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Nº 63

ECONOMIC INTELLIGENCE REPORT

CIVIL DEFENSE IN CZECHOSLOVAKIA

CIA/RR 85
30 November 1956

CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

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(ORR Project 41.1044)

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CIVIL DEFENSE IN CZECHOSLOVAKIA*

Summary

Czechoslovakia is rapidly developing, under Soviet direction, a civil defense system modeled after that of the USSR. The cost of training, protective construction, administration, and supply for civil defense purposes is estimated to have been US $40 million in 1953 and has probably been about the same since then.

Since the winter of 1952-53 a determined effort has been made to achieve widespread civil defense training under the nominal leadership of the National Committees** and such organizations as the Union for Cooperation with the Army (Svaz pro Spolupraci s Armadou -- SVAZARM), the Czechoslovak Red Cross (Ceskoslovensky Cerveny Kriz -- CsCK), and the Czechoslovak Union for Fire Defense. These organizations have trained hundreds of thousands of Czechoslovak citizens in civil defense, first aid, and fire fighting. SVAZARM, with a membership of over 600,000, is responsible for conducting nationwide civil defense instruction. It also organizes and trains civil defense groups in residential areas. Leadership in civil defense and assistance in the recruiting effort for such training has been required of the Communist Party, various governmental bodies, Communist youth organizations, and the trade unions.

Construction for air defense has been carried on simultaneously with training and recruiting. Civil defense construction has included the provision of air-raid shelters in newly erected buildings and in many older buildings and factories, the reconditioning and extension of World War II mass shelters in urban areas, and the construction of new shelters outside cities. Repair of old, static water tanks and the building of new water reservoirs for fire fighting has also taken place. An air-warning system has been provided.

* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 September 1956.
** National Committees are the executive bodies of Czechoslovak government at the province, district, and local levels.

Supplies on hand for civil defense programs include trucks, fire-fighting equipment, medical items, small tools, blackout materials, and gas masks.

Continued construction, organizational drives, recruiting efforts, and modification of training to include atomic-defense information all indicate that the desired level of preparation has not been attained.

The continued stress on preparation for civil defense in Czechoslovakia and in several other countries of the Soviet Bloc during the past 3 years leads to several conclusions:

1. Soviet Bloc military planners have recognized that heavy aerial attack is the most serious military threat to continuing Communist power. This recognition has been shown by the simultaneous pursuit of the civil defense program, the development of nuclear weapons, and the improvement of aerial offensive and defensive capabilities.

2. Civil defense has been conceded to be a matter of national concern. Its preparation has been advanced by means of compulsory training and recruiting and by centralized direction of financing, supply, and construction.

3. Having initiated and publicized the need for civil defense, it would now be embarrassing for the Czechoslovak leaders to lessen considerably or to dispense with these preparations. If they were reduced, it would probably be deemed necessary to justify this action to the public. (Publicity in this case would probably minimize the possibility of nuclear warfare.)

4. Several psychological advantages have probably been gained by developing civil defense activity. These include placing the Communist Party and the government in the role of protectors from possible Western nuclear attack, getting the Czechoslovak people and leaders working together in a common and largely humanitarian effort, and furnishing a directed activity as the outlet for any anxiety Czechoslovaks may feel about nuclear attack.

The present capability of Czechoslovak civil defense to cope with air attack is difficult to evaluate. It apparently should be able to make a creditable showing against intermittent bombing with

high-explosive weapons. It would probably be inadequate to cope with heavy nuclear attack or saturation bombing with conventional weapons unless extensive preparations have been accomplished with complete secrecy.

Some dispersed shelters have been prepared outside Czechoslovak cities, but these appear, at present, to be only for selected personnel. A plan to build more mass shelters for atomic defense has been reported. If such shelters are built outside urban areas, Czechoslovak civil defense capabilities against nuclear attack will be considerably increased during the next few years.

I. Organization.

The USSR assumed the role of leadership in the preparation of air-defense measures of the European Satellites in 1952, when Soviet commissions were sent to the various Satellites to standardize and organize air defense. 1/* The parallels which have developed between Satellite and Soviet civil defense show that Soviet guidance has been a dominant factor. This is particularly true in Czechoslovakia, where Soviet leadership and example have been acknowledged in both civil defense and paramilitary organization. 2/ (For a chart of the organization of civil defense in Czechoslovakia, see Figure 1.**)

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A. Command.

Civil defense in Czechoslovakia is organized under the Ministry of the Interior. 3/ It is probable that there is a corps of civil defense staff officers similar to those in the USSR, 4/ Hungary, 5/ and Bulgaria 6/ and that the national civil defense headquarters forms a separate administration, or directorate, under the Ministry of the Interior. The chief of Czechoslovak civil defense is reported to be a general officer. 7/

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** Following p. 4.

Career civil defense officers in Czechoslovakia probably belong to the National Security Corps (Sbor Narodni Bezpecnosti -- SNB). 8/ SNB deputies for civil defense are assigned at nearly all levels of government -- provinces, districts, 9/ and probably larger cities. (Prague reportedly has a general officer in charge of civil defense. 10/) Members of the SNB are also used as civil defense staff officers in industrial ministries, at the various economic administrative levels, and in large industrial installations. 11/ Inspectors of civil defense are known also to be used in industrial organizations, 12/ probably to supervise the preparations of enterprises having no special staff officer for civil defense.

It is not known whether there are special civil defense officers to direct or monitor protective construction, but it seems highly probable. Career civil defense staff officers are, presumably, specially trained and are apparently well paid. 13/

B. Province and District Offices.

"Directors" of civil defense, usually army reservists, control civil defense at the province and district level. They are usually assisted by an SNB deputy. 14/ In addition to administrative duties, these intermediate civil defense headquarters probably supervise the civil defense schools operated by SVAZARM. 15/ It has also been reported that training is given in so-called provincial civil defense centers. Factory civil defense personnel, particularly, have been reported to attend these courses. 16/

C. Urban Areas.

The nominal head of civil defense at the city level is the president of the Local National Committee, 17/ assisted, in the larger communities, by a civil defense staff officer.

Instructions published about 1949 show that the local commander for air defense had a role in monitoring civil defense preparation.* Civil defense plans drawn up by industrial

* Air defense includes aerial intercept, air-warning equipment, and antiaircraft artillery. Civil defense includes passive measures taken to minimize the effects of attack on civilians, to deal with emergency conditions, and to effect restoration after attack.

Figure 1

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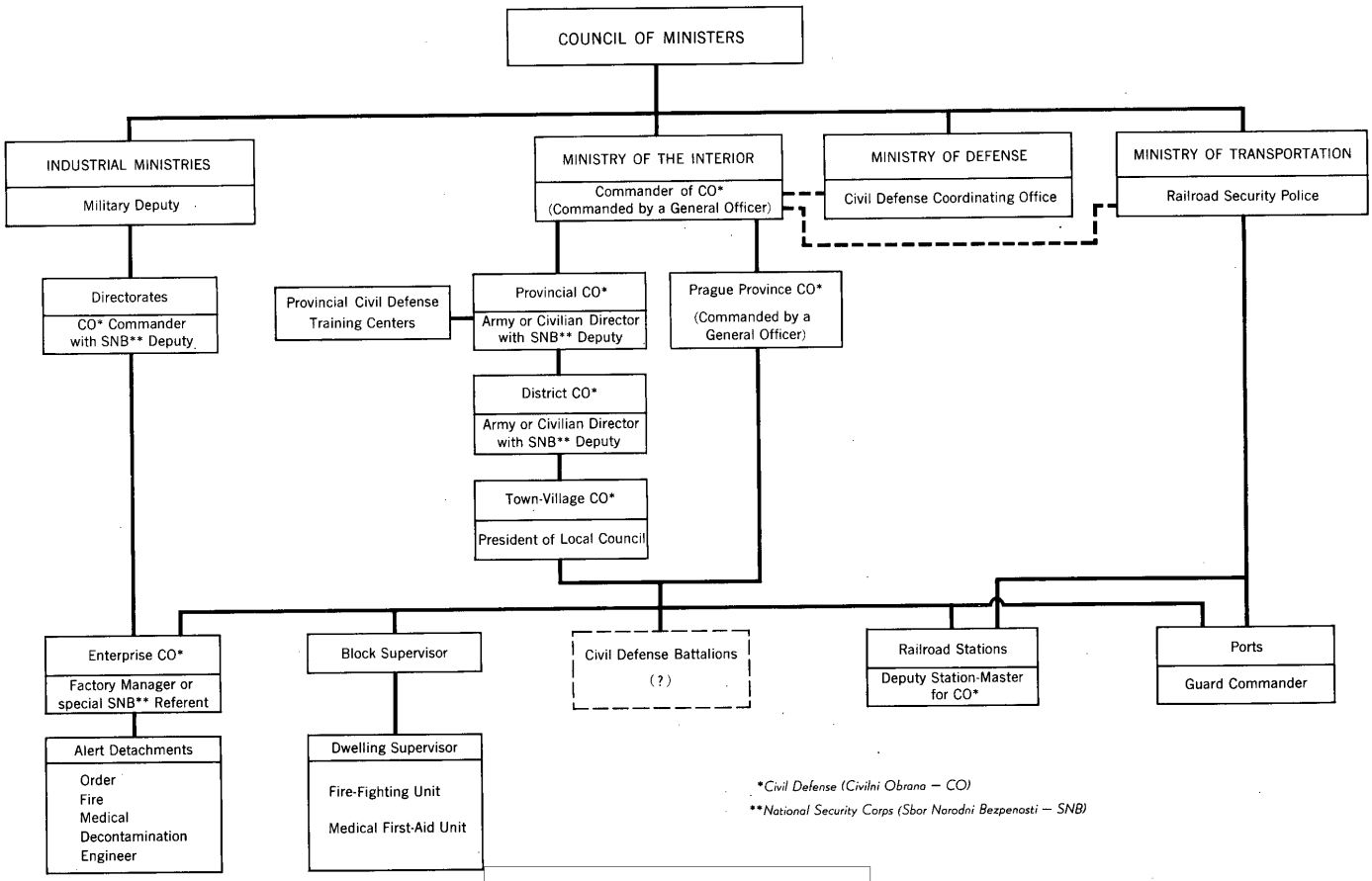
ORGANIZATION OF CIVIL DEFENSE IN CZECHOSLOVAKIA



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plants and office buildings were to be reviewed and approved by him. 18/ The local civil defense commander supervises passive defense and may be fully subordinate to the active air defense commander in an emergency situation, as is the case in the USSR. 19/

The reported preparation and training of civil defense forces in urban areas has so far been limited largely to those at the lowest level -- those in dwelling units; factories; schools; and various economic, social, and cultural institutions. Reports of organization of city or area-wide civil defense forces or exercises have been significantly lacking. If the Czechoslovaks use the Soviet system of city and sector organization, they will have, under the commanders of civil defense, crews or services for preservation of order, fire fighting, medical aid, gas defense, transportation, damage restoration, communications, shelter, and others. In the USSR these services usually are headed by local officials and are performed by existing organizations, agencies, or groups whose peacetime occupation especially fits them for these tasks. For example, the medical civil defense service is headed by the local head of the health service, and the nucleus for his operative force is the local medical installations. Civil defense police and fire-fighting services are headed by the regular police and fire guard commanders and include their police and fire-fighting units. 20/ Necessary auxiliary personnel must be recruited and trained. These are drawn from the public at large, particularly from the Union of Red Cross and Red Crescent Societies in the case of medical personnel 21/ and probably from trainees of the Voluntary Society for Cooperation with the Army, Air Force, and Navy (Dobrovol'noye Obshchestvo Sodeystviya Armii, Aviatsii, i Flotu -- DOSAAF) in the case of transport drivers, communication personnel, and the like.

