



Biological Integrated Detection System (BIDS) |

ITEM DESCRIPTION: The BIDS consists of a shelter (S-788 Lightweight Multipurpose Shelter) that is environmentally controlled, collectively protected, mounted on a dedicated vehicle (M1152 HMMWV) and equipped with a Joint Biological Point Detection System to detect large area biological attacks. The system includes an on-board 10-kw generator (MEP-903A) to provide electrical power, along with SINCGARS, a High Frequency radio and FBCB2 for communication. To fill the urgent need for a biological detection system, yet field mature technologies, the BIDS had an evolutionary acquisition strategy. Initially, a Non-Developmental Item (NDI) M31 BIDS, consisting of primarily off-the-shelf instrumentation, provided a limited manual detection/identification capability. This was followed by a Pre-Planned Product Improvement (P3I) M31A1 BIDS with an expanded and semi-automated detection/identification capability which linked aerodynamic particle sizing, bioluminescence, flow cytometry, mass spectrometry, and immunoassay technologies in a complementary, layered manner to increase detection confidence. Subsequent integration of the Joint Biological Point Detection System (JBPDS) into the M31E2 BIDS, which is now in production, provides a fully automated, broad-spectrum biological detection/identification, along with digital communication capability.



BIDS Components:

- Vehicle (M1152 HMMWV)
- Shelter (S-788)
- Generator (MEP-903A)
- Joint Biological Point Detection System (JBPDS), XM97

USE: The number of countries pursuing an offensive biological warfare program continues to increase. The priority of the U.S. Army's Biological Defense Program is to limit the effects of large area biological warfare attacks. As a U.S. Army corps level asset, the BIDS will mitigate the effects of large area biological warfare attacks during all phases of a campaign. Individual BIDS systems are strategically employed throughout the Corps area to create a sensor array/network. The BIDS network will be used for warning and confirming that a biological attack has occurred, will provide presumptive identification of the biological agent being used, and will produce a safely configured sample for later laboratory analysis. The BIDS is C130 aircraft transportable, and has roll-on/roll-off capability.

STATUS: The M31 and M31A1 BIDS were developed and produced by the Edgewood Chemical Biological Center (ECBC). The M31 BIDS was deployed to Kuwait in April and November 1998, and was retired in 2005. Type classification standard for the M31A1 BIDS was approved in November 1998; and initial fielding was accomplished in December 1998. A total of 77 M31A1 BIDS are currently fielded. The M31E2 BIDS was Type Classified for Low Rate Initial Production in Mar 2002 and is currently being produced through a partnership between Letterkenny Army Depot and ECBC. A total of 254 M31E2 BIDS have been produced and fielded, and production is scheduled to continue through 2013.

Further information can be obtained by directing your inquiries to Joint Product Manager, Biological Detection Systems, ATTN: SFAE-CBD-BD-BDS, Aberdeen Proving Ground, MD 21010-5424, or by telephone at (410) 436-7730 or DSN 584-7730.