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[Redacted]

PHOTOGRAPHIC INTERPRETATION MEMORANDUM



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IDENTIFICATION OF
SSC-Ia SHADDOCK
MISSILE EQUIPMENT
USSR

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[Redacted]

APRIL 1969

COPY 120

4 PAGES

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[Redacted]

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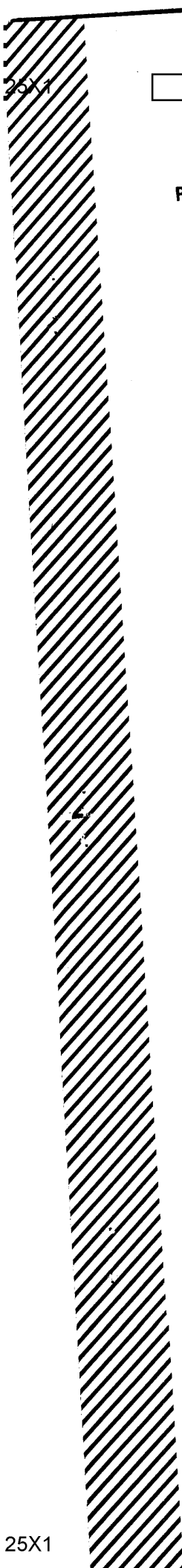
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IDENTIFICATION OF SSC-1a SHADDOCK MISSILE EQUIPMENT

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SSC-1a SHADDOCK cruise missile transporter-launchers and associated support equipment were identified in [redacted] at the Birobidzhan Tactical SSM Barracks, USSR. This is the first identification of deployed SHADDOCK launchers with the Soviet forces.

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The SSC-1a SHADDOCK was first observed in the Moscow parade of 7 November 1961. The missile is transported in and launched from a tube mounted on a modified ZIL-135, [redacted] wheeled vehicle (Figure 1). The SHADDOCK is an aerodynamic, low-altitude, low-supersonic tactical surface-to-surface missile (SSM) with a range of 300 nautical miles.

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Because of a lack of positive identification of SHADDOCK deployment from [redacted] the status of this weapon system has been in question. The sighting of a SHADDOCK unit at Birobidzhan and an analysis of the associated support equipment indicate that vehicles previously identified by NPIC as probable cruise missile transporter and/or launcher semitrailers at other installations in the USSR can now be associated with the SHADDOCK system.

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The installation at Birobidzhan was originally designed as an SA-2 surface-to-air missile (SAM) support facility. However, this function appears to have been changed by [redacted]

[redacted]

A review of past coverage revealed two possible SHADDOCK missile transporters present in the installation on [redacted]

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The SHADDOCK missile transport semitrailers at Birobidzhan appear identical to vehicles observed in other tactical SSM barracks and support facilities in the USSR. These semitrailers are usually observed with a URAL-375S truck tractor including both the canvas-top and metal-top cab models. The vehicle is 55 feet in length including the tractor, and the semitrailer is approximately 40 feet long and [redacted]. The configuration and the dimensions of this vehicle are similar to the Soviet naval SS-N-3 cruise missile transporter.* This similarity plus their dissimilarity to other known tactical missile systems, the lack of identifiable deployed SHADDOCK launchers, and the identification of similar vehicles in the Launch Complex B training area at Kapustin Yar led to the identification of this vehicle as a probable cruise missile transporter and/or launcher semitrailer. Although it still must be considered possible that SHADDOCK missiles could be both transported and launched from this type of open semitrailer, it will be referred to in the future as a missile transporter. This is to avoid confusing it with the [redacted] SHADDOCK transporter-launcher.

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Following the identification of the SHADDOCK system at Birobidzhan and based on an association of vehicles, the cruise missile unit located at the Sarata Tactical SSCM Barracks AL-1 is now identified as a SHADDOCK unit. On [redacted] six of these semitrailers with URAL-375S truck tractors were observed in the installation. SS-N-3/SHADDOCK-type missiles, measuring approximately [redacted] in diameter, were present on two of the semitrailers (Figure 3). The [redacted] SHADDOCK launchers have not been observed to date at this installation. Two missile shipping and storage canisters, similar to the SS-N-3 naval cruise missile canister, were also observed in the motor pool area and are considered to be for the SHADDOCK.

