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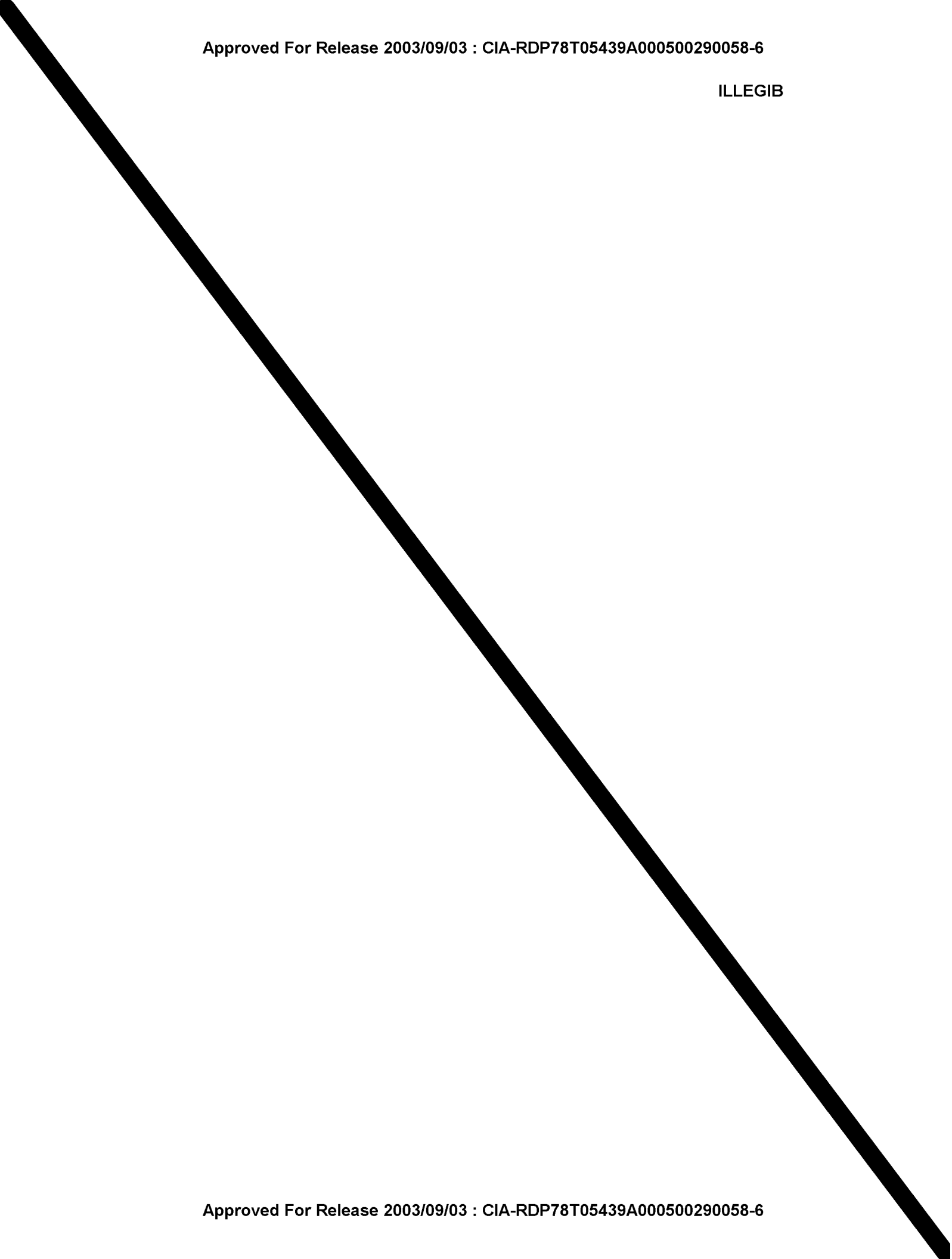

ARMAMENTS/AMMUNITION PLANTS NEAR HSIANGT'AN, CHINA

Two armaments/ammunition plants are located near Hsiangt'an in Hunan Province, China. These are the Hsiang-Hsiang Explosives Complex, sometimes referred to as the Hsiangt'an Probable Plant Number 282, and an armaments plant, the Hsiangt'an Probable Plant Number 627. Approximate geographic coordinates for the two plants are:

Hsiang-Hsiang Explosives Complex	27 50N - 112 40E
Hsiangt'an Probable Plant Number 627	27 52N - 112 54E

There does not appear to be any identifiable association between the two plants, although both are situated near the railroad as well as the road between the cities of Hsiang-Hsiang and Hsiangt'an, the distance between the two plants is approximately 13 nautical miles.

