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# Czechoslovakia

May 1974

NATIONAL INTELLIGENCE SURVEY

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Military Geography

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# Czechoslovakia

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in the General Survey dated December 1971.*

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# Military Geography

## A. General (U/OU)

Czechoslovakia is a landlocked, elongated, irregularly shaped country in the central part of eastern Europe (Terrain and Transportation Map, Figure 41). The topography is a complex of hills and mountains separated by nearly flat to rolling basins and river valleys. Among the most important valleys are those of the Morava and Oder rivers that cross the center of the country and are identified as the Morava-Oder Corridor on Figure 1. This is the largest natural gap in the belt of hills and mountains extending from West Germany into the U.S.S.R. and southeastward into Romania. Historically known as the Moravian Gap, the corridor has long been used by military forces moving between the North European Plain in the north and the Danube Lowlands in the south.

Sharing borders with four Communist and two non-Communist countries, Czechoslovakia is a strategic base for military operations. Prague, the capital, is within 1,000<sup>1</sup> nautical miles of every other European capital except Lisbon.

Czechoslovakia has an area of approximately 49,400 square miles, slightly less than that of the state of New York. Maximum dimensions are approximately 495 miles east-west and 175 miles north-south; the perimeter is about 2,200 miles. In January 1974 the population was estimated at 14,608,000.

Cultivated vegetation covers more than one-half of the country, and forests having many openings cover about one-third of the remainder. Most of the rivers of Czechoslovakia originate within its borders and drain into the Baltic Sea to the north or the Danube River to the south.

### 1. Topography

Czechoslovakia is a complex area of hills and mountains separated by nearly flat to rolling plains

<sup>1</sup>Distances are in statute miles unless nautical miles are specifically stated.

and basins (Figure 1). Plains are most extensive in the central and southern sections of the country separating, in part, the eastern high hills and mountains from the lower hills and mountains and scattered plains in the west. In addition, there is a large plains area near Prague and a small area of plains in the extreme southeast.

Elevations are highest in the Carpathian Mountains in the east, where elevations near the Poland border exceed 8,500 feet above sea level. In the west, hills and mountains are generally lower but locally exceed 5,250 feet. Most plains are at elevations of 750 feet or less.

### 2. Climate

Most of Czechoslovakia has a temperate climate. Winters (December through February) are fairly cold, cloudy, and humid, with frequent light rain or snow. Visibility (Figure 40) is poor at this time of year, especially in the mountains; chief restrictions are early morning fogs, haze, and smoke. Summers (June through August) have warm to hot afternoons, cool nights, and improved visibility and are less cloudy and less humid; precipitation is usually showery and heavier than in winter. Thunderstorms occur on 3 to 8 days per month in May through August but are rare in October through March. Throughout the year, the worst weather conditions occur in the higher mountains, where freezing temperatures are common in winter and sometimes occur in summer. Migratory pressure centers and frontal systems greatly influence the day to day weather in all seasons but are most intense from late autumn through spring. Most precipitation from late November through March falls as snow, but snow depths seldom exceed 6 inches except in the higher mountains, where the ground is usually covered with snow from early November through April. Although surface winds are predominantly from the west or northwest all year, they are greatly deflected and often channeled by mountains and valleys. Wind speeds are usually less than 20 knots, are stronger in winter than in summer, and are much stronger at the higher elevations.

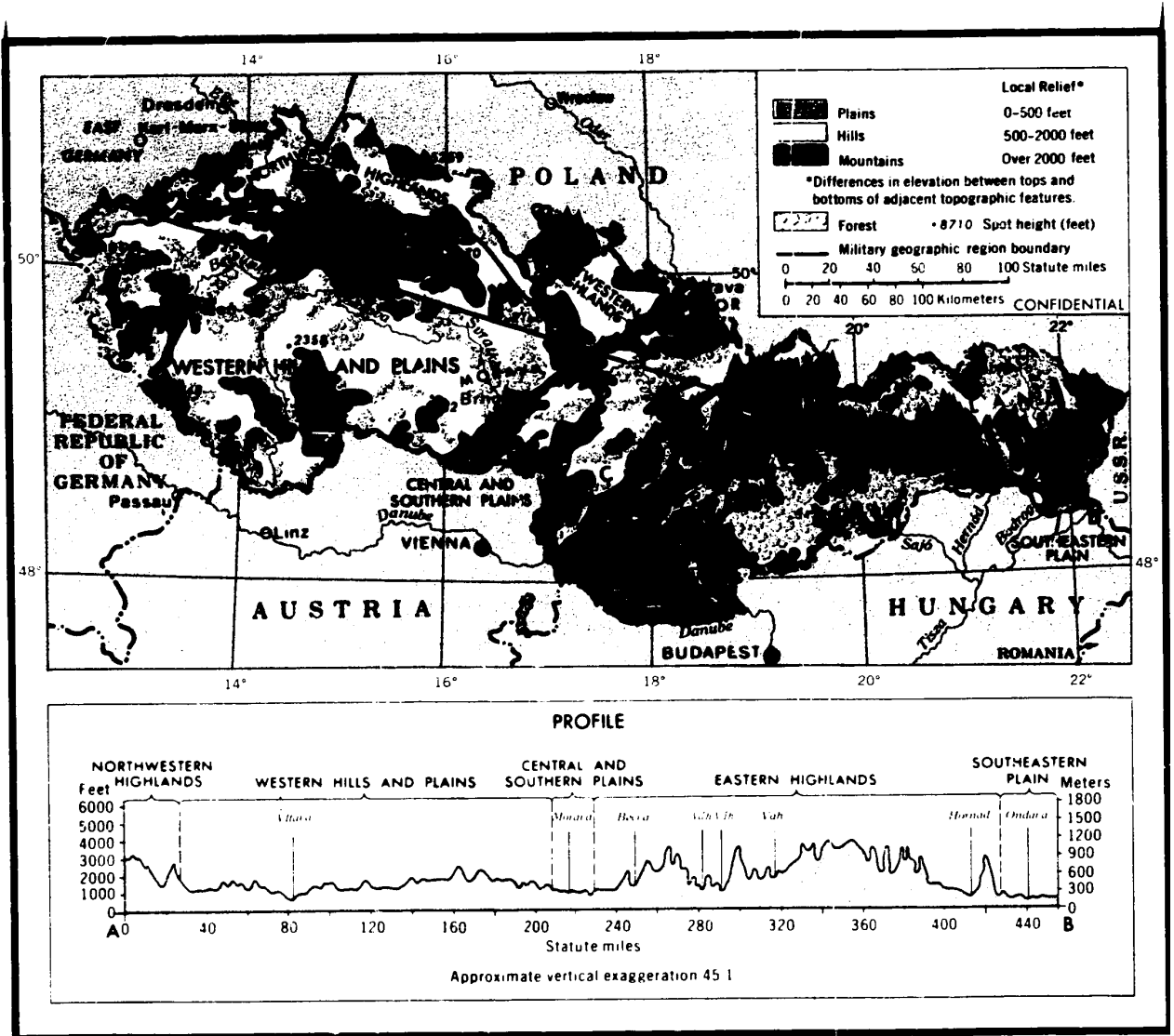


FIGURE 1. Military geographic regions and terrain (U/OU)

**B. Military geographic regions (C)**

Czechoslovakia is divided into five military geographic regions on the basis of environmental conditions that would affect military operations—the Northwestern Highlands, Western Hills and Plains, Central and Southern Plains, Southeastern Plain, and Eastern Highlands. These regions are shown on Figure 1, and Figure 2 identifies the most important characteristics of each region.

**1. Northwestern Highlands**

Generally unfavorable for conventional ground operations, the region is a sparsely populated, nearly continuous chain of low, partly forested hills and mountains (Figure 3) extending along the northwest and central border with East Germany and Poland. Mountain summits are generally rounded and valleys are narrow; small basins are scattered throughout.

Vehicular movement on existing roads would be slowed in places by sharp curves, steep grades, and



FIGURE 2. Military Geographic regions (U/OU)

	NORTHWESTERN HIGHLANDS	WESTERN HILLS AND PLAINS	CENTRAL AND SOUTHERN PLAINS	SOUTHEASTERN PLAIN	EASTERN HIGHLANDS
Elevation (in feet)...	2,600 to 3,300 in west.....	1,300 to 4,000 in hills and mountains.	375 to 1,300.....	350 to 1,000.....	3,000 to 8,500.
Local relief.....	3,200 or more in east.....	550 to 1,200 in plains.	500 or less.....	500 or less.....	1,500 to 3,000.
Slope (in %).....	1,900 to 2,300.....	650 or less.....	2 to 10.....	5 to 15.....	30 or more.
Slope (in %).....	30 to 45.....	5 to 30.....			
Stream regime:					
High water.....	Early February through April.	Late February through April..	Early April to mid-May....	Early April to mid-May....	Early March through May.
Low water.....	Late June through October.	Late June to late October....	July through October.....	July through October.....	July through October.
Banks:					
Upper course....	Steep; rock.....	Steep; gravel.....	Low; sand or silt.....	Low; sand.....	Very steep; rock.
Lower course....	Steep; gravel or sand.....	Low; sand or silt.....	Flat; silt or mud.....	Flat; silt.....	Steep; rock or gravel.
Bottoms:					
Upper course....	Rock.....	Rock.....	Sand or silt.....	Sand or silt.....	Rock.
Lower course....	Sand or gravel.....	Sand or gravel.....	Silt or mud.....	Silt or mud.....	Rock or gravel.



FIGURE 3. These partly forested hills in the Northwestern Highlands have mixed needleleaf evergreen and broadleaf deciduous species. The region is generally unsuited for conventional ground operations and airborne and airmobile operations. (U/OU)

narrow, low-capacity bridges. Snow and ice conditions, from early December to early March, create additional hazards to onroad movement. Construction of new roads would be difficult, requiring extensive grading, cutting, and filling; alignments would be severely restricted. Conditions for vehicular cross-country movement and offroad dispersal range from fair in interstream areas on lower slopes to unsuited on steep, forested upper slopes; even in interstream areas on lower slopes, movement would be hindered by miry soils or snow cover from mid-November to early April. Cover and concealment are provided by irregular terrain and by forests of needleleaf evergreen and broadleaf deciduous trees on upper hill and mountain slopes. On lower slopes, in basins, and in wider river valleys, low-growing crops and brush provide little cover or concealment from air observation.

There are many sites suitable for construction of tunnel-type installations, but access would be difficult. Rocks are generally stable, permitting construction of tunnel-type installations with short adits and wide, unsupported spans. Thin soils would make construction of bunker-type installations impractical in most places. Natural construction materials (sand, gravel, and timber) are generally available.

Conditions are generally unfavorable for airmobile and airborne operations. There are a few suitable sites for airdrops, helicopter landings, and landing of assault-type, fixed-wing aircraft on unprepared surfaces in scattered valleys and basins, but surrounding high relief generally restricts low-level approaches. Only a few permanent airfields are in the region. Steep slopes, poor foundation and, in places, poor drainage would make construction of additional

airfields difficult. In addition, adverse weather during winter months would hinder aircraft operations.

Suitability for irregular forces operations is generally good. Existing roads and trails permit fair to good movement for small groups. Most roads are improved and natural surfaced; they are in fair to poor condition and connect rural communities. Movement on foot would be hindered by forested steep slopes, soft soils, or winter snow cover. Dense forests and rugged terrain provide good concealment from air and ground observations and cover from flat-trajectory fire. In basins and wider river valleys, low-growing crops and brush afford little cover or concealment from air observation. Lower slopes and basins are more densely populated than upper slopes; the latter have only small villages and scattered rural dwellings. Conditions for sustenance are most favorable on lower slopes and in basins. Materials for shelter and fuel are available on upper slopes, but natural or cultivated foods are scarce. Water is generally available but should be treated before drinking. Supplying irregular forces by air would be difficult because of a lack of drop zones and landing sites and the problem of restricted approaches.

## 2. Western Hills and Plains

The region is generally fair for large-scale conventional ground operations. It is predominantly dissected and hilly uplands (Figure 4) interrupted by valleys and small basins. In the north, surrounding and east of Prague, is a large, cultivated, nearly flat to rolling plain and a few small, scattered hills (Figure 5). Along the West Germany border in the southwest there is an area of low mountains. Poorly drained areas are common near the Austria border in the south.

**FIGURE 4.** In the forested uplands of the Western Hills and Plains, conditions favor irregular forces operations; forests and terrain provide good cover and concealment (U/OU)



**FIGURE 5.** The cultivated plains north of Prague are suited for airborne, airmobile, and conventional ground operations (C)



Upper slopes of most hills are covered by needleleaf evergreen forests mixed, in places, with broadleaf deciduous species. Lower slopes, basins, and plains areas are predominantly cultivated. Although there is a fairly complete road network, particularly around Prague, many roads are poor in quality and would require extensive maintenance to sustain heavy military traffic. Construction of new roads would be difficult except in the plains and basin areas. Conditions for vehicular cross-country movement and offroad dispersal are mostly fair on the plains and lower hill slopes, but from mid-November through April conditions may be unsuited because of miry soils or snow cover. The upper slopes of hills and low mountains in the south are too rugged or heavily forested for vehicles to negotiate. Abundant to little cover from flat-trajectory fire and concealment from

ground and air observation is available. Concealment from ground observation and cover would be provided by streambanks, ditches, railroad or road embankments, and other surface irregularities. Buildings in urban and rural communities afford cover from small arms fire and concealment from ground and air observation. Concealment from air observation would also be provided by the forested upper slopes. Sites for construction of bunker-type installations are fairly numerous on the plains. A few sites for tunnel-type installations are in the southwest and along deep, steep-sided valleys in the north-central and eastern sections.

The Western Hills and Plains are generally favorable for airmobile and airborne operations. Many sites are suitable for airdrops and helicopter landings, and assault-type fixed-wing aircraft could

land on unprepared terrain in many parts of the plains. Low-level approaches are generally unrestricted, and there are many airfields that could be utilized for airborne operations. Construction of new airfields would be easiest on the plains near Prague, but construction materials, especially rock, are not readily available.

Conditions for irregular forces operations range from fair on plains and lower slopes to good in the low mountains and upper slopes of hills. Movement within the hills and mountains would be primarily on unimproved and improved natural-surfaced roads. On the plains, the road network is more dense and of better quality. Movement on foot would generally be unrestricted on the plains but would be slowed by wet soils and by snow cover in winter. Steep, forested slopes in hills and mountains are an additional hindrance. Conditions for concealment from air and ground observations and cover from flat-trajectory fire would be best on forested upper slopes; some cover and concealment would also be provided by other surface irregularities, ditches, streambanks, and buildings in town. Population density is greatest around Prague and other urban centers and sparse in higher and more rugged parts of the region. Food and shelter are more readily available in populated plains, basins, and urban areas than in the hills. Water is generally available but should be treated before drinking. Aerial supply of irregular forces would be easiest on the plains near Prague.

