

2851

[Redacted]

[Redacted]
27 March 1962

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT: Preliminary Comments on [Redacted]

1. There is no reason to doubt that this is an authentic Soviet document. The article is from the Information Bulletin of the Missile Troops, journal for the dissemination of official doctrine to officers of the strategic missile forces, commanded by Marshal Rozhdestvenskiy.

2. This article discusses methods for calculating the basic data needed for launching long-range ballistic missiles, such as angle of fire, settings for controls, and loading of propellants. From the discussion it appears that in mid-1961, few if any operational units had their own electronic computers on site, although the author recognizes that such computers would greatly reduce the time necessary for producing such data and would improve their accuracy. In the absence of computers on site, he recommends that certain rudimentary short-cuts and methods of approximation be used, even though this might introduce an error as large as 700 feet at impact. He also indicates that targets of opportunity may be assigned to missile units during combat, and that as much as 1 1/2 hours would be needed to prepare the necessary data by hand.

3. By US standards, the Soviet procedures for preparing necessary firing data appear extremely unsophisticated, and this is one of several Soviet documents which reveal that the Soviets themselves are dissatisfied with these procedures. Apparently, a need for rapid reaction times and machine calculation of target data, which have been critical elements in the development of U.S. systems from the beginning, is only belatedly being recognized in Soviet planning for the employment of strategic missile systems.

APPROVED FOR RELEASE
DATE: DEC 2004

/s/

HERBERT A. SPENCER, JR.
Deputy Director (Intelligence)

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HR 70-14

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Comments on an article from
the Official Soviet Journal

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MEMORANDUM FOR: Director of Central Intelligence

SUBJECT : Comments on an Article from the Official Soviet Journal, "Information Collection of Missile Units and Artillery" [Redacted]

1. This article discusses the use of toxic chemical warheads for short range rockets and missiles in a context which strongly implies a Soviet operational capability. US intelligence estimates have attributed to the USSR a capability to utilize chemical warheads in missiles. However, the effect of this article is to upgrade the likelihood and extent to which such capabilities will be employed in the event of major hostilities. It reveals established doctrines for the use of tactical rockets and missiles in chemical warfare, including the combined use of nuclear and chemical weapons.

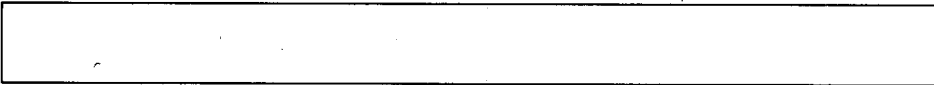
2. This article implies that all chemical warheads for rockets and missiles contain V-agents, which US estimates have held to be only a relatively small proportion of the Soviet chemical warfare agent stockpile. The V-type nerve agents, which attack by either skin contact or inhalation, are the most toxic of the known agents which currently can be produced economically in mass quantities.

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3. Specific types of targets, areas of coverage, types and numbers of missiles required, and protective measures for friendly troops are discussed in detail. The two missile delivery systems identified as the R-30 and the R-170 are known from other sources to be a free rocket with a range of 36-45 kms, and a tactical ballistic missile (SCUD) with a range of 140-185 kms. The R-30 missile is described as being capable of producing 80 percent casualties over a 0.35 square mile area while the R-170 will have comparable effectiveness over an area of 0.77 square miles. While the article specifies that a Front Commander can employ chemical weapons as the tactical need develops it does not indicate whether prior authorization to initiate chemical warfare is required from the Kremlin level.

MUSTINGTON D. SHELDON
Acting Deputy Director
(Intelligence)

