Practical Military Ordnance Identification Practical Aspects Of Criminal And Forensic Investigations By Thomas Gersbeck 2014 03 05

Unexploded ordnance (UXO) cleanup is the number one priority Army installation remediation restoration requirement. The problem is enormous in scope, with millions of acres and hundreds of sites potentially contaminated. Before the UXO can be recovered and destroyed, it must be located. UXO location requires surface geopbysical surveys. The geophysical anomalies caused by the UXO must be detected, discriminated from geophysical anomalies caused by other sources, and ideally identified or classified. Recent UXO technology demonstrations, live site demonstrations, and practical UXO surveys for site cleanup confirm that most UXO anomalies can be detected (with probabilities of detection of 90 percent or better), however there is little evidence of discrimination capability (i.e., the false alarm rates are high), and there is no identification capability. Approaches to simultaneously increase probability of detection and decrease false alarm rate and ultimately to give identification/classification capability involve rational multisensor data integration for discrimination and advanced development of new and emerging technology for enhanced discrimination and identification. The goal of multisensor data integration is to achieve true joint inversion of data to a best-fitting model using realistic physics-based models that replicate UXO geometries and physical properties of the UXO and surrounding geologic materials. Data management, analysis, and display procedures for multisensor data are investigated. A magnetic modeling capability is developed, validated, and documented that uses a prolate spheroid model of UXO. The electromagnetic modeling of UXO signatures is more problematic, and an intermediate quasi-empirical modeling capability (a simple analytical model modified to reflect measured signature observations) is explored.

Unexploded military ordnance and toxic chemicals, some dating back to the two World Wars, are a global concern, especially when former military bases are redeveloped for housing or other civilian uses. Internationally, there are the added challenges of cleanup of battlegrounds and minefields. Experts estimate that the United States alone could spend between $50–250 billion to clean up these sites, many of which are in areas of high population density, where the demand for land for development is high. This book is unique in providing detailed guidance for cleaning up military ordnance sites – listing explosives, chemical warfare materials and breakdown products which can contaminate soil and groundwater and the tests needed to detect them, as well as cleanup techniques. Also included are remote sensing techniques, geophysical techniques, safety issues, the particular challenges of chemical weapons, etc. The author illustrates these techniques with case studies, including former battlegrounds in Europe and Asia, storage and waste disposal sites in Russia and former Soviet territories, and an extended study of the remediation of the large and complex Spring Valley site in the District of Columbia,. The second edition has been fully revised and updated, and also includes new and expanded sections on: geophysical techniques for discovering buried ordnance underwater sites and remediation techniques use of robotics, including remotely operated vehicles compliance and regulatory issues guidance documents from US Department of Defense and other sources The focus on test procedures, environmental remediation techniques, and learning from past case studies, makes Albright's book the most comprehensive and practical guide on the market for a topic of international importance. The only book available with clear and complete guidance for the cleanup of military ordnance sites and battlefields. The author illustrates his recommendations with real world cases including Spring Valley, DC, former battlegrounds in Europe and Asia, and storage and waste disposal sites in Russia and other former Soviet states. An essential reference for the test and environmental remediation procedures required to put former military sites back in to civilian use (e.g. housing). 30% revision, with key updates concerning regulatory changes, US Dept of Defense guidance documents, use of robotic vehicles, underwater sites and discovery of buried ordnance.

Created during WWII, this Ordnance Soldier's Guide was standard issue to U.S. troops undergoing indoctrination at the Ordnance Replacement Training Center at Aberdeen Proving Ground, Maryland. Created as a workbook for G.I. recruits, it presents a fascinating overview of the training given to the "New Ordnance Soldier." The book is full of practical tips drawn from actual battle experience and technical data from Army publications, and chock-full of illustrations. Although only 126 pages long, it's fairly encyclopedic in content, boldly presenting information on topics from ammunition to first aid, grenades to motor vehicle operation, ordnance materiel to uniform identification. Special chapters are dedicated to fire control instruments, vehicles, artillery and small arms. Some of the more novel entries include advice on how to shoot Nazi paratroopers (in the air - while he's helpless), how to kill with your bare hands, and "Tips from an Old Top Kick" which offers advice about how to get along with British Tommies, and notes that hot water for shaving can be easily obtained from a truck radiator. This book is a wonderful read for the re-enactor, historian, or anyone who ever wondered what it might have been like to go through the U.S. Army's basic training regimen circa 1943.

A student textbook which makes extensive use of simple theories to predict and correlate fluid motions. Emphasis is placed on the identification or derivation of relevant models and conditions, and on the development of skill in deriving theoretical solutions for problems by example and practice.