A. Hsiang-Hsiang Explosives Complex

1. This complex is 9 nautical miles NE of Hsiang-Hsiang and 13 nautical miles WSW of the larger city, Hsiangt'an. It is situated near a small stream which flows into the Lien Shui River and is both road and rail served. The explosives complex can be broken down into three major, functionally different, and geographically separate areas: a Factory Area, an Explosives Processing Area, and an Explosives Storage and Loading Area. These areas are shown on Figure 3.

2. A general description of the probable function of each major area together with identification and analysis of the various sections within that area follow:

a. Factory Area - This area (Figure 4) is located in the northern part of the complex and measures approximately 2,500 feet by 2,000 feet. It is probably producing munitions hardware; this estimate is based upon the types of industrial buildings present, the presence of a number of revetted magazines and an explosives handling facility within the area, and the area's close association by road and rail with an Explosive Processing Area (section b) and by road with an Explosives Storage and Loading Area (section c).

The annotations on Figure 4 correspond to the following discussion of various sections and facilities present in this area:

(1) Housing area
(2) Secured administration area
(3) Large building in an early stage of construction
(4) Factory area with two large fabrication type buildings, several probable forge/foundry buildings, and a number of fabrication and assembly buildings, machine shops, and warehousing
(5) Possible railcar loading and unloading facility
(6) Large fabrication building in a late stage of construction
(7) Rail spur - four rail cars were observed in [redacted] 25X1D
(8) Unidentified heat processing area, partially walled, and consisting of: (a) a flat-roofed building with two rows of five roof ventilators or short stacks, an adjacent, tall stack which may be needed to exhaust fumes and a probable pipeline extending from the building across a small stream where it apparently terminates (b) probable boilerhouse with an adjacent high bay section, and an adjacent, tall stack (c) a tall structure with a gable roof covering possible silos and which appears to be connected to the preceeding building (d) coal stored in the open area to the east and south
(9) Five magazines, earth revetted
(10) Two groups of buildings interconnected by covered passageways, for the handling and/or loading of explosives: (a) the western group consists of four interconnected buildings; the northernmost building is connected to one of the magazines, while the southernmost building is divided by a blast wall into two sections (b) the eastern group consists of six interconnected buildings; four of these buildings are parallel, another is earth revetted
(11) Large secured area containing two revetments probably used for the burning of explosive waste materials and/or the testing of explosives; the area also contains a number of small buildings
(12) Secured special storage facility consisting of two similar buildings placed back to back: each building is earth covered except for one side which is open and road served. On the open side of the building facing south, two entrances can be seen. A row of eight stacks or vents protrudes thru the earth covered roof of each building
(13) Motor pool consisting of several interconnected buildings, served by a loop road; on [redacted] at least five vehicles were observed within the motor pool

25X1D

(14) Secured storage facility with three large and three small warehouse type buildings

b. Explosives Processing Area - This area (Figure 5) is located about one nautical mile south of the Factory Area and measures approximately 2,100 feet by 1,900 feet. The presence of a boilerhouse, two steamlines, process buildings with blast walls, covered passageways, and well spaced, revetted storage buildings in this area point toward explosives processing as taking place. The features of some of the process buildings indicate that explosives fabrication such as mixing, casting, machining, pressing, or extrusion could be carried out here; in addition, some explosives loading may occur. Explosives manufacture, however, does not seem to be indicated at these facilities.

The annotations on Figure 5 correspond to the following discussion of various sections and facilities present in this area:

(1) Separately secured area with a boilerhouse (a) and a number of support/storage buildings: a steamline (b) connects a small building (possible valve house) adjacent to the boilerhouse with the process building (Annotation 2) immediately south of the boilerhouse; in addition, a probable steamline (c) runs southeast from the boilerhouse to a road within the Processing Area where it apparently terminates
(2) Process building
(3) Three process/storage buildings
(4) Two process buildings, interconnected by a covered passageway: the western building is gable-roofed with possible roof ventilators while the eastern building is flat-roofed and possibly has blast walls on its eastern and western ends; several lightning arrestors are situated around these buildings
(5) Rail spur connecting the Processing Area with the Factory Area; on [redacted] one railcar was observed on this spur within the Processing Area
(6) Two magazines, earth revetted; the western magazine is relatively large in comparison with other magazines in the Processing Area and has blast walls near the middle and on the eastern end

