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TCS-10007-70
5 November 1970

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MEMORANDUM FOR: Recipients of TCS-24119/68 and TCS-22325/70

SUBJECT : Addition of Release Caveat

Request you add the release caveat: 

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 to RCA-15/0014/69, Feb 69 (TCS-
24119/68) and RCA-15/0005/71, Oct. 70 (TCS-22325/70),
Subject: "Shang-Cheng-Tzu Missile Test Center".



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TALENT Control Officer
NPIC

DECLASS REVIEW by NIMA/DOD

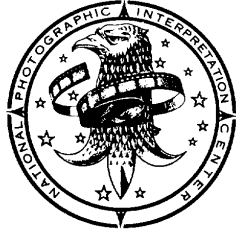
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Basic Imagery Interpretation Report



**NATIONAL
PHOTOGRAPHIC
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CENTER**

handle via TALENT-KEYHOLE control only

SHUANGCHENG TZU MISSILE TEST CENTER



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MISSILE RANGES--STRATEGIC SSM & SPACE FACILITIES

CHINA

FEBRUARY 1969

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NOTE: Send TCS-10007/70

TITLE NPIC SEC. CLASS. LOCATION

TCS-24119/68

Feb. 1969

TS/NOFORN/T/K/C

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Shuang-cheng-tzu Missile Test Center		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	41-08-00N 100-15-00E	
MAP REFERENCE		
SAC. USATC 200, Sheet 0287-16HL, 2d ed, Apr 68, scale 1:200,000 (SECRET)		
LATEST IMAGERY USED		NEGATION DATE (if required)
		NA

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ABSTRACT

This report presents short descriptions of the launch facilities and other major components of the Shuang-cheng-tzu Missile Test Center. A map shows the layout of the Test Center, and a table provides chronological information, coordinates, and other pertinent data on the major facilities. Information in this report is current as of [REDACTED]

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INTRODUCTION

The Shuangchengtzu Missile Test Center (SCTMTC), the only known ballistic missile flight test facility in China, is situated in the Gobi Desert in north-central China, approximately 750 nautical miles (nm) west of Peking and 125 nm northeast of the city of Chiuchuan. The SCTMTC contains facilities for flight testing surface-to-surface missiles (SSMs), surface-to-air missiles (SAMs), cruise missiles, air-to-surface missiles (ASMs), and air-to-air missiles (AAMs). The similarity between several SCTMTC facilities and those at the Kapustin Yar/Vladimirovka Missile Test Center indicates Soviet assistance and influence in the construction of the Chinese Center.

The SCTMTC probably was begun in 1957 or 1958. When it was first seen on satellite photography in [REDACTED] most of the major facilities appeared to be complete. Photographic and other available evidence indicates that since [REDACTED] the Chinese have been using SSM Launch Complex A to test-fire an MRBM similar to the Soviet SS-3. Since [REDACTED] a large new launch facility, Complex B, has been under construction. The large size of Complex B indicates that it could be capable of flight testing ICBM and/or space-related vehicles. If construction continues at the current rate, this complex may be operation in the summer of 1969.

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The SCTMTC occupies an area approximately 125 nm long and 10 nm wide along the Ochina River basin and an extensive inland desert plain. The area is at an elevation of about 4,000 feet and is characterized by sand dunes, salt flats, and hardpan, with hilly terrain west and southwest of the Center's Main Support Base. Vegetation is sparse; the only cultivated land is a narrow area adjoining the intermittent Ochina River, which flows north from the slopes of the Nanshan mountains, an extensive range with peaks over 20,000 feet. The water table is high through the SCTMTC, and water is readily available from wells. The climate is characterized by hot, dry summers and cold, dry winters. During the summers, high temperatures fluctuate between 90 and 110 degrees F, and low temperatures are about 60 degrees F. During the winters, high temperatures vary between 20 and 35 degrees F, and low temperatures vary between -10 and +10 degrees F. While it seldom rains or snows, the area is subject to high winds and severe dust and sand storms during spring and summer.