It is probable that this type of organization has been initiated in Czechoslovak cities. Local administrations were directed in 1953 to carry out plans for establishing a strong civil defense. 22/ A civil defense battalion was established in one city by April 1954, probably under the jurisdiction of the Ministry of the Interior. 23/ [redacted] the inclusion of engineering and chemical personnel [redacted] the battalion was "mobilized." It does not seem probable that this type of unit is kept at war strength with permanent personnel. Part of the personnel may be on full-time duty, however, technical units of civil defense having

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been reported from both Hungary 24/ and East Germany. 25/ Civil defense battalion headquarters have been reported in some cities of the USSR, but available information suggests that they employ locally recruited personnel. 26/ [redacted] 50X1

[redacted] 50X1

Civil defense units of cities will be quasimilitary in character, and auxiliary medical personnel are in organized units and are assigned military rank. 28/

D. Industrial Enterprises.

The nominal directors for civil defense within industrial ministries and the Ministries of Culture, Education, and Justice are the ministers themselves. They have, however, special deputies (military officers) who are subordinate to the national civil defense command and act for them in civil defense matters. There may also be officials concerned with civil defense in various departments of ministries. 29/ At the enterprise level the plant director is the commander of civil defense. The deputy commander, and probably the operative head for organization and training, is reportedly the leader of the factory guard, responsible to the Minister of the Interior. In large plants guarded by military personnel, the deputy is a special SNB "referent" appointed by the Ministry of the Interior. It is possible that these civil defense leaders were designated as commanders of civil defense some time in 1953.

Within the enterprise an alert-detachment is formed, made up of the following units: (1) police unit, to maintain order, organize movement to shelter, safeguard property, and the like; (2) fire-fighting unit, to maintain fire watch and fight fire; (3) medical unit, to administer first aid to the injured; (4) communications and observation unit, to supply telephone, observation, and liaison personnel; (5) engineer unit, to perform rescue work and debris clearance; and (6) chemical unit, to reconnoiter and mark off areas of atomic and chemical contamination and also to supervise decontamination. 31/

It appears that the permanent guard and fire-fighting, medical, and communications personnel present in the enterprise will form the nucleus of these civil defense services. The senior officials of the peacetime services probably will be assigned as chiefs of the police, fire-fighting, and medical services of civil defense.

The strength of the civil defense unit within a given enterprise depends on the size of the enterprise and the number of employees. All employees not included in the alert-detachment are considered to be in reserve and must carry out civil defense duties when so ordered. 32/

E. Transportation.

The Minister of Transportation is the head of civil defense for railroad and river transportation. His deputy for this purpose is a police official who is also in charge of the Railroad Security Police and who is answerable to the Minister of the Interior. In large railroad stations, a railroad police official is in charge of civil defense. 33/

F. Dwellings.

Although widespread training has been noted among urban householders generally, the organization of civil defense in dwelling units apparently has lagged in Czechoslovakia. The civil defense chain of command for dwellings passes from the local civil defense commander through the block supervisor to the dwelling supervisor. 34/ Reports of training and organization lead to the conclusion that small groups (6 to 10 persons) are organized for fire fighting and first aid in dwelling units. 35/

G. Recruiting.

Recruiting for civil defense has been both voluntary and compulsory. Signs encouraging Czechoslovak citizens to join in civil defense activity were reported during 1953-55. 36/ The large amount of participation in civil defense activity, however, makes it obvious that reports of compulsory enlistment 37/ and training 38/ are reliable. Early in 1953 it was compulsory for one member of each family to take the Czechoslovak Red Cross training while others were "drafted" for air-raid protection training. 39/ Compulsory enrollment of students in civil defense training courses was also initiated in 1953. 40/ [redacted] the lower age limit for service is 16 and that the upper may be 60. 41/

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The degree of recruiting efforts combined with the report of an organized civil defense battalion may indicate that city operational units are being organized after early emphasis on the organization and training of civil defense units in economic installations.

II. Union for Cooperation with the Army.

The Union for Cooperation with the Army (Svaz pro Spolupraci s Armadou -- SVAZARM) is the principal organization connected with civil defense training in Czechoslovakia. In contrast to the civil defense command structure, it receives widespread publicity [redacted] SVAZARM is the organizing body for civil defense. 42/ A counterpart of DOSAAF in the USSR, the SVAZARM acknowledges the example and leadership of DOSAAF in civil defense training 43/ and paramilitary activity. 44/ 50X1

A. Background.

The SVAZARM was formed from sport groups* in 1951 and reportedly reorganized during 1952. 45/ Activities during 1951-53 were probably limited to basic military training plus instruction or club work in such fields as small-arms shooting, boating, parachute jumping, and radio training. 46/

During this early period, organizational efforts of SVAZARM were directed toward forming primary organizations in enterprises, factories, offices, and agricultural cooperatives. It was announced in 1953 that the second stage of development would be aimed at establishing primary organizations in schools and educational centers. 47/

Since 1953, SVAZARM has become increasingly involved in civil defense activities. 48/ In August 1953 a conference concerned with the preparation of civil defense was held in Prague. SVAZARM leaders attended this meeting as well as representatives of the National Front, the Trades Union Council, the League of Czechoslovak Youth, and the Czechoslovak Union for Fire Defense. [redacted] 50X1
[redacted] SVAZARM personnel were being used for 50X1
civil defense training and had formed some civil defense units, probably for instructional purposes. 49/ It is possible that general civil defense training for its members and for civil defense units in dwellings, schools, factories, and the like was assigned to SVAZARM at the time of this meeting.

*. Some of these were the Auto Club of the Czechoslovak Republic, the Aero Club of the Czechoslovak Republic, Czechoslovak Radio Amateurs, Water Scouts, and the Club of Czechoslovak Tourists.

B. Mission.

The tasks of SVAZARM include conducting premilitary training for Czechoslovak youth, encouraging members to learn military specialties through training within SVAZARM, giving civil defense training to its members and the general population, and teaching correct political and patriotic attitudes to its membership.

At least until 1953, new members of SVAZARM were required to take basic military training including close order drill, marching, firing of small arms, grenade throwing, theory of fire, map reading, and first aid. 50/ This requirement may have been relaxed for older volunteers since 1953 to increase membership. 51/

All members of SVAZARM are encouraged to acquire military specialties. Military specialties may be acquired through SVAZARM courses in radio, photography, parachute jumping, glider and flight training, dog training, water sports, military engineering, map reading and drawing, mountain climbing, horseback riding, skiing, and driving. 52/

SVAZARM has also been given the task of organizing nationwide civil defense training for its membership and the general public. 53/

Political indoctrination is carried on in SVAZARM, as it is in most Communist organizations, 54/ to implant Communist political views, to explain the need for defense training, and to develop loyalty to the Czechoslovak state and the Communist system.

C. Organization.

Lieutenant General Cenek Hruska, the chairman of the Central Committee of SVAZARM, 55/ is reported to be a member of the General Staff, a Deputy Minister of Defense, and a member of the Central Committee of the Communist Party. 56/ The Central Committee of SVAZARM probably has been superseded as the highest legal body of SVAZARM by the National SVAZARM Conference, which first met in May 1956. 57/ Central Sections of SVAZARM which are attached to the Central Committee include those for motor transportation; dog training; radio; and aviation, with subsidiary sections for aircraft flying, glider training, and parachute training. It is probable that sections also exist for premilitary training and civil defense

inasmuch as these are well-known activities and would logically have central direction. The commanders of Central Sections have been reported to be members of the Central Committee. 58/

Provincial committees of SVAZARM are subordinate to the national headquarters. They have activity committees which correspond to the Central Sections at the national level. 59/ One source has reported that, in addition to the chairman, there are 8 to 11 paid employees at the provincial headquarters. 60/

District committees under the provincial committees are organized along the same lines and are reported to have three fulltime employees -- a chairman (usually a reserve officer), a secretary, and a clerk. 61/

Local organizations of SVAZARM, similarly organized, are subordinate to the district committees. 62/ It is not known whether they have any paid employees.

The basic organizations of SVAZARM are subject to local committees. These organizations are formed in enterprises, offices, factories, schools, and colleges, as well as on collective farms. 63/ Although their size is not known, similar units in the USSR have membership varying in size from three people to several hundred. Basic organizations of SVAZARM elect a committee of 3 to 11 members, depending on the size of the unit. The committee includes at least a chairman, a secretary, and a treasurer. Larger committees may have, in addition, a deputy chairman and a supply officer. 64/ Committee members who do not hold a specific administrative office are made responsible for definite sectors of the basic organization. This basic organization is composed of groups divided by fields of interest, such as radio operating, piloting, parachuting, motoring, and dog training. 65/ There are circles within the basic organization for teaching civil defense and probably also for giving basic military training to new members. 66/

SVAZARM membership is open to both sexes. The minimum age is 14 years. 67/ SVAZARM's strength has apparently increased rapidly since 1951. The growth of membership in SVAZARM in 1951-54 and 1956 is as follows:

Year	Number of Members
1951	60,000 68/
1952	180,000 69/
1953	310,000 70/
1954	500,000 71/
1956	600,000 72/

It is assumed that most of the 600,000 SVAZARM members have had basic military training. 73/ They constitute, therefore, an auxiliary of impressive size for the armed forces of Czechoslovakia.

D. Financing and Supply.

Financing of SVAZARM is accomplished partly through registration fees and partly through annual dues. Each of these payments is reported to amount to 20 koruny (US $0.60*). 74/ It is obvious that such a payment is not enough to pay for the various activities of the organization and to provide the sizable sums necessary for equipment, training, quarters, and the salaries of paid workers. It has been reported that additional funds are made available by the Ministry of Defense. 75/

The Army reportedly supplies SVAZARM members with one uniform, including beret, shirt and tie, leggings, and a belt. Issuance of these, however, has not been extensively reported. The Army also supplies SVAZARM units with weapons, ammunition, training aids, signal-corps material, airplanes, parachutes, and training literature. 76/ Headquarters buildings, training areas in enterprises, and areas for field training are made available to SVAZARM, but financial means for their procurement are unknown.

E. Support and Direction.

SVAZARM is reportedly a voluntary organization. 77/ Considerable pressure for recruiting is exercised, however, by the Communist Party, 78/ the League of Czechoslovak Youth, and the labor unions.

* An exchange rate of US $0.03 per koruna is used throughout this report.

The Communist Party and the government also furnish direction to SVAZARM. The keynoted SVAZARM activities for 1956 (civil defense and motor training 79/) are probably the result of defense directives adopted by the 1954 Party Congress. 80/ They were amplified at a 1955 SVAZARM conference, which was attended by representatives from the Central Committee of the Communist Party, the Ministry of National Defense, the Premier's Office, the National Front Central Committee, and the Central Committee of the League of Czechoslovak Youth. 81/

III. Security, Plans, and Training.

A. Security.

There is little doubt that many aspects of civil defense are subject to security regulations in Czechoslovakia, as they are in the USSR. 82/ [redacted] 50X1
[redacted] Instructions 50X1
for urban areas, he indicated, are passed through the National Committees at various levels until they reach the housing supervisors. Industrial installations receive instructions through ministerial channels. 83/ A 1949 instructional manual also indicated that there is some degree of secrecy connected with civil defense. Civil defense training, according to these instructions, was to be carried on within a factory or office, and it was specified that drills should be signaled by an alarm not audible outside the enterprise. 84/ The latest evidence of the control of civil defense information occurred in a published article on civil defense training which stated specifically that trainees were to be lectured only on topics they "should know." 85/

In view of the evident application of security restrictions, it appears dangerous to assume that plans and activities of civil defense are limited to measures which are publicized or are common knowledge. It can be expected that civil defense plans, construction, stockpiling, and operations will be shielded as far as practicable from public and foreign curiosity.

B. National Planning.

Because of security restrictions, it is unlikely that high-level plans for civil defense preparation in Czechoslovakia will become available. It is probable that they are prepared in the Ministry of the Interior and coordinated with, or directed by, staff

bodies of the Ministry of National Defense and the Communist Party as well as by Soviet advisers. Central planning has been reflected in many activities. These include the initiation of widespread civil defense training, the preparation of reserve fire-fighting material, the renovation and construction of air-raid shelters, and the preparation of warning systems, static water tanks, and black-outs. 86/ Such measures, involving considerable expenditure of funds, must be the result of direction and financial allocations from the central government rather than the result of local initiative and voluntary financing.

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some of the provisions of a national emergency plan known as "Plan S." These included the following: (1) alerting of the interior guard and militia, (2) forming an auxiliary corps of the security services, (3) issuing gas masks to the population, (4) holding air-raid defense exercises throughout the country, and (5) making harvest duties compulsory for all persons of 16 to 60 years of age. 87/

The implementation of this elementary national emergency plan, although reportedly ordered for July 1953, was apparently never accomplished. It is noteworthy, however, that an auxiliary militia has been recruited, civil defense training advanced, and some gas masks issued since "Plan S" was reported.

