MEMORANDUM FOR: The Director of Central Intelligence

FROM: John N. McMahon
Deputy Director for Operations

SUBJECT: MILITARY THOUGHT (USSR): Regrouping an Operational-Tactical Missile Brigade over Great Distances by the Combined Method

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article briefly describes practical exercises in moving a probable SCUD brigade by a combination of organic, rail, and water transport over long distances. The difficulties encountered in maneuvering the bulky equipment onto railway cars and barges as well as the communications requirements for such a move are emphasized. This article appeared in Issue No. 1 (68) for 1963.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned

John N. McMahon

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Summary:
The following report is a translation from Russian of an article which appeared in Issue No. 1 (68) for 1963 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is Colonel F. Shumeyko. This article briefly describes practical exercises in moving a probable SCUD brigade by a combination of organic, rail, and water transport over long distances. The difficulties encountered in maneuvering the bulky equipment onto railway cars and barges as well as the communications requirements for such a move are emphasized.

End of Summary

Headquarters Comment:
The SECRET version of Military Thought was published three times annually and was distributed down to the level of division commander. It reportedly ceased publication at the end of 1970.
Regrouping an Operational-Tactical Missile Brigade over Great Distances by the Combined Method

(Based on exercise experience)

by

Colonel F. SHUMYKO

Regrouping troops by the combined method over great distances in future wars, especially in the initial period, will be carried out very frequently. This will be dictated by the fact that, compared to the period of the Great Patriotic War, means of mass destruction have increased many times over the vulnerability of the transportation lines, especially of railroad centers. The massed employment of missile/nuclear weapons will bring about prolonged interruptions (of five to seven days or more) in movement on railroad axes. Therefore, troops must be trained to rapidly negotiate barrier zones when moving in troop trains, since a movement begun by railroad will very often be continued by a combined march (by organic means, by water and air transport).

At one of the exercises, in keeping with the situation that had developed, a missile brigade was reloaded from troop trains onto river barges in order to cross a destroyed area of the railroad.

After the movement by water, the brigade, having disembarked from the barges, completed the march by organic means to the new onloading station, where it was again loaded into troop trains in order to proceed further to the assigned concentration area.

The experiment carried out showed that the offloading at the railroad station of three troop trains, each with heavy equipment and with the conventional 100 axles each, took from 40 to 60 minutes on the average in the daytime and at night, but the work to load missile equipment onto the troop trains required from one hour 50 minutes up to two hours (when processing troop trains having 120 axles or more, the time was increased by 15 to 20 percent).
The loading of each troop train in the daytime or at night into two 1000-ton twin barges took from 36 to 45 minutes, and the unloading from the barges to the shore took from 25 to 35 minutes.

Such indices in processing troop trains were achieved thanks to the carrying out of a number of preparatory measures: practical exercises in railroad and water transportation shipments for brigade personnel, the study of loading rules and of the securing and offloading of bulky equipment and motor transport onto troop trains and barges. Models of the usable area of the barges and of the equipment being transported were prepared on a 1:20 scale. With the help of these models, the officers in charge of the troop trains found the best variants for positioning the equipment on the barges and assigned to each vehicle (unit) a sequence number for boarding the barges. The optimum variant found on paper was then physically checked. For this purpose, the usable area of the twin barges was traced out to actual size on the ground. Tactical-drill exercises were held on these "barges" with the drivers, first without the equipment and then with it.

It is known that a missile brigade has a considerable amount of heavy and bulky equipment with different movement capabilities. This equipment creates a number of difficulties in organizing the conduct of a move, whether by organic means or by railroad and water transport.

The greatest difficulties arise in the loading and unloading work because individual large-size parts and units cannot be accommodated on railway flatcars or on the decks of river transport means. For example, to load the 8T22 saddle [sic -- probably A-frame or cradle] crane onto a railway flatcar it is necessary to first remove one wheel on each side, and when loading a BAT artillery tractor dozer, it is necessary to remove the bulldozer attachment.

