

**INTRODUCTION TO BUSINESS
AND INDUSTRIAL SECURITY AND
LOSS CONTROL**

ABOUT THE AUTHOR

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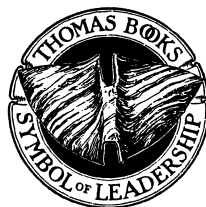
Second Edition

INTRODUCTION TO BUSINESS AND INDUSTRIAL SECURITY AND LOSS CONTROL

A Primer for Business, Private Security,
and Law Enforcement

By

RAYMOND P. SILJANDER, M.Ed., ALCM



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*To the Memory of
Djando “Djako” Odilon
(1942–2007)*

FOREWORD

One of the challenges we all face in the world of security and loss control management is remembering the importance of police and private loss control partnerships. Most prime time television shows tend to emphasize the non-stop action and excitement of police work involving high-speed chases, shootings, and other eye-catching police activities.

One of the most important professions existing today, especially after the events of September 11, 2001, are those involving loss control, security and asset protection in the private sector. Generally de-emphasized, if ever mentioned at all, are those critical relationships with police and private organizations that make up the majority of loss protection systems today. Law enforcement and public sector policing has close to a million members in uniform and non-uniform positions in federal, state, and local agencies in the United States today. It is generally accepted, however, that over three times that figure are involved in day-to-day loss prevention, security monitoring, and personal protection. That number will grow as the world shrinks through global commerce, regional conflicts, and the need for more complex protective measures increases creating a demand that public law enforcement and public safety cannot handle alone.

Raymond Siljander has done an outstanding job of writing a greatly expanded edition of *Introduction to Business and Industrial Security and Loss Control*. This book not only can stand alone as an excellent textbook for use in college and university settings, it should also be on every loss control manager's desk as a ready reference to the myriad of issues and challenges that face society today.

The author handles the many facets of security in an easily read and understood manner. He writes concisely and covers the most important and significant challenges in security in an interesting and reader-friendly way. As he mentions in the preface, each of the topics handled in the chapter headings certainly deserve and could easily be individual textbooks. Nevertheless, his handling of the most important issues in private security in this one book gives the reader enough information to be well informed on the topics covered.

The author covers general security and loss control issues in easily understood terms, and then handles individual challenges of physical and procedural security, fire alarms, cameras, and locking devices in great depth. He then moves to general issues in executive protection, bomb threats, and other personal challenges at a depth sufficient to acquaint the reader with major points to consider, but writes in a style that encourages one to seek additional information on each topic. He speaks to construction planning and loss control surveys, even including various checklists and formats for conducting security surveys. The author concludes the book with a well-written chapter on the importance of leadership in all of the challenges facing industrial security and loss control today and into the future.

As mentioned before, this book belongs on every loss control manager's desk as a ready reference for the myriad of issues facing security today. This interesting, up-to-date, and easy-to-read text will interest college and university students in the criminal justice and loss prevention programs and encourage them to pursue this challenging field in the private sector.

This book is an important, unique and comprehensive contribution to the industrial security and loss prevention field.

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PREFACE TO THE SECOND EDITION

. . . the information in this second edition will enable the reader to view loss control from a broad and informed perspective and thus be better prepared to implement protective measures that reflect a well-thought-out systems approach wherein each component reinforces others.

Today, many different titles identify those responsible for treating a company's exposures to loss. Examples of contemporary titles include, but are not limited to, risk manager; loss control manager; director of loss control; loss control director; safety manager; safety director; asset protection manager; and safety and compliance manager. Such titles, to varying degrees, suggest similar responsibilities. For purposes of simplicity, the title of *loss control manager* appears throughout this book; consider it synonymous with the other titles.

Since the first edition of this book appeared in 1991, many changes have occurred within the field of loss control. Beneficial advancements in science and technology occurred, and there has been increased emphasis on professionalism in the loss control and related fields. However, with increased benefits have come new challenges. For example, serious exposure to loss exists today because of reliance on computers; information (cyber) security is a relatively new and specialized field within the realm of loss control.

