

TRAINING NOTES



SMALL ARMS INTEGRATION: *BRINGING IT ALL TOGETHER*

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As the Army continues its drive to transformation, the number and variety of weapon-mounted sights and accessories arriving in units is growing. Intended to improve the individual Soldier's lethality and survivability, the growing number of systems reaching the field has had one unfortunate side effect — confusion.

As portrayed in Figure 1, the number of items a Soldier can mount on his individual weapon presents him with a dizzying array of choices. Deciding where and how to mount a particular device is complicated by conflicting real-estate claims and integration issues associated with operating envelopes of other devices. Additionally, new mounting surfaces were added to weapons, multiplying the configuration options and the associated challenge of successfully employing the devices.

Heeding feedback received from a variety of units, the U.S. Army Infantry Center initiated an effort to develop a document that would

answer the many questions posed by Soldiers. Working with the Project Manager (PM) Soldier Weapons and the Project Manager Soldier Equipment, an outline of the information contained in the Small Arms Integration Book (SAIB) was developed. The SAIB provides:

- Real-estate claims for sights and accessories for both individual and crew served weapons;
- Installation and mounting instructions for sights and accessories;
- Zero target offsets for each sight or accessory;
- Descriptions and abbreviated operating instructions for each accessory covered in the book; and
- Platoon-level equipment tables matching weapons and accessories to an individual Soldier's position with the rifle platoon.

An intense and sustained team effort was required to create the Small Arms Integration Book. Government agencies and contractors worked together to design and produce a comprehensive, easy-to-use reference book that would meet the information needs of Soldiers in the field. Key players included

the U.S. Army Infantry Center (USAIC), the PM Soldier Weapons, PM Soldier Sensors and Equipment, U.S. Army Tank-automotive and Armaments Command-Armament Research Development and Engineering Center (TACOM-ARDEC), TACOM-Rock Island, U.S. Army Communications-Electronics Command (CECOM), and various units throughout the world. The 29th Infantry Regiment and 75th Ranger Regiment provided valuable input vital to determining the data contained in the Small Arms Integration Book and in finalizing the design of the book.

The SAIB is not a technical manual (TM) nor is it intended to replace TMs. It is more accurately described as a leader's guide used to prepare weapons for deployment and employment. The book incorporates information from the most up-to-date sources available, much of which is contained within existing TMs.

Unlike technical manuals, there is a mix of artwork and photographs in the Small Arms Integration Book to illustrate mounting instructions and, as it matures, more line art will be incorporated to ensure Soldiers have the clearest and simplest mounting instruction diagrams possible.

Figure 1



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The SAIB is organized into separate weapon chapters including the M16A2, M4/M4A1 Carbine, M16A4, M24, M249, M60, M240B, M2 and MK19. Each weapon chapter is divided into sections with mounting instructions and offset targets for that weapon's accessories and devices.

Device mounting instructions and offset targets are at the heart of the Small Arms Integration Book. The first two versions of the book attempted to provide a "schoolbook" solution for each weapon and device. Feedback from the field consistently indicates a preference for publishing all possible mounting configurations. As a result, the most recently published update of the SAIB (March 2002) includes many more weapon and device configurations. Some of the data contained in the SAIB include mounting instructions, 25-meter zero target offsets, and 10-meter boresight target offsets (Figure 3).

In addition, safety warnings and other important information was added from technical manuals and a number of annexes were also provided offering information on device diagrams with abbreviated operating instructions; Infantry Platoon Equipping Diagrams (Figure 2); a battery cross reference table, bore light zeroing procedures; and a consolidated target offset summary table. These are just a few examples of the information included to ensure the Small Arms Integration Book is an even more useful reference.

The SAIB was published on three previous occasions. The first two distributions were limited to developers and select units, in order to obtain feedback to assist in the final design of the book. The third edition of the SAIB (August 2000) included the shipment of more than 300 CD-ROMs to all Special Forces, Ranger and Infantry Battalions. It was also placed on the U.S. Army Training and Doctrine Command's (TRADOC's) General Dennis J. Reimer Training and Doctrine Digital Library.

As a result of the positive feedback received by the USAIC, the latest edition of the book was updated and published in March 2002. In addition to incorporating comments and corrections received from units about the last version of the book, many supplemental device mounting configurations with accompanying target offsets were included.

The SAIB is accessible via the Internet at www.adtdl.army.mil/cgi-bin/atdl.dll/st/saib/saib.htm.

Units reported significantly improved weapons qualification results when using the information contained in the Small Arms Integration. Release of this most recent update of the SAIB is expected to build on the success of previous releases, easing the Soldier's burden while enhancing his lethality and survivability.

Colonel Michael Smith is currently serving as Project Manager Soldier Weapons at Fort Belvoir, Virginia.

