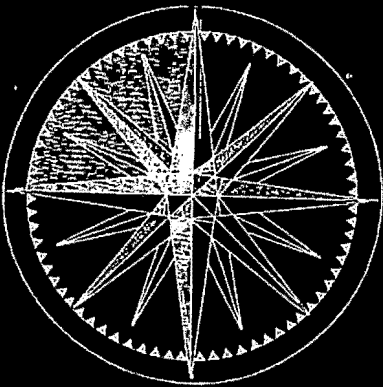


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26 March 1965

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Mandatory Review

Case # NLJ/PAC 10-89 / SCAP Appeal

Document # 13

SPECIAL REPORT

CURRENT ASPECTS OF THE SOVIET ANTIBALLISTIC MISSILE PROGRAM

DECLASSIFIED UNDER AUTHORITY OF THE
INTERAGENCY SECURITY CLASSIFICATION APPEALS PANEL,
E.O. 13526, SECTION 5.3(b)(3)

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CENTRAL INTELLIGENCE AGENCY
OFFICE OF CURRENT INTELLIGENCE

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26 March 1965

CURRENT ASPECTS OF THE SOVIET ANTIBALLISTIC MISSILE PROGRAM

The Soviets have been working hard on research and development related to antiballistic missile (ABM) systems. Recent information has shed new light on extensive Soviet efforts over the past several years to find a defense against ballistic missile attack. It now is apparent that research and development test events at Sary Shagan have been more numerous in the past three years than previously reported. At least some deployment of a defensive missile--possibly ABM--system is under way in the northwest region of the USSR. Several large radars capable of detecting ballistic missiles and satellites are being deployed there and elsewhere in the USSR. Also, there are recent indications that Soviet civil defense--an important adjunct to a deployed ABM system--is being reorganized and possibly upgraded.

Information on Soviet ABM programs, however, remains limited. The success or failure experienced in test programs during the past eight years, the status of deployment, and the techniques and capabilities of systems possibly being deployed remain in doubt. Among the deployment activities taking place, it is not even possible to distinguish with certainty between those which may be related to weapons systems designed for ABM roles and those related to long-range surface-to-air missiles for defense against aircraft and stand-off air-to-surface missiles.

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Sary Shagan

The major center for the development of Soviet defenses against ballistic missiles is at the Sary Shagan missile test complex. Sary Shagan may also be involved in the testing of missile systems for defense against aircraft and air-to-surface missiles.

Since [REDACTED] testing was first detected at Sary Shagan, more than 300 ballistic missiles have been fired toward Sary Shagan from Kapustin Yar, Chelkar, and Makat. Over 200 of these firings were controlled by Sary Shagan, and were probably tests of components of ABM systems being developed there. Beginning in late 1960, approximately

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50 antimissile missiles (AMMs) were probably fired from Sary Shagan in attempts to intercept such target missiles (see Figure 1). A continuing review of Sary Shagan [REDACTED]

[REDACTED] has so far identified as many as 71 additional events. Some of these events may have been missiles or components launched in tests not involving targets. Others may have been satellite tracking activity or firings against short-range target missiles or aircraft not detected by Western intelligence.

[REDACTED] These flights appear to have provided calibration and practice for facilities which track and intercept ballistic missiles. However, other flights by [REDACTED] may also have been involved with systems being developed at Sary Shagan for defense against aircraft and air-to-surface missiles.

Sary Shagan is a difficult intelligence target. [REDACTED]

To date, the surface-to-surface missiles which have been fired in support of the ABM program at Sary Shagan include the SS-5 IRBM, SS-4 MRBM, SS-3, SS-2, and possibly the SS-1b/lc. No firings which could be associated with AMM testing have been detected elsewhere in the USSR. There still is no evidence to suggest that AMM operations have been conducted against any ICBMs fired into the Kamchatka impact area. It would be technically feasible for the Soviets to simulate an ICBM target at Sary Shagan. [REDACTED]

Antimissile Missiles

Soviet efforts to develop an antimissile missile have been intensive. Within a two-year period two missiles have been displayed which have the capability to intercept ballistic

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missiles. The first, which Western intelligence has designated the Griffon, was first displayed in the Moscow parade in November 1963 (see Figures 2 and 3). It was described by the Soviets as a "pilotless interceptor" which can be employed against "all modern means of aerial and space attack."

