CLANDESTINE PHOTOGRAPHY

ABOUT THE AUTHORS

Raymond P. Siljander's occupational history includes a variety of manufacturing and service industries, the insurance industry, industrial security supervision, licensed private investigator doing general and undercover investigations, licensed process server, and law enforcement as a certified police officer graduating first in his class in the police academy. He is a Vietnam War veteran. He holds Master of Education degrees in Educational Leadership and in Elementary Education, both degrees received with distinction. He holds an Individualized Baccalaureate with concentrations in Criminal Justice and Human Services. His Associate Degrees are in Law Enforcement and Fire Science. In addition, he was graduated from several proprietary educational institutions, and he holds the professional designation *Associate in Loss Control Management* (ALCM®). He is a member of the academic honorary societies *Phi Kappa Phi* (Northern Arizona University) and *Phi Theta Kappa* (Phoenix College). He is the author and coauthor of 15 books addressing issues such as racial and criminal profiling, terrorism, police and fire photography, physical surveillance, private investigation, private process serving, and literacy tutoring. Favorable book reviews have appeared in such prestigious journals as the *FBI Law Enforcement Bulletin* and *Security Management* magazine. He has appeared as a speaker for in-service training seminars for law enforcement, the insurance industry, and college photography classes.

Lance W. Juusola has 20 years experience as a Wedding, Commercial, and Advertising Photographer. He holds diplomas in both Wedding and Commercial Photography. Over the last 15 years, his work has been mainly in the Commercial realm and he has worked exclusively with digital capture for the last 10 years. His current position is Manager of the Advertising Photo Studio for a Multi-National Fortune 500 company.

CLANDESTINE PHOTOGRAPHY

Basic to Advanced Daytime and Nighttime Manual Surveillance Photography Techniques

For Military Special Operations Forces, Law Enforcement, Intelligence Agencies and Investigators

By

RAYMOND P. SILJANDER

and

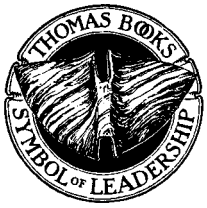
LANCE W. JUUSOLA

Forewords by

Stephen M. Hennessy, ED.D.

and

Carl J. Jensen III, PH.D.



CHARLES C THOMAS • PUBLISHER, LTD.
Springfield • Illinois • U.S.A.

Published and Distributed Throughout the World by

CHARLES C THOMAS • PUBLISHER, LTD.
2600 South First Street
Springfield, Illinois 62704

ISBN 978-0-398-08690-9 (hard)
ISBN 978-0-398-08691-6 (ebook)

Library of Congress Catalog Card Number: 2011021341

With THOMAS BOOKS *careful attention is given to all details of manufacturing and design. It is the Publisher's desire to present books that are satisfactory as to their physical qualities and artistic possibilities and appropriate for their particular use.* THOMAS BOOKS *will be true to those laws of quality that assure a good name and good will.*

Printed in China
MM-R-3

Library of Congress Cataloging-in-Publication Data

Siljander, Raymond P.
Clandestine photography : basic to advanced daytime and nighttime manual surveillance photography techniques--for military special operations forces, law enforcement, intelligence agencies and investigators / by Raymond P. Siljander and Lance W. Juusola ; forewords by Stphen M. Hennessy, Carl J. Jensen III.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-398-08690-9 (hard) -- ISBN 978-0-398-08691-6 (ebook)
1. Legal photography--Equipment and supplies. 2. Espionage--Equipment and supplies. I. Juusola, Lance W. II. Title.

TR822.S55 2011
771--dc23

2011021341

To Mark S. Knapp

FOREWORD

In my forty years in federal, state, and local law enforcement, I have experienced and worked with numerous types of surveillance equipment and watched as pinhole cameras and tracking bugs gave way to more sophisticated means of finding out what the bad guys were up to. I can remember the frustration of trying to accomplish what the equipment of the time wouldn't or couldn't do. As a police executive, I also remember working with the various technicians on limited budgets trying to get the best equipment that was possible to do the job that sometime seemed impossible.

