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Military Liaison FY2017 Training Catalog

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Military Liaison 2017 Training Catalog

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Abstract

This training catalog contains the course objectives and scheduled dates for FY2017 Military Liaison training classes.

ACKNOWLEDGMENTS

SNL MILITARY LIASION (ML) TRAINING CATALOG

Sandia National Laboratories (SNL) ML provides a variety of nuclear weapon education and training classes. For the Department of Defense (DoD), this vital training is accomplished in accordance with Memorandums of Understanding (MOUs) established many years ago. These MOUs task the SNL Military Liaison Department (as the Department of Energy's (DOE) representative) to provide "formal training in the nuclear weapons field not normally provided by the military schools' curriculum." For the National Nuclear Security Administration (NNSA), this training is accomplished in accordance with an MOU from DOE which assigns the Military Liaison Department with the nuclear weapon training mission for DOE and its supporting contractors.

During the enduring stockpile life of a US nuclear weapon, Military Liaison maintains the capability to provide training for inspectors, instructors, operations and maintenance personnel. First-Generation training refers to the technical training that qualified SNL instructors, using jointly approved procedures and representative training equipment, provide to DoD personnel. First-Generation training can be accomplished either in the field (preferred) or at Sandia National Laboratories, Kirtland AFB NM. After we "train the trainer," DoD instructors are then certified to provide training to their technicians. Classroom instruction includes courses listed in this catalog for nuclear weapons technical inspectors, stockpile orientation, maintenance, Explosive Ordnance Disposal (EOD), delivery aircraft/ICBM operations and Use Control personnel. Additionally, Military Liaison provides training for nuclear weapon enterprise senior leadership, logisticians and other program managers. Per the MOUs, no student fees are charged for this training. However, units are responsible for all expenses for their students to travel to Kirtland.

This training catalog lists the regularly scheduled classroom courses provided by Military Liaison which have established agendas and are normally taught each year. Unless otherwise listed, courses are held at Sandia National Laboratories, Kirtland AFB NM. Additional ad-hoc training sessions, locations and topics can be requested on a case-by-case basis. Exact course dates will be coordinated with the military organization involved or may be separately announced by a message from the Military Liaison Department. Information on course registration, security clearances (with sample forms and directions), and area maps are provided with the class announcement message and during subsequent course registration activities.

For further information on SNL ML training class schedules and requirements, contact the Military Liaison Training Coordinator, Mark Meyer at (505) 844-9041; mameyer@sandia.gov or ML admin at (505) 844-6334, ml_tr@sandia.gov .

US AIR FORCE (USAF) NUCLEAR WEAPON STOCKPILE ORIENTATION TRAINING

Course Description

This course is designed to provide information for persons involved in USAF nuclear weapon systems. This training includes a technical description of each nuclear weapon in the USAF inventory. High-fidelity bomb and warhead cutaways are used in the presentations. Current and forecasted Alterations, Modifications, changes to procedures, current Unsatisfactory Report (UR)s, and Life Extension Program (LEP)s are discussed. This training may be conducted at Sandia National Laboratories or at field locations. Topics included are:

Nuclear Weapon Enterprise	Limited Life Components
Basic Nuclear Concepts	Use Control/PAL
Arming, Fuzing and Firing Systems	B61, B83, W80, W84,
Enhanced Nuclear Detonation Safety	W78, W87

Course Objective:

At the end of the course, trainees will be able to:

Summarize the US nuclear weapons enterprise and organizational relationships
Discuss basic nuclear weapons concepts and functions
Identify major nuclear weapons components and arming, fuzing/firing functions
Define Enhanced Nuclear Detonation Safety (ENDS)
Describe nuclear weapon Use Control processes and PAL procedures
Review current nuclear weapon surety issues and sustainment
Explain weapon Alterations, Modifications, and Life Extension programs
Discuss current weapon system Unsatisfactory Reports

Prerequisites

Attendees should be directly involved in nuclear weapons training, operations, logistics, or maintenance activities requiring the level of knowledge indicated in the course description. A current SECRET/RD/CNWDI security clearance is required.

Instructors

Military Liaison staff at Sandia National Laboratories.

Schedule

This 2-day course is offered four times a year, or as requested. Scheduled dates for FY 2017 are: 24 – 25 Jan 17, 4 – 5 Apr 17, 27 – 28 Jun 17, 19 – 20 Sep 17.

