
THE 9MM AND LAW ENFORCEMENT TODAY

MASON WILLIAMS

**THE 9MM AND
LAW ENFORCEMENT TODAY**

ABOUT THE AUTHOR

Mason Williams commenced firing small bore and big bore rifles in competition in 1927. In 1928 he bought a Luger pistol for five dollars and has been hooked on firearms ever since.

Mr. Williams is a Life Member of both the National Rifle Association and the United States Revolver Association. Prior to dropping out of NRA match shooting, he held a Master Rating for three handguns.

In 1936 Mason bought two hundred acres in Dutchess County, New York—complete with handgun and rifle ranges. Mason knew Jim Harvey personally and was a licensed manufacturer of HARVEY BULLETS and AMMUNITION. After Harvey's death, and the end of Lakeville Arms, he set up the DUTCHESS GUN EXCHANGE and manufactured bullets of his own design, specializing in limited production of custom ammunition.

Mr. Williams had the dubious honor of having been banned from all FBI bases by J. Edgar Hoover for asking too many embarrassing questions regarding handguns, holsters, ammunition and training procedures. He attended six FBI schools during 1940 and 1941. After the war, he spent a great deal of time shooting with and learning from FBI agents at the huge Peekskill base.

Mason Williams is a ballistician, a photographer, and a writer for outdoor and firearms magazines. He has also been a frequent visitor to the New York State Police crime lab at State Campus, Albany.

Mr. Williams went to Dale Millers's School, Cooper's Automatic Pistol Institute and learned much about competitive shooting from Ray Chapman. He trained personnel from federal, state, and local organizations.

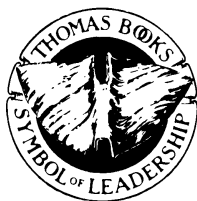
During the Viet Nam War he created special ammunition and bullets for the CIA and the Air Force. He helped Charlie Smith of the FBI create the Smith and Wesson Academy.

Mason is deeply involved in all phases of action handgun shooting and rifle silhouette. He has visited the factories involved with the firearm and ammunition industry and knows many of the important affiliated people including Chic Gaylord, Lee Jurras of Super Vel—who adapted Jim Harvey's bullet concepts to Super Vel ammunition.

Today, Mason Williams lives in Montana where he continues to work with law enforcement personnel and to probe, question and evaluate firearms, ammunition and training procedures.

THE 9MM AND LAW ENFORCEMENT TODAY

By
MASON WILLIAMS



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

Published and Distributed Throughout the World by

CHARLES C THOMAS • PUBLISHER
2600 South First Street
Springfield, Illinois 62794-9265

This book is protected by copyright. No part of
it may be reproduced in any manner without
written permission from the publisher.

© 1989 by CHARLES C THOMAS • PUBLISHER

ISBN 0-398-05575-0

Library of Congress Catalog Card Number: 88-26886

*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 the United States of America
SC-R-3*

Library of Congress Cataloging-in-Publication Data

Williams, Mason.

The 9mm and law enforcement today / by Mason Williams.

p. cm.

Includes index.

ISBN 0-398-05575-0

1. Police—Equipment and supplies. 2. Pistols. 3. Pistol
shooting. 4. Cartridges. I. Title. II. Title: 9 millimeter and
law enforcement today.

HV7936.E7W52 1989

363.2'32'028—dc 19

88-26886

CIP

FOREWORD

In the summer of 1968 I answered my country's invitation and found myself in Fort Gordon, Georgia at the United States Army's Military Police School learning skills that, through experience and continued training, would one day place me back in my home community in central Montana as a police officer.

One of the training phases at Fort Gordon included basic handgun training with the army's service pistol, the Colt 1911A1 .45 automatic. I learned to like the old workhorse and fired high in my training company with it. I went on to serve 26 months as a combat military policeman in and around Saigon, Vietnam and carried the .45 on a nearly daily basis. Because the army was short on training other than marksmanship, those of us interested had soon trained ourselves in some simple drawing techniques, how to carry a round of ammunition in the chamber safely (a mortal sin if caught) and maybe the very basic of techniques—what we now call officer survival.

I observed military policeman from Australia carrying the Browning 9mm and, after seeing it in action, wished the handgun I was carrying had the magazine capacity that the "Aussies" had. I worked with air force security policemen carrying the Smith and Wesson .38 Specials and often wondered why the air force had issued a wheel gun over the automatic. I think back about the ammunition that all of us carried, round nose, ball in all three calibers, and wondered why any of us survived the various situations that we found ourselves in.