I have read many manuals and books over the years on how to do what with various types of photographic surveillance; however, I have never seen nor read a more comprehensive text on clandestine photography than that just written by Raymond Siljander and Lance Juusola.

This is a text specific to clandestine photography and is appropriate for anyone in law enforcement, intelligence agencies, military special operations, and private investigators involved in clandestine photography. It is written and well illustrated in an easy to understand style for all photographers regardless of skill level and kind of equipment used. The text demonstrates short-range as well as ultra-long-range methods of photography and presents advanced night vision methods and the configuration of exceptionally fast optical systems using commercially available optical components.

This easily understood text takes the reader through conventional as well as sophisticated, clandestine methods of photography. It walks the reader through the use of all types of photographic equipment ranging from typical off-the-shelf to expensive, high-tech pieces. The authors also present ways to significantly minimize equipment costs as one develops expertise.

The authors walk the reader through the various techniques with many illustrations to make the concepts easy to understand and visualize. I highly recommend this book to anyone in the public or private sector involved in surveillance photography.

Stephen M. Hennessy, Ed.D.
Associate Professor (ret.)
St. Cloud State University, St Cloud, Minnesota

FOREWORD

As a young FBI agent, I spent many hours in the back of a cramped surveillance van taking what seemed to be innumerable photographs of all sorts of illicit activity: drug deals, property crime stings, corrupt politicians soliciting bribes from undercover agents, etc. I understood why the veteran agents got the young ones to do the job (if you have any questions, spend a few quality hours in the back of your mini-van on a summer day when you cannot use the air-conditioning). What I did not understand was why they placed such importance on a few photographs, especially when they already had recorded conversations and could depend upon the testimony of trusted agents. My breakthrough came when I finally had to present evidence in court. A relatively recent proverb, often incorrectly attributed to Confucius, holds that a picture is worth a thousand words; with juries, it is more like ten thousand. Or a million. There is nothing to better explain a complex case than photographic evidence; a defendant can deny his involvement in a crime until the next millennium or a skilled defense attorney can attempt to confuse a jury, but a picture is, well, worth a thousand words.

It is worth noting that the world today is a far more complex place than it was when I was spending my days in the back of a surveillance van. We face challenges and threats from myriad quarters, never dreamed of years ago. Clandestine photography is no longer merely the province of law enforcement; rather, intelligence agents and increasingly soldiers, marines, airmen, and sailors have to master its intricacies to deal with the complex challenges of terrorism and insurgencies. As well, the state-of-the-art of clandestine photography has changed, thanks to exponential leaps in technology. Today, third-generation night vision devices allow us to take credible photographs at a distance of nearly a mile. This has required us to alter our strategies and tactics to ensure that we maximize the use of this incredible technology.

Raymond Siljander and Lance Juusola have done an excellent job cataloging these changes and providing a manual that anyone can use to enhance their skills. They discuss the challenges, and the solutions, for producing high quality photographs under inhospitable and often hostile conditions. By the

time a reader has finished with this volume, he or she will be well on the way to developing a mastery of clandestine photography. As Raymond and Lance note, "it is unlikely that the adversary will possess a manual clandestine photography capability exceeding what this book presents." Given the unparalleled examination of the subject presented herein, I have no doubt that they are correct.

Indeed, I only wish this book had been available in my younger days; it likely would not have made my time in the back of the van any more enjoyable, but it would have made it much more productive.

Carl J. Jensen III, Ph.D.
Director, Center for Intelligence and Security Studies
The University of Mississippi
Supervisory Special Agent, Federal Bureau of Investigation (retired)

PREFACE

The topic of this book is manual clandestine photography, commonly referred to as surveillance photography. This application of photography is challenging because of the diverse, adverse, often hostile, and active countersurveillance environments in which photographing frequently occurs. Often distances are extreme and environmental conditions are unfavorable. This book presents myriad methods for secretly photographing people and property under diverse and difficult conditions.

