff attacks during the first half of the Vietnam War with the second (1964-1968 versus 1969-1973). In the latter period, aircraft were better protected, there were more bunkers for protection of base personnel, countermeasures by U.S. forces were both more effective and numerous, and, as the war drew down, there were fewer targets for the VC/NVA to shoot at. Similar to Table 1, "Aircraft" and "Casualties" refer to aircraft destroyed or damaged and people killed or wounded per attack.

As Table 2 shows, there were more standoff attacks, on average, in the latter half of the war, but with considerably less effect. Considerably fewer rounds were fired on average (possibly due to increased countermeasures effectiveness) which resulted in fewer airplanes or people lost.

Table 2

STANDOFF ATTACK EFFECTIVENESS AGAINST AIRBASES IN VIETNAM

Years	Avg. No. Attacks (per year)	Avg. Rounds (per attack)	Aircraft Lost (per attack)	Casualties Lost (per attack)
1964-1968	27.8	24.2	5.4	8.9
1969-1973	59.8	8.7	1.0	2.7

When the actual number of rounds fired are divided into the number of planes lost or damaged and the number of people killed or wounded, Table 3 shows a drop toward the end of the war; apparently increased protection of aircraft and people paid dividends. The first half figures equate to .2 aircraft lost per round fired and almost .4 people killed or wounded. For 1969-1973, the figures translate to .11 aircraft and .31 people per round. The figures for the last half of the war are more pertinent to this study, assuming NATO-based aircraft are much more protected at this point in time than USAF planes were in the first half the war in Vietnam, as well as more protected now than in the later periods of the Vietnam War.

For purposes of our present model, it is assumed the three SpetsNaz-manned 82mm mortars will each be able to fire an average of five rounds per minute (allowing time for slight sight corrections) for three minutes: 45 rounds total.¹⁰

At .11 aircraft lost per round, the base can expect to lose about five unprotected/unsheltered aircraft (if there are that many on an airbase), damaged or destroyed, during this first three minutes. Possibly more important will be the lack of aircraft launches, not only for the three minutes of the actual mortar attack, but for some time to come.

Table 3

NUMBER OF AIRPLANES AND PEOPLE LOST PER ROUND FIRED IN VIETNAM AIRBASE ATTACKS

Years	No. Rounds Fired	Planes Lost	People Lost	Planes Lost (per round)	People Lost (per round)
1964-1968	3368	754	1240	.22	.37
1969-1973	2603	300	817	.11	.31

¹⁰Soviet fire missions are usually limited to three or four minutes duration in situations like this. See Chapter 9, Army FM 100-2-1, *The Soviet Army: Operations and Tactics*. 16 Jul 84.

Assuming two of the three mortar teams are able to safely vacate their first firing positions and move to second ones, they could launch yet another combined standoff attack of three at least minutes duration. The time to disassemble mortars, move, and reassemble and prepare to fire again could be as short as 20 minutes. Rounds launched: 30. Base aircraft could conceivably be grounded up to and through H-hour. This is not considered unrealistic.¹¹

With increased use of night vision equipment by ABGD forces, it seems unlikely SpetsNaz would try, at this stage of the conflict, to penetrate the base perimeter, *ala* VC/NVA sappers. Rather, if their mission brief calls for actions on-base, their entrance via the main gate with stolen uniforms and stolen or faked ID seems more probable.¹² Sapper-like penetration is more reasonable when timed with the arrival of conventional ground or airborne forces. A sapper penetration conducted just prior to an airborne or heliborne assault would cause security personnel to look horizontally, not vertically, thereby giving airborne elements more time to successfully land and establish an airhead.

¹¹Another standoff attack method possibly available to ESOW forces and which would affect this equation would be the use of either AT-4 Spigot or AT-5 Spandrel antitank missiles launched from off-base, but targetted against hardened aircraft revetments. The AT-4, with a maximum range of 2000 meters, can penetrate 500-600mm of armor. The AT-5 has similar penetrating capabilities, but with a range of 4000 meters. The relatively small size of these weapons means few smuggling or caching difficulties over those of other prepositioned SpetsNaz arms. However, since this author has seen no indication of either weapon being assigned to ESOW forces, they are not included here.