I left Vietnam alive and returned home. Almost immediately I went to work as a police officer in Lewistown, Montana. I found a cross of old and new when it came to service weapons. I saw officers carrying .38 Special Smith and Wesson revolvers with 158-grain, round nose lead rounds. I saw officers carrying .357 Colt and Smith and Wesson revolvers with 125-grain, .357 hollow points. After my first session on the range with my new Smith and Wesson revolver, I talked with the chief and asked him about carrying a .45 on duty. I received a flat "no way." I then

settled on my .357 with some reasonably hot .38 Special hollow points. Through 17 years, two service revolvers, and three chiefs, I kept an eye on the development of the police service automatic; mainly the 1911A1. In the background were my memories of the Aussie Brownings and the high magazine capacities and other attributes that, to me, made the pistol very desirable for a service weapon. As the department firearms instructor, I advised against carrying the 9mm because of the lack of good ammunition for it and the chief was still totally dead set against any pistol, be it .45 or 9mm.

In approximately 1978, the current chief advised me that he had purchased a Smith and Wesson Model 39 and was interested in training with it to carry as a service weapon. I owned a Model 59 at that time, so together we spent time firing both weapons and eventually qualified with them. The chief began carrying his Model 39 and I continued to carry the wheelgun, as I felt comfortable with it and was not totally convinced that the little hollow point round that we decided on for a service round for the 9mm was what I wanted to defend myself or a citizen with.

Time slipped along and I found myself reading articles about the military possibly “deadlining” the 1911A1 and going to the 9mm for a service sidearm. I, along with the rest of the country, was aghast that this could happen, as the .45 is nearly as American as motherhood, baseball, apple pie and all of that. As the “wondernines” hit the law enforcement market and more and more officers began carrying them, I again thought of my friends from “down under” and decided that it was time to take the plunge and see what was out there as far as the 9mm was concerned.

With the help of Mason Williams and some other friends and the generosity of nearly all of the major producers of 9mm service pistols, I had the opportunity to do extensive hands-on testing. Also made available to us were nearly all of the 9mm ammunition manufactured with the law enforcement officer in mind. With the weapons and the ammunition came the leather companies, producing holsters and magazine carriers for nearly every weapon on the market.

The law enforcement officer of today has only to decide which gun he wants to carry, make sure that his department authorizes it, train with it until he is totally efficient with it and then go on the street with a precision, highly accurate, high magazine capacity weapon that fires a round that will stop an individual when needed.

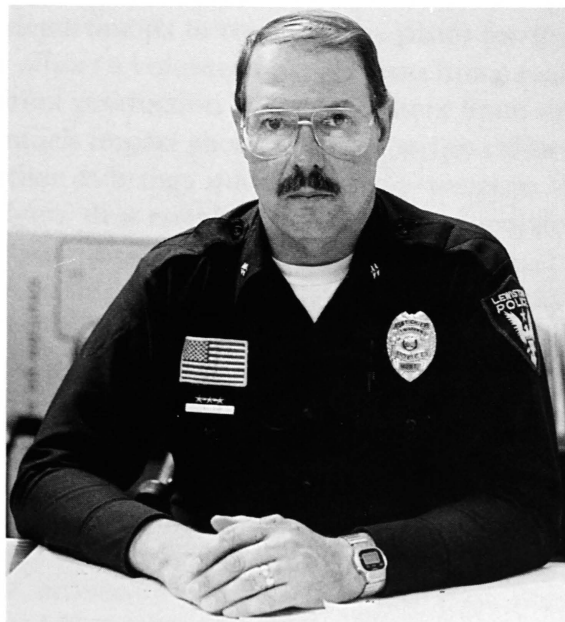
How does an officer educate himself and his department concerning

the 9mm? He reads, studies, talks, listens and then goes back and starts all over again. When he has made the decision, he then trains until he and his department are totally comfortable with his choice.

Mason Williams and I have spent long hours over my kitchen counter discussing just what is in this book. We have argued, cussed, and discussed every step of the training and selection methods that he will talk about. We do not have all of the answers and do not claim to. We spent hot afternoons on the range shooting 9mm pistols until we had our answers. Now we offer our findings to you, the American law enforcement officer. Take our information and try it yourself; that is why we did this as we did.

I, today, carry a high-capacity 9mm on duty, loaded with the best possible round available to me in the best leather I could find. I am totally comfortable with my decisions but keep an open mind and eye, because with the technical advances being made nearly daily in this market, the best can only get better.