This book presents conventional clandestine photography methods and advanced hybrid techniques. Readers will discover innovative applications of combinations of old and new photographic-related technologies, some combined in unexpected ways that produce surprising results. This book features high-tech equipment and it identifies ways to minimize equipment costs.

It provides the most comprehensive night-vision photography discourse available, presenting conventional and advanced methods. Readers will discover esoteric techniques for photographically recording recognizable images of human subjects and legible vehicle number plates from distances of 1.61 kilometers (1 mile) or more using image intensifier night vision devices. Readers will also discover methods for recording comparable detail during daylight hours from distances exceeding 1.77 kilometers (1.10 mile). The authors developed the ultra-long-range, night vision photography methods presented in the text and therefore detailed information about the techniques exists only here.

Historically, every morning and evening there was a time that manual clandestine photography was impossible. It was too dark for high ISO available light photography but too light for photography using an image intensifier night vision device. The same was true for many artificially illuminated nighttime environments; the level of illumination precluded either method of photography. The authors developed techniques that permit photographing under all levels of illumination.

The information in this book will benefit government surveillance specialists and those responsible for detecting and thwarting manual clandestine

photography. It is unlikely that an adversary agent will possess a photography capability exceeding what this book presents.

R.P.S.
L.W.J.

ACKNOWLEDGMENTS

The authors owe a deep dept of gratitude to the following people who assisted in so many ways to make the writing of this book a successful undertaking. This would not have been possible without you.

Anthony (anonymous). Watercraft operations.
Bauman, Neil. Center for Hearing Loss Help. Technical information and text critique.
Blakley, Johnston and Dana. Investigative Training. Information and illustrations.
Brustad, Nita. Modeling and image preparation.
Burton, Melanie. Modeling.
Canon, USA.
Covington, Michael A. Noted astrophotography writer. Technical information.
Cummins, Helen and Jimmie, and Lady Abigail. Tri-County Upholstery. Manufacture items such as blackout curtains and dash mats.
Diers, Tom. Diers Electric. Technical information.
Fadden, Nicole. Modeling, art direction, image preparation, and book cover design.
Fredrickson, Darin. Police detective and president of Team Guardian, LLC, Investigation and Security Specialists.
Grace, Gerald. Klepper America.
Guter, Ben. Modeling.
Hamm, Roger. Modeling and watercraft operation.
Hankin, Ron. Text contribution, the legal environment of surveillance.
Jeffrey, Betsy and Clint. Modeling.
Juusola, Brent. Modeling.
Juusola, Jake. Modeling.
Kosloski, Mary. West Photo. Interface with Canon USA and technical assistance.
Marler, Jimmie. Technical information.

Miller, Melanie and Tim. Miller Photography. Photographic services.
Mulder, Larry and DeAnne. Mulder Cabinets and Countertops. Wood products manufacturing.
Munro, Andrew M. President of AM Munro & Associates LLC. Technical information.
Neipert, Harry. Product invention and fabrication.
Newbro, Dave. President of Morovision Night Vision, Inc. Appreciation also extends to staff members Mark Knapp, Charlie Rubel, Chris Huber, and Brent Keepers. The Morovision staff provided technical information, reviewed text for technical accuracy, and contributed to the creation of illustrative material.
Police Department, Mountain View, Missouri (USA). Chief Jamie A. Perkins, Sgt. Tom Poindexter, Cpl. Michael Bales, and Officers Burtis Turner and Mark Vonallmen.
Ramsey, Dean. Watercraft operations.
Siljander, Roger. Modeling and watercraft operations.
Strosnider, Roger. Modeling.
Trombley, Richard. Modeling, Photo Assistant.
Vallese, Frank. CEO, Sofradir EC, Inc. Technical information and text review.
Wickizer, Sylvia, Hoofprint Investigations. Information–field methods.