### 3. Central and Southern Plains and Southeastern Plain

These two regions, part of which forms the important Morava-Oder Corridor, are mostly favorable for conventional ground operations. Terrain consists mostly of flat to rolling plains including the large Morava and Oder river valleys (Figure 6). The

regions are mostly cultivated and drained mainly by slow-flowing streams with low banks and wide valleys.

Although the road network is sparse except near large industrial centers in the northwestern part of the Central and Southern Plains, there are few bottlenecks to impede on-road movement. Construction of new roads would be fairly easy on most of the flat to rolling plains. Vehicular cross-country movement and offroad dispersal would also be fairly easy (Figure 7), especially from early April to mid-November. During the remainder of the year, movement would be slowed and, in places, hindered by miry soils or by snow cover. Some cover from flat-trajectory fire and concealment from ground observation are afforded by streambanks, ditches, road or railroad embankments, levees (most common in the south), and other surface irregularities. Buildings in rural and urban areas also afford cover from small arms fire and concealment from ground and air observation. Widely scattered small patches of mixed needleleaf evergreen and broadleaf deciduous forest afford additional concealment from air observation. Both regions contain many good sites suitable for construction of bunker-type installations. Construction materials, except timber, are generally available. Few sites are suitable for construction of tunnel-type installations.

Conditions are favorable for airmobile and airborne operations. There are numerous sites for airdrops and helicopter landings. Low-level approaches may be restricted at some sites by surrounding high relief. Fixed-wing, assault-type aircraft could land in many places on unprepared terrain. Airfields are numerous in the Central and Southern Plains, but there are few airfields of significant size in the Southeastern Plain. Many sites are suitable for construction of large airfields, but construction materials are generally lacking.

Irregular forces operations within these regions would be difficult. Population is mainly centered



FIGURE 6. Nearly flat to rolling plains in Morava-Oder Corridor afford especially easy offroad dispersal and cross-country movement, making this area well suited for conventional ground operations (S)



**FIGURE 7.** Cultivated rolling plains of the Southeastern Plain Region favor conventional ground operations (U/OU)

around industrial centers, but numerous rural communities are scattered throughout both regions. Movement of foot troops, on road or cross-country, would be fair to good. The road network is sparse except near industrial areas. Most roads are in fair to good condition; poor quality roads and trails connect many rural communities. Movement may be slowed by larger streams and soft soils or snow cover from December to March. Although irregular forces could be easily supplied by air and numerous landing sites are available, lack of concealment and cover would be a principal deterrent to operations of irregular forces.

#### **4. Eastern Highlands**

This region is generally unsuited for large-scale conventional ground operations. It is an extensive area of rugged, partially forested, high hills and mountains (Figure 8) dissected by several north-south river valleys. Forests, mostly on middle and upper hill and

mountain slopes, are predominantly spruce and fir in the west and beech and oak in the east. Highest mountain tops are barren. Elsewhere, cultivated vegetation and some patches of forest are common, especially in valleys, basins, and on lower slopes.

The transportation network is sparse, and extensive maintenance would be required to keep roads open for sustained heavy military traffic. Sharp curves, steep grades, and narrow bridges (many of low capacity) slow onroad movement. In winter, snow and ice create additional hazards. Construction of new roads would be very difficult; alignments would be restricted, requiring extensive cutting, filling, and grading. Steep and, in many places, forested slopes preclude vehicular cross-country movement and offroad dispersal in much of region. Vehicles could move through some basins and valleys (Figure 9), but movement would be slowed from mid-November to early April by miry soils or by snow cover. Rugged terrain provides cover from flat-trajectory fire and concealment from ground observation. Concealment from air observation would be provided mostly by forests, which are most common on upper slopes. There are numerous sites suitable for construction of tunnel-type installations, and a few sites in valleys and basins are suitable for construction of bunker-type installations. Construction materials are generally available.

The region is mostly unsuited for airmobile and airborne operations. Although valleys and basins have some sites for airdrops, helicopter landings and landing of fixed-wing assault-type aircraft, low-level approaches to these sites would be restricted by surrounding high terrain. There are only a few airfields. Climatic conditions for airmobile and

**FIGURE 8.** In the rugged hills and mountains of the Eastern Highlands, the lower slopes are generally open and upper slopes forested. This region is suited for irregular forces operations. (U/O/U)





**FIGURE 9.** In the intermontane basins of the Eastern Highlands vehicular movement between valleys is limited by steep grades at passes and by snow cover from mid-November to early April (U/OU)

airborne operations are best in summer. Rugged terrain makes conditions generally unfavorable for construction of new airfields, and much cutting and filling would be required even in valleys and basins. Construction materials are generally available.

Conditions for irregular forces operations are generally favorable. The best areas are upper forested slopes of mountains and dissected hills. Movement of small groups would be easy on the sparse network of improved and unimproved natural-surfaced roads. Routes are usually of better quality in valleys and basins than in hills and mountains. Movement on foot would be slowed by steep, forested slopes and by miry soils or snow cover from mid-November to early April. Good concealment from air and ground observation and cover from flat-trajectory fire would be provided by forests and rugged terrain. Urban and rural buildings are located primarily on lower slopes and in valleys and basins, areas where food and shelter are most available. The small number of drop zones and landing sites would make supply by air difficult.

### C. Strategic areas (C)

There are six areas of strategic importance (Figures 10 and 41) in Czechoslovakia: the capital city of Prague, the Ostrava<sup>2</sup>-Karvina complex, and the areas around the cities of Bratislava, Brno, Plzen, and Kosice. Each is important for political, economic,

<sup>2</sup>For diacritics on place names see the list of names on the apron of the Terrain and Transportation Map, Figure 41, the map itself, and maps in the text.

industrial, military, or transportation reasons and, as such, is a potential military objective.

#### I. Prague

This strategic area (Figure 11) contains Prague (population 1,086,000 in 1973), by far the country's largest city and its principal center of administration, industry, transportation, science, commerce, and culture (Figure 12). It is the capital of the country, of the Czech Socialist Republic, and the administrative center of Stredocesky Kraj (Central Bohemian Region). It is also the country's political and military center and the control point for international affairs. The country's and the Czech Republic's governing organs and its highest military, defense, and telecommunication organizations have headquarters in Prague. The city also contains the country's largest concentration of manufacturing enterprises and contributes about 10% to the total national output. Products of its highly diversified machine building plants, which account for one-half of the city's industry, include much of the production of heavy machinery such as compressors, dredges, turbines, generators, transformers, alternators, boilers, cooling units, water treatment plants, piping, ball bearings, semiconductor rectifiers, mining equipment, diesel locomotives, railroad cars, heavy trucks, aircraft and aircraft engines and components, streetcars, diesel engines, and transmission gear. Also of national significance are plants producing machine tools, electrotechnical, electronic, and telecommunication equipment, computers, medical equipment, precision instruments, automobile accessories and tires, and pharmaceuticals. Billeting capacity in the strategic area is about 6,000 troops. The international civil airfield west of the city is capable of sustaining long-range bomber operations; two military airfields, one 6 miles north, the other in the northeastern outskirts, are capable of sustaining long-range and intermediate-range bomber operations, respectively.

The city is the focus of important highways and the principal center of both national and international rail routes; there are 10 major classification yards in the city and its environs. Thirteen large and significant bridges span the navigable Vltava River, linking major east-west transportation routes. Inland port facilities have an average annual turnover of 2 million metric tons. Czechoslovak Airlines links Prague with over 50 cities in Europe, Asia, Africa, and North America. Prague is the seat of 12 college-level educational establishments and the site of the country's largest and most prominent science and research institutes. It is

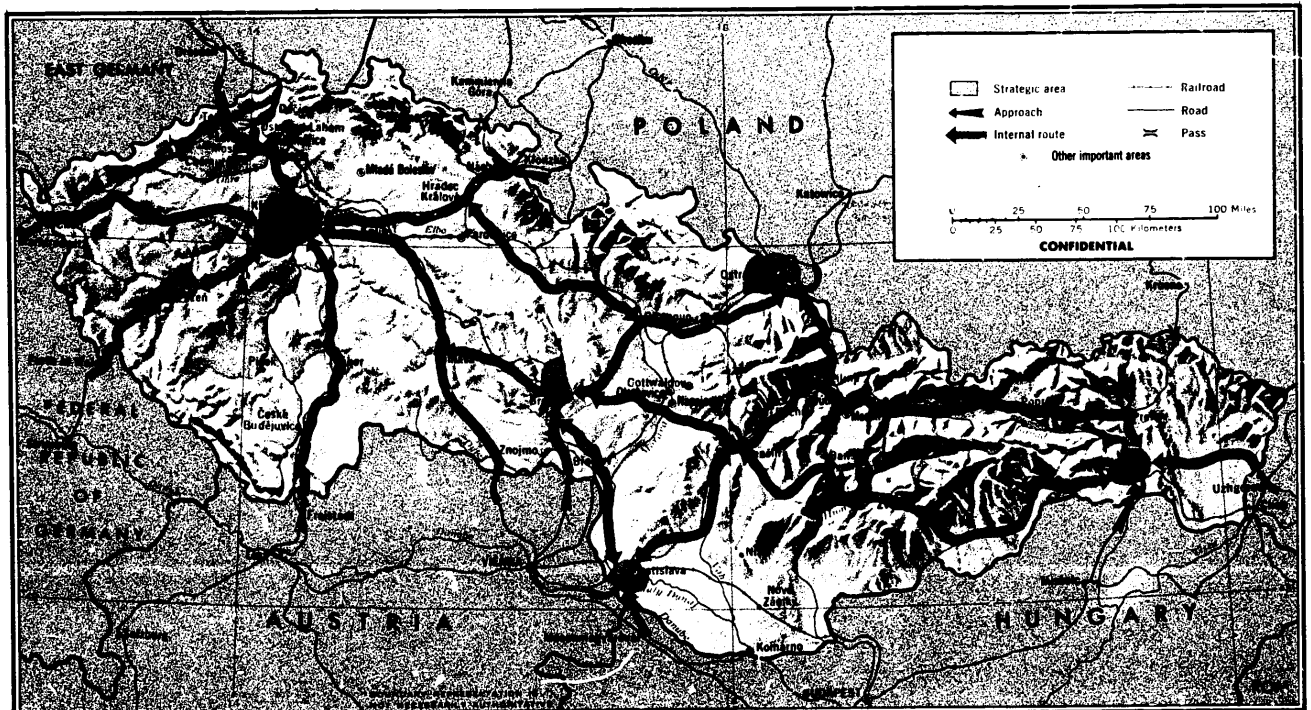


FIGURE 10. Strategic areas, internal routes, and approaches (C)

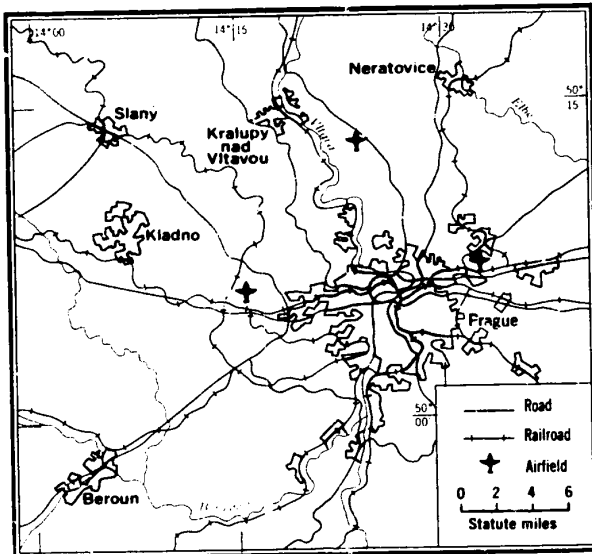


FIGURE 11. Prague strategic area (C)

also the location of the heaviest concentration of domestic and international telecommunication facilities. Combined radio and landline installations provide links to virtually every important national center as well as international connections. The estimated capacity of POL storage facilities in Prague is 100,000 barrels.

Other important urban areas within the strategic area are Kladno (population 60,000), a major hard coal mining center containing the country's third largest steel complex and important railroad yards; Slany (population 13,000), the location of a major machine building plant producing 50% of the country's mobile cranes and 20% of its excavators; Kralupy nad Vltavou (population 16,000), the site of the second largest synthetic rubber plant in the country, accounting for one-fourth of national production, and the location of a small petroleum refinery and a large railroad yard; Neratovice (population 12,000), with a chemical plant producing 35% of the country's chlorine and 18% of its sulfuric acid; and Beroun (population 18,000) and its environs, which have a significant metallurgical plant (producing cold rolled strip steel, cast iron, and pipes for hydraulic enterprises) and a large cement plant.

**2. Ostrava-Karvina**

This strategic area (commonly known as the Ostrava-Karvina Hard Coal Basin) (Figure 13), has a population of about 700,000 in 8 larger cities and numerous smaller towns and settlements, is the hub of the Czechoslovak economy and of prime importance for its coal, iron, steel, and metallurgical industries. Installations for deep hard coal mining, briquetting, and coke production are located in and around



FIGURE 12. The Hradcany Castle in Prague contains offices of the President of the Republic and symbolizes Prague's dominant strategic influences in the nation's political, military, and economic life. The wide Vltava River is crossed by 13 strategic bridges; the one shown here is 600 years old. (U/OU)



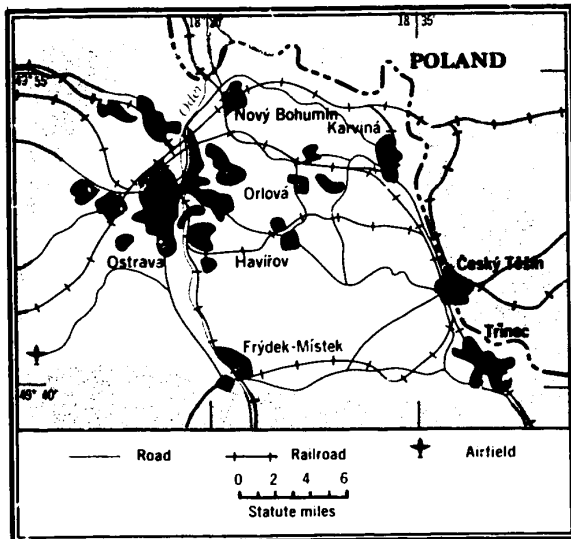


FIGURE 13. Ostrava-Karvina strategic area (C)

Ostrava (population 288,000 in 1973) (Figure 14) and Karvina (population 79,000 in 1973) (Figure 15). The area's hard coal reserves represent more than 96% of the country's total, and its output (over 24 million metric tons in 1972) accounts for over 80% of the

country's production. A large new town, Havířov (83,000 population) is a residential center for coal miners. Iron and steel production (about 6.4 million metric tons in 1972) as well as steel products account for more than half of the national output. There are two large, fully integrated steel mills in Ostrava (Figure 16), and one at Trinec (population 31,000). Other steel products plants are at Nový Bohumín (population 14,000), Frýdek-Místek (population 42,000), and Karvina. This metallurgical complex produces a wide range of finished steel products including pipes, tubes, bridges, railroad car wheels, boilers, building and mining machinery, steel wires, and entire equipment for metallurgical and chemical plants, such as blast furnaces, coke ovens, and rolling mills. Chemical plants produce a wide variety of organic and inorganic chemicals including ammonia, sulfuric and nitric acid, nitrogen fertilizers, urea, benzene, toluene, phenol, pesticides, and plastic goods. Thermal powerplants concentrated in the area have an aggregate installed capacity of more than 1.1 million kilowatts. Ostrava is an important transportation center with excellent railroad and highway connections to other parts of the country and into Poland mainly via the border town of Český Těšín



FIGURE 14. Ostrava is the country's most important center of metallurgy and hard coal pit mining. The city dominates the Ostrava-Karvina Coal Basin which, combined with the adjoining Polish Upper Silesian complex, constitutes the "Ruhr" of Communist East Europe. (U/OU)



**FIGURE 15.** This facility near Karvina is one of the largest mining enterprises in the country; its setting typifies the environs of cities in the basin (U/OU)

(population 16,000). Mosnov Airfield, 9 miles southwest of Ostrava, one of the best fields in the country, is the home base for fighter aircraft and can accommodate heavy bombers; it serves also as the commercial airport for the complex. Billeting facilities in the area are available for 2,500 troops. The capacity of POL storage facilities in Ostrava is estimated at 200,000 barrels.