The Griffon was probably being test-fired and developed at Sary Shagan into the 1960s. Since the early 1960s, construction has been under way at Leningrad on three defensive missile complexes which are similar to one at Sary Shagan and may have been designed for the Griffon.

During the 7 November 1964 parade in Moscow, the Soviets displayed a new missile, larger than the Griffon, which has been designated the Galosh (see Figure 3). The Soviets described it as an antimissile missile capable of destroying enemy ballistic missiles "at great distances" from the defended area. The Galosh may be able to accomplish intercepts at altitudes of a few hundred miles and at distances of several hundred miles from its launch point, carrying a warhead in the megaton range.

New complexes have been reported recently under construction at Tallinn and Cherepovets. These complexes may be intended for the deployment of a long-range SAM or AEM system. A study of typical trajectories of US ICBMs targeted against Moscow shows that they would come within the probable range and altitude capability of Galoshes deployed at such sites forward of the target (see Figure 4). The Galosh would also have some capabilities against Polaris missiles if its launch sites were located near the likely paths of attack.

Electronics

An important part of the research and development work at Sary Shagan has been the development of large radars necessary for early warning and tracking in ballistic missile defense.

Western observers have reportedly seen structures under

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construction near Angarsk and Olenegorsk in June and September 1964 which are like the Hen House. [redacted]

The apparent orientation of the Angarsk Hen House radars suggests that they could be used for satellite detection and tracking. The Hen House radars at Olenegorsk could also be part of such a system, but their apparent orientation also suggests a mission of early detection of ballistic missiles fired from the United States.

Another large radar (Dog House) under construction near Moscow is quite different in configuration from the Hen House. However, like the Hen House, it may employ an electronic scanning principle, and it may be part of an ABM system. Also, major construction of large radar facilities unlike the Hen House or Dog House has been observed currently under way at SA-1 SAM sites about 45 nautical miles northwest and southwest of Moscow. The construction seems to be too extensive to be merely an improvement in SA-1 defenses and suggests a later model SAM system or an ABM system. The Dog House, and possibly these new radars, may represent the beginning of an ABM deployment at Moscow.

A study of the Soviet electronics industry's plans and performance has indicated that a decision was made in

late 1962 to increase electronics production in 1965 to a level 30 percent greater than originally planned. The size of this increase and the nature of some of the components involved suggest that the Soviets intended the extensive production of advanced radars such as that required for a deployed ABM system.

Civil Defense

Concurrently with the development of an ABM system, the Soviets have been concerned with preparing an adequate civil defense program for the mass of the populace.

In recent years Soviet civil defense has stressed strategic urban evacuation, with shelter for most of the populace being provided by the hasty adaptation of existing structures and do-it-yourself field-type shelters. Since 1962, Soviet civil defense tactics have shifted from static point or city organizations to an area concept employing numerous mobile-relief columns to assist cities after an attack. In recent interviews, Marshal of the Soviet Union Chuykov, chief of civil defense, noted that units now have been organized throughout the USSR, called for new civil defense efforts to cope with the dangers of rocket-nuclear war, and urged that an effort be made during 1965 to provide urban shelters for essential workers who must remain in cities after the evacuation.

Marshal Chuykov was recently relieved of his duties

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as chief of the Soviet ground forces but remains a deputy minister of defense as well as chief of civil defense. Thus, a commander of proved capability has been relieved of other responsibilities and is concen-

trating his efforts on developing an effective civil defense program. This move may foreshadow a resurgence of shelter construction related to ABM deployment. (~~TOP SECRET~~ [redacted])

