

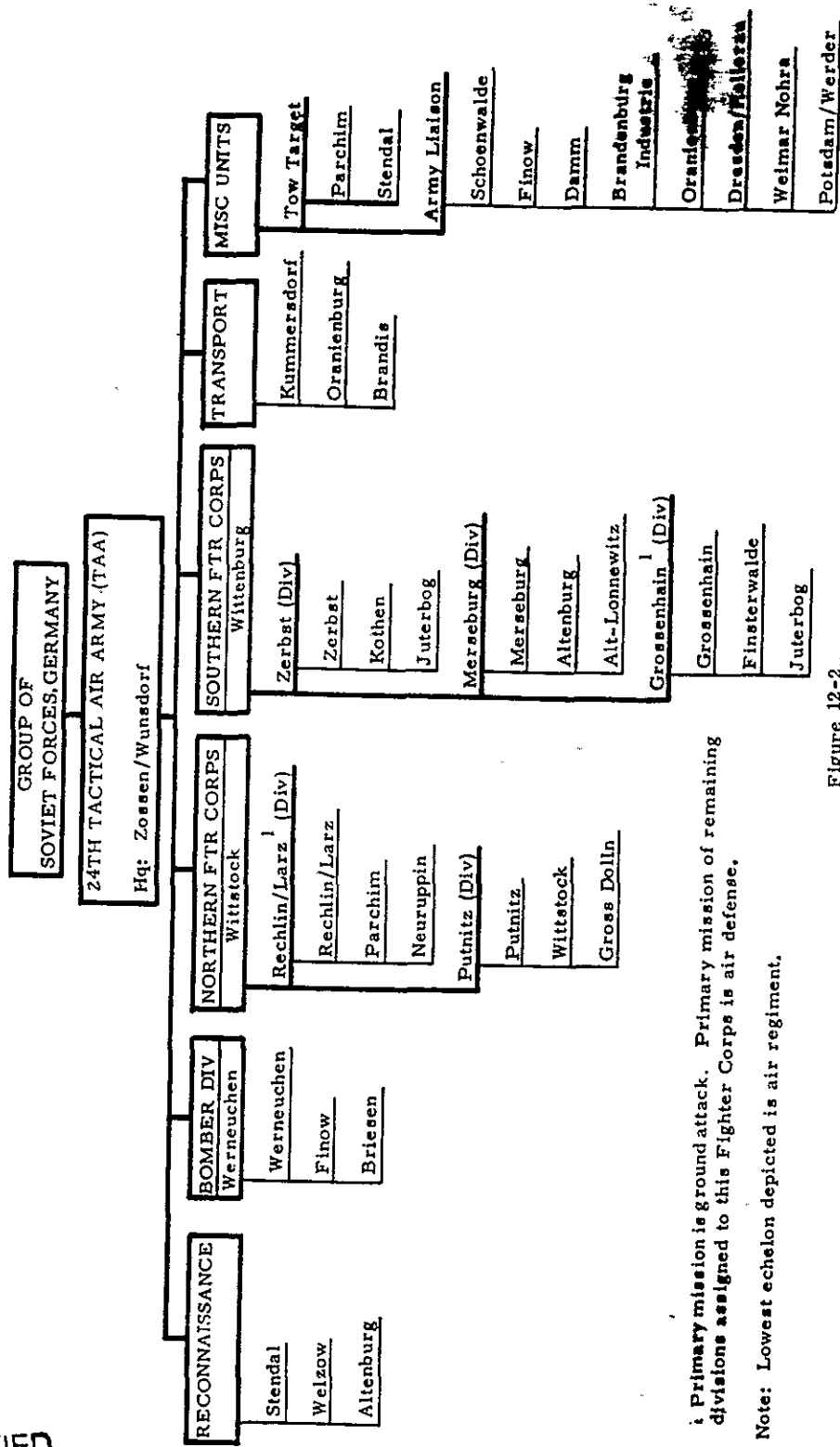
TABULAR SUMMARY OF SOVIET BLOC AIRCRAFT AND PERSONNEL IN WESTERN USSR AND EASTERN EUROPE

Models	Western USSR		East Germany		Poland		Hungary		Czechoslovakia		Rumania		Albania		Totals	
	USSR	24th TAA	EGAF	37th TAA	Polish	SAFR	Hungary	Czechoslovakia	Bulgaria	Rumania	Albania	Soviet	Satellites			
Fighters																
Day	778	326	183	170	540	70	114	466	245	260	61	1,344	1,688			
All-Weather	72	265	61	66	210	120	22	114	12	0	0	533	419			
Reconnaissance ³	21	0	0	42	72	0	0	26	30	0	0	101	128			
TOTALS Soviet	871	629	244	276	822	190	136	608	288	260	61	1,888	2,437			
Light Bombers	172	116	0	0	40	60	0	36	0	0	0	348	78			
Reconnaissance	62	40	0	12	20	0	0	10	20	0	0	114	30			
TOTALS Soviet	234	156	0	12	60	60	0	46	20	0	0	463	138			
Divisions	8	6	2	2	6	2	1	6	3	3	1	18	22			
Fighter Regt	20	15	6	5	18	4	3	12	7	6	2	44	54			
Bomber Regt	6	3	0	0	1	1	0	1	0	0	0	12	2			
Reconnaissance Regt	7	5	0	2	4	0	0	1	2	0	0	12	7			
Personnel Strengths	16,700	11,800	3	12,200	3,600	25,000	3,600	5,000	20,000	6,000	1,900	35,700	83,700			
RECAPITULATION:																
FIGHTERS																
Soviet	1,888												35,700			
Satellite	2,437												83,700			
TOTAL	4,405												119,400			
BOMBERS																
Soviet	462												35,700			
Satellite	128												83,700			
TOTAL	588												119,400			

1 - Baltic, Belorussian, Carpathian, Leningrad and Odessa Military Districts.
 2 - Includes MANGROVE.
 3 - DIA personnel figure for this element is 25,000

Figure 12-1

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¹ Primary mission is ground attack. Primary mission of remaining divisions assigned to this Fighter Corps is air defense.

