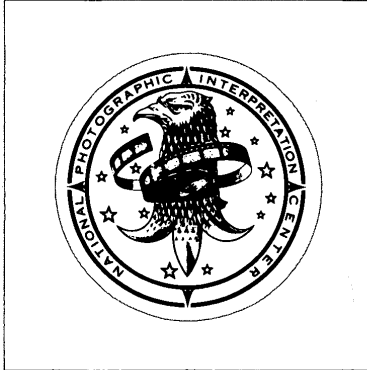


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**NATIONAL PHOTOGRAPHIC
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**B
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ASIC
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INTERPRETATION
REPORT

**DATONG (TA-TUNG) SSM FIELD
GARRISON, PRC (S)**

[Redacted]

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**DEPLOYED STRATEGIC SSM FACILITIES
PRC
JULY 1979**

[Redacted]

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INSTALLATION OR ACTIVITY NAME		COUNTRY	
Datong (Ta-tung) SSM Field Garrison		PRC	

UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	37-07-10N 101-32-10E				

MAP REFERENCE
DMAAC. USATC, Series 200, Sheet 0332-20, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (if required)
	NA

ABSTRACT

1. (TSR) This report describes the facilities and activity observed at Datong (Ta-tung) SSM Field Garrison in the People's Republic of China (PRC) and satisfies the basic reporting requirements for this facility. A PRC SSM field garrison is a logistics center whose primary activities are maintenance and training. When the SSM launch units leave the garrison, they go to a deployment area and build new launch pads or use existing launch ones. The deployment area for the launch units at Datong is unknown.

2. (TSR) The Datong SSM Field Garrison was established in October 1976 just after the Wuwei (Wu-wei) SSM Field Garrison [redacted] 50 nautical miles (nm) to the northeast, was abandoned. There is circumstantial evidence that the SSM equipment at Datong is redeployed equipment from the Wuwei garrison. Like other SSM field garrisons in the PRC, Datong contains no long-term propellant storage or warhead storage and handling facilities. Under the PRC's mobility concept for deployment, all ground support equipment (GSE) is brought together at the time of deployment, either during the travel phase or at the designated launch areas.

3. (TSR) Datong is currently the largest SSM field garrison identified in the PRC, and is believed to house the major elements of two SSM regiments and an SSM division headquarters. The garrison uses the housing and support buildings of a former domestic communications satel-

