

CENTRAL INTELLIGENCE AGENCY

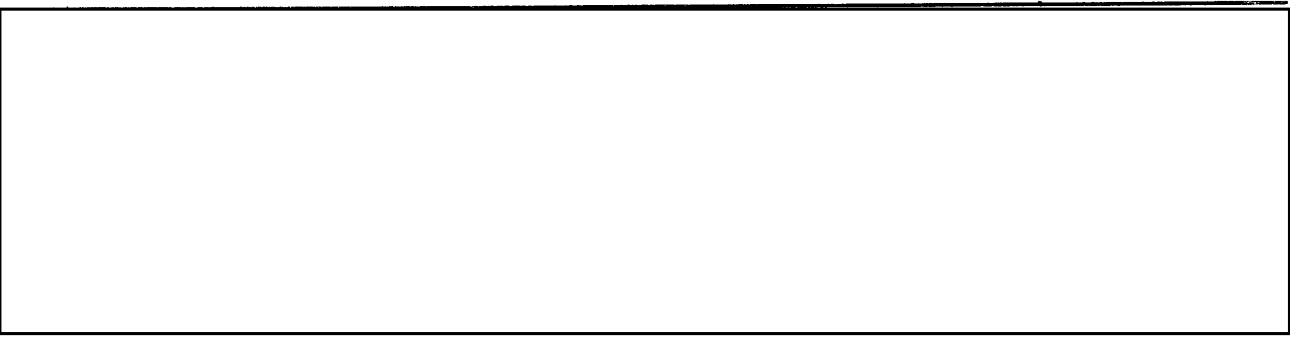
INFORMATION REPORT

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SECURITY INFORMATION

COUNTRY	Czechoslovakia	REPORT	[REDACTED]
SUBJECT	Construction of Air Raid Shelters	DATE DISTR.	5 August 1953
DATE OF INFO.	[REDACTED]	NO. OF PAGES	8
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		REFERENCES	

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.  
THE APPRAISAL OF CONTENT IS TENTATIVE.  
(FOR KEY SEE REVERSE)



- 25X1 1. Class II type air raid shelters were being built in factories and plants in Czechoslovakia [REDACTED]
- 25X1 [REDACTED]
- 25X1 /5035N-1538E/. Actual construction of this shelter was to begin in April 1953. This type of shelter was designed to accommodate a maximum of 250 people and to protect them from falling debris, portions of buildings, etc. It was not designed to withstand a direct hit, although [REDACTED]
- 25X1 [REDACTED] it could possibly give protection against hits of near misses of bombs up to and including 100 kg. As designed and constructed, Class II shelters were divided into separate cells, 3-4 m. wide, 4-6 m. long, and 2.4 - 2.7 m. high, each to contain seats or beds. Those fitted with seats were designed to accommodate 35 to 50 persons and those with beds to accommodate up to 25 persons.
- 25X1 2. Shelter building specifications allowed a maximum protrusion of 80 cm. above ground level. This was usually covered over with earth fill and factory flooring. Certain pipes necessary to the shelter were permitted to be laid within this fill in such a manner as to offer the least possible exposure to damage. Pipe laying of any sort was held to a minimum. The lowest level of the shelter had to be built above the highest water level in the building area. Building of air raid shelters was not permitted in areas containing explosives or harmful chemicals. Certain minimum specifications were required, depending on the construction materials used. The following is a list of specifications pertaining to construction.
- 25X1 [REDACTED]

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(Note: Washington Distribution Indicated By "X", Field Distribution By "#")

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of Class II type shelters:

- a. Ceiling: concrete; reinforced with rods 20 mm. in diameter; minimum thickness 25 cm.; built to withstand a weight of 1,700 kg. per sq. m. The reinforcement rods were bent and anchored into the side walls to a depth of at least one meter. These ceilings (roofs) were usually 30 to 40 cm. thick when completed.
- b. Exterior walls: minimum thickness for brick 75 cm.; minimum thickness for concrete 60 cm.
- c. Interior walls: minimum thickness for brick 45 cm.; minimum thickness for concrete 40 cm. Interior walls were allowed to be spaced a maximum inside distance of four meters apart if they were attached to the outside walls.
- d. Floor: concrete or tile depending on sanitary requirements. There were no specifications.

3. Class II type shelters were to be built in all plants and factories as soon as the plants and factories could be surveyed and plans completed. Defense plants seemed to have priority over all other plants and work was started on them as soon as plans were approved. Some of the defense plants were to have Class I type shelters, but details of these shelters were not made known to persons not directly connected with the operation. [redacted] Class I shelters were constructed in such a way as to withstand a direct hit. The whole program pertaining to Class I type shelters was so secret that no one knew just where they were to be built, but the assumption was that they were mainly for plants directly connected with the war effort. [redacted] these shelters were to be built within the confines of the administration and infirmary buildings of plants, like the Class II type shelters.