Note: Lowest echelon depicted is air regiment.

Figure 12-2.

Figure 12-2

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AIRCRAFT CHARACTERISTICS AND ARMAMENTS CLOSE SUPPORT PERFORMANCE*

<u>Aircraft</u>	<u>Combat Radius¹ (nautical miles)</u>	<u>Maximum Speed at Sea Level (knots)</u>	<u>Armaments</u>
Fighters			
FAGOT (MIG-15)	200-575	580	1 37mm gun, 2 23mm guns, 2 550-lb bombs, 2 210mm air-to-ground rockets
FRESCO A, B, and C (MIG-17)	205-540	605	1 37mm gun, 2 23mm guns, 2 550-lb bombs, 4 210mm air-to-ground rockets
FARMER A, C, and D (MIG-19)	40-350	650	3 30mm guns, 2 1,100-lb bombs or 2 550-lb bombs, 2 rocket clusters of 8 rockets each
FITTER (SU-7)	140-470	660	2 30mm guns, 4 1,100-lb bombs, 2 55mm rocket packs
FISHBED C (MIG-21)	145-440	600	1 or 2 30mm guns, 4 550-lb bombs, or 2 16 shot, 57mm FFAR rocket pods
Light Bombers			
BEAGLE (IL-28)	510-700	430	2, 660 to 6, 600-lb bomb load
BADGER (TU-16)	1450-1650	380	Up to 20, 000-lb bomb load
BREWER	255-395	540	Up to 6, 600-lb bomb load

1 - Combat radius can vary from the lower figure to the higher figure dependent upon the profile (altitude) flown, and external fuel loads.

*Data provided by USAFE, 17 November 1964
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Figure 12-3

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SOVIET BLOC AIRCRAFT SERVICEABILITY RATES ^{1, 2}

PEACETIME (PERCENTAGE OF AIRCRAFT IN UNITS)

TYPE OF AIRCRAFT	EAST GERMANY		OTHER EUROPEAN SATELLITES	
	USSR	CZECHOSLOVAKIA		
Fighter, Day, Jet	80	75		65
Fighter, All Weather, Jet	70	65		55
Fighter, Ground Support, Jet	75	70		60
Light bomber, Jet	65	70		65
Medium Bomber, Jet/Tanker	70	-		-
Medium Bomber, Piston	-	-		-
Heavy Bomber, Jet/Tanker	60	-		-
Heavy Bomber, Turboprop/Tanker	60	-		-
Transport, Light Piston	65	65		60
Transport, Medium Piston	60	-		-
Transport, Medium Jet	60	-		-
Transport, Heavy Turboprop	50	-		-
Transport, Medium Turboprop	55	55		55
Helicopter, Light	55	55		55
Helicopter, Medium	45	-		-
Helicopter, Heavy	45	-		-

- The above rates are as high as shown primarily due to the relatively low rate of peacetime flying. The low peacetime flying rates are not caused by maintenance or lack of spare parts, but by the apparent distribution problems of aviation POL and short service life of Soviet jet engines.
- Reconnaissance aircraft regardless of type can generally be expected to have 10% less rate due to the nature of their mission.

Figure 12-4

SOVIET BLOC AIRCRAFT SERVICEABILITY RATES (Cont'd)

INITIAL COMBAT (PERCENTAGE OF AIRCRAFT IN UNITS)

The below rates assume a prior stand-down of approximately 10 days. The data further assumes that before settling down to Sustained Combat Rates a gradual deterioration of initial material readiness will occur, represented below by two successive seven-day periods, the first seven dependent primarily upon "stand-down maintenance," the second seven days about evenly dependent upon prior and current maintenance.

TYPE OF AIRCRAFT	FIRST SEVEN DAYS				SECOND SEVEN DAYS			
	USSR		EAST GER		USSR		EAST GER	
	CZECH	SATS	CZECH	OTHER EUR	CZECH	SATS	CZECH	OTHER EUR
Fighter, Day, Jet	90	80	90	80	80	70	70	70
Fighter, All Weather, Jet	80	80	80	80	70	70	70	65
Fighter, Ground Support, Jet	90	80	90	80	80	70	70	70
Light Bomber, Jet	90	80	90	80	80	80	80	60
Medium Bomber, Jet/Tanker	90	-	-	-	80	-	-	-
Medium Bomber, Piston	-	-	-	-	-	-	-	-
Heavy Bomber, Jet/Tanker	90	-	-	-	80	-	-	-
Heavy Bomber, Turboprop	90	-	-	-	80	-	-	-
Transport, Light Piston	90	85	90	85	80	80	80	70
Transport, Medium Piston	80	-	-	-	70	-	-	-
Transport, Medium Jet	90	-	-	-	75	-	-	-
Transport, Medium Turboprop	85	100	100	100	75	80	80	80
Transport, Heavy Turboprop	85	-	-	-	75	-	-	-
Helicopter, Light	70	70	70	70	60	60	60	65
Helicopter, Medium	60	-	-	-	-	-	-	-
Helicopter, Heavy	70	-	-	-	50	-	-	-

Comment: Figures for performance of long-range aircraft are based on maximum range flights.

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SOVIET BLOC AIRCRAFT SERVICEABILITY RATES (Cont'd)

SUSTAINED COMBAT (PERCENTAGE OF AIRCRAFT IN UNITS)

Assumed to pertain after first fourteen days, and represents a broad average. It is estimated that only under extreme conditions will Soviet forces intentionally slight their maintenance practices to a degree below acceptable standards. The below rates, barring excessive attrition factors, should pertain for approximately six months, and should then decline to about 40% to 50% depending upon actual utilization in particular geographic areas, upon comparative curtailment of production and transportation, and upon depletion of reserves.

