



**Director of
Central
Intelligence**

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Warsaw Pact: The Threat Potential of Selected Toxins

**Interagency Intelligence Memorandum
Volume I: Key Judgments and Summary**

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*NI IIM 85-10002/I
February 1985*

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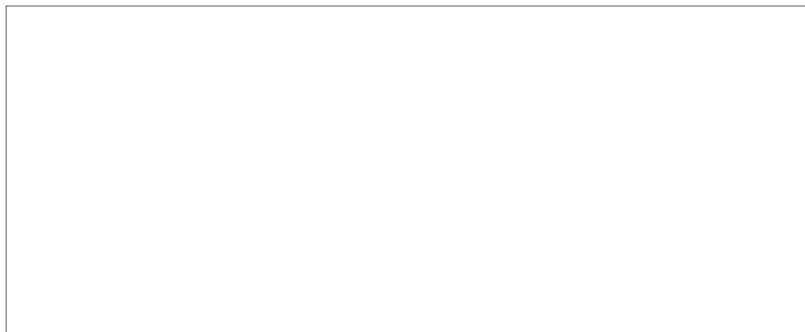


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NI IIM 85-10002/I

**WARSAW PACT:
THE THREAT POTENTIAL
OF SELECTED TOXINS
VOLUME I: KEY JUDGMENTS
AND SUMMARY**

Information available as of 24 January
1985 was used in the preparation of this
Memorandum.

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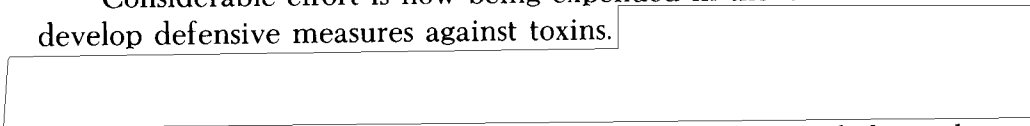
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SCOPE NOTE

Toxins form part of a spectrum of chemical and biological warfare (BCW) threat agents, with biological organisms at one end and traditional chemical agents at the other. Toxins are substances which originate(d) in biological sources and can, without significant chemical modification, cause damage to a living organism. Toxins are not living; they do not reproduce themselves. Many chemicals also produce direct injury to living systems but differ from toxins in that they are produced by synthesis outside of living organisms. Because of recent technological advances there is an increased possibility of also producing toxins in the absence of living organisms. These synthetically produced products would still be considered toxins as long as they are identical to the naturally occurring toxins.

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Considerable effort is now being expended in the United States to develop defensive measures against toxins.



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Some members of the intelligence and R&D communities believe that other toxins may in fact pose the greater threat to US and NATO forces. Therefore, this assessment was undertaken to define the toxin threat to the United States and NATO as accurately as possible and to provide background information to the policy community in their dealings with questions of treaty verification and arms control negotiations.

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To accomplish this analysis we developed a systematic method that is applicable to assessment of the BCW potential of any compound and that also allows ready reevaluation of toxins (or other compounds) as new data are obtained.



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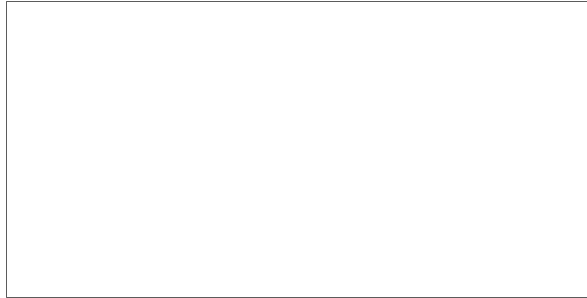
Why Choose Toxins?

Previous analysis ^a shows that choice of a toxin vice a traditional chemical agent most likely depends on the goals to be achieved and the properties of the material in question. Vulnerability of the opponent as well as political considerations, such as the likelihood of detection, may be deciding factors. 


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Several toxins have properties that make them competitive with traditional chemical warfare agents:


- Some toxins are as toxic and fast acting (or more so) as standard CW agents, and can be produced at least as easily and cheaply as standard CW agents.
- Use of toxins in limited warfare may be difficult to establish because many toxins occur naturally.



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— Storage and handling requirements for toxins are less demanding than those for standard CW agents. 

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Toxin weapons may proliferate and their use may become more widespread. More advanced countries may consider limited use of toxins an attractive option because of the difficulty of detection, identification, and proof of use. Developing countries may come to view the production and use of such weapons as a relatively cheap, easy, and effective way to augment their conventional weapons capability. Some of these countries may turn to the Soviet Union for assistance in developing that capability. 

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KEY JUDGMENTS

The Warsaw Pact is capable of fielding some toxins at present, but there is no single toxin or group of toxins that can be identified technically or through intelligence as posing the greatest threat to US forces. Toxins that fulfill the technical criteria (such as toxicity, persistence, and so forth) required by each possible operational application, as well as the intelligence criteria (such as capability, RDT&E interest, and so forth) that raise the toxins to threat status, come from a variety of sources and have a variety of physical and chemical properties. [Redacted]

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There is no one toxin that is outstanding for all operational uses, nor is there any one operational application for which any (or all) toxin(s) would be totally appropriate. After consideration of both technical factors and intelligence reporting, we were able to identify five toxins (of the 30 we selected for inclusion in this analysis) that have the greatest immediate threat potential. These toxins showed the broadest operational utility, have been linked through intelligence reporting to Warsaw Pact biological and chemical warfare (BCW) interests, and could be produced and weaponized in the Warsaw Pact using current technology. [Redacted]

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[Redacted] These toxins have few similarities beyond their common satisfaction of likely operational requirements, [Redacted]

