

NIC 01342-35

OFFICE OF CONGRESSIONAL AFFAIRS
Routing Slip

	ACTION	INFO
1. D/OCA		XX
2. DD/Legislation		XX
3. DD/Senate Affairs		XX
4. Ch/Senate Affairs		
5. DD/House Affairs		XX
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7. Admin Officer		
8. Executive Officer		
9. FOIA Officer		
10. Constituent Inquiries Officer		
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SUSPENSE

Date

Action Officer:
Remarks:

EJ 14 APR 88

Name/Date

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OCA FILE

The Director of Central Intelligence
Washington, D.C. 20505

Media

National Intelligence Council

NIC 01342-88
13 April 1988

MEMORANDUM FOR: Deputy Director of Central Intelligence
FROM: MG David W. Einsel, Jr.
National Intelligence Officer at Large
SUBJECT: Soviet Explanations of 1979 Anthrax Outbreak

1. There was a public, unclassified, meeting to discuss the April 1979 Sverdlovsk BW incident at the National Academy of Science on 11 April (reported in this morning's Washington Post). A repeat series of meetings are scheduled at John Hopkins University (14 April) and Harvard University (18 April). These meetings will involve Dr. Matthew Meselson, Harvard University (the host) and three Soviet Ministry of Health Officials who were involved in the Sverdlovsk incident. [redacted]

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2. Dr. Meselson has arranged this exchange in return for his Soviet-sponsored visit to Moscow in late August 1986 on the same subject, at which the Soviets provided a new and detailed account of the 1979 outbreak of Anthrax in Sverdlovsk. The 1986 invitation to Dr. Meselson was hastily arranged, probably to coincide with the September 1986 Biological Weapons Review Conference, to establish a propoganda position in the public domain and a version plausible to persons without access to intelligence information.

[redacted]

25X1

3. The timing and composition of invited guests (to include press, members of foreign embassies, etc.) would indicate that a major aim of the present series of meetings may be to publicly discredit past administration charges of Soviet violation of the Biological Weapons Convention--and in turn, influence world opinion as to Soviet openness and US intransigence at Geneva in the CW Disarmament Talks. [redacted]

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4. The Soviet account of the Sverdlovsk incident is virtually identical to the 1986 Soviet account, which claims there was accidental contamination of livestock feed with anthrax, which led to gastrointestinal anthrax when infected meat was distributed through black-market channels. Sixty-four

[redacted]

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[redacted]

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deaths resulted from seventy-nine cases, with no inhalation anthrax cases, no cases among military personnel, no involvement of military authorities, and differs from 1979 and 1980 Soviet accounts which indicated either no deaths or only a very few deaths from eating contaminated meat in a restaurant.

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5. While, as Dr. Meselson states, the current version is "plausible" it does not reconcile with all source intelligence. For example:

-- Intelligence indicates a likely airborne accident

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-- Current version says two-thirds of casualties were among males, with nearly all cases among adults, and never more than one case per household--a surprising set of statistics, which would be far more consistent with a work-related accident than the result of eating black-market infected meat.

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-- Current explanation of the 6-week duration, the delay in identification, and high incidence of truck drivers/chauffeurs could be equally consistent with exposure to airborne exposure since vehicles would resuspend an aerosol and decontamination of an aerosol attack would be time consuming.

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-- Usual annual incidence, from Soviet-reported data for period 1965-1978 is about 17 intestinal gastric anthrax cases per year. Never before, nor since, have 60 some cases been reported and until September 1986 the Soviets did not admit to this high number of cases, nor did they report the outbreak to the World Health Organization.

-- It is at best surprising that it took six weeks to contain this particular anthrax epidemic. Normal Soviet response is much better than that.

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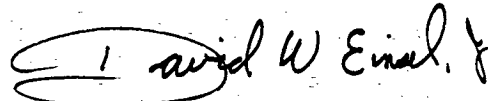
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6. Since this matter is likely to continue to be discussed in the public press, there is little that we can say other than the 1986 DIA discussion in their unclassified pamphlet, Soviet Biological Warfare Threat, pages 4-7 (attached).