### 3. Bratislava

Bratislava (population 318,000 in 1973), is the capital of the Slovak Socialist Republic and an important transportation, industrial, commercial, and telecommunication center (Figure 17). Railroads and highways radiate from the city (Figure 18) to other major urban areas of the country and connect via key bridges across the Danube with networks in Austria and Hungary (Figure 19). One of the principal Danube ports, the city has expanding cargo handling and ship repair facilities. Presently, the average yearly turnover is 2 million metric tons. As the focal point of a growing petrochemical industry supplying about 150 petrochemical products, the strategic area has at

Podunajske Biskupice an oil refinery and petrochemical complex (Figure 20) that is one of the largest of its type in central Europe. Production of the complex depends on crude oil supplied by pipeline from the U.S.S.R. The capacity of POL storage facilities is estimated to exceed 1½ million barrels.

Other significant plants produce high explosives, chemicals, fertilizers, artificial fibers, industrial gases, plastics, rubber products, cables and conductors, optical and photographic equipment, radio receivers, and textiles. There are extensive railroad repair and maintenance facilities. The city is the headquarters of the Central Communication Directorate of the Slovak Socialist Republic. Programs originating in the city are beamed abroad by a shortwave radiobroadcast transmitter. The civil airport is capable of sustaining long-range bomber operations in case of emergency.

### 4. Brno

This strategic area (Figure 21) focuses on Brno (population 350,000 in 1973), the administrative center of Jihomoravsky Kraj (South Moravian Region) and, after Prague, the country's second largest single

city and second largest machine building center (Figure 22). About 60% of all industrial workers in this strategic area produce heavy machinery, including machine tools (the largest plant in the country is at Kurim), mining and metallurgical equipment, machinery for the chemical, woodworking, and food industries, steam and hydroturbines, generators, boilers, substation equipment, diesel engines, pipes, bridges, bearings, pumps, presses, cranes, tractors (all of the country's output), railroad cars and road construction machinery. There is significant production of guided missile components (at Adamov) and of small arms. Other nationally important plants manufacture telecommunication equipment, measuring and other precision instruments, office equipment, and textiles (about one-fourth of the country's output). There is a military academy providing college-level training for career officers, billeting facilities for about 2,000 troops, and extensive ammunition and weapons storage facilities. A joint military and commercial airfield, capable of sustaining intermediate-range bomber operations and a reserve field used by military helicopters, both connected to each other by taxiways, are southeast of the city. Brno is an important junction of railroads and highways which provide access to other cities in the country and to a number of crossing points into Austria.

#### 5. Plzen

This strategic area (Figure 23) is located in and around Plzen (population 151,000 in 1973), the administrative center of Západočeský Kraj (West Bohemian Region) and its largest industrial (Figure 24) and transportation center. It is the site of the Skoda Works, one of the largest heavy equipment plants in Europe which, during the past World Wars, was one of the major armament producers. At present it is the country's leading producer of large machine tools, lathes, boring mills, hydraulic presses, rolling mills and other metallurgical equipment, crankshafts, gear boxes and wheels, bridges, construction machinery, pumps and compressors, mining machinery, and sugar refineries. It also produces turbines, generators (over 40% of the country's total), equipment for transformer stations, nuclear powerplants, electric motors, electric locomotives (the only

producer in the country), trolley buses, and artillery weapons. More than 35% of the output is exported. The enterprise has its own steelmaking facility. Other plants in the area are engaged in manufacturing plastics, cellulose, paper, and paper products, in mining and processing of kaolin, and in beer brewing. The strategic area is the focal point of roads and railroads in western Czechoslovakia, providing access to other large cities in the country and to West Germany. The city is the site of an Army division headquarters and has billeting facilities for about 4,500 troops. Dobruška Airfield, 5 miles southwest, is a home base for fighter aircraft.

#### 6. Kosice

This strategic area (Figures 25 and 26) focuses on Kosice (population 158,000 in 1973), the administrative center of Východoslovenský Kraj (East Slovakian Region) and its major industrial, transportation, and military center. The second largest steel complex (Figure 27) in the country, based on Soviet iron ore, is about 7 miles southwest of the city. Its steelmaking capacity in 1973 was 2½ million metric tons or about 1/5 of the national production. When at full capacity of 4 million tons (expected in 1975), it will be the largest single steel mill in the country. Products include rolled sheets, pipes, steel structures, and bridge components. Other plants produce machine tools, ordnance equipment, equipment for the chemical and food industries, and refractory materials; the production of these materials is based on the extraction and processing of major deposits of magnesite in the vicinity. The city is a major railroad and highway junction for international traffic, primarily with the U.S.S.R.; the rail line from the steel complex to the east is broad gage and integrated into the Soviet rail net. Military installations include the only military pilot school in the country, and a joint military and civil airfield capable of sustaining intermediate-range bomber operations.

#### 7. Other important areas

In addition to the six principal strategic areas, other significant areas of major industrial, military, or transportation importance are shown on Figure 41 and described in Figure 28.

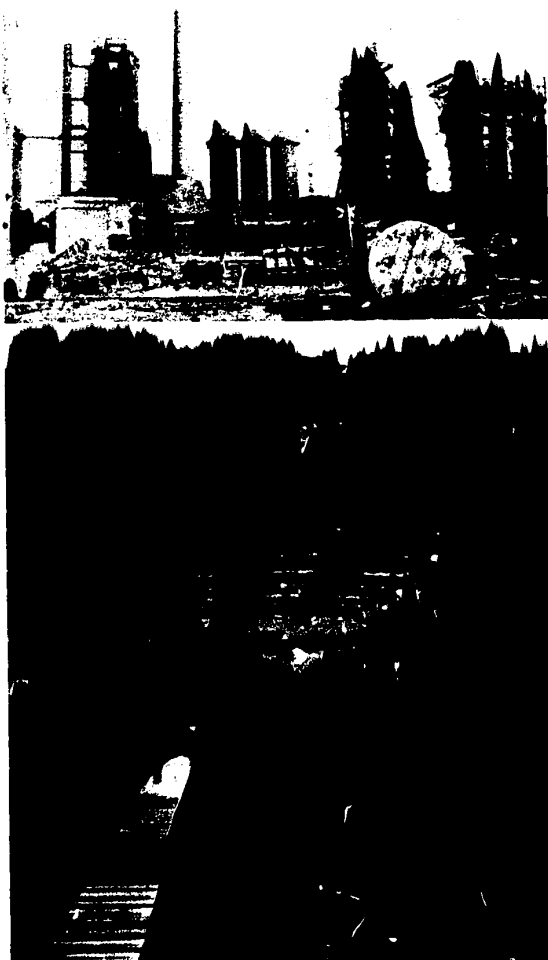


FIGURE 16. Blast furnaces of the Klement Gottwald New Foundry in Ostrava (top), presently part of the largest integrated steel mill in Czechoslovakia, in 1972 produced nearly 2½ million metric tons of pig iron, using Soviet iron ore from Krivoy Rog in the Ukraine. The steel mill is the country's main producer of coke, steel, rolling mill (bottom), and finished steel products. (U/OU)

#### D. Internal routes (C)

Internal routes (Figure 10) are the easiest avenues of movement between land approaches and strategic areas and between strategic areas. In places they are connecting links between other internal routes. All routes contain surfaced roads, most of which are paralleled by standard-gage (4'8½") rail lines. Conditions for offroad dispersal and cross-country movement in all routes are unsuited in areas of high hills and mountains and fair in areas of low hills and plains. In most of the low hills and plains, however,

conditions may be unsuited for extended periods from mid-November to early April because of miry soils or snow cover. Detailed information on routes is given in Figure 32.

#### E. Approaches

Czechoslovakia has a perimeter of about 2,200 miles. There are no disputed boundaries, and all boundaries are demarcated. Most borders have some form of border control installations, including fences, barbed wire, cleared strips, watchtowers, and minefields to prevent illegal crossings. The most intensive measures are along the West Germany border. Data on the boundaries of the country are presented in Figure 33. Selected border views are shown in Figures 34 through 38. (C)

##### 1. Land (C)

Conditions for movement across the land boundaries into Czechoslovakia range from good to unsuited. Best possibilities for both onroad and cross-country movement across the border are through the broad plains in Austria and Poland, where several roads converge on the Morava-Oder Corridor. Conditions are also favorable for cross-country movement across the plains of western and eastern Hungary and the southern part of the U.S.S.R. border. Elsewhere, cross-country movement across the border would be limited by forested, hilly, or mountainous terrain. Numerous roads cross the border, but many are in poor condition. The roads in the approaches shown in Figure 10 are in fair to good condition; all but one contain surfaced two-lane roads, and most contain 4'8½"-gage railroads. These approaches provide the best avenues of movement from adjoining countries. Additional land approach data are presented in Figure 39.

##### 2. Air (U/OU)

There are four air approaches<sup>3</sup> to Czechoslovakia: eastern, southern, western, and northern. Approaches are mainly over land. Weather conditions are generally similar in all approaches to Czechoslovakia, but there are seasonal differences. In general, weather conditions are most favorable for air operations during May through September, when hazardous weather conditions are at a minimum. The least favorable

<sup>3</sup>The discussion zone for air approaches extends approximately 200 nautical miles beyond the borders of Poland.



FIGURE 17. Bratislava, the capital of the Slovak Socialist Republic on the navigable Danube River, is a mixture of old and new. The old castle in the right background is a famous landmark of the Middle Ages, while the new Technical University in the foreground symbolizes entry into the 20th Century. (U/OU)

period is from early November through March, when migratory lows and frontal systems moving through the approaches often produce weather conditions generally hazardous to flying. These migratory systems occur slightly more frequently and are more intense in the northwest than in the southeast.

In all approaches, mean cloudiness is at a maximum, 60% to 80%, in November through February and at a minimum, 40% to 70%, in May through September. Cloudiest conditions occur in the north and west and over the mountains in the south and east. Least cloudiness occurs in the south near the plains of Hungary. Thunderstorms are most frequent in May through August, when they occur on 2 to 8 days per month, and are least frequent in October through March, when they seldom occur. Moderate to severe turbulence is common in thunderstorms, along frontal zones, and over mountain ridges. Moderate to severe aircraft icing may be expected in frontal cloudiness in winter when the freezing level is near the surface, and in convective clouds above about 12,000 feet in summer. Upper winds are predominantly westerly below about 50,000 feet all year, and mean

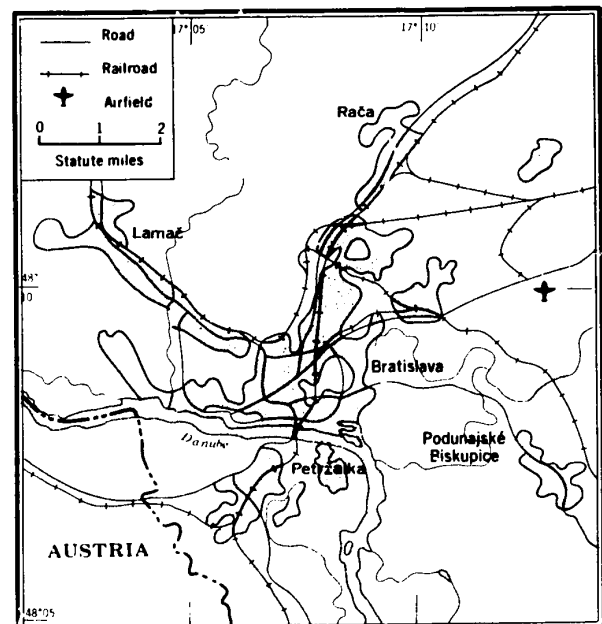


FIGURE 18. Bratislava strategic area (C)



FIGURE 19. Highways, railroads, water, and air transportation routes radiate from Bratislava. The recently completed highway bridge over the Danube evidences the city's continuing transportation significance. (U/OU)

speeds are generally less than 40 knots. Speeds in excess of 50 knots occur at times in all seasons but most frequently in winter between 30,000 and 45,000 feet.

The eastern air approach is entirely over land, mainly across mountainous terrain. In the U.S.S.R. about 100 nautical miles from the Czechoslovakia border, the highest elevations are almost 7,100 feet. In Romania the maximum elevation is slightly more than 7,500 feet.

The southern air approach is over land. In Hungary and parts of Austria and Yugoslavia the approach is mostly over plains, which in places extend across the border into Czechoslovakia. In Yugoslavia, however, elevations are about 9,400 feet within 165 nautical miles of the Czechoslovakia border. In most of Austria

and in the northeastern part of Italy, the approach is over high mountainous terrain and the maximum elevation is about 12,800 feet, 200 nautical miles from the border in Italy.

The western air approach is over land, mostly over mountainous terrain where maximum elevations of about 4,900 feet are at the outer limit of the approach and are about 4,760 feet near the West Germany-Czechoslovakia border.

The northern air approach is mostly over land, across the relatively flat plains of Poland and East Germany, and partly across the Baltic Sea at the northern limit. The maximum elevation, nearly 8,200 feet, is in the Carpathian Mountains near the border. Rugged mountains extend almost the full length of Czechoslovakia's northern border.

