

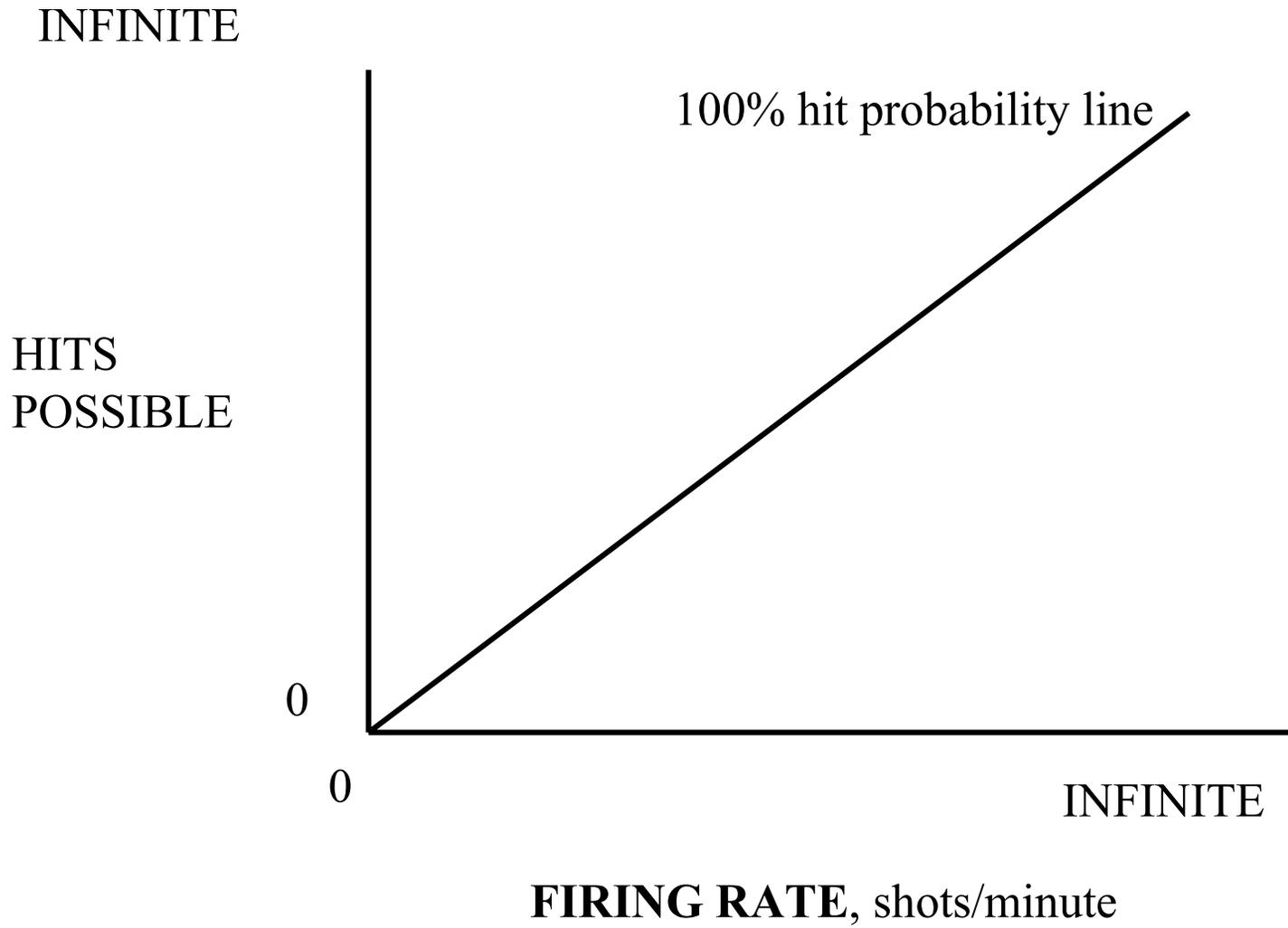
# **RAPID SEMIAUTOMATIC FIRE AND THE ASSAULT RIFLE.**