TYPE OF AIRCRAFT	EAST GERMANY		OTHER EUROPEAN	
	CZECHOSLOVAKIA	USSR	SATELLITES	SATELLITES
Fighter, Day, Jet	65	60	60	60
Fighter, All Weather, Jet	50	50	55	55
Fighter, Ground Support, Jet	65	60	60	60
Light Bomber, Jet	65	60	60	60
Medium Bomber, Jet/Tanker	-	60	-	-
Medium Bomber, Piston	-	50	-	-
Heavy Bomber, Jet	-	55	-	-
Heavy Bomber, Turboprop	-	55	-	-
Transport, Light Piston	65	65	55	55
Transport, Medium Piston	-	60	-	-
Transport, Medium Jet	-	60	-	-
Transport, Medium Turboprop	60	60	60	60
Transport, Heavy Turboprop	-	60	-	-
Helicopter, Light	-	45	-	-
Helicopter, Medium	-	45	-	-
Helicopter, Heavy	-	40	-	-

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ANNEX 13

REINFORCEMENT

1. (U) (S) USSR.

a. Forces Available for Reinforcement.

There are 88 line divisions (including 5 airborne divisions) in the 11 military districts of the USSR west of the Ural Mountain-Caspian Sea line (See Annex 10, "Composition"). Of these 88 divisions, 33 are estimated to be combat ready and 55 are estimated to be at reduced strength. It is estimated that 25 combat-ready divisions (including 2 airborne divisions) in the 4 western military districts of the USSR are immediately available for reinforcement of central Europe. In these 4 western military districts, 17 additional line divisions at reduced strength could be brought to full strength in approximately 10 days; not all of these divisions, however, would have the same degree of combat readiness.

b. Transportation

(1) For reinforcement from the USSR western border to East Germany and western Czechoslovakia, the Soviets can use six railroad lines and six highways across Poland, and one railroad line and one highway across Czechoslovakia. The Baltic Sea ports (Rostock, Wismar, Szczecin, and Swinoujscie) have a combined capacity of 72,000 metric tons per day. These ports could be used to complement reinforcement from the USSR. Their use, however, would conflict with the east-to-west movement by rail and road to forward assembly areas. Use of these ports for reinforcement is not considered in this estimate. The movement of an 18-division reinforcement (the estimated force required to complete a limited buildup before launching an attack against central Europe) from the USSR by rail and highway has been computed to illustrate a Soviet reinforcement operation. Reinforcement capabilities have been computed from the USSR western border to a line running along the Oder and Neisse Rivers to Kolin, Czechoslovakia, and selected assembly areas in western East Germany and Czechoslovakia (See Figures 13-1 and 13-2).

(2) Railroads (See Figure 13-1).

(a) General.

A reinforcement rate of 3.1 division slices

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has been established. The 7 rail lines have a capacity of 248 trains per 24 hours. To move 1 division slice, 80 trains are required, therefore, 248 divided by 80 equals 3.1 division slices per day. The following factors were used to compute rail reinforcement rates:

1 An average forward movement rate of 35 kilometers per hour in Poland and East Germany.

2 An average forward movement rate of 30 kilometers per hour in Czechoslovakia.

3 A total of 80 trains with 120 axles per train required for the movement of 1 division slice.

(2) Oder/Neisse-Kolin Line.

In movements to the Oder/Neisse-Kolin line, the reinforcement rate would become effective one day after the dispatch of the initial train at the USSR western border. Basis for this one day factor is the travel time on the slowest rail route. Although unit integrity was maintained, the availability of divisions at the Oder/Neisse-Kolin line would also depend on closing times that vary, depending upon the route used. For the availability of divisions actually closed in, see Figure 13-3.

(c) Selected Assembly Areas.

In movements to selected assembly rates in western East Germany and Czechoslovakia, this rate would become effective after 1.6 days. This 1.6 day period includes transloading time, travel time on the slowest rail route, and unloading time. In computing the reinforcement rates for assembly areas in western East Germany and Czechoslovakia, full unit integrity was not feasible because it was necessary to interchange elements of various division slices to make maximum use of the capacity of the rail lines. The capacity of individual rail lines fanning out from the seven major east-west routes at the Oder/Neisse-Kolin line to the selected assembly areas is insufficient to absorb the input from the rail lines across Poland. To avoid a backup of trains on the higher capacity lines, several division slices were moved simultaneously over the main lines from the transloading areas. This method permits the alternating of trains and the maximum use of the various rail lines from the Oder/Neisse-Kolin line to several assembly areas. In this manner, several low capacity lines have the capability to absorb the input

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from each major line. For the availability of divisions actually closed in, see Figure 13-1.

(3) Highways (See Figure 13-2).

For highways, a daily reinforcement rate of 2.7 division slices has been established. The 7 highway routes have the capacity to handle 9,650 vehicles per 24 hours (10-hour operating day). To move 1 division slice, 3,600 vehicles are required. Therefore, 9,650 divided by 3,600 equals 2.7 division slices per day. This rate would not become effective until 9.1 days after the departure of the initial vehicle from the USSR western border and its arrival at the Oder/Neisse-Kolin line. In movements to western East Germany and Czechoslovakia, the reinforcement rate would become effective after 13.1 days. These time periods allow for the initial travel time. Unit integrity would be maintained. The following factors were used to compute highway reinforcement rates:

- (a) An interval of 90 meters between vehicles.
- (b) A 10-hour operating day.
- (c) An average forward movement rate of 16 kilometers per hour on routes 2, 3, and 4.
- (d) An average forward movement rate of 12 kilometers per hour on routes 1 and 5.
- (e) An average forward movement rate of 8 kilometers per hour on routes 6 and 7.

(4) Conclusions.

(a) The concurrent use of rail and highway modes for the purpose of reinforcement is feasible because these modes are independent of one another. Analysis of the rail and highway modes of reinforcement reveals that an 18-division force could be closed in.

- 1 To the Oder/Neisse-Kolin line:
 - a Railroad, 7.9 days.
 - b Highway, 21.1 days.

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2 To selected assembly areas in western East Germany and Czechoslovakia:

a Railroad, 8.6 days.

b Highway, 25.3 days.

(b) The Soviets could use either rail or highway for reinforcement against central Europe. However, the use of highway would entail an excessive time factor, damage to roads, and wear and tear on equipment. In addition, there would be a requirement for extensive vehicle maintenance upon the completion of a road march of this magnitude, especially for tracked vehicles. This could reduce the combat effectiveness of units (See Figure 13-3).

c. Airlift Capability.