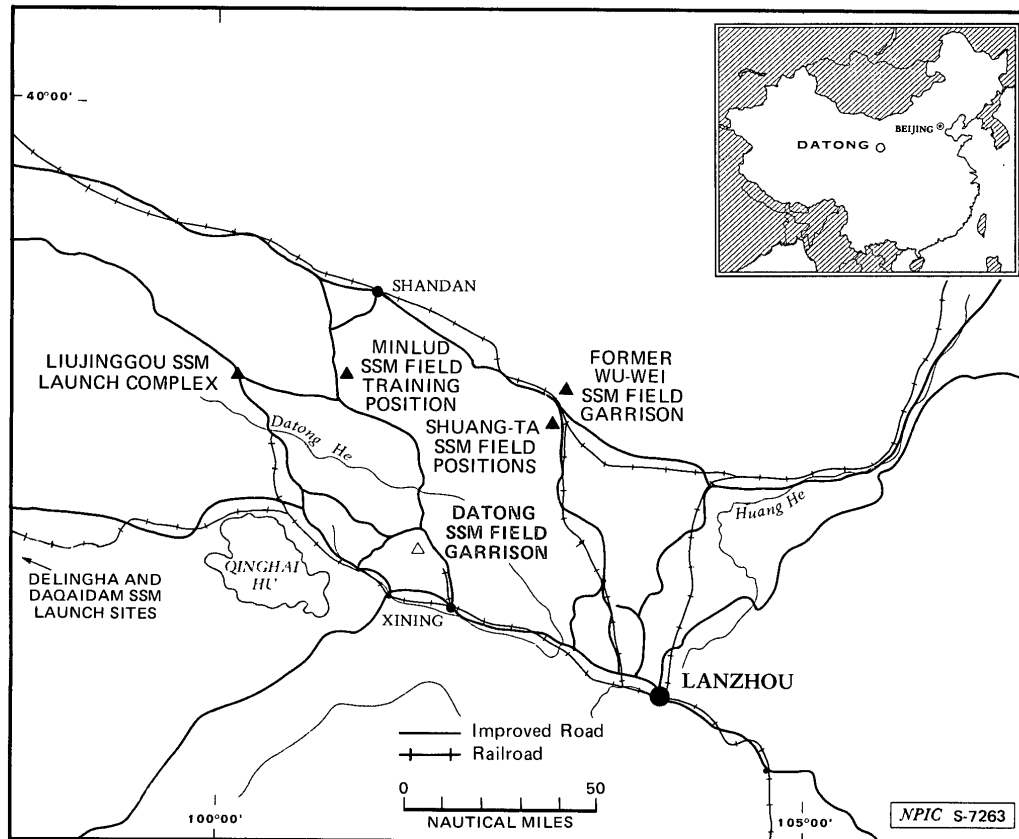


FIGURE 1. LOCATION OF DATONG SSM FIELD GARRISON AND RELATED FACILITIES, PRC

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lite (comsat) station which was abandoned in 1974. Since October 1976, nine missile checkout/storage buildings, a training pad, five GSE storage garages, and several support buildings have been added to the preexisting installation.

4. (U) This report contains two maps, six photographs, and five tables.

INTRODUCTION

5. (TSR) The Datong SSM Field Garrison is in Qinghai (Tsing-Hai) Province in Lanzhou (Lan-chou) Military Region in the western PRC. It is 13.5 nm west-northwest of Datong and 75 nm northwest of Lanzhou (Figure 1). It is in a mountain valley and at an elevation of 2,804 meters. The facility is served by a packed-earth or gravel road. Rail service is provided to the town of Datong, which is approximately 13 nm to the southeast. Liujiangou (Liu-ching-kou) SSM Missile Launch Complex [redacted] is the nearest offensive missile complex. Travel between these installations is possible via an improved road, but it appears that it would be slow and arduous. Several switchbacks lead through the Daban Shan range, north of the facility, to an elevation of nearly 3,962 meters. The straight-line distance between these facilities is 50 nm; however, the actual road distance is approximately 115 nm. Road or road and rail travel is possible from Datong to other SSM-related facilities to the north and west.

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BASIC DESCRIPTION

6. (TSR) A PRC SSM field garrison is capable of housing, maintaining, and training missile units but lacks an operational launch pad, underground missile storage areas, and both above-ground and underground propellant storage areas. A field garrison typically lacks sufficient onsite GSE (propellant vehicles and associated support vans) storage capacity to support the number of missile checkout/storage buildings present. Each missile checkout/storage building has two bays and is capable of housing an SSM on its transporter and a transporter/erector. To meet the need for additional GSE storage, it is probable that an additional GSE storage area or areas are located elsewhere in the region. Therefore, when the missile launch unit deploys to the field, all of its components are brought together at a predesignated area or at a field launch position.

