



**U.S. Army Research Institute  
for the Behavioral and Social Sciences**

**Research Report 1867**

**After Action Reviews: Current Observations and  
Recommendations**

**Margaret S. Salter  
Gerald E. Klein**  
The Wexford Group International, Inc.

**January 2007**

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**U.S. Army Research Institute  
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# AFTER ACTION REVIEWS: CURRENT OBSERVATIONS AND RECOMMENDATIONS

## EXECUTIVE SUMMARY

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### Research Requirement:

In cooperation with the Operations Group of the Joint Readiness Training Center (JRTC) at Fort Polk, LA, the present investigation sought to provide an independent assessment of the conduct of After Action Reviews (AARs) at the Combat Training Centers (CTCs), and specifically at the JRTC. The JRTC is a key AAR analysis venue since in the contemporary operating environment, the likelihood of small unit leader involvement in decision-making situations has increased. The greater participation of junior leaders and Soldiers has brought a renewed focus on the AARs conducted at platoon and company level.

### Procedure:

In addition to an extensive review of literature focusing on the AAR, its history and current implementation, researchers observed forty small unit (platoon and company) JRTC AARs in real time and via videotape. The AARs were compared to each other, and most importantly, to the Army standard as shown in Training Circular 25-20, *A Leader's Guide to After-Action Reviews* (Department of the Army, 1993). Interviews with JRTC Operations Group personnel, to include current and former Observer/Controllers (O/Cs), supplemented these observations. Additionally, the instruction provided for new O/Cs at the JRTC O/C Academy was observed. Current findings were compared with results of other research on AARs and similarities noted. As a deliberate byproduct of the research, a prototype AAR rating scale was created for possible use as a job aid or performance checklist, or for use as an instructional tool during O/C training.

### Findings:

The results of this research confirm earlier findings indicating that the AAR must be both a science and an art. The steps in an AAR are well detailed, in multiple source materials, and most O/Cs observed appeared to understand the basic requirements. The O/Cs were well-trained, enthusiastic, and clearly interested in helping the units. Some O/Cs were nearly textbook perfect. Their AARs were extraordinary and the units clearly appreciative and able to benefit from the shared experience.

However, many of even the most proficient O/Cs tended to err on the side of providing too much information, thereby turning the AAR into a critique or lecture instead of a discussion. In some instances, this was due to an over reliance on



preformatted and prepared slides. The O/Cs appeared to feel they had to cover all the material available, regardless of relevance. Some O/Cs failed to remember that questions addressed to the unit were to be probing and thought provoking, to help reduce the potential “fog of war” through replay of mutually experienced events. Discussion was limited and the unit did not benefit as much as they might have. Facilitating a dialogue rather than providing a critique is a skill that must be developed and reinforced in O/C training and in practice if units are to receive maximum benefit.

Based on the very limited sample of AARs observed, no systematic patterns could be discerned other than as stated earlier. Some AARs started out poorly, and then improved as the time passed. Some sections went well while other parts of the same AAR did not. Some AARs did not appear very enlightening to the unit at the beginning, but later provided good information during discussions of areas to be sustained and improved.

Recommendations for enhancements to O/C training were developed, as well as a preliminary AAR rating scale that might be used as a job aid or performance measure during O/C training. The scale, similar to an AAR checklist, would enable O/Cs to compare their performance to optimal performance, thereby increasing the likelihood that their AARs would model the best AAR possible.

#### Utilization and Dissemination of Findings:

This report describes the six month AAR assessment and results of exploratory research on the AAR as currently conducted at the JRTC. Initial feedback provided to ARI was followed by a set of briefings to Operations Group personnel on September 19, 2006. The briefings provided indications of both the strengths and weaknesses of the AARs observed, providing specific examples from AARs examined. The briefings recommended ways in which the JRTC might add to their existing training to ensure all O/Cs maintain the optimum standard. A preliminary checklist describing key aspects of the AAR and describing optimum and less than optimum behavior during these elements was provided as a starting point for a training aid or self-assessment tool to facilitate this process. Based on the September briefing, the Operations Group immediately developed an action plan to address the issues and concerns outlined in the present report.



# AFTER ACTION REVIEWS: CURRENT OBSERVATIONS AND RECOMMENDATIONS

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# After Action Reviews: Current Observations and Recommendations

## Introduction

The Army's much imitated method for providing units feedback on performance is known as the After Action Review (AAR). Rarely does a formal discussion of the AAR begin without a verbatim quotation from the first paragraph of the 1993 Training Circular (TC 25-20), *A Leader's Guide to After-Action Reviews*. It states, "An after-action review (AAR) is a professional discussion of an event, focused on performance standards, that enables Soldiers to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses (Department of the Army (DA), 1993, p. 1-1)." <sup>1</sup> The key words, "discover for themselves" are, however, sometimes overlooked in practice. This observation provided the start of this research.

### *Purpose of the Current Research*

The purpose of this research was to examine the AAR process as practiced at the Joint Readiness Training Center (JRTC). The Global War on Terror has changed the way the Combat Training Centers (CTCs) are structured, the training events more closely reflecting current operations as mission rehearsal exercises. Battalion and brigade operations and their subsequent AARs have remained little changed since, encompassing large numbers of elements, they are heavily dependent on computer-generated statistics and accompanying multi-media presentations. They require preplanned slides, and considerable structure, so Observer/Controllers (O/Cs) can finish in the allocated time limit.

Company and platoon AARs have a time limit as well, but with fewer personnel involved. Coupled with the smaller scale of the operations discussed, this makes a more personalized, small group AAR, one which ought to be, if conducted correctly, optimally beneficial to help units prepare for future operations. At company and platoon, the focus is on individual unit personnel discovering and identifying their own problems, followed by their own development of realistic solutions to prevent recurrence of those problems. Decision-making responsibilities are shared by Soldiers at low levels. The JRTC Operations Group articulated a need to re-examine AARs at company level and below to ensure that O/Cs have adapted to this focus and also that they are fully able to understand and then implement the goals of an AAR.

Working with the JRTC and with the U.S. Army Research Institute (ARI), the researchers used a holistic approach to examine the current AAR process. This short term research effort was focused on how O/Cs are applying the rules of the AAR, through observation of AARs, examination of existing training methods, materials, and resources used at JRTC, supplemented by interviews. An additional task was to

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<sup>1</sup> *A Leader's Guide to After-Action Reviews* (TC 25-20, DA, 1993) uses a hyphen in After-Action Review. Current usage in, for example, Field Manual (FM) 7-0, *Training the Force* (DA, 2002) omits the hyphen, as does this present document. Similarly, current usage capitalizes the word Soldier and uses the acronym O/C instead of OC to refer to Observer Controllers.



suggest potential training solutions for any identified shortfalls through initial development of measures of O/C performance and effectiveness emphasizing the role of group facilitators.

### *The Army's AAR Process*

The AAR is the Army's primary feedback process after collective training events. The aforementioned TC 25-20, unchanged since its original printing in 1993, is a 31-page document with a preface, a four-page Appendix (After-Action Review Techniques) and a two-page glossary. It lays out the steps in conduct of an AAR. The five chapters of TC 25-20 comprise The After-Action Review, Planning the After-Action Review, Preparing for the After-Action Review, Conducting the After-Action Review, and Following Up (Using the Results of the After-Action Review).

The initial chapter covers the definition and purpose of an AAR and how the AAR fits into an overall evaluation process. It describes the different types of AARs and provides suggested key points to include, as well as a guide to possible formats. The second chapter describes AAR planning. It covers leader/evaluator training, a discussion of attendees, and selection of sites and training aids. Although this chapter introduces the term Observer Controller (OC, or more commonly, O/C), most references are to the AAR leader. The preparation chapter reminds AAR leaders to review doctrine and to select a few key events from the many possible for the AAR. It includes hints on observations and note taking, to prepare a leader to construct the elements of the AAR.

Conduct of the AAR, arguably the most important element of the document, appears in Chapter 4 and offers AAR rules of engagement. It defines much of the leader's behavior and suggests a sequence from mission intent (friendly and enemy) through the discussion of key issues (focus items), ideally to include both tasks to sustain and tasks to improve. In many AARS, the latter weighs most heavily, and a how-to-fix section is added to the agenda. The follow up, Chapter 5, suggests opportunities to use AAR results as a basis for re-training before combat, or to effect changes to standing operating procedures or unit tactics, techniques and procedures (TTP).