Military Transport Aviation (MTA) has sufficient military transport aircraft available to enable the Soviets to transport at one time 31,000 troops with individual equipment, or a load of 3,200 tons of supplies and material, from western USSR bases to East Germany. However, the Soviets can support only one airborne division to drop zones in central Europe. While Soviet civil air fleet (Aerflot) capability estimates are not available, it is considered doubtful that Aerflot would be used to support airborne operations except in extreme emergencies.

2. ~~(S)~~ Satellites.

a. It is estimated that of the 63 Satellite divisions about 23 (8 Polish, 6 East German, and 9 Czech) are sufficiently manned and equipped for commitment to combat as part of an overall effort against central Europe. The extent to which Satellite divisions would be employed would be determined by the Soviet estimate of their reliability and effectiveness and the availability of supporting elements.

b. It is estimated that these 23 Satellite divisions would be integrated directly into Soviet Fronts. These divisions are considered as committed forces in this estimate.

c. Other Satellite divisions would probably be retained under national command for such missions as providing internal security, guarding lines of communications, and providing individual and unit replacements.

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RAIL REINFORCEMENT ROUTES

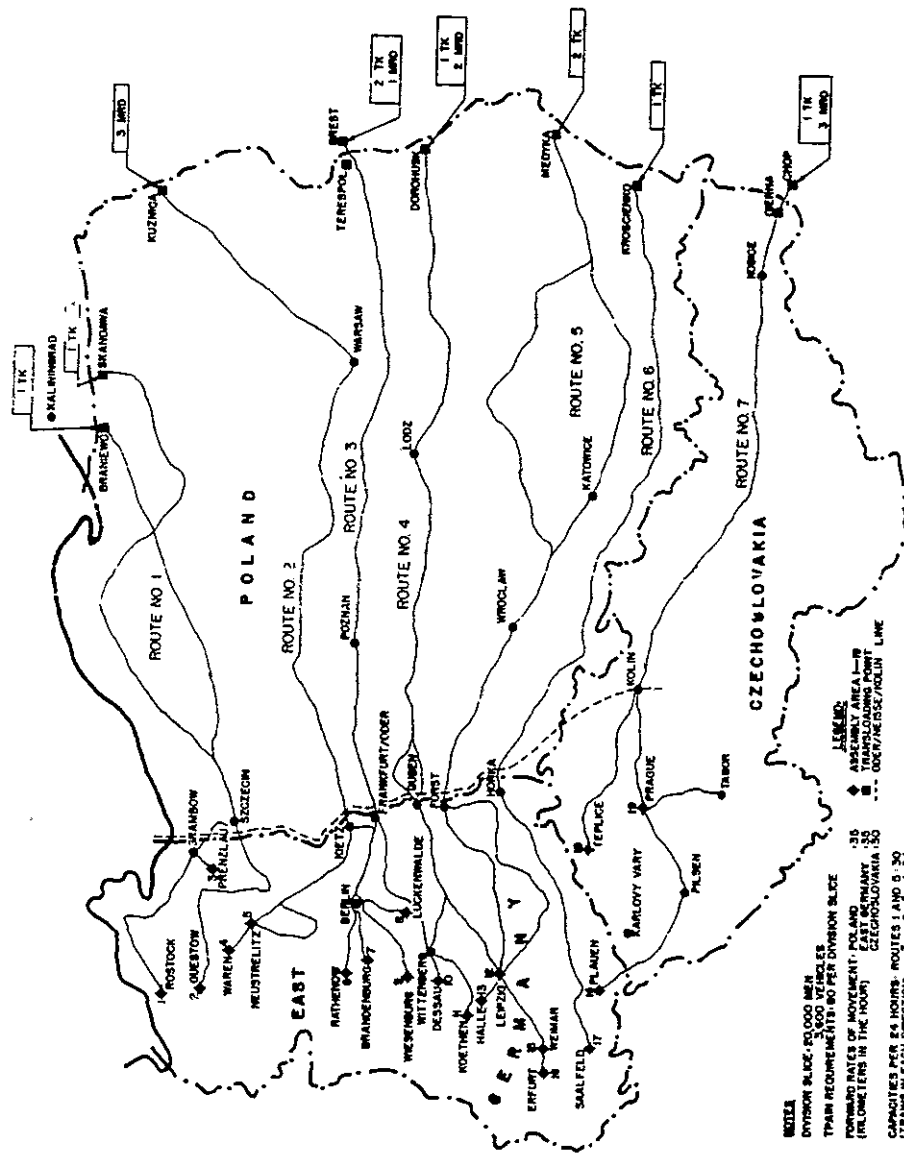


Figure 13-1

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HIGHWAY REINFORCEMENT ROUTES

