FM 4-25.12 (FM 21-10-1)

UNIT FIELD SANITATION TEAM

HEADQUARTERS, DEPARTMENT OF THE ARMY

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, DC, 25 January 2002

UNIT FIELD SANITATION TEAM

TABLE OF CONTENTS

Page

PREFACE			iv
CHAPTER	1.	UNIT FIELD SANITATION TEAM DEVELOPMENT	
Section	I.	General	1-1
	1-1.	Introduction	
	1-2.	Objective of Field Sanitation Team Training	
	1-3.	Responsibilites	
	1-4.	General Guides	
Section	II.	Master Schedule (20 Hours)	
CHAPTER	2.	INSTRUCTOR'S REFERENCE MATERIAL	
Section	I.	Introduction: Relationship Between the Incidence of Disease and the	
	2-1.	Environment	
	2-1. 2-2.	Importance of the Field Sanitation Team The Medical Threat	
	2-2. 2-3.	The Individual in a Field Environment	
	2-3. 2-4.	Duties of the Field Sanitation Team	
	2-4. 2-5.	Preventive Medicine Measures	
Section	2-3. II.	Water Supply	
Section	11. 2-6.	Importance of Water in the Practice of Sanitation	
	2 0. 2-7.	Responsibilities for the Production of Potable Water in the Field	
	2-8.	Terms and Definitions	
	2-9.	Sources of Water	
	2-10.	Water Treatment	
Section	III.	Food Service Sanitation	
Section	2-11.	Importance of Sanitary Practices in Food Handling	
	2-12.	Factors that Most Often Cause Foodborne Disease Outbreaks	
	2-13.	Transportation of Food	
	2-14.	Storage of Food	
	2-15.	Personal Hygiene of Food Handlers	
	2-16.	Cleaning and Sanitizing Utensils	
	2-17.	Physical Facilities	
	2-18.	Preparing and Serving Food	
	2-19.	Inspection of Food Service Facilities	

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

^{*}This publication supersedes FM 21-10-1, 11 October 1989.

FM 4-25.12

Page

Section	IV.	Waste Disposal	2-23
	2-20.	Importance of Proper Waste Disposal in Disease Prevention	
	2-21.	Responsibilities for Waste Disposal	
	2-22.	Waste Disposal Methods	
	2-23.	Field Facilities for Human Waste Disposal	
	2-24.	Garbage Disposal	
	2-25.	Liquid Waste Disposal	
	2-26.	Rubbish Disposal	
	2-27.	Hazardous Waste Disposal	
Section	V .	Arthropods and Diseases	
	2-28.	General	
	2-29.	Direct Arthropod Affects on Human Health	
	2-30.	Arthropodborne Diseases	
Section	VI.	Arthropod Control	
	2-31.	General	
	2-32.	Preventive Medicine Measures	
	2-33.	Chemical Control (Pesticides)	
Section	VII.	The Biology and Control of Rodents	
	2-34.	General	
	2-35.	Rodents and Human Disease	
	2-36.	Norway Rat	
	2-37.	Roof Rat	
	2-38.	House Mouse	
	2-39.	Equipment Used in Pesticide Applications	
	2-40.	Control Measures	
Section	VIII.	Heat Injuries	
	2-41.	General	
	2-42.	Predisposing Factors Leading to Heat Injury	
	2-43.	Types of Heat Injury	
	2-44.	Prevention of Heat Injuries	
	2-45.	Use of the Wet Bulb Globe Temperature Index in the Control of	
		Physical Activity	2-54
Section	IX.	Cold Injuries	2-55
	2-46.	General	2-55
	2-47.	Predisposing Factors	2-55
	2-48.	Prevention of Cold Injuries	2-58
Section	Х.	Toxic Industrial Chemical Hazards	2-62
	2-49.	General	2-62
	2-50.	Routes of Entry	2-62
	2-51.	Toxic Industrial Chemical Classifications	
	2-52.	Chemical Actions and Effects	
	2-53.	Carbon Monoxide	
	2-54.	Hydrogen Chloride	2-65

Page

Section	2-55. 2-56. 2-57. XI. 2-58. 2-59. 2-60. 2-61. 2-62.	Bore/Gun Gases Liquid Chemicals Prevention and Control Noise Hazards General Factors Determining the Degree of Hazard The Mechanics of Hearing The Effects of Noise on the Ear Preventive Medicine Measures	2-65 2-67 2-67 2-67 2-69 2-69 2-70
APPENDIX	А.	FIELD SANITATION TEAM TRAINING COURSE	A-1
Le	sson 1.	Introduction	
Le	sson 2.	The Medical Threat to Field Forces and Preventive Medicine Measures	
	sson 3.	Personal Hygiene and Preventive Medicine Measures	
	sson 4.	Water Supply in the Field	
	sson 5.	Food Service Sanitation in the Field	
	sson 6 .	Waste Disposal in the Field	
	sson 7.	Arthropods and Disease	A-48
Lesson 8.		Management of Arthropods through Individual Preventive Medicine Measures	A-54
Lesson 9.		Management of Arthropods through Nonchemical (Sanitation) and Chemical Practices	A-60
Less	son 10.	Rodent Management	A-67
	son 11.	Preventing Heat Injury	
Lesson 12.		Preventing Cold Injury	A-80
Lesson 13.		Controlling Toxic Industrial Materials	
Lesson 14.		Noise Hazards and Noise Management	
Lesson 15.		Field Sanitation Team Equipment and Supplies	A-108
APPENDIX	В.	CHECKLIST OF EQUIPMENT AND MATERIALS FOR FIELD SANITATION TEAM TRAINING	B-1
	B-1.	Equipment and Materials to be Supplies	
	B-2.	Equipment and Materials which the Student is to Bring to Class	В-2
APPENDIX	C.	FIELD SANITATION TEAM MATERIALS	C-1
APPENDIX	D.	SAMPLE UNIT STANDING OPERATING PROCEDURE FOR FIEL SANITATION	
GLOSSARY		Glo	ssary-1
REFERENCES			ences-1
INDEX			Index-1