This report examines the significant range of arms and munitions carried and employed throughout the conflict by armed individuals on all sides. It also examines, somewhat less extensively, the rangeof armoured vehicles and aircraft observed in the conflict. This report examines over 100 distinct weapons systems, over 60 different types of munitions, and over 70 different models of armoured fighting vehicles, as well as miscellaneous associated materiel,in the context of the ongoing conflict in Ukraine. Particular attention is paid to items which mayindicate flows of arms and munitions into and within the affected areas of Ukraine. Beginning with anassessment of the arms and munitions employed during the initial unrest in Kiev, in February 2012, the report documents relevant materiel up until the time of publication

??1403??? ?????????? ???[1]?? ??????

Unexploded ordnance (UXO) cleanup is the number one priority Army installation remediation/restoration requirement The problem is enormous in scope, with millions of acres and hundreds of sites potentially contaminated. Before the UXO can be recovered and destroyed, it must be located. UXO location requires surface geophysical surveys. The geophysical anomalies caused by the UXO must be detected, discriminated from geophysical anomalies caused by other sources, and ideally identified or classified. Recent UXO technology demonstrations, live site demonstrations, and practical UXO surveys for site cleanup confirm that most UXO anomalies can be detected (with probabilities of detection of 90 percent or better), however there is little evidence of discrimination capability (i.e., the false alarm rates are high), and there is no identification capability. Approaches to simultaneously increase probability of detection and decrease false alarm rate and ultimately to give identification/classification capability involve rational multisensor data integration for discrimination and advanced development of new and emerging technology for enhanced discrimination and identification. The goal of multisensor data integration is to achieve true joint inversion of data to a best-fitting model using realistic physics-based models that replicate UXO geometries and physical properties of the UXO and surrounding geologic materials. Data management, analysis, and display procedures for multisensor data are investigated. The role of empirical, quasi-empirical, and analytical modeling for UXO geophysical signature prediction are reviewed and contrasted with approaches that require large signature databases (e.g., expert systems, neural nets, signature database comparison) for training or best-fit comparison. A magnetic modeling capability is developed, validated, and documented that uses a prolate spheroid model

of UXO.

In this time of concern over wetlands, many groups have compelling reasons to identify and delineate wetlands. Financial institutions use environmental evaluation as a part of their loan decisions. Civil engineers must plan sites without disturbing existing wetlands. Conservation groups wish to identify valuable wetlands for preserves or parks. Local and state governments need wetlands assessments for management and planning of existing and future public lands. And the Federal government has mandated that wetlands receive more attention. As our understanding of wetlands functions increases, the ability to identify and delineate them becomes even more critical. Practical Handbook for Wetland Identification and Delineation defines wetlands, describes their functions, and presents a variety of methods used to assess the extent of wetlands. Easy-to-use, it offers solutions to real-world problems and covers important subjects such as methods for identifying and delineating wetland boundaries, evaluating wetlands using aerial photography, indicators of hydrological, chemical, and biological processes, soil surveys, and plant measurements. The book also discusses methodological approaches to optimizing wetland delineation and permitting. The focus on wetlands by the Federal government has resulted in more stringent oversight by the U.S. Army Core of Engineers (USACE). This new level of federal oversight has underlined the lack of general knowledge related to regulatory requirements. Project delay and work interruptions are real, potential problems for landowners. Practical Handbook for Wetlands Identification and Delineation presents the strategies and methods for making wetlands identifications and delineations that meet federal requirements.

Simplified Chinese edition of The Final Memoranda: Major General Ralph H. Van Deman, USA Ret. 1865-1952, Father of U.S. Military Intelligence

The illicit use of explosives has become a growing international concern. Those investigating the scenes of these bombings must do so expeditiously and effectively in order to locate any and all evidence among the rubble that can identify the culprits and bring them to justice. Written by an explosives expert with over thirty years in the field, Practical Bomb Scene Investigation is an accessible step-by-step guide through the postblast investigative process. It is the first single-source reference that not only provides essential information on locating and safeguarding evidence at the scene, but it also takes the investigator through all phases of the inquiry. This book uses case studies to promote an organized, methodical approach to investigations. It addresses safety issues such as military ordnance identification procedures and indicators of biological, chemical, and radiological material use. It also provides full color photographs of bomb scenes and related evidence. Practical Bomb Scene Investigation is an essential book for not only the explosion/bomb scene investigator and technician, but also for homeland security professionals, first responders, terrorism/intelligence analysts, military personnel, trainers, educators, criminalist and forensic scientists

The 18th century was a wealth of knowledge, exploration and rapidly growing technology and expanding record-keeping made possible by advances in the printing press. In its determination to preserve the century of revolution, Gale initiated a revolution of its own: digitization of epic proportions to preserve these invaluable works in the largest archive of its kind. Now for the first time these high-quality digital copies of original 18th century manuscripts are available in print, making them highly accessible to libraries, undergraduate students, and independent scholars. Medical theory and practice of the 1700s developed rapidly, as is evidenced by the extensive collection, which includes descriptions of diseases, their conditions, and treatments. Books on science and technology, agriculture, military technology, natural philosophy, even cookbooks, are all contained here. ++++ The below data was compiled from various identification fields in the bibliographic record of this title. This data is provided as an additional tool in helping to insure edition identification: ++++ British Library T100910 Dedicated to the Earl of Pembroke. London: printed for Richard Mount, 1702. [14],64p., plate: ill.; 8°