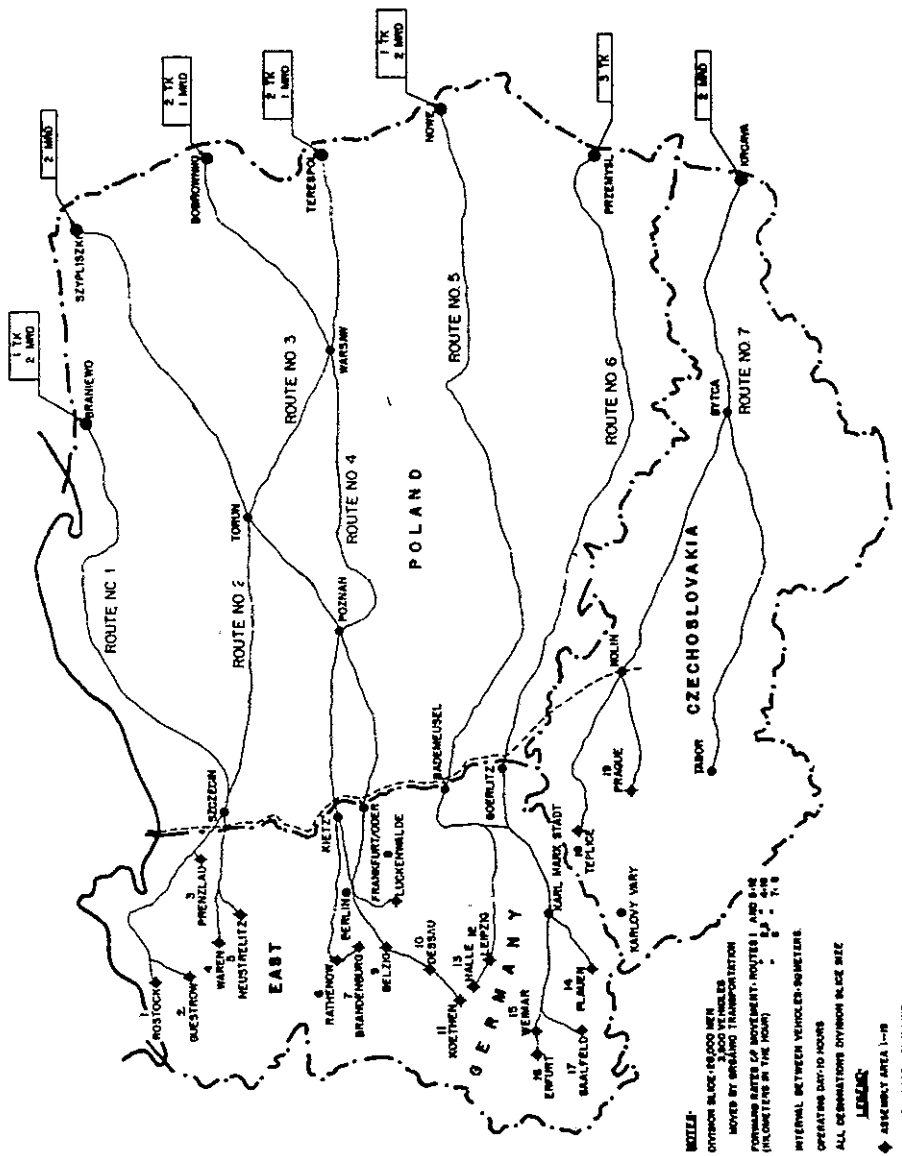


Figure 13-2

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AVAILABILITY¹ OF DIVISIONS CLOSED INTO ASSEMBLY AREAS

Days	Along Oder/Neisse-Kolin Line Number of Divisions		In Western East Germany and Czechoslovakia Number of Divisions	
	Rail	Highway	Rail	Highway
1	0	0	0	0
2	0	0	0	0
3	1	0	0	0
4	5	0	0	0
5	7	0	0	0
6	9	0	0	0
7	15	4	0	0
8	17	4	4	4
9	19	8	11	4
10	21	9	21	5
11	26	10	21	8
12	29	12	21	10
13	31	13	24	12
14	35	15	24	13
15	38	16	29	14
16		16		14
17		16		16
18		18		17
19		18		17
20		18		17
21		18		17
22		22		18
23		20		19

1 The reinforcement rate of 3.1 division slices per day includes transloading, travel, and unloading time. The availability of divisions as shown on this figure includes closing times that vary, depending on the route and mode of travel used.

Figure 13-3

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ANNEX 14

CONVENTIONAL WEAPONS AND EQUIPMENT

1. ~~(S)~~ USSR. (See Figure 14-1.

a. ~~(C)~~ General.

(1) Soviet ground force weapons and equipment developments continue to emphasize mobility, armored striking power, stream-crossing ability, and night-fighting capability. In addition, a trend to increase the antitank and antipersonnel firepower of the infantry has been noticed.

(2) To increase mobility the Soviets are introducing many new improved motor vehicles and armored personnel carriers. Various types of specialized equipment such as bulldozers, ditching machines, and field artillery radars are mounted on high-speed tractors. In conjunction with this land-mobility aspect there is an increased stress on perfecting snorkeling techniques, and amphibious vehicles, and improving bridging and ferrying capabilities. Mobile action is now possible on a wide front, even in face of major water obstacles. Improvement in this field is expected to continue.

b. ~~(S)~~ Armor.

(1) ~~(S)~~ Tanks.

(a) The most significant development in recent years was the introduction, in 1963, into GSFG of the new T-62 medium tank mounting a 115mm smoothbore gun. It is anticipated that more T-62's and T-55's will be issued in the coming years, phasing out the older T-54 models. In fact both tanks (T-62 and T-55) will probably continue in service even when the expected replacement for the T-62 is issued.

(b) An interesting development noted has been the retro-fitting of the older T-54 and T-54A tanks with infrared night sighting equipment such as that found on the T-54B, T-55 and T-62 tanks. It is believed that this reequipping program will continue until all T-54 and T-54A tanks are capable of operating at night like the new models.

(c) The number of heavy tanks has not increased, but all are now believed to be the T-10M which has an improved stabilized 122mm gun, two 14.5mm machine guns, and infrared night sighting equipment. The heavy tanks now in service probably will be retained

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in active units until 115mm gun tanks are widely issued. A further armored development is the expected appearance of self-propelled armored field artillery pieces of 122mm or 152mm caliber.

(2) ~~(C)~~ Armored Personnel Carriers.

The weak point in Soviet armored striking power remains the inadequacy (both in quality and quantity) of the armored personnel carrier. The Soviets are making progress in eliminating this deficiency. They use several models of armored personnel carriers, wheeled and tracked, amphibious and nonamphibious, with and without overhead cover. The first-generation vehicles, which appeared in the early 1950's, were wheeled and nonamphibious and were without overhead armor cover. A large number of these vehicles are still in use, but it is expected that they will be replaced in the near future. Already many of them have received modifications, which include armored roofs, tire inflation and deflation devices, and infrared driving devices. Replacement of these first-generation vehicles has already taken place in most reconnaissance units where the nonamphibious open-top BTR-40 has been replaced by the amphibious fully armored BRDM scout car. The latter vehicle is also modified for chemical reconnaissance and antitank guided missile use. In motorized rifle battalions most units still have the wheeled nonamphibious BTR-152V. Some have replaced these with the amphibious tracked BTR-50p or the amphibious wheeled BTR-60p. It is anticipated that the BTR-60p in a modified form will replace the BTR-152V in most units. Modifications expected are the addition of an armored roof and a small turret mounting a large-caliber (14.5mm to 25mm) automatic weapon. These changes must come as long as the Soviets adhere to their doctrine of employing armored personnel carriers as fighting vehicles. Since most carriers are not well suited for this type of action, improved models incorporating turret-mounted large-caliber automatic weapons are a necessity.

c. ~~(C)~~ Artillery.