PREFACE

The purpose of this field manual (FM) is to provide doctrine and training procedures for unit field sanitation teams (FST). In addition, a training program in the application of personal protective measures (PPM) is included for personnel appointed as members of the FST for each company, troop, or battery. This publication contains a proposed 20-hour master training schedule which may be adjusted as necessary; a text that may serve as reference material for the FST instructor; and supporting illustrations for the instructors assigned the training task. This publication provides guidance to the commanders, unit leaders, and soldiers for implementing unit field sanitation and preventive medicine (PVNTMED) measures in the field. This publication is written to further aid the commander and his unit leaders in the continuing effort of reducing the disease and nonbattle injury (DNBI) rates during deployments.

This publication provides information on PPM for the unit FST on applying unit-level PPM.

This publication implements or is in consonance with the following North Atlantic Treaty Organization (NATO) International Standardization Agreements (STANAGs), American, British, Canadian, and Australian (ABCA) Quadripartite Standardization Agreements (QSTAGs) and Quadripartite Advisory Publications issued by the Washington Standardization Officers:

NATO STANAG	ABCA QSTAG	TITLE
2048		Chemical Methods of Insect and Rodent Control
2122		Medical Training in First Aid, Basic Hygiene, and Emergency Care. Edition 2. (Latest Amendment, 13 June 1986.)
2136		Minimum Standards of Water Potability in Emergency Situations
	245	Minimum Requirements for Water Potability (Short- and Long-Term Use)
2885		Procedures for the Treatment, Acceptability, and Provision of Potable Water in the Field
2899		Protection of Hearing. Edition 2.
2981		Prevention of Cold Injury
	889	Essential Field Sanitary Requirements
	892	Prevention of Cold Injuries
	891	Prevention of Heat Related Injuries

The staffing and organization structure of the FST is established in the living tables of organization and equipment (TOE). However, such staffing is subject to change to comply with manpower requirements criteria outlined in Army Regulation (AR) 71-32 and can be subsequently changed by your modification TOE.

Users of this publication are encouraged to submit comments and recommendation to improve the publication. Comments should include the page, paragraph, and line(s) of the text where the change is recommended. The proponent for this publication is the US Army Medical Department Center and School (AMEDDC&S). Comments and recommendations should be forward directly to: Commander, AMEDDC&S, ATTN: MCCS-FCD-L, 1400 Grayson Street, Fort Sam Houston, Texas 78234-5052.

Use of trade or brand names in this publication is for illustrative purposes only and does not imply endorsement by the Department of Defense (DOD).

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

UNIT FIELD SANITATION TEAM DEVELOPMENT

Section I. GENERAL

1-1. Introduction

Military PVNTMED is: The identification of the medical threat, assessing the risk of the medical threat in terms of operation requirements, medical surveillance, and the providing of recommendations for the mitigation of adverse health effects. This can include the anticipation, prediction, identification, prevention, and control of communicable diseases including vector-, food-, and waterborne diseases toxic industrial chemicals as well as low level chemical warfare agents. The US Army has gone to great lengths to eliminate medical threats in order to reduce the debilitating illnesses and injuries that has, over the course of American history, caused more casualties than actual battlefield injuries within US Armed Forces. In some cases, debilitating illnesses and injuries have destroyed the fighting effectiveness of many Army units deployed in global environments. The DNBI rates have gradually been lowered since the Civil War. However, it is only through rigid PVNTMED discipline from the highest command headquarters of a deploying force down to the small unit commander. The units and the soldiers within those units are all responsible for seeing that the tenets of PVNTMED are followed (see FM 4-02.17). When a problem exists beyond unit capabilities, the brigade or division PVNTMED section or corps PVNTMED detachments should be called upon to assist in countering the threat.

1-2. Objective of Field Sanitation Team Training

One objective of FST training is to ensure that team members understand their roles and responsibilities. Another objective is to ensure that small units have the PVNTMED resources to ensure basic field sanitation measures, promote personal hygiene, and reduce DNBI rates. Commanders and troops must remember that DNBI is the leading cause of combat ineffectiveness. The medical threat to the force may be the most serious overall threat during current day operations, especially during stability operations and support operations.

1-3. Responsibilities

The commander is responsible for appointing, training, and equipping the FST within his unit (see AR 40-5). Army Regulation 40-5 requires that members of the FST (organic or attached medical or nonmedical personnel) will receive training from supporting medical resources before deployment or field exercises to assure that small units have the PVNTMED resources to operate in adverse disease and/or climatic conditions.

1-4. General Guides

a. Role of the Field Sanitation Team. The role of the FST is to aid the unit commander in protecting the health of the command. This is accomplished by advising and assisting the commander in the many duties essential to reducing DNBI. By providing instruction and supervision, and assisting, inspecting,