The Center is served primarily by rail and air. No all-weather or hard-surfaced roads connect it with any city. The single-track railroad serving the SCTMTC extends south through the desert for approximately 120 nm to join the main Lanchou-Urumchi railroad at a point 33 nm southeast of Chinchuan. Excellent roads and railroads connect most of the major facilities within the Test Center.

A large thermal powerplant at the Main Support Base supplies power to the SCTMTC through a system of several power substations.

BASIC DESCRIPTION

The major facilities at the SCTMTC are four SSM launch complexes, 18 SSM instrumentation sites, an SSM Housing and Support Area, a SAM Launch Complex, a Main Support Base, operational support facilities, communications facilities, a large airfield, and five, possibly seven, suspect advanced-weapons related facilities.

SSM Launch Complex A

Launch Complex A,¹ the southernmost of the SSM launch complexes, is approximately 17 nm north of the Main Support Base. When first observed in [REDACTED] this complex consisted of two completed large launch pads, designated A-1 and A-2, and a final checkout area. Since [REDACTED] several MRBM firings have taken place at Pad A-1, while Pad A-2 has been used only as a parking area for ground support vehicles and equipment. Complex A remained essentially unchanged until the third, smaller launch pad, A-3, was constructed between [REDACTED]

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SSM Launch Complex B

Launch Complex B,² the largest launch complex at the SCTMTC, is approximately 1.5 nm north of Complex A, at the site of an uncompleted facility observed in [REDACTED] which had been intended to be a duplication of Complex A. The area remained inactive from [REDACTED] until [REDACTED] when the railroad was extended into it and construction began on a large, rail-served ICBM or space-related pad, designated Pad B-1. The pad appeared to be complete and operational in [REDACTED] but there is no photographic evidence that it has ever been used. Since [REDACTED] extensive modification of Pad B-1 has been in progress, including the construction of an underground equipment room and a 120-foot-high service tower adjoining the launch point. Pad B-2, a larger pad than B-1, was started in [REDACTED] and construction is continuing. This 125- by 75-foot pad with a flame pit 100 feet long and 60 feet wide may be operational in the summer of 1969 if the present rapid rate of construction continues.

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SSM Launch Complex C

Launch Complex C,³ situated about 3 nm north of Complex B, appeared complete when first observed in [REDACTED]. The presence of four anchor points in a diamond-shaped pattern on the pad (Pad C-1) in [REDACTED] and the presence of a 60- by 30-foot drive-through building in the final checkout area, features also seen at the Lienshan Cruise Missile Complex, suggest that Complex C was used for testing cruise missiles. A new launch pad, C-2, with a 65-foot-high probable service tower was constructed just north of the original pad between [REDACTED] [REDACTED]. This is the same period during which Pad B-1 at Launch Complex B was constructed. The purpose of Pad C-2 may be the launching of high-altitude sounding rockets.