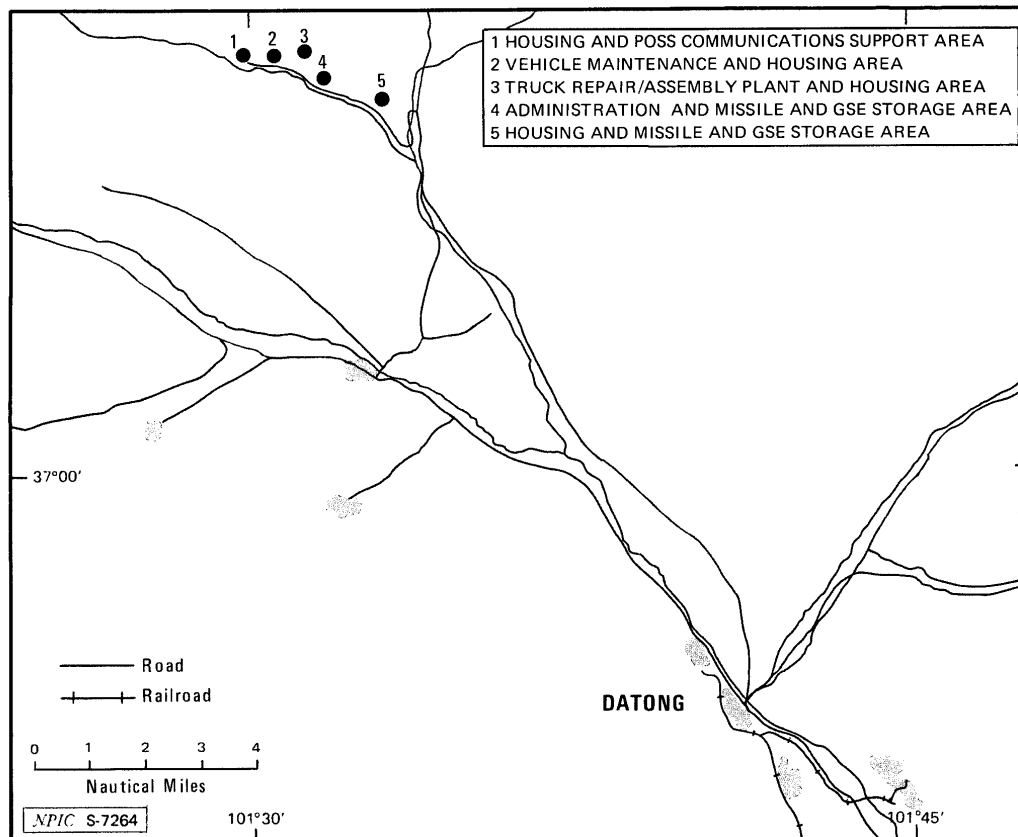


FIGURE 2. DATONG SSM FIELD GARRISON

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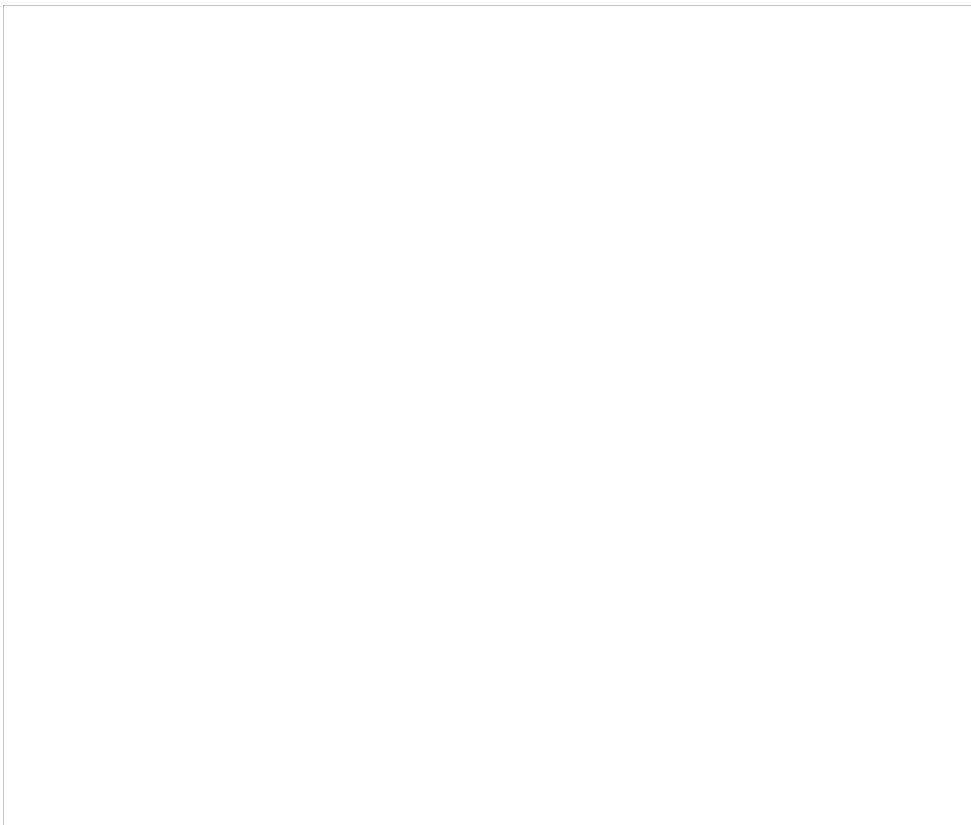


Table 1. Housing and Missile and GSE Storage Area
 (Keyed to Figure 3)

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Item	Description	Dimensions (m)			Roof Cover (sq m)	Comments
		L	W	H		
1	Pol dispensing bldg				46	
2,3	Quarters (2)				367	
4	Quarters				157	
5	Quarters				136	
6	Quarters				175	
7	Quarters				121	
8	Quarters				158	
9	Quarters				125	
10	Quarters				173	
11	Quarters				200	
12	Quarters				184	
13, 14	Quarters (2)				550	
15	Heating plant				157	
16	Heating plant				73	
17	Prob auditorium				401	
18	Messhall				634	
a						
b						
c						
19	Barracks (multistory)				470	
20	Support bldg				54	
21	Barracks (multistory)				322	
22	Messhall				163	
a						
b						
23	Barracks (multistory)				598	
24	Messhall				527	
a						
b						
c						
25	Support bldg				111	
26	Support bldg				146	
27	Barracks (multistory)				388	
28	Messhall				146	
29, 30	Barracks (2 multistory)				1,070	
31	Barracks (multistory)				388	
32	Messhall				295	
33	Messhall				108	
34	Barracks (multistory)				397	
35	Heating plant				102	
36	GSE storage garage				1,110	26 bays
37	Missile checkout/ storage bldgs (6)				1,580	Each bldg has 2 bays
38	GSE storage garage				1,110	26 bays