## **FIRING RATE VERSUS ACCURACY**

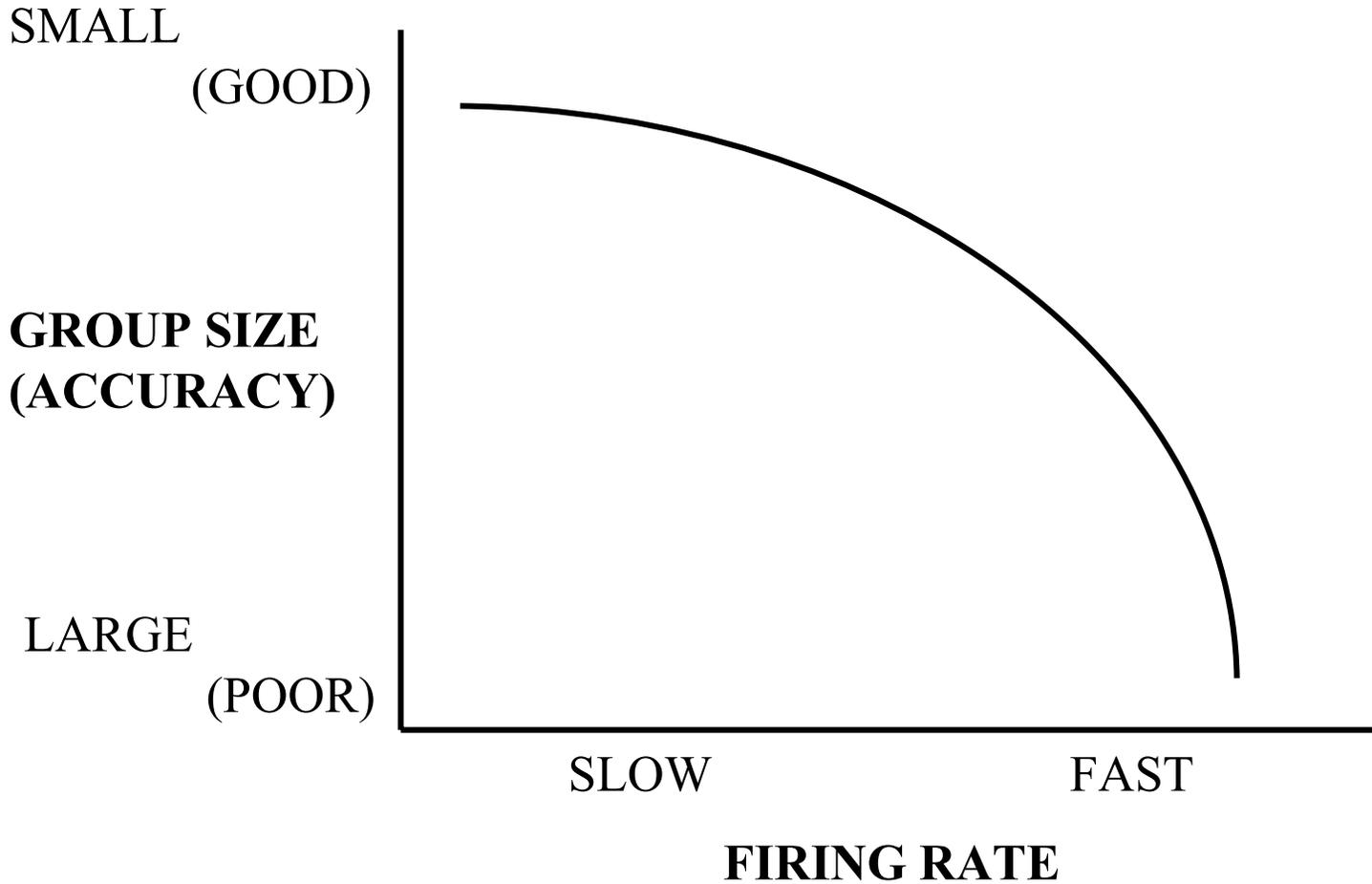
**LIEUTENANT COLONEL MARK A. WESTROM USAR (RET)**

# OVERVIEW

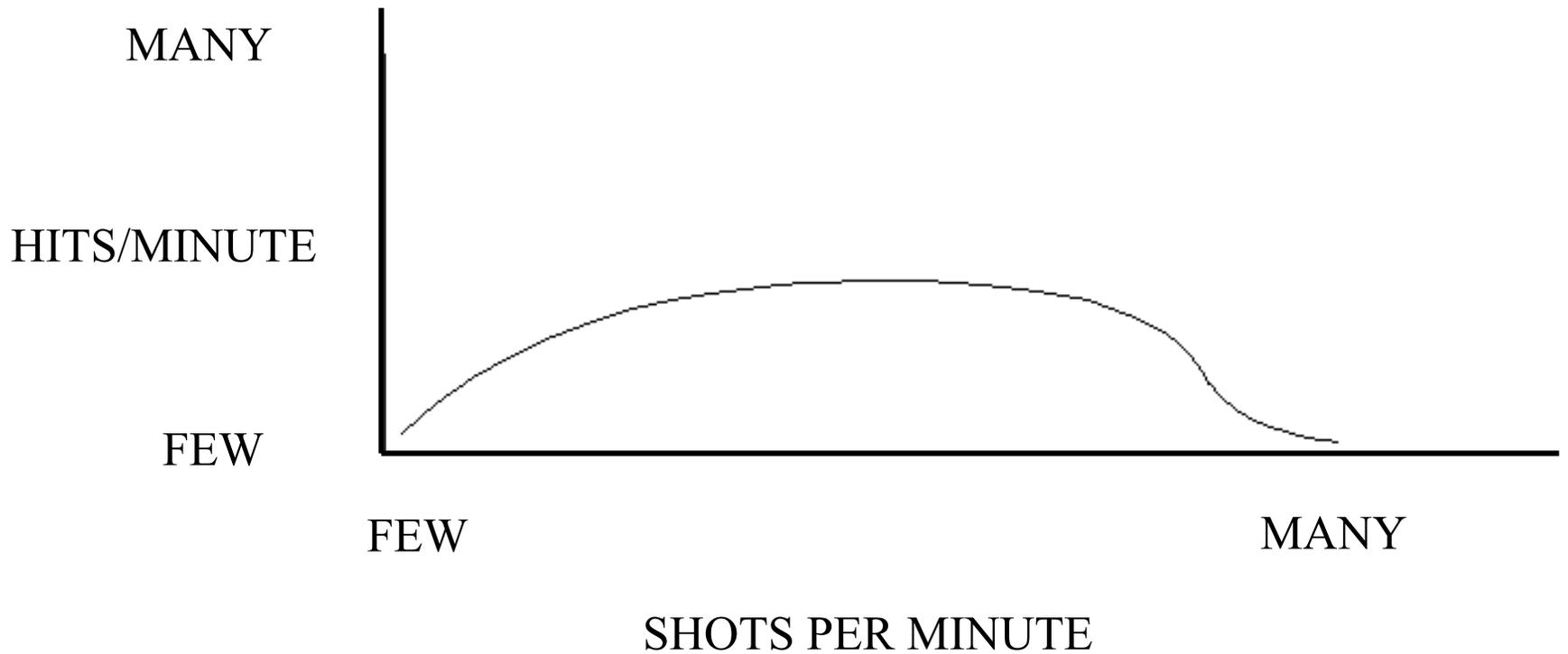
- **THE CLASSIC CONTROVERSY: SPEED VS ACCURACY**
- **MARKSMANSHIP DOCTRINE: FORCES OF CHANGE**
- **A MODEL OF FIRING SPEED**
- **THE IMPLICATIONS OF RAPID SEMIAUTOMATIC FIRE**
- **CONCLUSIONS AND RECOMMENDATIONS**