Registration

An announcement message is sent out approximately 8 weeks prior to the course starting date. After the message has gone out, quotas may be requested by e-mail at ml_tr@sandia.gov. Attendance is limited to 25. Sandia National Laboratories training point of contact is Mark Meyer, (505) 844-9041, mameyer@Sandia.gov.

JOINT NUCLEAR EOD (JNEOD) TRAINING

Course Description

This course is designed for Explosive Ordnance Disposal (EOD) technicians of all services to provide sustainment training in nuclear EOD operations. For each weapon, a thorough description of the physics package as well as the classified and hazardous components is provided along with a detailed discussion of the Render Safe Procedure (RSP) and Continuation of RSP. Weapon and component cutaways are used in the presentations as well as burned or damaged components. The course is taught at both the Defense Nuclear Weapons School (DNWS) and Sandia National Laboratories (SNL) with additional guest lecturers from the DoD/DOE community. Topics included are:

Nuclear Weapon Complex	EOD Publications
Basic Nuclear Concepts	W80, W84
Nuclear Weapon Hazards	B61, B83, W76
Arming, Fuzing and Firing Systems	W78, W87, W88
Enhanced Nuclear Detonation Safety	

Course Objectives:

At the end of the course, trainees will be able to:

Summarize the nuclear weapons enterprise and organizational relationships
Explain basic nuclear principles of operation
List hazards associated with nuclear weapons
Discuss major nuclear weapons components functions
Define Enhanced Nuclear Detonation Safety (ENDS)
Identify nuclear weapon surety issues
Describe general RSP philosophy and procedures
Evaluate current nuclear weapon stockpile concerns

Prerequisites

Military (E-5 and above [E-4 for AF]) and civilian equivalents (GS-7 and above), EOD qualified, and currently assigned to an EOD position. A current SECRET/RD/CNWDI security clearance is required.

Instructors

Staff at DNWS and Military Liaison staff at Sandia National Laboratories. Other lecturers from DOE and DoD.

Schedule

This 5-day course is offered six times each year in conjunction with DTRA. Scheduled dates for the SNL portion of FY 2017 training classes are: 13 – 14 Dec 16, 14 – 15 Feb 17, 28 – 29 Mar 17, 16 – 17 May 17, 25 – 26 Jul 17, 22 – 23 Aug 17

Registration

Military: Contact DNWS Registrar at DSN 246-5666, commercial (505) 846-5666, or fax (505) 846-9168. Sandia National Lab Military Liaison point of contact is Tina Stetson, (505) 284-0537, tstetso@sandia.gov.

JOINT NUCLEAR WEAPONS TECHNICAL INSPECTOR COURSE (NWTIC)

Course Description

This course is directed by the CJCS for Nuclear Weapons Technical Inspectors of all services to provide training in evaluating nuclear operations. For each US weapon, a thorough description of the physics package as well as the classified and hazardous components is provided along with a detailed discussion of the CJCSI process for evaluating nuclear capable units. Weapon and component cutaways are used in the presentations as well Type trainers to demonstrate limited life component exchange technical operations. The course is taught at both the Defense Nuclear Weapons School (DNWS) and Sandia National Laboratories (SNL) with additional guest lecturers from the DoD/DOE community. Topics included are:

Nuclear Weapon Complex	CJCSI Publications
Basic Nuclear Concepts	Inspector conduct
Nuclear Weapon Hazards	Intervention points
Arming, Fuzing and Firing Systems	Unit Records review
Enhanced Nuclear Detonation Safety	Exclusion Area entry/exit

Course Objectives:

At the end of the course, trainees will be able to:

Summarize the nuclear weapons complex and organizational relationships
Explain basic nuclear principles of operation
List hazards associated with nuclear weapons
Discuss major nuclear weapons components functions
Define Enhanced Nuclear Detonation Safety (ENDS)
Identify nuclear weapon surety inspection issues
Describe general Nuclear Weapon Technical Inspection philosophy and procedures
Evaluate current nuclear weapon surety and inspection concerns

Prerequisites

A current SECRET/RD/CNWDI security clearance is required.

Instructors

Staff at DNWS and Military Liaison staff at Sandia National Laboratories. Other lecturers from DOE and DoD.

Schedule

This 2-day course is offered in conjunction with DTRA. Scheduled dates for the SNL portion of FY 2017 training classes are: 26 – 27 Oct 16, 16 – 17 Nov 16, 22 – 23 Mar 17, 21 – 22 Jun 17, 19 – 20 Jul 17, 16 – 17 Aug 17 and 13 – 14 Sep 17

Registration

Military: Contact the DTRA DNWS Registrar at DSN 246-5666, commercial (505) 846-5666, or fax (505) 846-9168. Sandia National Lab Military Liaison point of contact is Mark Meyer, (505) 844-9041, mameyer@sandia.gov .

