

LA-UR-

11-04871

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*Title:* Biological Weapons Reference Guide (BW)

*Author(s):* Brent Nye

*Intended for:* Presentation  
JOWOG 29 Meeting



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# Biological Weapons Reference Guide (BW)

Brent Nye (bnye@lanl.gov)  
Los Alamos National Laboratory



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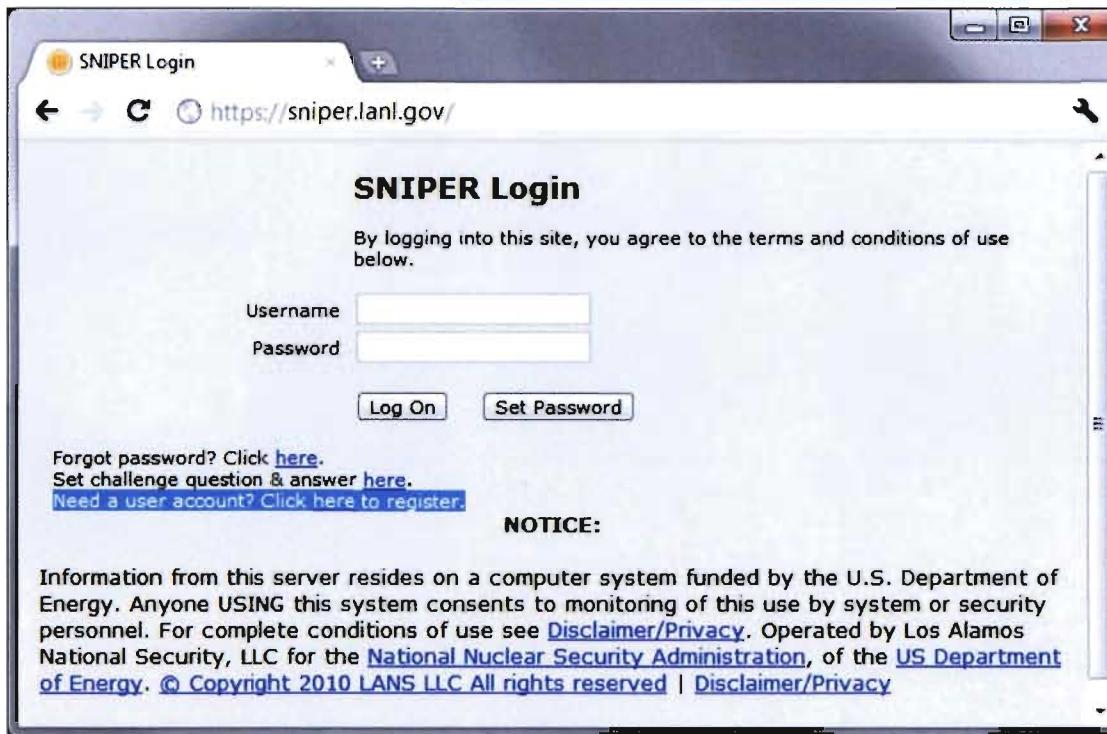
# Database Overview

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- “BW” is part of Los Alamos’ *Unclassified SNIPER* suite (+ CIDER, High/Homemade Explosives, Chem Weapons)
- Most users are DOD-EOD and the FBI. DOE labs/KCP and some state/local law enforcement also use CIDER.
- BW is licensed for unlimited users but currently unfunded.
- MOD & AWE are approved to download *and upload* data.
- BW currently contains 122 MB of data (<1 CD):
  - Biological Warfare Agents (BWAs)
  - Production Processes, Facilities, & Equipment
  - Weapons Primer
  - Glossary, Library, Quiz (self test), Search