25X1D

(7) Explosives fabricating and loading area consisting of three buildings (labeled d, e, and f), interconnected by covered passageways: (a) building d appears to be subdivided by blast walls into four sections; one of these sections is further subdivided by blast walls into eleven cells which could contain explosive fabricating equipment such as pellet presses; also, on the northern side of the two easternmost sections, road served additions have been built which are possibly used for loading/unloading and storage of materiel: (b) building e is flat-roofed, heavily earth revetted and has blast walls dividing it into a small western section with a short, possible stack and a larger eastern section with two small probable roof ventilators; this building is probably used for explosives loading: (c) building f is separated into three sections by blast walls and is flat-roofed; on the northwest corner of the building, blast walls form an addition consisting of two adjacent, rectangular "cells" which are partially roofed - the function of these "cells" is not known: (d) lightning arrestors are situated around buildings d and e, and possibly f

(8) Magazine with a drive-thru earth revetment, possibly associated with building d

(9) Six possible mixing/rest houses, aligned and interconnected by means of a covered passageway, which also connects them to a process building (Annotation 10); each mixing/rest house has two possible roof ventilators and the northernmost three have earth revetments south of them

(10) Large process building, interconnected by a covered passageway with the six possible mixing/rest houses and separated by blast walls into three sections; the eastern and western sections are connected to the covered passageway; in addition, the western section has six possible roof ventilators. The lighter tone of the roof of this building and of the interconnecting covered passageway, in comparison with many of the other structures in the processing area, suggests that they were constructed more recently than some of the other structures. In addition, the lack of well-laid-out gardens or land under cultivation around the process building tends to support this supposition.

(11) Magazine, earth revetted

(12) Process building with blast walls on either end, a flat roof with a raised section and a possible roof ventilator, and lightning arrestors situated at either end; on the northwest and southwest corners blast walls form additions consisting of rectangular "cells" similar to those described for building f, but without partial roof cover

(13) Large process building, subdivided into three sections by blast walls: (a) the westernmost section has four possible roof ventilators and a possible escape chute (b) the center section has nine possible roof ventilators and a probable escape chute (c) the easternmost section is smaller and not quite as high as the other two sections, and has a short, possible stack and four possible roof ventilators of a type different than those found on other buildings in the processing area; a pipeline on the south side of this section leads down into the center section. The slightly lighter tone in the area to the northwest of this process building and the adjacent building (Annotation 12) than in other surrounding areas suggests that either one or both buildings are discharging smoke or dust

(14) Three magazines, earth revetted

(15) Railcar loading and unloading area

c. Explosives Storage and Loading Area - This area, shown on Figure 3, is located approximately three quarters of a mile southeast of the Factory Area and one half of a mile northeast of the Processing Area. Roads from both of these areas lead into the Explosives Storage and Loading Area which is at least partially secured by a fence. The area is irregular in shape and measures approximately 4,000 by 3,600 feet. None of the buildings in the area are revetted; they are well spaced, however, and natural terrain provides blast protection. In all, twenty three buildings are located in the area:

(1) A large warehouse type building with two loading platforms and a parking area, located adjacent to the road leading to the Factory Area

(2) A large possible explosives loading/handling building with eleven rectangular roof vents and a turnaround loop, located near the intersection of the roads leading to the other two areas

(3) Four probable support buildings, located near the entrance to the area from the Factory Area

(4) Four small magazines in the southwest corner of the area

(5) Of the remaining buildings, at least eight appear to be for explosives storage

