Top Secret

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BASIC
IMAGERY
INTERPRETATION
REPORT

NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER

LUKHOVITSY AIRFRAME PLANT (S)

[redacted] 25X1

STRATEGIC WEAPONS INDUSTRIAL FACILITIES
USSR
JUNE 1979

Top Secret

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RCA-09/0012/79

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INSTALLATION OR ACTIVITY NAME					COUNTRY
Lukhovitsy Airframe Plant					UR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	55-54-55N 039-02-20E				25X1

MAP REFERENCE

SAC. USATC, Series 200, Sheet 0166-6, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
See "Abstract"	NA

ABSTRACT

1. (TSR) This report provides a cumulative update of NPIC report [redacted] on Lukhovitsy Airframe Plant and substantially satisfies the basic reporting requirement for this target. This report incorporates significant information contained in NPIC reports [redacted] and thereby supersedes those reports. Activity observed at the plant between [redacted] –the information cutoff date for NPIC report [redacted] –the date of the latest, usable imagery acquired prior to the current information cutoff date of [redacted] –is covered by this report. 25X1

2. (U) This report includes a location map, four annotated photographs, and four tables of mensural and/or chronological data.

INTRODUCTION

3. (TSR) Lukhovitsy Airframe Plant is 68.5 nautical miles (nm) southeast of Moscow and 3.5 nm south of Lukhovitsy (Figure 1). The plant is situated adjacent to the northern side of Lukhovitsy Airfield [redacted] which serves as the test and flyaway field for the plant. A crate assembly and transshipment facility is north of the plant. A construction support camp and an electrical power substation are east of the plant (Figure 2). 25X1

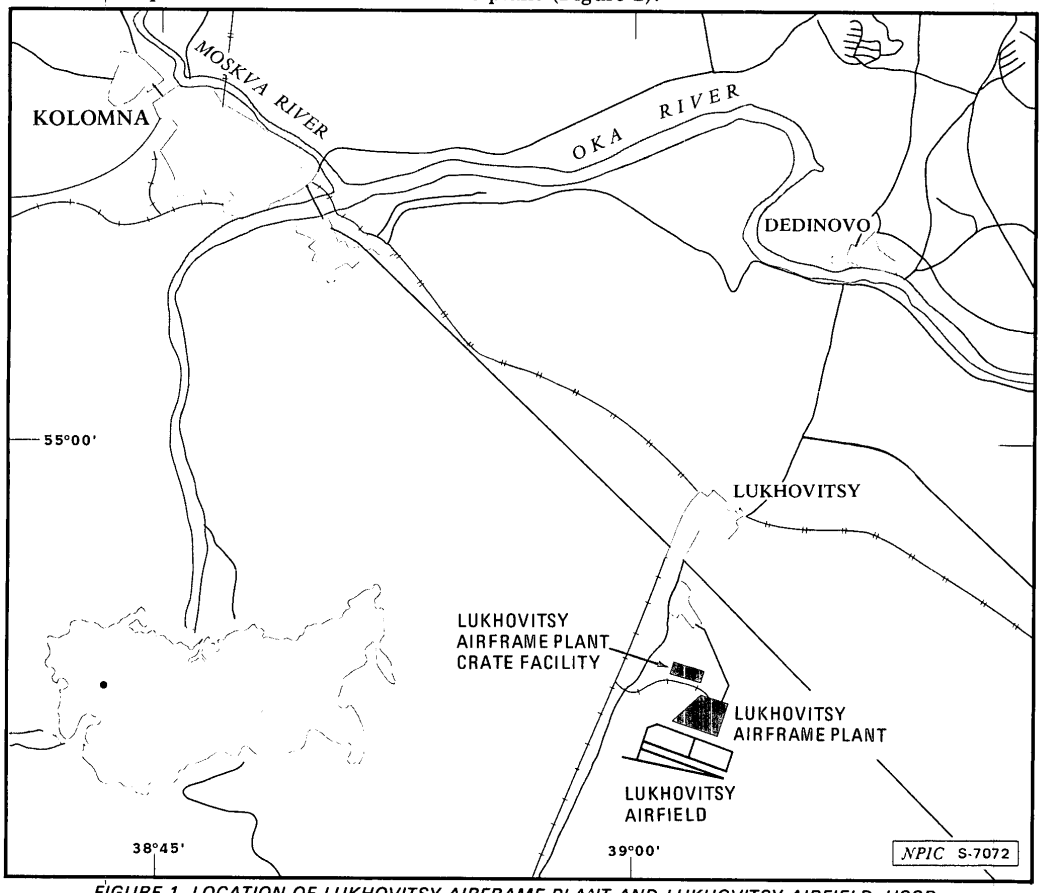

FIGURE 1. LOCATION OF LUKHOVITSY AIRFRAME PLANT AND LUKHOVITSY AIRFIELD, USSR

25X1

4. [redacted] Lukhovitsy Airframe Plant and Lukhovitsy Airfield are associated with Moscow Airframe Plant 30 [redacted].[1] Aircraft subassemblies produced at Plant 30 are transported to Lukhovitsy for final assembly, test, and delivery. 25X1 25X1

