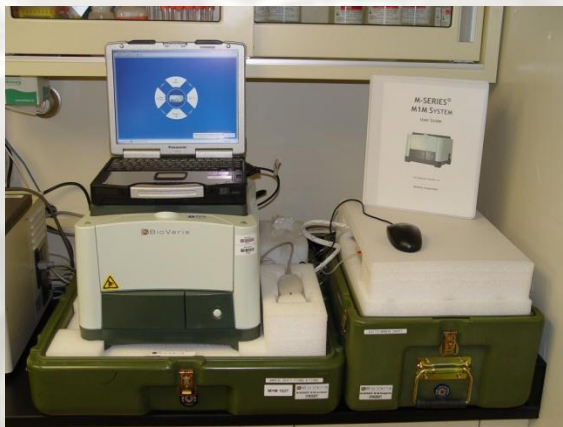




**FIBWA Field Training Site**



**JBAIDS Analyzer (Idaho Technology)**



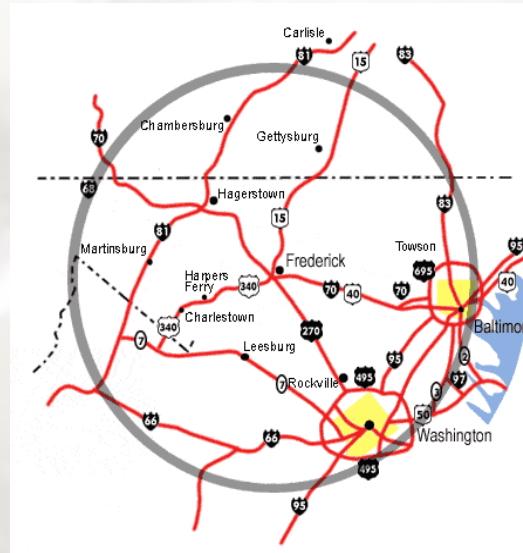
**M1M (Roche Diagnostics, Inc.)**

**USAMRIID's MISSION:**  
To protect the Warfighter  
from biological threats.  
Be prepared to investigate disease  
outbreaks or threats to public health.



**USAMRIID**

U.S. Army Medical Research  
Institute of Infectious Diseases



Fort Detrick is located in Frederick, MD, approximately 48 miles northwest of Washington, D.C. and 54 miles west of Baltimore, MD. There are three major airports that service the metropolitan area and provide access to Fort Detrick: Dulles International, Baltimore-Washington International, and Reagan International. The FIBWA training site is located just west of the main Fort Detrick post in Area B.

# **FIBWA**

## **Field Identification of Biological Warfare Agents**

Field Operations and Training Branch  
Diagnostic Systems Division

US Army Medical Research Institute  
of Infectious Diseases

1425 Porter Street

Fort Detrick, MD 21702

Phone: 301-619-4738/8656

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**FIBWA: 6H-F40/311-F4**

**FIBWA-MGR: 6H-F41/311-F5**



[http://www.usamriid.army.mil/  
education/fibwacourse.htm](http://www.usamriid.army.mil/education/fibwacourse.htm)

With the development and deployment of biological warfare (BW) agent detection assays and the advent of the deployable BW agent confirmation laboratory, a program was developed to train laboratory personnel to perform the complex, specialized tasks required for BW agent confirmation.

USAMRIID's Field Identification of Biological Warfare Agents (FIBWA) program trains students to set-up, maintain, and operate a deployable confirmation laboratory under field conditions. The courses offer training in the most advanced fieldable technologies for biological warfare agent detection. The FIBWA courses focus on the integrated application of multiple technologies to provide a high-confidence solution.

The FIBWA program consists of four different core courses:

1. FIBWA Course
2. FIBWA Manager's Course (FIBWA-MGR)
3. FIBWA NGB CST
4. FIBWA Special Interest Training

Equipment and technology are integrated with the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD). Concepts of Operations and reagents are continually evaluated and transitioned to the field and into the training program to insure that FIBWA training is relevant and on the "Cutting Edge."

The FIBWA course is 20 working days in duration. A field Situational Training Exercise (STX), during the fourth week, provides an opportunity to integrate training with real-world scenarios that challenge the student's understanding and skills.

The FIBWA Manager's Course is a three-day course designed to introduce leaders to the management of BW agent identification. Laboratory operations, hands-on assay practice, and integrated evaluation of results complete the curriculum.

The FIBWA NGB CST is provided exclusively for the National Guard Bureau Civil Support Teams (CST). It consists of two weeks of CST specific instruction culminating in a situational training exercise.

FIBWA Special Interest Training Courses are adapted to customer requirements. Courses can range from days to weeks depending on the breadth of information needed and any requirements for certification. Training on newly fielded systems and technologies is the usual focus.

Since the FIBWA course was first offered in 1999, students, including members of three services, DoD civilians, and foreign scientists, have attended. Training opportunities were increased in 2003 with the addition of new training facilities that provide modern field laboratory space for eight students per class while retaining the individualized instruction which is a hallmark of the program.

In 2005, the National Guard Bureau began using the FIBWA program as the foundation for the advanced biological component of their Civil Support Teams (CST). These teams, assigned to each state and territory, form the foundation of a highly specialized Weapons of Mass Destruction (WMD) response element.

Also in 2005, the four-week FIBWA Course was vested academic undergraduate and graduate credit through a partnership with James Madison University, Harrisonburg, VA.

In 2008, the four-week FIBWA and three-day FIBWA Manager's courses were accredited in the Army Training Resources and Requirements System (ATRRS) as course numbers 6H-F40/311-F4 and 6H-F41/311-F5, respectively.



### **Typical Four-Week Course Syllabus:** *Overview, Bio-safety, and Intro to Lab Operations (1.5 days):*

- Primary objectives and didactic plan
- BW history
- Lab Concepts
- Current Techniques
- Lab operations in a field environment
- Fundamentals of bio-safety
- Basic lab skills review

### *Nucleic Acid Extraction and polymerase chain reaction (PCR) (9 days):*

- Theory and practice of detecting agents
- DNA extraction protocols
- Extraction of RNA for RT-PCR
- Configuration of thermal-cycler reaction profiles
- Operation and maintenance
- Gel electrophoresis
- Data interpretation

### *Electrochemiluminescence (ECL) (4 days):*

- Theory and practice of detecting agents (bacteria and toxins)
- Review of protocols for major threat agents
- Preparation of a variety of sample matrices
- ECL procedures using the M1M analyzer
- Interpretation of results

### *Field Operations Discussions (1 day):*

- Operational issues
- The decision-making process
- Long-range support
- Laboratory design and sample flow
- Tabletop exercises

### *Situational Training Exercise (4 days):*

- Set up and operate a lab under field conditions
- Problem solving
- Demonstrate an understanding of the Concept of Operations
- Formative and summative evaluations

### *Course Critique/After Action Review (.5 day):*

- Opportunity to give comments on training
- Final discussions with faculty and other leaders within the department