4. A third type of shelter was being built in the older factories about one meter below the ground level. This shelter was reinforced concrete, cylindrical in shape, with benches along both sides. The inside diameter was about 2 m. and the length was 12 m. These shelter tubes were built at right angles to each other, and each section was to accommodate no more than 50 people. [redacted] no further information as to construction materials or actual locations of these shelters.

5. [redacted] plans for a special air raid shelter Annex C. The plans included the words "for use of the commander [redacted] this referred to the commander of civil anti-aircraft defense and that this air raid shelter was to be for his use. No tentative date for construction of the shelter was given, and [redacted] offer no construction data or information about the furnishings of this shelter. A special group had worked on the plans for this shelter; it was headed by an engineer named (fnu) KALINA; his assistant was (fnu) LACINA. Their office was located in Prague at Besedni ul. 3.

6. There were no underground subways in Czechoslovakia, and none were under construction [redacted] no underground garages, two-story monolithic structures (concrete), or reinforced basements of masonry buildings, but [redacted] the old German bunkers and pillboxes were to be rebuilt by some special military group in the near future.

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- 25X1 7. There was no organized building of small-group or family-type shelters. Private building was forbidden, and the government had made no provisions for family protection. The only available protection for private individuals [redacted] was the old World War II air raid shelters which were still intact.
- 25X1 8. The greatest concentrated effort seemed to be placed on building the Class II type air raid shelters to protect factory personnel from falling buildings and other debris. [redacted] no estimate about other building efforts. All factories and plants in all cities were eventually to have air raid shelters built in them, but there was no date set for completion of this large project. All of the new air raid shelter locations were kept secret from the public, and no publicity of any form was given to the construction project. The only new shelter [redacted] is the one at the Klement Gottwald New IRON WORKS.
- 25X1 9. All of the shelter building programs were handled by two offices in Prague:
- a. The Stavo Projekt Construction Office, directly under the Ministry of Construction, was formed in late 1948. This office drew plans for and constructed Class I and II type shelters on a full-time basis as well as handling other construction programs not connected with air raid shelters. Shelters were first built by this office in 1951.
- b. The Hutni Projekt Construction Agency was established in 1952 to handle construction operations for the heavy industries. This office first started surveying factory shelter needs in July 1952. By August 1952 it was working under the handicap of a large backlog. The actual survey team consisted of only 10 men, which was not enough to handle this large project. The Prague office began to instruct the local offices to conduct these surveys and draw up the necessary plans, but only in the most urgent cases. These plans were submitted to the main office for approval and then returned to the local offices. The local offices then turned the plans over to the Czechoslovak Construction National Enterprise (Ceskoslovenske Stavebni Zavody) for the actual construction. [redacted] no degree of haste in the air raid shelter building program except perhaps in the case of very essential war production plants which required the Class I type shelters. In cases of new construction, actual shelter building progressed in proportion to the speed with which the factories were built. In cases where shelters were to be built in older factories, no undue haste was noted. As an example, the National Gas Works in Brno (Moravsko Slezska Plynara Brno), which was planning to build shelters, estimated that plans would be completed in 1952 or 1953 and actual construction be completed in 1953 or 1954.

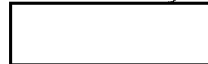
- 25X1 Annex A: [redacted] Sketch of Class II Type Air Raid Shelter
- 25X1 B: Detailed Sketch of Inner Cell of Air Raid Shelter
- C: [redacted] Sketch of Special Air Raid Shelter