5. [redacted] The construction activity at Lukhovitsy Airframe Plant between [redacted] and [redacted] was a continuation of the plant expansion program initiated in mid-1967.[1-5] At that time, it was theorized that the Soviets were planning to convert Lukhovitsy to a fully operational airframe plant. However, the construction at the plant has proceeded at a slow pace, and there is no evidence of heat treatment facilities and machine shops generally associated with a fully operational airframe plant. Although Lukhovitsy may have the facilities to produce some minor components or subassemblies, the lack of heat treatment facilities and machine shops suggests that the plant will continue to function primarily as an assembly plant using finished components and subassemblies supplied by Moscow Airframe Plant 30. This report contains all pertinent information on construction and production activities occurring at the Lukhovitsy installations since [redacted] and therefore supersedes the four NPIC reports published on the facilities after that date.[2-5] 25X1.1 25X1 25X1

BASIC DESCRIPTION

Construction Activity

June 1969—October 1972

6. (TSR) The most significant construction activity occurring at the plant during this time period was observed in the northwestern and southeastern plant areas. In the northwestern plant area, continued construction on the large subassembly building (item 53, Figure 3 and Table 1) increased the floorspace of the building by approximately [redacted] Construction completed on this building included a major addition to the subassembly subsection (item 53c), a three-story engineering/shop/passageway (item 53d), and a three-story engineering/shop section (item 53e) on the northwestern side of the subassembly addition. The completed floorspace of this subassembly building totaled approximately [redacted] by the end of October 1972. 25X1 25X1

7. (TSR) Construction activity in the southeastern plant area during this period significantly increased the floorspace used for the final assembly, checkout, and maintenance of aircraft. The floorspace of the large final assembly/maintenance hangar (item 9, Figure 4 and Table 2) was increased by approximately [redacted] with the addition of a single-story, high-bay checkout/maintenance section (item 9b). This section contains two large doors, one in the southern wall and one in the eastern wall, to facilitate the movement of aircraft. It is likely that access doors were built into the wall separating the main hangar (item 9a) and the checkout/maintenance section (item 9b). The total floorspace of the final assembly/maintenance hangar is approximately [redacted] Additional construction in the southeastern plant area during the period, June 1969 through October 1972, included the completion of four small maintenance/checkout hangars (items 11—14), each of which is large enough to house two FLOGGER aircraft. The total floorspace contained in the four small hangars is approximately [redacted] The floorspace available for final assembly, checkout, and maintenance of aircraft in the southeastern plant area was therefore increased by approximately [redacted] (item 9b plus items 11—14), making the total amount of available floorspace in this area approximately [redacted] by the end of October 1972. 25X1 25X1 25X1 25X1 25X1

8. (TSR) Additional structures completed at the plant during this timeframe included a three-story administration/engineering building (item 7, Figure 3 and Table 1), a shop/storage building (item 47), a storage building (item 41), two storage/support buildings (items 12 and 38), and three support buildings (items 40, 66, and 67). A small, separately-secured support facility (item 1) was added immediately northeast of the administration/engineering compound. The buildings within this support facility are probably the two storage sheds which were removed from the southeastern corner of the administration/engineering compound prior to the initial construction of an administration/engineering building (item 3). The remaining construction at Lukhovitsy Airframe Plant during the June 1969—October 1972 period consisted of the completion of 15 general-purpose support structures and an underground POL storage tank (item 19) and the enlargement of a support building (item 15).

9. (TSR) The total approximate floorspace completed at Lukhovisty Airframe Plant from June 1969 through October 1972 was [redacted] Approximately [redacted] of floorspace were razed during this period, resulting in a net increase of approximately [redacted] square meters of floorspace. The total completed floorspace of Lukhovitsy Airframe Plant at the end of this period was approximately [redacted] (This figure is based on a total floorspace of [redacted] for the period ending early June 1969, which is a revision of the total reported in NPIC report [redacted] Floorspace revisions for individual structures are noted in the "Remarks" columns of Tables 1 and 2.) 25X1 25X1 25X1 25X1 25X1 25X1

Table 1

Lukhovitsy Airframe Plant and Lukhovitsy Airfield, USSR
(Items keyed to Figure 3)