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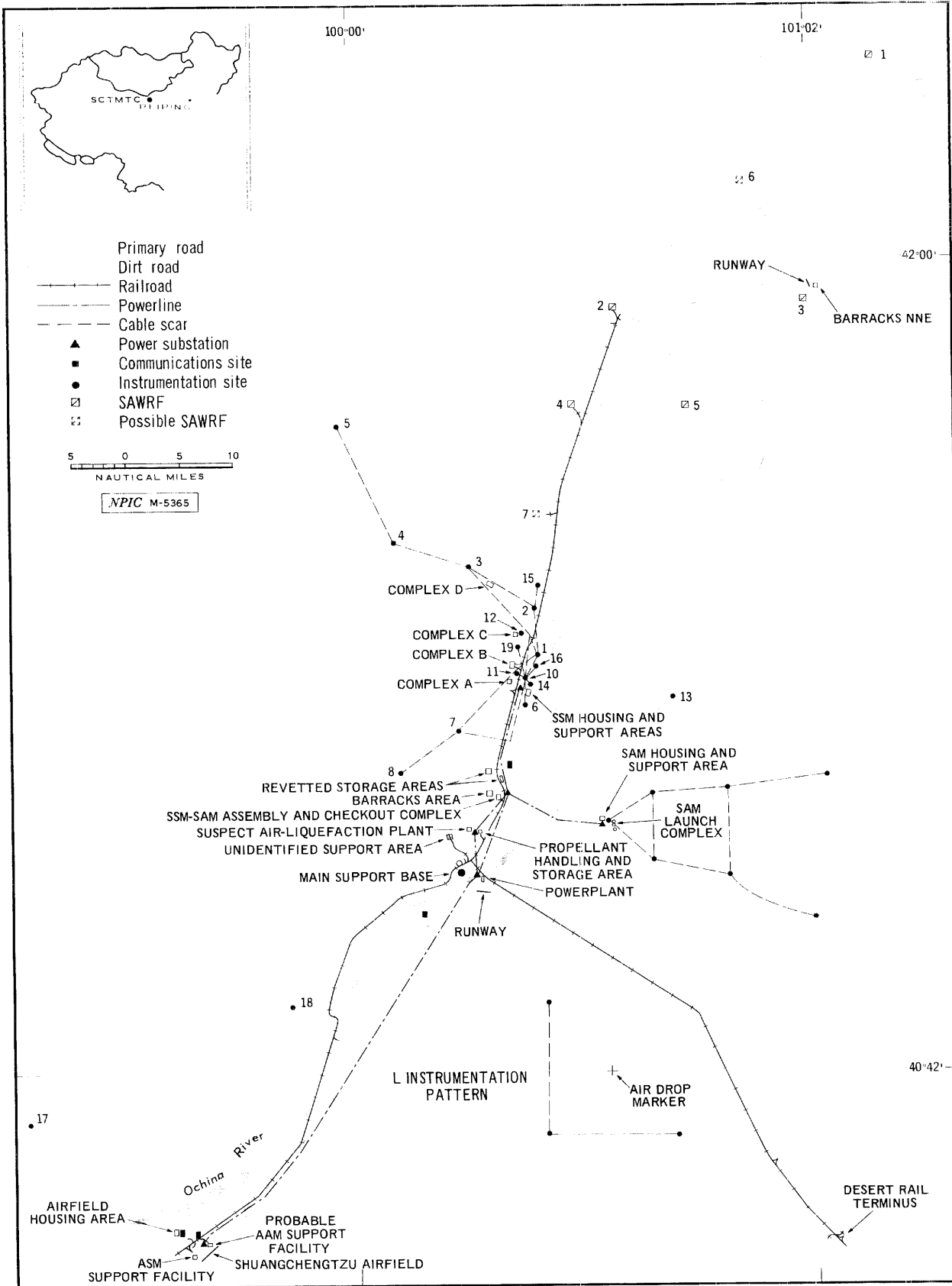


FIGURE 1. LAYOUT OF SHUANGCHENG TZU MISSILE TEST CENTER.

SSM Launch Complex D

Launch Complex D,¹ was constructed approximately 4 nm north-northwest of Complex C between [redacted]. It was probably built specifically for the [redacted] at which time a missile with a [redacted] probably from Complex D, to Lop Nor, China. The complex apparently has not been used since then, and appears to be deteriorating. A blast mark on the pad on [redacted] photography indicates that at least one missile was tested on this pad prior to the [redacted]. A similarity between blast marks and the use of the same ground equipment at Complexes A and D suggest that the missile launched at Complex D on [redacted] was the same type that has been under test at Complex A.