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We believe that the Warsaw Pact is conducting research, led by the Soviets, in several areas in an apparent effort to expand its potential capability to conduct BCW operations employing toxins. We believe that the composition and magnitude of the toxin threat will change in the future as research developments are applied. The diversity of potential agents and the fluidity of the threat may require development of generic, rather than agent-specific, countermeasures. [Redacted]

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This publication was prepared under the auspices of the National Intelligence Officer at Large. It was drafted by [Redacted] Central Intelligence Agency, and coordinated within CIA and with the Foreign Science and Technology Center, the Armed Forces Medical Intelligence Center, the Foreign Technology Division, the Naval Intelligence Support Center, and the Chemical Research and Development Command. [Redacted]

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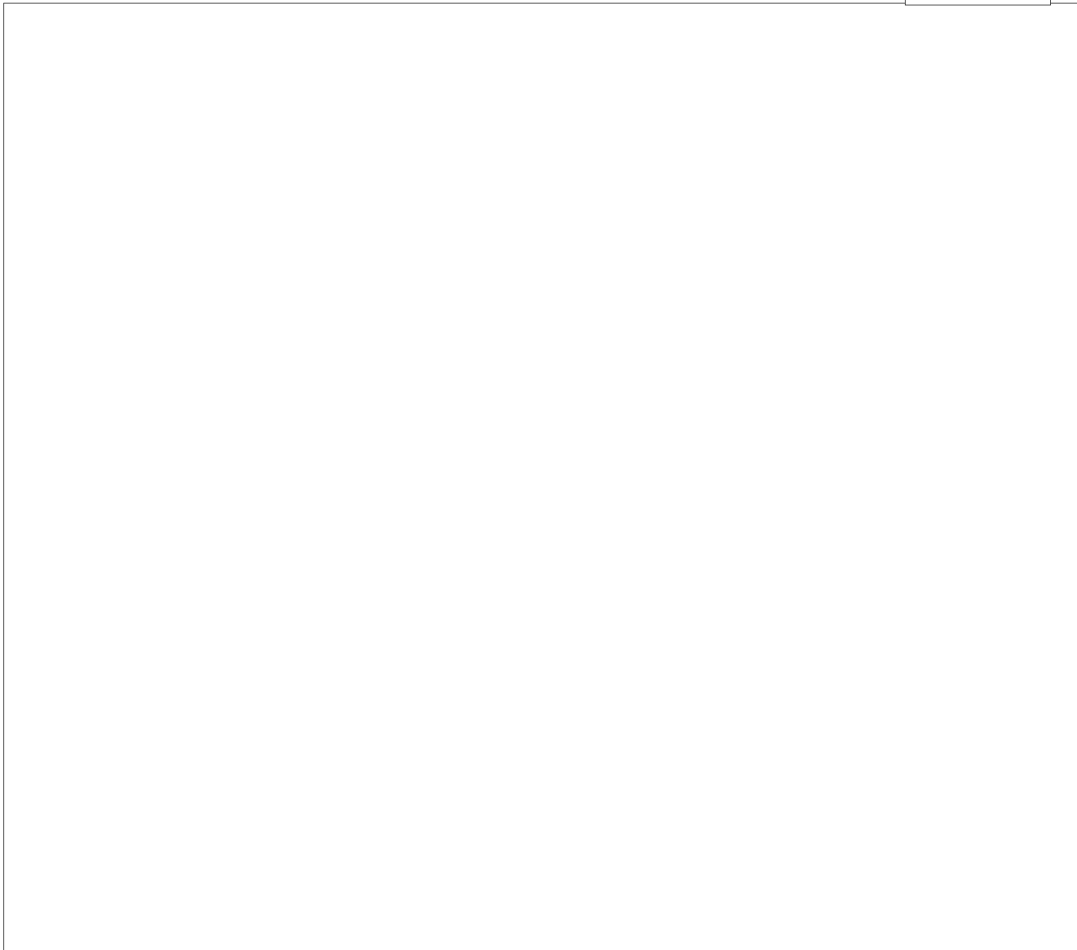


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Because of the potential for change due to technological advances, we may never be able to define precisely the set of threat agents. Specific toxins that are in development for, or that have been incorporated into, weapons by the Warsaw Pact might be identified, but this would be entirely dependent on intelligence data. Technical assessments can help focus our intelligence efforts to identify those materials.



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Use Concepts

Considering the various tactical situations in which chemicals might be employed, the following use concepts were envisioned:

- 1a. Direct attack or defense against an opposing enemy unit.
- 1b. Softening attack against an opposing enemy unit.
- 1c. Harassing and interdiction attack against an opposing enemy unit.
- 2. Offensive use against an enemy unit on the flank of a blocking unit.
- 3. Offensive or defensive use against a division rear area unit.
- 4. Chemical barriers to units occupying or traversing critical terrain.
- 5. Terrain restriction.
- 6a. Deep interdiction on enemy service logistic centers, naval facilities, and airbases (harassment).
- 6b. Deep interdiction on enemy service logistic centers, naval facilities, and airbases (suppression).
- 6c. Deep interdiction on enemy service logistic centers, naval facilities, and airbases (elimination).
- 7. Strategic use against general population.
- 8. Strategic use against industrial base.
- 9. Mopup of military remnants or encircled units.
- 10. Hit-and-run use by guerilla forces, terrorists, and special-purpose forces.
- 11. Boobytraps on transportation routes or critical areas.
- 12. Sabotage of critical government, military, or industrial installations.
- 13. Terrorist or punitive action against military or civilian installations.
- 14. Direct attack against floating platforms, ships at sea.

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