C. Civil Defense Plans in Enterprises.

Civil defense organizations in industrial plants, office buildings, department stores, banks, schools, hotels, hospitals, and the like are referred to as "self-help" groups. A Czechoslovak manual for the preparation of civil defense in such installations was published in 1949. The preparation and submission of a model plan for the civil defense of an enterprise was included in the discussion. 88/ This plan describes the installation and its situation in relationship to the city, access roads, and neighboring property. The factory management is described, and addresses of prominent individuals in the enterprise are given, including that of the civil defense commander. A description of the installation with an accompanying sketch locates and names all buildings and describes their construction in detail. Machinery, power sources, and storage areas are located. The air-raid shelter is next described in some detail. A description of the communications

installation of the plant is given, followed by personnel lists categorized by sex and civil defense assignments. Blackout precautions are set forth and a complete listing of fire-fighting equipment and measures is given. Decontamination, engineering, and medical equipment are also listed. One item tabulates administrative objects to be stored in the air-raid shelter. It includes material pertaining to the bookkeeping of the current year, a portable safe, writing material, typewriters, and adding machines. Accompanying the text of the plan are the following enclosures:

1. A situation map of the establishment and its immediate surroundings.

2. A detailed plan locating all buildings and indicating the specific purpose of each room; vulnerable points during air attack; and the locations of hydrants, water tanks, sewers, and fire-fighting equipment and materials. In connection with the plan of the building, there are also plans of the electric, gas, and hot-water lines; a plan of the steampipe lines; and a plan showing the location of the switchboard.

3. A plan of the air-raid shelter and a list of equipment.

4. Lists of personnel of both the alert-detachments and the reserve detachments of civil defense with an exact classification of every individual.

5. A list of fire-fighting, sanitation (decontamination), medical, engineering, and other equipment and apparatus. 89/

These instructions may have been modified since publication in 1949, but more recent reports of organization and training reflect no basic operational change in the civil defense of enterprises. Such a plan probably is based on directives from local civil defense headquarters and, in the case of enterprises subordinate to a federal ministry, from the civil defense office of the ministry concerned.

D. Instructions for Alerts.

1. Special Preparations.

In addition to the normal preparations which might follow a declaration of emergency, such as issuing gas masks and civil defense equipment, eliminating fire hazards, and instituting blackouts, many establishments have special instructions because of their peculiar functions or characteristics. Instructions issued approximately in 1949 enumerated certain measures. 90/

a. Amusement Places.

In wartime, audiences or visitors in amusement places may be restricted in number by the availability of adequate shelter in or near the premises. At the start of each performance, the audience is to be instructed on behavior in the event of an air-raid alarm.

b. Museums, Libraries, and Archives.

Museums, libraries, and archives must prepare and remove particularly valuable works and papers to secure places outside inhabited areas.

c. Department Stores.

Inventories in department stores, particularly inflammable stocks, must be kept at low levels. Shelters are to be prepared for customers.

d. Hospitals.

Hospitals should prepare shelters with emergency operating rooms, emergency lighting, and reserves of drugs and other materials. Patients who cannot be moved to a shelter are to be kept on the ground floor and placed in hallways in the event of alarm.

e. Food Processing Establishments.

Measures are to be taken in food processing establishments to maintain a safe water supply and prevent contamination of

food and equipment. The chemical team is to be specially trained for decontamination of foodstuffs.

f. Circuses and Zoos.

The exhibition of wild animals in circuses and zoos is forbidden. Control measures are to include the training of personnel to destroy animals if necessary.

g. Gasoline Stations.

Stocks of fuel in gasoline stations are to be restricted to 1 week's supply. 91/

h. Industrial Furnaces.

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workers employed at industrial furnaces are given instruction in putting out fires quickly. 92/

2. Antiaircraft Alert.

Antiaircraft alert occurs when there is danger of air attack and is said to correspond to a condition of "grave danger to the state." Such a condition is said to be "announced" rather than transmitted over an alarm system. 93/ (In the USSR the analogous period is described as a "state of emergency," and decisions regarding this state are to be published in local newspapers and on wall posters and announced over wired radio. 94/) For the general public, the noticeable effects would be the instituting of camouflage and blackout. Gas masks might be issued. After the alert announcement, all persons would be warned to follow the orders and directives pertaining to the air alarm. 95/

3. Air-Raid Alarm.

The air-raid alarm is usually sounded by several fluctuating 1-minute blasts of air-defense sirens. 96/ When the alarm is sounded, persons with civil defense assignments take up their posts, and others go to shelter after securing utilities and machinery. Persons are forbidden to leave shelters without express permission of the civil defense commander. (Articles published as late as March 1956 in the USSR indicate that the general population

is still instructed to use local shelters even under conditions of atomic attack. 97/)

4. Gas Alarm.

It is probable that the warning for poison gas will be the standard metal-on-metal signal supplemented by radio, telephone, and word of mouth. (Current Soviet instructions require that the gas alarm be given to announce the presence of radioactive substances.) An atomic explosion in the vicinity is automatically a gas alarm. In shelters, air-filtering mechanisms are to be used, and people outside shelters are to put on gas masks and protective clothing. 98/

5. Postalarm Period.

Czechoslovak instructions emphasize that workers must return to normal duties after the air-alarm period is terminated. Shelters are to be returned to good condition, and the civil defense commanders are to report on what has taken place during the alarm period. The preservation of property and the repair of damage are the responsibility of every worker. 99/ (In the USSR, similar instructions are in effect.) In the case of chemical or radiological alarm, however, people are directed not to leave protective shelters until they receive special instructions from civil defense authorities. 100/

E. Training.

Czechoslovakia has made a determined effort to propagate civil defense training. It is quite possible that one-third of the population in urban-industrial areas has received some training in first aid, fire defense, or air defense.

1. Instructors.

It has already been stated that Czechoslovakia acknowledges the leadership of the USSR in civil defense training. 101/ The lack of an effective paramilitary society already engaged in civil defense instruction, however, forced the Czechoslovaks to depend on the Communist Party to initiate serious civil defense training in 1953. Pursuant to an order which may have been Soviet inspired, training of instructors and selected segments of the population

began by January 1953. Reliable members of the Communist Party took special civil defense training. 102/ [redacted] instructor training for 130,000 reliable Communists was carried on for the first 3 months of 1953 103/ by military and civilian experts (doctors, army officers, firemen, and other specialists). 104/ 50X1

A school for the training of civil defense instructors was operating at a SVAZARM secretariat by the summer of 1954. 105/ It is probable that SVAZARM schools for civil defense instructors are now fairly common, inasmuch as SVAZARM itself has been made responsible for the civil defense training of the general public as well as its own members. 106/ It is believed that these schools are for the training of civil defense instructors and heads of self-defense groups but that the civil defense officials within the Ministry of the Interior are trained in a special course, as yet unreported, similar to one reported in Hungary. 107/ (The Hungarian course is reported to include instruction on civil defense planning, air defense planning for urban construction, camouflage, and the "technical services" of air defense.)

2. Training in Enterprises.

Civil defense in Czechoslovakia was organized first in major economic enterprises. Training of self-defense groups in factories was the subject of instructions in 1949 but was not well under way until the closing months of 1952. During 1953, compulsory training of the various civil defense groups was effected in factories and railroad installations. 108/ (Leaders of these groups were reportedly trained in special 40-hour courses, staying after work on weekdays but being excused from work on Saturdays. 109/) Team training was effected under the supervision of a factory civil defense "referent." 110/ Men were trained by specialists in the evacuation of the wounded, protection of public property, construction of emergency shelters, fire fighting, warden duties, and traffic direction. Women were particularly in demand for first-aid training and duties. 111/ Women and men exempt from military service were enrolled into civil defense teams.

Civil defense training in enterprises continued during 1954. [redacted] one-third of the population was involved during that year. 112/ In 1955, training continued under the general leadership of SVAZARM and was announced to include instruction in atomic defense. In 1956 it was announced that a civil defense goal was the training of 50 percent of enterprise workers. 113/ 50X1

3. General Public.

In March 1955 it was stated that all SVAZARM members should become holders of the Ready for Civil Defense (Pripraven k Civilni Obrane -- PCO) badge. 114/ This was probably preparatory to implementing the decision to give to the general public civil defense instruction including defense measures to be used against atomic attack. 115/

Civil defense training for the general public which started about 1953 now involves 20 hours of instruction. (In the USSR, similar training lasts 21 hours. 116/) There are the following four parts in such training: organizational familiarization with home and public civil defense; training in chemical defense; first-aid training; and fire-fighting instruction, which includes training in rescue methods, familiarization with fire-fighting equipment, and training in fire-fighting technique. 117/ It is not known how many people have completed these courses. A Czech newspaper claimed that 100,000 PCO badges had been awarded in Slovakia in July 1955. 118/ If this proportion were applicable to the remainder of the country, over 350,000 PCO badges may have been awarded in Czechoslovakia in the first half of 1955. SVAZARM is also now engaged in recruiting and training for self-defense groups -- that is, public civil defense units. A new award, PCO grade II, has been authorized for persons having both "general" and "specific" knowledge of civil defense. In 1955 the course in basic civil defense was waived for members of organized self-help groups in order to allow them to take specific courses in emergency specialties. 119/ Public training for preparation of auxiliary fire-fighting* and first-aid personnel was also carried on.

4. Drills.

Civil defense drills were held sporadically in schools, institutes, and factories until 1953. 120/ Instructions probably required that they be held twice a year. 121/ Weekly drills were reported in some enterprises during 1954-55, 122/ but [redacted] probably refer to training programs and courses rather than to drills. 123/ City or area civil defense drills are unreported.

50X1

* See pp. 29-30, below.

IV. Construction of Urban Air-Raid Shelters.

Significant and costly preparations for civil defense are reflected in [redacted] shelter construction in and near many urban centers of Czechoslovakia. Since 1949 the apparent aims have been (1) to provide shelters in or near government, military, and Communist Party installations and offices; (2) to equip industrial installations and railroad and port facilities with emergency shelter; (3) to provide some large shelters in major cities by renovating, improving, and extending World War II shelters; and (4) to include the construction of the cellar type of air-raid shelter in new government buildings, apartment blocks, and other public buildings. 50X1

Instructions to build air-raid shelters, particularly in governmental, trade, and manufacturing installations, were published before 1950. A Czechoslovak manual of that period states: "In planning new constructions -- residential, industrial, or others -- provisions must be made for the installation of an air-raid shelter." In existing buildings, shelters will be installed "if the building is structurally and technically adequate." Such a shelter, according to the manual, should offer protection from splinters of aerial bombs and other projectiles, blast effect, chemical-warfare substances, atomic bombs, and fires. (From the type of construction described, it is probable that "atomic" bombs in this context referred to atomic weapons of the type used against Japan in World War II as distinguished from thermonuclear or hydrogen bombs.)

It is possible that extensive implementation of the shelter building program did not start until 1951. [redacted] 50X1
50X1

A. Governmental Shelters.

[redacted] 50X1

[redacted] underground construction is assumed to be 50X1
for the protection of Party and government leaders if it is [redacted] 50X1
[redacted] rumored to be for this purpose or if it is located near governmental offices. 50X1

Repair work on underground shelters built during World War II has been carried on since 1952. This work was probably undertaken to protect officials of the secret police headquarters, officials of the Communist Party, and leaders of the government. It was rumored that shelters with the latest type of filters and radio transmitters were being built in the capital of every province. 124/ An army directive of 1951 required that World War II air-raid shelters, presumably in military headquarters and camps, be renovated. 125/

Two methods of building governmental shelters [redacted] 50X1
[redacted] the excavation of tunnel and gallery types of shelters in 50X1
hills and the construction of cellar shelters under government office buildings. A good example of the cellar shelter is the basement under the Ministry of the Interior in Prague which [redacted] 50X1
extend two stories underground. 126/ Larger air-raid shelters in Prague are [redacted] connected to the Ministry of Foreign 50X1
Affairs, 127/ the General Staff Building, 128/ the building housing the Ministerial Council, 129/ and other ministries. 130/ Large underground structures, rumored to be air-raid shelters, are [redacted] 50X1
under the Letna 131/ and Petrin Hills.