This table in its entirety is classified TOP SECRET RUFF

Item	Description	Dimensions (m) L	W	Floorspace (sq m) *	Date Observed	Complete	Remarks
1	Support fac				Oct 72		Includes a small security bldg & 2 stor/support structures
2	Support bldg				Jul 77		2-story bldg; first seen ucon in Sep 76
3	Admin/eng bldg				Nov 75		
a	Admin/eng sec						First seen ucon in Oct 72
b	Enclosed passageway						First seen ucon in Apr 75; connects items 3 & 4 at first floor level
4	Admin bldg				Jun 63		Original 2-story bldg
5	Admin/eng bldg						
a	Admin/eng sec				Jun 63		Original 2-story bldg
b	Admin/security sec				May 78		3-story sec; first seen ucon in Jul 77
6	Admin bldg				Jun 63		2-story bldg
7	Admin/eng bldg				Oct 72		3-story bldg; first seen ucon in May 71
8	Support bldgs (2)				Jun 63		
9	Shop bldg				Apr 62		2-story admin bldg, [redacted] on east side of bldg
10	Support bldg				Jan 69		First seen ucon in Aug 68
11	Poss shop/stor bldg				Ucon		Poss footings first seen in Nov 77; projected floorspace of [redacted]
12	Stor/support bldg				May 71		
13	Stor/support bldg				Feb 76		
14	Support bldg				Mar 65		
15	Support bldg				Mar 65		Enlarged between May 71 & Jul 72 by [redacted]
16	Support bldg				Mar 65		
17	Support bldg				Jul 76		First seen ucon in Nov 75; being enlarged by approx [redacted]
18	POL pumping/metering station				Jun 63		Original bldg
19	Underground POL stor tank				Oct 72		First seen ucon in Aug 70; doubled POL stor capacity
20	Shop bldg				Jun 63		
21	Support structure				Jul 78		Drive-through poss vehicle fueling station
22	Stor bldgs (2)						
a	Stor bldg				Mar 65		Original bldg
b	Stor/support bldg				Jul 77		First seen ucon in Oct 76
23	Pumphouse				Jun 63		Dimensions do not include circular sec
24	Pumphouse				Jun 63		
25	Vehicle maint bldg				Oct 76		First seen ucon in Nov 75
26	Support bldg				Oct 76		First seen ucon in Jul 76
27	Support bldg				Jun 63		Enlarged between Nov 75 & Jul 77 by [redacted]
28	Vehicle maint bldg						When item b is complete, projected floorspace of [redacted]
a	Vehicle maint/stor sec				Jun 63		Original bldg
b	Vehicle stor sec				Ucon		First seen ucon in Apr 78
29	Operations bldg				Jun 63		Control tower atop bldg
30	Support bldg				Jun 63		
31	Support bldg				Jun 63		Enlarged between Jul 74 & Feb 75 by [redacted]
32	Support bldg				Aug 70		Prob vehicle maint bldg
33	Fuel stor tank				Jul 75		First seen ucon in Feb 75
34	Underground fuel stor bunker				May 78		First seen ucon in Sep 76
35	Fuel pumping/metering station				Apr 74		First seen ucon in Apr 73
36	Heating plant						
a	Boilerhouse				Jun 63		Original boilerhouse
b	Boilerhouse				Feb 75		First seen ucon in May 71
c	Support sec				Apr 78		First seen ucon in Jul 77
37	Support bldg				Feb 75		First seen ucon in Apr 74
38	Stor/support bldg				May 71		First seen ucon in Aug 70
39	Support bldg				Oct 73		First seen ucon in Oct 72
40	Support bldg				May 71		First seen ucon in Aug 70
41	Stor bldg				Apr 72		First seen ucon in Feb 71
42	Stor bldg				Oct 75		First seen ucon in Jul 74

* Floorspace figures rounded to nearest tenth of a square meter.

25X1

Item	Description	Dimensions (m) L	W	Floorspace (sq m) *	Date Observed Complete	Remarks
43	Stor bldg				Feb 75	First seen ucon in Jul 74
44	Shop/warehouse				Sep 76	First seen ucon in Jul 76
45	Transshipment bldg					
a	Transshipment sec				Mar 65	Original bldg
b	Support sec				Apr 78	First seen ucon in Jul 77
46	Warehouse				Sep 66	Bldg enlarged Aug 68
47	Shop/stor bldg				Feb 71	First seen ucon in Aug 70
48	Support bldg				Jun 63	
49	Assem/checkout hangar				Apr 63	
50	Maint/checkout hangar				Feb 75	2-bay hangar with central eng/shop sec; first seen ucon in Apr 74
51	Support bldg				Jul 77	Poss security bldg for rail entrances
52	Support bldg				May 78	First seen ucon in Jul 77
53	Subassem bldg					
a	Subassem subsec				Aug 68	First seen ucon in Aug 67
b	Eng/shop sec				Aug 68	3-story sec (originally reported as 2-story); first seen ucon in Aug 67
c	Subassem subsec				May 71	First seen ucon in Aug 71; originally reported complete in Jun 69
d	Eng/shop/passageway				Oct 72	3 stories; first seen ucon in May 71
e	Eng/shop sec				May 71	3-story sec; first seen ucon in Jun 70
f	Admin/eng sec				Feb 75	5-story sec; first seen ucon in Apr 73
54	Shop/compressor bldg				Feb 74	Single-story, high-bay bldg; first seen ucon in Apr 70
55	Support bldg				Nov 75	First seen ucon in Apr 75
56	Cooling tower				Apr 74	2-unit, induced-draft cooling tower; first seen ucon in Apr 73
57	Prob shop bldg				Ucon	First seen ucon in Nov 75
58	Eng/shop bldg				Feb 76	
a	Admin/eng sec				Aug 78	3-story sec; connected to eng/shop sec by enclosed walkway; [redacted]
b	Eng/shop sec				Feb 76	Comprises a 2-story eng/shop sec & a single-story, high-bay sec
59	Assem/final assem bldg					Projected floorspace of [redacted] when items d & e are complete
a	Final assem hall				Apr 62	Original bldg
b	Assem subsec				Aug 68	Originally reported as [redacted]
c	Assem subsec				Oct 73	First seen ucon in Aug 68
d	Assem subsec				Ucon	First seen ucon in Aug 68
e	Projected expansion of assem sec				Ucon	Projected floorspace of [redacted]
60	Support bldg				Jul 76	Poss related to aircraft deliveries from the plant
61	Support bldg				Apr 75	First seen ucon in Feb 75
62	Pumphouse				Mar 63	
63	Compressor/shop bldg				Jun 63	
a	Compressor sec				Jun 63	Original bldg
b	Compressor/shop sec				Jul 77	2-story addition; first seen ucon in Nov 75
64	Shop/support bldg				Apr 76	First seen ucon in Apr 75
65	Stor bldg				Sep 76	First seen ucon in Jul 76
66	Support bldg				Aug 71	First seen ucon in Aug 70
67	Support bldg				Aug 70	First seen ucon in Jun 70
68	Hardstands (4)				Jul 78	First seen ucon in Nov 77
69	Hardstand				Jul 78	First seen ucon in Nov 77
70	Support bldg				Nov 77	First seen ucon in Jul 77
71	Stor/support bldg				Nov 77	First seen ucon in Jul 77
72	Parking apron				Ucon	First seen ucon in Jul 78
73	Eng/shop bldg				Oct 78	First seen ucon in Apr 74
a	Eng/shop sec					2-story sec
b	Shop sec					Single-story, high-bay sec
74	Control bldg				Jun 63	Associated with adjacent test area
75	Test shed				Mar 65	Aircraft housed in this structure during testing
76	Stor bldg				Mar 65	Size of this revetted bldg was doubled between Jan & Jun 69

