PLAGUES & BIOTERRORISM

I. HISTORY AND BACKGROUND
A. FIRST KNOWN (BUT UNRECORDED) CASES OF BIOTERRORISM
   1. 1346 - KAFFA ON THE BLACK SEA
      YANIBERG A KAHN OF THE GOLDEN HOARD
      CATAPULTED DEAD PLAGUE VICTIMS OVER
      THE WALLS OF KAFFA (HELD BY THE GENOEGE)
   2. 1763 - MASSACHUSETTS
      GENERAL JEFFREY AMHERST ORDERED BLANKETS
      FROM SMALLPOX VICTIMS BE GIVEN TO NATIVE
      AMERICANS (FRENCH-INDIAN WAR)
B. THE PLAGUES OF THE NEW WORLD
   COLUMBUS & THE TAINOS, CORTEZ & THE AZTECS,
   PIZZARO AND THE INCAS
C. THE 20TH CENTURY
   1. ACTUAL USE OF "WEAPONIZED" AGENTS - ??
   2. WORK IN THE USA AND THE USSR (AND ELSEWHERE)
      a. FORT DETRICK, MD - WEAPONIZING AGENTS
      b. THE ANTHRAX INCIDENT - SVERDLOVSK (1979)
D. 2001 INCIDENT IN USA (23 anthrax cases: 11 inhalation,
   12 cutaneus; 5 fatalities - most were postal workers)

II. ANTHRAX
A. BACILLUS ANTHRACIS - AEROBIC SPORE-FORMER
   1. TWO VIRULENCE FACTORS - TOXIN AND CAPSULE
   2. SPORES ARE RESISTANT TO HEAT AND DRYING
   3. THREE TYPES OF DISEASE (INHALATION,
      CUTANEOUS AND INGESTION)
   4. A ZOONOTIC DISEASE OF UNGULATES
B. EASILY WEAPONIZED AND DISPERSED
C. HARD TO DIAGNOSE AND TREAT

III. SMALLPOX
A. SMALLPOX (VARIOLA) VIRUS
   1. LARGE "COMPLEX" VIRUS OF HUMANS
   2. CAUSES DISEASE WITH 100% MORBIDITY & 40%
      MORTALITY
   3. CAN BE PREVENTED BY VACCINATION
B. CAN BE DISPERSED - VIRUS IS RELATIVELY STABLE
C. IMMUNIZATION AT 0% IN USA (BUT AVAILABLE)

IV. TULAREMIA (RABBIT FEVER, DEER-FLY FEVER)
A. FRANCESCSELLA TULARENSIS - A GRAM NEGATIVE ROD
   1. TRANSMITTED BY AEROSOLS, ANIMALS, AND
      ARTHROPODS (USUALLY A ZOONOTIC DISEASE)
   2. CAUSES CONJUNCTIVITIS, ORAL ULCERS AND
      PHARYNGITIS (SEVERE WITH SYSTEMIC SYMPTOMS)
B. CAN BE AEROSOLIZED AND DISPERSED

V. OTHERS
A. BOTULISM TOXIN
B. HEMORRHAGIC FEVER VIRUSES
C. BRUCELLOSIS