CONTENTS

CLANDESTINE PHOTOGRAPHY

Chapter 1

MANUAL CLANDESTINE PHOTOGRAPHY IN THE TWENTY-FIRST CENTURY

> The camera sees more than the eye, so why not make use of it!
> (Edward Henry Weston, 1886–1958)

> In addition to the written logs, still photographs and video footage provide visual documentation of an occurrence and constitute the work product of a surveillance. The mere existence of photographs has resulted in countless jury convictions and guilty pleas being entered, thereby saving prosecutor's offices and law enforcement agencies months of trial preparation, as well as the trial itself. For this reason, investigators should attempt to obtain the highest quality surveillance photographs whenever possible. (Nason, 2004, May, n.p.)

PROLOGUE

The topic of this book is manual clandestine photography, commonly referred to as surveillance photography. When work on this book began, the authors evaluated the state of the craft and identified areas requiring enhanced photographic methods. They felt that elevating the craft was necessary because, today, global circumstances are troubled in ways and to an extent that differ from not many years ago. The result is a need for enhanced field application methods of manual clandestine photography and an increased ability to thwart the photographic efforts of enemy personnel.

Today, more than in the past, law enforcement agencies, intelligence collection agencies, and military special operations forces need the ability to record still photographs and moving video images from extreme distances during daylight hours and at night. They also need the ability to clandestinely photograph and film subjects from as close as a few meters. Circumstances also require that some photographic surveillance operations occur for an extended duration. The latter can require a significant standoff capability to

ensure that the operation remains undetected and to keep the surveillance team safe.

During their assessment of manual clandestine photography tradecraft, the authors identified several areas of importance. Some areas required research and development to enhance photographic potentials, photography using image intensifier night vision devices being one example. The following list identifies the areas of importance and presenting the information here is what makes this book unique. This book is essential reading for anybody practicing manual clandestine photography. It is also essential reading for the people responsible for detecting and thwarting the clandestine photography efforts of an adversary.

- This book presents conventional manual clandestine photography and videography using commercially available cameras and camcorders. In many instances, however, the authors discuss the use of conventional equipment in unconventional ways.
- This book presents ways to do long-range and ultra-long-range photography and videography without investing in extremely expensive photographic equipment. Identifying alternative products and methods was necessary because many agencies operate within the confines of a limited budget. For less cost than most agencies realize, they can do long-range photography and HD videography.
- This book presents methods for recording usable still photographs and moving video images during daylight hours from extreme distances. Consider "extreme distance" to mean 0.80–1.61 kilometers (0.50–1.0 mile) and sometimes farther.
- This book presents methods for clandestinely recording single images and moving video images from very short distances, in some instances from only a couple of meters from the subject or from the far side of a room.
- This book presents low-light photography and videography methods that do not require the use of an image intensifier night vision device.
- This book presents conventional methods of night vision photography and videography.
- This book presents extreme distance night-vision photography and videography methods. Using high quality, third-generation (Gen 3) image intensifier night vision devices, the surveillance specialist can photographically record detail such as recognizable images of human subjects and legible vehicle number plates (license plates) from distances up to and in some instances exceeding 1.609 kilometers (1 mile). That is, under suitable nighttime conditions using appropriate

Figure 1-1a. Extreme distance photography during the day and at night is possible using appropriate equipment and technique. *Upper image:* Ultra-high-magnification night vision photography system. The night vision weapon sight serves as a finder scope, which is essential for the extreme distances the authors present in this book. *Lower image:* Using the electro-optical system in the upper image the surveillance specialist photographed this police officer from a distance of 0.87 kilometer (0.54 mile). Text discusses and illustrates this and other extreme-distance night vision photography methods.

equipment and technique. The authors developed the ultra-long-range, night vision photography methods presented in this book and therefore detailed information about the techniques exists only here (see Figures 1-1a and 1-1b). At the opposite extreme, sometimes the surveillance specialist must photographically record subjects from