Because science and technology have advanced dramatically in recent years, and because of more demanding legal mandates coupled with changes in the social climate, the loss control needs of business and industry have changed. Hence, today's loss control manager must demonstrate a somewhat different set of skills than was required not too many years ago.

Although advancing science and technology and the ever-changing social and legal climate have changed loss control needs, at least to some extent, the underlying objectives of the loss control manager remains unchanged. The objective is to identify and abate the risk of fortuitous losses to preserve the financial well-being of the business.

In spite of loss control efforts, the potential for natural disasters still exists, as does the potential for a destructive structural fire, burglary, rob-

bery, embezzlement, business and industrial espionage, accidents involving fleet vehicles, and on-the-job injuries. Moreover, business and industry continues to face exposures relative to legal liability, and compliance with an abundance of legal mandates remains essential. So many loss exposures demands that the loss control manager identify the various risks and devise ways to treat them. That has always been the loss control manager's responsibility although today there are more efficient and cost-effective ways to treat risk than was available not too many years ago.

Today, illicit drug use in America remains a plague that permeates virtually all facets of society. This is a concern because illicit drugs are responsible for considerable associated damage in the form of, but not limited to, burglary, robbery, arson, prostitution, homicide, suicide, enforcement costs, incarceration costs, health care costs, embezzlement, diminished worker performance, business bankruptcies, and destruction of the family unit.

The Federal Bureau of Investigation (FBI) reported that illicit drugs is responsible for 48 percent of all homicides, 60 percent of all assaults, and 80 percent of all property crimes in the United States, these figures obtained from material presented in an El Paso Intelligence Center (EPIC) criminal highway interdiction course presented to law enforcement in the year 2002. Because of the plethora of crime associated with illicit drugs, and because illicit drug use is so detrimental to the well-being of business and industry, this second edition acknowledges the problem of illicit drugs.

Since the publishing of the first edition of this book, workplace violence has become a serious issue that affects business, industry, public schools, colleges and universities, and government. The American Federation of State, County and Municipal Employees, AFL-CIO (2007) reported that, "Violence in the workplace has become an epidemic. Not only is workplace violence increasing in those workplaces where violence is expected, such as corrections, enforcement, and mental health, but it has become a danger in almost every occupation that deals with the public. . . . It is clear that we are living in a much more violent society."

After a few highly publicized instances of United States postal employees resorting to violence and killing coworkers, someone coined the unfortunate and unfair term, *going postal*, that term referring to someone losing control and resorting to violence in the workplace. Unfortunately, that unfair term caught on, even though the incidence of workplace violence in the United States Postal Service is lower than it is for other industries.

Unfortunately, although workplace violence in the United States Postal Service is lower than for other industries, that is not true for government workplaces generally. The American Federation of State, County and Municipal Employees, AFL-CIO (2007) reported that, "The Department of Justice . . . reports that government employees have a higher rate of violence

than private sector workers. Government employees make up 18 percent of the U.S. workforce, but make up 30 percent of the victims of violence.” The nature of some government jobs place employees at risk, specifically, law enforcement and corrections.

When this writer was a youngster and a student in the public school system, he observed that some students did not like some teachers, and some students were unpopular, but it would not have occurred to anyone to bring a gun to school and begin shooting classmates and teachers. Since then, numerous such incidents have occurred with many planned incidents thwarted. That is a sad sign of the times and represents a threat requiring acknowledgement and treatment.

Since the publishing of the first edition of this book, the domestic and global terrorist situation has become an issue of increased importance. Hence, corporate executives and their loss control personnel have an increased need for knowledge of the dynamics of terrorism, terrorism defense methods, and a need for knowledge of surveillance techniques to effectively detect and thwart surveillance (countersurveillance), both stationary and moving. Countersurveillance is important because bombings, assassinations, and abductions are a serious concern, and terrorists planning such crimes usually engage in preliminary surveillance of the intended target whether the target is people or property. Law enforcement and those in the private sector are no longer dealing primarily with a criminal problem, but domestic and international terrorism are now part of the inventory.