7. (TSR) The Datong SSM Field Garrison consists of five areas—housing and missile and GSE storage, administration and missile and GSE storage, truck repair/assembly plant and housing, vehicle maintenance and housing, and housing and possible communications support (Figure 2). It has a total of 25,262 square meters of barracks floor space, including the multistory barracks. If 20 percent of this total is subtracted as unusable for living space (hallways, roof overhang, stairways, etc.), a total of 20,210 square meters of usable living space remains. On the basis of 4.6 square meters (or 50 square feet) per person, this facility could house 4,400 persons. Also, 51 families could be housed within the family quarters.

8. (TSR) This installation contains a total of nine missile checkout/storage buildings. Six of these buildings (interconnected) are in the housing and missile and GSE storage area and three interconnected buildings are in the administration and missile and GSE storage area. The installation has 78 bays of GSE storage, 52 in the housing and missile and GSE storage area and 26 in the administration and missile and GSE storage area, and 25 bays of vehicle storage. If a minimum of 27 to 28 associated vehicles are needed for each missile launch unit, with the facility at full capacity, approximately 260 bays of GSE storage would be necessary to support the nine missile checkout/storage buildings.

Table 2. Administration and Missile and GSE Storage Area
 (Keyed to Figure 4)

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Item	Description	Dimensions (m)			Roof Cover (sq m)	Comments
		L	W	H		
1	Support bldg				438	
a						
b						
2	Support bldg				57	
3	Messhall				195	Constructed between Jan & Oct 76
a						
b						
c						
4	Support bldg				183	
5	Admin/headquarters bldg				1,138	
a						
b						
c						Has vehicle maintenance/training bay
6	Messhall				164	Constructed between Jan & Oct 76
a						
b						
7	Messhall				172	Constructed between Jan & Oct 76
a						
b						
c						
8	Messhall				152	Constructed between Jan & Oct 76
9	Admin/barracks (multistory)				450	
a						
10	Messhall				531	
a						
b						
c						
d						
11	Admin/barracks (multistory)				280	
a						
b						
12	Admin/barracks (multistory)				440	
a						
b						
13	Heating plant				189	
a						
b						
14	Support bldg				111	
15	GSE storage garage				53	12 bays
16	Support bldg				72	
17	GSE storage garage				430	10 bays
18	GSE storage garage				157	4 bays
19	Missile checkout/storage bldgs (3)				798	Each bldg has 2 bays

9. (TSR) Most of the installation was constructed between January 1967 and October 1971. At that time, it consisted of the Datong Probable Domestic Comsat Station, the Datong HF Communications Facility () and the Datong Storage Area () all of which now make up the five areas of the SSM field garrison. Between December 1973 and November 1974, both the comsat station and the HF communications facility were dismantled. From November 1974 until the appearance of SSM equipment in October 1976, no activity was observed. Some additional SSM-related construction activity has occurred here since October 1976. CSS-2 SSM equipment is still present at the installation.