¹²However, a base which suffers pre- H-hour attacks, like that of our generic installation, may secure its main pedestrian and vehicle gates, as well as tighten overall perimeter security. We must assume the details of these base actions are well known to the enemy through his previous intelligence observations. If sapper-like penetrations are ill-advised, and walking or driving through the main or pedestrian gates also precluded, then SpetsNaz is likely to use those entrances which do remain operable in times of heightened security. For example, if only certain supply trucks are allowed base entry, then they are a likely avenue for SpetsNaz. Thus, any exceptions to no-entrance regulations should be closely scrutinized.

ESOW LOSSES

SpetsNaz losses, up to the time of H-hour, are estimated to be in excess of 50%: at least one mortar team (3 men) lost through actions of host nation police or military forces; the team which entered the base (3 men) captured or killed by Security Police, security augmentee, or AFOSI counterintelligence team actions; one SAM team (3 men) captured or killed by action of Army or host nation forces; two men of the nine who attacked the air defense sites between H-4 and H-2 hours, assuming some site defenders successfully kill or wound some SpetsNaz attackers; and one team leader eliminated during the course of the above noted actions.

Neutralizing the five internal agents will require the combined actions of counterintelligence operatives, Security Police, augmentee, or other security conscious people on base. It is difficult to estimate a probability of success however. AFOSI's counterintelligence efforts should result in the most apprehensions of enemy espionage or sabotage agents, but even though the organization's countering programs (counterespionage and countersabotage) have proven effective in the past, Soviet intelligence and sabotage operations prior to war's start could be of such a magnitude as to overwhelm AFOSI's limited countering capability.¹³ As effective as AFOSI's measures may be, the organization does not have the assets to blanket each and every airbase in NATO with assured counterintelligence coverage. Other on-base assets must be relied upon. One significant contributor will be general security awareness on the part of base personnel.

Heightened security awareness--if not paranoia--may result from SWP actions in the hours preceding H-hour. Missing or killed personnel, explosions at GI hangouts in nearby towns, and sabotaged off-base targets all add to a heightened security awareness. As such, base personnel are likely to be especially alert for suspicious activities and more inclined to report or act on them. Actions by enemy agents are more likely to be spotted. In line with the philosophy of AFR 205-57 and its requirement to report suspicious activities, an erstwhile and

¹³The sensitive nature of counterintelligence methods precludes mentioning details of them here.

continuous education and briefing program on internal security is warranted.

SOME DOCTRINAL AND TACTICAL QUESTIONS REMAIN

The enemy's mission both prior to and following D-Day is either to destroy NATO's aircraft or somehow to keep them out of the air. As part of this campaign, a major air attack against NATO's airbases is likely. The Soviet Union knows air superiority cannot be guaranteed if either NATO's aircraft are flying or its anti-aircraft capabilities remain intact. Also, a key element in Soviet attack plans may include other efforts to eliminate anti-air weapons surrounding airbases as well as efforts--such as mortar attacks and sabotage--to keep aircraft on the ground.

Protecting geographically separate sites--whether pumping stations, water wells, or anti-aircraft installations--is difficult. Even though they are manned by few people and have small perimeters, a commonly heard solution is that "they should protect themselves." Admittedly, people assigned to them must contribute to their own protection, but it is unreasonable to expect remote sites to be defensively self-sufficient in the face of surprise attacks by teams of highly trained fighters and infiltrators like SpetsNaz.

While there is no way to guarantee their protection, remote site physical security could be improved with sensors and/or mines. Their defensive posture can be improved by assigning augmentee security personnel from the airbase in times of heightened alert. Local national forces can augment their defensive complement as well. In fact, it may be advisable to make this part of future Host Nation Support Agreements. But, whatever methods are selected, the best will be those that free the Security Police for "maneuver" defensive duties--only a maneuver defense is likely to be successful in airbase defense.