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SSM Instrumentation

SSM instrumentation³ consists of 18 sites* arranged in a modified vee pattern with legs approximately 28 and 55 nm long, respectively. Most of these instrumentation sites were present and operational in [redacted]. The major changes since then have been the addition of 17 and 19, which were constructed during [redacted] and are situated approximately 50 and 25 nm, respectively, south-southwest of Complex B.

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SSM Housing and Support Area

The SSM Housing and Support Area,⁴ situated approximately 1.5 nm east-southeast of Complex A, contains about 50 buildings, including barracks, equipment maintenance and storage buildings, and a meteorological station. The major change in this area since [redacted] has been the construction, between [redacted] of a large S-shaped, multistory, probable administration building.

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SAM Launch Complex

The SAM Launch Complex,⁵ which is approximately 15 nm north-east of the Main Support Base, includes two operational fan-shaped SA-2 SAM sites, a third launch site under construction, and a housing and support area. SAM instrumentation consists of seven tracking sites arranged in a modified vee pattern with an overall length of 23 nm and an opening downrange, toward the east.

Continuing test activity has been evident at this complex since it was first observed in [redacted]. Significant changes have been the addition of two downrange tracking sites in [redacted] the construction of approximately 40 buildings since [redacted] which more than doubled the size of the housing and support area, and the construction, begun in [redacted] of the third launch site. The construction of this site has progressed slowly. It appears to be nearly complete, but no missile-related equipment has been observed.

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Main Support Base

The Main Support Base,⁶ situated near the center of the SCTMTC, contains over 700 buildings, including administration buildings, schools, barracks, motor pools, storage buildings, railroad repair facilities, and a large thermal powerplant and a 7,000-foot-long graded-earth runway. Over 400 buildings, including the major elements of the Base, were present in [redacted] and new buildings have been added every year since.

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* Designated Sites 1-8 and 10-19.

Operational Support Facilities

The operational support facilities⁴ include an SSM and SAM Assembly and Checkout Complex, a Propellant Handling and Storage Area, and two Revetted Storage Areas (one designated a Storage and Handling Area). These facilities are positioned along the road and railroad from 3 to 7 nm north of the Main Support Base. There has been little significant change in the four facilities since they were first seen in [REDACTED]. A suspect Air-Liquefaction Plant constructed between [REDACTED] is 1 nm west-northwest of the Propellant Handling and Storage Area.

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A large multistory administration building, four multistory barracks buildings, and several associated buildings were constructed during [REDACTED] in an area 1 nm northeast of the SSM and SAM Assembly and Checkout Complex. Track activity from these buildings extends to several areas within a 5-nm radius in which a total of 50 or more tunnels have been dug into the sides of ridges. The nature of this tunneling activity is undetermined. Similar tunneling is apparent in several other hill areas near the Main Support Base.

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Communications Facilities

The communications facilities⁷ at the SCTMTC consist of two transmitting sites and two receiving sites which support rangehead and airfield operations. The rangehead transmitting site is 11 nm north-northeast of the Main Support Base, and the receiving site is 4 nm southwest of the Main Support Base. The transmitting and receiving sites for airfield communications are near the airfield, approximately 40 nm south-southwest of the Main Support Base. All four of these sites are major facilities with rhombics, dipoles, and vee antennas conforming to Soviet designs. No change has been apparent in the sites since [REDACTED].

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Shuangchengtzu Airfield

The Shuangchengtzu Airfield,⁸ situated 40 nm south-southwest of the Main Support Base, has a 13,575- by 270-foot concrete runway, one of the longest in China. Support facilities for the airfield include administration and housing areas, POL storage, the two communications sites, radar sites, and an instrument landing system. A large hangar and buildings associated with the handling of ASMs are near the southwest end of the runway. A probable AAM support facility containing two large hangars and associated buildings is near the northeast end of the runway.