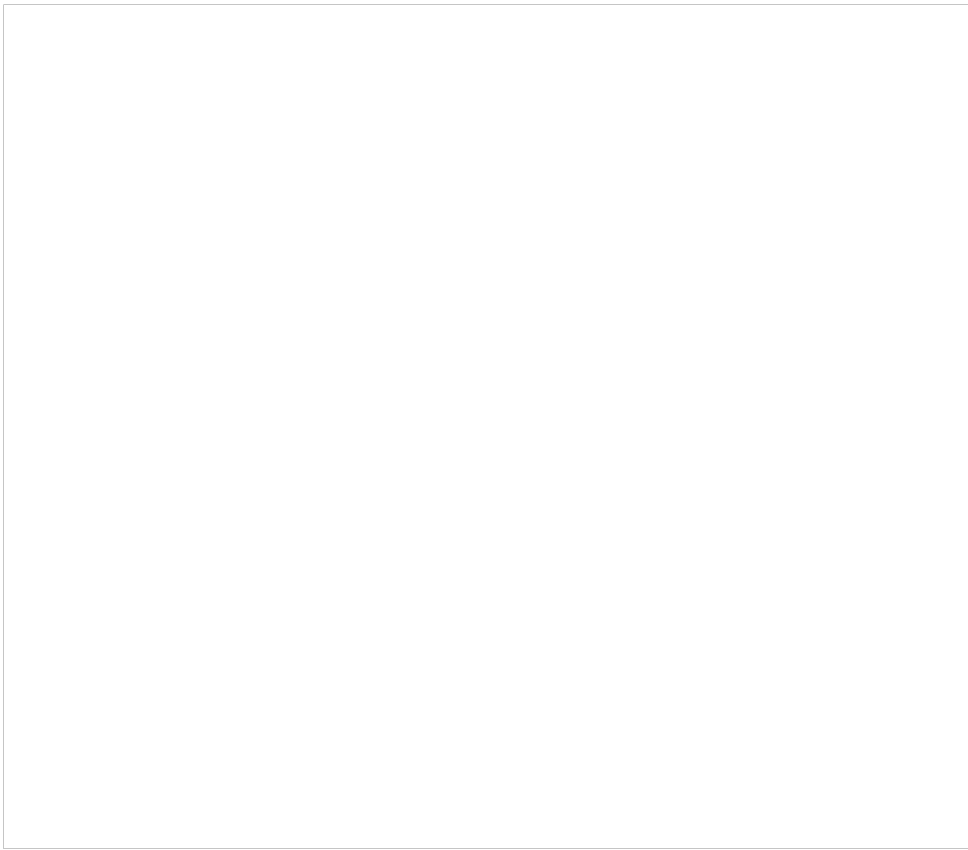


Table 3. Truck Repair/Assembly Plant and Housing Area
 (Keyed to Figure 5)
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Item	Description	Dimensions (m)			Roof Cover (sq m)	Comments
		L	W	H		
1	Support bldg				35	
2	Support bldg				44	
3	Workshop				81	
4.5	Vehicle repair/assembly bldgs (2)				716	
6.7	Vehicle repair/assembly bldgs (2)				880	
a						
8	Support bldg				122	
9.10	Vehicle repair/assembly bldgs (2)				922	
a						
b						
11.12	Vehicle repair/assembly bldgs (2)				1,158	
13	Support bldg				140	
14	Support bldg				188	
15	Support bldg				553	
16	Vehicle storage garage				483	10 bays
a						
b						
17	Messhall				681	
a						
b						
18	Support bldg				160	
19	Support bldg				137	
20	Support bldg				156	
21, 22	Barracks (2 multistory)				873	
23, 24	Barracks (2 multistory)				776	
25-27	Admin/barracks (3 multistory)				1,050	
28	Support bldg				53	
29	Heating plant				420	

Housing and Missile and GSE Storage Area

10. (TSR) The housing and missile and GSE storage area (Figure 3 and Table 1) is at the eastern end of the valley and consists of two separately secured areas. The partially wall-secured housing area contains eight multistory barracks, 13 multifamily quarters that can house 32 families, six messhalls, a POL dispensing building with a small adjacent bunker, and three heating plants. The housing area has remained basically unchanged since it was constructed. The separately wall-secured missile and GSE storage area is immediately south of the housing area. It contains six interconnected missile checkout/storage buildings, two GSE storage garages with a total of 52 bays of vehicle storage, and a partially underground POL storage area with 14 drums. The missile checkout/storage buildings were under construction in October 1976, when SSM equipment was first identified in this area. These buildings were externally complete in April 1977. Both GSE storage garages were first seen under construction in July and were complete by

Administration and Missile and GSE Storage Area

11. (TSR) The administration and missile and GSE storage area (Figure 4 and Table 2), formerly the Datong Probable Domestic Comsat Station, is 1,570 meters west-northwest of the housing and missile and GSE storage area and consists of two separately secured areas. The separately wall-secured missile and GSE storage area contains three interconnected missile checkout/storage buildings, three GSE storage garages with a total of 26 bays of vehicle storage, and a training launch pad. These missile checkout/storage buildings were constructed during the same time as those in the housing and missile and GSE storage area. The GSE storage garages were built slightly later than the missile checkout/storage buildings. The storage garages were first

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Table 4. Vehicle Maintenance and Housing Area
 (Refer to Figure 6)