FIGHTER/BOMBER TRAINING

Course Description
This course provides a review of the nuclear weapon enterprise, basic nuclear concepts, as well as weapon descriptions, current and planned Alterations, Modifications, schedules, nuclear safety themes, in-flight monitor and control, and arming, fuzing and firing common components. High fidelity weapon and component cutaways are used in the presentations. The course also includes an Aircraft Monitor and Control (AMAC) workshop. Discussions cover aircraft/weapon compatibility, aircraft controls and typical drop/launch sequences. This training may be conducted at Sandia National Laboratories or at the field location. Topics included are:

Nuclear Weapon Enterprise	Unsatisfactory Reports (UR)
Basic Nuclear Concepts	B61, B83, W80, W84
Arming, Fuzing and Firing Systems	Use Control/PAL
Enhanced Nuclear Detonation Safety	AMAC Workshop

Course Objectives:
At the end of the course, trainees will be able to:

Summarize the nuclear weapons complex and organizational relationships
Explain basic nuclear principles of operation
Describe major nuclear weapons components and functions
Identify nuclear weapon surety and safety issues
Define Enhanced Nuclear Detonation Safety (ENDS)
Review nuclear weapon Use Control policy and PAL procedures
Demonstrate AMAC components and procedures
Discuss current weapon system Unsatisfactory Reports

Prerequisites
Attendees should be personnel directly involved in USAF DCA operations, maintenance or programs. A current SECRET/RD/CNWDI clearance is required.

Instructors
Staff from the Military Liaison and Aircraft Compatibility organizations at Sandia National Laboratories.

Schedule
This 2-day course is offered once a year or as requested by the USAF. Scheduled date for FY 2017 is TBD.

Registration
An announcement message is sent out approximately 8 weeks prior to the course starting date. After the message has gone out, quotas may be requested by e-mail at ml_tr@sandia.gov. Attendance is limited to 25. Sandia National Laboratories training point of contact is Mark Meyer, (505) 844-9041, mameyer@Sandia.gov.

ADVANCED ICBM OPERATIONS (AIOC) TRAINING

Course Description

This course provides a review of the nuclear weapon enterprise, basic nuclear weapon principles and includes information on the current US stockpile. High fidelity weapon and component cutaways are used in the presentations. The focus is on ICBM weapon system descriptions, current and planned Alterations, Modifications, life extension programs, nuclear safety, and arming, fuzing and firing components. Topics included are:

Nuclear Weapons Enterprise	Limited Life Components
Basic Nuclear Concepts	Unsatisfactory Reports (UR)
Arming, Fuzing and Firing Systems	W78 & W87
Enhanced Nuclear Detonation Safety	Neutron Generator Assembly Tour

Course Objective:

At the end of the course, trainees will be able to:

Summarize the nuclear weapons enterprise and organizational relationships
Describe major nuclear weapons components and their functions
Identify nuclear weapon surety and safety issues
Define Enhanced Nuclear Detonation Safety (ENDS)
Discuss current weapon system Unsatisfactory Reports
Review current nuclear weapon stockpile sustainment initiatives
Explain weapon Alterations, Modifications, and Life Extension Programs

Prerequisites

Attendees should be directly involved in nuclear weapons training, operations, logistics, or maintenance activities requiring the level of knowledge indicated in the course description. A current SECRET/RD/CNWDI clearance is required.

Instructors

Staff from the Military Liaison at Sandia National Laboratories.

Schedule

This 1-day course is normally offered four times a year. Scheduled dates for the FY 2017 classes are: 16 Feb 17, 12 Apr 17, 14 Jun 17 and 14 Aug 17.

Registration

Registration is through 20 AF/ICE, (307) 773-4296. For additional training allocations, call Sandia National Laboratories Military Liaison training point of contact Mark Meyer, (505) 844-9041, mameyer@Sandia.gov.

USE CONTROL TRAINING

Course Description

This training includes Use Control decoder operations and may include information on permissive action link (PAL) switches and other equipment, as requested. Equipment demonstrations and hands-on exercises with Use Control components are an integral part of this training. This training may be conducted at Sandia National Laboratories or at the field locations.