Figure 2 - IBCT Infantry Platoon

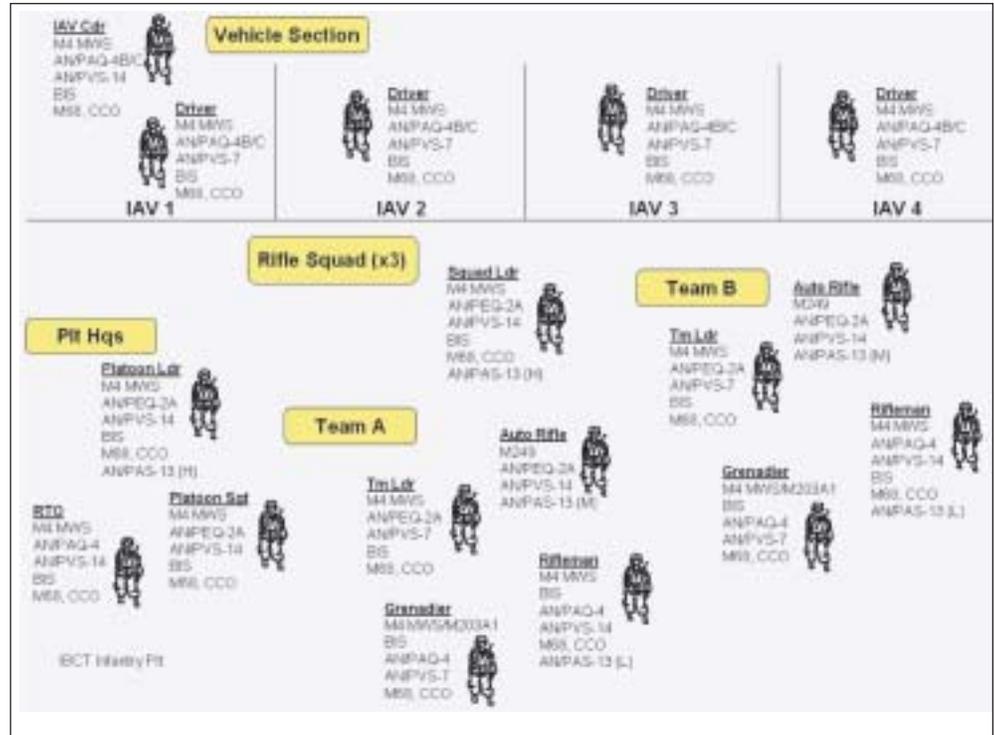
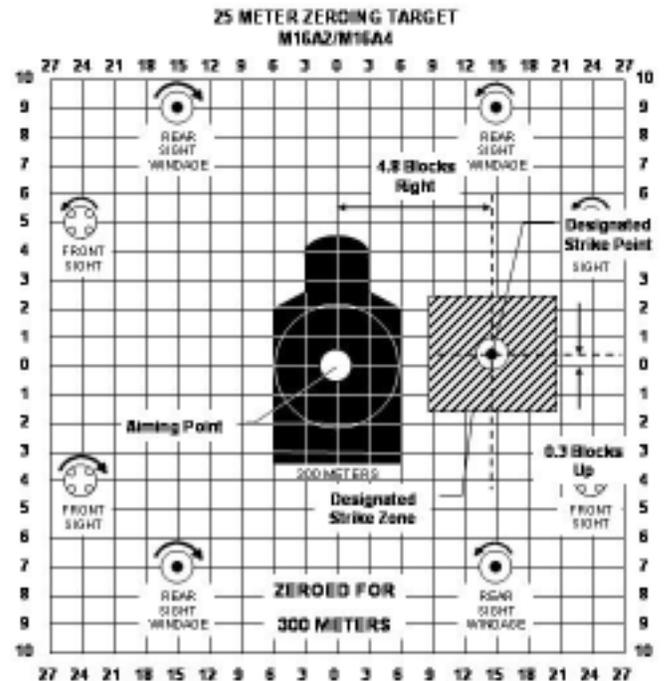


Figure 3

M4 MWS with ANPEQ-2A Mounted Using Mounting Bracket/Picatinny Rail Grabber on Left Side Rail



- ZERO TARGET DATA FOR M16A2/M16A4 RIFLE
- FOR ZEROING AT 25 METERS, ROTATE THE REAR SIGHT ELEVATION HMOB TO THE 300 METER SETTING, THEN COUNTERCLOCKWISE (UP) ONE CLICK, PAST THE 300 METER SETTING FOR M16A2 RIFLE, COUNTERCLOCKWISE (UP) TWO CLICKS, PAST THE 300 METER SETTING FOR THE M16A4 RIFLE.
 - AIM AT TARGET CENTER. ADJUST SIGHTS TO MOVE SHOT GROUP CENTER AS CLOSE AS POSSIBLE TO THE WHITE DOT IN THE CENTER OF TARGET.
 - AFTER COMPLETING THE 25 METER ZERO, ROTATE THE REAR SIGHT ELEVATION HMOB COUNTERCLOCKWISE (DOWN) ONE CLICK TO THE 300 METER SETTING FOR THE M16A2 RIFLE, DOWN TWO CLICKS TO THE 300 METER SETTING FOR THE M16A4 RIFLE. THE WEAPON WILL BE ZEROED FOR 300 METERS.