Tunnel or bunker systems [redacted] for or near governmental installations in Brno, 132/ Karlovy Vary, 133/ Ostrava, 134/ 50X1
Prerov, 135/ and Pardubice. 136/ Military installations [redacted] 50X1
[redacted] have renovated 137/ and built new shelters since 1952. 138/ 50X1

There is no reason to doubt [redacted] that preparation of 50X1
shelters in governmental and military installations was ordered in 1951 or 1952. It is possible that countrywide preparation of these has been substantially accomplished, in view of [redacted] construc- 50X1
tion carried on in various localities. Some shelters [redacted] 50X1
[redacted] contain standby generators 139/ and switchboard rooms. 140/ 50X1
A shelter for "high chieftains" in Prerov will contain radio equipment, 141/ and one in Pardubice will be used to store vital military records. 142/ [redacted] 50X1
[redacted] plans for an underground structure which 50X1
was "for the use of the commander." [redacted] this title re- 50X1
ferred to the civil defense commander. Unfortunately, [redacted] no 50X1
construction details other than the floor plan of the shelter. 143/
(For a sketch of the floor plan of this air-raid shelter, see
Figure 2.*) [redacted] 50X1

* Following p. 22.

B. Industrial Shelters.

The building of air-raid shelters in industrial and transport installations [redacted] since 1952. New construction as well as repair of wartime installations has taken place. Principal designs [redacted] have been of the basement type and the hillside-tunnel type. 50X1 50X1

[redacted] 50X1

Designed in 1952, these shelters were reportedly ordered constructed in all Czechoslovak plants, with priority given to defense plants during 1953. The most common design was a Class II shelter similar to the "category 2" shelter of the USSR. Both are supposed to withstand collapse of overlying building structures. [redacted] 50X1 [redacted] secret Class I shelters which were planned for some defense plants, and which were able to withstand a "direct hit," presumably of high-explosive bombs. [redacted] a third type of shelter, which used reinforced concrete tubes 2 meters in diameter and 12 meters in length, with benches along both sides. These shelters were to be built 1 meter below ground level, in older plants. Two of the tubes, installed at right angles to each other, were to accommodate 100 people. 50X1 50X1

[redacted] 50X1

[redacted] (For sketches [redacted] of a Czechoslovak Class II air-raid shelter, see Figures 3 and 4.*) They were divided into rooms 3 to 4 meters wide and 4 to 6 meters long. Each room, as designed, contained either from 35 to 50 seats or beds for up to 25 persons. A maximum protrusion of 80 centimeters (cm) above ground level was permitted. The ceiling was to consist of at least 25 cm of concrete with 20-millimeter (mm) reinforcement rods bent and anchored into the walls to a depth of 1 meter. Exterior walls were to be 75 cm thick if constructed of brick or 60 cm if made of concrete. Interior partitions were to be 45 or 40 cm thick if constructed of the same materials. Floors were constructed of concrete or tile depending on sanitary requirements. 144/ 50X1 50X1

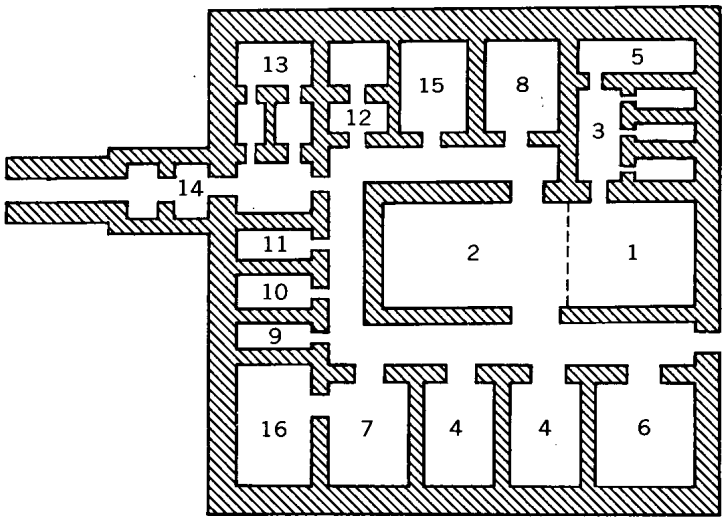
Protective construction has also been initiated for transportation facilities. In 1954, shelters were under construction in the Bratislava river-port area, on the Danube River. In 1955, shelters were to be built in ports on the Elbe River. 145/

* Following p. 22.

Figure 2

50X1

SKETCH OF THE FLOOR PLAN OF A CZECHOSLOVAK SPECIAL AIR-RAID SHELTER



1. Commander's work room
2. Operations room
3. Interconnecting chamber
4. Telephone rooms with switchboard
5. Radio room
6. Generator power room
7. Testing room
8. Storage room
9. Storage room
10. Storage room
11. Refreshment room
12. Wash room and toilet
13. Sanitation room
14. Antigas chamber
15. Filter-ventilation room
16. Boiler room

25645.2 11-56

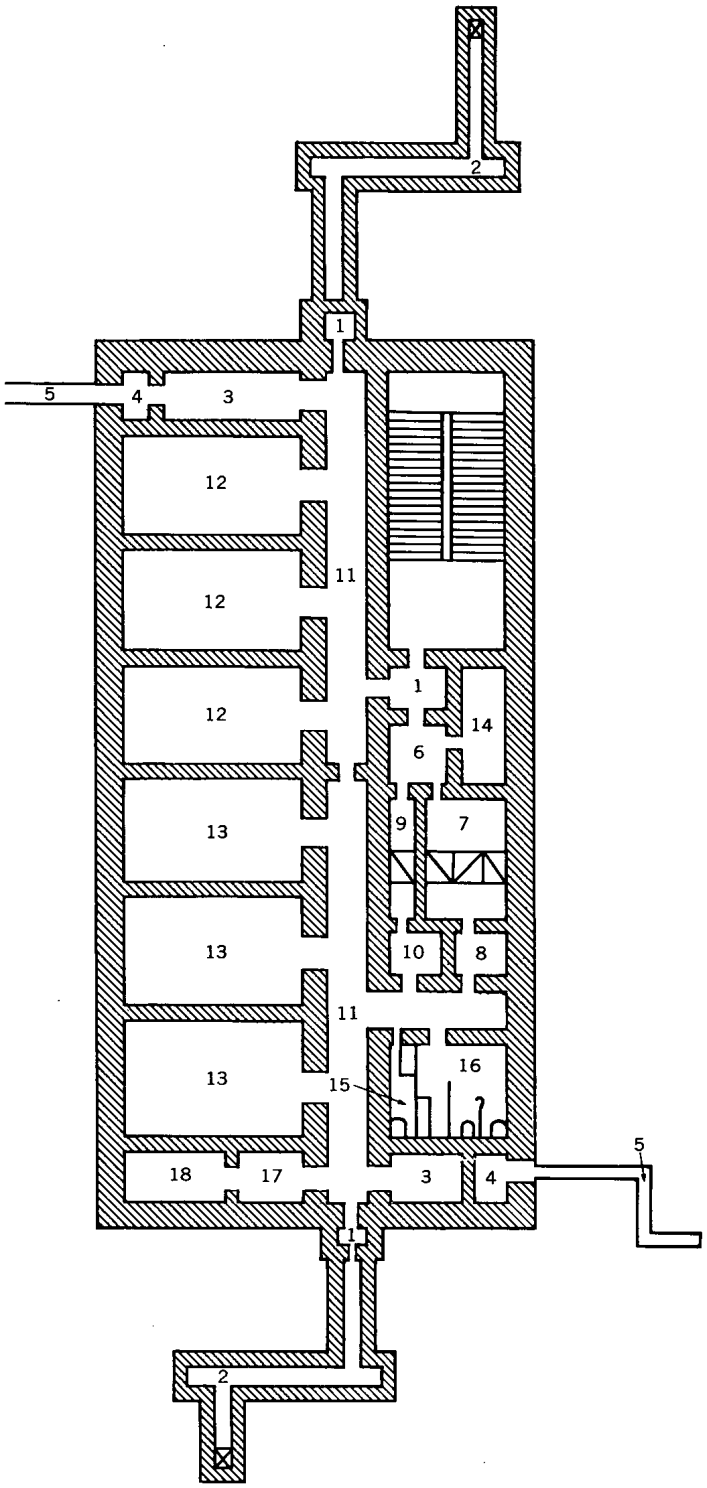
50X1

50X1

Figure 3

SKETCH OF THE FLOOR PLAN OF A CZECHOSLOVAK CLASS II AIR-RAID SHELTER

1. Antigas chamber: air-tight; two specially constructed steel doors 80 x 180 centimeters opened in opposite directions. Inner door opened toward the inside of the shelter; outer door opened toward outside exit.
2. Emergency exit passage: the length had to be proportional to height of building; two such exits were required for shelters which accommodated 250 people. Exit passages were constructed in zig-zag or right angle patterns to minimize and decrease the concussion and sound of exploding bombs.
3. Air-supply and purification room: purified air was supplied to the outer parts of the shelter from this room and was electrically heated in winter. Other heating methods were used when electricity was not available.
4. Air-filter ventilation room: contained necessary apparatus for purifying air in the event of a gas attack. Two such rooms were required for shelters accommodating 250 persons.
5. Air-intake tube: for the air filter ventilation room. These tube lengths were proportional to the height of the building in which the shelter was constructed. Two such tubes were required for shelters accommodating 250 persons.
6. First-aid room: for gas attack victims and others.
7. Locker and shower room.
8. Men's locker room: for changing clothing after being exposed to gas.
9. Women's locker room.
10. Storage room: for women's clothing.
11. Hallway: can be equipped with seats spaced at minimum interval of 95 centimeters.
12. Air-Raid shelter inner cell: usually equipped to accommodate 35 to 50 persons; seats 45 x 45 centimeters, with 75 centimeter spaces between rows. The aisle was usually 95 centimeters in width.
13. Air-Raid shelter inner cell: equipped with double-decker steel beds, 50 x 180 centimeters, spaced from 75 to 95 centimeters.
14. Boiler room: for hot water; must be capable of furnishing hot shower water at a constant flow for at least 2 hours.
15. Toilet.
16. Toilet.
17. Guard room and storage: for first-aid equipment.
18. Tool storage room: for such items as shovels and picks, in the event of complete collapse of the shelter.



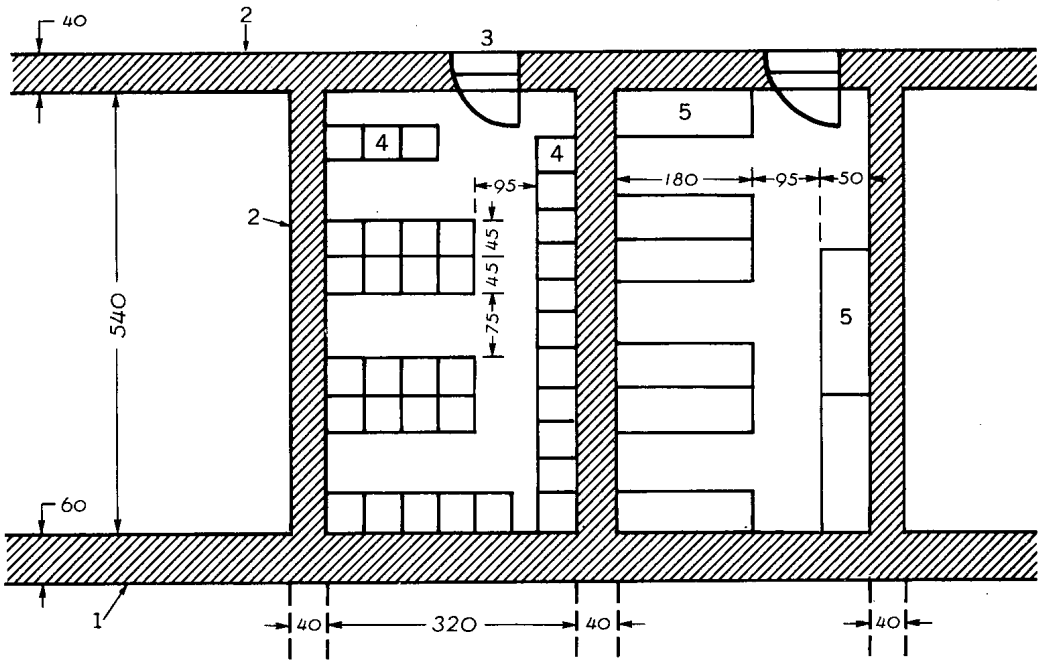
25645.3 11-56

50X1

50X1

Figure 4

SKETCH OF AN INNER CELL OF A CZECHOSLOVAK CLASS II AIR-RAID SHELTER



All dimensions are in centimeters.