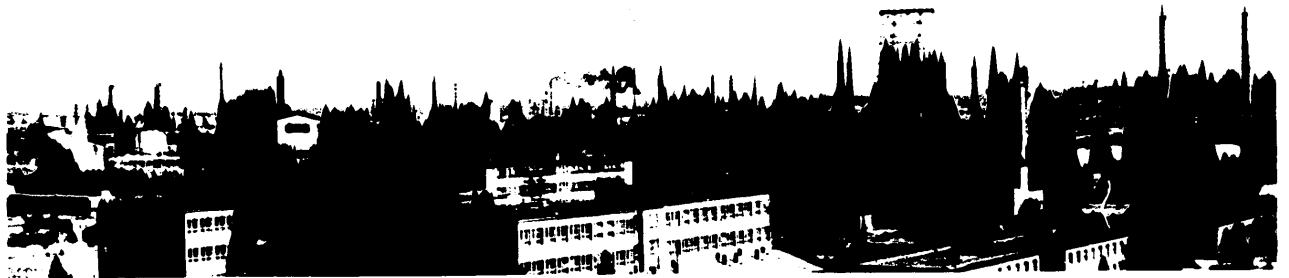


FIGURE 20. The Bratislava strategic area is the site of the nation's largest oil refinery and petrochemical complex. Crude oil comes from the Soviet Kuybyshev area via the Friendship Pipeline. (U/OU)

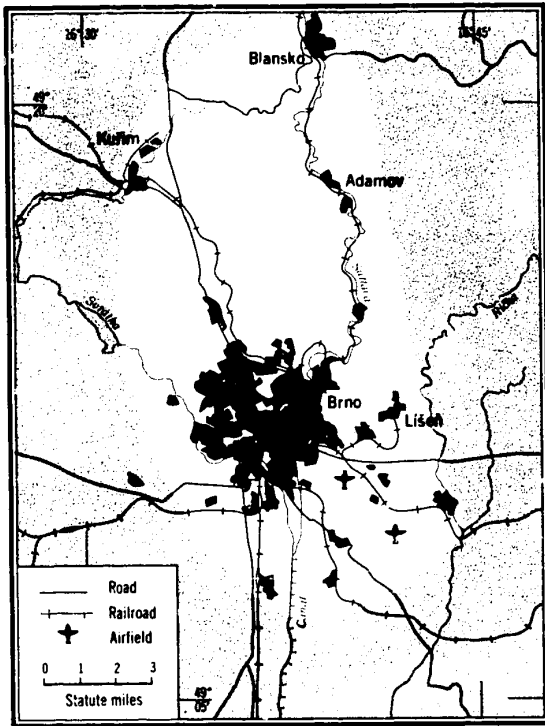


FIGURE 21. Brno strategic area (C)



FIGURE 22. Brno, the south-central part of the country, is characterized by a medieval core interspersed with industrial plants and modern structures (U/OU)

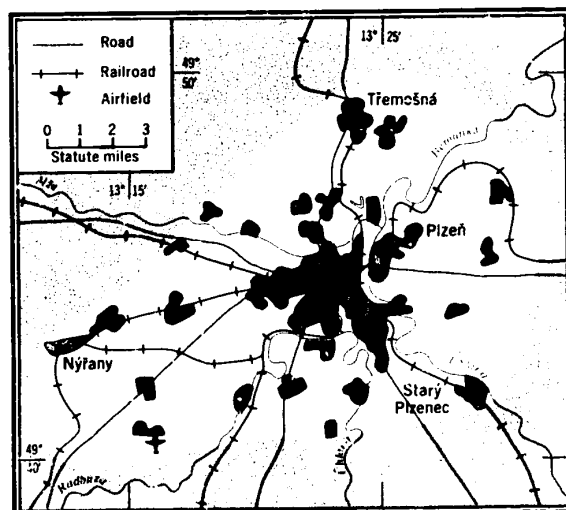


FIGURE 23. Pizeň strategic area (C)





FIGURE 24. Plzen is an old, industrial city with shabby buildings and little new construction. In the background is a part of the huge Skoda Works, the largest Czech machine building complex. (U/OU)

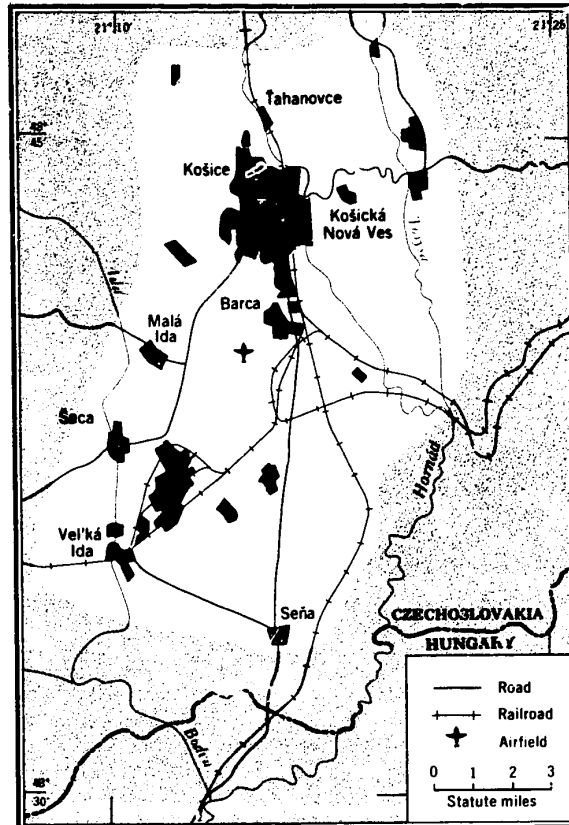


FIGURE 25. Kosice strategic area (C)



FIGURE 26. Kosice is demonstrating a spectacular growth from a rundown town to a modern town complex, largely because of its strategic location near the U.S.S.R. border and its growing industrial development. Old houses, modern high rise structures, and contemporary housing developments provide strange contrasts. (U;OU)

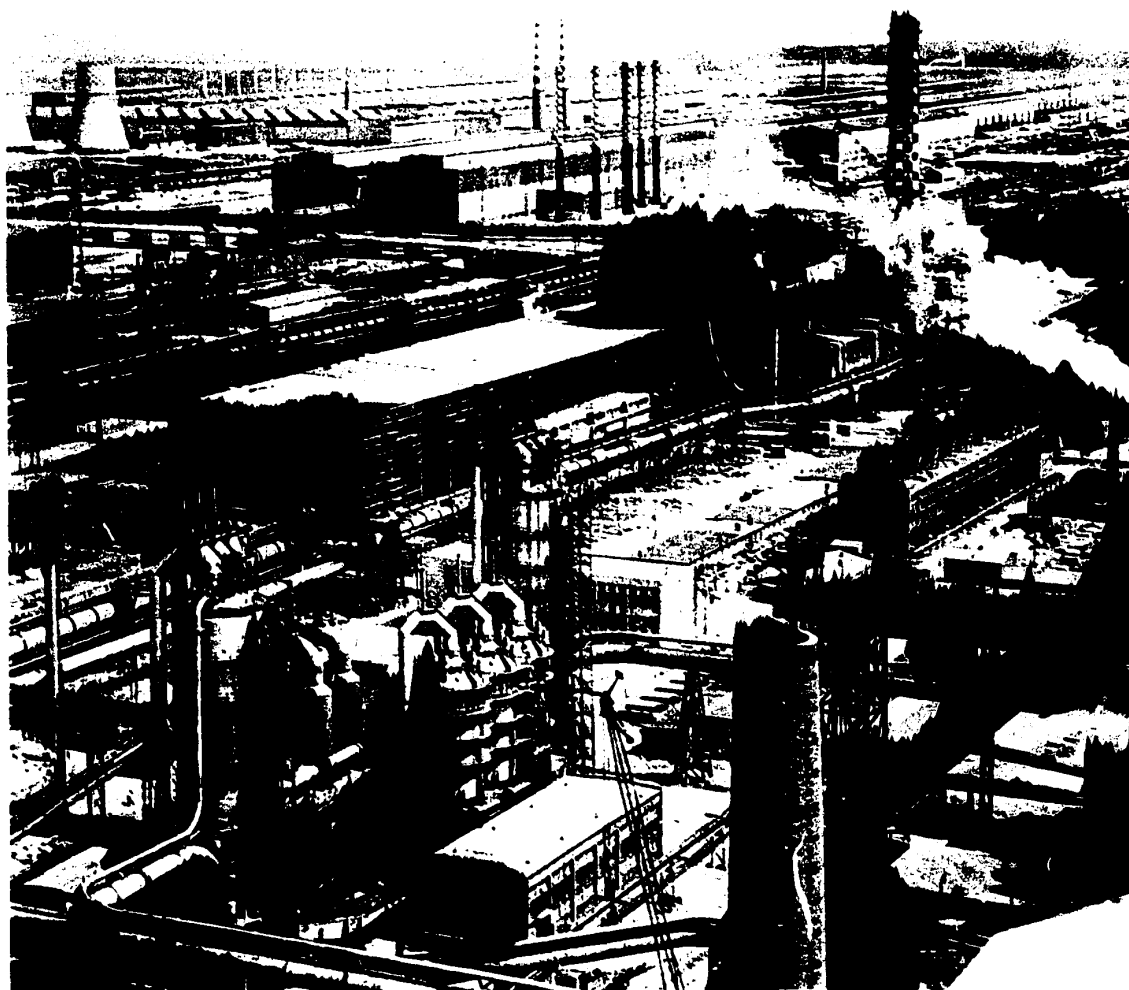


FIGURE 27. Kosice is the site of a large steel mill using Soviet iron ore. At present the second largest in the country, it is destined to assume first place by 1975. Its rail connections to the U.S.S.R. are broad gage. (U/OU)

FIGURE 28. Other important areas (S)

NAME	ESTIMATED POPULATION (JANUARY 1973)	COORDINATES	REMARKS
Ceske Budejovice.....	79,000	48°59'N., 14°28'E.	Third largest city in Bohemia and administrative center of Jihočeský Kraj (South Bohemian Region). Situated strategically near borders with Austria and Federal Republic of Germany. Site of modern steel foundry, one of the largest in country. Nationally significant plants produce pencils, pens, office equipment, automobile accessories (carburetors, fuel pumps), and needles. Military barracks for 5,300 troops. Division headquarters. Home airbase for fighter aircraft. Road and railroad junction with connections to Austria.
Chomutov.....	42,000	50°27'N., 13°16'E.	One of the largest industrial towns in Severočeský Kraj (North Bohemian Region). The largest combine of its type in the country produces seamless pipes and various types of tubes, mostly exported to U.S.S.R. for use on long-distance oil and gas pipelines. Associated steel works produces steel and variety of steel products. Center of large brown coal mining district (see under Most). Coal in nearby mines provides fuel for large power complex in southwestern environs that will grow to over 2 million kilowatts installed capacity by 1975. Important rail and road junction. Large classification yard and railroad locomotive and car repair shops. Main gateway by road into East Germany. Zatec Airfield, 8 miles southeast, is a home base for fighter aircraft.
Gottwaldov-Otrokovice-Napajedla.	86,000	49°13'N., 17°36'E.	Gottwaldov (67,000 population), Otrokovice (13,000 population), and Napajedla (6,000 population) form a large contiguous industrial town complex in Jihomoravský Kraj (South Moravian Region) (Figure 29). Strategic location in Moravian Gap. Gottwaldov, patterned after a modern U.S. city, is the site of largest shoe factory in the country (formerly the Bata enterprise). It produces about 60 million pairs of footwear annually and ranks among the largest plants of its type in the world; one-fifth of its output is exported to the U.S.S.R. Nationally significant production in complex includes tires (2/3 of national output), rubber and plastic goods, machine tools and other industrial machinery, light civilian and sport airplanes, automobile safety equipment, diesel engines, industrial chemicals, and gas masks for the military. Rubber and Plastics Research Institute of national significance.

FIGURE 28. Other important areas (S) (Continued)

NAME	ESTIMATED POPULATION (JANUARY 1973)	COORDINATES	REMARKS
Hradec Kralove.....	83,000	50°13'N., 15°50'E.	Administrative center of Vychodocesky Kraj (East Bohemian Region). Nationally significant industrial center producing heavy machinery and equipment for the chemical and food processing industries. Production includes entire plants such as urea and ammonia plants, breweries, sugar mills for domestic and extensive foreign markets. Other products of national importance include pistons for combustion engines, ceramic components for the electronics industry, glass-reinforced plastics, marine diesel engines, rubber goods, and film material, photo chemicals, and copying paper. Military medical research and training center, including work on CW/BW warfare. Army barracks for 5,000 troops. Home airbase for fighter aircraft. Important railroad and highway junction.
Kolin.....	28,000	50°02'N., 15°12'E.	Highly industrialized city in Stredocesky Kraj (Central Bohemian Region). Diversified enterprises account for nationally significant production of chemicals, such as sulfuric and phosphoric acid, superphosphate fertilizer, chloride, hydrogen cyanide, silicones; also oil refining in medium-size refinery. POL storage 400,000 barrels. Machine building plants produce boilers, generators, cooling and refrigeration equipment; also significant output of telecommunication equipment, abrasives, insulation material. Caslav Airfield, 11 miles southeast, is a home base for fighter aircraft. Important railroad and highway junction on route to Vienna (Austria) and Budapest (Hungary).
Komarno.....	27,000	47°46'N., 18°08'E.	Strategically located in Zapadoslovensky Kraj (West Slovak Region) on the left bank of the navigable Danube, which forms border with Hungary. Hungarian sister city Komarom on right bank. City contains the country's largest shipyard. Significant production of rivercraft, including passenger ships, cargo ships, and dredges. Nearly 3/4 of output is exported to the U.S.S.R. Principal Danube port with average yearly turnover of 2 1/2 million metric tons; to be increased to 4 1/2 million tons in near future. Junction of rail and highway routes into Hungary (Budapest). Barracks for 3,100 troops. Concentration of Soviet occupation troops.