David W. Einsel, Jr.

Attachment:
As stated

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SUBJECT: Soviet Explanations of 1979 Anthrax Outbreak

Distribution:

- Orig - DDCI
- 1 - ER
- 1 - AC/NIC
- 1 - OCA
- 1 - PAO
- 1 - OSWR/LSB
- 1 - NIO/AL
- 1 - A/NIO/CBW
- 1 - NIO/AL Chrono
- 1 - NIO/AL File

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percent fatal) if treatment is not begun promptly. Although anthrax bacteria are penicillin sensitive, successful treatment of the disease depends upon killing the microorganisms before a lethal concentration of anthrax toxin is produced. The skin form of infection can also be lethal if it invades the bloodstream and therapy is not started quickly. In addition to penicillin, other antibiotics are effective.

Anthrax spores can be disseminated in either a liquid or dry form. Although highly resistant in the environment, they can be killed with strong disinfectants or high temperature. Anthrax is a non-contagious agent. The number of anthrax spores required to kill 50 percent of exposed individuals (lethal dose 50 or LD50) is between 8,000 and 10,000. Even though such high concentrations of anthrax are required to be delivered over a target population, the Soviets have no technical difficulties in achieving this. Having produced BW agents they must also be concerned with their destruction. See Appendix D.

The Sverdlovsk Biological Warfare Facility: The Events of 1979

During early April 1979, an accidental release of anthrax occurred in Sverdlovsk that caused many casualties and most probably a very high death rate among Soviet citizens who were exposed. The Soviet Government at that time admitted only to some public health problems, which it said were caused by the illegal sale of anthrax-contaminated meat. They have never acknowledged the existence of the Sverdlovsk facility and, of course, have never revealed the nature of the work conducted there. The U.S. Government has requested an explanation of what happened in Sverdlovsk on numerous occasions but the Soviets persist in blaming contaminated meat for the anthrax epidemic.

Our analysis shows that the following events occurred:

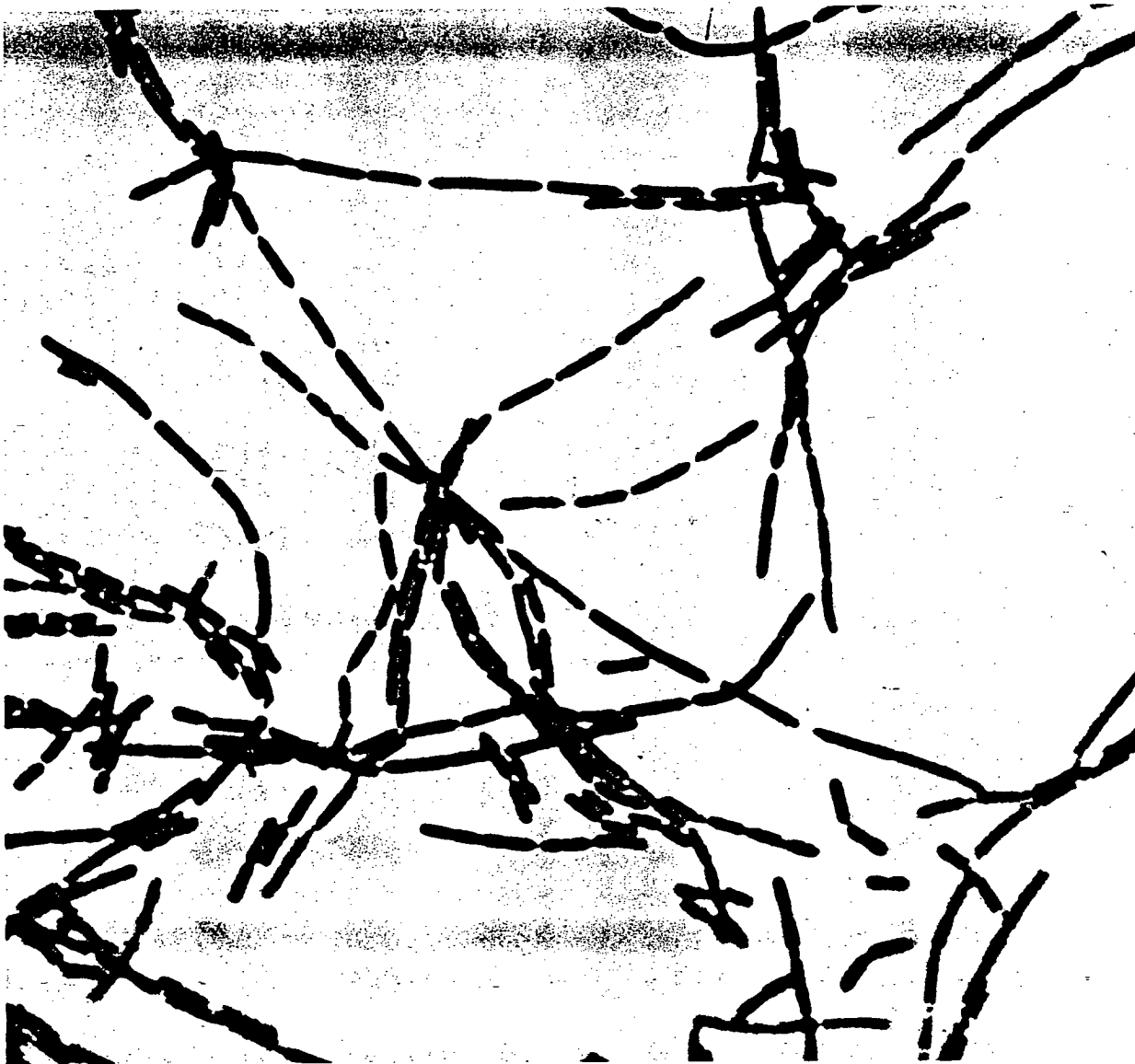
- Early in April 1979, an accidental release of anthrax occurred within the Microbiology and Virology Institute in Sverdlovsk City. The Institute is a military facility located in the southwestern outskirts of the city. While

	Accident Potential	Aerosol Release
Lab Operations	Low-Medium	mg-g
Pilot Plant Scale	Low-High	g-KG
Production	Medium-High	50g-300 KG
Training	Medium	up to 5KG
Testing	High	up to 100g
Storage	Low	up to 100KG
Waste Handling/ Decontamination	Low	g

Each of the various operations involved in the production of anthrax has the potential for releasing aerosols in quantities indicated (one thousandth of a gram to 300 kilograms). The scale of operations, whether the agent is in liquid or dry form, and whether the operations involve high pressure, volatile solvents, or explosives also affects the potential for aerosol release. It is difficult to aerosolize more than 10% of wet anthrax spores. It is relatively easy to aerosolize almost 100% of anthrax spores in dry form. These factors plus other information were critical in our analysis of the Sverdlovsk accident.

bulk quantities of anthrax spores in dry form were probably being prepared, a pressurized system probably exploded.

- As much as 22 pounds (10 kg) of dry anthrax spores were released from the Institute.
- The bacterial aerosol contaminated an area with a radius of at least 2-3 miles.
- Within two weeks, which is within the time frame expected for the disease to develop, a significant number of deaths occurred.
- Residents and workers within the contaminated area contracted pulmonary anthrax through inhalation. In addition it is possible that some may have contracted anthrax by skin contact and, over time, a number may have contracted anthrax by consumption of food contaminated by the fall-out of spores.
- Initial disinfection and decontamination procedures were largely ineffective.
- Mass immunizations with the Soviet anthrax vaccine were partially effective at best.