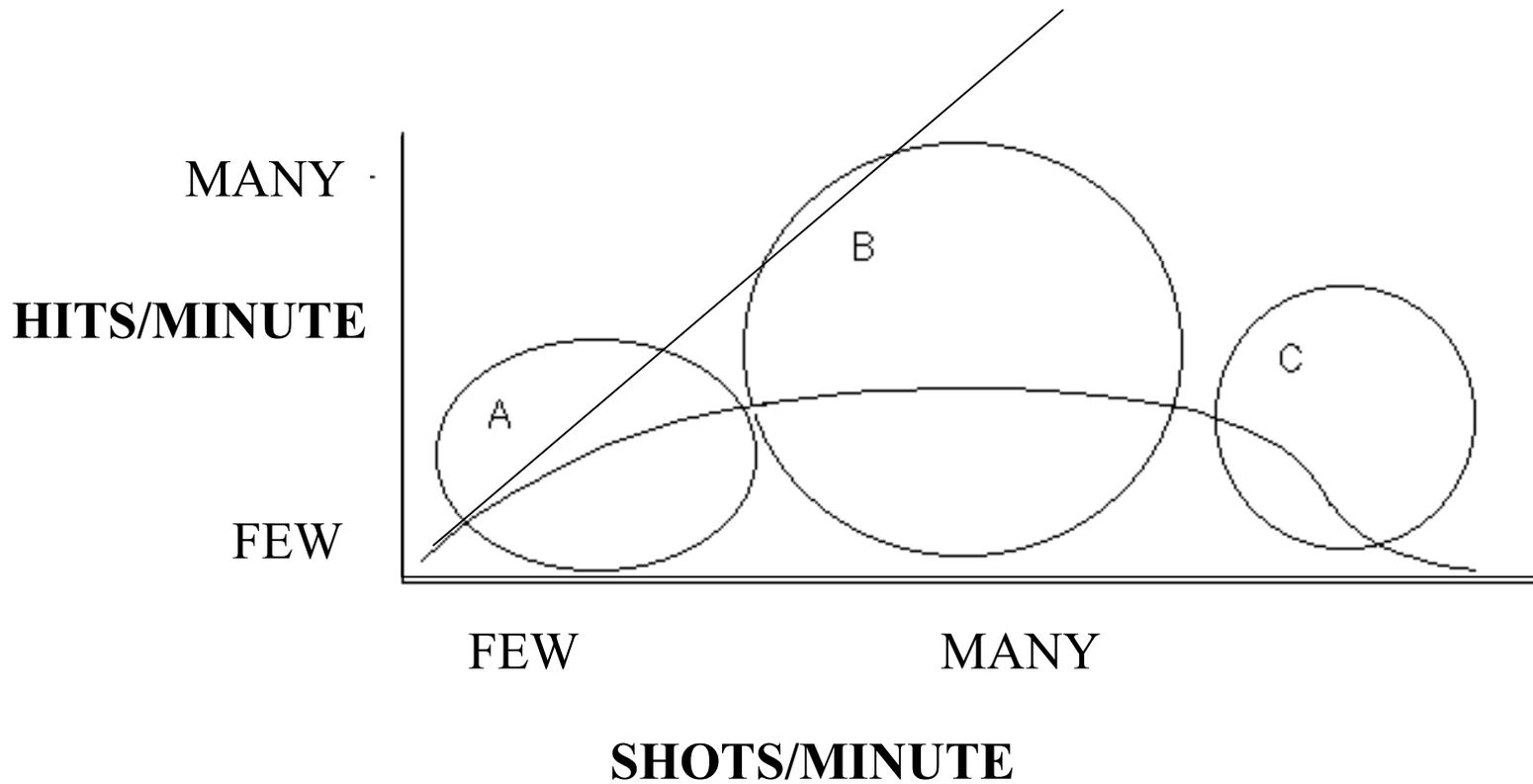
**HITS POSSIBLE VERSUS SHOTS FIRED**



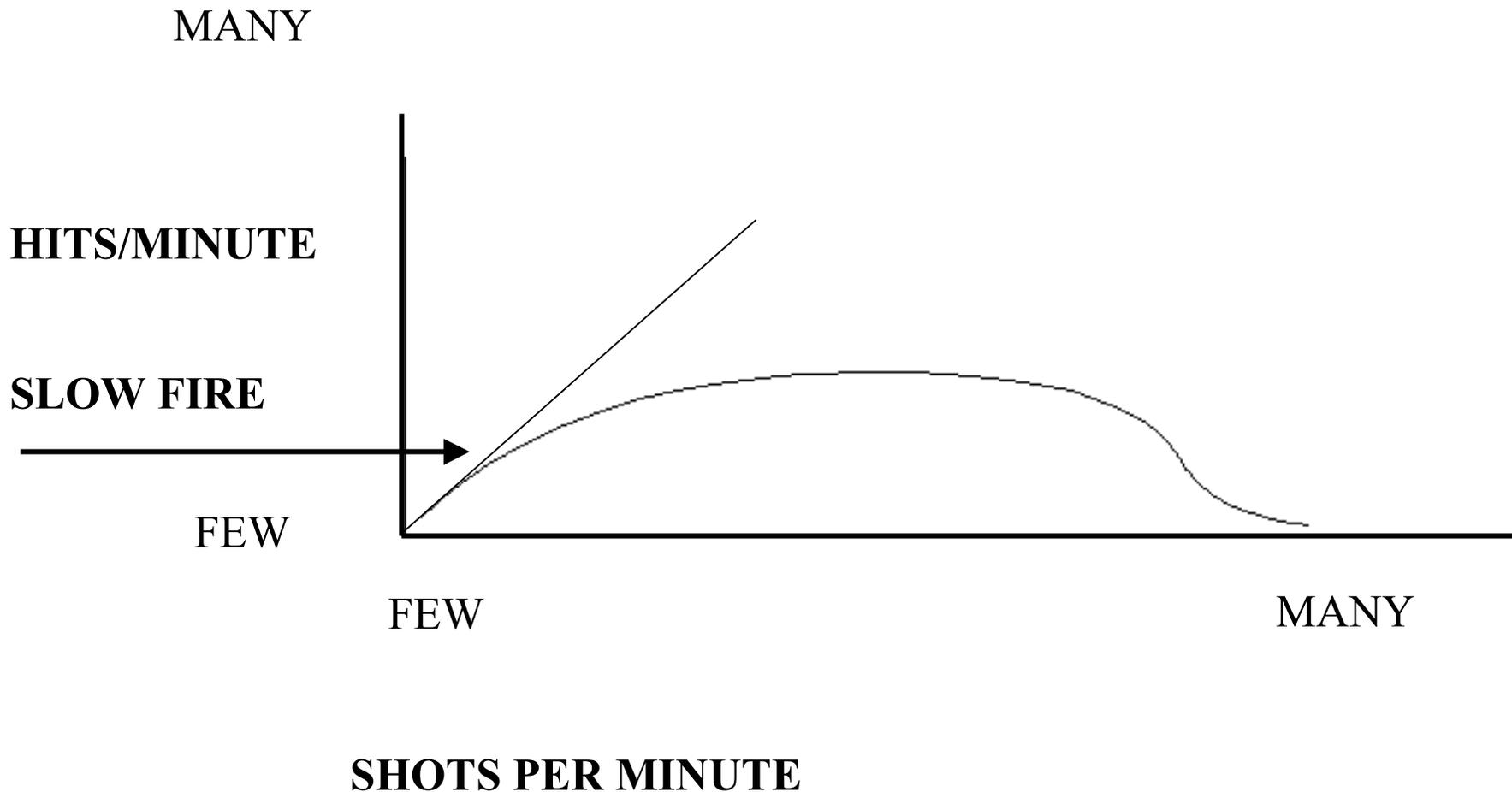