In addition to the stand-alone TC 25-20, the AAR is mentioned prominently in key Army Field Manuals (FMs), in both the original and recently revised iterations. For example, FM 7-0, *Training the Force* (DA, 2002) notes that the "AAR, whether formal or informal, provides feedback for all training. It is a structured review process that allows participating Soldiers, leaders and units to *discover for themselves what happened* during the training, why it happened, and how it can be done better" (DA, 2002, p. 6-4, italics added). The AAR differs from a critique in that, correctly done, it focuses directly on key training objectives. It emphasizes Army standards rather than successes or failures, uses leading questions to encourage participants in self-discovery, and allows active participation from many individuals and leaders, to facilitate recall and sharing of lessons learned.

The FM 7-0 defines the four parts of an AAR: review what was supposed to happen, establish what happened, determine what was right or wrong with what



happened, and determine how to do the task differently the next time. It further states that leaders should play “a critical role in guiding the discussions so conclusions reached by participants are doctrinally sound, consistent with Army standards, and relevant to the wartime mission” (DA 2002, p. 6-5).

Similarly, FM 7-1, *Battle Focused Training* (DA, 2003) comments on the amount of learning that occurs because of AARs. Chapter 6 focuses on assessment, and stresses that an AAR is not an evaluation. It suggests that a well-executed AAR improves performance and builds a cohesive and proficient force. It reminds the reader “because Soldiers and leaders participating in an AAR actively discover what happened and why, they learn and remember more than they would from a critique alone. A critique is only one viewpoint and frequently provides little opportunity for discussion of events by participants” (DA, 2003, p. C-2). The FM 22-100, *Army Leadership* (DA, 1999) also defines the AAR as a professional discussion of an event and urges use of the AAR as a leader’s tool.

As noted in all doctrinal references, AARs vary in their degree of structure and formality, partially in proportion to the amount of time available to prepare. In the field, within-event AARs conducted during breaks in the action, are commonly known at the CTCs as “green book AARs,” reflecting the green booklets in which O/Cs make their notes. At company and platoon level, final AARs occur within hours of the conclusion of the exercises. After those AARs, senior O/Cs rehearse and facilitate full and increasingly formal next day or later in the same day AARs for battalion and brigade personnel.

Regardless of the echelon or formality, an AAR should support questions that stimulate thinking and elicit discussion, particularly queries that allow the unit to discover for themselves what happened. A properly executed AAR enables unit personnel to come to a collective assessment of their performance. Full group participation and honest feedback are critical to the learning process, and are often dependent on the O/C’s successful distinction between facilitating a discussion and presenting a lecture.

Questions on what happened are relatively simple to answer by studying the record of the battle and reconstructing the unit’s memory of events. More difficult are questions about why something happened or failed to happen, and how performance can be sustained or improved. Those questions require problem solving by the unit. The AAR, a discussion by the group as a whole, encourages a shared mental model and a common understanding of what happened. A unit participating together maintains unit integrity through responding to open-ended, non-judgmental questions, where memories complement each other.

Repeatedly, the Army literature stresses that an AAR is neither an evaluation nor a critique; that the leader must not lecture to the unit, or interject personal opinions. The unit is to use self-discovery, accomplished through artful questioning by the leader. The O/C’s role is to keep the discussion focused on the key points. The O/C stays out of the internal discussion to elicit a unit product, where the unit assumes ownership of both the problems and the solutions. The process becomes guided discovery learning, where the



O/C does not participate so much as providing direction and keeping the unit focused on the issues.

### *History of the AAR*

According to Morrison and Meliza's comprehensive 1999 overview, the genesis of the modern AAR may be historian S. L. A. Marshall who documented events during World War II, and the Korean and Viet Nam Wars. Marshall spoke with Soldiers in theatre, immediately after combat actions, and although sometimes disparaged because of limited numbers, his efforts were arguably the first AARs. The lack of modern technology restricted first-hand observations and documentation of battles as reporters were limited by place and time. Marshall's efforts were an attempt to describe what actually happened, relying on the real time, post-event memories of participants.

The modern day AAR process evolved in parallel with tactical engagement simulations, first used extensively for pre-combat training at the National Training Center (NTC). The AAR spread throughout the Army, and to other Services, and, in slightly altered form, to the business community. Since its development, the AAR has been part of a cultural change, in which realistic AARs or feedback sessions, frequently called "hot washes," are now embedded in all training (DA, 1999, p. 181).

Morrison and Meliza (1999) described early training events where onsite observers ("umpires") scored unit performance. The observer's vantage point was limited to what he actually saw with his eyes or binoculars. Depending on his location, and on his expertise, the real time feedback provided to the unit was one sided, and not necessarily instructive. The Multiple Integrated Laser Engagement Simulation (MILES), operational in the 1980s and now used extensively at the CTCs, provided increasingly better opportunities to document performance feedback to units. The benefits of the CTC force-on-force free play environment were complemented by this ability to accumulate statistics on both friendly and enemy casualties through MILES. The numbers, coupled with O/C feedback on their observations, gave the unit measurable indicators of performance, and enhanced the O/C's likelihood of providing accurate, and accepted, feedback. Performance critiques became evaluations based on objective performance indicators.

Early computer-based simulations such as the SIMNET (simulation networking) and its follow-on Close Combat Tactical Trainer (CCTT) came after MILES. In these training environments, real units interacted over computerized terrain in networked simulated vehicles. The MILES-like feedback was computer-generated and provided real time data. Structured feedback sessions that provided explanations beyond the surface records complemented the data. These computer-generated simulations helped to provide accurate unit feedback, through the increasingly structured AAR.

The modern AAR, cited as a best practice in performance evaluation, has evolved from field-based analysis with immediate feedback, to sophisticated and computer-based commentary on collective training performance. Preparation for the AAR has become a well-planned process whereby data are collected, analyzed for trends, and compiled into complex presentations with cameras recording activities for



later playback. The current AAR merges the commentary of trained on site observers with video. Units move out of the field to replay battles and to review their activities, both successful and less than successful.

Seen in many forms and venues since its development, the AAR, done properly, is a valuable tool to help units understand their most recent performance – whether a training event or a combat activity. Correctly executed, the AAR combines the unit's perspective (what happened and why) with what the O/C saw. The skillful blending of the two represents less ground truth than a picture of what the unit decides it needs to do better next time.

### *Theory Behind the AAR*

Morrison and Meliza (1999) provided part of the reason for the AAR's success by showing its basis in behavioral science, citing feedback, performance measurement, memory, group dynamics, communication, and instruction. Standards and computer-based data collection ensure measurable performance. Feedback includes execution data and discovery of ways to change or improve future activities. This occurs as the O/C coaches the unit through self-discovery. Contributions of memory come from the immediacy of an AAR; digital or print take home packages (THPs) provide reference for later study. Group problem solving techniques help units understand what happened, and how to make changes. Small unit social interactions come from cohesive groups interacting in a non-threatening environment with the O/C as a group facilitator. Communication theory suggests the benefits of open-ended questions based on collective not individual performance. The unit prescribes its own fixes and controls the AAR with the O/C as facilitator while the unit engages in active learning. (Morrison and Meliza, 1999, pp. 24-25, provides a fuller discussion.) In theory, then, the AAR is a continuous learning process reflecting the desire to sustain performance or the need to change behavior in to order to effect more favorable outcomes.

### *Research on the AAR*

There has been considerable research on the AAR, the process, and how to facilitate the products for different venues (e.g., Allen and Smith, 1994; Jensen, Chen and Nolan, 2005; Rakow, 2005). As recently as September 2006, an Internet search brought 188,000,000 hits for the term AAR, and 15,300,000 for the term After Action Review. There is extensive information available about AARs, how to do them and why, in military and non-military environments. Most AARs conducted are at least loosely based on the Army process. Reports also indicate that most AAR practitioners tend to share similar successes and shortfalls.