1. Outside wall: concrete or brick
2. Inside walls: concrete or brick
3. Door: usually wooden
4. Seats: usually wooden, either benches or individual chairs
5. Beds: double-decker, steel, 180 x 55 centimeters

25645.4 11-56

50X1

Underground shelters for railroad operations in an emergency are said to be under construction at all important stations on main lines. 146/

C. Central Shelters in Urban Areas.

In several Czechoslovak cities, large World War II shelters still exist. Their renovation and extension, as well as the initiation of new underground construction, have progressed during 1950-55. It is difficult to discern whether these shelters are for the protection of selected segments of the population or whether there is an actual concerted effort to provide most urban residents with deep-level protection against possible air attack. Although there may be bonus capacity in some large World War II shelters beyond that needed to protect the bureaucracy, the new construction probably has not been deliberately planned to provide deep-level shelter for all the urban population.

Several large underground installations have been reported in Prague. They include a vehicular tunnel with doors reportedly leading to air-raid shelters near the Ministry of the Interior, 147/ a possible air-raid shelter near Hradcany Castle, 148/ a reported shelter in Kralovske Vinohrady, 149/ and a shelter for the Prague main railroad station. 150/ [redacted] 50X1
[redacted] 50X1
[redacted] (For a sketch [redacted] of the air-raid shelter at the main railroad station in Prague, see Figure 5.*) The excavation is under a small hill and has a minimum depth of 4 meters. Gallery height is given as 2.2 meters and width as 5.5 meters. 151/ If [redacted] substantially correct, the capacity of this shelter would be over 6,000 persons (3 cubic meters per person). Shelters at railroad stations have also been built in smaller cities. 152/ 50X1 50X1

Underground bunkers have been reported in Bratislava with access tunnels leading from a vehicular tunnel. 153/ [redacted] 50X1
[redacted] 50X1

There is substantial documentation of underground construction in the city of Brno. The principal sites are under the Petrov and Spilbrek Hills. Some shelters were located there during World War II, 155/ but additional construction was under way between 1950

* Following p. 24.

and 1955. 156/ [redacted] 4 structures, 157/ and the length of construction activity indicates that they are of considerable size. (For a photograph of the entrance to a reported air-raid shelter near the railroad station in Brno, see Figure 6.* 158/) 50X1

Two large shelters located in Liberec are stated to have been constructed during World War II but reconstructed in 1952-54. 159/ [redacted] the galleries are cut in sandstone and are cemented only where water seepage occurs. Ventilation shafts and electric and telephone lines were noted. 160/ (For a sketch [redacted] of an air-raid shelter in Liberec, see Figure 7.*) 50X1 50X1 50X1

[redacted] 50X1

[redacted] Detached shelter construction has been reported also, but in most cases unconfirmed, in Karlovy Vary, 162/ Nachod, 163/ Gottwaldov, 164/ Kladno, 165/ Beroun, 166/ Vitkovice, 167/ Olomouc, 168/ and Ostrava. 169/ [redacted] a considerable and presumably a costly program of construction during the past several years. 50X1 50X1 50X1

D. Dwelling Units.

Dwelling units, particularly apartment blocks built by the government, also have been considered in the building program for shelters. Since 1949 there have been indications that plans for new apartment construction included air-raid shelters. [redacted] 50X1 50X1

[redacted] the inclusion of air-raid shelters in apartment blocks has been attributed to a governmental decree. 170/ [redacted] the inclusion of rooms for ventilating apparatus within basement shelters. 171/ (For sketches of a floor plan and a ventilating system of Soviet apartment-house air-raid shelters, see Figure 8.* For sketches of Soviet gas filters for air-raid shelters, see Figure 9.*) 50X1 50X1 50X1 50X1

Because most of this activity occurred after the Communist rise to power in 1948, it is probable that shelters in Czechoslovak government-built housing are similar to those built in the USSR in the same period.

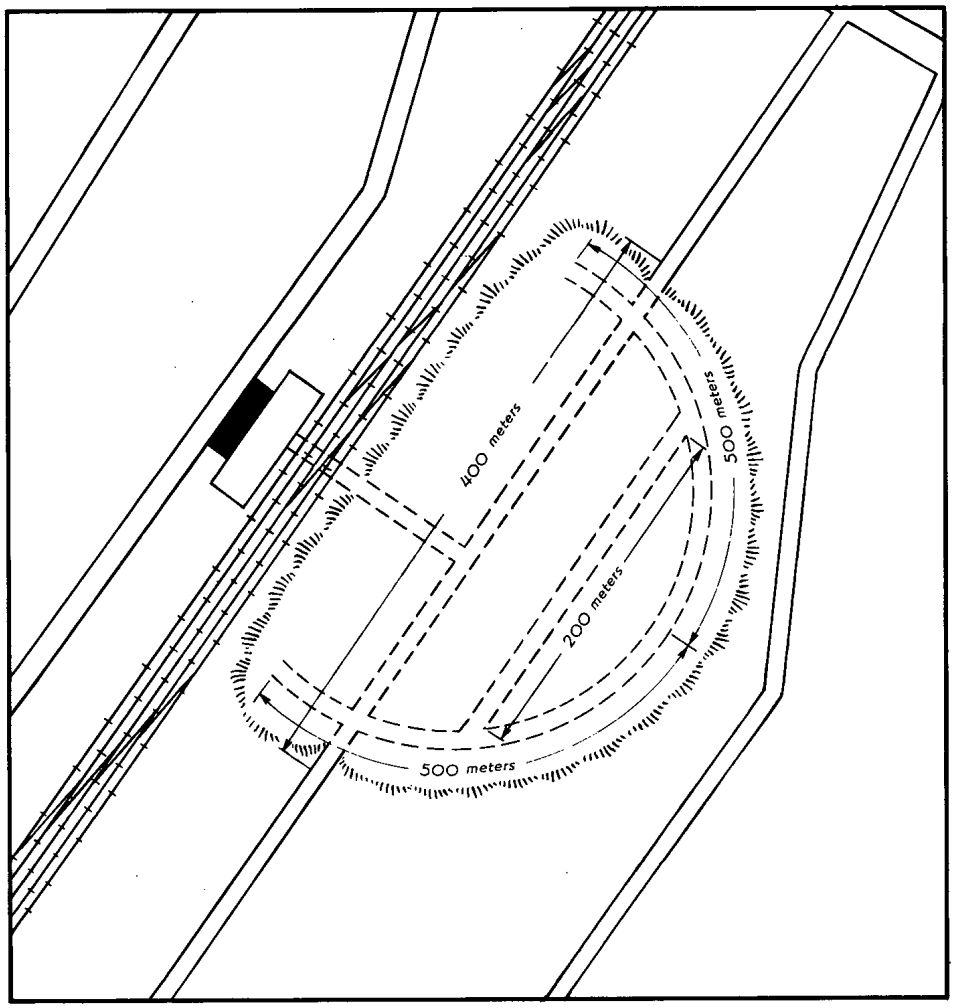
* Following p. 24.

[redacted]

Figure 5

50X1

SKETCH OF THE AIR-RAID SHELTER AT THE MAIN RAILROAD STATION IN PRAGUE, CZECHOSLOVAKIA



[redacted]