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*NPIC [redacted] Soviet Support Equipment Associated with Naval Missiles, Jan 69, (TOP SECRET) [redacted]

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Other support vehicles identified in the installation include five ZIL-157 missile fuel trucks, one cargo semitrailer with truck tractor, four truck-mounted cranes, eight ZIL-157 van trucks, four POL trucks, two BAT bulldozers, two MDK-2 ditchers, two lowbed trailers, one S-80 bulldozer, 14 ZIL cargo trucks, two KRAZ-214 cargo trucks, five GAZ cargo trucks, two GAZ van trucks, eight utility trucks, four generator trailers, one van trailer, and three probable field kitchens.

In addition to the SHADDOCK cruise missile units at Birobidzhan and Sarata, vehicles and equipment that can now be identified as SHADDOCK-associated are present in several tactical SSM support facilities and storage depots throughout the USSR. This equipment includes the transport semitrailers and URAL-375S truck tractors, missile crates, and missile shipping and storage canisters. The following is a list of the installations where this equipment can be identified.

Lozovaya Tactical SSM Support Facility	[REDACTED]	48-54N 036-21E	25X1A
Zavitinsk Tactical SSM Support Facility		50-09N 129-27E	
Krasnyy Kut Tactical SSM Support Facility		44-32N 132-50E	
Ulan-Ude Tactical SSM Support Facility		51-50N 107-48E	
Balakleya Tactical SSM Support Facility		49-28N 036-52E	
Rybinsk Tactical SSM Support Facility		58-01N 038-53E	
Khabarovsk Artillery Engineer Depot DO-2		48-21N 135-02E	
Novosibirsk Tactical SSM Storage Depot		55-13N 082-59E	
Surok Tactical SSM Storage Depot		56-28N 048-09E	

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SHADDOCK-associated equipment was present in a few of these facilities in [REDACTED] however, initial deployment to these installations cannot be accurately determined from existing photography.

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SHADDOCK transporter-launchers have been observed on one previous occasion in the Soviet Far East at the Khabarovsk Army Barracks Central AL-1 [REDACTED]

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[REDACTED] in [REDACTED] Two SHADDOCK transporter-launchers were present along with other tactical SSM equipment in preparation for a parade. Four semitrailers with truck tractors generally resembling the SHADDOCK missile transporter have also been observed at Ulaan Baatar, Mongolia, [REDACTED] and on several succeeding missions. The semitrailers have not been observed without a canvas covering, precluding a positive assessment of their function. The presence of several support vehicles in the same area with the semitrailers and the similarity to the SHADDOCK missile transporter indicate a possibility that this missile system is with the Soviet Forces in Mongolia.