The majority of the systematic research on AARs has been performed by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI), through research facilities at Fort Knox, KY (Armor), Fort Benning, GA (Infantry), Gowan Field, ID (Mechanized National Guard) and the Simulation, Training, and Instrumentation Command (STRICOM, now PEOSTRI) in Orlando, FL. Their extensive research ranges from AARs on staff training (Downs, Johnson and Fallesen, 1987), to digital and virtual



training (Clark, Lampton, Martin, and Bliss, 2004), as well as future training (Dyer, Wampler and Blankenbeckler, 2005). Other work by ARI's Meliza, et al., has contributed greatly to the understanding of what AARs should be, how best to conduct them, and which tools to use (see Meliza, 1996; Meliza, 1998; Meliza, Bessemer, Burnside and Schlechter, 1992; Meliza, Bessemer and Hiller, 1994; Meliza, Bessemer and Tan, 1994).

ARI research on AARs has included work conducted in live, virtual, and constructive environments. In live environments, real people perform missions, operate real operational equipment, and drive vehicles over real terrain. In virtual environments, real people operate networked simulators on a common terrain database, with networked and updated information. Constructive environments are those where units combine as groups without individual simulation. As unit training programs have evolved to include all three types of training environments, AARs have become increasingly sophisticated. Computer-generated displays have provided O/Cs with the ability to describe ground truth. ARI has assisted in development of automated feedback tools in the effort to provide quantifiable data to supplement on-site observations. However, ARI researchers cited earlier have noted both benefits and limitations of the AAR as it has evolved over time, as the increased capability provided by computer-generated feedback is more and more heavily used.

#### *Problems Highlighted by Specific ARI Research on the AAR*

Meliza has worked with AARs and the early relational databases for man-in-the-loop virtual simulations (SIMNET and CCTT) since their introduction. He explored the differences between automated tools for mounted and dismounted Soldiers, and developed automated aids to complement the AAR. Early work focused on UPAS, the Unit Performance Assessment System for the first armored networked simulation, SIMNET (Meliza, Bessemer and Tan, 1994). As part of an initiative for the Warfighter XXI total Army training, Meliza contributed to development of a standardized Army AAR system (STAARS) for application across live, virtual, and constructive environments (Meliza, 1996). In discussion of the electronic STAARS, Meliza noted, "providing AARs at lower echelons shortly after the end of an exercise is a major challenge for an AAR system, and meeting this challenge requires automation of the AAR aids preparation process" (Meliza, 1996, p. viii.). The intent of STAARS was to facilitate training by standardizing feedback methods with lessons learned, data displays, AAR preparation, and THP tools. Watching units using NTC videos instead of historically archived paper THPs as pre-rotation training aids, Meliza (1996) suggested taping AARs for future use, whether for unit training or for research. This is now standard practice and video tools are used whenever possible.

Standardizing AAR aids leads to "a set of predefined AAR aids that a trainer may select among to fit the outcome of a specific exercise" (Meliza, 1998, p. 2). Having preset AAR tools reduces needed resources (software, time), ensures aids are interpretable and training is task-based. Automated AAR tools help O/Cs spot performance trends to document problems, refresh unit memory, and provide new perspectives and alternate courses of action, encouraging participation. However, citing Gubler (1997), Meliza noted that review of CTC platoon and company AAR tapes



showed differences in the relative amount of talking done by the AAR leader versus the unit, the number of issues identified by the AAR leader versus those identified by the unit, and the proportion of Soldiers that actually contributed to the AAR (1998, p. 23). Only 25% of the AARs reviewed showed high levels of participation by unit members.

More recently, Dyer, Wampler, and Blankenbeckler (2005) worked with potential automated AAR aids for the future Ground Soldier System (GSS). With the GSS (wearable computers, Global Positioning Systems, instant networking and messaging), questions arose about changes to the AAR and AAR tools that might be needed. As more digital systems come into use, more data will be available to units, making the task of preparing for the AAR harder. In the attempt to assess current practices, they interviewed O/Cs from the JRTC, examining automated aids used to support training exercises. Their research evaluated both existing and potential AAR aids examining their relative goodness, completeness, usefulness, and overall utility. They found a difference between the opinions of experienced and inexperienced O/Cs concerning what they needed to conduct AARs. Veteran O/Cs wanted everything possible and less experienced O/Cs feared that too much information would be overwhelming.

Irrespective of experience, their O/C interviews reinforced the rule that, regardless of the automated data available, the trainer is the key to helping the unit. The authors further cautioned that while AAR tools should assist the trainer and the unit, the aid should not become the focus of the AAR. "An aid should not be used when it detracts, is irrelevant, or simply does not contribute to the major points to be made" (Dyer, et al., 2005, p. 51).

Others have cited problems between the ideal AAR, and the AAR as often practiced. Studying principles of effective feedback with command group training on the Army Training Battle Simulation System (ARTBASS), ARI researchers used content analysis to code video tapes according to utterances by content areas. They viewed six videotaped ARTBASS AARs that showed both effective and ineffective behavior. The authors (Downs, Johnson and Fallesen, 1987) discovered that leaders made use of comments instead of questions. Most questions referred to a specific performance rather than to the rationale for the performance, future performance, or goals achieved. Their data analysis showed a 5.5 to 1 ratio of comments (1959) to questions (354). Fewer than 18% of all utterances were in the form of questions. They also found that where the leader asked the most questions, there was the greatest degree of unit participation.

Keene (1994) also suggested that preformatted templates and products may help highlight where units at specific levels have recurring difficulties, but also noted that over-reliance may reduce spontaneity and may also encourage O/C critique. Keene encouraged use of both event (situational awareness) and process (task) based content to include overall context and specific task outcome, since the unit's perspective is different from the O/C's perspective.



## *Combat Training Centers and the AAR*

As would be expected, the CTCs generate considerable material about AARs. With the Modeling and Simulation Office, the Field Artillery Branch has published what they refer to as an AAR Toolkit (FA-57 Proponent Office, 2003). The toolkit, provided as a DVD, was developed at the NTC, and can be used for both inexperienced and experienced trainers. It is an interactive guide with references and examples and offers one way to plan, prepare, and execute AARs. The accompanying brochure notes that understanding the AAR process is one of the most important and best ways available to improve Soldier, unit and Army performance.

The JRTC's publicly accessible web site states that O/Cs help make JRTC training effective (JRTC, 2006). The O/C mission (defined as a duty) is to "observe unit performance, control engagements and operations, teach doctrine, coach to improve unit performance, monitor safety and conduct professional After Action Reviews (AARs)." The O/Cs, members of the Operations Group (OPS Group) provide immediate feedback from platoon through brigade task force level, offering unbiased and impartial comments. Every AAR covers a specific mission, highlighting good and bad trends, and enables units to identify weaknesses and, if possible, determine how to address them. An O/C must be current in doctrine and TTPs. A JRTC data collection booklet (JRTC, 1992) lists mission checklists used in collecting data for the AAR, suggesting that data should be used to help prepare for the AAR, help with THPs, and help the overall Army community learn from a unit's experience at the training center.

A more advanced version of this instruction comes in the JRTC O/C Handbook (DA, 2006b) which is updated frequently. It provides standard guidelines for O/Cs, regardless of duty position. A full chapter is devoted to AARs, and begins with the words "After Action Reviews (AARs) are the most important events at JRTC" (DA, 2006b, p. 145). It reminds O/Cs that an AAR is not a lecture or critique, nor is it considered a tactical exercise without troops (TEWT), stating that if an O/C conducts a class on a specific subject, it should be done separately, rather than waste AAR time. It gives an example format, with suggested times allocated for each section of the AAR. It suggests that the O/C spend 25% of the time on what happened, 25% on why, and 50% on how to fix it. A section of AAR tips specifically discusses training aids: "Limit your training aids to those that assist in making a point or clarifying the situation; too many will detract from the AAR and confuse the AAR participants" (DA, 2006b, p. 147). Every O/C is expected to be familiar with, and abide by, these instructions.

Complementing the O/C Hand Book is one describing the JRTC's Exercise Rules of Engagement (EXROE). Its primary focus is on how to operate within the rules at JRTC; however, even this book speaks to the AAR. The 1992 version noted the AAR's status as a process that permits units to discover for themselves what happened and why. It stated "the AAR is not a critique; it is a professional discussion that requires the active participation of all attendees" (DA, 1992, p. 1-1). The 2006 version (DA, 2006a) much more formally states that the EXROE is "a set of orders that prescribe the method of executing training" (DA, 2006a, p.1). The current EXROE has expanded from 15 to 22 chapters to reflect changes in training offered, but the AAR bottom line is repeated



verbatim in the initial paragraphs of the introductory Command and Control Section (DA, 2006a, p. 10).