(1) The newest field artillery piece is still the 122mm gun-howitzer M1963, which is in limited issue in GSFG, SGF and the USSR. It is anticipated that this piece will appear on a fully armored tracked self-propelled mount. A 152mm gun-howitzer may also make its appearance on a similar SP mount.

(2) Automatic anti-aircraft weapons as large as 57mm in caliber continue to be used. These widely issued weapons represent

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a serious threat to Western army aviation. The newest development is the 23mm Automatic AA Gun ZU-23, which is believed to be a light twin-barrel weapon designed to replace the multiple-mount 14.5mm AA heavy machine guns. The ZU-23 is probably standard in Soviet airborne units, and is most likely being issued to Soviet and East German line units.

(3) An interesting development in the past years has been the reduction of mortar calibers to one--the 120mm. The 82mm battalion mortar has been withdrawn from GSFG, as were the 160mm and 240mm heavy models. The 82mm is still used in airborne divisions, and the heavier models are probably held in some units in the USSR.

(4) An enduring characteristic of Soviet field artillery is the large-scale employment of guns and gun-howitzers in nondivisional tube artillery units. Undoubtedly this is done to achieve maximum range for counterbattery fires on a widely dispersed battlefield. The excellent armor-defeating capability of these cannons also plays an important role in their retention.

(5) On 7 November 1964 a new 40-round rocket launcher mounted on a Ural-375 truck was displayed. The caliber of the rocket is estimated at 110mm to 120mm and the range from 12,000 to 15,000 meters. This new launcher will probably soon appear in line divisions, especially in GSFG, to replace the currently held 140mm and 240mm rocket launchers.

d. ~~(S)~~ Infantry and Antitank Weapons.

(1) Small Arms.

The replacement of the AK assault rifle with the new AKM and of the RPD light machine gun with the new RPK is well along. It is anticipated that such a replacement will also take place in the Satellite forces, and in fact the East German Army is already receiving these new weapons. A new belt-fed, sustained-fire, general-purpose machine gun appeared in the Soviet press in the fall of 1964. It probably fires the old long-rimmed case ammunition and is the replacement for both the RP-46 and SGM machine guns. There is also evidence that an automatic weapon, 14.5mm or larger, will be introduced as the main armament of Soviet armored personnel carriers.

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(2) Grenades and Antitank Launchers.

The so-called "Blunderbuss" antitank launcher M1962 has been confirmed in the hands of the GSFG, East German, Rumanian, and Bulgarian armies. This weapon, which is now known to be called the RPG-7, is expected to rapidly replace the older RPG-2 in first-line units. The RPG-7 has a longer range, increased accuracy, and greater penetrating power than the RPG-2 which it replaces along with the 82mm and 107mm recoilless guns.

(3) Other Antitank Weapons.

The 82mm and 107mm recoilless guns have been withdrawn, except in airborne units. For missions beyond the 500m range they have been replaced by antitank guided missiles, while the shorter ranges are being covered by the new RPG-7 antitank launcher. It is still possible that a new and improved recoilless gun, with a spotting rifle similar to the Czech 82mm M59, will appear. High-velocity conventional-towed and auxiliary-propelled antitank guns of 57mm, 85mm, and 100mm caliber are still in the hands of the troops, although some of them have been replaced by antitank guided missiles. The Soviets do not rely on a single antitank weapons system firing a single type of armor-defeating ammunition. They will probably continue to hold both a shaped-charge system (guided missile, gun and grenade launcher), and kinetic energy system (high-velocity gun) for some time.

e. (u)(c) Night Fighting Capability.

(1) The night-movement and night-fighting capability of the Soviet forces is an ever increasing threat. The infrared driving and sighting equipment on medium and heavy tanks represents only part of the night-fighting capability of the Soviet ground forces. More than one-half of the towed and auxiliary-propelled high-velocity antitank guns have infrared night sighting devices. In addition, machine guns, assault rifles, and most recently, antitank launchers also have these devices. The PT-76 amphibious tank, the BTR-40p (BRDM) amphibious scout car, and other armored personnel carriers are also equipped with driving aids. The BTR-50p and BTR-60p also have infrared commander's lights.

(2) Increased use of field artillery radar should improve general night-fighting capabilities. Bridging, ferrying, and other stream-crossing operations have been carried out with the assistance

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of infrared devices. Significantly, the new heavy tracked amphibian is equipped with what appears to be an infrared commander's light. Although the Soviets cannot turn night into day, they are now able to carry out many tactical operations effectively at night that were formerly impossible or extremely difficult.

f. ~~(S)~~(C) Bridging and Stream-Crossing Equipment.

(1) Armored Vehicles.

It is estimated that most medium tanks in Soviet line units are now capable of snorkeling. In the more modern vehicles, such as the T-55 and T-62, it is believed that the preparation time has been reduced to about 20 minutes. The T-10M heavy tank may also have a snorkeling capability, but this has not been confirmed. Other armored vehicles capable of crossing water obstacles under their own power are the PT-76 amphibious tank, BTR-40p (BRDM) scout car, and the BTR-50p and BTR-60p armored personnel carriers. It is anticipated that future standard armored vehicles introduced in the Soviet Army will be either capable of snorkeling or will be amphibious.

(2) Ferries and Amphibians.

(a) The GSP heavy amphibious ferry (Class 50) is being introduced in larger numbers. The widespread introduction of this simple and effective piece of equipment has greatly increased the water-crossing capability of the Soviet Ground Forces. The PMP bridging set has also been used for construction of ferries.

(b) The newest development is the introduction into the GSFG of a new heavy tracked amphibian, larger than the K-61. It will probably replace the K-61 eventually. These are indications that amphibians larger than this are also being developed.

(3) Bridges.