Thomas Killham
Assistant Chief of Police
Lewistown Police Department
Lewistown, Montana



PREFACE

The purpose of this book is to discuss in detail the effect that the 9mm cartridge and its handguns have upon law enforcement.

In the past, revolvers chambered for the .38 Special and .357 Magnum cartridges have been considered as ideal, practical law enforcement handguns, each firing six revolver cartridges. The constantly increasing criminal use of semiautomatic pistols by felons has rapidly changed the basic confrontation of law enforcement officers and felons. These changes affect every officer, whether male or female. Female officers are here to stay just as the 9mm cartridge is here to stay. Whether you like it or not, the resulting changes will create new concepts of fire-power, training, bullet performance and finally place the average officer on relatively equal weapon terms with the criminal.

The adoption of the Beretta 9mm pistol by the armed forces has caused many departments to consider the pistol for the first time. The 9mm gives the officer a volume of fire. It gives him a readily controllable handgun. Current production law enforcement 9mm ammunition gives the officer as much impact shock at target as the caliber .45 ACP pistol cartridge. Further, it brings into focus 9mm weapons that complement the 9mm handgun, thus enabling both male and female officers to train with far fewer complications and with far better final results, making these officers far safer on the streets and the streets far safer for the public.

This book has been designed to help the average department switch from revolver to pistol and to aid in understanding the 9mm cartridge. At this time there are four basic pistol safety concepts, and each will be discussed in detail, evaluated, compared through actual firing and handling by officers. There will be no attempt in this book to pit one handgun against another. Any handgun manufacturer who intends to submit its handgun to law enforcement has already proven its reliability with all types of ammunition. Neither will this book attempt to select the "best" handgun. All we will try to do is submit data to help a department decide which handgun is best for that specific department. It will be up

to the department to select the basic pistol safety mechanism that appears to be best suited to the men who will carry the handgun. It is common knowledge that an officer who has confidence in both handgun and ammunition will be a lot safer man on the street—safer for himself and for the public.

As of now, I believe that many departments have been talked into buying pistols because of political pressures and, not knowing enough about either the cartridge or the handguns available to them, they have bought pistols and ammunition that may not be as desirable as they appeared on paper.

All of us connected with the writing of this book hope that it will prove valuable and will help a department to choose the correct handgun and ammunition for the men on the street, in the cars, on the planes, in the helicopters, and in the offices. The 9mm cartridge has been used for close to ninety years throughout the world and has been considered a potent, proven cartridge, despite the fact that it has been relatively unknown in America. Up until the past few years, ammunition manufacturers in this country turned out a few basic types of 9mm ammunition, mostly full metal jacketed, designed for all-around civilian use and without any basic consideration of the needs of law enforcement. Today, that picture has drastically changed.

ACKNOWLEDGMENTS

I wish to thank the following firms and personnel for their help in furnishing the means for this in-depth evaluation:

1. Handguns

BERETTA U.S.A. CORPORATION

17601 Beretta Drive
Accokeek, Maryland 20607

STURM, RUGER and COMPANY

Southport, Connecticut 06490

GLOCK, INC.

P.O. Box 369
Smyrna, Georgia 30081

SIGARMS, INC.

470 Spring Park Place
Herndon, Virginia 22070

SPRINGFIELD ARMORY

420 West Main Street
Geneseo, Illinois 61254

2. Ammunition

REMINGTON

FEDERAL CARTRIDGE COMPANY

OMARK

WINCHESTER

HORNADY

3. Personnel

Lewistown Police Department
Lewistown, Montana
Chief Russell Dunnington
Assistant Chief Tom Killham
Sgt. Charles Bulsom

And I wish to thank all of the other personnel of the Lewistown Police Department, Lewistown, Montana.

4. *Targets*

DUELATRON

12 Skillman Lane

St. Paul, Minnesota 55110

REALISTIC TRAINING SYSTEMS

P.O. Box 245

Farabault, Minnesota 55021

Mason Williams

CONTENTS

	<i>Page</i>
<i>Foreword</i>	v
<i>Preface</i>	ix
<i>Chapter</i>	
1. The 9MM Cartridge	3
2. American 9MM Ammunition	9
3. Capabilities of American 9MM Ammunition	19
4. Terminal Bullet Performance on Dummy	37
5. Current American 9MM Ammunition for Law Enforcement and its Terminal Bullet Performance on Dummy	51
6. Current 9MM Pistol Safety Mechanisms on Law Enforcement Pistols	63
7. A Basic Familiarization Course of Fire for Converting Personnel from Revolvers to 9MM Pistols	91
8. Firing the Basic Course of Fire to Familiarize Personnel with each of the Four Basic Types of Pistol Safety Mechanisms	119
9. Suggested Advanced Courses of Fire	149
10. A New Concept of Applying the 9MM Cartridge to the Requirements of a Department	153
11. The Future of the 9MM Cartridge and its Pistols for Law Enforcement	171