**ACCURACY VERSUS FIRING RATE**



HITS VERSUS SHOTS FIRED IN A GIVEN TIME PERIOD  
**A DEGRADING SYSTEM**

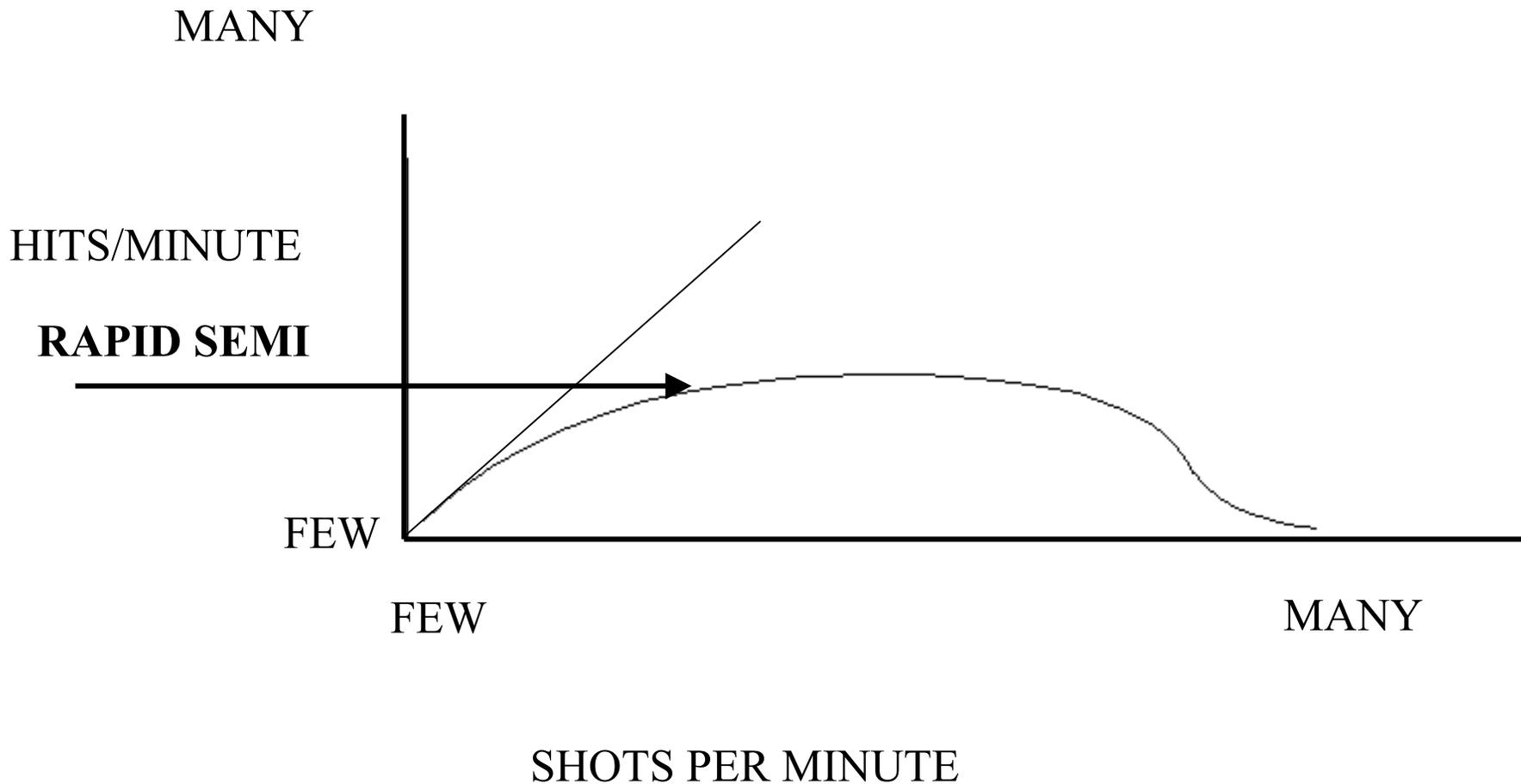