(a) The PMP heavy folding ponton bridge set (Class 50) is replacing the older TPP ponton bridge in the GSFG. It is anticipated that it will completely replace the TPP in the near future. The Soviets have also been observed constructing a bridge with GSP heavy amphibious ferry units. Its habitual use, however, has not been confirmed. These two sets (GSP and PMP) are expected to be standard for a number of years to come, although some development based on the K-61 and the new heavy tracked amphibian may be forthcoming. There are other new bridges, but they are not of the floating type.

(b) The KMM truck-mounted treadway bridge, the prefabricated telescopic tubular trestle bridge, and the MTU T-54 tank-launched bridge are all in widespread use in Soviet ground forces. These bridges span gaps that are not suitable for the use of floating bridges.

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It is now known that the MTU can construct a bridge using more than one span. A new truck-mounted scissors bridge of an estimated Class 50 is now widely issued. This bridge, the TMM, is carried on KrAZ-214 trucks and is capable of carrying medium armor.

g. ~~(S)~~ Motor Transport and Construction Equipment.

(1) Tracked Artillery Tractors.

(a) Artillery tractors continue to be employed in large numbers, although in the GSFG most 122mm howitzers and 152mm howitzer units have replaced them with trucks. In contrast, many of the units in the USSR seem to be using artillery tractors. Especially notable is the use in the USSR of the armored tractor AT-P to tow both the 122mm howitzer and the new 122mm gun-howitzer. In addition, artillery tractors are used as the mount for field artillery radars, high-speed ditching machines, and bulldozer blades. The heavy AT-T is the model most frequently used in this role. The artillery tractor is also used as a prime mover in various types of missile units.

(b) The newest Soviet Model is the medium ATS-59, which is believed to be the replacement for both the AT-S and the AT-T. Its presence has been confirmed in the USSR and in the GSFG, although it is in the GSFG in only small numbers.

(2) Trucks.

Increased numbers of new all-wheel-drive trucks of all weight classes and types are appearing as replacements for older models. The newest to appear in GSFG is the 180 hp Ural-375 (6x6), a 5-ton model which has replaced the AT-L light artillery tractor in 57mm anti-aircraft gun units. It is also the mount for the new 40-round rocket launcher displayed on 7 November 1964 in Moscow, as well as a prime mover for missile transport semitrailers. In fact the Ural-375 is expected to replace also the ZIL-157 in many of its roles. In the light medium field the 120hp GAZ-66 (4x4), 2-ton model is now in production and should be appearing in troop units soon. During 1964 the Soviet light "Mule"-type vehicle appeared in GSFG. However its exact role is as yet undetermined. In the very heavy field several large 6x6 and 8x8 vehicles have been identified in the USSR and some are expected to appear in GSFG soon.

(3) Construction Equipment.

The Soviet forces are on the threshold of introducing a whole new line of construction equipment mounted on wheeled tractors. Extensive work has been done on developing wheeled tractors, both of the single-axle type (GOER's) and the two-axle type.

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Some are already in use in Soviet engineer units in the CSFG. Within the time frame of this estimate, snow plows, bulldozers, ditching machines, scrapers, graders, cranes, and other items, all mounted on large wheeled tractors, should appear. Such mounting will greatly improve the mobility of this equipment and at the same time accelerate working rates.

2. ~~(U)~~ Satellites.

a. ~~(U)~~ East Germany.

(1) General.

Qualitatively the East German Army is the best armed and equipped of the Satellites. Except for a large percentage of motor vehicles, pistols and assault rifles, all of the weapons and much of the equipment are imported from the USSR.

(2) Armor.

(a) The major battle tank of the EGA is the T-54A, although T-54B and T-55 models are also believed to be held. Fair numbers of T-34 (85) and T-54 are also held. It is anticipated that a retrofitting program will give all EGA T-54 and T-54A tanks a night fighting capability. The T-34 (85) tanks will also be slowly phased out of active units as the T-55's arrive.

(b) The BTR-40p (BRDM) and the PT-76 will remain the principal reconnaissance vehicles, but it is expected that some type of eight-wheel amphibious armored personnel carrier, either the Soviet BTR-60p or the Czech/Polish M1962, will gradually replace the BTR-152V's in the motorized rifle divisions. The tank divisions already are equipped with BTR-50p and BTR-50pk.

(3) Artillery.

The only recent artillery developments have been the introduction of the BM-24 rocket launcher in 1963, and the probable introduction of the new Soviet 23mm AA Gun ZU-23.

(4) Infantry and Antitank Weapons.

The new AKM assault rifle and the RPK light machine gun will slowly replace the older AK and RPD models respectively.

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The same applies to the new antitank launcher, the Soviet RPG-7, which will replace the RPG-2 as well as take over the role of the 82mm and 107mm recoilless guns up to 500m. Beyond this range the towed antitank guns and the antitank missiles are dominant.

(5) Bridging and Stream Crossing Equipment.

The issue of the KMM truck-mounted treadway bridge should be completed in 1965, and this bridge will possibly be supplemented in the tank divisions by the new TMM truck-mounted scissors bridge. More GSP heavy amphibious ferries should be issued, and the presence of the PMP in the EGA confirmed. This should bring the EGA up to the level of the GSFG in bridging and stream crossing equipment.

(6) Motor Transport.

Recently the EGA has been receiving some new Soviet Ural-375 and KrAZ-214 heavy trucks. During 1965 the first of the new East German W-50 medium trucks (4x4) will be produced and issued. It will replace the G-5 in some roles, as well as displace the 4x2 S 4000-1 models. It can also be expected that the new eight-wheel Czech truck, which has been undergoing testing in East Germany, will be adopted as a standard heavy vehicle.

b. ~~(U/C)~~ Bulgaria.

(1) Bulgaria is almost completely dependent upon outside aid for its weapons and equipment. Most of the weapons are obtained from the USSR; however a few items such as multiround rocket launchers and motor vehicles are also obtained from the CSSR. The Bulgarian Army is well equipped by Satellite standards, and is rapidly making up its former deficiency in armored personnel carriers.