This second edition represents a major emendation of the first edition. Up-to-date information replaces obsolete information with a lot of new information provided. Moreover, major reorganizing and consolidation of information enhances brevity and continuity.

Mr. Tak Yin Wong, who teaches “Introduction to Information Security (Cyber Security)” at the University of Massachusetts, Lowell, generously assisted with preparation of the information security section, an essential topic today.

Sergeant Dale Burns, Minneapolis Police Department, who teaches Introduction to Homeland Security at Minneapolis Community and Technical College, contributed the Homeland Security section. Since 1984, Sergeant Burns has taught law enforcement classes for the Minnesota College System and more recently participated in creation of the college system’s Homeland Security Program. Sergeant Burns holds a baccalaureate in Police Science and a Master of Arts in Public Safety Administration. Sergeant Burns was a Special Weapons and Tactics (SWAT) team member for thirteen years with his last SWAT assignment placing him in charge of his unit.

Determining what to include in this second edition was challenging inasmuch as the field of loss control is multifaceted. Loss control is a field that

crosses numerous specialized disciplines, each discipline justifying a stand-alone book. For example, entire books are available on topics such as occupational safety; industrial hygiene; ergonomics; fire science; information (cyber) security; locks, safes and vaults; fleet safety; and management, to name but a few. In the final analysis, prudence suggested greatly expanding this book but letting it remain a reader-friendly primer that anyone new to the field of loss control will find interesting and informative, a book that will serve as a catalyst for further study. Readers will find many good books on the many facets of loss control written by specialists in those fields with this book serving as a prelude to further reading.

The information in this second edition will enable the reader to view loss control from a broad and informed perspective and thus be better prepared to implement protective measures that reflect a well-thought-out systems approach wherein each component reinforces others. The reader will find information presented in a nonoverwhelming manner, even if they have no formal training or experience in the field of loss control. Moreover, readers will find the carefully selected illustrative material interesting and informative. Although many illustrations are product photographs generously provided by manufactures, many are photographs taken in the field. Many line drawings are included to convey important information.

This second edition presents information in a way that makes the book useful to those in the public and private sector. Whether the reader is a police officer, security officer, loss control manager, risk manager, business owner, business manager, or private investigator, the information will enhance their body of knowledge. Each reader will find certain chapters more pertinent than others, depending on their occupation, but all chapters will contribute to their professional frame-of-reference.

R.P.S.

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- Dr. Dee Dee Nevelle reviewed Chapter 10, “Management and Leadership.”
- Tak Yin Wong, University of Massachusetts, Lowell, assisted with preparation of the section titled “Information Security” (Cyber Security).
- Bryan Zitter, President, Ozark Alarms, Inc., Mountain View, Missouri, reviewed Chapter 3, “Intrusion and Fire Alarms and Security Cameras.”
- Finally, but by no means least, I am grateful that so many companies generously provided product photos to benefit the readers.

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**INTRODUCTION TO BUSINESS
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Chapter 1

LOSS CONTROL ISSUES

HISTORICAL OVERVIEW

Really, in the final analysis, the underlying concepts of loss control have not changed so much as have the ways in which we address loss control needs today because of our different environment, lifestyle, and level of technological sophistication. (From the first edition, 1991)

The above epigraph was true when written in 1991, and even more true today. A great deal has changed since the first edition appeared, changes having occurred socially, politically, and technologically. The prison population continues to grow.

Humankind has been concerned with safety and security from the beginning of time, and although efforts to ensure safety and security have evolved and become more sophisticated and therefore more effective, much of what we do today remains as it was in the days of our early ancestors.

From the beginning of time, physical barriers served to defend against thieves and invading armies, with physical barriers still used today. We find evidence of the early use of physical barriers in legend and in Old Testament biblical references. Such information is informative because history shows that not much has changed insofar as the underlying concepts of security and loss control are concerned, and it is from history that we learn.