An 18-hour culture of anthrax.

- Vaccinations and antibiotic treatment were administered too late as an initial response.
- Containment procedures were effective in confining the problem to the southwest area of Sverdlovsk City.
- Strict censorship as to the true nature of the incident served to neutralize early panic and limit the fears of the Sverdlovsk population.
- Containment procedures continued into July 1979. Some inspection procedures were conducted until the Fall of 1979.

In summary:

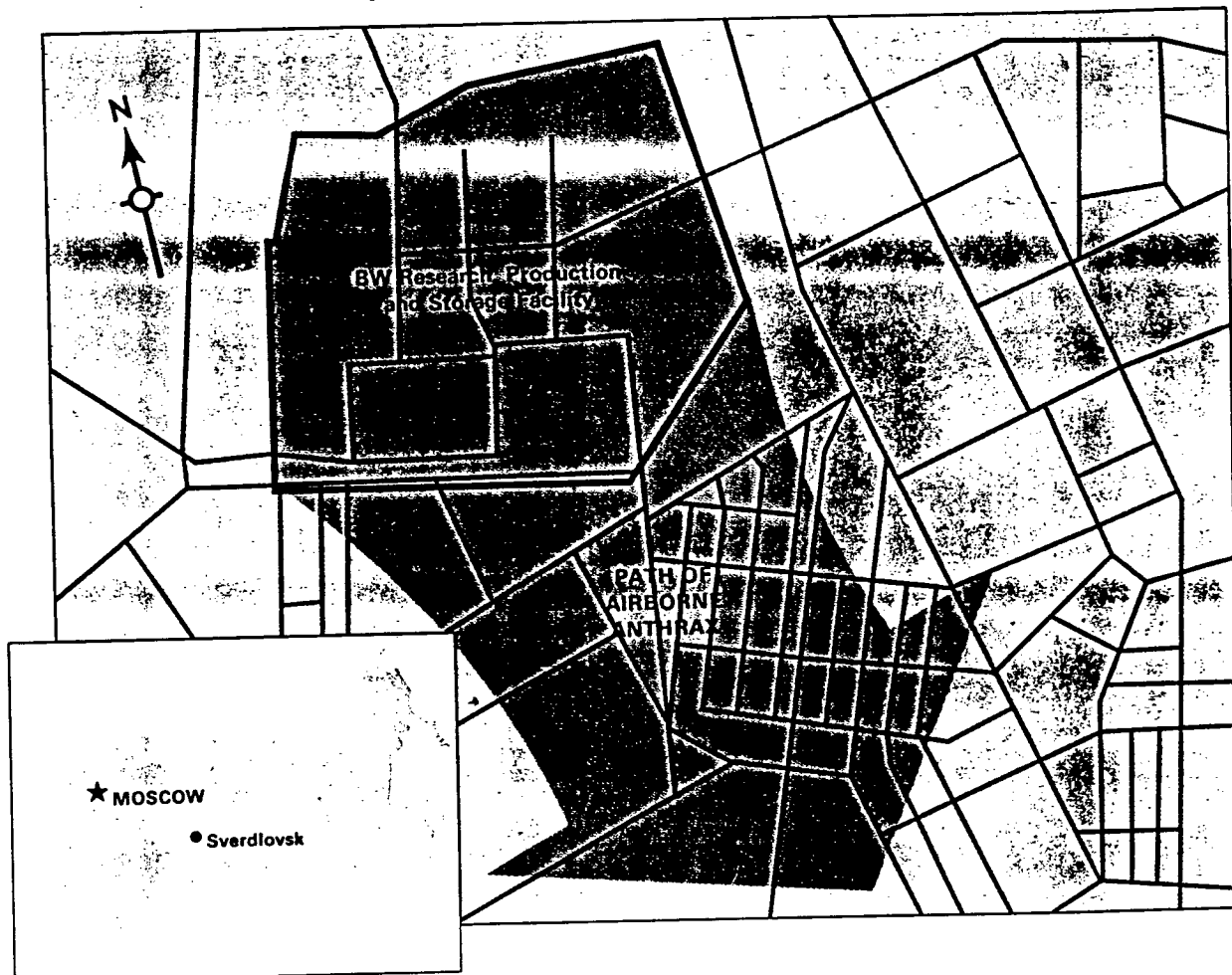
- A major outbreak of anthrax occurred at a closed military installation.
- The Soviets have persisted in claiming that a routine outbreak of anthrax among animals caused intestinal anthrax among people who consumed the bad meat.
- The extraordinary efforts to "clean-up" are inconsistent with the Soviet explanation.
- It has been reported that hundreds of Soviet citizens died from inhalation anthrax within