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25X1

November 1972 – October 1976

10. (TSR) Construction activity at Lukhovitsy Airframe Plant during the period, November 1972 through October 1976, resulted in a significant increase in the amount of floorspace available for the assembly of aircraft. This increase in floorspace is attributed to continued construction of the large assembly/final assembly building (item 59, Figure 3 and Table 1). A large subsection (item 59c) was completed along the northern side of the assembly subsection (item 59b). This practice of completing major additions to production-related facilities as the need for increased floorspace arises, instead of constructing a larger building initially, has been observed at other Soviet airframe plants, such as Ulan Ude Airframe Plant 99 and Omsk Airframe Plant 166 and appears to be an accepted Soviet construction practice. Additional production-related floorspace completed during this period included an engineering/shop section (item 58b) and a shop/compressor building (item 54). A total of approximately square meters of production-related floorspace was added to the plant with the completion of these three construction projects.

11. (TSR) The increase in production-related floorspace was accompanied by an increase in floorspace related to the checkout and maintenance of aircraft. Three small maintenance/checkout hangars (items 15–17, Figure 4 and Table 2) were completed in the southeastern plant area. A small, two-bay maintenance/checkout hangar (item 60, Figure 3 and Table 1) was constructed in the south-central plant area. These four hangars contain approximately of floorspace.

12. (TSR) Additional construction activity at the plant during this timeframe included the completion of an administration/engineering building (item 3, Figure 3 and Table 1). This building was attached to an existing administration building (item 4) by an enclosed passageway (item 3b). Construction of the subassembly building (item 53) was completed with the addition of a five-story administration/engineering section (item 53f). The enlargement of the heating plant (item 36), as well as the conversion of it from a coal-fired facility to an oil-fired facility, was accomplished with the completion of a boilerhouse addition (item 36b), a fuel oil storage tank (item 33), and a fuel oil pumping/metering station (item 35). Additional construction completed included four storage buildings (item 7, Figure 4 and Table 2, and items 42, 43, and 65, Figure 3 and Table 1), a shop/storage building (item 5, Figure 4 and Table 2), a warehouse (item 8), a storage/support building (item 13, Figure 3 and Table 1), and a shop/warehouse (item 44). A cooling tower (item 56), a shop/support building (item 64), and seven support buildings (item 19, Figure 4 and Table 2, and items 17, 37, 39, 55, 60, and 61, Figure 3 and Table 1) were also constructed during this period. A small support section (item 4b, Figure 4 and Table 2) was added to an existing shop/storage building (item) in the southeastern plant area.

13. (TSR) Structures completed at Lukhovitsy Airframe Plant during this period contained a total floorspace of approximately Floorspace razed at the plant totaled approximately resulting in a net increase of approximately meters of floorspace. The total completed floorspace of Lukhovitsy Airframe Plant at the end of October 1976 was approximately

November 1976 – October 1978

14. (TSR) Significant construction activity observed at Lukhovitsy Airframe Plant from November 1976 through mid-October 1978 included the enlargement of a small compressor/shop building (item 63, Figure 3 and Table 1) with the addition of a two-story compressor/shop section (item 63b). Construction continued on the engineering/shop building (item 58) with a three-story administration/engineering section (item 58a) being joined to the engineering/shop section (item 58b) by an enclosed walkway. An engineering/shop building (item 73) was constructed in the western plant area. An administration/engineering building (item 5) in the administration/engineering compound was enlarged with the addition of a three-story administration/security section (item 5b).

15. (TSR) Additional construction completed at the plant during this timeframe included four support buildings (item 3, Figure 4 and Table 2, and items 2, 51, and 52, Figure 3 and Table 1), a storage/support building (item 22b, Figure 3 and Table 1), a support structure (item 21), and a probable underground fuel oil storage bunker (item 34). The heating plant (item 36) was enlarged with the addition of a small support section (36c). The transshipment building (item 45) was enlarged with the addition of a small support section (item 45b) to the northern end of the transshipment section (item 45a).