Active response to off-base mortar attacks also presents some thorny tactical problems for ABGD planners. If these attacks are launched from nearby towns, as envisioned here, countering fire may not be possible (even if a specific target could be found), and pinpointing an attack site is unlikely without counterbattery radar. Patrols by host nation police or military may be one answer. However such a

reaction force, even with its inherent local knowledge, has only a slim chance of arriving at the launch site before it is evacuated by the enemy. Given present Security Police capabilities, countering an enemy mortar attack on or about D-Day may be more a matter of preparing protective bunkers on-base beforehand, blanketing the surrounding geography with as many patrols (foreign and domestic) as possible, with active counterintelligence coverage in and around likely launch sites. Until such time as airbases receive efficient counterbattery radar systems, random patrols which unexpectedly and frequently appear throughout the surrounding area may be the best deterrent available under these battle conditions.

Preventing or limiting on-base sabotage is, by comparison, a matter of good counterintelligence by AFOSI, alertness of base personnel, and the quick response by the Security Police to reports of suspicious activity.

IV. THE D+3 TO D+5 ATTACK

ENEMY GROUND THREAT AFTER D-DAY

Starting on D-day, the ground threat to the airbase may begin to change perceptively. Three or more days later it may change dramatically. For in addition to the remnants of ESOW forces remaining after three days of combat, Soviet and Pact conventional ground forces advancing westward represent a larger, more mobile, and more diverse threat. Soviet doctrine calls for their ground units to advance 50 kilometers per day. If, however, NATO forces are able to limit SWP advances to 30-40 km/day, D+3 finds enemy forces 130 km from the airbase, and 50 km away at D+5 (less than an hour's drive for a SWP main battle tank).¹ Such distances are well within estimated SWP airborne operational ranges, and 50 km is considered the maximum expected range for a SWP heliborne assault. In the days following D-day, SWP ground or air-inserted threats could include--but, realistically not be limited to:

- A Soviet reinforced airborne battalion (312 men), the main antagonist in this scenario.
- A forward detachment (reinforced motorized rifle battalion) of an advancing Operational Maneuver Group (+472 men).
- One long range reconnaissance company from the advancing tank division (150 men).
- One Airmobile Assault Brigade (helicopter) (1700 men)
- Six to eight survivors of ESOW force.
- A ground unit whose mission is to provide linkup/backup for air-inserted units of airborne or heliborne elements; possibly a tank or motorized regiment or division, or some combination thereof.

¹Several studies have predicted much slower rates of advance for SWP combined arms forces, on the order of four kilometers per day for the first ten days of combat. Therefore, the ground threat envisioned here may not materialize for many days after war's start, if it ever does.

Several unknowns render it difficult to accurately project an outcome of a ground attack by conventional forces against an airbase at this point.² The availability of ground forces from the U.S. Army, NATO, and German territorials; the presence or absence of air support; and the size of the enemy force, are just a few of many variables at play. The enemy's force size is the greatest imponderable of all. Soviet and Warsaw Pact air-deliverable and combined arms forces are massive by anyone's standard, and it is, therefore, easy to picture hordes of SWP forces descending on an airbase's main gate, demanding entrance.

The enemy order of battle (OB) listed above may be a *minimum* force that might be targetted against an airbase in the days following D-day. Rather than an airborne battalion, a major NATO air installation may find itself facing an airborne regiment or division. The sizes of the other units may also be larger. There is a point at which the size of the opposing enemy force dictates prudent withdrawal, rather than taking a defensive stand. For example, attempting to defend against a tank regiment or division. In that case, withdrawal of the base's major assets is the only wise alternative, with the ABGD force functioning only as a reconnaissance or delaying force.