# Account Requests

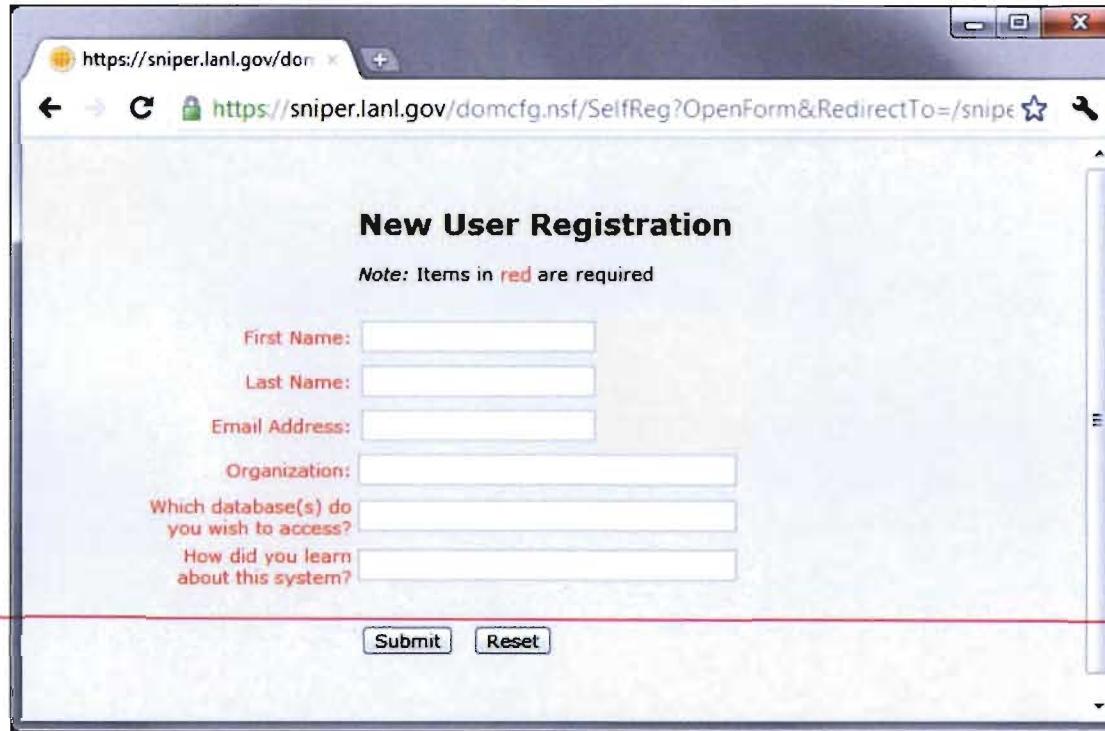
- Using any of the “big 3” browsers (Internet Explorer, Firefox, Chrome), go to <http://sniper.lanl.gov> (no www):



- Click the link highlighted above.

## Account Requests, cont.

- Complete the brief registration form and click Submit:



The screenshot shows a web browser window with the URL <https://sniper.lanl.gov/domcfg.nsf/SelfReg?OpenForm&RedirectTo=/sniper>. The page title is "New User Registration". A note at the top states "Note: Items in red are required". The form contains the following fields:

- First Name: [text input]
- Last Name: [text input]
- Email Address: [text input]
- Organization: [text input]
- Which database(s) do you wish to access? [text input]
- How did you learn about this system? [text input]

At the bottom are "Submit" and "Reset" buttons.

- You should receive a user name and temporary password in 5 business days or less.