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Annex A

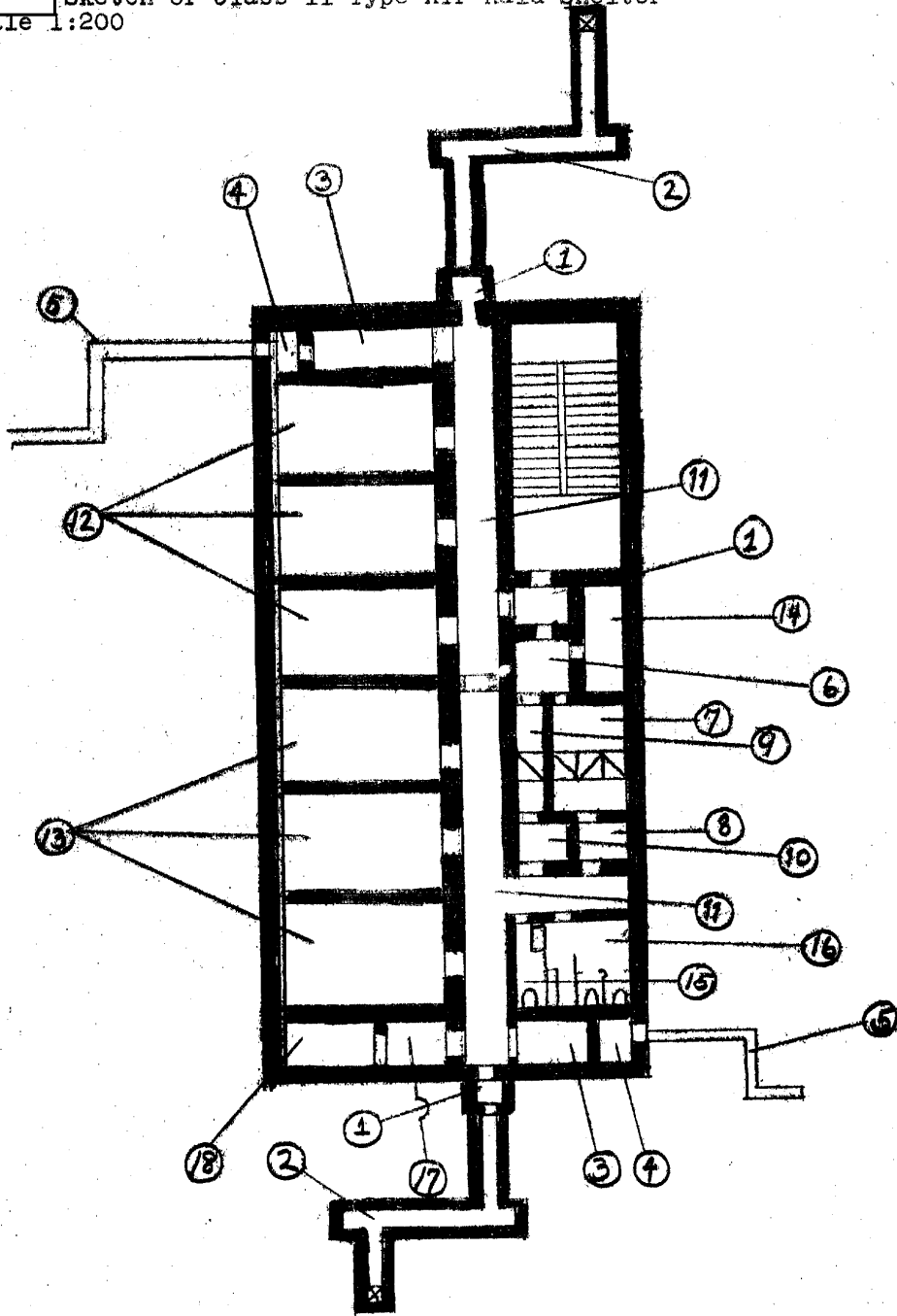
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Sketch of Class II Type Air Raid Shelter

Scale 1:200



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Annex A (Cont'd) SECRET/SECURITY INFORMATION

Legend

- Point #1. Anti-gas Chamber: air-tight; two specially constructed steel doors 80 x 180 cm. opened in opposite directions. Inner door opened toward inside of shelter; outer door opened toward outside exit.
- #2. Emergency Exit Passage: 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 in order 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 / Point #4. 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 cms.
- #12. Air Raid Shelter Inner Cell: usually equipped to accommodate 35 to 50 persons; seats 45 x 45 cms. with 75 cm. spaces between rows. The aisle was usually 95 cm. in width.
- #13. Air Raid Shelter Inner Cell: equipped with double-decker steel beds, 50 x 180 cm., spaced from 75 to 95 cms.
- #14. Boiler Room: for hot water; must be capable of furnishing hot shower water at a constant flow for a period of at least two hours.
- #15. Toilet.
- #16. Toilet.
- #17. Guard Room and Storage: for first aid equipment.
- #18. Tool Storage Room: for such items as shovels, picks, etc., in event of complete collapse of the shelter.

