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imagery analysis report

Emba-04 Subsystem Activity at Emba Missile Test Center, USSR (S)

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EMBA-04 SUBSYSTEM ACTIVITY AT EMBA MISSILE TEST CENTER, USSR (S)

1. Twenty Emba-04 missile canisters were in two areas at Emba Missile Test Center (MTC; [redacted] on [redacted] (Figure 1). This is the largest number of Emba-04 missile canisters observed at Emba to date. Thirteen canisters were in Emba MTC Operations Support Area ([redacted] Figure 2), where both new and spent canisters are stored, and seven were in launch area C of Emba MTC Launch Complex ([redacted] Figure 3), where missile firings occur. The presence of 20 Emba-04 canisters at Emba and imagery-derived indications of more than five^{1,2} Emba-04 launches indicate that full-system flight testing is probably underway. [redacted]

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2. Two Emba-04 canisters were first identified in the Operations Support Area on imagery of [redacted]. The number of canisters observed increased slowly during 1980 and 1981, with highs of five and eight, respectively, at the MTC. During 1982 the number of canisters increased more rapidly, to a high of sixteen canisters were present on [redacted]. The recent increase of four canisters occurred between [redacted] in the Operations Support Area (Figure 2). Missile railcars, which deliver the canisters, were also present between [redacted] (S/WN)

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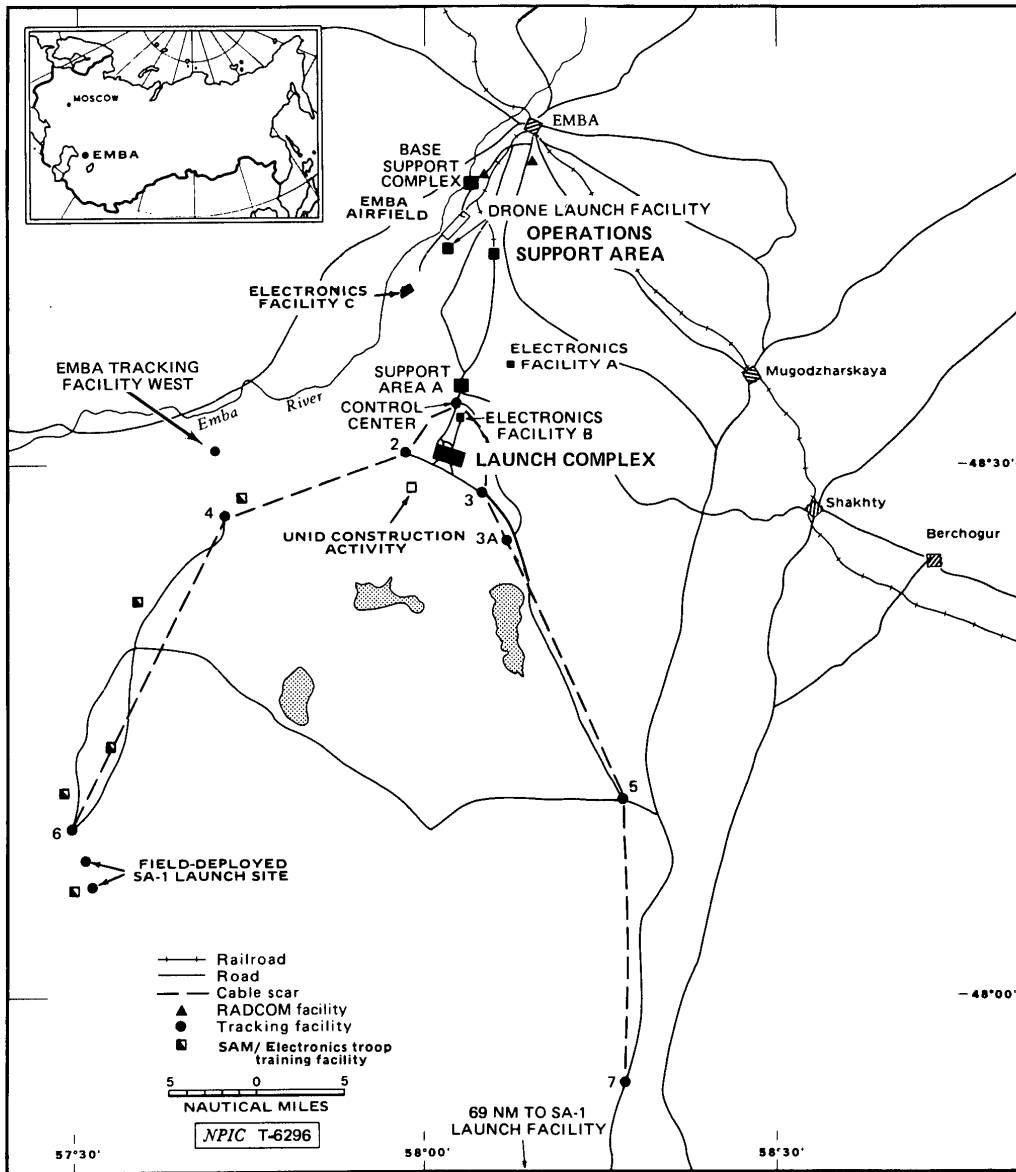