**AREAS OF INTEREST**



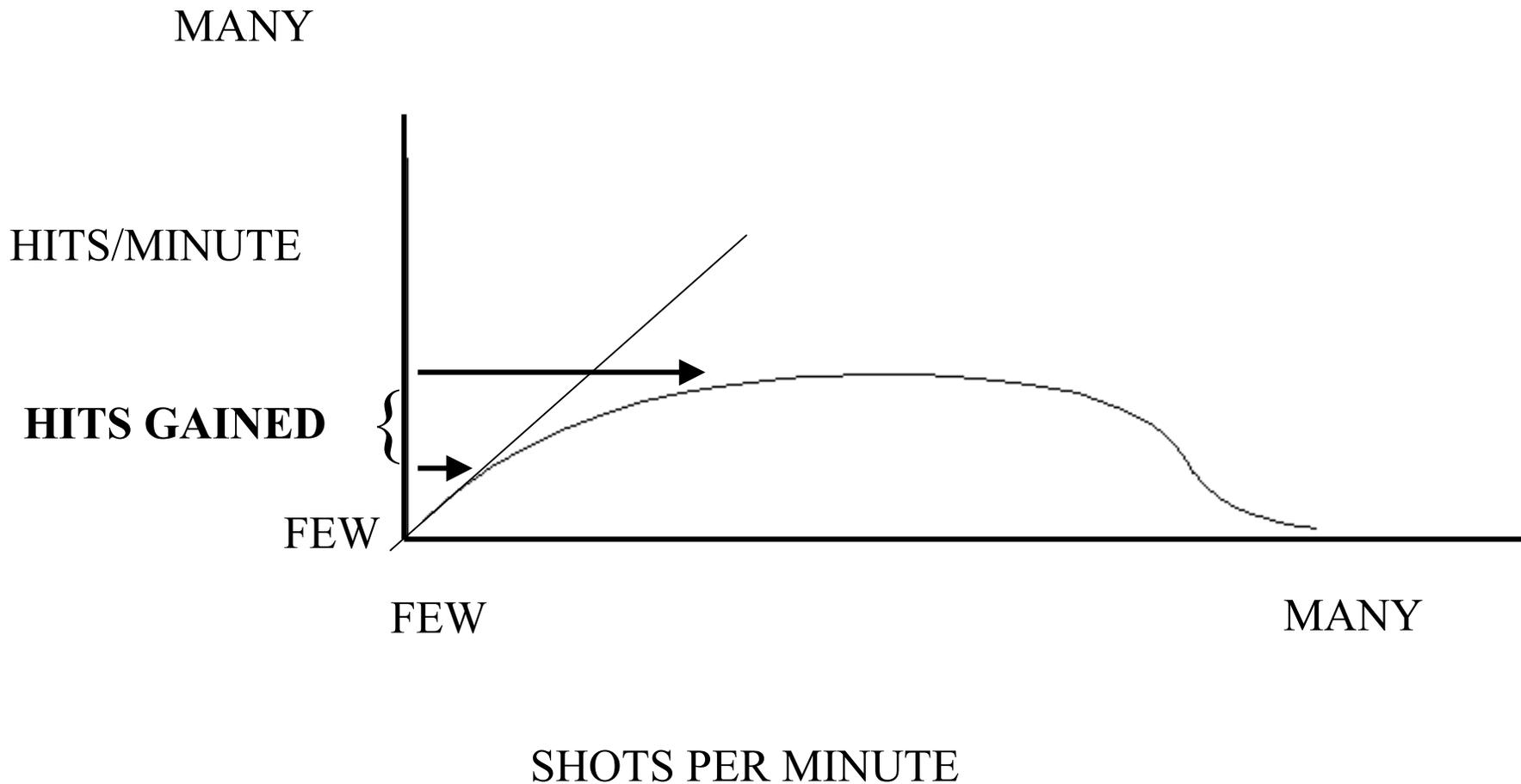
**THE SNIPER OR TARGET SHOOTER'S SHOT RATE CURVE**