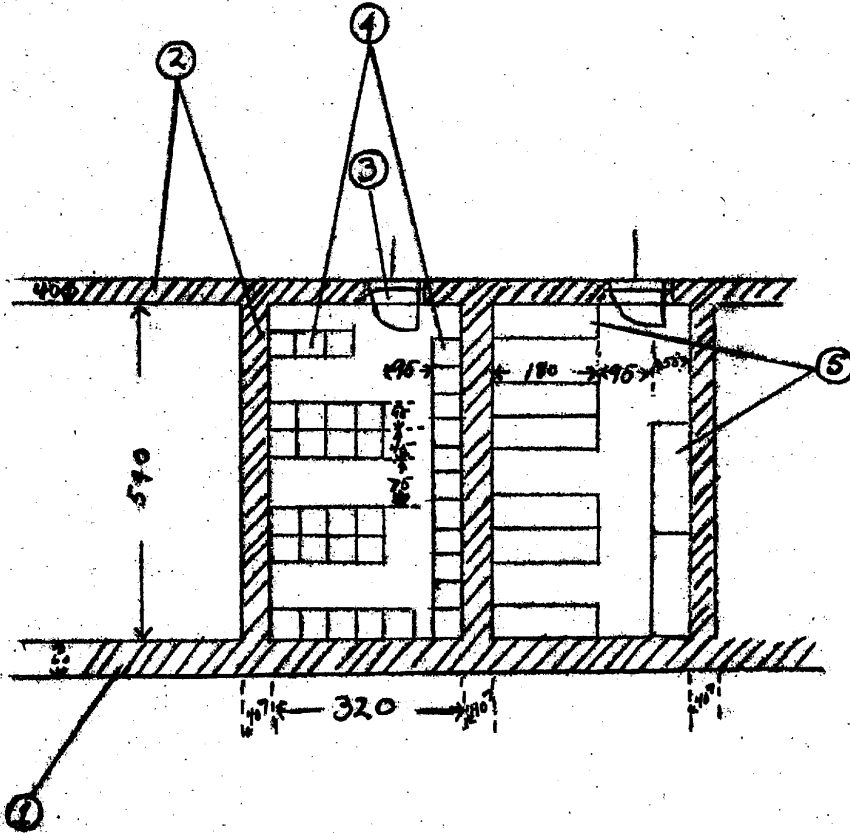
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Annex B

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25X1

Detailed  Sketch of Inner Cell of Air Raid Shelter  
 Annex A, Points #12 and 13  
 Scale 1:100



Legend

- Point #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 cm.

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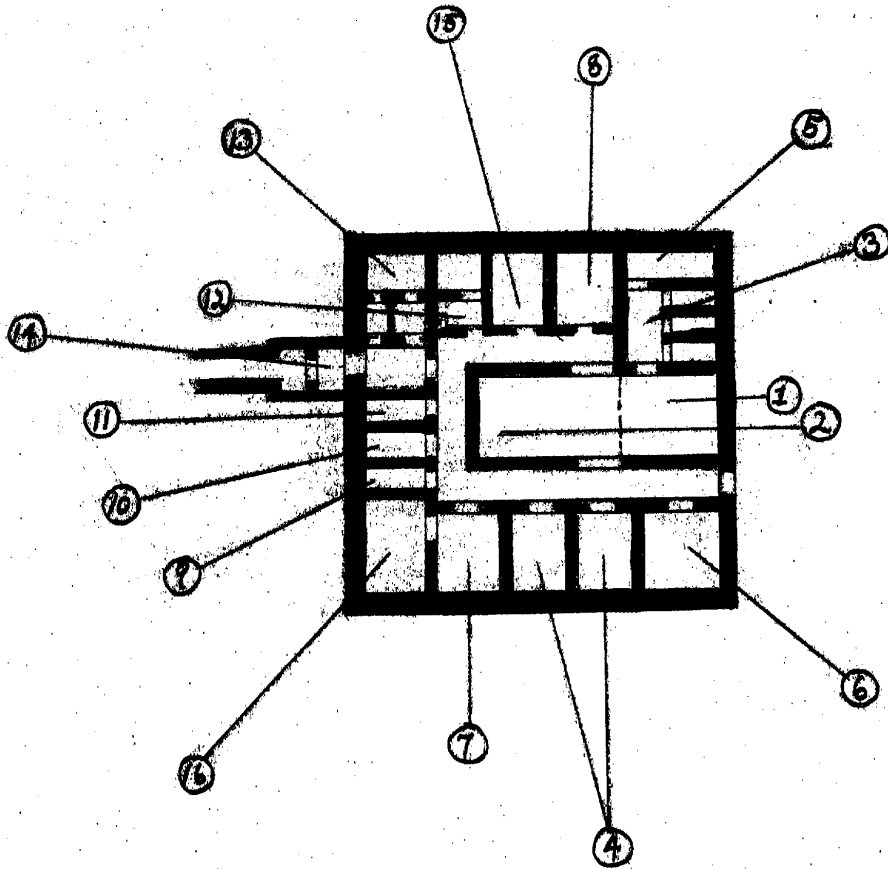
Annex C

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Sketch of Special Air Raid Shelter  
Scale 1:200



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Annex C (Cont'd) SECRET/SECURITY INFORMATION

Legend

- Point #1. Commander's Work Room.
- #2. Operations Room.
- #3. Inter-connecting 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.
- (Rooms 8, 9, and 10 will probably be made into one room.)
- #11. Refreshment Room.
- #12. Wash Room and Toilet.
- #13. Sanitation Room.
- #14. Anti-gas Chamber.
- #15. Filter-Ventilation Room.
- #16. Boiler Room.

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