However, for this scenario, the post- D-Day threat is limited to the remnants of the enemy special operations contingent (8 men) and the reinforced airborne battalion (312 men). The combined arms battalion (CARB) has evolved into one of the Soviet's primary offensive tools in Afghanistan and it is not difficult to envisage an equivalent unit becoming the key offensive maneuver element in Soviet airborne doctrine. There is the additional likelihood that an enemy reinforced battalion would not be dropped alone, but rather form part of a larger airborne unit, such as a regiment or division. In that case, the battalion may be assigned the job of overrunning the airbase while its companion units go off on other missions.

²The small number of battalion-sized attacks during the Vietnam War (2), and the VC/NVA's lack of armor support during these attacks, offer little for comparison purposes.

It must also be realized that the Soviets do not plan to drop a strategically important force like an airborne battalion, regiment, or division deep behind enemy lines and then leave them stranded with no relief in sight. A forward detachment from an operational maneuver group or other advancing force will be tasked to link up with the paratroopers, thus, significantly increasing the size of the threat faced by airbase defenders. For this comparison, though, the threat is limited to the reinforced airborne battalion.

ESOW Missions

Three days into a West European war means SpetsNaz will no longer be able to call on local sympathizers or terrorists for assistance. The likelihood that terrorists or communist party members are still free and remaining nearby seems remote. Therefore, SpetsNaz will be functioning alone. Their missions at this point can be to:

- Reconnoiter and secure planned Drop Zones (DZs).
- Select alternate DZs in the event primary DZs cannot be secured or used.³
- Reconnoiter expected routes of advance for three airborne battalions, the major combat force elements of the regiment.
- Activate beacons for incoming airborne forces.
- Conduct a sapper-like penetration of the base perimeter to: create a diversion at the time of the paradrop; prepare an attack route for mobile elements of the airborne regiment; or, prepare an undefended avenue of advance for follow-on conventional force elements moving to support and operate in conjunction with the airborne units.

³Reconnaissance of potential DZs will begin far in advance of D-day, initially by either terrorist or communist party elements. However, as war approaches or a paradrop is imminent, SpetsNaz will probably be responsible for updating previous reports, as well as providing initial site security. Their security responsibilities will end with the arrival of the first airborne troops; site security forces are among the first dropped in during Soviet airborne operations.

Estimating chances of success for these jobs is difficult, however, it may be low since more than three days of war will gear-up NATO's rear area operations. The ability of ESOW elements to move freely about the countryside will be much more limited than in the period before the war's start. In spite of this difficulty, the results achieved by combination standoff/sapper attacks during the Vietnam war (Table 1), in which an average of more than six aircraft were lost in each, may prove tempting to Soviet planners as a relatively inexpensive way to destroy NATO aircraft.

The Airborne Operation

Assuming the battalion is given the green light by the Soviet high command, regardless of SpetsNaz success or failure, Soviet airborne operational doctrine calls for a regiment to use one or two DZs, each measuring at least 3 x 4 kilometers located within 30 kilometers of the final objective.⁴ Thus, a reinforced battalion would probably use one drop zone. Following a drop before dawn, the battalion's three companies use three different, yet parallel routes of advance toward the base for an assault at dawn or shortly thereafter.

Firepower Comparison

The Soviet airborne battalion's main threat to base defenders will be approximately 30 BMD armored vehicles.⁵ Mounting a 73mm low-velocity gun with a 1300 meter range, the BMD is a tracked, amphibious infantry

⁴If feasible, the Soviets prefer to drop on the final objective itself. However, in this case the presence of ABGD forces precludes a secure DZ within sight of or on the airbase. The Soviets like to have an advantage of at least 3 to 1 and they cannot be immediately assured of this ratio if they drop on the base proper.