16. (TSR) Approximately of floorspace were completed at Lukhovitsy Airframe Plant during the November 1976–October 1978 time period. The razing of approximately of floorspace resulted in a net increase of approximately

Table 2
Lukhovitsy Airframe Plant and Lukhovitsy Airfield, USSR
(Items keyed to Figure 4)
THIS ITEM IS CLASSIFIED TOP SECRET RUFF

Item	Description	Dimensions (m) L	W	Floorspace (sq m) *	Date Observed Complete	Remarks
1	Support bldgs (2)				Jun 63	
2	Support bldg				Jun 63	
3	Support bldg				Jun 78	
4	Shop/stor bldg				Aug 68	
a	Shop/stor sec				Aug 68	Original bldg; enlarged by between May 71 & Oct 72
b	Support sec				May 73	First seen ucon in Oct 72
5	Shop/stor bldg				Apr 76	First seen ucon in Nov 75
6	Poss shop bldg				Ucon	First seen ucon in Jul 77; projected floorspace of
7	Stor bldg				Feb 75	First seen ucon in Jul 74
8	Warehouse				Feb 75	First seen ucon in Jul 74
9	Final assem/maint hangar				Apr 62	
a	Final assem/maint sec				Apr 62	Original bldg
b	Checkout/maint sec				Apr 72	First seen ucon in Feb 71; originally reported by be

Item	Description	Dimensions (m) L	W	Floorspace (sq m) *	Date Observed Complete	Remarks
10	Support bldg				Nov 75	Poss crew-ready bldg; first seen ucon in Apr 75
11	Maint/checkout hangar				Aug 70	Enlarged by between Aug 71 & Jan 72
12	Maint/checkout hangar				Aug 71	First seen ucon in Feb 71
13	Maint/checkout hangar				Aug 71	First seen ucon in Feb 71
14	Maint/checkout hangar				Jan 72	First seen ucon in Aug 71
15	Maint/checkout hangar				Apr 73	First seen ucon in Aug 72
16	Maint/checkout hangar				May 73	First seen ucon in Oct 72
17	Maint/checkout hangar				Ucon	First seen ucon in Jul 74 & complete in Oct 76; hanger apparently damaged prior to Oct 77; being rebuilt
18	Support bldg				Feb 75	Constructed between Jun 74 & Feb 75
19	Support bldg				Nov 75	First seen ucon in Feb 75
20	Electronics test & control bldg				Jun 63	Original bldg
a	Rotodome sec					Rotodome sec is part of rotodome

* Floorspace figures are rounded to the nearest tenth of a square meter.

square meters of floorspace during this period. At the end of October 1978, the amount of completed floorspace at Lukhovitsy Airframe Plant totaled approximately [redacted] 25X1
The total area encompassed by the plant at that time was approximately 579.1 hectares.

17. (TSR) Construction underway at Lukhovitsy Airframe Plant in October 1978 included the addition of an assembly subsection (item 59d) to the large assembly/final assembly building. A possible shop building (item 6, Figure 4 and Table 2), a possible shop/storage building (item 11, Figure 3 and Table 1), and a probable shop building (item 57) were also under construction. Completion of these construction projects will increase the total plant floorspace by approximately [redacted]. The addition of floorspace to the large assembly/final assembly 25X1
building (item 59) is also anticipated. If the projected construction (item 59e) is completed, the large assembly/final assembly building will contain an additional [redacted] of floor- 25X1
space. Also underway in October 1978, one of the small maintenance/checkout hangars (item 17, Figure 4 and Table 2), which had apparently been structurally damaged sometime between November 1976 and July 1977, was being refurbished. Completion of this refurbishment will add approximately [redacted] of floorspace to Lukhovitsy Airframe Plant. 25X1

Summary of Construction Activity

18. (TSR) Construction activity observed at Lukhovitsy Airframe Plant from June 1969 through mid-October 1978 was a continuation of the plant expansion program begun in June 1967. Production-related floorspace at the plant was increased by approximately [redacted] 25X1
or 123.02 percent. Also during this timeframe, an increase of approximately [redacted] 25X1
or 18.6 percent was observed in the floorspace for the final assembly, checkout, and maintenance of aircraft. The increase in administration/engineering floorspace during this period totaled approximately [redacted] or 221.1 percent, and the increase in the floorspace of support 25X1
facilities was approximately [redacted] or 31.1 percent. As of October 1978, the total 25X1
floorspace at Lukhovitsy Airframe Plant was approximately [redacted] which repre- 25X1
sents a net increase in floorspace of [redacted] or 55.7 percent since May 1969. The 25X1
only major construction project underway at the plant in October 1978 was a large addition to the assembly subsection of the large assembly/final assembly building.

Crate Assembly and Transshipment Facility

19. (TSR) The crate assembly and transshipment facility associated with Lukhovitsy Airframe Plant is approximately 2 nm northwest of the plant (Figures 2 and 5). This secured facility encompasses an area of 25.8 hectares and is connected to the plant by rail and road. The major construction activity observed in the crate assembly and transshipment facility from June 1969 through mid-October 1978 included the completion of a large shop/crate assembly building (item 39, Figure 5 and Table 3). The heating plant (item 21), two woodworking shops (items 40 and 41), and the overhead traveling crane (item 44) were enlarged. New construction included a two-story engineering/shop building (item 22), a shop/maintenance building (item 36), and three support buildings. Two fuel storage tanks (items 10 and 11) and a shop/maintenance building (item 14) were constructed in the eastern portion of the facility.

20. (TSR) Construction completed at the crate assembly and transshipment facility during the reporting period increased the floorspace of this facility by approximately [redacted] 25X1
meters. By October 1978, this facility encompassed an area of approximately 25.8 hectares and contained a total floorspace of approximately [redacted] A probable warehouse (item 25X1
24) was in an early stage of construction in the southern portion of the facility in October 1978. When complete, this building will add approximately [redacted] of floorspace to the 25X1
crate assembly and transshipment facility.