In this regard, it is necessary to load the bulky equipment on the barge first, positioning it along the sides of the barge. And this equipment must be the first to be offloaded from the troop trains. There can be many variants in the loading of missile equipment, but in all instances, the bulky equipment must be positioned on the barges so that when offloading begins, it can be immediately removed from the deck without having to carry out additional maneuvers and rearrangements.
To speed up loading and unloading work it is necessary to use the K-32 truck-mounted crane to the maximum. It must proceed together with the first train and be offloaded first.

Let us examine the procedure used in a past exercise to load a missile battalion on barges. Before the loading, all the equipment was divided into groups of six to seven items each and positioned in a waiting area three kilometers away from the quay. The personnel, except for the drivers, were dismounted and located inside a shelter. The call to load each unit was issued by radio.

Overall direction of the loading work was exercised by the officer in charge of the troop trains (battalion commander), who was located on a moored barge. In addition, the loading of each barge was directed by a previously designated officer with two assistants. The loading team (20 men) was called up as needed, primarily to help load the bulky equipment (8T22 crane, trailer, 8T137 transporters). Thus, for example, upon moving into the barge, the KRAZ-214 trailer was unhooked and the loading team positioned it in its designated spot, after which the team immediately departed for the shelter.

The bulky equipment was secured to the barge with the aid of wedge-shaped chocks which were placed under the front and rear wheels. All of the vehicles were put in first gear with the brakes on.

The vehicles on the barges were camouflaged with table-of-equipment means (canopy and tarpaulin), but the 8U218 launcher units on the flatcar (barge) were camouflaged with the use of light metallic welded structures and general covering tarpaulin; this made it possible to give them within a period of three to five minutes a rectangular shape resembling a railroad car.

Loading individual types of equipment took on the average the following times: KRAZ-214 with trailer -- 3.5 to four minutes, 8T22 crane -- three to 3.5 minutes, 8T137 transporter -- 2.5 to three minutes, GAZ-63 (ZIL-157) truck -- one to two minutes, GAZ-69 (UAZ-450) truck -- one to 1.5 minutes.

Missile equipment can be transported by water not only on barges having a capacity of 1,000 tons, but also on those of lesser tonnage, on the 300-ton and 600-ton barges. However, loading a battalion with reduced complement on a 300-ton barge takes two hours 30 minutes because of the limited usable deck area on which to maneuver the equipment.
Experience has shown that in order to transport an operational-tactical missile battalion at T/O&E strength it is necessary to have three 1,000-ton, four 600-ton, or five 300-ton barges.

The provost and traffic control service and security of the area where the troop trains were loaded on the barges were planned and implemented by the brigade staff using forces and means of the provost and traffic control platoon. The waiting area was protected by field guards detailed by the troop train commanders. When carrying out a combined march, the control of the troop trains of the brigade is very important.

At the exercise, control was exercised over the troop trains by the radio communications [?] channels of the railroad sector commandants; when moving by water this was done by radio-relay means of the military commandants of the docks. In addition, when moving by river transport, R-103M shortwave radio sets were set up in each troop train, thereby ensuring alternate channels of communication.

Communications within the brigade, when the troop trains were moving out of the waiting areas to the loading station (quay), were established on R-108 ultra-shortwave radio sets and by courier means.

Based on the experience of the exercises, when moving a brigade by water transport over a distance greater than 100 kilometers, it is necessary to attach to it courier means of communication belonging to the dock military commandants (one or two fast motorboats) and to utilize organic helicopters. If the move covers several hundred kilometers, the brigade commander ought to provide for the refueling of the helicopters and their technical servicing on the shore (intermediate helicopter pads) or on the barges. For this purpose it is necessary to have a separate low-tonnage barge with a deck that is free of cargo. On the whole, the use of helicopters for communications when making a move by water requires practical verification.

The results achieved by transporting a brigade by different methods are not the limit. They can be improved by systematic training practice, by improvement of the organization of the loading and unloading work, and by the more extensive introduction of means of mechanization in the handling of the troop trains.