The illicit use of explosives has become a growing international concern. Those investigating the scenes of these bombings must do so expeditiously and effectively in order to locate any and all evidence among the rubble that can identify the culprits and bring them to justice. Written by an explosives expert with over thirty years in the f

A comprehensive, nonmathematical guide to the practical application of linear programming models—for students and professionals in any field From finding the least-cost method for manufacturing a given product to determining the most profitable use for a given resource, there are countless practical applications for linear programming models. This self-contained book and disk set provides everything you need to know to apply linear programming to real-world situations—how to prepare input, how to interpret output, what to do if the model will not solve, and how to make your results useful and usable—while entrusting the hard-core arithmetic to the user-friendly computer package on disk. Written in clear prose that stays away from the complex mathematics underlying the technique, Introduction to Practical Linear Programming contains: A complete introduction to problem structure, assumptions, applications, and other core concepts A detailed, step-by-step guide to model construction (from a problem description to a useful model) and interpretation of output Linear programming examples and exercises from a range of real-life areas, including agriculture, manufacturing, finance, and advertising Important techniques for troubleshooting and error identification Procedures for testing how good your model is—how robust are the results?—and more System.

Practical Military Ordnance IdentificationCRC Press

Now in its second edition, Practical Bomb Scene Investigation explores the investigative process that improvised explosive device (IED) specialists undertake at the scene of an explosion. Providing easy-to-understand, step-by-step procedures for managing and processing a bomb scene, it enables investigators to find the evidence and then make sense of what is found. The book is not only a roadmap of knowledge on how to find and collect evidence, but also an instructional guide on how to safely and effectively assess the scene. New in this Edition: Information on detonation pressure and its effects on the body Instructions on how to collect additional information from the scene in order to provide an estimate of the explosives weight of the IED A glossary for a more in-depth understanding of the terms associated with explosives and the investigation processes A greatly expanded IED component identification chapter A chapter on how to expeditiously investigate a post-blast scene in a hostile environment Information on how to prepare an Investigative Report

"The focus of Practical Military Ordnance Identification, Second Edition is the application of a practical deductive process to identify unknown ordnance items that are commonly recovered outside military control. Coverage new to this edition include: a list of conventional markings; additional safety precautions to take; an expanded list of high explosives; additional technical details on explosives effects; hazards associated with pyrotechnics, pyrophorics, smoke compounds, and incendiaries; a section on pre-1870 projectiles, hand grenades, landmines, underwater ordnances, and rockets; and details on Man-Portable-Air-Defense-Systems (MANPADS) missile systems."-- Provided by publisher.

Although the hostilities of the Vietnam War ended in 1975, the diplomatic repercussions lasted for several more decades.

Eventually, however, the dedicated perseverance of diplomats on both sides paid off. In November 2003, Major General Pham Van Tra, defense minister of the Socialist Republic of Vietnam, met with U.S. defense secretary Donald Rumsfeld in the halls of the Pentagon, signaling a new era in U.S.-Vietnamese defense relations. This book traces the development of that relationship in the years since the Vietnam War. It focuses especially on the 1990s, a decade in which the author served as country director for Indochina, Thailand and Burma in the Office of the Assistant U.S. Secretary of Defense for International Security Affairs. His experience adds a personal perspective to the historical and political record. Multiple facets of the relationship between the two countries are addressed, including trade, immigration of Amerasian children, and POW-MIA concerns. Through this honest depiction of the sometimes fractious and confusing policy-making process, Stern shows how both parties came to agree, in the words of Major General Tra, that we "should not allow the future to repeat the past."

In this book, the authors answer the questions: What is sustainable product development and why is it important? What are the main drivers of sustainable product development? They explain how design can help to control human impact on the environment by not only minimising pollution, waste, energy use and use of scarce resources, but also by thinking outside the box to create systems and services that can reduce the number of products manufactured. The aim is to put sustainable development within a commercial context and introduce a new focus for design.

System and models. Methods. User's choice. Some concepts from probability theory. Some statistical techniques for linear regressions.

The threat variables associated with military ordnance are enormous, requiring the application of a structured process to identify unknown munitions. The focus of Practical Military Ordnance Identification is the application of a practical deductive process to identify unknown ordnance items that are commonly recovered outside military control. The author supplies a seven-step procedure to identify unknown munitions by their category, group, and type. Detailed logic trees help users narrow down the possibilities in order to accurately identify ordnance. The book covers the safety precautions associated with each category and group of ordnance. It describes many ordnance construction characteristics and explains the fundamentals of military ordnance fuzing. Appendices define terms and supply abbreviations and acronyms used to describe military ordnances. For any queries please contact the author at tgersbeck@2ig-llc.com.