The on-site JRTC O/C Academy train up for all new O/Cs lasts three days. It includes an 80-minute AAR class, conducted on the morning of the third day.<sup>2</sup> The O/C's primary functions are to observe and control training; coach, teach, and mentor the unit; provide feedback and conduct AARs; and monitor safety. Repeating the material from TC 25-20 (DA, 1993), classroom slides reiterate the AAR definition, and state the purpose and end state of an AAR. The 74 slides cover formal aspects of AARs, as well as local JRTC rules. The overview section is followed by AAR planning, preparations, and formats. It cites alternate forms of the AAR, including written THPs and video recordings. The material covers the AAR in depth, including local JRTC-specific slang and timelines. It provides other Operations Group information, including the use of green books for AAR preparation note taking. The class provides the JRTC AAR format and example focus area slides (rehearsals, priorities of work), as well as slides for specific focus items (command and control; force protection). The material also includes suggested formats for the self-assessment portion of the AAR.

The O/C Academy briefing slides repeat the familiar cautions not to turn the AAR into a lecture or critique. They note that a critique provides only one side of an activity and tends to focus on what went wrong rather than on the training event as a whole. As noted by all others and repeated in the O/C train up class, the lecture format reduces open discussion and usually fosters neither team building nor unit cohesion.

### *Beyond Army Institutional Training*

The AAR, as defined by the U.S. Army Corps of Engineers (2003), is "both an art and a science" (p. 3). They suggest that the AAR is a communications process that can be adapted to large or small groups, and, properly conducted, can influence organizational climate. Regardless of the means or location of an AAR, the basic principles remain to find out what happened and why. The Army Study Guide.com (a non-Governmental site offering resources for Army Promotion Boards) offers a succinct message on slide 5 of its *Total Army Instructor* Lesson 5, Conduct an After Action Review. An AAR is Leader-guided, Soldier-centered, Focused on learning objectives, Visual, and Frequent. Similarly, they reiterate that an AAR is not a lecture. The O/C or leader asks questions during an AAR to increase clarity, keep the discussion going, and encourage the unit to think about the events.

Reserve Officer Training Course (ROTC) Internet sites (e.g., University of Southern Mississippi (USM), and Vanderbilt University) also address the AAR, the process and desired product, in a manner intended to be instructive for potential officers. They caution that the most difficult task for an AAR leader is to avoid turning the discussion into a critique or lecture (USM, p.118). Vanderbilt's ROTC web page provides good and simple advice on how to conduct an AAR (Vanderbilt University,

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<sup>2</sup> O/C Academy Training comprises a series of presentations detailing the material an O/C needs to know to work at JRTC. It reiterates portions of the O/C Handbook and the JRTC EXROE. Presentations are updated as needed. The most recent Program of Instruction (POI) is dated February, 2006.



2005). Slide 4 (of 14) shows what to include (all participants; a focus on the unit, training, and standards; open-ended questions in a positive environment) and things to avoid (lectures, critiques, comparisons, complaints and blame).

A final example of Army AAR focus is found in the POI for the Warrior Leader Course (600-WLC) produced by the U.S. Army Sergeants Major Academy (USASMA), which provides a two-hour class on the AAR. The class includes 65 minutes of conference and discussion, and a 45-minute practical exercise. Again, the material stresses that AARs are not to be critiques. Critiques tend to reflect only the opinions of the instructor or O/C, and do not permit free and open discussion by unit personnel. If the unit does not contribute, it is difficult for them to learn from experience. Specifically, “AARs are not critiques because they do not determine success or failure” (USASMA, 2006, p. 11).

The WLC has within its POI questions and answers to check on learning. At the end of the AAR class, students have an opportunity to study a pre-scripted scenario and then develop key AAR points. These points, the basis for AARs, are discussed with the rest of the class, providing hands on experience and a practical exercise in preparing for and conducting an AAR. In addition to briefing slides, the TSP includes three handouts to be read before class. The advance sheet includes overall instructions, another provides the basis of an AAR from TC 25-20, and a third compares a critique and an AAR, providing specific examples for the student.

#### *The AAR beyond the Military Community*

The AAR is found outside Army institutional training. Darling and Parry provide an example from the business world in a long and frequently quoted treatise for Signet Consulting entitled *From Post-Mortem to Living Practice: An In-Depth Study of the Evolution of the After Action Review* (2000). They looked at how the AAR process (what they termed the Army’s “best practice”) evolved, likening the AAR process to the industry-based term *emergent learning* whereby shared thinking and learning emerge from a team’s work rather than from traditional classroom lectures. They provided a description of the difference between industry’s traditional after project review and the Army method as shown in Table 1.

Table 1

The Difference between Industry Feedback and the Army AAR

<b>Typical Retrospective (After Project Review)</b>	<b>A Living AAR Practice (Army AAR)</b>
Learning happens at the end of the project	Learning happens throughout the project
Called for after failure or high stress	Planned for any project that is core to business goals
Meeting is planned after the project or event	Meeting is planned before the project or event
One meeting with all participants in one room	Meetings with smaller task focused groups
Reviews the entire process	Focuses on key issues relevant to going forward
Produces a report with recommendations	Produces an action plan participants will implement
Focuses more on dissecting past performance	Focuses more on planning of future success

*Note.* Adapted from Darling and Parry (2000, p. 25).



They postulated that single point of view critiques and lectures do not complete the learning cycle since they do not lead to the critical analysis that comes from multiple points of view. They recommended self-discovery, starting at platoon level (granularity), rather than top down “showcase AARs” (Darling and Parry, 2000, p. 26).

Another example is from the Department of Agricultural Education and Communications at Texas Tech University in Lubbock, TX. They offer an on-line Leadership Module on AARs. Starting with the words of TC 25-20, the module refers to the AAR as a *professional discussion* that includes the participants and focuses directly on tasks and goals (Texas Tech, n.d.). They cite advantages of an AAR over a critique and specifically reiterate the Army’s position that an AAR is an assessment that allows employees and leaders to discover what happened and why, and learn from that experience.

## Method

The present research was conducted in several overlapping phases over about five months starting in the Spring of 2006. On site O/C interviews at JRTC were followed by observation of post-rotation AARs and O/C training. Later, videotapes of AARs were studied in depth, and AAR-related materials scrutinized for relevance. Additionally, preliminary measures of performance were developed to assist in training and potential documentation of AAR behavior.

### *Phase One: Observations and Interviews at the JRTC*

In an initial briefing at the JRTC, two experienced researchers met with a group of representative O/Cs and members of the OPS Group to identify JRTC concerns and to develop the research plan. The resulting group discussion, not unlike an AAR itself, was facilitated by the Commander of the OPS Group. Preliminary comments were followed by open discussion about the way AARs are currently conducted at the JRTC, about recent changes to past AAR practices, and about the reasons for those changes. Some of the O/Cs present were in their first tour at the training center, while others were on their second tour. The group of O/Cs, OPS Group personnel, and other senior trainers agreed that most O/Cs know the correct steps in the AAR process. However, most agreed that AAR performance needed tweaking, or at least examination.

Further interviews and conversations occurred with OPS Group personnel and both current and former O/Cs, as well as with the senior JRTC personnel, including the trainers who have primary responsibility for teaching the O/C Academy classes (see page 9). These interviews were supplemented by scrutiny of the O/C train up POI Briefing Slides. One researcher observed new O/C training, including an iteration of the AAR class. The intent of this classroom observation was to determine if existing O/C training methods, materials, and resources are sufficient to enable a new O/C to achieve the goal of learning how to conduct a company or platoon level AAR.

In conjunction with the interviews, three researchers also attended post-rotation AARs conducted at company level and below by both highly experienced and newly



trained O/Cs, in part to see if there were systematic differences between novice and more seasoned O/Cs. Each researcher attended a different AAR where one or more O/Cs (usually a noncommissioned officer (NCO) and an officer) led a platoon AAR several hours after the training event ended. The platoon AARs were followed by observations of three separate company level AARs, held just after the end of the platoon AARs. Although the three researchers observed two battalion AARs and one brigade AAR at the end of that same rotation to provide contextual background, only the company and platoon AARs are treated here.