FIGURE 28. Other important areas (S) (Continued)

NAME	ESTIMATED POPULATION (JANUARY 1973)	COORDINATES	REMARKS
Liberec-Jablonec.....	110,000	50°44'N., 15°06'E.	Liberec (74,000 population) and Jablonec (36,000 population) form a large contiguous industrial town complex in Severocesky Kraj (North Bohemian Region) near borders with Poland and East Germany. Nationally significant industrial products include diesel engines, transmissions, brake equipment, accessories and spare parts for heavy trucks and buses, a wide variety of plastic goods for civilian and military use, electronic and electrical equipment, textiles and textile machinery, costume jewelry. The uranium industry has a geological research plant in Liberec geared to investigations of and geological prospecting for radioactive raw materials; the largest single uranium deposit in the world today is located about 10 to 20 miles southwest of the city. Important rail and road junction; classification yard and workshops. Main gateway by road into Poland.
Litomerice-Lovosice-Terezin.....	33,000	50°32'N., 14°08'E.	Important town complex on the navigable Elbe river in Severocesky Kraj (North Bohemian Region). Litomerice (20,000 population) and Terezin (3,000 population) are garrison towns with barrack capacities for more than 10,000 troops. Large underground facilities, used in World War II by the Germans for aircraft engine production, are today used for storing radioactive materials and/or waste (Figure 30). Lovosice (10,000 population) is the center of nationally significant production of fertilizers, sulfuric and nitric acid, and a variety of petrochemicals. Expanding production of portland cement and lime. Pharmaceutical products including vaccines for prevention of animal diseases are produced in Terezin. Town complex is on important rail, highway, and waterway routes connecting the capital to East Germany.
Martin-Vrutky.....	51,000	49°04'N., 18°56'E.	Military-industrial town complex in Stredoslovensky Kraj (Central Slovakian Region). Martin (45,000 population) is the only producer of tanks in the country. Output is about 500 tanks annually; capacity about 1,200. Other nationally significant products include diesel and diesel electric locomotives, industrial, especially mine locomotives, rolling stock, road and construction machinery, cranes, machine tools, forgings and castings, cellulose, and paper. Barracks for 5,000 troops. Vrutky (6,000 population) is an important railroad and highway center on the main east-west route; large classification yards and workshops.

FIGURE 28. Other important areas (S) (Continued)

NAME	ESTIMATED POPULATION (JANUARY 1973)	COORDINATES	REMARKS
Mlada Boleslav	32,000	50°25'N., 14°54'E.	<p>Industrially and militarily significant town in Stredocesky Kraj (Central Bohemian Region). Site of the largest automobile plant, with continuous production lines, in country. Output about 150,000 Skoda passenger cars per year accounts for about 90% of the national production. Also production of some trucks and buses. Significant production of batteries. About 7 miles to the north is one of the largest Skoda truck assembly plants. Barracks for 3,000 troops. Large concentration of Soviet occupation troops. Two military airfields with permanent runways 11 miles northeast and 12 miles north-northwest of city, respectively; the latter is a modern home base for fighter aircraft in regimental strength, occupied presently by Soviet troops; the former is an intermediate-range bomber-capable base. Rail and highway center on principal routes to East Germany.</p>
Most	57,000	50°32'N., 13°39'E.	<p>City and its environs are one of the most important industrial complexes in Severocesky Kraj (North Bohemian Region). Site of one of the country's leading chemical enterprises producing gasoline, aviation fuel, gas, ammonia (30% of national output), ethyl alcohol, phenol, liquid oxygen and other chemicals. The enterprise is in process of a changeover from processing (hydrogenation) of coal to the second largest petrochemical complex in the country based on crude oil piped from the U.S.S.R. A wide variety of plastic materials will be added to the products by 1974. POL storage capacity 1,750,000 barrels. The town is the center of the country's richest deposit of excellent brown coal, extending from Chomutov to Usti nad Labem (see under these towns), and accounting for <math>\frac{2}{3}</math> of the entire brown coal production; about 40 mines and enterprises. Mining activities have resulted in considerable changes in the area by relocating urban areas (Figure 31), villages, railroad lines, and roads. Electric powerplant concentration, nearly 2,000,000 kw. Rail and road junction; major classification yard.</p>

FIGURE 28. Other important areas (S) (Continued)

NAME	ESTIMATED POPULATION (JANUARY 1973)	COORDINATES	REMARKS
Olomouc . . . . .	82,000	49°35'N., 17°15'E.	<p>Important military and industrial center in Severomoravsky Kraj (North Moravian Region). Garrison town with billeting facilities for more than 9,000 troops. Concentration of Soviet occupation troops. Czechoslovak division headquarters. Soviet military headquarters with communication links with Ministry of Defense in Moscow and Soviet Forces headquarters in East Germany and Poland. Prerov military airfield, about 15 miles southeast, is a home base for fighter aircraft; it can support light bombers. A military heliport west of town occupied presently by Soviet troops is used by helicopters in regimental strength. The largest producer in country of modular and malleable cast iron, gear boxes for railroad car axles, and pumps and pumping equipment. The only producer of irrigation equipment in country. Also significant output of boilers, pipes, lathes, milling and drilling machinery, reinforced concrete components, pharmaceuticals. Highly developed food industry. Main railroad and highway junction on main east-west railroad line with extensive railroad yards and workshops.</p>
Pardubice . . . . .	76,000	50°02'N., 15°47'E.	<p>Important industrial-military complex in Vychodocecky Kraj (East Bohemian Region), site of one of the largest chemical enterprises in the country, about 4 miles northwest. Produces one-fourth of national output of explosives, propellants, nitrocellulose, gun powder for military and civilian use; also wide variety of chemicals such as fertilizers, agrochemicals, sulfuric and nitric acid, ammonia, plastics, silicones, pharmaceuticals for domestic market and exports. Associated chemical research institutes of national significance. Significant production of radio and radar equipment for domestic use and for U.S.S.R.; also television sets, small computers, laboratory and other electrical equipment. Important producer of equipment for flour mills and silos. Medium-size petroleum refinery. POL storage 485,000 barrels. Billeting for about 5,000 troops. Home airbase for fighter aircraft; can accommodate medium and heavy bombers. Important ammunition and missile storage facilities in environs. Railroad and highway center on east-west and north-south routes. Extensive railroad facilities.</p>



FIGURE 28. Other important areas (S) (Continued)

NAME	ESTIMATED POPULATION (JANUARY 1973)	COORDINATES	REMARKS
Usti nad Labem.....	73,000	50°40'N., 14°02'E.	Administrative center of Severocesky Kraj (North Bohemian Region) and one of its principal industrial cities. Production of diversified organic and inorganic chemicals includes ammonia, acids, caustic soda, chlorine (more than 1/3 of national output), phenol, fertilizers, pesticides, synthetic resins, dyes. A branch plant of the chemical enterprise, located about 6 miles southwest, produces almost 1/3 of the country's artillery ammunition. Also significant production of pharmaceuticals, valves and fittings of cast iron and steel, measuring instruments, automobile parts, glass bottles, and soap. On eastern periphery of largest brown coal basin in the country (see under Most). Important transportation center on main railway routes leading into East Germany (Dresden), large classification yard and workshops, rail-water transshipment point. Largest inland waterway port on the Elbe river with port and shipyard facilities. Average yearly turnover is 800,000 metric tons.
Zilina.....	53,000	49°13'N., 18°44'E.	Important industrial and transportation center in Stredoslovensky Kraj (Central Slovakian Region). Main industrial activities center around chemical enterprises producing a wide variety of products including plastics, sulfuric acid, ammonium sulfate, fertilizers, plexiglass, synthetic bitumen, and chemical compounds. Other industrial products include ball bearings, cellulose and paper, steel and aluminum products, textiles, wood products, cement. Important highway and railroad junction on main routes connecting the U.S.S.R. with Prague and Bratislava. Large classification yards and workshop. Academy of Transportation with military department of national significance. Billeting for more than 4,000 troops.



FIGURE 29. In the Gottwaldov-Otrokvice-Napajedla contiguous town conurbation is one of the world's largest footwear plants; now called SVIT, it formerly was named BATA (top). In Otrokvice, a modern recently completed tire plant (one of two in this area) has a capacity of 2¼ million tires per year (bottom). Construction characteristics closely follow U.S. patterns. (U/OU)

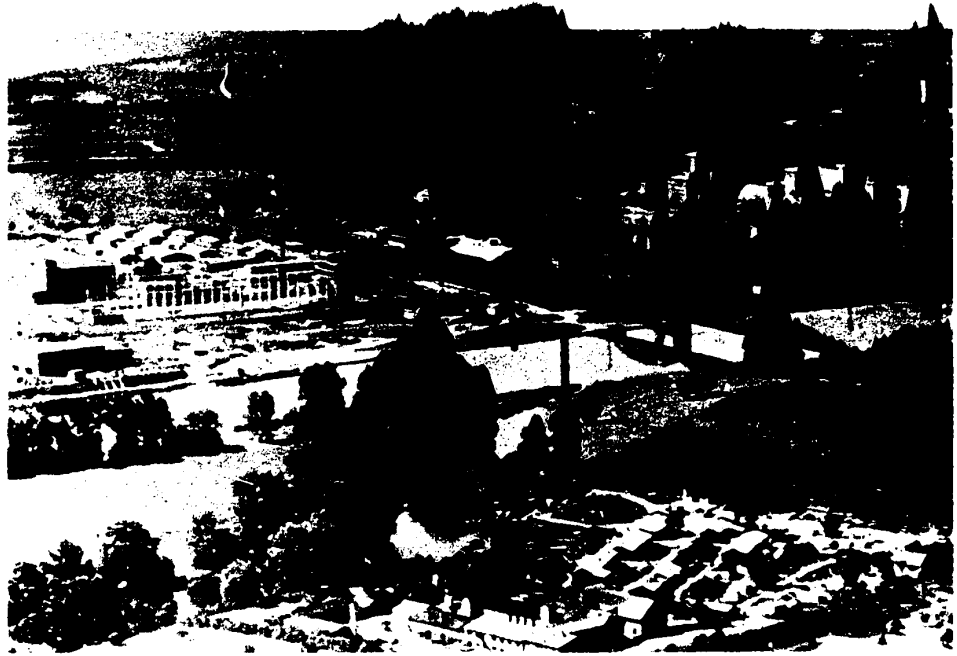


FIGURE 30. On the navigable Elbe River (above), the Litomerice-Lovosice-Terezin complex contains the country's largest, most modern fertilizer plant that also produces significant quantities of acids and synthetic fibers. In Litomerice (right) is a cone-shaped hill that contains a large underground installation built by the Nazis in World War II and currently used to store radioactive materials and/or waste. (U/OU)



FIGURE 31. Demolition of the old city of Most (*top*) has been going on for several years to exploit large deposits of excellent brown coal discovered under the city. People have been largely relocated to the nearby city of New Most (*bottom*) where 47,000 inhabitants now live. The population is expected to reach 70,000 to 80,000 in the near future. (U/CU)

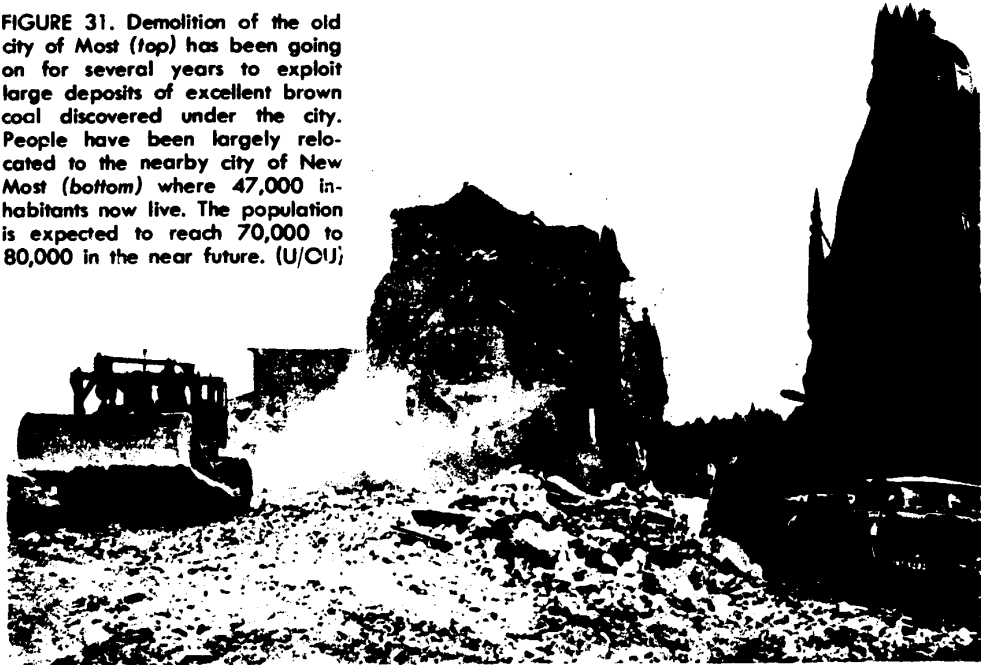


FIGURE 32. Internal routes (C)

ROUTE AND TERRAIN	ROAD	RAILROAD	OFFROAD DISPERSAL AND VEHICULAR CROSS-COUNTRY MOVEMENT
U.S.S.R. border near Uz'gorod to Kosice strategic area. Route crosses plains for about 30 miles, then winds through narrow river valleys and forested, hilly, and mountainous terrain.	Two lanes, bituminous surface, good condition.	Single track, 5'0" gage; generally parallels road about 5 to 10 miles to the south. Single track, 4'8 1/2" gage roughly parallel to 5'0" gage line except for approximately 5 miles near border.	Fair in low hills and plains; unsuited from mid-November to early April because of miry soils or snow cover. Unsuitable in higher hills and mountains.
Kosice strategic area through Presov, Zilina, and Trencin to Brno strategic area. Route extends mostly through narrow river valleys and forested, hilly, and mountainous terrain; some small, scattered plains.	Two to three lanes, bituminous or concrete surface, good condition. Bottlenecks include some steep grades and sharp curves in hilly and mountainous section in the east.	Double track, 4'8 1/2" gage to Trencin, electrified from Kosice through Zilina to Puchov; generally parallel to road.	Fair in low hills and plains; unsuited from mid-November to early April because of miry soils or snow cover. Unsuitable in hilly and mountainous terrain.
Zilina to Ostrava Karvina strategic area. Forested hills and mountains except near Zilina and Ostrava where route crosses small plains areas.	Two lanes, bituminous surface, fair to good condition.	Double track, 4'8 1/2" gage, electrified; parallels road.	Unsuited in hills and mountains; fair to good on plains except when snow covered or when soils are miry from mid-November to early April.
Ostrava Karvina strategic area to Brno strategic area. Mostly broad river plains along part of Morava-Oder Corridor; connects with route from Kosice to Brno strategic area near east edge of Brno strategic area.	Two to three lanes, bituminous surface, short sections of concrete or stone blocks, fair to good condition. Some steep grades between Olomouc and Brno.	Double track, 4'8 1/2" gage, electrified except for short section south of Olomouc; generally parallel to road.	Fair except for locally miry soils or snow cover from mid-November to early April.
Olomouc to Hradec Kralove. Broad, nearly flat to rolling cultivated plains and hills.	Two to three lanes, mostly bituminous-concrete surface, good condition. Some steep grades.	Double track, 4'8 1/2" gage, electrified except for short section of single track near Hradec Kralove; generally parallel to road.	Fair to good on plains; poor or unsuited in hilly areas. Soils are miry and snow often covers ground from mid-November to early April.
Poland border near Klodzko, Poland, to Prague strategic area. Hilly, forested terrain near border, then mostly cultivated plains.	Two to three lanes, mostly bituminous surface, some concrete or cobblestone sections, good condition.	Single track, 4'8 1/2" gage, partly electrified; parallels road.	Do.
East Germany border from Dresden, East Germany approach to Prague strategic area. Traverses cultivated plains except near border where terrain is partially forested hills and mountains.	Two to three lanes, mostly bituminous surface, short section of cobblestones, some sections resurfaced with concrete; fair to good condition. Movement restricted near border by steep grades, sharp curves, and snow from December to March.	Two lines, double track, 4'8 1/2" gage. Lines merge near border. Both lines roughly parallel to road. Northeast line electrified to junction with line to southwest.	Fair on cultivated plains. Poor near border, where hampered by moderate to steep slopes, dense evergreen forest, snow or wet soils from November to April.
West Germany border near Cheb to Prague strategic area. Mostly forested or cultivated hills, some small plains near border and west of Prague.	Two lanes, bituminous surface, good condition. Large sections extensively reconstructed and several urban bypasses built since 1966. Few steep grades. Snow may disrupt traffic in winter.	Single track, 4'8 1/2" gage; roughly parallel to road.	Fair over most of route. Poor from November to early April when soils miry or ground covered with snow.