# Logging In

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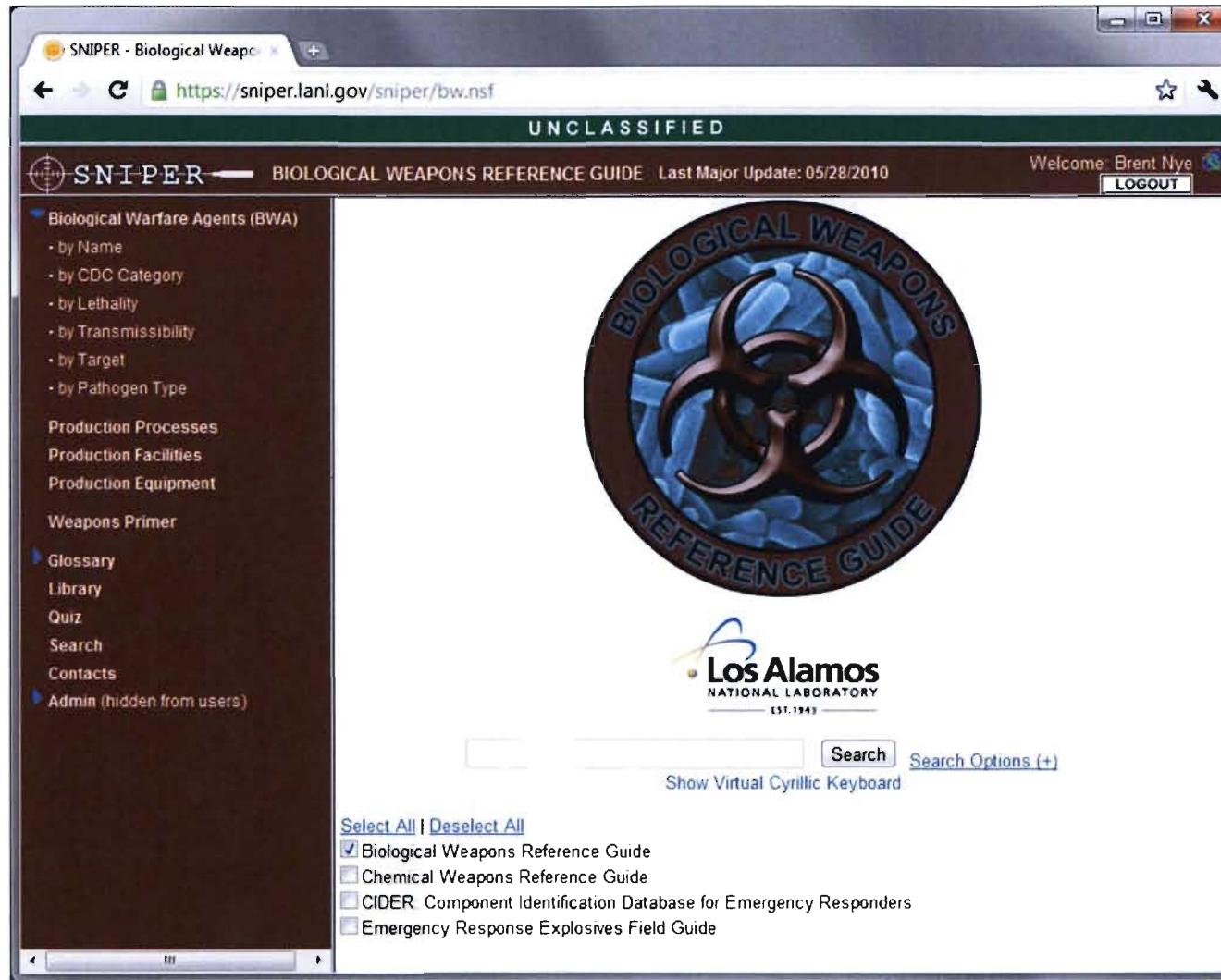
- After your first login, you'll need to do the following:
  - Reset your password
  - Set a challenge question and answer (in case you forget your password)
- **Note:** After three incorrect login attempts, your account will be locked and require an administrative reset.
- Depending on your request/access, you'll see one or more active database icons:



“BW”

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# Interface/Layout



The screenshot shows a web browser window for the SNIPER - Biological Weapons Reference Guide. The URL is <https://sniper.lanl.gov/sniper/bw.nsf>. The page is titled "SNIPER - BIOLOGICAL WEAPONS REFERENCE GUIDE" and indicates the "Last Major Update: 05/28/2010". The page is marked as "UNCLASSIFIED". The left sidebar contains a navigation menu with the following items:

- Biological Warfare Agents (BWA)
  - by Name
  - by CDC Category
  - by Lethality
  - by Transmissibility
  - by Target
  - by Pathogen Type
- Production Processes
- Production Facilities
- Production Equipment
- Weapons Primer
- Glossary
- Library
- Quiz
- Search
- Contacts
- Admin (hidden from users)

The main content area features a large circular logo with a biohazard symbol in the center, surrounded by the text "BIOLOGICAL WEAPONS" and "REFERENCE GUIDE". Below the logo is the Los Alamos National Laboratory logo, which includes a stylized "LA" monogram and the text "Los Alamos NATIONAL LABORATORY EST. 1943". There is a search bar with a "Search" button and a link to "Search Options (+)". At the bottom of the page, there is a list of checkboxes for selecting reference guides:

Select All | Deselect All

Biological Weapons Reference Guide  
 Chemical Weapons Reference Guide  
 CIDER Component Identification Database for Emergency Responders  
 Emergency Response Explosives Field Guide

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# Data Overview: Biological Warfare Agents

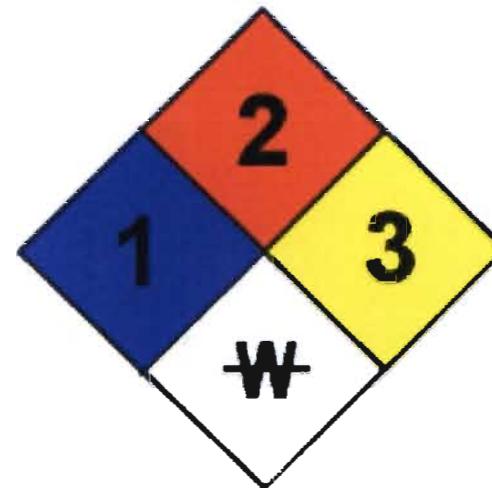
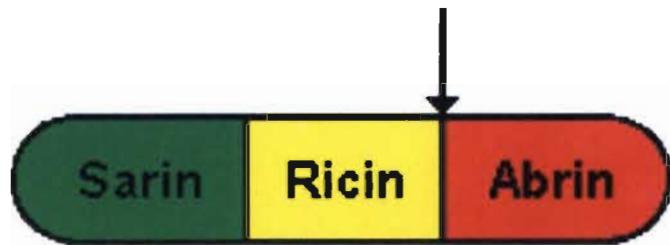
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- 94 BWAs, 80 of which are Australia Group Controlled.  
BWAs are organized multiple ways:
  - By Name
  - By CDC Category
    - A
    - B
    - C
  - By Lethality
    - High
    - Low Moderate
    - Variable
    - Very Low
  - By Target
    - Animal
    - Human
    - Plant
  - By Transmissibility (Human to Human)
    - High
    - Moderate
    - Low
    - Rare
    - No (not transmissible)
  - By Pathogen Type
    - Bacteria
    - Fungus
    - Protozoa
    - Rickettsia
    - Spore-Forming Bacteria
    - Toxin
    - Virus

# BWA Data

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- Toxicity & Hazard Graphics



**AUSTRALIA GROUP CONTROLLED**  
**CDC CATEGORY A**  
**HUMAN PATHOGEN**

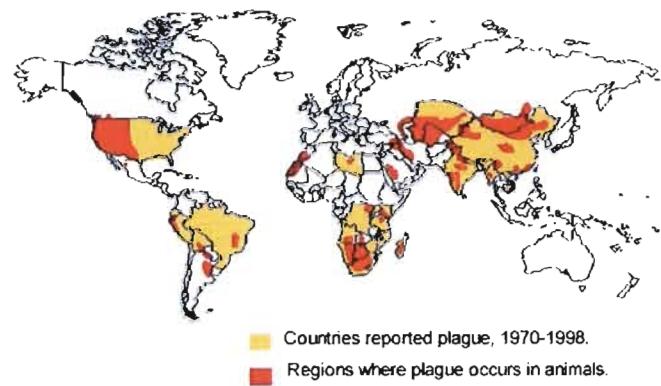
# BWA Data, cont.