50X1

25645.5 11-56

50X1

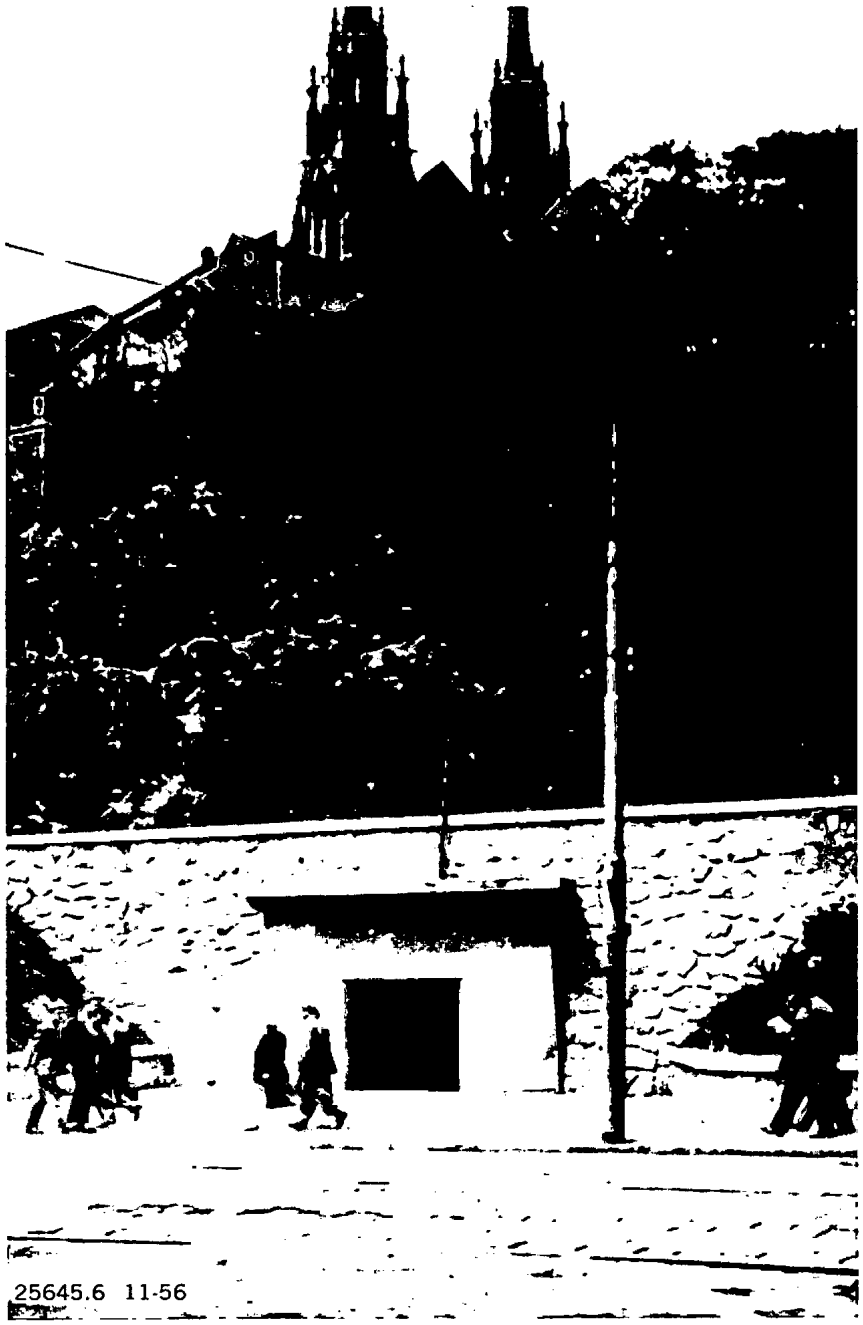


Figure 6. Entrance to a reported Air-Raid Shelter in Brno, Czechoslovakia

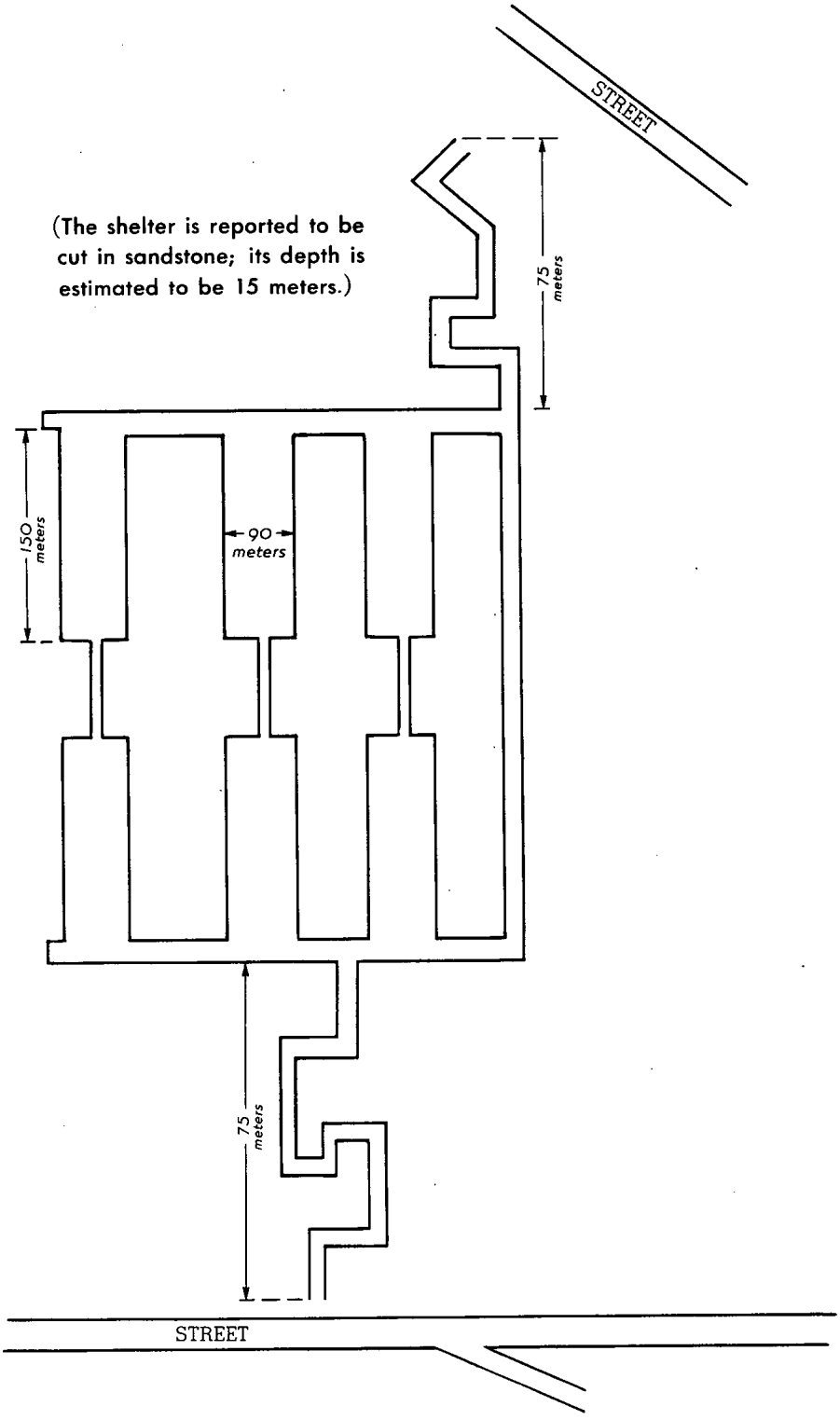
50X1

[redacted]

Figure 7

50X1

SKETCH OF THE FLOOR PLAN OF AN AIR-RAID SHELTER IN LIBEREC, CZECHOSLOVAKIA



[redacted]

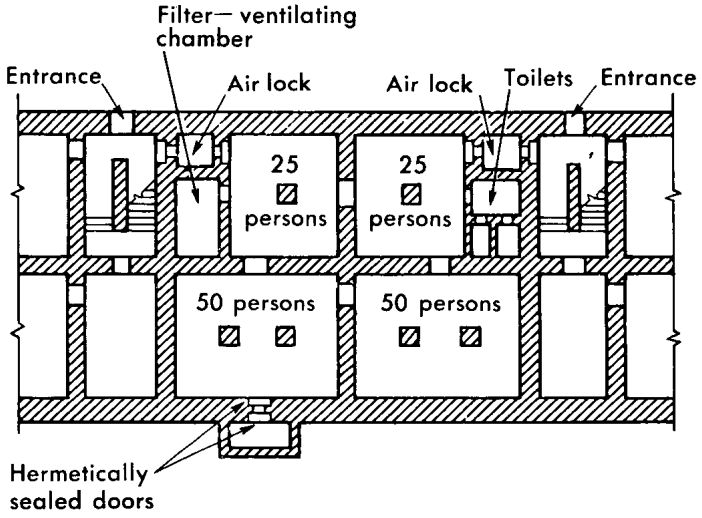
50X1

25645.7 11-56

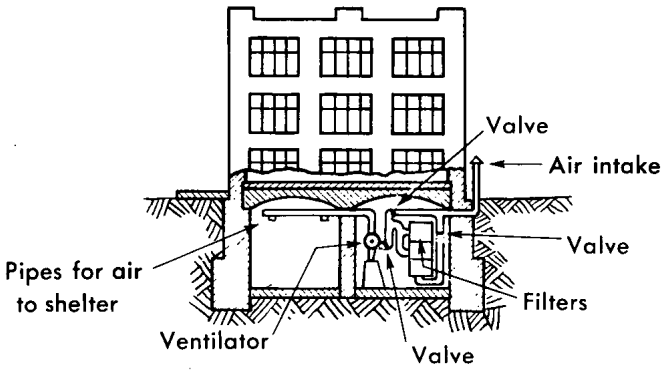
Figure 8

50X1

SKETCHES OF APARTMENT-HOUSE AIR-RAID SHELTERS IN THE USSR



FLOOR PLAN



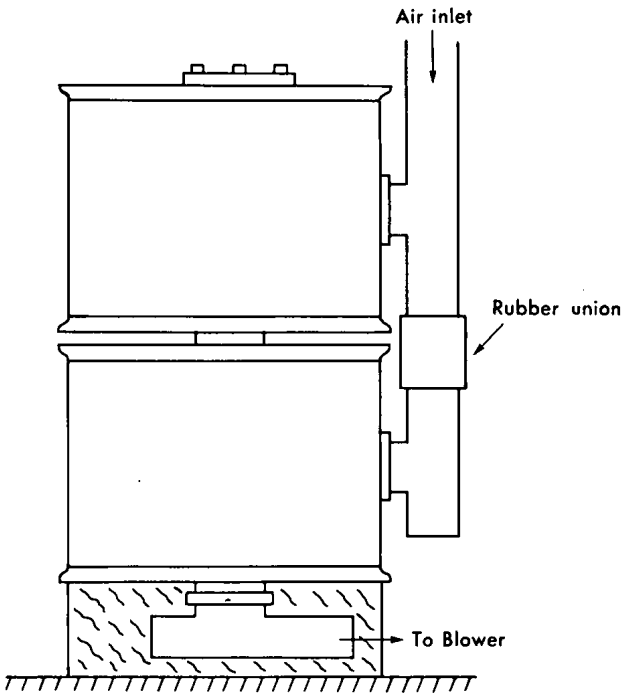
VENTILATING SYSTEM

25645.8 11-56

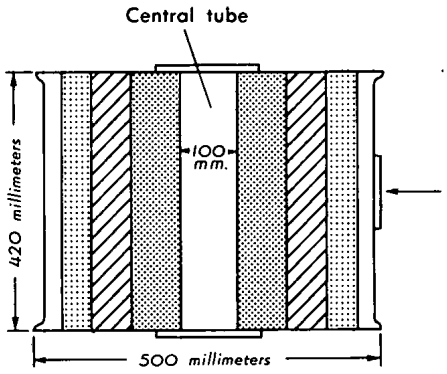
50X1

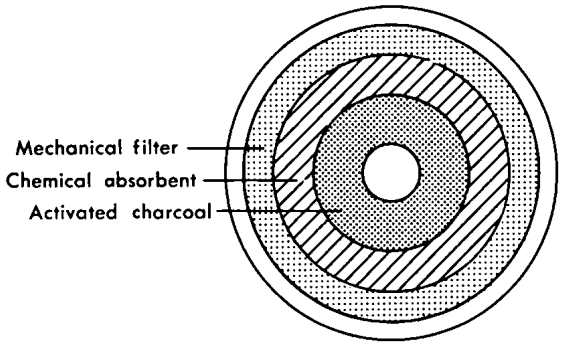
SKETCHES OF SOVIET GAS FILTERS FOR AIR-RAID SHELTERS

Figure 9



FILTER-SORBENT TYPE FPU-100





SCHEMATIC CONSTRUCTION OF TYPE FPU-350

25645.9 11-56

The provision of shelters in new housing has been supplemented by preparation of shelters in older housing. In 1951, houseowners were required to submit plans of the basement or cellar of every house, giving its shape, size, and construction details. 172/ The cleaning of old air-raid shelters and the reinforcement of existing cellars in living quarters for use as air-raid shelters have been reported since 1953. 173/ A Czechoslovak press article of December 1955 stated that shelters were being built in cellars for the protection of civilians against gas attack. 174/

V. Medical Civil Defense.

A. Medical Resources.

The numbers of Czechoslovak medical personnel and available hospital beds have increased since World War II. There are, however, still shortages of medical supplies. The medical potential of the nation seems to approach adequacy for peacetime needs, but the country would probably have only limited capability to deal with mass wartime casualties.

Although a shortage of doctors, particularly in rural areas, has been reported, 175/ published statistics reflect a growing number of medical practitioners in Czechoslovakia. The number of physicians in Czechoslovakia in selected years from 1937 to 1954 are as follows 176/:

	1937	1946	1949	1954
Number of physicians per 10,000 persons	8.21	6.97	8.12	13.25
Number of persons per physician	1,218	1,433	1,233	754

These statistics probably should be deflated to exclude dentists, professional administrators, and others who do not normally serve the public as practicing medical doctors. 177/ The marked increase in medical graduates may have been achieved with some sacrifice in the quality of training, although the number of medical schools is reported to have doubled. 178/ Recently publicized specialized and postgraduate work for medical personnel 179/ may reflect gaps

in initial training as well as a desire to correct the known shortage of medical specialists. 180/

A shortage of nurses and other auxiliary medical personnel has also been reported. 181/ In time of emergency, Czechoslovak Red Cross trainees probably would be used to supplement the number of regularly trained nurses. Czechoslovak Red Cross nurses reportedly take courses of about 100 hours of instruction, half of which is devoted to learning nursing duties in hospitals. 182/

Hospital capacity has been announced as almost 90,000 beds at the end of 1954. 183/ This number would be inadequate for casualties that might be expected under conditions of nuclear attack but can be supplemented by use of rest homes, youth camps, and the like. Building plans of all spas and recreational institutes were ordered to be delivered to military authorities in 1953. 184/ Because many of these are located outside urban areas and because many have some hospital equipment, it is assumed they would be used as emergency medical facilities.

Medicines have been reported to be in short supply. 185/ Current reports of shortages were bitterly denied in a recent Prague radio broadcast which stated that the production of penicillin had reached the point where it was now available for agricultural as well as human use. The broadcast also claimed that the production of sulfonamides and insulin is now sufficient to permit exports. The broadcast conceded that some preparations such as cortisone are imported. 186/ The broadcast admitted some shortage, and it is probable that medical supplies, even if approximately adequate for peacetime use, would be insufficient for mass casualties. It is reported that medical stores are held for each district by a "District Institute of National Health." 187/

Blood banks were reported to be well organized in 1952. 188/ [redacted] an impressive blood donor installation in 1955, 189/ and some plasma has been reported in a Prague hospital. 190/ 50X1

B. Medical Civil Defense Services.

Medical civil defense is probably being organized similarly to that of the USSR. 191/ There is evidence that the armed forces, civil defense authorities, and the Czechoslovak Red Cross will assist

the Ministry of Health in organizing a medical civil defense system and in training its personnel. It has been reported that some Czechoslovak Red Cross trainees and nurses have already been assigned to disaster crews, whose leaders are given military rank. 192/ The reported initiation of civil defense courses for doctors and nurses at the beginning of 1955, however, 193/ makes it improbable that medical disaster services are not effectively organized.

Hospitals were included among the institutions instructed to organize self-defense groups in 1949. All employees of a hospital were to be enrolled in civil defense crews (police, fire-fighting, antichemical, and the like). Objectives were to preserve the hospital and its occupants and to maintain medical services during and after attack. 194/ The establishment and preparation of shelters in hospitals was particularly stressed. According to the instructions, these shelters should have operating rooms, storage space for drugs and supplies, and emergency lighting facilities. Evidence has been received that shelters have been established in or near hospitals, particularly in Prague. Operating rooms were reported in two of the Prague shelters. 195/

C. Czechoslovak Red Cross and First-Aid Training.

First-aid training for civil defense has been widespread in Czechoslovakia. A substantial reserve of auxiliary medical personnel has been prepared through courses conducted under the auspices of the Czechoslovak Red Cross. Reorganized in 1952 the Czechoslovak Red Cross is affiliated with SVAZARM. It presently claims to have a membership of over 500,000 persons who pay dues 196/ and to have trained 600,000 holders of the award "Ready for Health Defense" (Pripraven k Zdravotni Obrane -- PZO). The PZO badge is awarded upon completion of 50 hours of first-aid training. Included in the course are normal first-aid training, bandaging of various wounds and fractures, transportation of the wounded, and some instruction in chemical and bacteriological defense.