FIGURE 32. Internal routes (C) (Continued)

ROUTE AND TERRAIN	ROAD	RAILROAD	OFFROAD DISPERSAL AND VEHICULAR CROSS-COUNTRY MOVEMENT
West Germany border near Furth im Wald, West Germany, to Plzen strategic area. Low, partly forested hills and nearly flat to rolling plains.	Two lanes, bituminous surface, good condition. Widened and resurfaced since 1966. Steep grades near West Germany border.	Single track, 4'8 $\frac{1}{2}$ " gage; parallels road...	Poor to unsuited in hills; fair on plains except mid-November to early April when soils are miry or ground covered with snow.
Plzen strategic area to Prague strategic area. Mostly rolling to rugged hills, scattered forested areas.	Two lanes, bituminous surface, stretches of cobblestones in towns, good condition.	Double track, 4'8 $\frac{1}{2}$ " gage; parallels road..	Poor to unsuited in hills; fair in valleys except during period of miry soils, mid-November to April.
Austria border near Freistadt, Austria, to Prague strategic area. Mostly hills, but some plains north and south of Ceske Budejovice, south of Tabor, and near Prague.	Two to three lanes, bituminous surface, some short sections concrete, fair to good condition.	Single track, 4'8 $\frac{1}{2}$ " gage except for section of double track near Prague; parallels road.	Conditions usually good; restricted locally by steep slopes or miry soils from November to April.
Austria border northwest of Vienna, Austria, through Jihlava to Prague strategic area. Mostly hills except for plains near border and east of Prague.	Two lanes, bituminous, concrete, or cobblestone surfaces, good condition.	Alternating single and double track, 4'8 $\frac{1}{2}$ " gage generally parallels road to Kolin; multiple track (double and single) parallels road from Kolin to Prague; electrified Jihlava to Prague.	Conditions usually fair; restricted locally by steep slopes or miry soils from November to April.
Austria border north-northeast of Vienna, Austria, to Brno strategic area. Flat to gently rolling, cultivated plains.	Two lanes, bituminous or stoneblock surfaces, good condition.	Double track, 4'8 $\frac{1}{2}$ " gage, electrified, east of road; single track, 4'8 $\frac{1}{2}$ " gage west of road. Both lines parallel road but as much as 10 miles distant in places.	Fair to good except from mid-November to April when soils are miry or ground snow covered.
Brno strategic area to Jihlava. Hilly terrain with scattered forests.	Two to four lanes, bituminous-concrete surface, good to excellent condition. Part of expressway system under construction.	Double track, 4'8 $\frac{1}{2}$ " gage, electrified, north of road; single track, 4'8 $\frac{1}{2}$ " gage south of road. Both lines roughly parallel to road but as much as 10 miles distant in places.	Unsuited on steep, forested slopes of hills.
Bratislava strategic area to Brno strategic area. Austria border short distance west of route. Generally nearly flat, cultivated plains with small forested areas; poorly drained in places.	Two to four lanes, bituminous or concrete surfaces, a few short cobblestone sections, especially in villages, good condition. Part of expressway system under construction.	Double track, 4'8 $\frac{1}{2}$ " gage, electrified; parallels road.	Fair on plains, unsuited in poorly drained or forested areas. Soils are miry or ground is sometimes snow covered during period mid-November to early April.
Bratislava strategic area to Trencin. Extends along the Vah river valley in the north and across the broad Danube plain in the south.	Two to three lanes, bituminous or concrete surfaces, good condition.	Double track, 4'8 $\frac{1}{2}$ " gage; parallels road..	Usually fair to good, but poor or unsuited when soils are miry or ground is snow covered at times during period mid-November to early April.
Hungary border from Mosonmagyaróvár, Hungary, to Bratislava strategic area. Mostly nearly flat, cultivated terrain with scattered forests.	Two lanes, bituminous surface, good condition.	Single track, 4'8 $\frac{1}{2}$ " gage; parallels road..	Fair except during period mid-November to early April when soils are miry and ground is sometimes snow covered.
Trencin to Kosice strategic area. Forested hills and mountains.	Two lanes, bituminous or concrete surfaces, condition fair to good. Potential bottlenecks include many steep grades in hills and mountains. Concrete-surfaced bypass around Trencin.	Single track, 4'8 $\frac{1}{2}$ " gage; generally parallels road.	Unsuited in hills and mountains, fair in valleys except during wet periods.
Hungary border from Miskolc, Hungary, to Kosice strategic area. Relatively flat to rolling, cultivated plain.	Two lanes, concrete surface, good condition.	Single track, 4'8 $\frac{1}{2}$ " gage; parallels road..	Fair except during wet season and periods of snow cover between mid-November and April.

FIGURE 33. Boundary data (C)

BOUNDARY	LENGTH	STATUS	TERRAIN
	<i>Miles</i>		
U.S.S.R.....	60	Demarcated, undisputed. Security measures include cleared strips and guards.	Northern half traverses densely forested mountains and hills, southern half crosses relatively flat, cultivated plain.
Poland.....	864	Demarcated, undisputed. Security measures include cleared strips, trip flares, minefields, barbed wire, and observation towers.	Traverses mostly steep, forested mountains and hills. Nearly flat to rolling cultivated plains in area of the Morava-Oder Corridor.
East Germany.....	285	Demarcated, undisputed. Security measures include cleared strips (Figure 34), fences, flares, guard towers, and patrols.	Hills and mountains, predominantly densely forested, but brush and cultivated crops common in some places.
West Germany.....	220	Demarcated, undisputed. Most intensive boundary security; measures include minefields, observation towers (Figure 35), cleared strips, barbed wire, patrols, and other obstacles (Figure 36).	Densely forested, steep hills and mountains.
Austria.....	355	Demarcated, undisputed. Security measures include barbed wire (Figure 37) and watch towers.	Forested hills with small areas of cultivated rolling lowlands in west; relatively flat, cultivated plains in eastern section; border formed by Morava and Danube rivers for about 70 miles (Figure 38).
Hungary.....	420	Demarcated, undisputed. Security measures include barbed wire, cleared strips, and minefields.	Relatively flat plains in western section; flat to rolling plains and hills, spurs of forested Carpathian Mountains in east. Cultivated grain crops, vegetation, and grasses on plains; scattered patches of forest and brush. Broad-leaf deciduous forest in higher areas. Danube and Ipel rivers form border for about 90 and 70 miles, respectively.

FIGURE 34. The border with East Germany at about 50°44'N., 13°46'E Security measures include fences and cleared strips. (C)



FIGURE 33. Boundary data (C)

BOUNDARY	LENGTH	STATUS	TERRAIN
	<i>Miles</i>		
U.S.S.R.....	60	Demarcated, undisputed. Security measures include cleared strips and guards.	Northern half traverses densely forested mountains and hills, southern half crosses relatively flat, cultivated plain.
Poland.....	864	Demarcated, undisputed. Security measures include cleared strips, trip flares, minefields, barbed wire, and observation towers.	Traverses mostly steep, forested mountains and hills. Nearly flat to rolling cultivated plains in area of the Morava-Oder Corridor.
East Germany.....	285	Demarcated, undisputed. Security measures include cleared strips (Figure 34), fences, flares, guard towers, and patrols.	Hills and mountains, predominantly densely forested, but brush and cultivated crops common in some places.
West Germany.....	220	Demarcated, undisputed. Most intensive boundary security; measures include minefields, observation towers (Figure 35), cleared strips, barbed wire, patrols, and other obstacles (Figure 36).	Densely forested, steep hills and mountains.
Austria.....	355	Demarcated, undisputed. Security measures include barbed wire (Figure 37) and watch towers.	Forested hills with small areas of cultivated rolling lowlands in west; relatively flat, cultivated plains in eastern section; border formed by Morava and Danube rivers for about 70 miles (Figure 38).
Hungary.....	420	Demarcated, undisputed. Security measures include barbed wire, cleared strips, and minefields.	Relatively flat plains in western section; flat to rolling plains and hills, spurs of forested Carpathian Mountains in east. Cultivated grain crops, vegetation, and grasses on plains; scattered patches of forest and brush. Broad-leaf deciduous forest in higher areas. Danube and Ipel rivers form border for about 90 and 70 miles, respectively.

FIGURE 34. The border with East Germany at about 50°44'N., 13°46'E. Security measures include fences and cleared strips. (C)





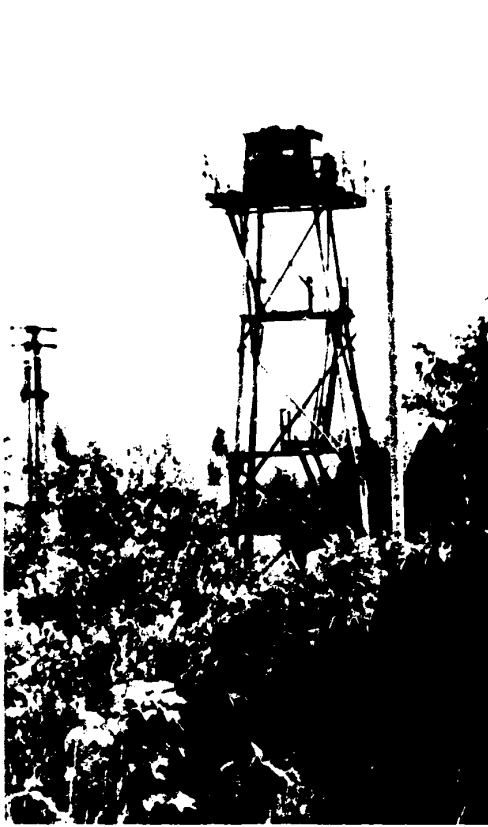


FIGURE 35. Watch tower at border with West Germany. Other security measures include minefields, cleared strips, barbed-wire fences, and patrols. Approximate location is 49°35'N., 12°35'E. (U/OU)

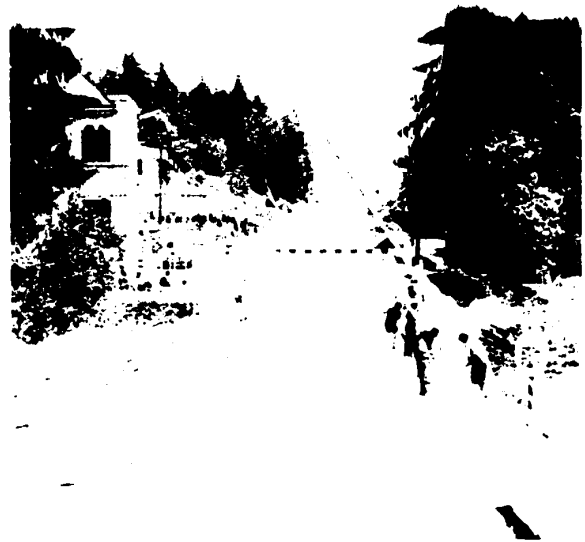


FIGURE 36. A border crossing point at Waidhaus, West Germany. View is toward Czechoslovakia. Approximate location is 40°39'N., 12°30'E. (U/OU)



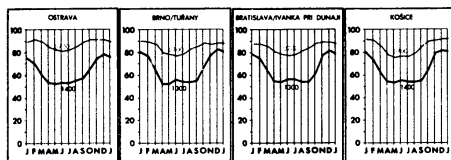
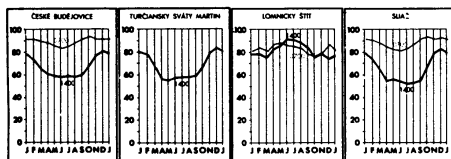
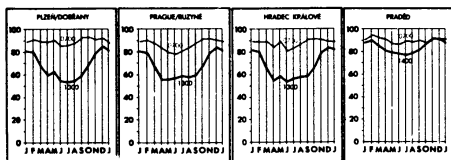
FIGURE 37. Part of the Austria-Czechoslovakia border. Note the plowed strip of ground in front of the fence. Approximate location is 48°46'N., 14°59'E. (U/OU)

FIGURE 38. The Danube and Czechoslovakia from the Austrian side of the Danube. The Danube forms the border for approximately 70 miles. A border fence runs along the top of the lower bank. Approximate location is 48°10'N, 16°59'E. (U/OU)

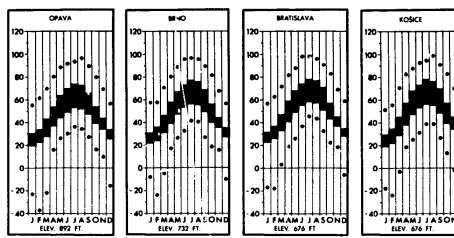
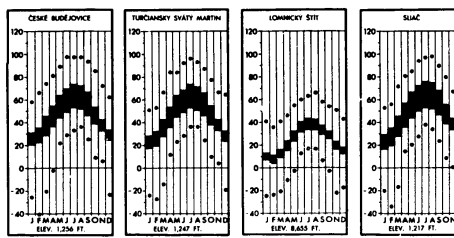
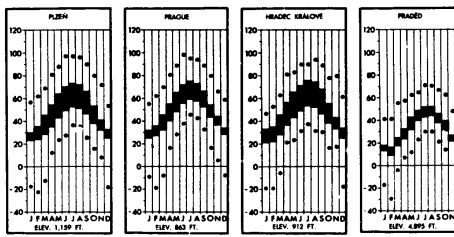


FIGURE 39. Land approaches (C)