- General Agent Data
- Production Data
- Lethality, Transmission, Protection
- Treatment, Detection, Decontamination
- Disease Characteristic & Diagnosis
- Unclassified Weapons Data
- Unclassified Country Intelligence
- Unclassified Terrorism Data

## BWA Data, cont.

- References/Citations
- Cross-Reference
- Miscellaneous Comments
- File Attachments
  - Material Safety Data Sheets (MSDS)
  - Other Data Sheets
  - Images
  - All non-binary attachments are indexed and searchable

World Distribution of Plague, 1998



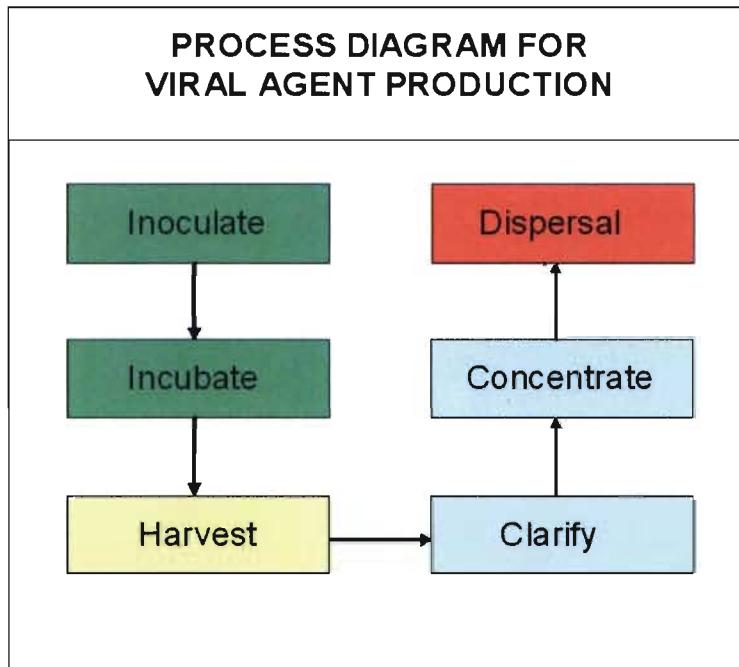
# Production Processes & Facilities

- Production Processes:

- Bacterial Agent Production
- Toxin Production
- Viral Agent Production

- Production Facilities:

- Large scale, Dual use
- Biological Research Institute
- Biopesticide Plant
- BSL-1 Laboratory
- BSL-2 Laboratory
- BSL-3 Laboratory
- BSL-4 Laboratory
- Fermentation Plant
- Medical Research Training Facility
- Pharmaceutical Plant
- Protein Production Facility
- Public Health Research Facility
- Vaccine Production Facility