### *Phase Two: Literature Review*

The Army Field Manuals cited earlier were examined, as were materials downloaded from the Internet, to gain a broad picture of AARs as they are taught. Research that has been done on the AAR process was reviewed in order to identify any recurring problems in the conduct of AARs. AAR instructional materials from the CTCs, ROTC training, and business training programs were collected and reviewed. Similarly, both the O/C Academy POI and the Warrior Leader Course POI were examined. The basis for each document was the original TC 25-20 which was examined in depth. Part of the overall effort included a determination of where the art of the AAR is taught, and who teaches the material. Other questions centered on what materials are used as training aids. Another set of questions focused on identifying extant performance measures, to include possible measures of AAR training performance, measures of performance in practical exercises, and examples of AAR performance feedback.

### *Phase Three: Examination of Videos*

Almost all post rotation AARs are videotaped so units can retain a copy to take back to home station for further review. Additionally, these AARs can be used as training aids. Two researchers carefully examined 34 taped platoon and company AARs, making notes, noting tendencies and recurrent problems, using the elements and steps of TC 25-20 as the basis of the observations. The researchers had no control over which taped AARs were provided for perusal. Units observed comprised both Active and Reserve Component Soldiers from within Infantry Task Forces and Field Artillery Battalions, including both line units and Headquarters and Headquarters Companies. These videotaped AARs were lead by Captains and senior NCOs; some O/Cs appeared very comfortable in their roles as AAR leaders, others less so. All followed the same format as seen in the live AAR observations, and as prescribed in the training literature. The 34 JRTC videos covered a time period of about six months prior to the initiation of this project.

### *Phase Four: Initial Development of Performance Measures*

The final step in this AAR investigation was to develop preliminary measures of O/C performance and effectiveness with the intent of emphasizing the desired role of group facilitator, rather than critic of unit performance. Such performance measures could be used to ensure O/Cs understand AAR goals as well as to provide a measure of



O/C performance effectiveness. They also could be used as an evaluation or supervisory tool, or potentially as a training aid during O/C Academy classes.

As long ago as their 1999 report, Morrison and Meliza suggested the need for an assessment or evaluation process for the AAR itself, whereby participants and third party observers could evaluate AAR sessions. Such measures might alleviate subjectivity. If performance measures were developed, results could provide feedback to leaders to improve their AAR performance. Morrison and Meliza also suggested a checklist of activities that should occur during an AAR as a means of evaluation of the AARs. They noted that, “ironically, AAR leaders, who provide feedback to units, do not have a standardized instrument for receiving feedback on their own performance” (Morrison and Meliza, 1999, p. 58).

## Results

Observations from interviews, videos, and live company and platoon AARs were summarized, and organized into seven key areas of AAR planning and delivery. They are site selection; O/C involvement; introductory slides; situation, mission and graphics; focus items; unit participation; and unit self-assessment. Areas to sustain and areas in need of improvement follow the initial overall impressions; finally, there is a brief discussion of a potential AAR training aid. Examples from good AARs and those that were not so good are provided. Although the researchers’ process of reviewing and documenting the AARs was structured, the results are not. Too often, a single AAR comprised both very good and less than very good performance, the numbers cancelling each other out. Instead, overall trends or patterns are noted. In all instances the researchers were able to agree on assessment of the particular behavior(s) shown.

The results of the present research reinforce the notion that conducting AARs is indeed an art. Some O/Cs are much better at it than others are even though they all have had similar training. Sometimes, O/C performance and adherence to the AAR requirements improved over time; in other instances the AAR appeared to deteriorate. Both the live and videotaped AARs showed that O/Cs appear to know the steps of an AAR, and what is supposed to happen at each phase. Most O/Cs have good intentions and obviously want to help units. However, at the JRTC, like everywhere else, O/Cs often erred on the side of imparting too much information (a lecture or critique). In their zeal to cover everything, they tend to rely heavily on preformatted tools such as slide presentations and graphics. Many appeared to feel that all materials must be covered regardless of unit relevance.

### *Site Selection*

Usually the O/C had little choice as to the location of the AAR. Some were held outdoors, in varying weather and temperature conditions. Unit personnel sat on the ground or in bleachers depending on availability. In one AAR the weather turned cold and then rainy. The unit was seated on bleachers, semi-protected, but all were visibly wiggling and restless from the cold. The O/C did not acknowledge the discomfort by increasing his pace. Other AARS were held inside buildings. In rare occasions, the unit



was seated on chairs; more often, they were on the floor or sitting on the sides of cots. Although usually only one unit was present, in some instances there were other personnel in the room, sleeping or working on computers, but not a part of the specific element participating in the AAR. Once it was apparent from the video tape that two AARs were going on in the same room at the same time but because of limited camera angles, it was impossible to tell the effects on the unit or O/Cs. However, this anomaly was seen only once, and it was apparent from watching the O/Cs set up their areas that they were generally making the best of what was available.

#### *O/C Involvement*

Although it was clear that all of the O/Cs observed were interested in the unit, and in sharing the AAR experience with them, their behavior ranged widely. Some of that was no doubt due to comfort with the AAR process, and some more attributed to the personality of the O/C and his relationship with the unit. In nearly every case, both an officer and a senior NCO were present; each had a specific and pre-designated role in the proceedings, although some of the best AARs were those where the O/Cs jumped in to add to each other's comments. This not only provided better depth, but also helped give the unit the idea that full and informal participation was both acceptable and desirable.

The O/C's body language often indicated involvement. This ranged from simple nods, smiles, looking at the speaker and attending to the answer, to a complete involvement where the O/C used his body to demonstrate something or reinforce his point. An O/C pointing while mimicking "gunner, that's your left limit," and crouching as he described being in defilade, kept the unit's attention. An offered thumbs up as reinforcement for unit comments helped share the enthusiasm with the unit. Several O/Cs supported the unit by using phrases like "when in charge be in charge." This contrasted with a few who stood without emotion and went through the AAR steps without visible affect. However, an O/C who did not visibly react to the unit was better than the very few whose behavior was almost arrogant as they lectured. The arrogance implied superiority: "As I said to the commander," or "As the 1SG and I were saying." The O/Cs generally presented a professional demeanor throughout, even when their AAR performance was not very good. At no time were the O/Cs observed taking sides.

#### *Introductory Slides*

Most AARs started with a pre-written agenda, followed by the JRTC AAR Rules of Engagement (ROE), and slides depicting the Army Values and the tenets of Warrior Ethos. The O/Cs varied in their treatment of these pre-printed materials. The least effective O/Cs read the materials to the unit, or had unit members read them aloud. With minimal or no discussion they moved on to the next section of the AAR.

The more effective O/Cs highlighted a few key ROE and discussed the implications. Key among the ROE in a well conducted AAR were those indicating what the O/Cs refer to as MILES on MILES, a loose request that the unit remember to focus on what happened, their own behavior, not on O/C behavior, or on other blaming mechanisms. They were reminded not to be thin skinned, but to listen respectfully to



each other in a spirit of self-improvement. In the best AARs, participants were encouraging, even if their learning was difficult. One particularly effective O/C reminded the unit that there were no right or wrong answers, but there were reasons why things went right or wrong. Another key ROE related the AAR to unit success, where everyone gets a chance to enrich the discussion, from the company commander to the newest private. One O/C stressed: "Don't say 'The battalion...' That is covered in the Battalion AAR." This caution kept the unit on track.

The Warrior Ethos posters and Army Values were displayed but few addressed them well. Most O/Cs merely acknowledged the Values and Warrior Ethos slides; one selected a few values and asked unit members to comment on the meaning of the value. As each was defined, the O/C presented an example of a time when that value had been reflected in their performance. One O/C read them verbatim, perfunctorily without comment, or said, "These are from my higher..." One stated, "The Army lost its Warrior Ethos and we are trying to get it back." A better approach came from an O/C who started with "This is how we will incorporate..." and then showed the Values as a framework for the training event. Another suggested, "When the best laid plans fail, these are the things we can fall back upon." The use of the posters was variable. Well done they were beneficial; poorly incorporated they were a distracter.