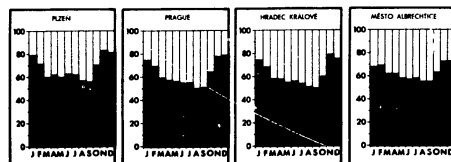
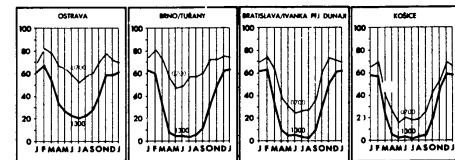
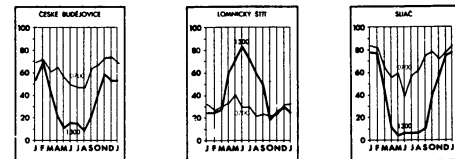
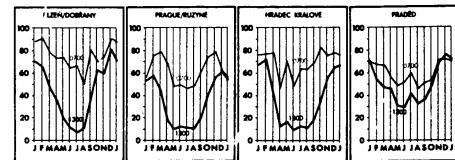
APPROACH	ROAD	RAILROAD	OFFROAD DISPERSAL AND CROSS-COUNTRY MOVEMENT
From Uzhgorod, U.S.S.R. Gently rolling plains covered by cultivated vegetation.	Two-lane bituminous or stoneblock surfaces, good condition.	Single track, 5'0" gage. Crosses border 8 miles south of road.	Fair except during spring thaws and autumn rains when soils are slippery and miry.
From Katowice, Poland. Plains covered by cultivated vegetation and forests; part of the Morava Oder Corridor.	Two- to three-lane bituminous surface, fair to good condition. Snow and ice may be hazardous in winter.	Double track, 4'8 1/2" gage, electrified; parallel to and generally east of road.	Fair; restricted locally by forests, rivers, and wet areas.
From Klodzko, Poland. Mostly forested hills that border cultivated areas in valley.	One- to two-lane bituminous surface, stretches of brick sett or cobblestones, fair condition. Movement restricted by steep grades, sharp curves, and snow and ice hazards in winter.	Single track, 4'8 1/2" gage; parallels road. Dismantled at border.	Poor to unsuited because of steep, forested slopes in hills.
From Dresden, East Germany. Mostly plains with cultivated vegetation, brush, grass, and patches of forest; forested hills and mountains near border.	Two-lane, bituminous (or stoneblock surfaces, fair to good condition. Numerous steep grades and sharp curves in hills, narrow pass at border. Snow blockage common December to March.	Double track, 4'8 1/2" gage; parallels road as much as 20 miles distant on the east.	Fair to poor. Fair on plains except for scattered areas of marsh and miry soils from mid-November to early March; restricted by rugged terrain, dense forests, marshes, bogs, and many streams near border.
From Marktrechwitz, West Germany. Low, forested hills.	Two-lane bituminous surface, good condition.	Single track, 4'8 1/2" gage; parallels road.	Poor to unsuited because of steep, forested slopes.
From Furth im Wald, West Germany. Partly forested and partly cultivated hills.	.....do.....	.....do.....	Mostly fair to poor because of steep, forested slopes.
From Freistadt, Austria. Rolling, cultivated plains; forested hills near border.	Two-lane bituminous surface, good condition. Bottlenecks include steep grades and sharp curves.	.....do.....	Fair in gently rolling plains near Freistadt, poor in forested hills near border.
Two approaches north of Vienna, Austria. Mostly flat, cultivated plains.	Two-lane, mostly bituminous surface, good condition; short stretches of cobblestones or concrete in eastern approach.	Double track, 4'8 1/2" gage; parallel to road in eastern approach. Single track, 4'8 1/2" gage in western approach; double track near Vienna.	Fair except from early December to mid-April when areas are snow covered, flooded, or muddy.
From Vienna, Austria. Mostly flat, cultivated plains.	Two-lane, mostly bituminous surface, good condition; short stretches of concrete or cobblestones.	Single track, 4'8 1/2" gage; does not cross border.	Do.
From Mosonmagyaróvár, Hungary. Flat, cultivated plains.	Two- to three-lane concrete or bituminous surfaces, good condition.	Single track, 4'8 1/2" gage; parallels road.	Fair to good except for extended periods from mid-November to early April when soils are miry.
From Miskolc, Hungary. Flat to rolling, cultivated plain.	Two- to three-lane bituminous or concrete surfaces, good condition.	.....do.....	Fair to good except from mid-November to early April when soils are miry.



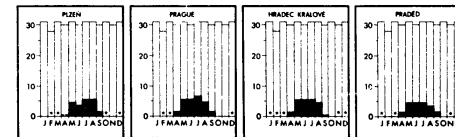
MEAN RELATIVE HUMIDITY (%) AT SPECIFIED HOURS (LST)

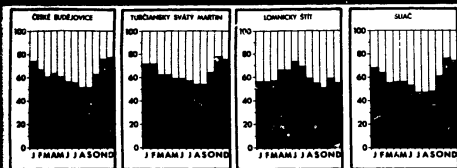


PERCENTAGE FREQUENCY OF VISIBILITY < 6 MILES AT SPECIFIED HOURS (LST)

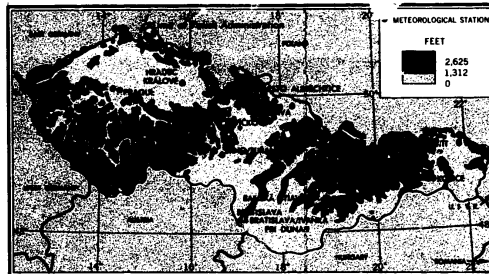
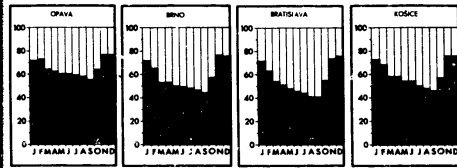


TEMPERATURES (°F.)  
 □ ABSOLUTE MAXIMUM  
 ■ MEAN DAILY MAXIMUM  
 ▨ MEAN DAILY MINIMUM  
 ○ ABSOLUTE MINIMUM



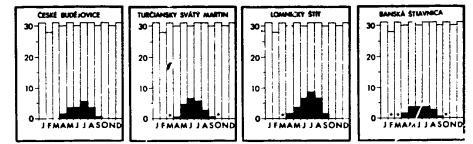


MEAN CLOUDINESS (%)



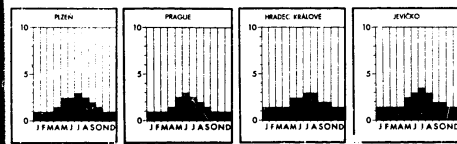
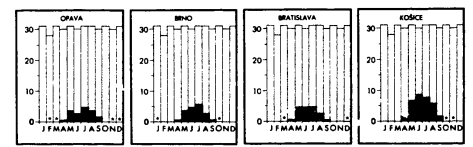
STATION LOCATIONS

STATION	LATITUDE*	LONGITUDE*	ELEV. (FT.)
BANSKÁ ŠTIAVNICA	48°28'N	18°54'E	1,919
BRATISLAVA	48°10'N	17°07'E	676
BRATISLAVA/IVANKA			
PRI DUNAJI	48°10'N	17°13'E	453
BRNO	49°12'N	16°34'E	732
BRNO/TUŘANY	49°09'N	16°42'E	782
ČESKÉ BUDĚJOVICE	48°57'N	14°27'E	1,256
HRADEC KRÁLOVÉ	50°11'N	15°52'E	912
JEVIČKO	49°38'N	16°40'E	1,463
KOŠICE	48°24'N	21°16'E	676
LOMNICKÝ ŠTÍT	49°12'N	20°13'E	8,655
MĚSTO ALBRECHTICE	50°09'N	17°33'E	1,585
OPAVA	49°56'N	17°54'E	892
OSTRAVA	49°51'N	18°18'E	696
PLZEŇ	49°46'N	13°21'E	1,159
PLZEŇ/DOBŘANY	49°40'N	13°17'E	1,194
PRAHEĎ	50°04'N	17°14'E	4,895
PRAHEĎ	50°04'N	14°26'E	863
PRAHEĎ/RUŽYŇE	50°06'N	14°17'E	1,227
SLUAC	48°38'N	19°09'E	1,217
TURČIANSKY SVÄTÝ MARTIN	49°04'N	18°56'E	1,247

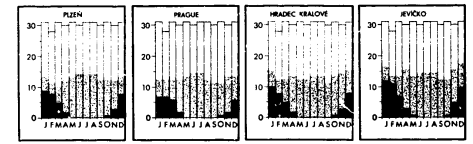


MEAN NUMBER OF DAYS WITH THUNDERSTORMS

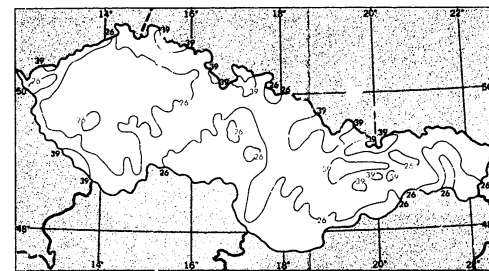
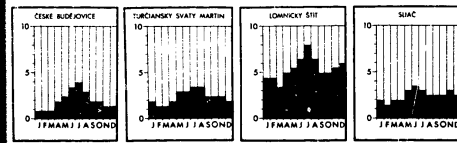
\* < 0.5 DAY



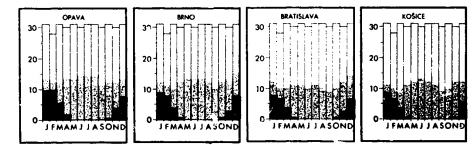
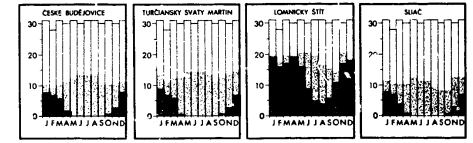
MEAN MONTHLY PRECIPITATION (INCHES)

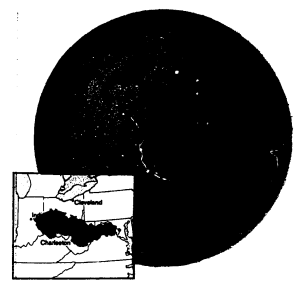


MEAN NUMBER OF DAYS WITH PRECIPITATION AND WITH SNOWFALL



MEAN ANNUAL PRECIPITATION (INCHES)



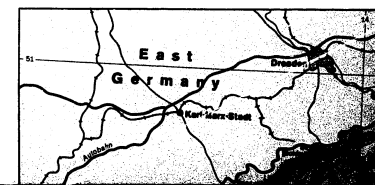


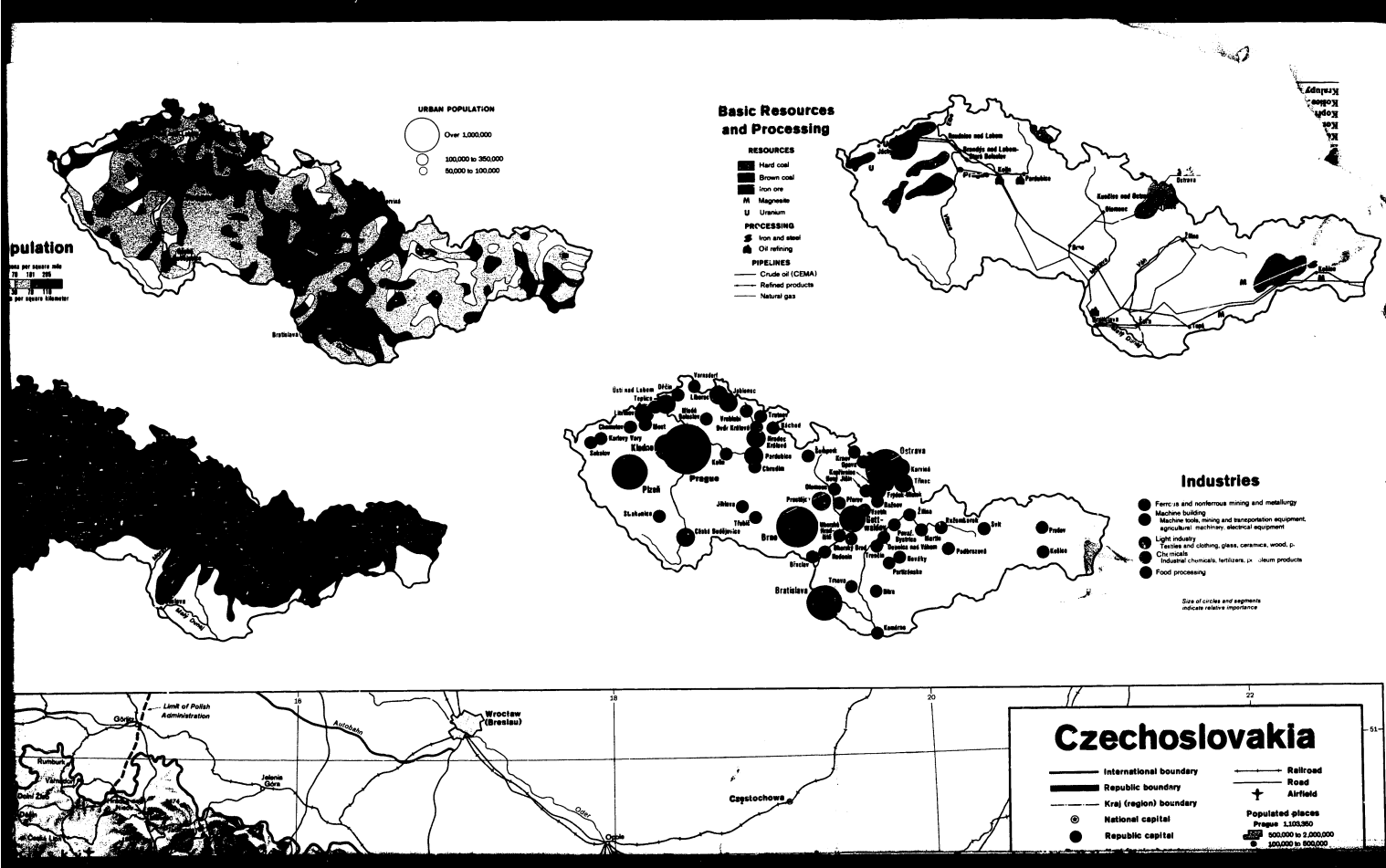
**Land Utilization**

- Forest
- Major hope area
- GENERAL AGRICULTURAL REGIONS
- Com. wheat, barley
- Wheat, barley, sugar beets
- Corn, potatoes, rye
- Mountain farming

