



## Short Case Study

# Mystery of a Rifleman: a case history

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## Abstract

*This paper is based only on the basis of the evaluation of the history, experiment conducted on the 5.56mm INSAS rifle as per discussions held among the forensic ballistics experts on the queries raised by the investigating officer of the case, chemical tests performed on the firearm and laboratory examination carried out in the forensic science laboratory etc. It is pertinent to mention here that the author of the case has not visited at the scene of crime, no reconstruction of scene of crime was done, the body of deceased person was not examined by the author, the clothes worn by the deceased person were not examined by the author in the forensic science laboratory due to non availability of the same, no photograph of the scene of crime were produced before the author, the post mortem report was not examined by author due to non availability of the same on the present file in the Forensic Science Laboratory. Further this study is based on the basis of examination of the fired cartridge cases, and experiment carried out by the author in the Forensic Science Laboratory etc.*

**Keywords:** Rifle, cartridge cases experiment and ballistics expert.

## Introduction

Sometimes it becomes very difficult to conclude immediately to determine what had happened? How had happened and why had happened? It becomes very tough to prove and conclude the actual truth of incidents especially in those cases where no scene of crime was attended, no scene of crime was reconstructed, no photographs related with scene of crime are available on the present file, no post mortem report was examined etc. In these circumstances we can make our assumptions only that such might had happened. It is also pertinent to mention here that Some researchers like Armour A.<sup>1</sup> have studied the cases of gunshot suicides, Amiri A. et al.<sup>2</sup> have studied the cases of firearm fatalities and many more researchers like Biasotti, A. and Murdock J.<sup>8-10</sup> have studied how to make the judgment regarding the linkage of the crime cartridge cases with the firearm on the basis of available tool marks and their identification. However, Bissoti A.<sup>11</sup> have already studied the individual characteristics of the fired bullets. He also studied the methods of rifling<sup>12</sup> and further he had earlier studied<sup>13</sup> how to use prove it as an evidence. Here in this paper we have studied the theory adopted by these authors along with the theories adopted by many other authors like Grewal et. al.<sup>20</sup>, were also studied in detail.

Here in this research paper we have discussed such incident which was examined by the author himself in person with a group of ballistics experts. The story mentioned in the DDR was narrated that two armed persons named Mr. 'X' and Mr. 'Y' were on their duty. Both were discussing on some issues and were very busy in their conversation. Suddenly the complainant

Mr. 'X' heard a loud noise and for one moment he thought that perhaps some tyre of any vehicle may have been bursted, he was thinking so then suddenly he turned his face towards his colleague Mr. 'Y' and he was shocked to see that his colleague Mr. 'Y' has got laid down and a flow of blood was blowing with a high speed. Then he was confused that what has been happened actually. He assumed that his rifle has got fired. He called his other colleagues immediately for the help and narrated them the incident. All took him to the hospital where the doctors declared him as "Brought Dead". Then all were confused what had happened in actual and local police as well as the higher officers of the unit were informed about the incident. What were the circumstances the author does not know much more but the investigating officer has mentioned in the DDR of the case that the body of the deceased was handed over to the family after the post mortem. No forensic expert was called on the spot.

The firearm of the offence i.e. the INSAS rifle was taken into the custody, the fired cartridge cases recovered from the spot were collected and only these exhibits were sent to the Forensic Science Laboratory for the further examination. No other exhibits were sent to the Forensic Science Laboratory. So it was very tough to ascertain whether it was a case of accidental firing or otherwise.

However, the query of the investigating officer were very important, the first query is whether the fired cartridge cases recovered from the place of occurrence have been fired from the firearm of the offence or not, and one most important query that whether the firearm is capable of performing any accidental

firing or not. So keeping in view the above said queries the author decided to examine this case in detail. Some colleagues also helped the author in solving this case. And it was assumed

that such may had happened. Or such may had happened but no certainty could be given. However, the concrete reply is fully justified.



**Figure-1:** Showing that how the rifle man has tied his rifle with the iron chain. One end of the iron chain has been tied in his belt while the other end has been tied with the rifle for the safety of the firearm so that no one can snatch it away. Almost all security personnel in our country tie in similar way.



**Figure-2:** Showing that the lace of the shoe has been entangled in the trigger of the rifle and it may pull it which may cause the firing.





**Figure-3:** Showing that iron chain entangled with the trigger.



**Figure-4:** Showing that the trigger is entangled with the hemline/mori of the pant.

## Laboratory examination

The said INSAS rifle was examined in the Forensic Science Laboratory by performing various chemical tests. It was confirmed that the said firearm had been fired through. Thereafter test firings were also conducted from the said firearm and the fired cartridge cases recovered from the spot were compared with the test fired cartridge cases, after examination it was concluded that all the fired cartridge cases recovered from the spot have been fired from the said INSAS rifle.

Thereafter, to ascertain the possibilities of accidental firing the said INSAS rifle was examined by performing various aspects and it was found that the said rifle is in good condition and it cannot perform any accidental firing.

Thereafter a committee of some Ballistics expert was constituted to find out all such possibilities in which the firearm can fire automatically/accidentally if it is handled improperly. During the discussions the group of the experts concluded that in the following situations this firearm can perform accidental firing.

**Situation/Que. No 1:** The possibility that if the trigger is entangled with the shirt, whether the rifle will fire or not?

Ans. By considering this situation/possibility, the rifle in cocked position was given to a police person, the trigger of the rifle was entangled with the button of the shirt and he was asked to hold the rifle on upward position and it was observed that it got fired.

**Situation/Que. No.2:** The possibility that if the trigger is entangled with the iron chain (which is usually used by armed personnel to hold the rifle whose one end is always found tied with their belt and the other end is found tied with the trigger guard of the rifle), whether the rifle will fire or not?

Ans. By considering this situation, the rifle in cocked position was given to a police person, the trigger of the rifle was entangled with the iron chain and he was asked to hold the rifle on upward position and it was observed that it got fired in both situation i.e. when the rifle was asked to hold in upward position as well as when the chain was pulled in downward position.

**Situation/Que. No. 3:** The possibility that if the trigger is entangled within the hemline (mori /bottom line) of the pant, whether the rifle will fire or not?

Ans. By considering this situation, practical test was conducted by giving the rifle in cocked position to a police person, twice i.e. once the police person was in standing position and second time he was in sitting position on chair or somewhere else the trigger of the rifle was entangled with the hemline (mori/bottom line) of the pant and he was asked to hold the rifle was hold on upward position and it was observed that it got fired.

**Situation/Que. No.4:** The possibility that if the trigger is entangled within the lace of the shoe, whether the rifle will fire or not?

Ans. By considering this situation, practical test was conducted by giving the rifle in cocked position to a police person, the lace of the shoe was entangled with the trigger of the rifle and he was asked to hold it on upward position and it was observed that it got fired.

**Note:** The experiment was repeated again and again till the final discussion and completion of all arguments of the experts. On completion of this experiment it was concluded that if the said 5.56mm INSAS rifle is mishandled then it can fire automatically if and only if it is in cocked position and the trigger is entangled with something otherwise the firearm is not capable of performing accidental firing. Therefore in the above said situations the said 5.56mm INSAS rifle can fire automatically which can be given the name of accidental firing. However, the undersigned gives the name of such firing as mishandling. If the said rifle is handled properly it cannot fire accidentally.

## Conclusion

On the basis of the above said examination carried out in the Forensic Science Laboratory and various discussions held among the group of ballistics experts and practical tests performed for such possibility it was concluded that possibility of accidental firing cannot be ruled out completely in these circumstances. So the said case may be of accidental firing.

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