Item	Description	Dimensions		Roof Cover (sq. m)	Comments
		l (m)	w (m)		
1	Support bldg			51	
2	Heating plant			112	
a					
3	Barracks			1,518	
a					
c					
d					
4	Messhall			112	
5	Vehicle storage garage			588	15 bays
6	Barracks/support bldg			298	
7	Auditorium			418	
8	Barracks			405	
9	Barracks/support bldg			767	
a					
b					
c					
d					
10	Barracks/support bldg			315	
a					
b					
11	Heating plant			563	
12	Quarters			168	
13	Quarters			222	
14	Quarters			201	
15	Messhall			698	
a					
b					
c					
16	Barracks			344	
17	Barracks			245	
18	Messhall			268	
19	Support bldg			63	
20, 21	Barracks (2)			359	
22, 23	Quarters (2)			212	
24	Quarters			202	
25	Quarters			135	
26	Quarters			201	
27	Barracks			182	
28	Messhall			188	
a					
b					
29	Barracks			183	
30	Barracks			153	
31	Barracks			127	
32	Barracks			150	
33	Barracks			194	
34, 35	Barracks (2 multistory)			897	
36	Barracks (multistory)			399	
37	Barracks (multistory)			407	
38	Admin/support bldg			351	
39	Admin/support bldg			612	
a					
b					
40, 41	Admin/support bldg (2)			700	
42	Heating plant			66	
a					
b					
43	Heating plant			113	
44	Auditorium			1,265	
45	Storage/support bldg			213	
46	Storage/support bldg			538	
a					
b					
c					

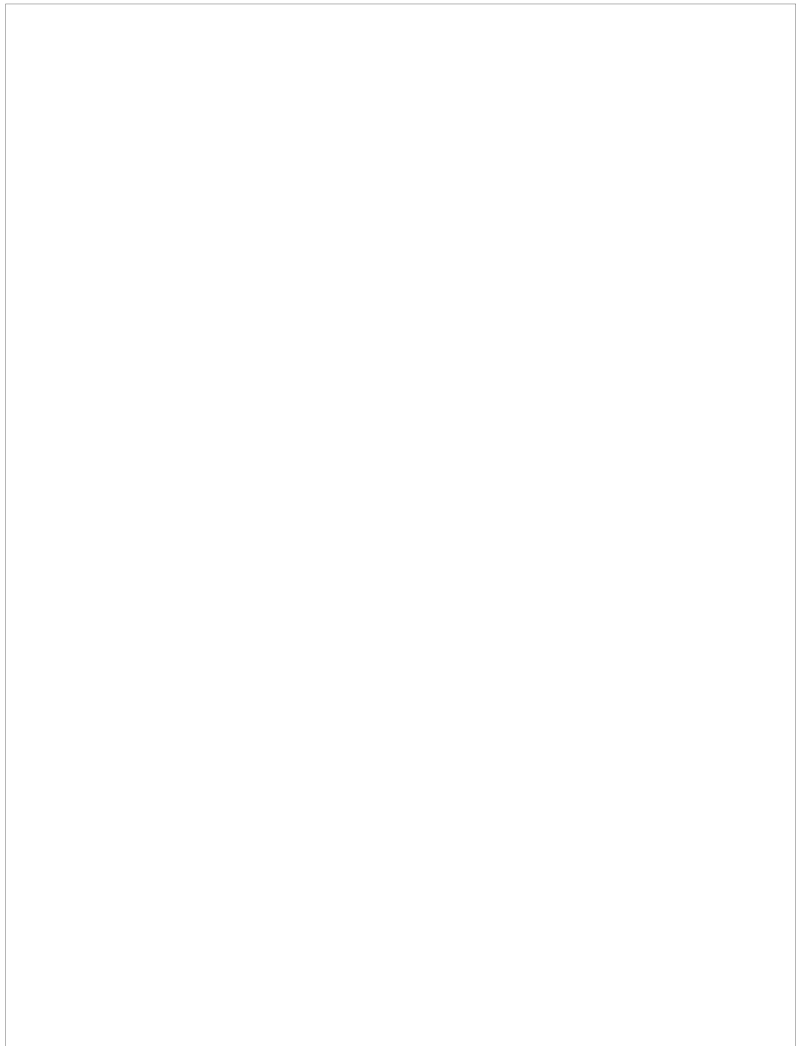


Table 5. Housing and Possible Communications Support Area
 (Keyed to Figure 7)