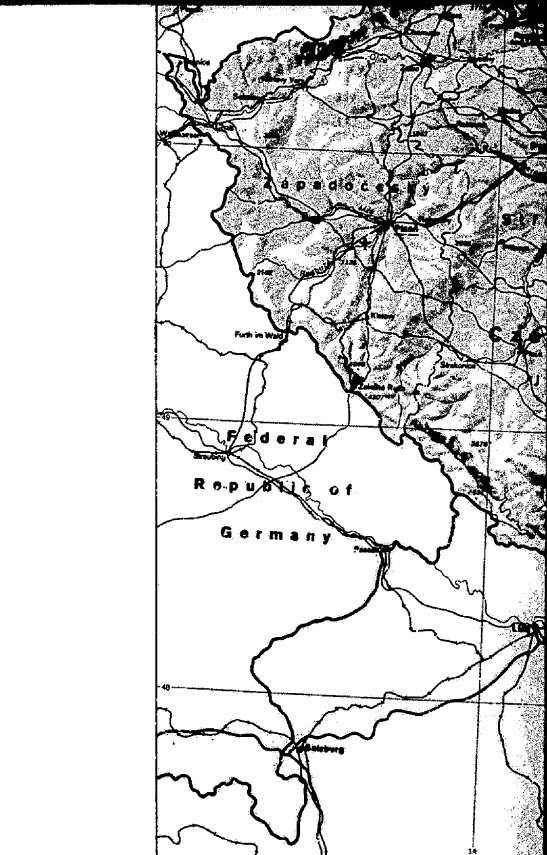
PLACES AND FEATURES REFERRED TO IN TEXT (U/OU)

	COORDINATES		COORDINATES		COORDINATES
	* 'N. * 'E.		* 'N. * 'E.		* 'N. * 'E.
Banská Bystrica.....	48 44 18 09	Králov Dvůr.....	49 58 14 03	Senec.....	48 13 17 24
Banská Štiavnica.....	48 27 18 54	Krnov.....	50 06 17 43	Sereď.....	48 17 17 44
Beroun.....	49 37 14 05	Krompachy.....	48 55 20 32	Silesia (region).....	51 00 18 00
Bilina.....	50 32 13 48	Krosno, Poland.....	49 41 21 47	Silva.....	48 33 20 32
Bohemia (region).....	50 00 14 30	Kunčice nad Ostravici.....	49 48 18 18	Skalná Pleso (lake).....	49 11 20 14
Bohunice.....	48 28 17 39	Kůty.....	48 40 17 01	Skalvov.....	49 41 13 31
Bolevec.....	49 46 13 22	Lateříní Kanál (canal).....	50 19 14 22	Sládkovičovo.....	48 12 39
Brandýs nad Labem (sec of Brandýs nad Labem-Stará Boleslav).....	50 11 14 40	Levice.....	48 13 18 36	Slanec.....	48 38 21 29
Braňislava.....	49 09 17 07	Litice.....	50 05 14 53	Slaný.....	50 14 14 06
Břeclav.....	48 46 16 53	Lipník nad Bečvou.....	49 32 17 36	Slapy.....	49 49 14 24
Brno.....	49 12 16 38	Lomnický Štít (cr. mt.).....	49 12 20 13	Slušovice.....	48 37 19 11
		Louny.....	50 21 13 48	Slovanské Rudoborie (mt.).....	48 45 20 20

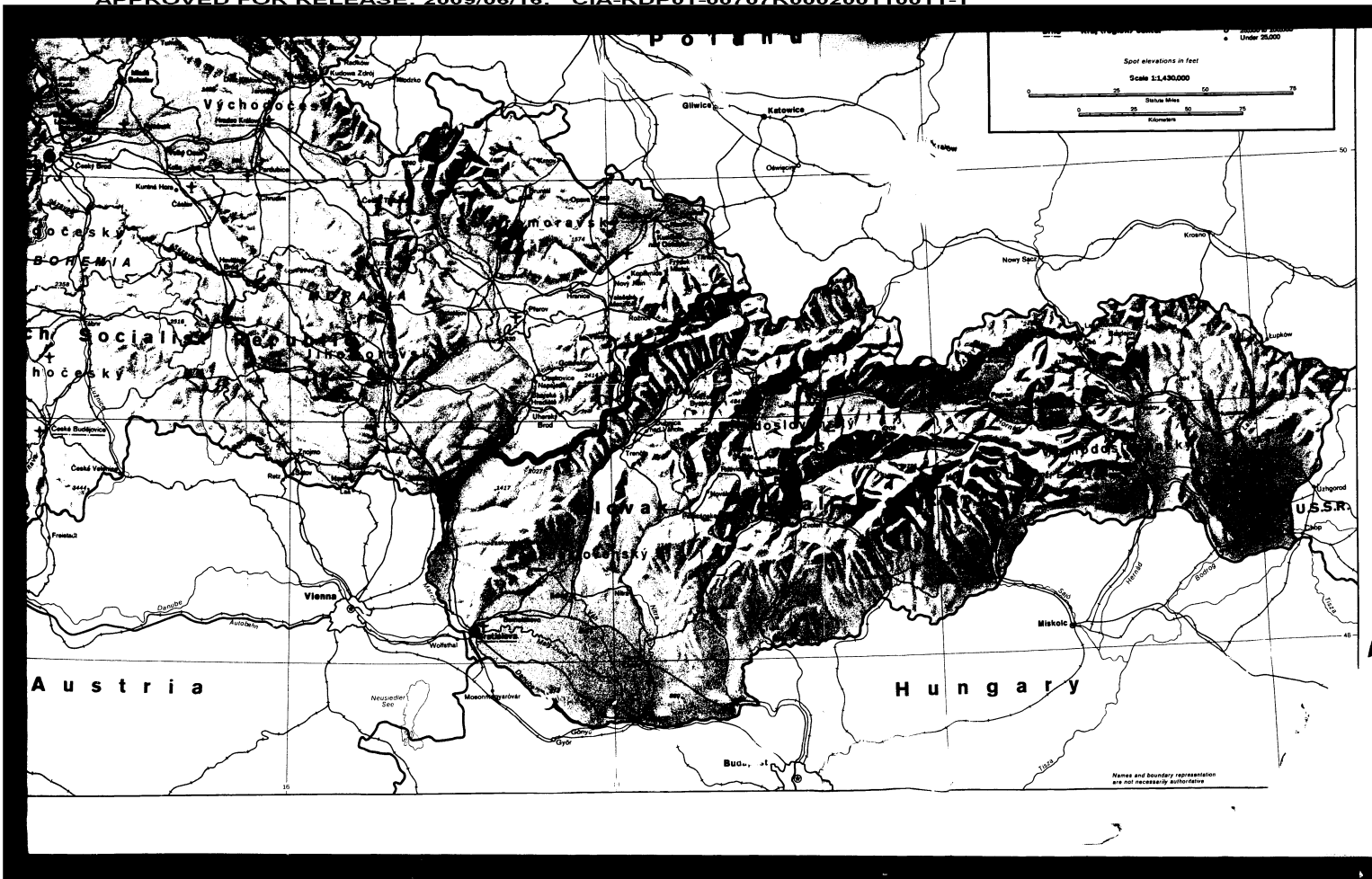




Budapest, Hungary	47 30 19 05	Lovinocha	48 26 19 35	Sokolov	50 11 12 38
Budkovice	49 04 14 09	Lubonik	48 10 20 12	Starojická Lhota	49 34 17 55
Budečovice	48 38 21 58	Lučence	48 20 19 40	Starý Bohumin	49 55 18 20
Budešov	48 35 21 00	Malacky	48 28 17 01	Stetin, Poland	53 25 14 35
Bytčice nad Pernštejnem	49 31 16 16	Malin	49 54 15 18	Strážek Páso	49 07 20 03
Čadca	49 26 18 47	Malý Dunaj (arm)	47 45 15 09	Stárovec	47 48 18 44
Čáslav	49 55 15 24	Marktredwitz, West Germany	50 00 12 05	Sumporsk	49 58 18 58
Čelovec	48 36 21 04	Martin	49 01 18 58	Tábor	49 25 14 40
Čerav v Patomsk	48 44 14 07	Měděřov	47 48 17 40	Tábor	48 45 14 12
Česká Lípa	50 41 14 33	Mělník	50 21 14 59	Tolst	49 58 14 42
Česká Třebová	49 54 16 27	Michalovce	48 45 21 57	Teplice	50 38 13 50
Črtek Budjovice	48 59 14 28	Miskolc, Hungary	48 06 29 47	Tillyshaus, West Germany	49 35 12 35
Čuděj Valenice	48 46 14 38	Mladá Boleslav	50 25 14 54	Tirana, Albania	41 20 19 00
Črtek Krumlov	48 49 14 10	Mladá pod Brdy	49 52 14 18	Tus (arm)	45 15 20 17
Český Těšín	49 45 18 37	Moldava nad Bodvou	48 27 21 00	Tímár	48 17 18 32
Čeb	50 04 12 22	Morava (arm)	48 10 16 59	Tomášová	48 22 20 01
Chomutov	50 27 13 26	Morava (regm)	49 30 17 00	Topoľany	48 34 18 11
Chop, U.S.S.R.	48 28 22 12	Moravian Gate (pass)	49 35 17 50	Treštie	49 15 15 53
Chudčice	50 34 13 37	Mosonmagyaróvár, Hungary	47 52 17 17	Třebíšov	48 38 21 43
Čierna nad Tisou	48 28 22 06	Moat	50 32 13 38	Trenčín	48 54 18 06
Cieszyn, Poland	49 46 18 36	Mastfice	50 09 14 42	Třinec	49 41 18 39
Ciler	48 19 17 39	Memfisan	48 18 18 58	Třanava	48 22 17 36
Coltovo	49 30 20 23	Nesice	49 03 14 12	Tupá	48 07 18 54
Constana, Romania	44 11 38 39	Nitra	48 19 18 05	Týn nad Vltavou	48 14 14 25
Danube (arm)	45 20 29 40	Nové Město nad Váhom	48 45 17 29	Ústí nad Labem	50 40 14 02
Déřín	50 47 14 13	Nová Zámky	47 59 18 10	Uzhgorod, U.S.S.R.	48 47 22 18
Dolní Žleb	50 50 14 13	Nový Jičín	49 36 18 01	Váh (arm)	47 55 18 01
Dresden, East Germany	51 03 13 45	Nymburk	50 11 15 03	Vajsková	48 49 31
Dukla Pass (pass)	49 25 21 42	Odř (arm)	53 32 14 38	Velká Blatná	49 18 16 13
Dukovany	49 05 16 12	Ohře (arm)	50 32 14 08	Velké Kapulany	49 33 22 05
Elbe (arm)	53 50 19 08	Olomouc	49 35 17 15	Velké Žitove	48 12 19 27
Freistadt, Austria	48 30 14 30	Ondřejov	49 54 14 48	Vienna, Austria	48 12 16 22
Frydek-Místek (commune)	49 40 18 20	Opotín	50 02 15 30	Vitkovice (sec of Ostrava)	49 49 18 15
Furtch im Wald, West Germany	48 18 12 51	Ostava	49 50 18 17	Vitava (arm)	50 26 14 70
Gdynia, Poland	54 20 18 33	Ostrovsko-Karvinická Pánev (regm)	49 50 18 30	Vodňov	49 48 13 17
Győr, Hungary	47 44 17 50	Panaská Ves	50 32 11 33	Vrchbít	50 38 15 39
Gottwaldov	49 13 17 40	Pardubice	50 02 15 24	Vroutky	49 07 18 55
Habrý	49 45 16 29	Petřín (hill)	50 05 14 24	Vysoké př Morave	48 20 13 55
Hamburg, West Germany	53 33 10 00	Plesňany	48 38 17 58	Vysoké Taury (mt)	49 10 20 00
Hauzka	48 49 21 15	Plavský Svatek	48 22 17 00	Vysoké Taury	49 08 20 15
Havířkov Brod	49 37 15 25	Plzeň	49 45 13 22	Waldau, West Germany	49 39 12 30
Hlohovec	48 47 16 46	Podbořov	48 49 19 32	Záblatí	50 34 13 38
Horná Štubňa	50 27 14 22	Poděbrady	50 29 15 08	Záhlí (sec of Prague)	50 01 14 28
Horná Srní	48 49 18 06	Podunajské Budapev	48 08 17 13	Zbračav	50 02 13 09
Hradec Kralove	50 13 15 50	Pograd	49 03 20 18	Zlar nad Hronem	48 35 18 52
Hraditká Mořva	48 36 21 49	Považská Bystřice	49 07 18 27	Zlitochovice	49 02 16 37
Hranec	48 49 18 53	Povří	50 40 14 10	Zlín	49 13 18 44
Hrubanov	47 32 14 12	Prácheň (mt)	50 25 17 15	Zlín Moravec	48 23 18 24
Ipař (arm)	47 40 18 51	Prague	50 05 14 28	Znojmo	48 51 16 03
Itebův	49 13 19 13	Přerov	49 27 17 27	Zobor	48 19 18 58
Jablonica	48 36 17 25	Přibram	49 39 18 09	Zvole	48 35 19 08
Jachymov	50 22 12 55	Převítava	49 42 14 01		
Jaroměř	50 22 15 55	Prostějov	48 46 18 38	SELECTED AIRFIELDS	
Jelšava	48 38 20 14	Průhonice	49 28 17 07	Bechyne	49 19 14 30
Jelčovec	48 24 18 04	Příbram	50 00 14 34	Braslava/Ivanka	48 10 17 13
Jihlava	49 24 15 35	Řeh	50 25 17 15	Česlav/Chetumiec	49 56 15 23
Karlovy Vary	50 13 12 54	Rijeka, Yugoslavia	50 10 14 21	České Budějovice	48 53 16 03
Karviná	48 52 18 33	Rimavská Sobota	48 23 20 02	Dobruška	49 40 13 16
Katowice, Poland	50 10 19 01	Roudnice nad Labem	50 25 14 15	Hradec Kralove	50 15 15 51
Kladno	50 09 14 06	Rudňany	48 53 40 41	Klečany/Vodochoty	50 13 14 24
Klášev	49 24 13 18	Ruzka	48 32 22 09	Milovice	50 14 14 55
Klobouky	49 59 16 52	Safarikov	48 25 20 20	Mimov	50 37 14 55
Kloddko, Poland	50 26 16 39	Saň	48 04 18 28	Moerov	49 45 18 07
Kolín	50 22 15 12	Satalice	50 07 14 35	Names nad Oulavou	49 10 16 07
Komárov	47 46 18 08	Satan (mt)	49 10 20 03	Paňskobřez	50 01 15 46
Kopřivnice	49 36 18 09			Prague/Erasme	50 06 14 16
Kolice	48 42 21 15			Přerov	48 26 17 24
Kralupy nad Vltavou	50 14 14 19			Slatc	48 38 19 08
				Zatec	50 22 13 35







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