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Evaluating a Job Aid for Actions on Contact at the Joint Readiness Training Center

Kenneth L. Evans
U.S. Army Research Institute

Captain Joshua J. Blizzard
First Sergeant James E. Jones
Sergeant First Class William C. Ryan
Joint Readiness Training Center

June 2011

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

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BARBARA A. BLACK, Ph.D.   **MICHELLE SAMS, Ph.D.**
Research Program Manager   **Director**
Training and Leader Development
    Division

Technical review by

Marisa L. Miller, U.S. Army Research Institute
Jennifer S. Tucker, U.S. Army Research Institute

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The present investigation sought to quantify small unit practices during actions on contact at the Joint Readiness Training Center (JRTC) and to determine the extent to which a job performance aid, the Warrior Leader's Guide for Actions on Contact, might improve unit performance. The Actions on Contact Checklist, a tool developed especially for the investigation, was used by JRTC's trainer/mentors to measure unit performance. Over the course of nine unit rotations at JRTC, 754 checklists were collected and analyzed. Some support for the efficacy of the Warrior Leader's Guide to positively influence unit performance was found, primarily in the consolidation and reorganization phase of operations. Unit strengths and weaknesses in actions on contact were identified. On all nine measures of attack execution, units that rehearsed prior to an operation performed significantly better than units that did not rehearse.

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actions on contact, Joint Readiness Training Center, job performance aids, battle drills, mission rehearsals, small unit leader training

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Kenneth L. Evans
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Captain Joshua J. Blizzard
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Joint Readiness Training Center

ARI-Fort Benning Research Unit
Scott E. Graham, Chief

U.S. Army Research Institute for the Behavioral and Social Sciences
2511 Jefferson Davis Highway, Arlington, Virginia 22202-3926

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EVALUATING A JOB AID FOR ACTIONS ON CONTACT AT THE JOINT READINESS TRAINING CENTER

EXECUTIVE SUMMARY

Research Requirement:

The need to investigate small unit actions on contact at the Joint Readiness Training Center (JRTC) was identified by members of JRTC's Warrior Leadership Council. Operating under the direction of the Deputy Commander of the Operations Group, the Council consists of representatives from each Operations Group division, as well as the 1st Battalion (Airborne) 509th Infantry, the Center for Army Lessons Learned, the Research, Development and Engineering Command (RDECOM), and the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI). The primary purpose of the Council is to leverage the expertise of JRTC trainer/mentors (T/Ms), in order to identify and prioritize the most serious small unit leadership and training deficiencies found across rotations.

In recent years, actions on contact had become an increasingly common topic of discussion during after action reviews (AARs) of unit performance at JRTC. Largely for this reason, it was selected as the fifth problem area investigated by the Warrior Leadership Council since its inception in 2004. The identification of this need led to the present investigation, the purpose of which was twofold. First, the Council wanted to determine the overall prevalence and quality of small unit actions on contact during force-on-force, situational training exercise (STX), and live fire missions at JRTC, in an attempt to pinpoint those areas in which units have the greatest difficulty. Second, the Council wanted to measure, in a field environment, the effectiveness of a job performance aid that small unit leaders could use in planning for the conduct of actions on contact. This pocket-sized job aid was called the Warrior Leader's Guide for Actions on Contact. Specifically, the Council wanted to determine if units given the guide at the beginning of their rotations would subsequently exhibit better performance during actions on contact than units that were not given the guide.

Procedure:

The Warrior Leadership Council developed the Actions on Contact Checklist as tool for T/Ms to use in gauging the performance of companies and platoons during their actions on contact at JRTC. In addition to three background questions, the checklist asked T/Ms whether or not units performed 43 separate tasks across three broad areas: planning, execution, and follow-up operations. The Council then compared the performance of units whose leaders were given copies of the Warrior Leader's Guide for Actions on Contact, the experimental group, to the performance of earlier units that had not received the guide, the baseline group. Baseline data were drawn from 506 checklists collected by T/Ms during six consecutive unit rotations in 2010. Experimental data were then drawn from 248 checklists collected during three subsequent rotations that year.

Findings:

Over the span of nine rotations, areas of both relative strength and relative weakness were identified. Relatively high levels of performance were found during the consolidation and reorganization phase of operations, where four of the 10 strongest tasks were found. In contrast, eight of the 10 weakest small unit tasks were related to either planning or attack execution, suggesting the greatest improvement in unit actions on contact may come from concentrating training efforts in those two areas.