An "L" instrumentation pattern, consisting of three radar sites arranged in the form of an isosceles right triangle, is northeast of the airfield. The apex site is approximately 30 nm from the airfield; the two legs of the triangle, each 12.5 nm long, extend east and north

[REDACTED]

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There has been little change in the airfield area since [REDACTED]. During [REDACTED] a hangar was added in the probable AAM support facility, and a few buildings were constructed in the ASM support facility.

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Suspect Advanced-Weapons Related Facilities

Five, possibly seven, unidentified facilities designated suspect advanced-weapons related facilities (SAWRFs), are under construction in isolated areas from 45 to 95 nm north-northeast of the Main Support Base. These facilities, which are separated from each other by distances of from 12 to 22 nm, each consist of patterns of narrow

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corridors occupying an overall area approximately 850 by 400 feet. The corridors are [REDACTED] and when completed are covered with earth to form single large mounds approximately 1,300 feet long, 450 feet wide, and 80 feet high. Structures are being built at the bases of the mounds, at the ends of each corridor. The construction of the SAWRFs began early in [REDACTED] when two were observed in an early stage of construction. During [REDACTED] construction was initiated on the three, possibly five, additional SAWRFs.

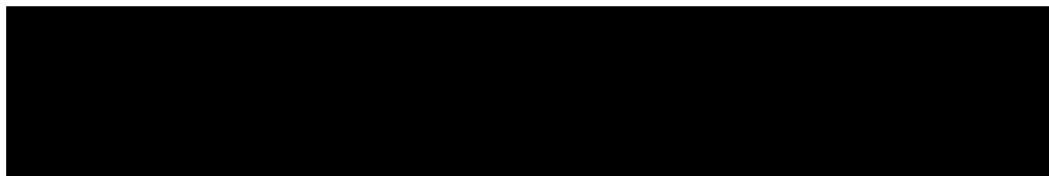
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The function of the SAWRFs has not yet been determined.

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REFERENCES



MAPS OR CHARTS

- SAC. US Air Target Chart 200, Sheet 0287-16HL, 2d ed, Apr 68, scale 1:200,000 (SECRET)
- SAC. US Air Target Chart 200, Sheet 0287-21HL, 2d ed, Mar 66, scale 1:200,000 (SECRET)
- SAC. US Air Target Chart 200, Sheets 0287-11HL and 0287-12HL, 1st ed, May 62, scale 1:200,000 (SECRET)

DOCUMENTS

1. NPIC. TCS-80083/67, SSM Launch Facilities, Shuang-cheng-tzu Missile Test Center, China, Feb 67 (TOP SECRET RUFF)
2. NPIC. TCS-22009/69, SSM Launch Complex B, Shuangchengtzu Missile Test Center, Jan 69 (TOP SECRET RUFF)
3. NPIC. TCS-80376/67, SSM Instrumentation Sites, Shuang-cheng-tzu Missile Test Center, China, Jul 67 (TOP SECRET RUFF)
4. NPIC. TCS-80345/67, SSM Housing and Support Area and Operational Support Facilities, Shuang-cheng-tzu Missile Test Center, China, Jun 67 (TOP SECRET RUFF)
5. NPIC. TCS-80550/67, SAM Launch Complex, Shuang-cheng-tzu Missile Test Center, China, Oct 67 (TOP SECRET RUFF)
6. NPIC. TCS-80065/67, Main Support Base, Shuang-cheng-tzu Missile Test Center, China, Feb 67 (TOP SECRET RUFF)
7. NPIC. R-1665/64, Communications Facilities, Shuang-cheng-tzu Missile Test Center, China, Dec 64 (SECRET/No Foreign Dissem)
8. NPIC. TCS-80318/67, Airfield and Associated Facilities, Shuang-cheng-tzu Missile Test Center, China, Jun 67 (TOP SECRET RUFF)
9. NPIC. TCS-20092/68, Suspect Advanced Weapons Related Facilities, China, Feb 68 (TOP SECRET RUFF)

REQUIREMENTS

- COMIREX BR-P/003-69
- NPIC Project 210269

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