(2) The most recent developments have been the introduction of the BTR-40p (BRDM) amphibious scout car, the BTR-60p amphibious armored personnel carrier, the SNAPPER antitank guided missile on the UAZ-69 jeep, and the RPG-7 antitank launcher."

c. ~~(U/C)~~ Czechoslovakia.

(1) General.

The armament and equipment of the Czech Army is

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the most unique of all of the Satellite armies. Although many Soviet weapons are in use, a high percentage of these are manufactured in Czechoslovakia. The weapons and equipment of Czech design are most of the small arms, all of the recoilless antitank weapons, all of the multiround rocket launchers, some of the field and antiaircraft artillery pieces, certain of the armored vehicles, and almost all of the motor transport. In spite of this, the standard small arms and field pieces use Soviet ammunition. The recoilless weapons and rocket launchers and the 30mm antiaircraft guns use Czech ammunition.

(2) Armor.

The most common tank is the T-54A. In addition, T-54B and T-55 are believed to be held. It is expected that the T-55 will gradually replace the older models. Heavy tanks and heavy assault guns have not been seen for some years and are not expected to make a reappearance. However the SU-100 medium assault gun is still carried in some Czech units. The Czech forces have an assortment of wheeled, half-track, and full track armored personnel carriers. Wheeled vehicles in common use are the BTR-40p (BRDM) amphibious scout car and the Czech/Polish eight-wheel armored personnel carrier M1962. In addition there have been limited sightings of the Soviet BTR-60p and the rear-engine amphibious scout car M1963. The standard half-track armored personnel carrier is the modified German World War II vehicle called the OT-810. Full-track models are represented by three versions of the BTR-50pk. The most recent models are believed to be produced in the CSSR and incorporate a number of changes such as a small turret mounting both a machine gun and an 82mm recoilless gun T-21. It can be expected that larger numbers of the Czech/Polish eight-wheeled amphibious armored personnel carrier M1962 and of the BTR-50pk will be issued, replacing the half-track OT-810.

(3) Artillery, Infantry, and Antitank Weapons.

The newest development is the confirmation of the characteristics of the Czech 7.62mm general purpose machine gun M59. Unexpectedly, it fires the long-rimmed cartridge instead of the short rimless version. It has replaced the M52/57 light machine gun, and to some extent the heavy SGM. A further development to be expected is a modification of the M58 assault rifle.

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(4) Motor Transport.

The Czech forces continue to rely largely on native trucks. This reliance is expected to continue with the introduction of a new series of eight-wheel vehicles, which will probably also show up in other Satellites. A further development expected is the introduction, as in Poland, of the East German Robur LO 1800 A (4x4) truck.

(5) Bridging and Stream Crossing Equipment.

Little is known of new developments in bridging and stream-crossing equipment in the Czech Army. It is expected that new Soviet truck-mounted bridges such as the KMM and TMM, as well as the PMP heavy folding ponton bridge, will appear. The GSP heavy amphibious ferry is another item of equipment which can be expected.

d. ~~(U)(C)~~ Hungary.

The Hungarian Army continues to receive more and more modern weapons and equipment, bringing it up to a higher level. New developments have been the issue of the rear-engine amphibious scout car M1963, the SNAPPER antitank guided missile on the UAZ-69 jeep, the T-55 tank, and the BTR-50p armored personnel carrier. In the engineer field GSP heavy amphibious ferries, MTU T-54 bridge-laying tanks, and the KMM truck-mounted treadway bridge have been reported. It can be expected that the issue of armored personnel carriers will proceed at a faster rate in the future.

e. ~~(U)(C)~~ Poland.

(1) Armor.

The major 1964 development was the confirmation of the issue of two new armored personnel carriers to the Polish forces. Both vehicles are believed to be produced in Czechoslovakia, but are probably the result of Czech/Polish collaboration. The first vehicle is the M1962 eight-wheel amphibious armored personnel carrier, while the second is a modified BTR-50pk. It is expected that the M1962 will become standard in the mechanized divisions, supplementing and later supplanting the nonamphibious BTR-152, while the modified BTR-50pk will be used in the armored divisions. Another development is the re-appearance of heavy tanks in the Polish Army.

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(2) Artillery, Infantry, and Antitank Weapons.

There have been no changes in the artillery holdings, and none are anticipated for 1965. The infantry weapons saw no change in 1964, although it is anticipated that the improved rifle squad weapons such as the AKM assault rifle and the RPK light machine gun will soon appear. For antitank work the new RPG-7 antitank launcher is probably already in the process of being issued in Poland. A good addition to Polish antitank defense was made in 1964 when the SNAPPER antitank guided missile mounted on the BRDM amphibious scout car was confirmed.

(3) Motor Transport and Engineer Equipment.

(a) The Polish-produced Star-66 truck is continuing to appear in large numbers and in various roles. It is being supplemented by the East German Robur LO 1800 A light truck. It can also be anticipated that the new Czech eight-wheel cab-over-engine truck will be adopted for heavy roles.

(b) There have been few recent developments in the engineer field outside of the modifications to the SMT truck-mounted treadway bridge. However it is expected that both the PMP heavy folding ponton bridge and the GSP heavy amphibious ferry will be soon identified in Polish units.

f. ~~(S)~~(C) Rumania.

(1) The Rumanian Army continues to receive more modern equipment of all types, although not as many specific new items were observed in 1964 as in the year before. The two most important developments have been the issue of the AK assault rifle, antitank launcher RPG-7, and the SNAPPER antitank-guided missile. It is anticipated that the issue of T-55 medium tanks will continue, as well as that of armored personnel carriers.

(2) The issue of new stream crossing equipment such as the PMP heavy folding ponton bridge and the GSP heavy amphibious ferry is expected.

g. ~~(S)~~(C) Albania.

The Albanian Army is armed and equipped with a hodgepodge of obsolete Soviet weapons, a few postwar items of Czech

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manufacture, and World War II booty from German and Italian stocks. Although some of the weapons are good, the total armament picture of this country is unsatisfactory. It is estimated that no appreciable improvement will be made as long as the present Soviet-Albanian dispute continues. Any weapons delivered by Communist China to Albania will be in token quantities only.

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