Some support for the efficacy of the Warrior Leader's Guide in improving unit performance was also found. Overall, units in the experimental group performed better than baseline units on 29 of the 43 tasks measured. In particular, experimental units performed significantly better on seven of those tasks, mostly during the consolidation and reorganization phase of operations. However, the strongest, and perhaps the most important, findings of the investigation were related to the conduct of unit rehearsals. Specifically, units that rehearsed the React to Contact battle drill before an operation performed significantly better on all nine measures of attack performance than units that did not rehearse this battle drill.

Utilization and Dissemination of Findings:

Findings were briefed to members of JRTC's Warrior Leadership Council in December of 2010. Based on the overall results, both the authors and members of the Warrior Leadership Council recommend the continued use of the Warrior Leader's Guide for Actions on Contact by units training at JRTC, as well as by units training at their home stations. The continued use of the Actions on Contact Checklist at JRTC is also recommended, so T/Ms can systematically gather supporting unit performance data to use in their AARs. In particular, it is recommended that the checklist be included in the next printing of JRTC's *T/M Handbook*. Finally, T/Ms should strongly encourage units to conduct rehearsals prior to all operations, especially those likely to involve enemy contact.

EVALUATING A JOB AID FOR ACTIONS ON CONTACT AT THE JOINT READINESS
TRAINING CENTER

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**EVALUATING A JOB AID FOR ACTIONS ON CONTACT AT THE
JOINT READINESS TRAINING CENTER**

Introduction

Actions on contact broadly refer to those combat actions small units perform when they first encounter an enemy force. Small unit leaders direct their units to perform these actions, using a four-step decision-making process prescribed in doctrine (U.S. Department of the Army, 2003, 2006, 2007, 2010). Whether contact is expected or unexpected, the first step is to deploy and report. Leaders typically establish base of fire and maneuver elements, engage the enemy, and then report the contact to higher headquarters. The second step is to evaluate and develop the situation. Here leaders gather as much information as possible about the characteristics of the enemy force and its probable intentions. In the third step, leaders choose a course of action that will accomplish their operational objectives, while maximizing the effects of terrain and minimizing casualties. In the fourth step, the selected course of action is executed as the unit begins to maneuver. During the execution, additional information about the enemy may emerge, which can cause leaders to alter their initial course of action. In practice, these four steps can be performed out of sequence, and some of them can even be performed simultaneously (U.S. Department of the Army, 2006).

Frequently conducted as part of company and platoon actions on contact, battle drills are a trained collective response of platoons and squads to commonly encountered combat situations, such as reacting to contact or breaking contact. Battle drills can be accomplished with minimal leader orders and are standard throughout the Army (U.S. Army Infantry School, 2006). They are performed rapidly in a prescribed sequence and are used in combat situations requiring an instantaneous or automatic response. Units become proficient in these drills through repetitive training and rehearsal. In terms of their immediacy and complexity, the decisions leaders make during actions on contact fall between the brief, quick decisions found in battle drills and the more deliberative and thorough decision-making process used in mission planning.

The need to investigate small unit actions on contact at the Joint Readiness Training Center (JRTC) was identified by members of JRTC's Warrior Leadership Council. Operating under the direction of the Deputy Commander of the Operations Group, the Council consists of representatives from each Operations Group division, as well as the 1st Battalion (Airborne) 509th Infantry, the Center for Army Lessons Learned, the Research, Development and Engineering Command (RDECOM), and the U.S. Army Research Institute for the Behavioral and Social Sciences. The primary purpose of the Council is to leverage the expertise of JRTC trainer/mentors (T/Ms) in order to identify and prioritize the most serious small unit leadership and training deficiencies found across rotations (U.S. Army Research Institute for the Behavioral and Social Sciences, 2005).

A frequent topic of discussion in after action reviews (AARs) of unit performance at JRTC, actions on contact were the fifth problem area investigated by the Warrior Leadership Council since its inception in 2004. Earlier Council investigations dealt with troop leading procedures (Evans & Baus, 2006), unit information management practices (Evans, Reese, & Weldon, 2007), casualty evacuation procedures (Evans, Coerper, & Johnson, 2009), and tactical

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site exploitation methods (Evans, Snyder, & Carmicle, 2010). As it considered investigating actions on contact, Council members noted that, historically, most small units conducted actions on contact and associated battle drills relatively well. Only recently was a declining performance trend noted in this area, as T/Ms began observing more instances of unit hesitation and confusion when an enemy force was initially encountered. The reason for this decline was unclear, though some hypothesized that competing training requirements related to current operations in Iraq and Afghanistan have had the unintended consequence of reducing the amount of unit training time spent on rehearsing the individual and collective tasks needed to conduct effective actions on contact.