In several instances, the O/C had a preprinted, long, and complicated quotation (often of limited relevance) and called on a Soldier to read it aloud. The Soldier stumbled on unfamiliar words, reducing the unit's ability to gain anything from the quote, and potentially causing discomfort for the individual selected to read it.

### *Situation, Mission, and Graphics*

Graphics of unit and enemy positioning and movement were usually preprinted and available as posters or as part of a computerized presentation but sometimes a leader drew them on butcher paper. The former may be more accurate, but the latter provided more unit involvement in the process. In one technique, the O/C read from charts, and pointed at the map or graphics. In another, the O/C, accepting volunteers for this role, invited a unit member to describe the mission or situation. He then backed it up with the pre-printed mission statement and graphics. The worst use was where an O/C read every word, or nothing. Some O/Cs asked Soldiers to read the words, but did not discuss them at all. If a unit member read aloud from a pre-printed chart, with big words in tiny print, often stumbling as he read, the unit got little or nothing in return. The best AARs were those where the unit was asked to tell about the mission, and the higher mission. Many asked the platoon leader or company commander to describe it. A better technique was one that asked a lower ranking individual to comment first, followed by comment from others. Asking the platoon leader, for example, about the mission guaranteed the right answer. Asking a driver may elicit a far different response. An additional resource, rarely used at company or platoon level, was opposing force (OPFOR) Soldiers. They can be invited to discuss the enemy situation and provide the enemy perspective during conduct of the AAR. This requires advance coordination, but enriches the unit's experience.



## Focus Items

The focus items were those that either a commander or the O/C decided on in advance as specific topics to be covered in the AAR. This was both useful and counterproductive. With pre-made slides of focus items with back up information from FMs, etc., some O/Cs persisted in rigidly following the focus items in isolation, regardless of their application to the unit's performance, and without a tie in to specific events in the rotation. In this case, the O/C had almost a preplanned script and canned slides, read by a unit member or himself. When the O/C had decided in advance on focus items, and had many slides related to them, the presentation frequently turned into a lecture. He wanted to ensure he covered all his material.

In one notable instance, cited as an example of the worst possible scenario, the preplanned focus item and attendant material were clearly counterproductive. The focus item was Pre-Combat Checks and Pre-Combat Inspections (PCIs). The O/C had a prewritten PCI job aid checklist that he attempted to get the unit to discuss and accept, ignoring the fact that unit members said they already had and followed their own PCI list. The example was extreme but telling. The O/C had developed material that he wanted to share. It may have been right for some units, but not this unit. Another extreme example was an AAR where the O/C stated that they would talk about detainee operations. He started with the question, "Did we have any detainees?" and despite the answer that there were none, persisted in talking about the subject. Another AAR had as a focus item the use of the 1/3 - 2/3 rule for planning. The O/C continued to discuss the rule without any indication from the unit that it had been a problem for them.

The problem with the focus items was often, as stated by one O/C: "These are things *we think* are important [italics added]." They were not necessarily things that, based on their performance, the unit thought were important. The best O/Cs ensured focus items were related to the unit's mission and performance. They cross walked focus items and specific events. The focus items can be pre-printed, or hand written, as long as they are linked to specific events.

When there is an accidental discharge, this automatically becomes a focus item. The O/C is required to investigate the situation to find out what happened and why. One O/C did so, and then asked the unit what they learned from the incident. In this instance, the issue went beyond the fact that the weapon was not on safe. More importantly, they learned that the Soldier had very little training on the specific weapon. The platoon leader said he would use this as a teaching point for cross training, to make sure that all personnel are proficient in all weapons. What could have been a minor item turned into a key point for the whole unit.

Focus items can be used to good advantage if the O/C adds probes to the basic questions. The O/C must learn to ask why something happened – skillfully using phrases such as "Talk me through it..." and "How did that work? How did it go?" Questions like "How do you think you did?" and "How could it have been done better?" forced the unit to think of a response, and they could not use simple yes or no



responses. Some O/Cs put photographs of the unit on their video screens and asked, "What do you see? What's going on here?" to elicit responses.

The O/C has to learn not to make unproductive comments, and to know the warning signs of a critique or lecture. As noted before, in a team situation with two O/Cs, one must feel free to interrupt the other if the discussion is deteriorating. O/Cs must remember to concentrate discussion only on this unit's performance, and ensure any summary remarks help the unit.

### *Unit Participation*

As has already been made clear, the AAR is supposed to gain full and candid unit participation. This requires that the O/C set the stage for such participation by the way he approaches the AAR and all of its aspects. Too often, the O/C posed a question and then turned to the Platoon Leader and/or First Sergeant to read or answer. No others were selected nor did they volunteer. After a few minutes of this behavior, the unit more or less shut down, leaving the dialog to the O/C and the key leaders. In other instances, the O/C asked a question. When there was no response, he responded to his own question. Few O/Cs have mastered the art of letting the empty silence remain unfilled. After a potential rephrasing if the question was difficult, the O/C must learn to let the question hang, to wait out the silence until someone responds.

Another area where O/Cs cut off unit participation, albeit unintentionally, were those where they started a topic with phrases like "When I was in OIF," or "Be aware of..." These implied that the O/C was about to import knowledge or provide useful information to the unit. This was not bad per se, but did not necessarily relate to the unit's recent performance. A better approach would have been to get unit input in an area, asking if anyone had any personal experience related to the subject, then offering his own experience only as a concluding, transitional sentence. Additionally, the benefits of "someone tell us" rather than "platoon leader tell us" and asking for volunteers instead of calling on individuals cannot be overlooked.

The O/C must decide how to apportion the time within the AAR according to discussion of key events rather than on focus items that cut across many events. In one AAR, after a Soldier described a key event, the O/C said, "OK, sir, what was next?" The Platoon Leader stood to point at the graphic; his Soldiers, already having contributed to the discussion, readily joined in to assist. The O/C then asked a Sergeant to tell more about it. Several raised their hands and others spoke up as well. The O/C, sensing that others had something to contribute said, "Let me pull some more out of you," both increasing the information sharing and the sense of full participation.

### *Unit Self-assessment*

In several AARs observed, a poorly run AAR was suddenly saved by the O/C's skillful elicitation of information from the unit during this final part of the AAR. Although some self-assessment sections were not very well done, most were at least adequate and the unit was able to contribute. The most effective instances of what to sustain and



what to fix were those when the O/C started with the lowest ranking personnel. The first few comments were difficult but every one of the drivers and gunners, for example, had some ideas. In this manner, the entire unit commented before the platoon leader and platoon sergeant were given the chance to speak. They then confirmed or denied some of the earlier mentioned items, or, better, shared information on their plans for fixing whatever was cited as in need of improvement. The more traditional way of starting with the senior leaders makes it very difficult for junior personnel to think of anything new; their perspective is not as broad as that of the leader and they are more likely to be pre-empted by the first sergeant or platoon sergeant who has many things to say.

### *Job Aids and Performance Measures*

As noted by Morrison and Meliza (1999), there is currently no assessment process for the AAR itself, nor is there a tool used to evaluate an AAR leader's performance. Although newly assigned O/Cs are observed during their initial AARs, the process is not systematic. Therefore, as a deliberate by-product of this research, a prototype AAR rating scale (Appendix A) was created for possible use as a job aid or performance checklist, or as an instructional tool during O/C training.

Based on previous research findings and the AAR steps outlined in TC 25-20 (DA, 1993), and expanded upon by observations of good and not very good AARs, the researchers developed a scale that addresses O/C AAR behavior. Developed in rating scale format, the items include potential behavior descriptors that range from undesirable to desirable behavior on each of 23 key AAR-related dimensions. The words describe the least effective and most effective examples of specific behavior, as well as some that is satisfactory, yet neither good nor bad. These measures can be used during training to remind a new O/C of best practices, and can be used as a self-assessment checklist whereby an O/C can assess his own style and performance. The scale could also be used as a memory jogger by senior O/Cs while watching new O/Cs facilitate AARs. This material, provided at Appendix A, is a possible resolution to some problems observed in AARs. Although the scale underwent numerous iterations, and has been provided to the JRTC, its final format and specific uses have not yet been determined.