History reveals that from the earliest times secu-

rity usually featured a systems approach characterized by multiple lines of defense. Moreover, we see that no security system is impenetrable. Historically, each new means of security found someone devising ways to defeat it. Contemplate the following Christian bible Old Testament verses that provide historical insight relative to physical security:

Babylon's thick wall will be leveled and her high gates set on fire . . . (Jeremiah 51:58, NIV)

. . . the king's anger may flare up, and he may ask you, "Why did you get so close to the city to fight? Didn't you know they would shoot arrows from the wall? . . ." (2 Samuel 11:20 NIV)

. . . They built a siege ramp up to the city, and it stood against the outer fortifications. While they were battering the wall to bring it down . . . (2 Samuel 20:15 NIV)

Then he worked hard repairing all the broken sections of the wall and building towers on it. He built another wall outside that one and reinforced the supporting terraces of the City of David. He also made large numbers of weapons and shields. (2 Chronicles 32:5 NIV)

Old Testament biblical verses such as these leave it apparent that erecting walls with watchtowers was a common means of defense thousands of years ago, as it is today, although today chain link fences commonly stand in the place of walls. Moreover, security cameras often replace people. From the

Old Testament verses we also see that implementing multiple lines of defense was a strategy centuries ago as it is now (e.g., “He built another wall outside that one . . .”).

Nineveh, mentioned frequently in the Old Testament and the subject of modern archeological excavation, was the well-fortified capital city of the Assyrian Empire until the city and the empire fell to the combined military forces of the Babylonians, Medes, and Scythians in the year 612 B.C.

Protecting Nineveh was a seven and one-half-mile long perimeter wall constructed of packed mud and burned-mud bricks measuring, by some accounts, 50 feet (15.24 meters) thick at the base and rising 100 feet (30.48 meters) high. On top of the wall, three horse-drawn chariots could travel three abreast. The wall featured numerous defensive towers that rose as high as 200 feet (60.96 meters). Although felt to be impenetrable, attacking forces were able to breach the walls of Nineveh when a flood inundated the city. David Padfield (2007, n.p.), in an interesting discourse about the destruction of Nineveh, mentions that event. He reported that:

A famous oracle had been given that “Nineveh should never be taken until the river became its enemy.” After a three-month siege, “rain fell in such abundance that the waters of the Tigris inundated part of the city and overturned one of its walls for a distance of twenty stades. . . .

Although Nineveh enjoyed good protection against the human threat of military attack, protection against the natural phenomenon of flooding was inadequate. Attacking military forces took advantage of that weakness and used it to prevail against the city’s defenses. In the case of both Nineveh and Babylon, Babylon discussed next, protection featured multiple lines of defense. Note also that, in the case of Babylon, protection featured man-made barriers (walls), semi-natural barriers (moat), and natural barriers (river).

Babylon of ancient Mesopotamia was eventually the capital city of Babylonia. Babylon, frequently mentioned in the Old Testament, was the subject of modern archeological excavation. Babylon featured an extensive system of inner and outer fortification

walls, eventually three fortification walls featuring numerous defensive towers.

Babylon’s protection also included the city being located close to the Euphrates River, the river preventing a military attack from that side. Moreover, a wide water-filled moat located outside the outermost wall served as an effective barrier against attack, the moat fed by the Euphrates River. The river was a natural barrier and the river-fed moat was a semi-natural barrier. Although historical accounts offer conflicting claims as to the dimension of the barrier walls, they all agree that the walls were immense. The following passage emphasizes Babylon’s formidable defense system, and it reveals how the Persian king Cyrus defeated that defense system in 539 B.C.

Despite Babylon’s remarkable defenses, which included moats, and walls that were more than 70-feet [21.33 meters] thick and 300-feet [91.44 meters] high, and 250 watchtowers, Cyrus was able to enter the city and conquer it. Cyrus and his troops diverted the flow of the Euphrates River into a large lake basin. Cyrus then was able to march his army across the riverbed and into the city. (100prophecies.org)

How much has changed? The defense system of many medieval castles incorporated moats, and, today, at military bases and correctional facilities we often see double perimeter walls and/or fences, lines of defense just as used thousands of years ago.