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Item	Function	Dimension (m)			Roof Cover (sq m)
		L	W	H	
1	Heating plant				254
a					
b					
c					
2	Admin/support bldg				365
3	Barracks (multistory)				401
4	Admin/support bldg				368
5	Support bldg				56
6	Admin/support bldg				368
7	Barracks (multistory)				405
8	Barracks (multistory)				593
9	Messhall				435
10	Shop bldg				132
11	Barracks (multistory)				413
12	Barracks (multistory)				590
13	Support bldg				207
14	Support bldg				120
15	Barracks (multistory)				287
16	Shop bldg				93
17	Prob shop bldg				776
18,19	Support bldg (2)				380
20	Shop/support bldg				284

observed under construction on [redacted] and were externally complete in December. The training launch pad was first seen on [redacted] with a CSS-2 launch stand on it. The pad is rectangular rather than square and is slightly smaller [redacted] than launch pads found at operational SSM sites. A CSS-2 transporter/erector has been seen backed up to a launch stand on the pad on several occasions, an indication of its use in driver training and in practice missile loading. The pad is lightly covered with earth or vegetation when it is not in use.

12. (TSR) The administration area is partially fence secured and contains an administration/headquarters building (formerly an operations/control building) now modified to contain a missile maintenance/training bay in the east wing, three multistory barracks/administration buildings, five messhalls, one heating plant, and two weather stations. The probable domestic comsat station was observed being dismantled on [redacted]. Both the 10- and the 15-meter-diameter antenna dishes were gone in November 1974, and no activity was seen in the area between November 1974 and January 1976. Four messhalls and the two weather stations were constructed between January 1976 and October 1976 when the SSM equipment was initially observed. A PARACEL A meteorological radar is near the weather stations. The first sighting of activity near the east wing of the administration/headquarters building was in April 1977, when the trees and shrubbery had been removed and a road and a Y-shaped vehicle turnaround area had been built. The vehicle turnaround area and the wing of the building are each long enough to accommodate either a CSS-2 transporter or transporter/erector. The drive-in opening was initially visible in the wing in July 1977. This opening is [redacted] which is large enough to accommodate a CSS-2 on its transporter or transporter/erector.

Truck Repair/Assembly Plant and Housing Area

13. (TSR) The truck repair/assembly plant and housing area (Figure 5 and Table 3), formerly the Datong HF Communications Facility, is 945 meters northwest of the administration and missile and GSE storage area. It is wall secured and consists of two areas. The truck repair/assembly plant area contains eight vehicle repair/assembly buildings. The eight vehicle repair/assembly buildings are former barracks which have been converted. Trucks and truck chassis in various stages of repair are scattered among these buildings. The adjacent housing area contains three barracks/administration buildings, a vehicle storage garage with ten bays, four multistory barracks, one messhall, and a heating plant. A nearby HF fishbone antenna field was removed from this area between December 1973 and April 1974. The area remained inactive until October 1976. At that time, at least seven trucks and several truck cargo compartments were observed when SSM equipment was first identified at the field garrison.

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Vehicle Maintenance and Housing Area

14. (TSR) The vehicle maintenance and housing area (Figure 6 and Table 4) is 2,550 meters west of the administration and missile and GSE storage area. The partially wall-secured area contains a 15-bay vehicle storage garage with an adjacent vehicle maintenance rack, four multi-story barracks, 12 barracks, eight multifamily quarters that can house 19 families, four messhalls, four multi-story administration/support buildings, two auditoriums, four heating plants, and an athletic field. A grenade practice range has also been observed here. Only minor construction activity has occurred within the area since December 1970.

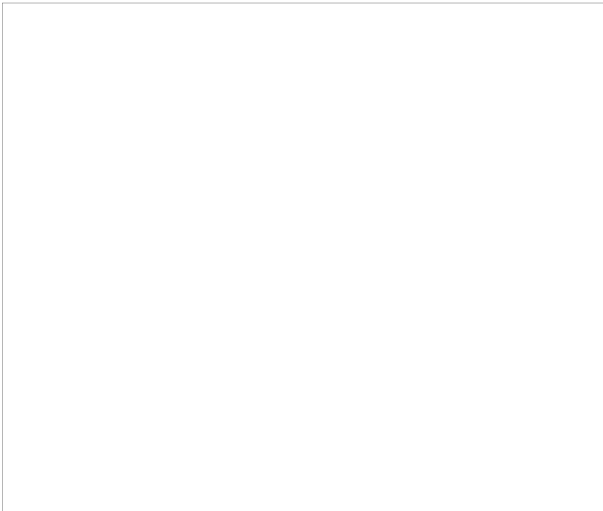
Housing and Possible Communications Support Area

15. (TSR) The housing and possible communications support area (Figure 7 and Table 5) is 750 meters west of the vehicle maintenance and housing area. The area contains three administration/support buildings, six multi-story barracks, one messhall, one heating plant, and two caves. Only minor construction activity has occurred within the area since December 1970.