To address this problem the Council began collecting data about company and platoon actions on contact in February of 2010, using a T/M measurement instrument called the Actions on Contact Checklist (see Appendix A). Described in detail in the Research Approach section of this report, the checklist's design and content were based on the operational doctrine contained in four U.S. Army field manuals (U.S. Department of the Army, 2003, 2006, 2007, 2010).

One purpose of the present investigation was to gauge the overall prevalence and quality of small unit actions on contact during force-on-force, situational training exercise (STX), and live fire missions at JRTC, in an attempt to pinpoint those areas in which units have the greatest difficulty. In particular, Council members wanted to determine the reasons why some units experience hesitation and confusion in their execution of actions on contact. They also wanted to identify relevant mission preparation factors most indicative of effective and ineffective operational performance across units.

A second purpose of the investigation was to evaluate, in a field environment, the effectiveness of a job performance aid that small unit leaders could use in planning for the conduct of actions on contact. This job aid was called the Warrior Leader's Guide for Actions on Contact. Specifically, the Council wanted to determine if units given this guide at the beginning of their rotations would subsequently exhibit better performance during actions on contact than units that were not given the guide.

Job performance aids have a rich history of organizational application, especially in the military (see Schultz & Wagner, 1981; Swezey, 1987; U.S. Department of the Army, 1999). In fact, earlier JRTC investigations have found support for the efficacy of job aids and mission planning tools that were developed to improve troop leading procedures, information management, casualty evacuation, and tactical site exploitation (Evans & Baus, 2006; Evans et al., 2007, 2009, 2010).

Research Approach

The Actions on Contact Checklist was developed by JRTC's Warrior Leadership Council as a tool for T/Ms to use in measuring the performance of platoons and companies during the actions on contact observed in force-on-force, STX, and live fire missions at JRTC. The Council then developed the Warrior Leader's Guide for Actions on Contact as a job performance aid that could potentially help small unit leaders plan, prepare for, and execute actions on contact. In evaluating the effectiveness of the Warrior Leader's Guide, the performance of units that were

given these guides, the experimental group, was compared to the performance of units that had not received the guides, the baseline group. Six consecutive baseline rotations (including one pilot rotation) were followed by three subsequent experimental rotations. Although it would have been preferable to counterbalance or alternate the order of experimental and baseline unit rotations, the Council believed it would have been too difficult to execute a counterbalanced design flawlessly, given the highly decentralized nature of the data collection effort across JRTC Operations Group divisions. Additionally, the Council used the baseline data collection period to design and revise the Warrior Leader's Guide (i.e., the Guide was not ready for use prior to the seventh rotation).

Sample

Baseline data were drawn from 506 Actions on Contact Checklists completed by T/Ms during six consecutive JRTC rotations. Experimental data were then drawn from 248 Actions on Contact Checklists completed during three subsequent rotations. Over these nine rotations, 78.7% of the checklists were collected from platoons and 21.3% were collected from companies. Overall, 48.0% of the observed missions were STX missions, 44.7% were force-on-force missions, and 7.3% were live fire missions. The baseline and experimental groups did not differ significantly in terms of the echelons observed, though they did differ significantly in the types of missions observed. Compared with the baseline group, there was a lower percentage of STX missions (43.5% vs. 50.2%) and a higher percentage of live fire missions (11.2% vs. 5.4%) in the experimental group $[\chi^2(2, N = 696) = 8.61, p = .013]$.

The baseline and experimental groups were not found to be significantly different in terms of the types of units and operations observed. Checklist percentages for various types of units are shown in Table 1. Regarding the types of operations observed, 70.3% were expected and 29.7% were unexpected. Contact was initiated by the enemy in 86.2% of the operations and by friendly forces in 13.8% of the operations. A significantly greater percentage of the operations (20.2% vs. 10.7%) was initiated by friendly forces in the experimental group $[\chi^2(1, N = 687) = 11.54, p = .001]$.

Table 1
Percentage of Checklists Collected from Various Types of Units in the Baseline and Experimental Groups

	Group	
Type of Unit	Baseline ($n = 506$)	Experimental ($n = 248$)
Infantry	36.0%	39.5%
Cavalry	14.2%	13.3%
RSTA	10.3%	10.9%
Field Artillery	8.5%	8.9%
Engineer	6.3%	7.3%
Other	24.7%	20.1%
Total	100.0%	100.0%

Notes. RSTA = Reconnaissance, Surveillance, and Target Acquisition. Types of units that comprised less than 5% of the total sample were grouped into a category called Other.