**THE 9MM AND
LAW ENFORCEMENT TODAY**

Chapter 1

THE 9MM CARTRIDGE

Caliber and size specifications: 9mm \times 19mm; bullet diameter 0.355. Commonly known as the 9mm Luger or 9mm Parabellum, this cartridge was designed for use in the Model 1902 Luger pistol. By the end of the First World War just about all European nations issued this cartridge to its armed forces. It remains, to this day, the most popular military cartridge in the world. While originally designed for use in a pistol, it has been widely used in submachine guns. Ammunition for the latter was often loaded to higher pressures and bullet velocities than regular handgun ammunition.

The 9 \times 19 cartridge was one of the first high-velocity, high-pressure cartridges ever developed specifically for automatic pistols. It utilized the then new, smokeless, high-potency powders that had just come into commercial production. The case is strong. For its size, this cartridge produces considerably more power than any of the conventional black powder cartridges such as the .38 Colt, .38 Smith and Wesson, and the .38 Special, to name a few.

The case is small, a feature that allows designers to design, create, and build pistols that are reasonable in size. Today, we have handguns that hold as many as nineteen cartridges in the magazine, something never attainable with revolver/black powder cartridges. All that this caliber needed was a good bullet for law enforcement work, and today we have it!

Another excellent feature of the 9mm cartridge is the small amount of muzzle flash, so that an officer firing in the dark does not have to contend with the customarily large, long and brilliant muzzle flash of high-velocity .38 Special ammunition or the brutally bright, eye-blinding muzzle and gap flash of the caliber .357 Magnum revolver.

The handling characteristics of the 9mm are far more comfortable and manageable than that of most revolvers and larger caliber pistols. Three- and four-shot bursts are controllable and at close firefights distances can be placed into a small group.

The 9mm cartridge has never been generally accepted in this country

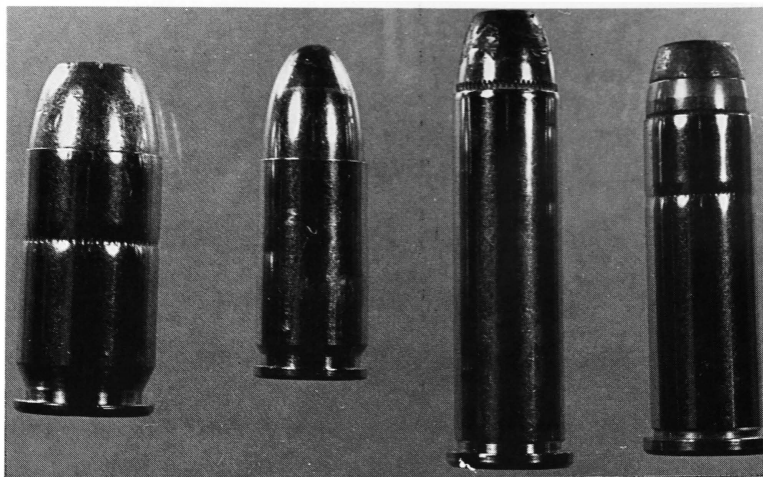


Figure 1-1. The 9mm cartridge compared to the .45 ACP on the left, the .357 Magnum on its right and the .44 Magnum on the far right.

for two reasons. First, Americans have always liked large-caliber cartridges for defensive use. Second, the adoption of the caliber .45 ACP cartridge by the military kept this .45 ACP cartridge popular for both military and law enforcement use.

Another drawback to the American use of the 9mm cartridge was the fact that just about the only ammunition readily available was loaded with full metal jacketed bullets. This strictly limited the potential of the cartridge. Further, so many 9mm pistols of dubious quality had been brought into this country from Europe that ammunition manufacturers loaded this ammunition far below its potential.

Full metal jacketed bullet ammunition tends to overpenetrate, ricochet, and fail to expand, thus making it dangerous for street use, particularly in populated areas. These standard loadings were inadequate for hunting purposes. As a result, while it remained in general use and readily available, the 9mm cartridge never gained any great popularity in this country until Smith and Wesson brought out its Model 39 chambered for the 9×19 .