21. (TSR) An engineering/shop area and a housing area (Figure 5) are associated with the crate assembly and transshipment facility. The separately secured engineering/shop area encompasses 1.9 hectares and includes an administration/engineering building (item 7), an engineering/-shop building (item 6), a vehicle storage building (item 2), two storage/support buildings (items 3 and 5) and a support building (item 4). The housing area (item 1) is probably also associated with Lukhovitsy Airframe Plant. This housing area encompasses an area of approximately 2.8 hectares and contains 11 two-story apartment buildings and several support structures.

Production Activity

22. [redacted] Lukhovitsy Airframe Plant is used for the final assembly, flight test, checkout, 25X1
and delivery of aircaft produced at Moscow Airframe Plant 30 The association between these two plants can be traced back to the 1950s and the production of the BEAGLE (IL-28), a light bomber of Ilyushin design.[1] In the early 1960s, identification of the FISHBED (MIG-21), a fighter of

Table 3

Crate Assembly and Transshipment Facility, Lukhovitsy Airframe Plant, USSR

(Items keyed to Figure 5)

This table in its entirety is classified TOP SECRET RUFF

Item	Description	Dimensions (m) L	W	Floorspace (sq m) *	Date Observed Complete **	Remarks
1	Housing area					Contains 11 two-story apt bldgs & sev support bldgs
2	Vehicle stor bldg				Feb 71	First seen ucon in Aug 69
3	Stor/support bldg				Jun 74	First seen ucon in Jan 74
4	Support bldg				Feb 75	Complete when first seen
5	Stor/support bldg				Apr 74	First seen ucon in Aug 73
6	Eng/shop bldg					Contains a single-story, high-bay sec
7	Admin/eng bldg				Jul 77	2-story bldg; first seen ucon in Feb 75
8	Admin bldg					2-story bldg
9	Shop bldg					Single-story bldg
10	Fuel stor tank				Sep 76	First seen ucon in Apr 76
11	Fuel stor tank				Jul 77	First seen ucon in Sep 76
12	Fuel oil stor tank					Original stor tank
13	Fuel oil stor tank					Original stor tank
14	Shop/maint bldg				Aug 76	Single-story bldg; first seen ucon in Apr 76
15	Fuel oil pumping/ metering station					Original bldg
16	Maint bldg					Original bldg
17	Stor/support bldg					Original bldg
18	Shop bldg					Original bldg
19	Woodworking shop					Original bldg
20	Maint/stor bldg					Original bldg
21	Heating plant					Enlarged between Oct 72 & Jul 74
22	Eng/shop bldg				Feb 75	2-story bldg; first seen ucon in May 73
23	Warehouse					Original bldg
24	Prob warehouse				Ucon	First seen ucon in Jul 78
25	Warehouse					Original bldg
26	Stor bldg					Original bldg
27	Support bldg					Original bldg
28	Stor bldg					Original bldg
29	Shop bldg					Contains a 2-story sec
30	Vehicle maint/stor bldg					Original bldg
31	Support bldg				Oct 72	Poss a small maint bldg supporting cranes (items 32—34)
32	Tracked overhead traveling crane					Original crane serving open stor area
33	Tracked traveling crane					Original crane serving open stor area
34	Tracked traveling crane					Original crane for rail loading/-offloading
35	Shop/support bldg					Sec added between Apr 75 & Nov 75 contains [redacted] of floorspace.
36	Shop/maint bldg				Jan 72	Single-story bldg with large vehicle opening in east side
37	Support bldg				Jan 72	Poss for vehicle storage
38	Support bldg				Nov 75	First seen ucon in Apr 75; underground POL stor bunker on west side of bldg
39	Shop/crate assem bldg				Feb 71	Contains a multistory sec; was ucon in Jun 69
40a	Woodworking shop					Original bldg
b	Support sec				Feb 71	Sec ucon in Aug 70
41a	Woodworking shop					Original bldg
b	Support sec				Oct 72	Sec ucon in Feb 71
42	Support bldg					Has 2 assoc stor silos
43	Shop bldg					Has 4 assoc stor silos
44a	Overhead traveling crane					Original crane track
b	Crane addition				Apr 75	Addtion ucon in Aug 71
45	Support bldg					Poss related to rail transfer operations
46	Support bldg					2-story bldg

*Floorspace figures rounded to nearest tenth of a square meter.

**Blank entries in "Date Observed Complete" column indicate that the building or structure had been completed by June 1969. This table provides the first listing/identification of structures within the crate assembly and transshipment facility associated with Lukhovitsy Airframe Plant.

Mikoyan design, at both of these plants indicated that a joint production effort was underway. Concurrent with FISHBED production, both plants were also involved in the production of the MAY (IL-28), an antisubmarine warfare (ASW) aircraft of Ilyushin design. In early 1970 the FLOGGER (MIG-23), a Mikoyan-designed fighter in production at Moscow Airframe Plant 30 since 1969, was observed at Lukhovitsy Airframe Plant for the first time.

23. (TSR) The final assembly, flight test, checkout, and delivery of FISHBED, FLOGGER, and MAY aircraft were underway simultaneously through late 1973, when production of the MAY probably ceased. Activity at Lukhovitsy Airframe Plant involving FISHBED and FLOGGER aircraft continued until late 1974. Since late 1974 the plant has been involved almost exclusively in the final assembly, flight test, checkout, and delivery of FLOGGER aircraft.