16. (TSR) The two caves were first observed under construction in October 1971. Construction was slowed or halted in the mid-1970s and was apparently resumed by April 1977 after the arrival of the missile forces. These two caves could meet to form a tunnel approximately 310 meters long. However, the amount of spoil excavated indicates that this would not be a drive-through tunnel. The caves have a north/south orientation and their exact function is unknown. The north cave is served by a foot bridge and has a headworks. An entrance or doors could not be discerned. The construction support buildings associated with the south cave entrance were torn down in June 1978. An earth and gravel road serves this cave. Little or no construction activity is presently occurring at either cave.

Status and Activity

17. (TSR) The status and activity at the former probable domestic comsat station (presently the administration and missile and GSE storage area) and the former HF communications facility (presently the truck repair/assembly and housing area) as of [redacted] were discussed in a previous report. No unusual vehicular activity was seen in the other three areas of the



field garrison from the time of their construction through [redacted]. This report discusses the activity seen in all five areas since that date.

18. (TSR) The removal of the fishbone antenna masts from the HF communications facility between December 1973 and April 1974 was the first indication of a change in status of the area. The two antenna dishes were being removed from the comsat site when the area was observed on [redacted] (Figure 8). On that date, the 15-meter-diameter dish had been dismantled and about 20 of its dish segments were lying nearby on the ground. Also, one segment was missing from the 10-meter-diameter dish. By November 1974, both dishes were gone, but the pedestals remained, and the entire area appeared to be inactive. Little or no vehicular activity was seen at any of the five areas from November 1974 until [redacted] when CSS-2 SSM equipment was first identified and there was an increase in vehicular activity in all the areas. This is the primary reason why each of the five areas is considered to be a part of the SSM field garrison. Approximately 120 vehicles, including two probable warhead vans, one CSS-2 launch stand transporter, and 25 propellant vehicles, were observed at the SSM field garrison in October. It is likely that this equipment came from the former SSM garrison at Wuwei, which is 50 nm northeast of Datong. SSM equipment was last observed at Wuwei on photography of [redacted]. All equipment was gone from that facility on [redacted]. Ground force units are now housed at the Wuwei facility.

19. (TSR) High-resolution imagery of Datong in April, September, and October 1977 continued to show numerous pieces of CSS-2 equipment. The first CSS-2 transporter/erector was observed in front of the missile checkout/storage buildings of the administration and missile and GSE storage area on photography of [redacted]. Several small boxlike van trucks with a small circular area atop the van body were discernible in the housing and possible communications support area. These vehicles, which are [redacted] are possibly associated with communications and have been continuously observed in various numbers in this area.

20. (TSR) In October and November 1977, there was a sharp decrease in the number of vehicles observed in the open. This decrease can no doubt be attributed to the completion of the new GSE vehicle storage garages. From November 1977 until June 1978, little or no activity was observed at the field garrison. In June 1978, activity increased and the training launch pad was first observed with a CSS-2 launch stand on it and a CSS-2 transporter/erector backed up to it. The activity in this area had ended by [redacted]. However, observations of SSM equipment within the courtyard area of the housing and missile and GSE storage area continued until [redacted] when the courtyard was empty. There is a possibility that some of this equipment may have been transported to the Liujinggou SSM launch complex. An increase in SSM equipment was observed in the Liujinggou area between [redacted].

21. (TSR) Although the size and the location of deployment of the unit housed at Datong are not certain, the Datong SSM Field Garrison is presently the largest SSM field garrison identified in the PRC. The garrison may contain the major elements of two regiment-sized units. The large amount of administration space may be used to house an SSM division headquarters.

REFERENCES

IMAGERY

(TSR) All applicable KEYHOLE imagery acquired from [redacted] was used in the preparation of this report.

MAPS OR CHARTS

DMAAC, US Air Target Chart, Series 200, Sheet 0332-20, scale 1:200,000 (UNCLASSIFIED)

DOCUMENT

1. NPIC, [redacted] RCA-03/0023/73, Ta-tung Space Tracking Facility (Ta-tung Probable Communications Satellite Earth Station), Nov 73 (TOP SECRET) [redacted]

REQUIREMENT

COMIREX AO1
Project 290003DA

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Asian Forces Division, Imagery Exploitation Group, NPIC, [redacted]

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