Another drawback to the cartridge was the fact that lead bullets, soft nose bullets, and hollow point bullets did not provide consistent reliability in pistols. If a bullet design did function reliably, then it probably would not expand. Conversely, if it did expand, then it could have a tendency to jam while being rammed up the pistol feeding ramp.

Back in the 1950s and 1960s when I was working closely with Jim Harvey



Figure 1-2. Two variations on the 9mm cartridge. On the left is a round nose, jacketed, soft point cartridge. On the right is a truncated nose, jacketed cartridge.



Figure 1-3. Shown here are various types of bullet noses in current production ammunition.

and his high-velocity, jacketed bullet concepts, I continually tried to develop a reliable expanding 9mm bullet loading. I recall sending hundreds down to George Nonte who had quite a few 9mm pistols. He would write back and tell me everything that had gone wrong. Finally, we mutually decided that the future of the 9mm did not look promising in America. I went back to the .38 Special and .357 Magnum, plus, of course, the classic .45 ACP. It is well known that the smaller the caliber, the more problems will arise. I could develop excellent .45 ACP loadings, but trying to adapt them to the 9mm just did not work.

While Smith and Wesson and Colt produced 9mm pistols, little thought was given to the ammunition. Finally, hollow point bullet ammunition came on the market. Gradually, improvements were made, but it was not until recently that the large manufacturers of 9mm ammunition realized the potentials inherent in the market. During the past ten years more progress has been made in the practical development of 9mm ammunition for law enforcement than in the entire eighty-odd-year period since its original introduction. Today, we have superb ammunition, ammunition that equals the impact shock and stopping power of the caliber .45 ACP cartridge.

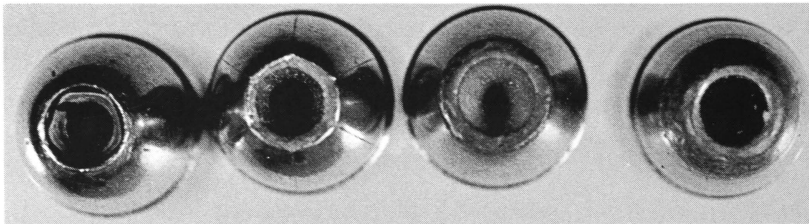


Figure 1-4. These are additional modern bullet nose variations in current production ammunition.

Just as a 1980 automobile is basically slightly different from a 1988 automobile, so do manufacturer's bullets vary. When Winchester first brought out the 9mm Silvertip loading the bullets had a tendency to expand too fast upon impact and then go to pieces. Winchester continually worked on this bullet, altering details, changing the composition of the lead and the jacket, plus modifications of the bullet design. The result has been constant improvement until today the Silvertip is a far better all-around bullet than it was when it first came on the market. All manufacturers continue this constant improvement, with the result that

yesterday's bullet may be quite different from today's bullet even though the name and code number remain the same.

For these reasons, a department should evaluate bullet performance and then, if it proved to be correct for their use, buy for issue the same lot number. Doing this will prevent surprises. The men will know just about what to expect from their ammunition.

All of this adds up to the fact that hollow point bullets are not all the same, nor are full metal jacketed bullets all the same, nor are soft point bullets all the same. Ammunition cannot and must not be bought by general rule. It must be evaluated, studied, and then purchased for issue only after extensive study. We will attempt to illustrate in detail what can be expected from various types of ammunition, but a department must not assume that the ammunition they purchase will give precisely the same results as we list further on.