3. Construction activity and changes at the explosives complex consist primarily of an increase in the explosives storage capability and the construction of a new rail spur linking the Explosives Storage and Loading Area with the rest of the complex. Details concerning these and other changes are discussed in the following section; the letters refer to areas annotated on Figure 6:

a. The fabrication building (Annotation 6, Figure 4) is complete as of [redacted] 25X1D; the adjacent large building under construction (Annotation 3, Figure 4) in [redacted] 25X1D is still incomplete

b. Four storage buildings, adjacent to the rail spur, have been completed as of [redacted] 25X1D a fifth probable storage building has been under construction since [redacted] 25X1D

c. A road, probably serving the construction of the storage buildings described above, was constructed between the rail spur and the buildings

d. A new rail spur branching off the existing rail spur and leading to the Explosives Storage and Loading Area has apparently been completed as of [redacted] 25X1D a probable small turning wye off of this rail spur appears to be under construction

e. A large transloading building at the end of the new rail spur has been completed; in addition, a road around the transloading building has been added

f. Four explosives storage buildings were constructed between [redacted] 25X1D

g. Three new, road served magazines have been constructed here; one prior to [redacted] 25X1D and a fourth magazine was under construction as of [redacted] 25X1D

h. Rectangular earth scarring near the road in this area indicates that new explosives storage facilities will probably be added here

i. Two small support/storage structures have been added since [redacted] 25X1D

j. Two small storage buildings have been revetted since [redacted] 25X1D indicating that they will probably be used for explosives storage

k. The inner security wall has been extended and completed since [redacted] 25X1D

4. Some level of production activity in the Factory Area of the complex is indicated by smoke over one of the forge/foundry buildings and the presence of railcars and trucks in this area on photography of [redacted] 25X1D In addition, changes in the configuration of the coal pile in Annotation 8, Figure 4, and variations in the discoloration of the roofs of buildings can be seen throughout the period of photographic coverage.

There are no definite indicators of activity in the Explosives Processing Area. The construction of the new rail spur and the increase in the explosives storage capability in this and the Explosives Storage and Loading Area, however, would seem to indicate that some explosives processing is taking place.

B. Hsiangt'an Probable Plant Number 627

1. This plant is located approximately one nautical mile to the northwest of the center of Hsiangt'an. It is road and rail served, secured, measures approximately 2,000 feet by 3,700 feet, and covers an area of approximately 7,400,000 square feet. Principal facilities at this plant consist of a probable foundry, a number of fabrication and industrial buildings, and a probable weapons test range with associated revetted storage. The latter facility is the only apparent feature which indicates that this plant may be involved in the armaments/ammunition industry.

2. Identification and analysis of the facilities present at the plant follows in section a; construction activity and changes at the plant during the period [redacted] 25X1D are discussed in section b.

a. The numbers on Figure 8 correspond to the following discussion of facilities present:

(1) Water treatment plant
(2) Rail spur from Hsiangt'an
(3) Probable boilerhouse with an adjacent coal pile; a small pipeline leads west from this building
(4) Large building under construction; work on this building began prior to [redacted] and has progressed very slowly - no change can be observed on photography of [redacted] 25X1D nor [redacted] 25X1D 25X1D

(5) Rail served fabrication building
(6) Probable foundry, rail served; on photography of [redacted] 25X1D
[redacted] a small amount of steam can be seen adjacent to the large stack 25X1D
(7) Five fabrication buildings
(8) Small building with a high bay section, constructed since [redacted] 25X1D
(9) Probable weapons test range consisting of a trench approximately 350 feet long with an L-shaped building at the south end and a bunker at the north end
(10) Three small, partially revetted storage buildings, probably associated with the probable weapons test range
(11) Small building under construction
(12) Small building in an early stage of construction; work was begun here after [redacted] 25X1D

b. Relatively little construction activity or changes have occurred at this plant during the period [redacted] 25X1D
No further construction has taken place since [redacted] on the buildings annotated 4 and 12 on Figure 8. The building annotated 11 on the same figure appears to be in a more advanced stage of construction in [redacted] 25X1D 25X1D

3. The presence of steam over the probable foundry building (Annotation 6) in [redacted] 25X1D slight changes in the configuration of the coal pile near the probable boilerhouse, and increasing signs of staining on the roofs of the fabrication building (Annotation 5) and the large fabrication building directly west of Annotation 5 are the only apparent indicators of production activity.

4. All measurements in both section A and B have been made by the CIA/IAD/IB project analyst. They should be considered as approximate and must not be taken as official NPIC mensuration data compiled by the Technical Intelligence Division, NPIC.

[redacted] TOP SECRET [redacted] [redacted] PIR - 65006

CIA IMAGERY ANALYSIS DIVISION

REFERENCES

PHOTOGRAPHY

25X1D [redacted]

MAPS OR CHARTS

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REQUIREMENT

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CIA/IAD PROJECT

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