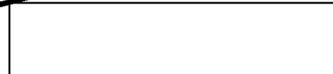


~~Top Secret~~



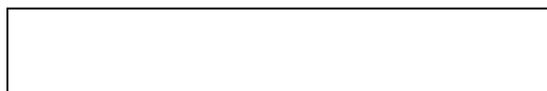
File Copy



DIRECTORATE OF
SCIENCE & TECHNOLOGY

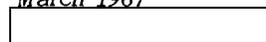
APPROVED FOR RELEASE (b) (1)
DATE: AUG 2004 (b) (3)

SCIENTIFIC INTELLIGENCE DIGEST



~~Top Secret~~

OSI-SD-SC/67-3
March 1967



No. Pages 34
Copy No.

37

CONTENTS

Page

--

UAR Use of Toxic Chemical Warfare (CW) Agents in Yemen

22 *NOT A*

The Scientific Intelligence Digest is produced solely by CIA. It is prepared by the Office of Scientific Intelligence and the Foreign Missile and Space Analysis Center. The Digest is coordinated with the Offices of Current Intelligence, Research and Reports, and Basic Intelligence.

SID/SC/67-3
Mar 67

UAR USE OF TOXIC CHEMICAL WARFARE (CW) AGENTS
IN YEMEN



After a lapse of over a year, the UAR resumed its CW toxic agent operations in Yemen in late 1966. Attacks were made on 27 December 1966, 5 January and 17 January 1967. A fourth attack reportedly occurred on 4, 8, or 9 February. In all but the third attack, lethal casualties resulted. Mustard and phosgene are probably the chemical agents used in the attacks.

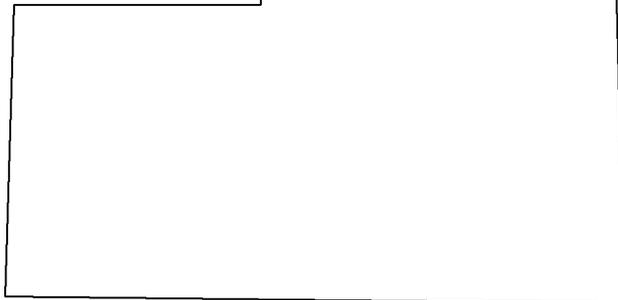


On 27 December 1966, about 20 chemical bombs [redacted] were dropped near the Royalist headquarters at Jabal ahl Yazid. The agent was a liquid. The casualties sustained blisters either directly from the agent or from contact with contaminated earth and bomb

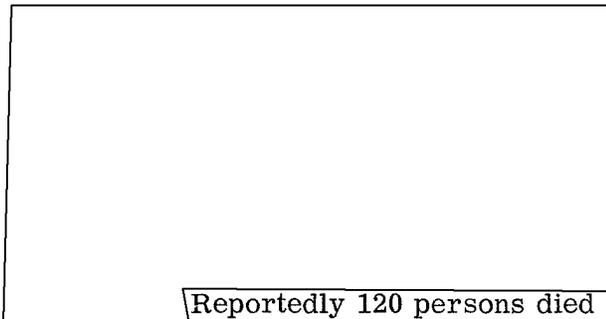
fragments, eyes and respiratory tracts also were affected. These effects are in accord with those caused by mustard [redacted]



On 2 January, Field Marshal Abd al-Hakim Amir, who is believed to control personally all UAR use of toxic chemicals, was requested to authorize an attack on al-Kitaf. [redacted]



In the attack, two smoke marker bombs were dropped first, possibly as target markers and to indicate wind direction.



[redacted] Reportedly 120 persons died

SID/SC/67-3
Mar 67

in the first half hour; total deaths have been reported as high as 200. Animal deaths also occurred. The casualties had breathing difficulties, headaches, nose bleeds, and coughed blood; some casualties showed nausea and cyanosis. No blistering effect was noted on the skin, although one unconfirmed report mentioned death from handling contaminated objects. At the time of bomb drop, the weather was clear and dry, with little or no wind, and the temperature was 17°C (62.5°F). Under such weather conditions, inversion existed; in this situation an agent cloud holds together rather than dissipates and drifts downwind as an effective entity. With the lack of wind or probably a very light wind, expansion of the agent cloud was limited further, with the result that the agent was held in extremely high concentration -- in an "overkill" dosage. The agent was reportedly a liquid that vaporized rapidly; the odor was described in various ways, such as the smell of yeast, oranges, apples, and spoiled fruit.

[redacted] on 17 January a similar attack occurred on Jabal ahl Yazid near the Royalist headquarters, again using initial marker bombs. The attack was unsuccessful because a strong wind dispersed the agent cloud quickly. Four of the gas bombs did not explode but burst open on impact. The agent volatilized quickly and none was left in the opened casings when they were examined a few minutes after impact. This rapid evaporation strongly suggests phosgene, which boils at 8.3°C (47°F). In this instance, there was no explosion to blow out the agent in a fine spray and thereby speed the change from liquid to gaseous state. The agent passed into the gas phase by natural evaporative processes. These processes occur rapidly for low boiling chemicals such as phosgene; a high boiling material would be expected to have some unevaporated liquid remaining at time of examination. The munitions used in this action have not been identified as "Raad" bombs.

[redacted]

On 8 February, UAR aircraft reportedly dropped "destructive and gas bombs" on the village of Mikhlaf Bani Salab, causing the death of 75 persons and 40 animals. An attack reportedly took place at Mikhlaf Bani Salam on 4 February. "Poison gas" was used and 75 deaths are said to have occurred. On 9 February, at Beni Salama near Sana, the UAR reportedly staged a "gas attack" causing 70 deaths and loss of cattle. Because of the similarity of names and data, these reports may refer to the same action. Confirmatory data have not been obtained as yet.

[redacted]

SID/SC/67-3
Mar 67