Course Objectives

Describe nuclear weapon Use Control concepts and procedures
Demonstrate hands on proficiency of Code Management System equipment

Prerequisites

Attendees should be directly involved in nuclear weapons training, operations, logistics, or maintenance activities requiring the level of knowledge indicated in the course description. A current SECRET/RD/CNWDI clearance is required.

Instructors

Military Liaison staff at Sandia National Laboratories.

Schedule

This training is offered at times and locations coordinated with the requesting organization.

Registration

The training is arranged by contacting Stuart Flicker, (505) 844-4014, slflick@sandia.gov.

NNSA NUCLEAR WEAPON STOCKPILE ORIENTATION TRAINING

Course Description

This course provides a review of US nuclear weapons currently in the enduring stockpile. The training includes thorough descriptions of US weapons and provides information on projected retrofits and upgrades. High fidelity weapon and component cutaways are used in the presentations. This course is for personnel from the DOE production complex, the NNSA operations offices, and for personnel from across the nuclear weapons enterprise. Topics included are:

Nuclear Weapons Enterprise	Limited Life Components
Basic Nuclear Concepts	B61, B83, W80
Arming, Fuzing and Firing Systems	W78, W87
Enhanced Nuclear Detonation Safety	W76, W88
Use Control/Permissive Action Link	Unsatisfactory Reports (UR)

Course Objectives

Summarize the nuclear weapons complex and organizational relationships
Explain basic nuclear principles of operation
Identify major nuclear weapons components and their functions
Describe nuclear weapon Use Control policy and PAL procedures
Define Enhanced Nuclear Detonation Safety (ENDS)
Evaluate current nuclear weapon stockpile issues
Explain weapon Alterations, Modifications, and Life Extension programs
Discuss current weapon system Unsatisfactory Reports

Prerequisites

This course is limited to DOE/NNSA and National Lab personnel only. Attendees should be involved in nuclear weapons production, logistics, or administration requiring the level of knowledge indicated in the course description. A final DOE "Q" clearance is required for access to SECRET/RD/CNWDI information.

Instructors

Military Liaison staff at Sandia National Laboratories.

Schedule

This 2-1/2 -day course is offered four times per year or as requested. The scheduled dates for FY 2017 are: 11 – 13 Oct 16, 31 Jan – 2 Feb 17, 9 – 11 May 17, and 8 – 10 Aug 17.

Registration

An announcement message is sent out approximately 8 weeks prior to the course starting date. After the message has gone out, quotas may be requested by e-mail at: ml_tr@sandia.gov . Attendance is limited to 25. Sandia National Laboratories training point of contact is Mark Meyer, (505) 844-9041, mameyer@Sandia.gov.

US NAVY TRAINING

Course Description

This course is designed to provide information for persons involved in the operations and maintenance of the US Navy nuclear weapon systems. This course includes a thorough description of each nuclear weapon in the US Navy inventory. High fidelity weapon and component cutaways are used in the presentations. Current and forecasted Alterations, Modifications, changes to procedures, Unsatisfactory Report (UR) concerns, and Life Extension Program (LEP) issues are discussed. Topics included are:

- Nuclear Weapons Complex
- Basic Nuclear Concepts
- Arming, Fuzing and Firing Systems
- Enhanced Nuclear Detonation Safety
- Joint Nuclear Weapons Pubs and Source Data
- Limited Life Components
- W76, W88

Course Objectives:

Summarize the nuclear weapons complex and organizational relationships
Define basic nuclear weapons concepts of operation
Identify major components of nuclear weapons and functions
Define Enhanced Nuclear Detonation Safety (ENDS)
Review current nuclear weapon stockpile issues
Explain weapon Alterations, Modifications, and Life Extension programs
Discuss current weapon system Unsatisfactory Reports

Prerequisites

Attendees should be involved in the administration of nuclear weapons operations, logistics, training, or maintenance activities requiring the level of knowledge indicated in the course description. A current SECRET/RD/CNWDI security clearance is required.

Instructors

Military Liaison staff at Sandia National Laboratories and guest speakers as requested.

Schedule

This 2-day course is offered twice a year, or as requested. The scheduled dates for FY 2017 are 7 – 8 Mar 17 and 1 – 2 Aug 17.

Registration

An announcement message is sent out approximately 8 weeks prior to the course starting date. After the message has gone out, quotas may be requested by e-mail at: ml_tr@sandia.gov. Attendance is limited to 25. Sandia National Laboratories training point of contact is Mark Meyer, (505) 844-9041, mameyer@Sandia.gov.

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