### *Discussion*

The AAR has become indispensable to the Army and to other training where feedback and self-study are important. The research reported here builds upon, confirms, and continues ARI investigation of two recurring themes found in AAR research. First, AARs frequently become critiques, despite the best intentions of those conducting them. Leaders tend to revert to critique or lecture methods in AARs, inadvertently hindering unit self-discovery. Second, AAR leaders sometimes become overly reliant on automated AAR tools. The very tools designed to assist in AARs may hamper their usefulness. Although multiple systems have been developed to analyze data supporting automatic generation of AAR aids, the O/C is still critical to the process. Too much automation may interfere with the O/C's conduct of the AAR.



Regardless of the level of the AAR, the O/C is the designated facilitator. Having observed the training event, the O/C's role is to elicit information from the unit, to help them understand what happened, why it happened, and what, if anything, needs to be done differently in future engagements. As succinctly summarized by Morrison and Meliza (1999, p. 4), the O/C helps the unit identify areas where "they think their unit is proficient (and should sustain training practices) or deficient (and should improve training) [underlines in original]." Recent practice has included the question that asks, "Who will fix it?" to stress improvement in the unit's action plan.

The research reported covered AARs from and interviews with junior and experienced O/Cs representing many branches and specialties. There were no obvious patterns or systematic differences in the AARs observed; although it is difficult to tell experience other than by rank, there seemed to be few differences. Some very senior, and by independent report, long term O/Cs, shared the same difficulties as the novices. Although Dyer, et al. (2005) noted a difference between more and less experienced O/Cs in how much data they wanted available for an AAR, this research saw no obvious patterns in usage. Both the experienced and inexperienced (as evidenced by rank and other cues) appeared to be comfortable with, too comfortable with, the great numbers of slides available for them. Both officers and NCOs, both Active and Reserve Component Soldiers, had what could be called too many slides, and tended therefore to rely heavily upon them.

Chapter 4 of TC 25-20, DA, 1993, pages 4-1 and 4-2 reminds AAR leaders to enter the discussion only when necessary; reinforce the fact that it is permissible to disagree; focus on learning and encourage people to give honest opinions; use open-ended and leading questions to guide the discussion of Soldier, leader and unit performance. Although there were few issues with the middle items, the first and last were often overlooked.

Some NCOs and some officers gave extraordinarily good AARs, asking probing questions, guiding the unit into self-discovery. They served as facilitators, encouraging within group dialog. However, some O/Cs tended to lecture, leaving the unit very little chance to comment, and little opportunity for self-discovery. Units were often subjected to slide shows of minimal relevance to their specific performance.

In the sample of AARs observed, no specific patterns could be discerned. An AAR that started well could deteriorate; similarly, one could improve. Some units with experienced leaders even appeared to facilitate their own AARs despite the mediocre performance of the O/C. The best O/Cs knew what right looks like, and showed it throughout the AAR. They waited out silences, did not ask simple yes or no questions, and showed expertise at probes and asking leading questions. They tried to maintain a positive, supportive atmosphere, even if discussing unit deficiencies. Those who were found not to exhibit the good habits that were demonstrated by the best O/Cs may need more supervised practice where performance is critiqued in detail. Performance-based checklists might help in this effort, as would some in-stride corrections. Since O/Cs operate in teams, one should always be empowered (regardless of rank) to ensure that a fellow O/C does not monopolize the AAR. Many of the best AARs were, in fact, those



where the O/C leading a particular section was interrupted by the other who offered supporting comment, or reinforced what unit personnel said.

Some O/Cs conducted excellent AARs; the units benefited considerably. In one instance, the O/C had barely finished dismissing the group when several Soldiers, including the Platoon Sergeant, were on their feet with hands extended in thanks. The O/Cs clearly enjoyed their role of mentor, coach, and teacher, and with good attitudes, wanted to share with and help the units. The only downside to this was that some tried too hard to share information. This tended to evolve into critiques and classes by the O/Cs, with the focus on teaching. Too many started with “when I was there...” rather than by asking probing questions of the unit. In some instances the O/C talked almost all the time; unit participation consisted of reading a few slides, answering yes/no questions, or stating the mission. When the O/C began to lecture it was very apparent that the unit members were paying less attention and were not very involved, regardless of the value of the information being imparted.

The O/Cs who used their tools (slides, butcher paper) wisely and as tools, not the focus of the AAR, were most successful. The units appeared to consider the AAR theirs, and created their own visual aids by writing on the charts. Some pre-made material is clearly useful for the agenda, the ROE, material on Warrior Ethos, the Soldier Creed and Army Values, and mission related graphics like maps. However, as noted, some O/Cs were prisoners of their pre-made AAR slides, reading them aloud and covering them regardless of immediate relevance to the unit. When the O/C read each item, and forced discussion, if any, into a pre-set model, with predetermined focus items, the unit was not engaged in a dialog. They did not appear to participate as well as those who contributed discussion items. Regardless of the quality of the rest of the AAR, the sustain/improve/fix portion was usually better than the rest as the unit was always participating. Starting with the lowest ranking Soldier appears to elicit more responses.

## Recommendations

The O/C performance at JRTC appears to have moved easily into a focus on small groups where units must look to the lowest level Soldier for decisions. They have learned the new material applicable to operations in the contemporary operating environment, and often by their personal experiences, have considerable information to contribute to any unit. The O/Cs clearly know the standard and their training provides the material. However, it appears that many O/Cs need to be reminded of the standard. It must be reinforced for every O/C group entering training.

### *Model the Standard*

The intent is to make sure everyone knows the JRTC AAR standard, and models it. When a new O/C starts his tenure, he watches someone else facilitate AAR(s) and then does several of his own, under the guidance of and observation by more senior O/Cs. The only problems with this approach are when the observed model is not very skilled, or when during the press of other events, the seniors are unable to devote as



much time as is needed to retraining an O/C who does not do well. If a new O/C learns by watching, and his only role model is not very good, he is probably not going to be very good either. Senior O/Cs and OPS group personnel should drop in on AARs, for 5-10 minutes, unannounced, and on a regular basis. The seniors can watch and leave, then provide feedback to the O/C, potentially stopping a problem before it gets out of hand. If there is a way to *gracefully* intervene and show by example, the senior O/C can do it on the spot to assist the more junior O/C.

Problems occur if an O/C does not adhere to the standard, and there is no penalty. In performance (actual AARs with units), there is minimal feedback to the O/C. Such feedback may not be reinforced or spot-checked. The observer also has to know the standard. The new O/C must know “what right looks like” and where, if anywhere, his own behavior is lacking. The FM 7-1 states, “Ideally, inexperienced O/Cs should observe properly conducted AARs beforehand” (DA, 2003, p. 228). “Ideally” should not be the intent but the practice. The problem is that there is a tendency to teach with a focus on the process, not on how to do it – the *art* of the AAR.

### *AAR Tools*

In the Executive Summary of their comprehensive report on potential automated AAR processes for the Ground Soldier System, many conclusions from Dyer et al. apply here. In particular, “Simply because technology allows the creation of an AAR aid, does not mean that the aid should be used in every AAR. There is a danger of letting technology-generated tools become the AAR, as opposed to being aids to trainers, that allow them to apply their expertise and wisdom to the AAR process” (2005, p. vi). Learning to conduct an AAR and develop effective techniques that enable self-discovery takes time. It may be difficult for one who thinks of himself primarily as a trainer to change from the critique and lecture mode to a Socratic dialogue.

As noted by Dyer et al. (2005), not everything critical for an AAR can be automated. The expertise of the trainer cannot be replaced by automatically compiled data. The data produce ground truth, why things happened, and how to improve. “AAR aids are simply tools that may be used in an AAR. The O/C must determine what information and displays support the key point” (p. 5). The O/C should only select what enhances the AAR and benefits the unit being trained. He should not use an AAR tool just because it is available. The paragraph concluding their report also bears repetition: “[Training] aids do not replace the trainer’s essential role. They do not directly address why events or outcomes occurred, and how units can improve performance... Although it is tempting to believe an AAR can be automated, the heart of the AAR remains a Socratic discussion between the trainer and the unit” (p. 54).