24. (TSR) In June 1975, a high count of 104 FLOGGER was observed at the plant. The number of FLOGGER aircraft seen at the plant decreased slightly during the next four months and then rose again to 102 by late November 1975. Since that time, the number of FLOGGER aircraft observed at Lukhovitsy Airframe Plant has declined. In August 1978, a total of 58 FLOGGER was observed on the last cloud-free coverage acquired of the plant during the reporting period. At least 35 FLOGGER aircraft were observed on heavily clouded imagery obtained of the plant in October 1978. (This October 1978 imagery was the latest, usable imagery acquired prior to the information cutoff date of [redacted]. The numbers of FISHBED and FLOGGER aircraft observed at the plant from [redacted] the date FLOGGER aircraft were first observed at the plant, through [redacted] are presented chronologically in Table 4. 25X1 25X1 25X1

Table 4
Sightings of FLOGGER and FISHBED, Lukhovitsy Airframe Plant, [redacted] 25X1

This table in its entirety is classified TOP SECRET RUFF

KEYHOLE Mission No	Date	No of Aircraft * FLOGGER	FISHBED	Remarks
		5 1 poss	9	First sighting of FLOGGER at Lukhovitsy Airframe Plant
		3 1 poss	20 prob	
		6	15 prob	
		5	23 prob	Mission op no 178
		11	22	Mission op no 181
		13	11	
		0	6	Count in cloud-free areas
		11	7	
		6	10	
		10	13	1 FITTER also observed
		6	16	1 FITTER also observed
		2	12	1 prob FLAGON also observed
		0	0	7 small delta/swept-wing aircraft observed
		6	1	1 prob FLAGON & 1 prob FITTER also observed
		3	8	1 FLAGON & 2 FITTER also observed
		1 poss	8	1 poss FLAGON & 2 FITTER also observed
		3	9	1 FLOGGER armed with 2 missiles & 1 FLAGON & 2 FITTER also observed
		17	8	
		18	2	
		0	0	15 small delta/swept-wing aircraft observed
		0	0	31 small delta/swept-wing aircraft observed
		0	0	35 small delta/swept-wing aircraft observed
		39	11	2 FLOGGER with missiles also observed
		68 6 poss	8 4 poss	
		63 3 prob	16	
		44 14 prob	18	
		65	16	
		68	8	
		44	4	First sighting of FENCER (RAM-F) at Lukhovitsy Airframe Plant; 1 FITTER also observed
		0	0	48 small delta/swept-wing aircraft & 1 FENCER observed
		39	8	1 FENCER & 1 FITTER also observed
		41	5	1 FENCER & 1 FITTER also observed
		45	16	1 FITTER also observed
		43	6	1 FITTER also observed
		46	8	1 FITTER also observed
		53	18	1 FITTER also observed
		53	10	1 FITTER also observed
		22 2 poss	3	Obscured by scattered clouds and haze
		34	24	
		31	24 1 poss	
		27	31	
		2	0	Observed in cloud-free areas
		6 poss	1	Observed in cloud-free areas
		19	10	1 FITTER also observed

* Unless otherwise noted, the numbers reflect the counts of confirmed aircraft.

25. (TSR) Lukhovitsy Airframe Plant is also involved with airborne electronics, as indicated by the presence of the electronics test/calibration facility in the north-central plant area (Figure 4). This type of activity could account for the frequent observation of modified COOKPOT (TU-124), modified COOKER (TU-110), and modified CAMEL (TU-104) aircraft at the plant. These aircraft, with a conical extension to the forward fuselage that could house an airborne radar or other airborne sensors, probably serve as airborne test beds. Airborne electronics activity at Lukhovitsy Airframe Plant may also explain the frequent presence of BADGER (TU-16) aircraft at the plant.

26. (TSR) The plant may also serve as a maintenance facility for BEAGLE, COOT (IL-18), and MAY aircraft. Observation of these aircraft, which are no longer in series production, continued at the plant. Another reason for the presence of COOT and MAY aircraft could be the upgrading of their onboard electronics systems.

27. (TSR) Aircraft sightings at Lukhovitsy Airframe Plant since early 1970 may indicate an association between the plant and the Sukhoy Design Bureau.[6] The sighting of a FITTER aircraft at the plant in early 1970 coincided with the performance testing phase for the FITTER B (SU-17) and occurred immediately prior to the performance testing of the FITTER C. In early 1971 a FLAGON (SU-15) aircraft was observed at the plant on several occasions. These sightings coincided with the performance testing of FLAGON D, which was underway from mid-1970 through mid-1971. In mid-1972, observation of a FENCER (SU-19/RAM-F) at the plant coincided with the early phase of performance testing for this aircraft. Another aircraft associated with the Sukhoy