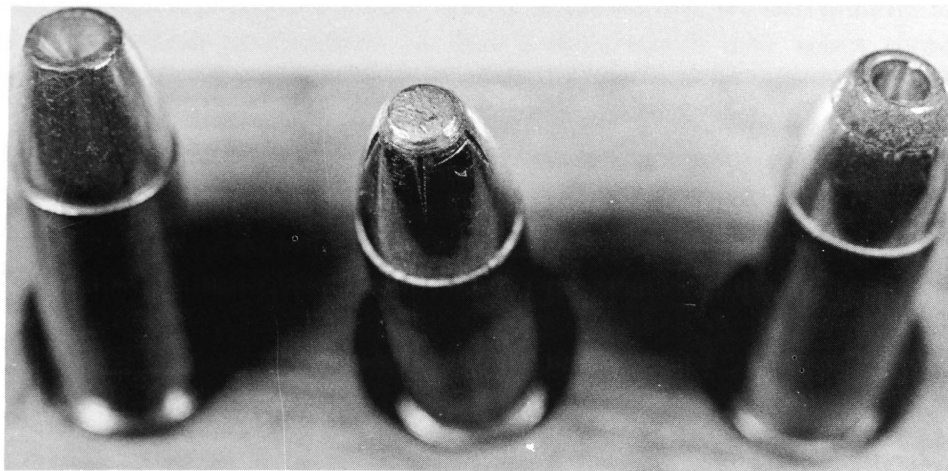


Figure 1-5. The trend today in bullet noses is shown in the center cartridge nose. This type of nose functions reliably through pistol mechanisms and also provides expansion. The cartridge nose on the left is also jacketed and without any lead outside of the jacket. The cartridge nose on the right—hollow point, lead showing—will often fail to feed correctly due to the impact of the lead hollow point nose upon the pistol feeding ramp. This latter type should not be used.

Chapter 2

AMERICAN 9MM AMMUNITION

- Types
- Velocities

Until recently, law enforcement had to purchase the same ammunition that was available to civilians over the counter of any sporting goods store. Some of the ammunition proved capable of handling law enforcement problems, but there has never been a guide, to my knowledge, explaining the potentials of each type of ammunition. We will attempt to classify civilian ammunition so that a department may select those loadings that will potentially do the job.

We will list this information as simply as possible. First, we will show the end of each box of ammunition containing data covering the enclosed cartridges, plus the manufacturer's code. We will then list the velocity of this ammunition as fired from each of the five pistols and then averaged out. We will give the average velocity only. Next, we will present our comments regarding each specific loading. These comments must be taken as a guide only. Unfortunately, there are no specifics when we discuss what a cartridge will do. We can only state that "generally speaking" this cartridge can be expected to do this or that.

As an example, if we discuss a 115-grain, full metal jacketed bullet loading we know that it should give maximum or even excessive penetration. But penetration in what? That is one of the keys to determining bullet performance. We can, however, be rather certain that this specific bullet will not expand. On the other hand, if we are discussing a hollow point, 115-grain Silvertip loading we basically know that this bullet will give only moderate penetration on most materials but that it will provide maximum expansion. We have found over the years that Remington's jacketed, hollow point bullet loading in 115-grain weight gives rather good penetration, but quite often it will fail to expand.

Provided here are examples and comments regarding cartridge box ends. Whenever possible, we will show pictures of actual recovered bullets to illustrate our comments.

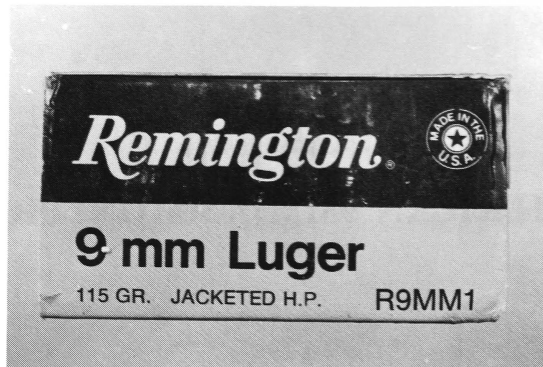


Figure 1-6. Remington #R9MM1 115-grain JHP. Recommended for law enforcement use (Average velocity 1145 fps, Variation in velocity 61 fps).

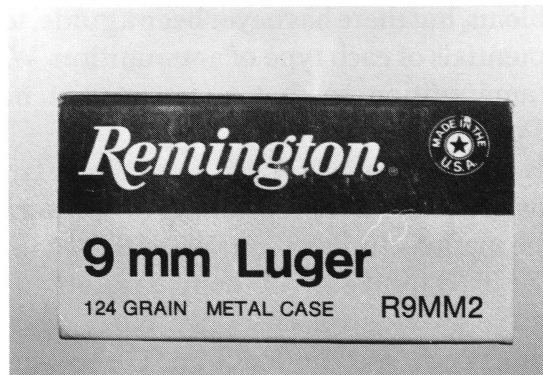


Figure 1-7. Remington #R9MM2 124-grain, full metal jacket. Not recommended for law enforcement work (Average velocity 1099 fps, Variation in velocity 19 fps).