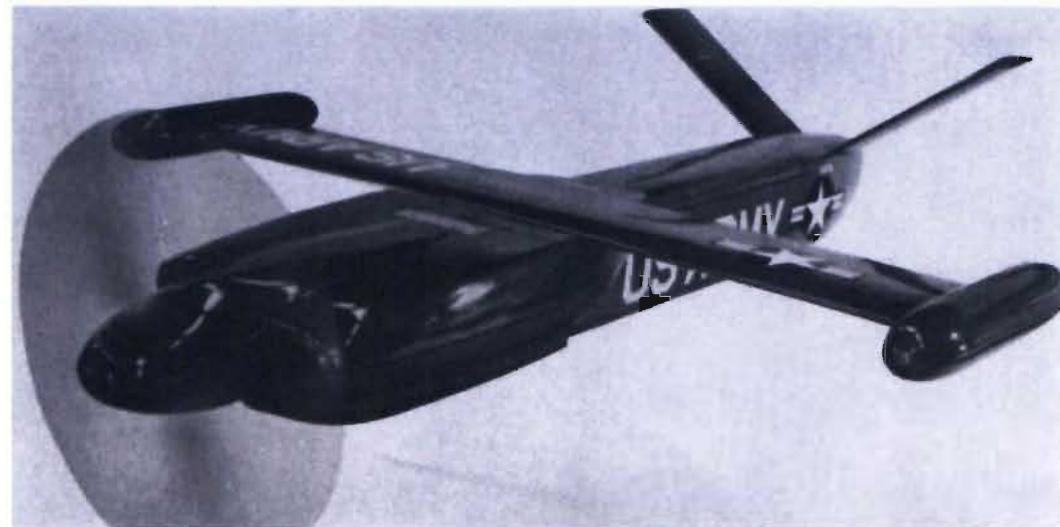
# Production Equipment

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- Equipment Examples:
  - Drying
    - Spray Drying
    - Drum Drying
    - Freeze Drying
  - Fermentation
  - Harvest/Separation
    - Cross Flow Filtration
    - Centrifuge
    - Flocculation, Foam Flotation, Settling
    - Cell Disruption
  - Incubation
    - Cell Incubator
    - Egg Incubator
    - Incubator Shaker
  - Inoculation
    - Automated Egg Inoculator
  - Milling
    - Jet Mill Micronizer
    - Powderizer
    - Tumble Milling
    - Mortar and Pestle
  - Other
    - Shakers
    - Autoclave
    - Laminar Flow Hood
    - Inverted Microscope
    - Biological Safety Cabinet
    - Shaker Flasks
  - Protective Gear
    - N95 Respirator
    - Pressure Suits
    - Powered Air Purifying Respirator

# Weapons Primer

- Weaponization examples:
  - Aerial Bomb
  - Artillery/Rockets
  - Contamination
    - Food
    - Water
  - Living Hosts
    - Vectors
  - Missile System
  - Sprayer
  - Submunition



# Reference

- Glossary
  - 88 Word Definitions
  - 21 Acronym Descriptions
- Library Items
  - 6 records with attached PDFs
- Quiz
  - Self test containing 99 randomized questions
  - Multiple-choice answers
  - Amusing graphics/animations correspond to correct/incorrect answers

Question What is this piece of equipment called?  
(2 of 99)



Answer

- biosafety cabinet/hood
- fume hood
- incubator

[Submit Answer](#)

[< Prev](#) [Next >](#)

# Search

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- Search All
  - Boolean, Google-like search, queries all component fields
  - Non-binary (.pdf, .xls, .doc, etc.) attachments indexed/searchable.
  - Virtual Cyrillic keyboard included. Researching Arabic.
  - Currently upgrading this function & customizing results display.

Search [Search Options \(+\)](#)

[Hide Virtual Cyrillic Keyboard](#)

To type in Cyrillic, click on a letter.  
(Characters will appear in upper case. Search is not case sensitive.)

A а	Б б	В в	Г г	Д д	Е е	Ж ж	З з
И и	Й й	К к	Л л	М м	Н н	О о	П п
Р р	С с	Т т	Ү ү	Ф ф	Х х	Ц ц	Ч ч
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Space							

[Select All](#) | [Deselect All](#)

Biological Weapons Reference Guide

Chemical Weapons Reference Guide

CIDER: Component Identification Database for Emergency Responders

Emergency Response Explosives Field Guide

# Download BW

- Using *Internet Explorer* on a *Microsoft Windows* PC, log in to <https://sniper.lanl.gov>.
- Open the Biological Weapons Reference Guide.
- Click the small icon (小事) in the upper right corner of the window. If using *Windows XP*, a yellow bar may open near the top of the window. If so, click it and select “Install ActiveX Control.”
- Follow on-screen prompts. Note: Detailed instructions are available.



## BW Summary

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- Biological-pathogen Weapons
- Production Information
- Related Intelligence
- Self Tests
- Human-pathogen data: 100% complete
- Plant/animal-pathogen data: 50% complete
- Design: 100% complete
- Currently unfunded/static