KEYHOLE Mission No	Date	No of Aircraft * FLOGGER	FISHBED	Remarks
		33	15	1 prob FITTER also observed
		13 prob	10 prob	1 poss FITTER also observed in cloud-free areas
		17	3	1 FITTER also observed
		11	9	1 MONGOL also observed, obscured by heavy clouds
		27	6	1 FITTER also observed
		25	12	
		47	2	2 FITTER also observed
		11 1 poss	1 prob	Observed in cloud-free areas
		30	11	2 FITTER also observed
		30	11	2 FITTER also observed
		23	12	2 FITTER also observed
		45	0	First sighting of FOXBAT (1) at the plant; 1 FITTER also observed
		76	1	1 FITTER also observed
		104	1	First observation of RAM-J at the plant; 1 FENCER & 1 FITTER also observed
		76	1	1 FITTER also observed
		88 2 poss	1	1 FITTER also observed
		88 3 prob	1	2 FITTER observed
		92	1	1 FITTER also observed
		102	0	RAM-J observed at the plant for the second time; 1 FENCER, 1 FITTER, & 1 MONGOL also observed
		81 prob	0	1 poss FENCER also observed
		85	1	1 FENCER & 1 FITTER also observed
		78	1	1 FENCER, 1 FITTER, & 1 FITTER/MOUJIK also observed
		52	0	Observed in cloud-free areas
		48	0	1 prob MONGOL also observed
		40	1	1 FITTER also observed in cloud-free areas
		56	2	1 FENCER, 1 FLAGON, & 1 prob MONGOL also observed
		53	2	1 FLAGON & 1 FITTER also observed
		49 prob	1 prob	Observed on degraded/blurred imagery
		55 8 prob	0	2 prob FITTER also observed, obscured by haze and snow
		46	1	1 prob FLAGON & 1 FITTER also observed, obscured by clouds and haze
		67	0	2 FITTER also observed
		3 prob	0	Main parking areas obscured by heavy clouds
		82	0	1 FITTER also observed
		67	1	1 FITTER also observed
		44	1	1 FITTER & 1 prob FITTER also observed
		58	1	1 FITTER also observed
		54	1	1 FITTER also observed
		58	1	1 FITTER also observed
		35 4 poss	1 prob	3 prob FITTER also observed; parking area partially obscured by heavy haze

25X1

Design Bureau, the RAM-J,[6,7] was observed at the plant for the first time in mid-1975 and again in late 1975, both dates coinciding with the early performance testing of the aircraft.

Lukhovitsy Airfield

28. (TSR) Lukhovitsy Airfield (Figures 1 and 2) to the south of Lukhovitsy Airframe Plant serves as the test and flyaway field for the plant. The airfield consists of a main concrete runway and two sod landing strips. A parallel taxiway is connected to the main runway by end-connecting links and a crossover link. A large parking/maintenance apron, two smaller parking aprons, and five small hardstands are situated between the taxiway and the plant. The area encompassed by the airfield is approximately 1,129 hectares.

29. (TSR) The main runway is oriented east-southeast/west-northwest on an azimuth of 110/290 degrees and is [redacted] long. One of the sod landing strips is parallel to the southern side of the main runway and is [redacted] The other sod landing strip is oriented east-southeast/west-northwest on an azimuth of [redacted] 25X1 25X1 25X1 25X1

30. (TSR) Activity observed at the airfield from June 1969 through mid-October 1978 included resurfacing and widening of the main runway; this activity was still underway in October 1978. The western four-fifths, or [redacted] of the runway was being resurfaced and widened from [redacted] The eastern one-fifth, or [redacted] of the main runway had been resurfaced, but its width of [redacted] remained unchanged. A concrete-surfaced overrun was being constructed at the eastern end of the main runway, and grading activity observed at the western end of the runway indicates that a hard-surfaced overrun will probably be constructed at that point. 25X1 25X1 25X1

31. (TSR) Additional activity at the airfield during the reporting period included the construction of a vehicle maintenance building (item 25, Figure 3 and Table 1), a storage/support building (item 71), and five support buildings (items 10 and 18, Figure 4 and Table 2, and items 26, 32, and 70, Figure 3 and Table 1) and the enlargement of two support buildings (items 27 and 31, Figure 3 and Table 1). Ten blast deflectors were added along the northwestern side of the large parking/maintenance apron between November 1976 and July 1977. The five parking hardstands (items 68 and 69) were constructed between November 1977 and July 1978.

32. (TSR) Construction activity underway at the airfield in October 1978 included work on the main runway, the runway overruns, and the taxiway. The vehicle maintenance building (item 28) was being enlarged with the addition of a vehicle maintenance/storage section (item 28a), and a parking apron (item 72) was under construction between two of the parking hardstands.

REFERENCES

IMAGERY

(TSR) All available, applicable KEYHOLE imagery acquired between [redacted] was used in the preparation of this report. The [redacted] imagery provided the most recent, usable coverage prior to the information cutoff date of [redacted] 25X1 25X1 25X1

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0166-6, scale 1:200,000 (UNCLASSIFIED)

DOCUMENTS

1. NPIC. [redacted] RCA-09/0024/70, *Lukhovitsy Airframe Plant,* Nov 69 (TOP SECRET [redacted] 25X1
2. NPIC. [redacted] BCA-09/0005/70, *USSR Airframe Plants Activity Review,* Aug 70 (TOP SECRET [redacted] 25X1 25X1
3. NPIC. [redacted] RCA-09/0017/72, *Lukhovitsy Airfield; Lukhovitsy Airframe Plant,* Sep 71 (TOP SECRET [redacted] 25X1 25X1
4. NPIC [redacted] BCA-09/0001/73, *Lukhovitsy Airfield; Lukhovitsy Airframe Plant,* Jul 72 (TOP SECRET [redacted] 25X1 25X1
5. NPIC. [redacted] RCA-09/0002/75, *Lukhovitsy Airfield; Lukhovitsy Airframe Plant,* Aug 74 (TOP SECRET [redacted] 25X1 25X1
6. DIA. [redacted] DDB-1923-2A-78-SAO, *Foreign Aircraft Production, Communist World (U),* Dec 78, pp 14–16 (TOP SECRET [redacted] 25X1 25X1
7. FTD. [redacted] RFB-22/0010/77, *RAM-J (TSR),* Jul 77 (TOP SECRET RUFF) 25X1

*Extracted information is TOP SECRET RUFF only.

REQUIREMENT

COMIREX J01
Project 290049DJ

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Warsaw Pact Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1 25X1

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