**“ONE SHOT, ONE HIT”**

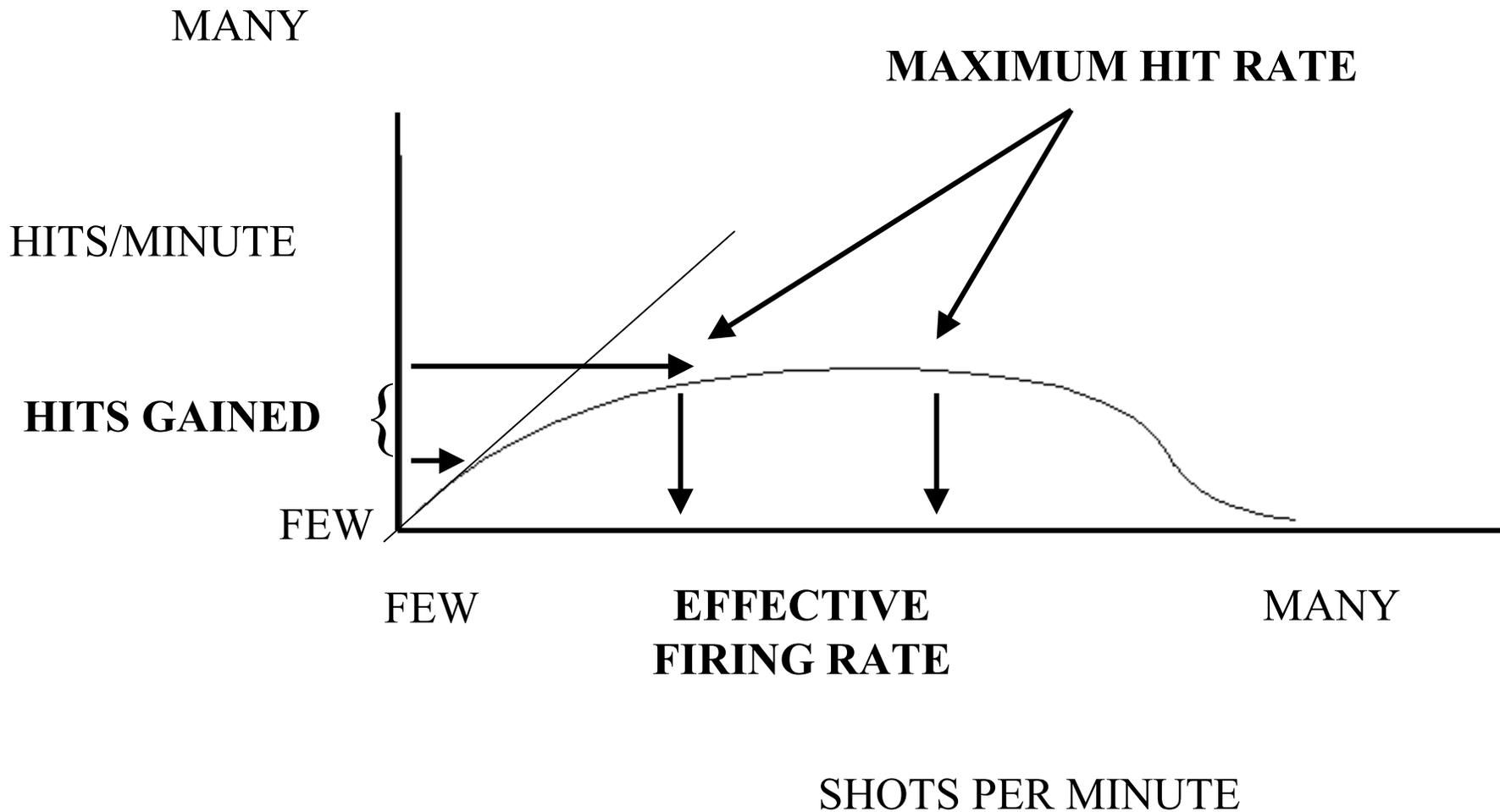


**THE RAPID SAMIAUTOMATIC SHOT RATE CURVE**

**“SEVERAL SHOTS, MORE HITS”**

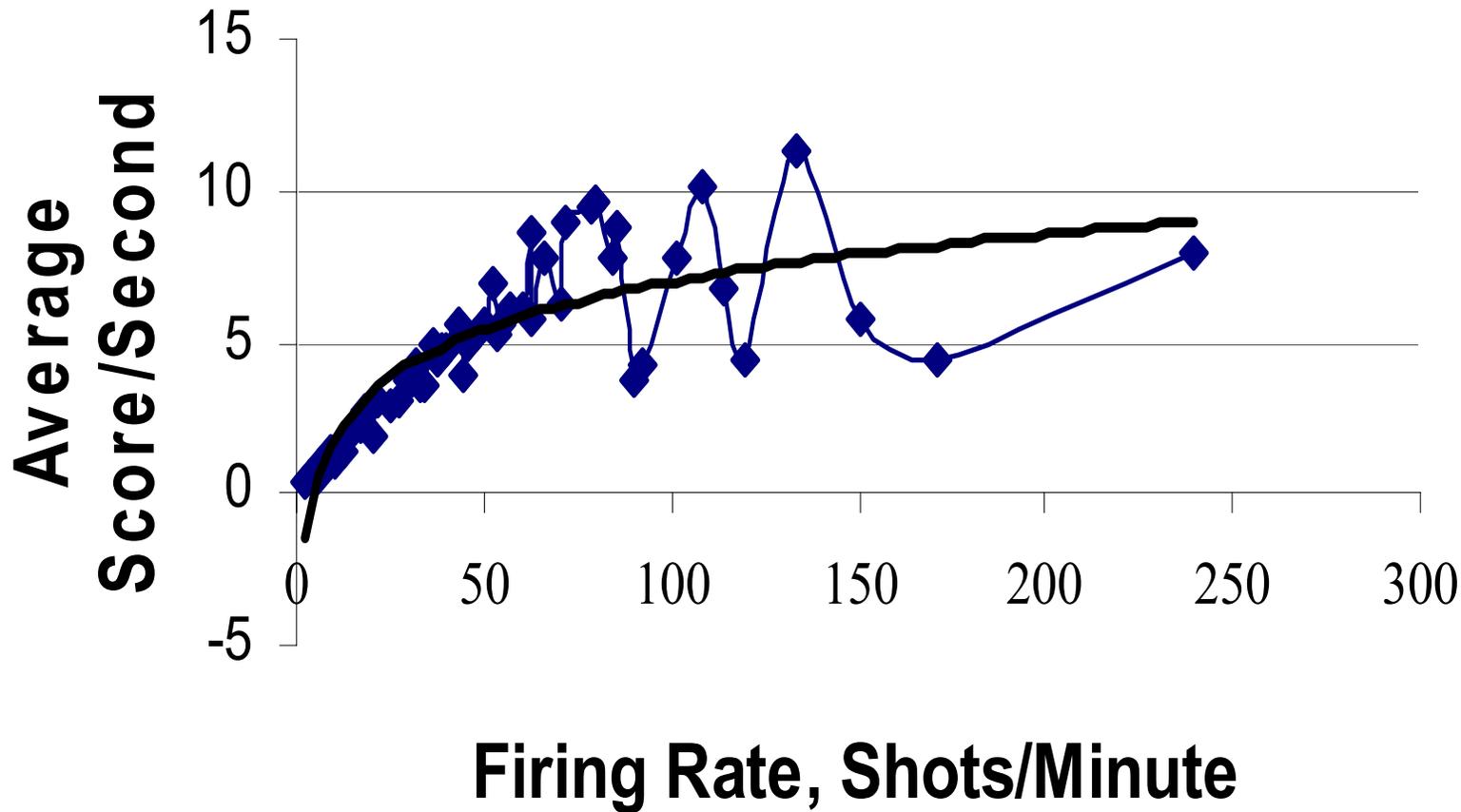


**HITS GAINED BY INCREASING RATE OF FIRE**

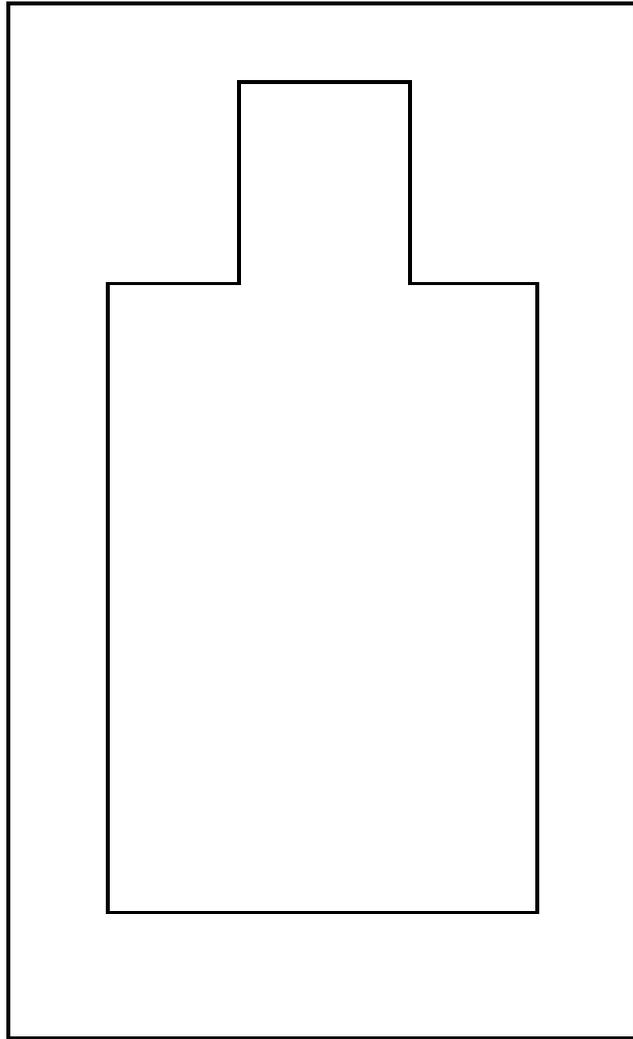


# EXPERIMENTAL DATA

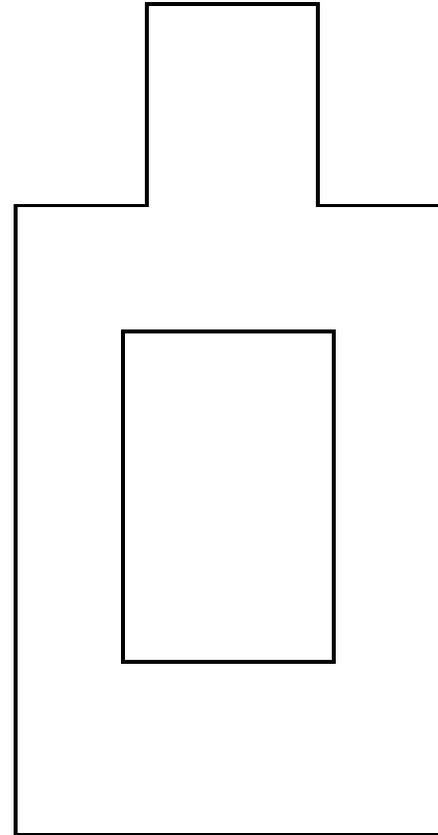
Intended Firing Rate	Average points/sec	Average points/shot	Actual firing rate shots/min
Unlimited (slow fire)	1.37	7.38	11.59
30 shots per minute	4.56	6.89	39.65
40 shots per minute	5.55	6.46	51.71
<b>60 Shots per minute</b>	<b>6.26</b>	<b>5.77</b>	<b>66.60</b>
<b>120 Shots per minute</b>	<b>7.29</b>	<b>3.56</b>	<b>125.30</b>