Correctional facilities commonly feature watchtowers along the barrier walls. The fence around a military base serves to keep people out just as the walls around ancient cities served to keep invaders out. The fence or wall around a correctional facility serves to keep outsiders out and the prison population in.

The Great Wall of China is another example of early fortification. Construction of the stone and earthen wall began in the third-century B.C. to defend China’s northern border against warring nomads. The wall was not continuous but, rather, consisted of a series of walls and watchtowers. Because the wall was not continuous, its length is in dispute with estimates ranging from 1,500 to 4,000 miles (2,414–6,437 kilometers). As a defensive barrier, the wall was not as effective as intended.

Castles of the Middle Ages appeared in the Middle East and Europe to provide protection against invaders. Castles evolved into well-fortified structures featuring multiple lines of defense, but their usefulness diminished in the fourteenth century because of the invention of gunpowder and subsequently artillery and guns.

The eleventh to fourteenth centuries Native Americans of the Anasazi culture in the United States Southwest were sedentary agriculturalists. They constructed highly defensible cliff dwellings that provided protection against nomadic predatory tribes. They utilized features of the terrain to achieve security.

The legendary Trojan Horse serves as an early example of deception used to circumvent a protective barrier. Legend alleges that, during the Trojan War around the thirteenth to twelfth centuries B.C., Greek military forces used deception to circumvent the walls of the city of Troy. Legend claims that the Greek army pretended to discontinue the siege of Troy and left behind, as a conciliatory gift, a large horse made of wood. The people of Troy accepted the gift and brought the horse into the walled city. That night, soldiers secreted in the horse discretely exited and opened the gate to the city permitting the Greek army to invade.

Humankind's concern for safety and security undoubtedly began early. The so-called cave man of the Stone Age predictably found that caves provided protection from the weather, other humans, and predatory animals. Little imagination is required to anticipate that cave dwellers probably built a protective fire at the mouth of the cave, and clan members took turns standing watch and tending the fire. Security as we know it today evolved from there.

In Colonial America, there were few trained legal scholars and laws and methods for enforcing laws reflected local needs and values. Morality and religion factored strongly into the laws with that being especially true in the Puritan colonies. As American laws and methods for law enforcement evolved, they were reminiscent of the British common law system, that being understandable because so many immigrants were from Britain and the

British legal system is all they knew.

As America began expanding westward, lawlessness was a problem. Commonly, the inhabitants of towns in the expanding west were victim to rogues who did as they pleased without accountability. Often, the response was to employ the toughest rogue available and for benefits, more than low wages, kept the townspeople safe from other rogues.

As time passed, better hiring and training of police officers replaced the hiring of western frontier rogues, yet a police officer with advanced education was rare. However, that has changed. Today, police are increasingly sophisticated with increasing numbers having academic degrees. Today's police officers must understand the various laws governing their conduct, and they have modern technology at their disposal. Gone are the days of the Colonial lamplighter who also was the town watchman. The lamplighter enjoys a colorful place in history as the legendary individual who carried a lantern and staff and loudly proclaimed the time and the weather every hour. As gone as the lamplighter is the more recent so-called "flat-footed fuzz," the "cop" who allegedly developed flat feet from walking his beat while twirling a nightstick.

While public law enforcement evolved through the ages, so has industrial security. There was a time when business owners simply locked the doors and windows at closing time, and locked the gate if the property featured a fence, and then trusted law enforcement to keep their business safe during the night.

Today, protecting employees and assets is more the responsibility of business owners than it is that of public law enforcement. Today, it is not enough to lock the doors, windows, and gates when closing. Often, proper protection requires also monitored intrusion and fire alarms, security officers, security cameras, nighttime security lighting, computerized access control systems, and strategies to defend against employee theft (embezzlement). The list could continue. In recent years, information security has become an important issue. One will hear information security also referred to as computer security and cyber security.