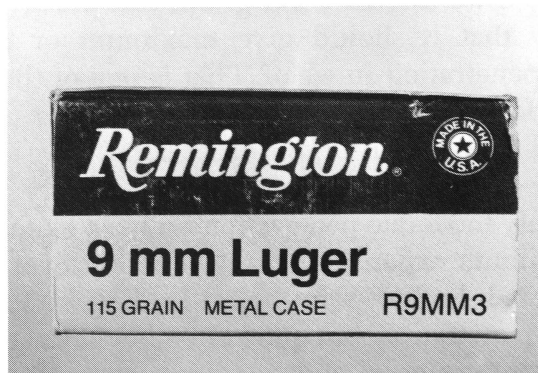


Figure 1-8. Remington #R9MM3 115-grain, full metal jacket. Not recommended for law enforcement work (Average velocity 1110 fps, Variation in velocity 51 fps).



Figure 1-9. Remington #R9MM5 88-grain JHP. Not recommended for general law enforcement work, but this ammunition could have application to special situations. Bullet tends to go to pieces upon impact (Average velocity 1484 fps, Variation in velocity 79 fps).

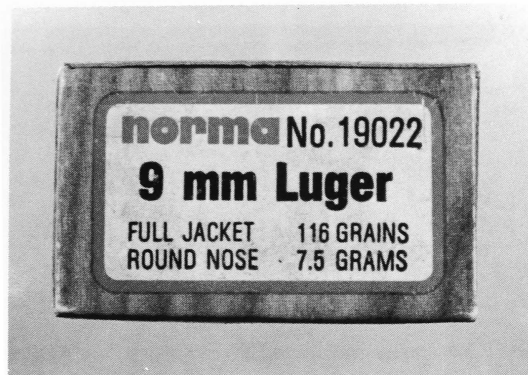


Figure 1-10. Federal #19022 Norma Manufacture 118-grain, full metal jacket. Not recommended for law enforcement work (Average velocity 1179 fps, Variation in velocity 40 fps).



Figure 1-11. Federal #9CP 95-grain JSP. Not recommended for general law enforcement, but this ammunition could have application to special situations. Lightweight bullet tends to go to pieces upon impact (Average velocity 1320 fps, Variation in velocity 49 fps).



Figure 1-12. Federal #9AP 124-grain, metal jacketed bullet. Not recommended for law enforcement use (Average velocity 1148 fps, Variation in velocity 54 fps).



Figure 1-13. Federal #9MP 124-grain, metal case SWC. Not recommended for law enforcement use. This is a match loading and bullet (Average velocity 1125 fps, Variation in velocity 40 fps).

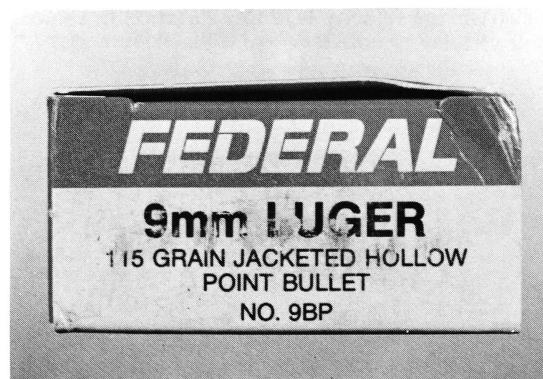


Figure 1-14. Federal #9BP 115-grain, JHP bullet. A good law enforcement loading for all-around use (Average velocity 1128 fps, Variation in velocity 26 fps).

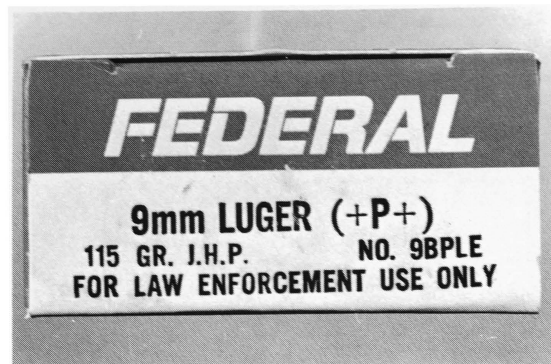


Figure 1-15. Federal #9BPLE 115-grain, JHP bullet. This loading is specifically designed for law enforcement use. Excellent for all-around work (Average velocity 1300 fps, Variation in velocity 64 fps).



Figure 1-16. Federal #P9HS1 124-grain, Hydra-Shok loading. An excellent moderate-velocity loading with special bullet design and low recoil factor (Average velocity 1098 fps, Variation in velocity 45 fps).



Figure 1-17. Federal-American Eagle #AE9DP 115-grain, full metal jacketed bullet. Not recommended for law enforcement use. (Average velocity 1187 fps. Variation in velocity 59 fps).