Successful completion of the PZO course qualifies the graduates, particularly women, to apply for admission to a 50-hour second-degree course which prepares them for nursing duties. Instruction in this course stresses hospital nursing practice, and the graduates receive the diploma of a Czechoslovak Red Cross nurse. Both the first-aid and the nursing course are conducted by a qualified medical staff and are free of charge. 197/

Another course stressing hygiene and first aid is given to school children. After examination, pupils receive the badge "Ready to Defend the Health of the Country" (Pripraven k Zdravotnicke Obrane Vlasti -- PZOV). 198/

First-aid training in village and urban areas has been frequently reported to be compulsory in Czechoslovakia. 199/ An attempt has been made to train one member of each household, and it is probable that successful graduates are assigned to civil defense units. 200/

VI. Other Aspects of Civil Defense.

A. Police and Control Organizations.

In addition to the army, which has a currently estimated strength of 170,000 men, Czechoslovakia has the usual security forces, all of which would undoubtedly be used extensively in any civil defense emergency. Those forces particularly useful would be the Interior Guard, with a strength of 20,000 men, 201/ and the regular police force of about 60,000 men. 202/

Supplementing the regular police structure, an auxiliary organization known as the Peoples Militia (Lidova Milice -- LM) has been formed. 203/ It is assumed that this organization will be incorporated into the civil defense system should the need arise. Members of the Peoples Militia are recruited from the Communist Party, particularly in plants and factories. Their mission is to assist local police in plant protection and quelling civil disorders. 204/ Training consists of weekly sessions during which military drill, control of crowds, weapons handling, and prevention of sabotage are taught. The strength of the Peoples Militia is estimated to be 185,000. 205/

A second supplementary control force is the Auxiliary Guard (Pomocna Straz -- PS), units of which are evidently formed in rural areas and are recruited from the Communist Party and the League of Czechoslovak Youth. 206/ Its size and strength are unknown. Some recruiting publicity was carried on at the beginning of 1955. 207/ In addition to the regular and auxiliary police units, some SVAZARM military trainees would be available for supplemental control personnel in any civil defense emergency.

B. Fire Defense.

The city Fire Police of Czechoslovakia, which is subordinate to the Minister of the Interior, is reported to be adequately equipped and very efficient. 208/ [redacted] the Prague fire department is well manned, its strength having increased by 150 percent between 1945 and 1954. Prague fire-fighting equipment includes modern fire trucks with scaling ladders, pumps, and fire extinguishers using foam and acid. Trucks are equipped with short-wave radio, asbestos suits, oxygen apparatus, and gas masks. 209/ The Fire Police has been used extensively since 1952 for the training of fire-fighting auxiliaries for civil defense. 210/ 50X1

In addition to city fire departments, there are generally full-time fire departments in large industrial plants. 211/ It is probable that these departments are a part of the guard force of the plant and are paid by the ministry concerned but are under the guidance of an inspection body of the regular Fire Police known as the State Fire Control. 212/ Smaller plants 213/ and villages 214/ have volunteer fire organizations, which are probably supervised similarly by the regular Fire Police.

Preparation of static water reserves (reservoirs and pools) for fire-fighting has been extensively reported since 1952. 215/ Their preparation has been facilitated by the preservation of many such reserves which were constructed during World War II. 216/ Static water reservoirs were renovated in cities -- principally during 1954, 217/ in compliance with orders issued by civil defense officials. 218/ Static water reservoirs are also maintained in factories for fire fighting, 219/ sometimes under the guise of swimming pools provided for the workers. 220/

In addition to the preparation of static water reserves and the maintenance of an excellent regular fire-fighting organization, Czechoslovakia has, since 1952, engaged in widespread training of auxiliary fire-defense personnel. At that time the Minister of the Interior stressed the necessity of training "hundreds of thousands" of people in first aid and fire fighting. 221/ Initially instituted as a voluntary activity intended for peaceful purposes, 222/ training became compulsory in 1953 223/ for some factory employees and one member of each household. 224/ Auxiliary fire-defense training was firmly identified with civil defense preparations at about the same time. 225/ The training courses are given under sponsorship of the Local National Committees, 226/ SVAZARM, 227/ and the Public Firemen's Association. 228/

According to a 1952 instructors' manual for the schooling of auxiliary fire personnel, courses lasted 3 months and covered the following subjects: (1) use of material and equipment (water, sand extinguishers, hydrants, standpipes, gas and smoke masks, ladders, and the like); (2) behavior of various building materials during fire; (3) methods of extinguishing fires in attics, chimneys, apartments, cellars, garages, shops, farm buildings, and the like; and (4) rescue methods. The instruction included some familiarization with organization of fire services and the trucks, vehicles, and pumps in use. 229/ [redacted] a 3-month fire-fighting course is still standard and that fire-fighting courses for civil defense now include defense against incendiary bombs and against gas. 230/ 50X1

The extent of auxiliary fire-fighting training is reflected in an article of July 1955, which stated that 40,000 men and women in Prague Province had been given this training. 231/ If the rest of the country has had similar training, there should be 140,000 trained auxiliary fire fighters in Czechoslovakia.

Measures for fire prevention have also been noted. Attics and cellars were ordered cleared of fire hazards in 1952 232/ and fireproof paint has been applied to the wooden parts of some roofs. 233/

C. Supplies.

Some civil defense supplies have been reported to be stored with civil defense organizations. These supplies include trucks, fire-fighting equipment, cots and stretchers, blackout materials, gas masks and protective clothing, small engineering tools, first-aid packets, and the like. 234/

Fire-fighting equipment has been reported at nearly all levels. [redacted] each provincial* headquarters of the SNB had enough equipment for the mobilization of 1,000 firefighters. 235/ [redacted] 50X1 50X1 50X1

A fire-defense training manual of 1952 listed portable fire pumps, trailer-mounted fire pumps, and water-tank trucks among

* There are 19 provinces in Czechoslovakia.

vehicles and fire equipment used in Czechoslovakia. 236/ [redacted] 50X1
[redacted] The appearance of 50X1
portable and trailer-mounted equipment is believed to be significant because World War II demonstrated the need for fire equipment which could be operated or manhandled over rough terrain and rubble-strewn streets that largely immobilized conventional vehicles.

Reserves of small fire-fighting equipment, tools, and uniforms have been established in each community. They include extinguishers, hoses, picks, shovels, and fire buckets. 238/ Plant police and fire and civil defense personnel have been equipped with gas masks; first aid kits; small fire-defense items; and uniforms. 239/ Blackout paper and blinds also are installed or available, especially in industrial installations. 240/ Finally, reserve power plants have been reported in factories. 241/ Mobile radio equipment is in use by police and fire organizations. 242/ The SVAZARM conducts radio training and presumably has radio equipment which could be used in emergencies. Field telephones were set up and operated by SVAZARM members at a Czechoslovak fire-fighting demonstration. 243/

It is possible that emergency bridge-building material is available or will be provided. Stored pontoons have been reported at a border guard supply installation, 244/ and a factory civil defense demonstration in Gottwaldov included the erection of an emergency bridge. 245/

D. Finance.

Information on the cost of civil defense in Czechoslovakia is limited. Construction, training, and supply reported extensively since 1951, however, must have involved the expenditure of considerable funds. [redacted] the city of Prague alone 50X1
spent 50 million new koruny (US $15 million*) on civil defense preparations in 1953. 246/ By applying this figure to all cities with a population of over 25,000** it may be estimated that civil defense in 1953 cost Czechoslovakia more than US $40 million.

* At the Czechoslovak exchange rate this would be US $69,450,000. A more realistic rate of exchange, however (US $0.03 per koruna), makes this US $15 million. 247/

** The combined population of all cities having population of more than 25,000 is 2,486,000. Prague has a population of 922,000. 248/

Much of the financing of civil defense is concealed and presumably distributed under other budgetary items. SVAZARM and the Czechoslovak Red Cross, heavily involved in civil defense training, are reportedly subsidized by the Ministry of National Defense 249/ and the Ministry of Health, 250/ respectively. Factory "directors funds," from above-plan profits are used to purchase such items of civil defense as shovels, picks, and fire extinguishers. "Technical installations" in factories such as shelters and static water tanks are financed by loans from investment banks. A portion of house rentals is used to purchase civil defense supplies for dwellings. 251/ Air-raid shelters included in the construction of new buildings would most logically be included in the initial cost of construction. Normal fire-defense and police activities presumably are paid for from the budget allocations of the Ministry of the Interior.

It is not known how the larger detached air-raid shelters are financed, [redacted] 50X1

50X1

E. Chemical Defense.

The small but relatively well-developed chemical industry of Czechoslovakia has good capabilities for producing chemicals and chemical protective equipment for civil defense. The Military Technical Institute, under the Ministry of National Defense, carries on research directed in part toward improving gas masks and protective equipment. 253/

Despite ability to produce high-grade charcoals, Czechoslovakia tried to purchase 300 metric tons of activated charcoal from a Western source early in 1953. It was specified that the charcoal was to be used in respirators. 254/ The attempted placement of this order outside the Sino-Soviet Bloc indicates that there was an urgent need to procure enough charcoal for the manufacture of about 1 million new masks. If this purchase is considered with the widespread civil defense training and construction program of 1953, it seems probable that production of gas masks for civilians was being initiated although they are not known to have been distributed. Gas masks were issued in 1953 for fire-fighting personnel, 255/ civil defense units in factories, 256/ and civil defense personnel of at least one city. 257/ Teams of chemical defense, who would be used in decontamination work, were also issued rubber capes, [redacted] 50X1

The plan for chemical civil defense in Czechoslovakia probably is similar to that in the USSR. Soviet instructions provide for equipping the civilian population with gas masks, using filter ventilating devices to protect personnel in air-raid shelters, training all personnel in gas defense, organizing special civil defense units for area decontamination, and preparing decontamination stations and medical installations to handle gas casualties. 259/

F. Camouflage and Blackout.

Instructions of 1949 provided for the use of paint and camouflage nets for designated industrial installations. Actual camouflaging; however, was to occur only after an air alert (emergency) was announced. 260/ The only measure already taken has been that some factory roofs have been painted green. 261/ Blackout is prepared in peacetime. Blackout paper has been stored, 262/ and some factories already have installed blackout equipment and have painted skylights blue. 263/ Provisions for screening smoke are unreported except for military units and old German installations at one plant. 264/

VII. Defense Against Nuclear Attack.

In Czechoslovakia the introduction of civil defense training against atomic weapons represents a recent development.

A. Release of Atomic Information.

Some information on atomic weapons has been made available to the Czechoslovak military forces since 1954 265/ and has been printed in publicly available periodicals since 1955. 266/ There has been no detailed information published, however, on weapons larger than the nominal atomic bombs.* 267/ Similarly, there has been no discussion of the heavy nuclear contamination possible in some areas after a hydrogen bomb explosion. Attempts have been made to minimize the fear of atomic weapons and to reassure the population that proper civil defense measures will be effective in the case of atomic attack. 268/

The services of the Society for the Dissemination of Political and Scientific Knowledge** have been enlisted to lecture on

* The so-called "nominal" atomic bomb used at Hiroshima had an explosive power approximately equal to 20,000 tons of TNT.
** Similar organizations have been identified in the USSR, Rumania, Poland, East Germany, and Hungary.

atomic subjects. Open publications have established the fact that there are close connections between this society and SVAZARM. 269/ Speakers of the scientific society prepared lectures in July 1955 on nuclear weapons and protection against them. 270/ Lectures and courses on atomic physics were scheduled to be given in Czechoslovak factories in October 1955. 271/ The use of organized technical personnel to lecture on atomic defense should make instruction more informative and arouse increased interest in civil defense training.

Expansion of civil defense training courses to include atomic subjects has been announced. The chemical defense teams of self-help civil defense groups have thus had their course of instruction extended by 14 hours. Members of other teams (fire, first-aid, and the like) are to receive 5 hours' training in atomic defense. 272/ The content of such defense training is unknown, but it is probable that only the effect of smaller nuclear weapons is considered.