FIGURE 1. LOCATION OF EMBA MISSILE TEST CENTER, USSR

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3. While 20 Emba-04 canisters at Emba have been confirmed on imagery, [redacted] Analysis of imagery of the launch complex, however, suggests that more than five launches have occurred. Apparent prelaunch activity, possibly related to Emba-04 launches, has been seen at pads C-1 and C-2 in launch area C. During prelaunch activity, an Emba-04 transporter-erector-launcher and radar (TELAR) was on pad C-1 or C-2 with one or two canisters on board, usually in the vertical launch position. The activity shown in Figure 4 is typical of that which has been observed. The Emba-04 TELAR carries two missiles in canisters and a radar that is deployed horizontally from the front of the TELAR (Figure 5). [redacted]

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[redacted] Additional prelaunch activity has included an increase in the number of support vehicles in the launch area and the presence of buses and/or jeeps at the launch pad and/or the high-bay support building. The increased activity level was first seen in early June 1980, prior to the first confirmed launch of the Emba-04 on [redacted] Since that time, there have been 11 additional periods of time when prelaunch activity has been seen. The observations of these activities varied from two single observations of activities probably lasting only a few days each to multiple observations of activity lasting slightly more than two months.

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Imagery confirms that five periods were approximately one week in duration. [redacted]

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4. During previous missile test programs at Emba, and most recently in the Emba-03 program, full-system flight testing started when approximately 20 missile canisters had accumulated and approximately ten confirmed missile firings had taken place.³ It cannot be determined from imagery how many launches may have occurred, because the cold-launched Emba-04 missile leaves no blast mark, and spent canisters are indistinguishable from new canisters. [redacted]

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5. The Emba-04 missile and canister are part of the Emba-04 subsystem of the SA-X-12 missile system, which also includes the Emba-03 subsystem. The Emba-03 is assessed to be a high-performance, medium-range SAM system, probably a follow-on to the SA-4. The Emba-04 is either a long-range SAM or an antitactical ballistic missile system. The Emba-03 may be deployed by 1984, while the Emba-04 probably will not be deployed until at least 1986. (S/WN)



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REFERENCES

IMAGERY

All applicable satellite imagery acquired from April 1974 through April 1983 was used in the preparation of this report. (S/WN)

DOCUMENTS

- 1. CIA. [redacted] SW SWDR 83-129K, "USSR: First Detected Full-System Test of the EM-4 SAM [redacted]" *Science and Weapons Daily Review*, 16 Feb 83 [redacted]
- 2. MIA. "Soviet ATBM Capability," *MIA Weekly Wire Number 83-5 SI/SAO Supplement*, 171400Z Feb 83 [redacted]
- 3. DIA. [redacted] DST-1070R-010-81-SAO-RPT 4, *Soviet Missile Test Range (EMTR) (U)*, Dec 81 [redacted]

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*Extracted information is releasable to [redacted]

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

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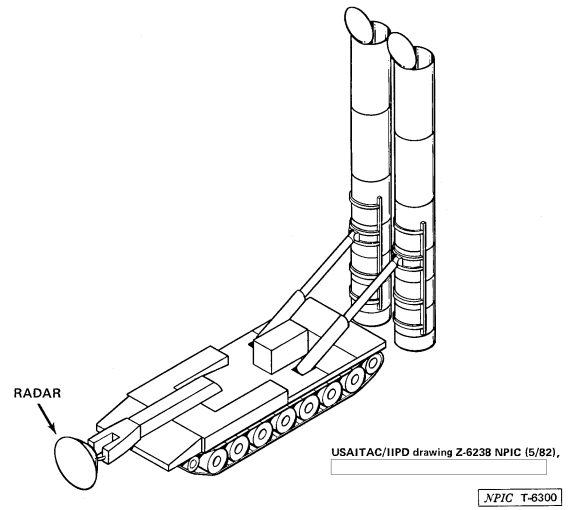
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FIGURE 5. CONCEPTUAL DRAWING OF EMBA-04 TELAR WITH CANISTERS

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