⁵The actual number of BMDs in a Soviet airborne regiment is nearer 35; some are configured for duties other than as infantry fighting vehicles, e.g. command vehicles and weapons carriers. The number of troops carried by BMDs is approximately 210 of the 312 assigned personnel in the battalion. This BMD force is augmented by a number of airdroppable trucks for the battalion's remaining mobility needs. While not integral to an airborne battalion, artillery support for the unit could come from the temporary assignment of either an assault gun unit or a mortar battery from the parent airborne division.

carrier that can travel 80 km/hr and carry a crew of four with three passengers. The vehicle's armor thickness ranges from 15 to 25mm.

There is current evidence that some Soviet BMDs are being armed with a 120mm mortar/howitzer weapon, the 2S9, capable of firing a 16 kg mortar bomb at least six kilometers, a distance which far exceeds the 2000 meters of the Mk 19 grenade machinegun mounted on Security Police HumVs. While the 2S9 may have been developed, according to some, to fire onto a mountain's reverse slopes, as in Afghanistan, its value in urban combat cannot be underestimated. With urban combat likely to be commonplace in a future European war, a mortar's ability to fire over buildings onto adjacent streets is prized. This is something regular tubed artillery cannot do with equal efficiency. Rocket assisted or terminally-guided ammunition for the 2S9, in addition to the normal high explosive rounds, could make this weapon's capabilities serious indeed for people riding in thin-skinned base defense vehicles.

Other regimental threats to ABGD forces include 9 handheld SAMs, 30 RPGs, 27 light machineguns, and 6 AGS-17 automatic grenade launchers, the Soviet version of the Mk 19, but with a smaller warhead, slower rate of fire, and shorter range (30mm, 65 rpm, and 800m, respectively). If the battalion is reinforced with its regiment's mortar battery, six 120mm mortars could be added to its firepower. One assault gun company from the parent division adds ten self-propelled artillery tubes to the list.

Security Police systems opposing this firepower include the 20-30 60 mph (60 km/hr) HumVs--carrying 130+ Security Policemen--armed with Mark 19 grenade launchers capable of aimed fire to 2000 meters (some SP vehicles may be armed with M-60 machineguns).⁶ Capable of penetrating a BMD's armor, the Mk 19's 350 rounds per minute firing rate is significantly faster than the 73mm gun's 7-8 rpm. Compared with the 73mm-toting BMD, the HumV and its Mk 19 should be able to hold its own in one-on-one combat. While thinner-skinned, the HumV can move and

⁶Despite Army assurances and the May 1984 Memorandum of Agreement to the contrary, ABGD forces may have to be deployed outside the base perimeter in order to satisfy all the base's defensive needs. How far out they deploy is judgemental, but a distance of 4000 meters would keep ABGD forces under the protective umbrella of their 81m mortars, the longest range ground weapon currently in Security Police arsenals.

shoot faster.⁷ However, the 2S9 120mm mortar/howitzer alters this formula and may negate many advantages of the MK 19 over the 73mm gun.

Other shortcomings include the 4500 meter range of Air Force's 81mm mortar which falls at least a thousand meters short of the Soviet's 120mm weapons. *The lack of counterbattery radars at most Air Force bases may have dire consequences.* Equally problematical are the differences in explosive effect between 81mm and 120mm mortar bombs, which bear directly on an ability to delay, kill, or stop an enemy. One can envision 120mm mortar rounds from either the newly rearmed BMDs or the augmenting mortar battery impacting at will around an airbase whose defenders are unable to fire back because their longest range weapons fall woefully short of the enemy's.

This may be one of the most compelling reasons to advocate off-base defensive maneuvers by Security Police ground defenders where they can, to a degree, become masters of their own fate. By operating off-base, defenders become mobile, not sitting targets. They take their firepower out to the enemy. They more efficiently and effectively use the weapons and maneuver systems they do possess. Maybe most importantly, they complicate Soviet plans to overrun NATO airbases.