B. Increasing Interest in Suburban Shelters.

Known Soviet Bloc civil defense instructions direct the population to take cover near their residences or places of work, utilizing available public shelters as well as shelters in dwellings and enterprises. In the event of an attack with heavy nuclear weapons, this would probably reduce the number of casualties in areas sufficiently removed from the point of impact, or "ground zero." However, the existing cellar and detached, surface-level shelters with concrete ceilings 25 to 100 cm thick would probably be destroyed if they were in the central target area.

It is assumed that the Soviet civil defense planners are aware of the limitations of the present system and that, on the basis of knowledge gained from foreign and domestic tests, they know the radius of heavy destruction (4 miles) which may be caused by modern nuclear weapons (10 to 15 megatons), the hazards of fallout, and other effects. They undoubtedly are also informed of measures such as evacuation or dispersal which have been suggested in other countries to overcome these dangers.

An article in a recent Soviet publication stated that the present "common" air-raid shelters would be destroyed if they were close to the impact point of a surface or underground explosion of a nuclear weapon and that, therefore, plans should provide for

dispersal of the population of likely target areas to shelters located at a distance from the potential impact area which is greater than twice the radius of probable destruction. 273/ It is likely that the concept of combined evacuation and shelter will be examined further in the Soviet Bloc, as it was in the US, 274/ and that construction of suburban air-raid shelters at locations twice the radius of probable destruction will be accelerated. (For a diagram of geographical defense against nuclear weapons, based on statements by a Soviet authority, see Figure 10.*)

C. Preparation of Plans for Evacuation and Shelter.

1. Shelter Construction Outside Cities.

[redacted] construction of air-raid shelters in rural or suburban areas of the Soviet Bloc. In view of the lack of published information on evacuation plans, it is assumed that the shelters are intended for use by selected members of the Communist Party, government officials, and civil defense forces. 50X1

[redacted] 50X1
[redacted] underground construction outside 50X1
the city of Magadan. 275/ [redacted] this construction 50X1
was to provide air-raid shelters. Bomb shelters reportedly have been constructed for Party and government officials near Bucharest, Rumania, and there have been [redacted] underground construction in 50X1
suburban areas of other Satellite cities. 276/ The clearest pattern of large shelter locations outside of a large Soviet Bloc city has evolved near Sofia, Bulgaria. In this area it is reported that air-raid shelters have been completed in seven nearby villages. 277/ Several additional large underground construction projects in the foothills north or south of Sofia have also been reported. 278/ Two or three of these locations were the sites of governmental shelters during World War II, but others seem to be of new construction. They are generally located on access roads at distances varying from 3 to 10 miles from the city.

It is reported that the construction of "atomic" shelters in Czechoslovakia was ordered in 1952 and began in 1953. One of these shelters has reportedly been built in a wooded valley northwest of

* Following p. 36.

Bratislava and contains storage areas for food, a hospital area, ventilating equipment, and its own water supply. 279/

Other suburban shelter or underground construction has been reported near the cities of Prague, 280/ Plzen, 281/ Prerov, 282/ Usti nad Labem, 283/ Gottwaldov, 284/ Liberec, 285/ Nitra, 286/ and Zbysov. 287/ Some of these sites for underground construction may be for military or storage purposes, but others are specifically reported as air-raid shelters particularly intended for highly placed personnel. More "atomic" shelters were to have been started in 1955 for the cities of Plzen, Usti nad Labem, Liberec, Decin, Most, Brno, Moravska Ostrava, Olomouc, and Trencin. These are presumably substantial shelters constructed under hills either in the cities or just outside. 288/

2. Mobilization of Evacuation and Transportation.

The [redacted] planned evacuation of Soviet Bloc cities 289/ apparently refer only to strategic evacuation -- that is, removal of selected groups before an air-raid alarm occurs. 50X1

The evacuation of school children from large cities was mentioned in Czechoslovak civil defense instructions in 1949, 290/ and [redacted] such plans for Prague school children in 1954. 291/ It was more recently reported that the SVAZARM will take over all nonmilitary road transportation in the event of mobilization and arrange for the evacuation of the "civilian population." 292/ 50X1

[redacted] seven measures which have been taken in Czechoslovakia. 50X1

a. A motor transportation alert plan was drawn up in 1953, to become effective on 1 January 1954. 293/

b. Buses of Czechoslovak State Automobile Transportation and some trucks were painted olive drab in 1954. 294/

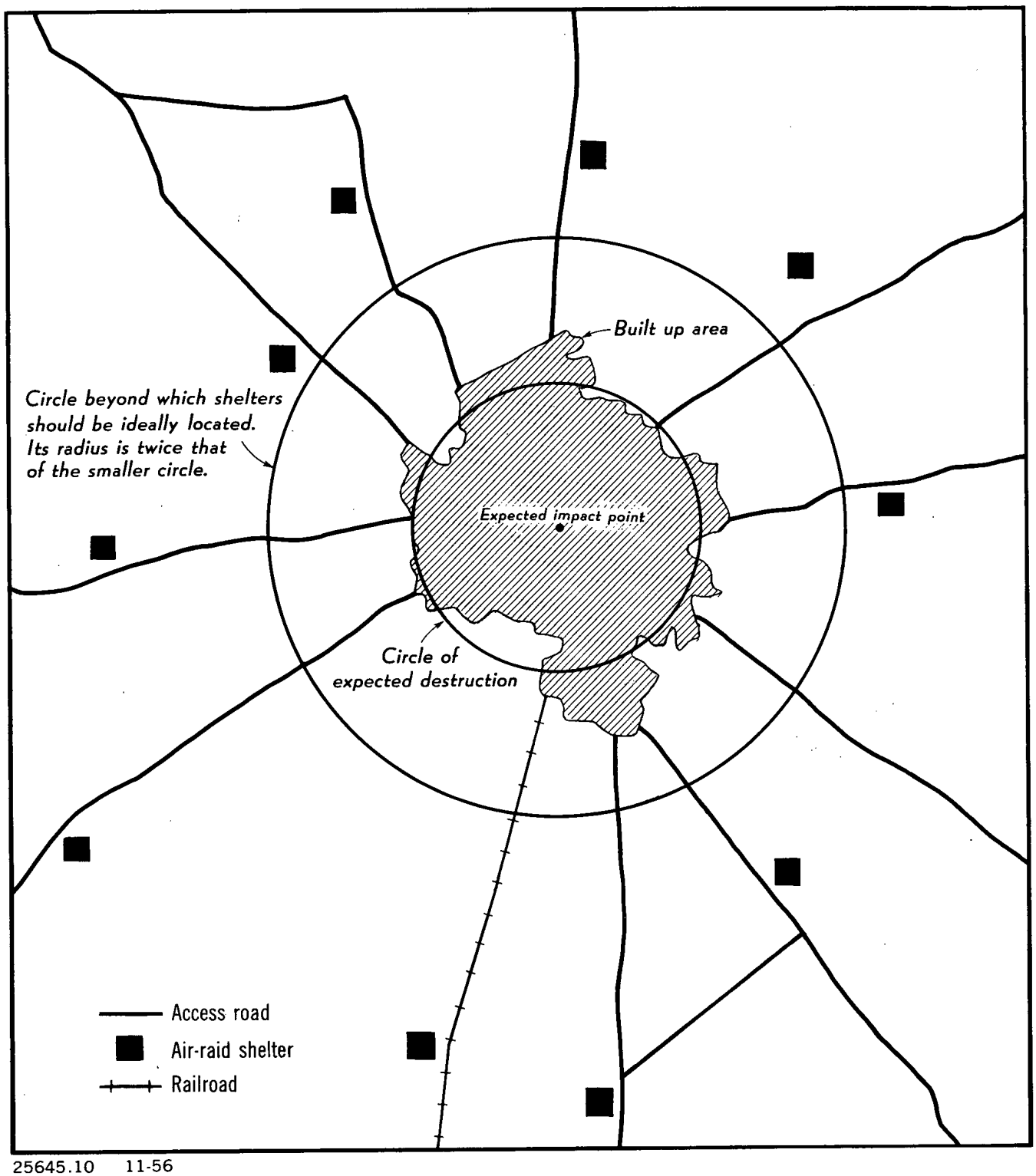
c. Early in 1954, farm machinery stations were ordered by the Ministry of National Defense to maintain a 300-litre fuel reserve for every prime mover. 295/

50X1

Figure 10

DIAGRAM OF GEOGRAPHICAL DEFENSE AGAINST NUCLEAR WEAPONS

(Based on Statements by a Soviet Authority)



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50X1

d. On 1 January 1954, driver training was made the responsibility of SVAZARM. License tests were made more rigid, and tests included driving while wearing a gas mask and night and cross-country driving. 296/

e. Courses for training motorcycle riders for courier and civil defense tasks were started in early 1954. 297/

f. In one region, police and army officers carried out registration of motor vehicles in May 1955. This included both nationalized vehicles and private vehicles which would be available for mobilization or emergency. 298/

g. Drivers of the Czechoslovak State Automobile Transportation have been ordered since February 1954 to practice blackout driving at every opportunity. 299/

Transportation mobilization may be related to purely military preparations. Driver training, however, has received increasing emphasis during the past 2 years in Soviet Bloc paramilitary organizations. Simultaneously these organizations are becoming more and more heavily involved in civil defense training and organization. Premilitary, driver, and communications training given to SVAZARM members should establish a capability for disciplined control of the transportation operation and communications necessary for evacuation.

D. Other Nuclear Defense Measures.

Several additional developments indicate that Soviet Bloc civil defense planners are considering the effects of heavy nuclear attack.

In Poland, for example, members of air and chemical civil defense groups have been urged to acquire a knowledge of meteorology which would help them to determine the persistence of "chemical" agents and the direction of flight to be taken by threatened persons. 300/ It seems likely, however, that these defense groups are supposed to use their knowledge of meteorology in nuclear as well as in chemical defense.

Meteorology has not been linked directly to civil defense in Czechoslovakia. SVAZARM members have been [redacted] 50X1 studying meteorology, 301/ and SVAZARM radio operators have been

encouraged to study radio telegraphy in order to receive meteorological reports in their clubs. 302/

In the US, publicity has been given to the desirability of devising a meteorological forecasting system to enable civil defense officials to delineate fall-out areas. 303/ It seems probable, therefore, that Soviet Bloc interest in meteorology evolves partly from interest in nuclear defense.

Some measures have apparently been taken in Czechoslovakia to reduce the communications disruptions which might occur under conditions of nuclear warfare. An underground network of telephone cables connects the large Czechoslovak centers of population. It is supplemented by open wire lines, radio relay facilities, and some domestic, high-frequency radio. 304/ Interruption of this system could be expected if several of the large cities were placed under simultaneous attack. This danger, however, is lessened by the density of the system and the availability of alternative routes of wire communications. New long-distance telephone lines, installed since 1952, are reportedly constructed to bypass towns. The existence of mobile exchanges has also been reported, although their purpose is unknown. 305/ The furnishing of radio equipment to organizations involved in civil defense also tends to reduce communications vulnerability.

Another step taken to improve protection against atomic weapons has been a recent Czechoslovak directive which reportedly calls for an increase in the ceiling thickness of industrial air-raid shelters. 306/ This directive also mentions a special ventilator apparatus which the USSR would provide. The USSR has expressed an awareness of the danger of shock waves penetrating the shelter, 307/ and it is probable that a baffle has been designed to overcome this hazard.

E. Significance of Nuclear Defense Developments.

The Soviet accent on the development of civil defense and the announced reduction in ground forces seem to indicate that the USSR and the Soviet Bloc now consider the use of nuclear weapons a primary possibility and the greatest danger in war. If this is the governing consideration of Soviet planners, it is logical to expect continued development of all civil defense measures to diminish the effects of nuclear attack.

Civil defense preparation in Czechoslovakia has reflected this policy. The increasing pronouncements regarding atomic defense, the construction of shelters outside major urban areas, and [redacted] 50X1
[redacted] plans to build more suburban shelters indicate an awareness of 50X1
the necessity to prepare for defense against nuclear weapons. The training of large numbers of Czechoslovaks for atomic civil defense, the development of transportation mobilization, and the recruiting of auxiliary fire and police bodies may likewise be related to the expectation of nuclear attacks in the event of war. Some of these measures would also be useful if a plan for more extensive evacuation or dispersal were adopted. These preparations are timely, and their development since 1953 implies recognition of the fact that major cities may be largely untenable in the event of nuclear attack. Although present Soviet civil defense instructions require the general population to remain in cities, using locally available shelters, it is possible that additional suburban shelters will be prepared. The construction of such shelters would provide improved protection for larger segments of the population.

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