**POINTS PER SECOND VS. FIRING RATE**

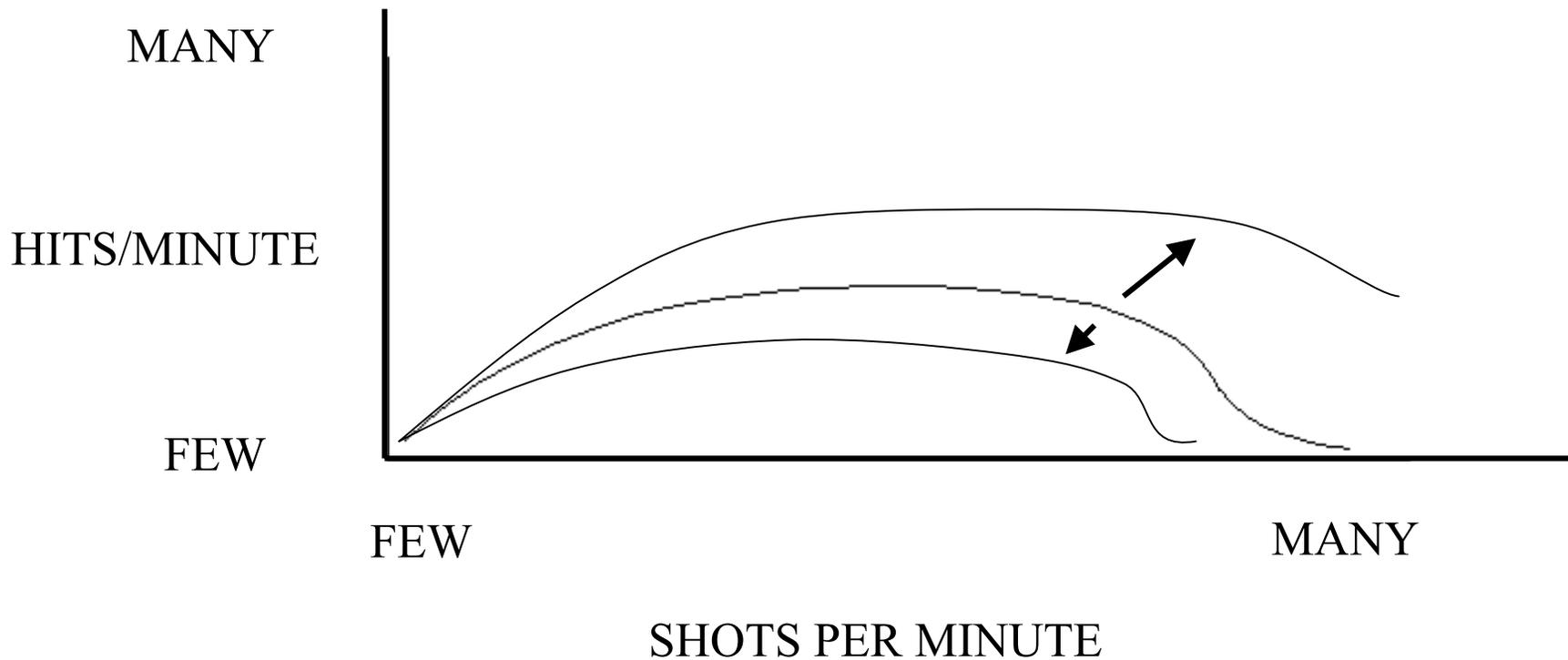


Ph less than 1

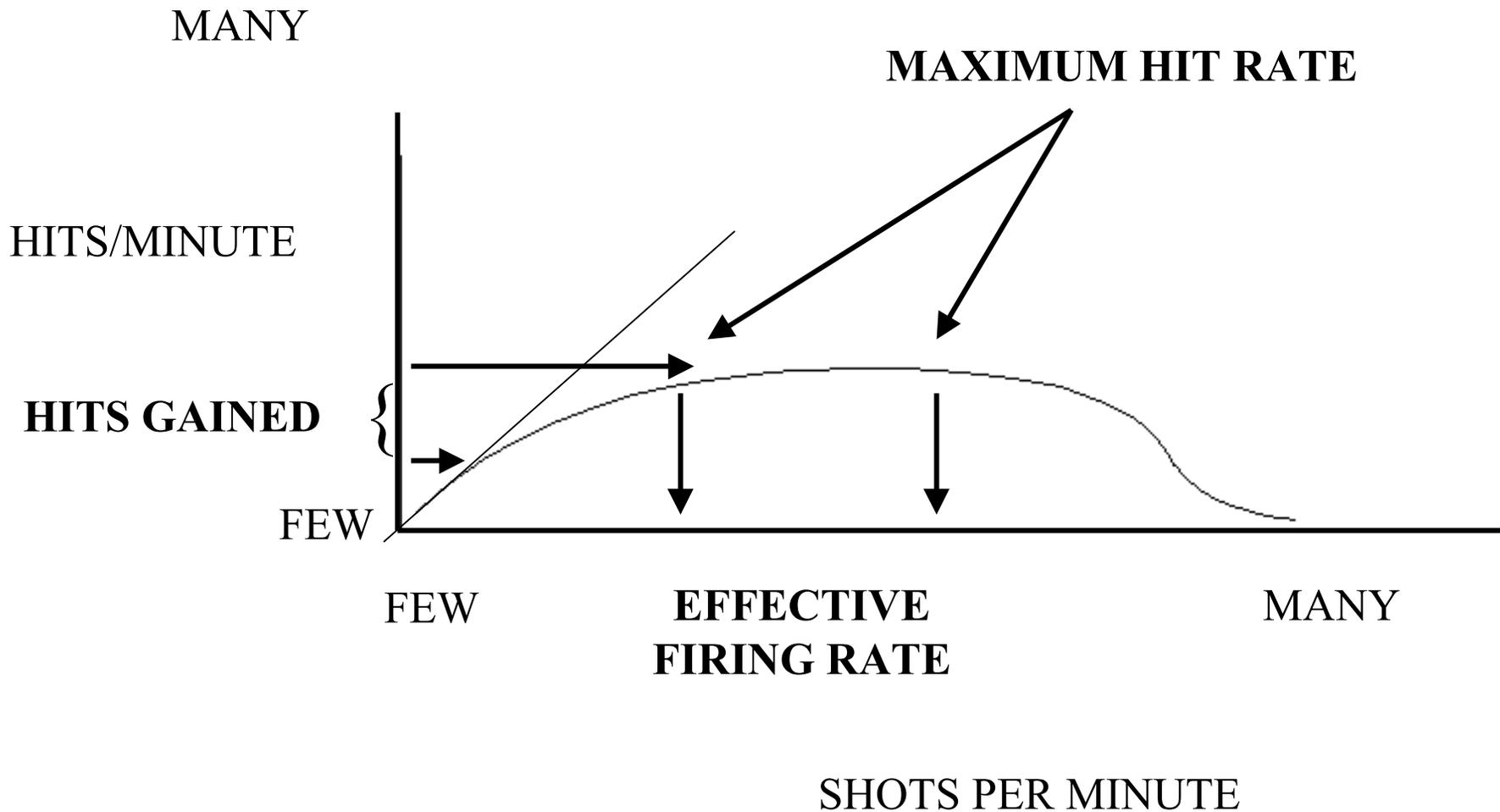


Ph = 1

**THE TARGET AND THE WINDOW**



## EFFECT OF CHANGE



**1. Make Disciplined, *Rapid Semiautomatic fire the close-combat norm.***

**2. Raise the Curve**