### *Potential Changes to Enhance O/C Training*

Specifically at the JRTC O/C Academy, it is important that the Commander or Deputy Commander of the OPS Group address each O/C class, at the beginning of the session, on Day 1. This command emphasis ensures the standard is known and reinforced. Moving the AAR class earlier in the POI, to reflect its importance at the



JRTC might help. Additionally, every new O/C needs, besides the O/C Handbook and EXROE, a copy of the AAR training circular TC 25-20 (DA, 1993). An instructional job aid or performance checklist would also be useful. Not all personnel have had formal prior training on AARs before they come to the JRTC and individual experiences vary considerably. Although there is a JRTC standard, an Army-wide standard is rarely taught. An instructional tool would be useful.

Another possibility would be to develop an AAR video using real footage or role-play to highlight both good and bad examples of AARs (what right looks like). The video played during the train up would show or model the right way to do an AAR. It might also be possible to assign spur of the moment within-class practice AARs on immediately preceding classes to get O/Cs used to collecting their thoughts and eliciting responses from others. The Warrior Leader Course provides practical exercises, and hands on practice. To the extent that practice will help a new O/C perform better, opportunities should be provided during training, with evaluations of that performance.

### Conclusions

Over the course of the research, current and former O/Cs were interviewed and AARs reviewed. Some O/Cs were highly involved, extremely professional, and facilitated discussion to allow the unit to see what happened and what changes needed to be made. Other O/Cs consistently talked too much or too little. They were either uninvolved, watching the unit talk, but contributing little to help, or talking so much the unit barely was able to get a word in edgewise. The key point, often forgotten, is that the unit must train itself by answering probing questions that focuses *their* discussion on *their* mission.

Behavior to be sustained included attitude, enthusiasm, and professionalism, as the O/Cs clearly wanted to do the right thing, and to help units prepare for upcoming deployments. They knew that each of the Soldiers at platoon and company level will play a critical role in the unit's success. Areas that need improvement fell under execution, and supervision. The O/Cs must know what good AARs look like, and must have a chance to practice AARs under the tutelage of senior personnel whose intent is to develop O/Cs, not critique or evaluate them.

The O/Cs at the JRTC appeared to have internalized the differences between traditional AARs, and those required to adapt to the scenarios of the contemporary operating environment. They knew that the platoon and company AARs are critical to unit success. The OPS Group request for this research indicates that they know that the way to address any potential O/C shortfalls is to identify problems and then the ways to remedy them. This comes from reinforcing the basic principles of the AAR: what happened, why, and how can we make it better?



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## APPENDIX A: The After Action Review

<b>1. AAR Rules of Engagement (~2 Minutes)</b>								
Did not review ROE; lack of enforcement			Read ROE verbatim; minimal discussion			High-lighted and discussed key elements of ROE		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>2. Warrior Ethos/Army Values (~2 Minutes)</b>								
Ignored, or read verbatim without comment			Soldier read and/or defined terms			Related values to rotational events/unit performance; referred to them later		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>3. Mission overview (~5 Minutes)</b>								
Did not provide or discuss overview two levels up; barely mentioned			Read or had unit read from prepared chart or slides; some commentary			Established mission overview through unit participation and leading questions		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>4. Discussed enemy situation and mission (~5 Minutes)</b>								
Did not mention enemy situation or stated without discussion			Read enemy situation and mission statement; enemy disposition graphically displayed			Presented and discussed enemy mission and disposition; used OPFOR Soldier for emphasis		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>5. Kept discussion specifically on key training events executed (~8 Minutes)</b>								
Used generic examples; did not focus discussion on the unit's training event			Permitted discussion to wander from training event; failed to control tangents			Asked multiple probing follow-on questions to develop the situation; covered several areas		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>6. Developed focus items by leading unit discussion (~45 minutes)</b>								
Announced list of focus items; questions required only yes or no answers; did not stimulate discussion			Directed questions to targeted individuals; limited unit discussion by presenting pre-worked material			Developed focus items with probing thought provoking, relevant questions; unit discussed multiple COA		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9



Comments:								
<b>7. Unit self-assessments (~40 minutes)</b>								
Keyed on process not product; directed content of self-assessments and fixes; did not discuss input			Asked unit to provide content but did not discuss how to implement change; not all contributed			Sought input from lowest to highest ranking; received unit leader concurrence on issues and fixes		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>8. Summarized lessons learned (~5 minutes)</b>								
Did not review contributions; maintained preset agenda			Lectured the doctrinal/TTP solution to lessons learned			Summarized unit selected COA and related to future ops		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>9. Safety issues and planning considerations (~5 minutes)</b>								
Did not discuss safety/risk management			Safety issues discussed not relevant to next operation			Emphasized safety and risk management for deployment		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>10. Site selection and set-up</b>								
Location not protected from elements, loud noises and distractions; Soldiers not comfortable			Site protected from elements; not all have clear view of charts; occasional noise disrupts AAR			Soldiers protected from elements, no outside distracters (noise, cleaning details, etc.); all can see/hear		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>11. Used available technology (pre-made slides, video, etc.)</b>								
Little regard for relevance; direct from manual; did not ask for unit comment			Materials marginally relevant to unit; used chart/slide to teach a class			Chart clarified data/timeline; related to unit mission; requested Soldier feedback		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>12. Used easel and butcher paper</b>								
Directed content and words without regard to unit's experience; O/C as scribe			Used one Soldier to write comments; requested input from leaders only			Encouraged all Soldiers to contribute; content directly related to unit experience		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								

<b>13. Held unit's interest</b>								
Soldiers entering/exiting; did not appear attentive; key leaders not present			Maintained unit attention at beginning but failed to sustain			Kept all Soldiers fully engaged; leaders and key personnel present/attentive		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>14. Gained participation from unit; encouraged all Soldiers to participate</b>								
Pre-selected respondents for all questions; no volunteers			Allowed only a few personnel to respond to all questions			Encouraged all Soldiers to voice comments and concerns		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>15. Addressed Soldier comments</b>								
Rarely acknowledged any comment; went on to next item			Restated and clarified only leader comments; little discussion			Followed through to clarify all Soldiers' comments; posed questions		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>16. Probed to help increase unit participation and involvement</b>								
Directed outcome, provided answers; asked rhetorical questions only			Provided neutral, pro forma questions, yes-no answers, little follow through			Asked thought provoking, probing questions to stimulate discussion; let unit control the time		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>17. Periodically summarized on-going discussions</b>								
Did not address Soldier comments; continued own agenda regardless of unit input			After brief response, moved to next subject without asking for other opinions/discussion			Consolidated; thoroughly explored event to help unit figure out what happened; related events to focus items		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>18. Referred to fundamentals of doctrine</b>								
Provided personal opinion and experience without regard for doctrine			Mentioned doctrine but focused mainly on personal experiences			Encouraged unit personnel to cite doctrine and its application to the situation		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9



Comments:								
<b>19. Provided unit with self-discovery AAR experience</b>								
Lectured during more than 50% of AAR; promoted and permitted little unit input or comment			Talked about 50% of the AAR; unit contributed only occasionally; unit mainly listened			Facilitated unit discussion for 70-90% of the AAR; talked little; unit did most talking		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>20. Commented on unit's performance</b>								
Rarely mentioned unit's overall performance or improvements over time; cited outcomes			Noted performance without comment or encouragement			Offered praise for outstanding performance or improvements demonstrated by unit		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>21. Degree of formality and professionalism</b>								
Talked down to or lectured unit; inappropriate use of humor to gain/retain attention			Style permitted unit to be somewhat comfortable; few Soldiers volunteered information			Relaxed atmosphere with professional discussion; mutual respect and crosstalk; humor as appropriate		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>22. Demeanor</b>								
Detached and uninvolved; offered a critique			Paid attention but not fully engaged			Facilitated unit self-discovery; involved and highly attentive		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								
<b>23. AAR climate provided unit with an understanding of strengths/weaknesses</b>								
Lecture or class format provided little overall learning; morale low or flat			Combination of lecture and unit contributions; adequate but not inspirational			Considerable self-discovery; material was relevant for entire unit; high morale		
<b>LEAST EFFECTIVE</b>			<b>SATISFACTORY</b>			<b>MOST EFFECTIVE</b>		
1	2	3	4	5	6	7	8	9
Comments:								