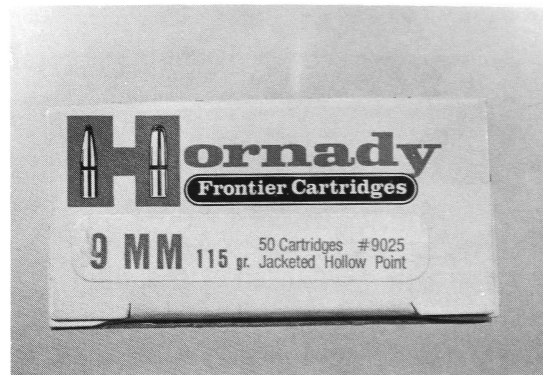


Figure 1-18. Hornady #9025 115-grain JHP. A good all-around loading for law enforcement (Average velocity 1280 fps, Variation in velocity 151 fps).

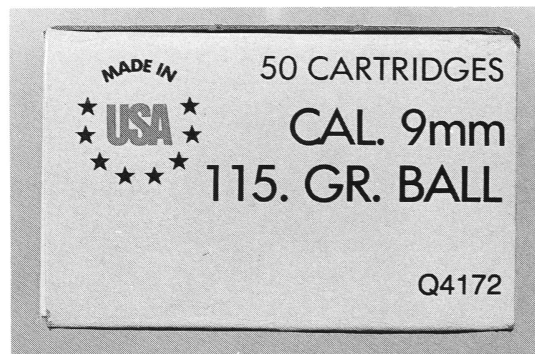


Figure 1-19. Winchester (U.S.A.) #Q4172 115-grain JHP. A good all-around loading for law enforcement (Average velocity 1075 fps, Variation in velocity 68 fps).

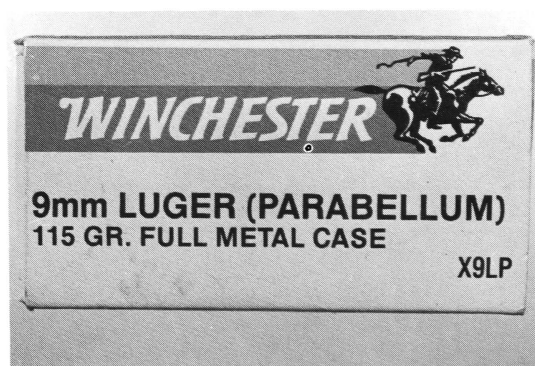


Figure 1-20. Winchester #X9LP 115-grain, full metal jacket. Not recommended for law enforcement work (Average velocity 1081 fps, Variation in velocity 36 fps).

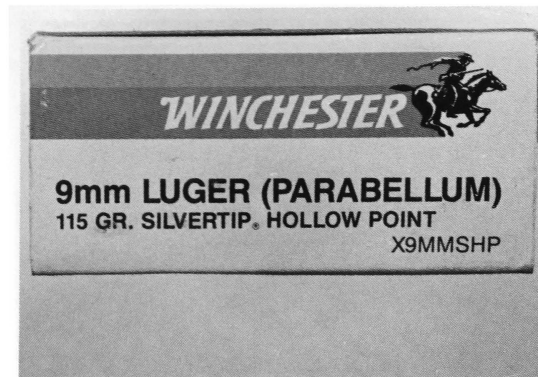


Figure 1-21. Winchester #X9MM SHP 115-grain, Silvertip HP bullet. An excellent all-around law enforcement loading (Average velocity 1203 fps, Variation in velocity 72 fps).

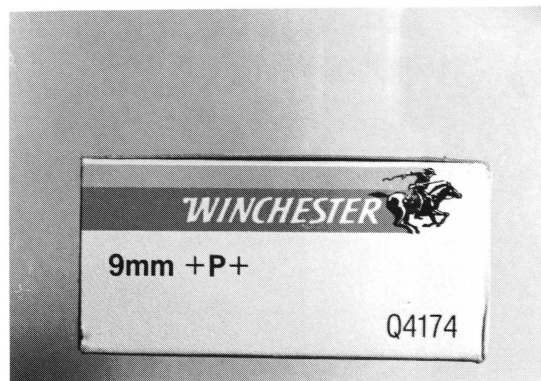


Figure 1-22. Winchester #Q4174 115-grain, special jacketed HP bullet. Specifically designed for law enforcement use. For use only in pistols designed to handle this high-velocity loading. (Average velocity 1363 fps, Variation in velocity 70 fps).



Figure 1-23. CCI—Blazer #3508 115-grain JHP. A good all-around law enforcement cartridge (Average velocity 1127 fps, Variation in velocity 31 fps).