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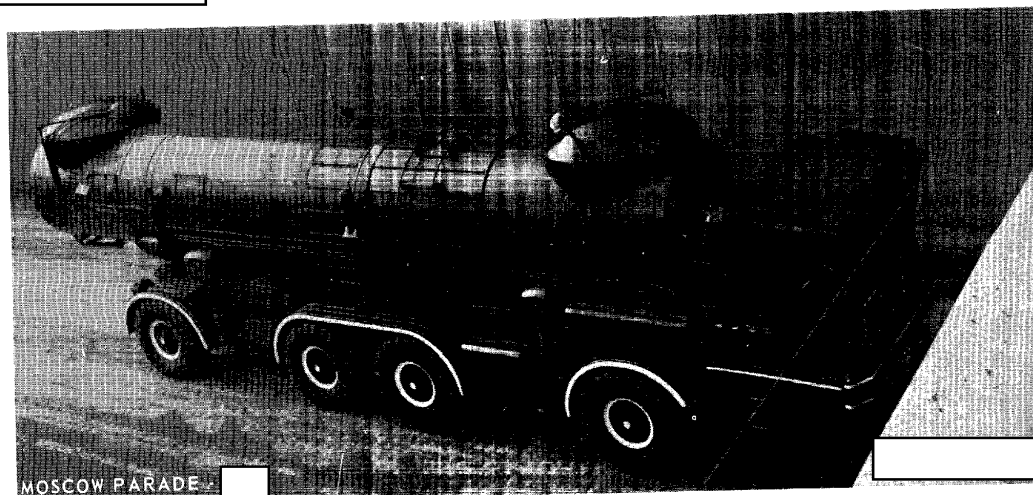
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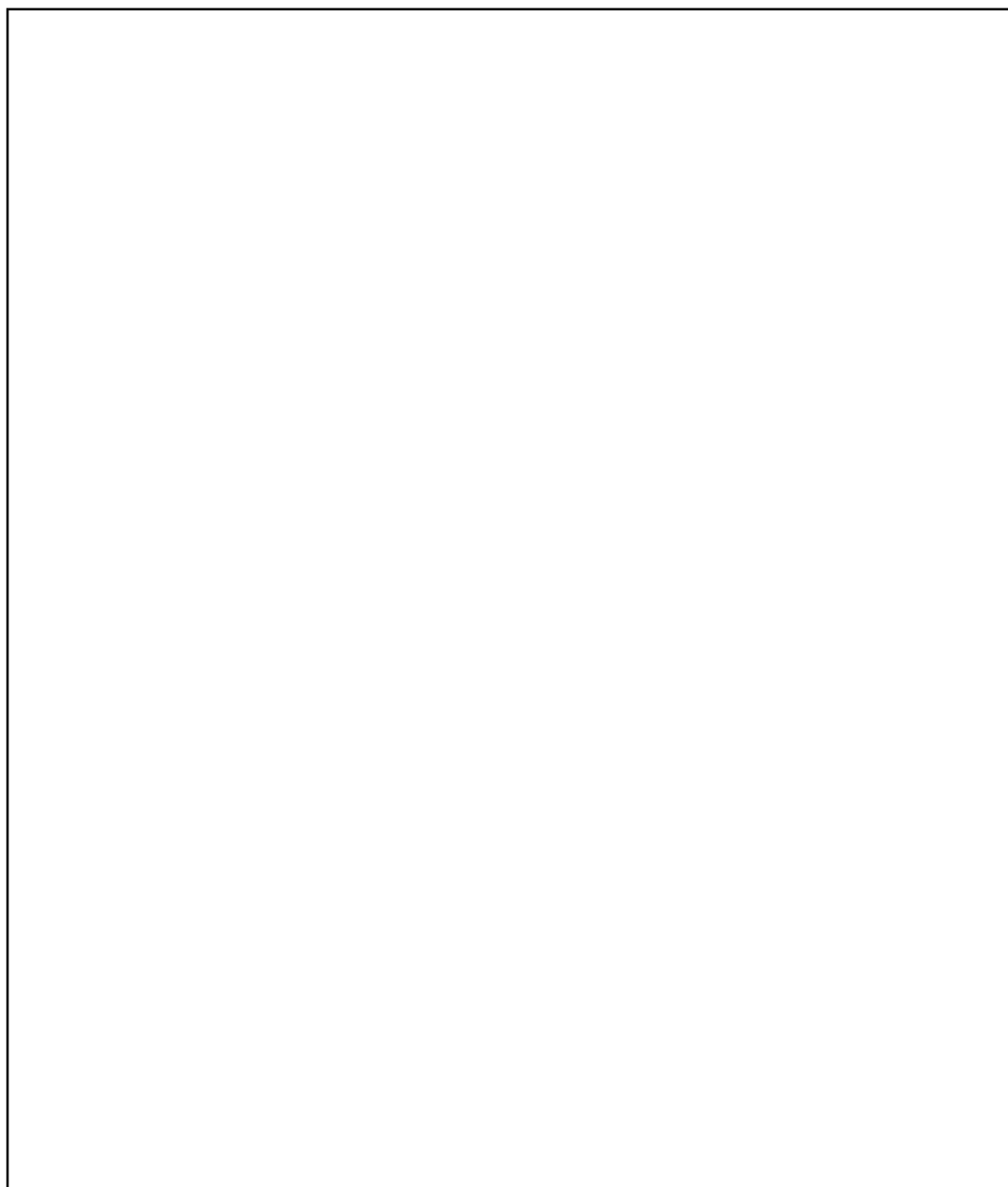
MOSCOW PARADE

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FIGURE 1. THE SSC-1a SHADDOCK CRUISE MISSILE TRANSPORTER-LAUNCHER



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