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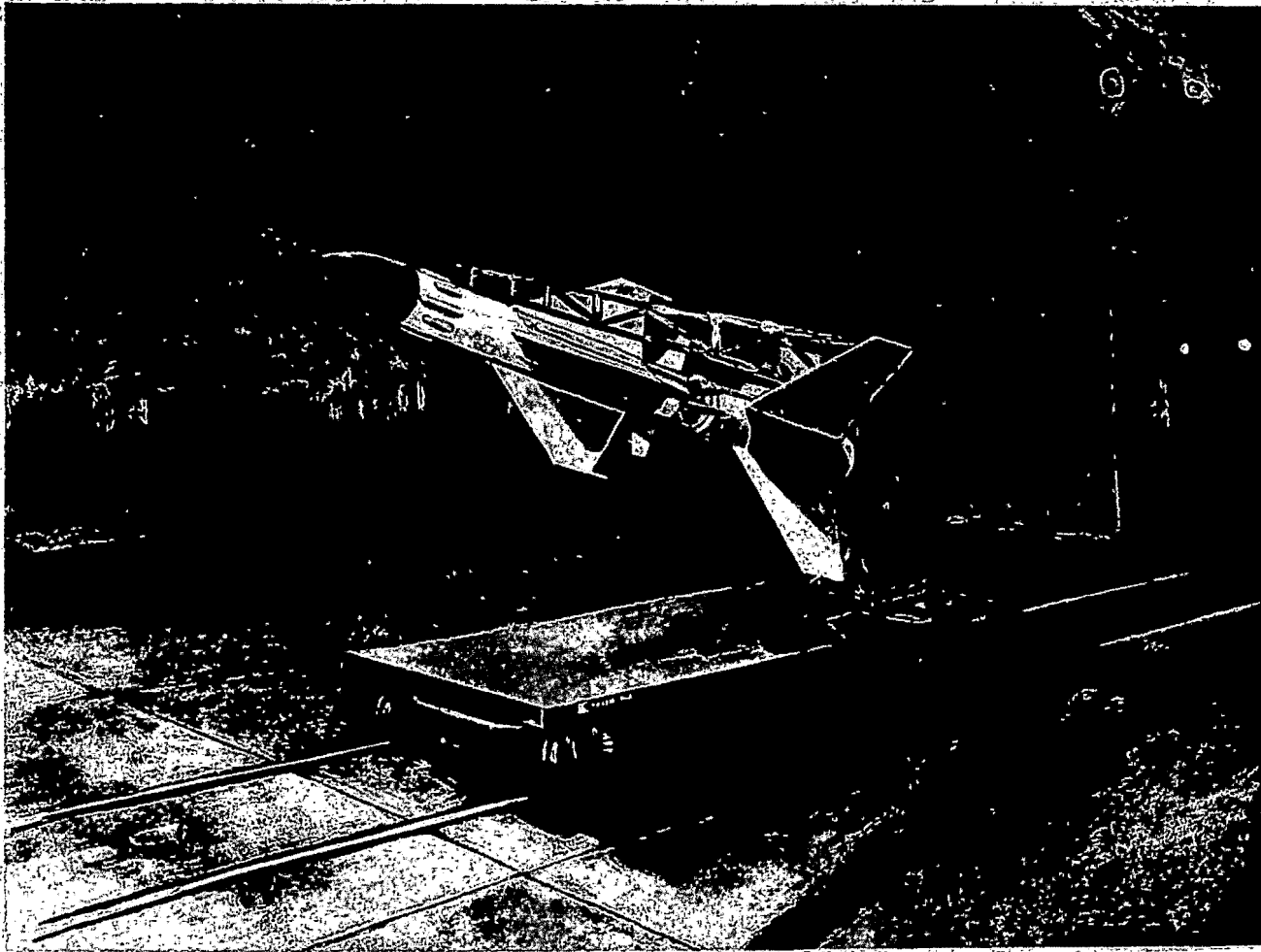
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ARTIST'S CONCEPT OF GRIFFON LAUNCH AREA

Figure 2



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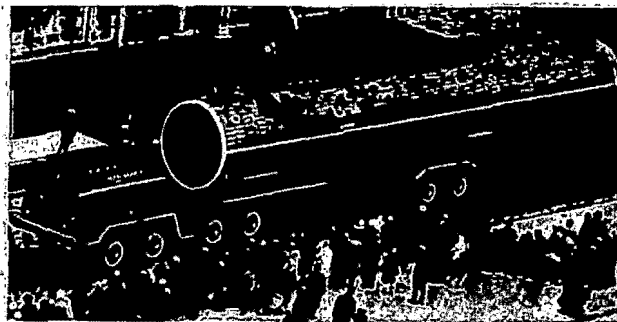
SUSPECT SOVIET ANTIMISSILE MISSILES



GRIFFON MISSILE

Length : 52.2 ft.
Maximum altitude: 125,000 ft. (approx.)
Maximum range : 100 n.m. (approx.)

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GALOSH MISSILE

Length of canister : 69.1 ft.
Diameter of canister: 9.5 ft.
Maximum altitude : 500 n.m. (approx.)
Maximum range : several hundred nautical miles

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POSSIBLE SOVIET AMM DEFENSE AGAINST US MISSILES

Figure 4

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