seven to ten days of the outbreak despite heroic attempts by Soviet doctors to save their lives.

- It has also been reported that in subsequent weeks there may have been 1,000 or more cases. These figures are about 100 or more times the annual incidence of inhalation and intestinal anthrax throughout the USSR in recent years.¹
- Heavy military involvement and early military casualties immediately after the accident,

total military control within two weeks, plus roof top spraying of decontaminating solutions from aircraft are not consistent with public health control measures for dealing with anthrax acquired by eating bad meat.

- The reported aerial spraying activity and disinfection with steam and hypochlorite solution around the military facility are clear attempts to decontaminate surfaces affected by an infectious aerosol.



Accidental release of anthrax from Biological Warfare Facility at Sverdlovsk.

¹ In the USSR the usual incidence of clinical anthrax in humans has been approximately 95 percent cutaneous (skin), 2.4 percent intestinal, 1.2 percent inhalation, and 1.4 percent other forms. Based on Soviet data, the estimated total number of cases in the USSR during 1978 was about 700 for all forms of anthrax. This translates to seventeen expected intestinal cases and eight expected inhalation cases. The 1978 incidence of anthrax is similar to that for the period 1965-78.

- Collectively, these events are a very strong contradiction of the Soviet position which claimed the anthrax outbreak was just a public health problem resulting from the sale of contaminated meat.

The Soviet Biological Warfare Organization

Regular Soviet Chemical Troops of the Ministry of Defense are involved in BW activities. Despite the name Chemical Troops, this force is responsible for ensuring that Soviet units can operate under any type of contaminated battlefield including nuclear, biological and chemical (NBC). This force has some 45,000 officers and soldiers in the ground forces alone in peacetime. They man special NBC reconnaissance and decontamination units which are part of ground force formations at all levels from regiment to *front*. Similar units exist in the other branches of service.

The responsibilities of the Chemical Troops include oversight of:

- Development of biological and chemical weapons.
- Testing and evaluation of BW and chemical warfare (CW) agents and delivery/dissemination systems.
- Weaponizing and storage of BW and CW agents.
- Technical advice to combat commanders regarding the use of and effectiveness of biological weapons.
- R&D, production and storage of protective gear.
- Training of all forces for survival on a battlefield contaminated with BW agents.
- Reconnaissance and decontamination.
- Operating the Chemical Academies (college equivalent).



New Soviet Chemical, Biological, Radiological Protective Mask.

The specialists of the Chemical Troops have over 30,000 vehicles specifically designed for NBC reconnaissance and decontamination of personnel and equipment. Special training areas exist for training units of the Chemical Troops. Additionally, most modern Soviet vehicles have collective protection systems designed to protect against NBC contamination.

The Soviets have vaccines or antidotes for many of the diseases that they might use in a BW attack. These include those for anthrax, tularemia, plague, and botulism. Immunization is essential for those personnel who produce, handle, and deliver BW agents and weapons as well as those who would move into an area where BW agents had been disseminated. Standard Soviet protective suits and masks, together with sanitary and disease control measures, would be sufficient to protect most Soviet soldiers from the effects of their BW agents.