A NATO airbase should not be a Dien Bien Phu, its defenders sitting in static positions--wagons circled-- surrounded by high ground, waiting for the enemy to move in. While a portion of the SP force must man positions inside the perimeter wire, if the entire force is so situated, enemy offensive moves against them are relatively easy when compared to those needed against highly trained defenders who are also moving and shooting fast, able to attack often and suddenly from unexpected directions.⁸ Today, a fortress or siege mentality could prove fatal.

⁷The speed difference (100 km/hr--HumV vs 80 km/hr--BMD) between the two vehicles may be, truth be told, insignificant in combat. A vehicle traveling 80 km/hr or 100 km/hr will be a difficult target to hit under any circumstances, let alone by shooters firing open-sighted weapons with unguided ammunition at long distances. Obviously the most important advantage of the Mk 19 is its high rate of fire, and firepower is something the Soviets know and respect. Conceivably, one reason for the development of the 2S9 and the Soviet AGS-17 automatic grenade launcher may have been the MK 19's development, and its threat to lightly armored Soviet vehicles.

⁸Surprise attacks from unexpected directions against Soviet troops in World War II were the most effective type of offensive against them. Setpiece assaults or those hitting Soviet forces head on were the least

Maneuver, initiative, surprise and firepower are the keys to successful defense.

Even though base defenders may fight alone for a time--and be outgunned as well--some mitigating factors might swing the balance to the side of the defense. Airbase defenders have the capability and potential to at least seriously delay or halt a Soviet airborne battalion--or maybe even a regiment--until such time as more powerful assistance arrives. However, those capabilities and potentials must be developed.

effective. Stationary defenses were either quickly defeated or encircled by Soviet offensive moves. See F.W. von Mellenthin, *Panzer Battles: A Study of the Employment of Armor in The Second World War*, Ballantine Books, N.Y., 1956.

V. SOME FINAL THOUGHTS

The SWP operations, maneuvers, and combat tactics pictured here represent difficult challenges to base defenders. If they do happen as outlined, some, such as the airborne assault, will be unique in Security Police history. Others, like the mortar and sapper attack, have been experienced, but by a relatively small and shrinking group of Vietnam-era security policemen. In either case, these challenges and problems are not necessarily insurmountable or unsolvable.

When trying to balance current ABGD potentialities against the enemy's capabilities, we can find some factors which weigh on the side of the defense. The Soviets and Warsaw Pact do not have it all their way. Today's base defenders, for example, have detailed knowledge of the local terrain and its defensive potentials. They have a series of prepared defensive fighting positions around base perimeters and a fighting force capable of fast moves over large amounts of real estate--albeit with modest firepower. Supplementing these pluses are others whose influence could prove vital: a shortened logistics and maintenance tail for ammunition, POL products, and vehicle and weapon repair; near by and available Air Force close air support; and--hopefully--additional ground combat support from relatively close NATO, Army, or Territorial forces. Close air support from sources not assigned to the targetted airbase might be available as well. Army attack helicopters or--given air superiority--Air Force gunships could lend a hand as well.

Possibly of greater influence will be the filtering effect on Soviet forces who must fight through layers of forward deployed NATO ground and air forces. They must go around and through the highly urbanized German countryside, or along roads clogged with refugees fleeing the battle zone. They must cross numerous water obstacles. And lastly, they must fight through defending U.S. Army, German Territorial, and ABGD forces. When totalled, these defensive layers, these 'filters', may prove more daunting to Soviet ground commanders--conventional and unconventional, alike--than they originally thought

possible. While difficult to measure, singly, jointly, or totally, their combined effect may make the difference between a successful and unsuccessful base defense.

If it is the Soviet's goal to prevent sorties from NATO airbases, it is equally the job of airbase ground defenders to keep their base's planes flying. The mission of the Air Force may be "to fly and fight", but in the present NATO arena, the defensive fighting around airbases may have to be by everyone on-base, not just the Security Police. It hardly seems reasonable to expect 600 or even 1000 SPs, and a handful of augmentees, to defend an installation without considerable backup, backup on both sides of the perimeter wire.