Actions on Contact Checklist

Company and platoon actions on contact were measured by T/Ms using the Actions on Contact Checklist (see Appendix A). Printed on the front and back of a yellow card that was approximately 8 in. tall and 5 in. wide (20.4 x 13.4 cm), the Actions on Contact Checklist was organized into five sections. Section I asked T/Ms for some general information, including the dates of observation, unit size, unit type, rotation phase, operation type, and whether friendly or enemy forces initiated contact.

Section II briefly dealt with the background of unit personnel, focusing on their general knowledge and preparedness to conduct actions on contact. Specifically, the checklist asked if the unit had a current standing operating procedure (SOP) for actions on contact and if individual Soldiers were familiar with the eight forms of contact (U.S. Department of the Army, 2007). T/Ms were also asked to list any references used to establish the unit SOP. One purpose of these items was to compare the general equivalence of units in the baseline and experimental groups, in terms of their initial capacity to perform actions on contact.

Section III dealt with the unit's mission planning process. For example, the checklist asked if courses of action for expected and unexpected enemy contact were developed and if unit personnel clearly understood those courses of action. The checklist also asked T/Ms if the observed unit rehearsed the React to Contact battle drill, if they conducted different kinds of rehearsals, and if various rehearsal techniques were used. Additionally, T/Ms were asked whether or not pre-combat checks (PCCs), pre-combat inspections (PCIs), and preventive maintenance checks and services (PMCSs) were performed prior to the unit's departure.

Section IV focused on the unit's execution of actions on contact and consisted of three subsections. The first subsection dealt with the unit's initial actions, including one pivotal question about the leader/commander's decision to either attack or break contact. Considered to be the most important part of the checklist by many Warrior Leadership Council members, the second subsection asked additional questions about the procedures used during the attack, including movement formations, movement techniques, and fire coordination. If the unit broke contact, T/Ms were instructed to skip the questions in the second subsection. Whether the unit attacked or broke contact, T/Ms were then asked about the unit's consolidation and reorganization practices in the third subsection. For example, they were asked if local security was established, if casualties were treated and evacuated, and if vehicles were recovered.

Section V was devoted to follow-up operations. Specifically, T/Ms were asked if units were reconstituted and prepared for future operations, if they conducted an AAR, if they were debriefed, and if the information obtained from the debriefing was disseminated internally and externally. Lastly, T/Ms were asked to list one area/subject the unit should sustain and one they should improve.

Most questions on the Actions on Contact Checklist called for a Yes or No response. The Warrior Leadership Council chose this response scale for two reasons. First, they thought a Yes/No format would be relatively easy to use, minimizing the data collection burden on T/Ms. Second, the Council believed this format would lower the amount of subjectivity contained in the

checklist data, by simply asking T/Ms whether or not particular practices occurred, rather than asking them to decide how good those practices were.

Warrior Leader's Guide for Actions on Contact

The Warrior Leader's Guide for Actions on Contact was developed by members of JRTC's Warrior Leadership Council as a job performance aid that could potentially help small unit leaders plan, prepare for, and execute actions on contact. Designed as a pocket-sized reference, it was printed in color on both sides of one 8½ x 11 in. sheet (21.6 x 27.9 cm) with four separate panels on each side. When folded twice, an 8-page document was created that measured 5½ in. tall and 4¼ in. wide (14 x 10.8 cm). Its content summarized a variety of topics, including the following:

- Unit Preparation
- Mission Planning
    - Types of Rehearsal
    - Rehearsal Techniques
- Execution (Contact with Enemy Forces)
    - Initial Contact
    - Suppress the Enemy
    - Attack
        - Movement Formations
        - Movement Techniques
        - Individual Movement Techniques
    - Consolidate and Reorganize
- Follow Up Operations

Although the Warrior Leader's Guide is not available to the general public (Unclassified – For Official Use Only), interested individuals and organizations may request a printed copy or electronic file from either the Fort Benning or Fort Polk offices of the U.S. Army Research Institute for the Behavioral and Social Sciences.

Procedure

Through their JRTC Operations Group divisions, T/Ms were issued blank Actions on Contact Checklists prior to each baseline and experimental rotation. Completed checklists were then collected at a centralized location after each rotation had ended. In most instances, an interim analysis of the findings for each rotation was completed and presented to members of the Warrior Leadership Council prior to the beginning of the next rotation.

Copies of the Warrior Leader's Guide for Actions on Contact were distributed to units in the three experimental rotations at the beginning of each rotation. Approximately 135 guides were distributed by Warrior Leadership Council members to battalion leaders at the beginning of each experimental rotation. Although these battalions were encouraged to distribute the guides to all of their company and platoon leaders, the exact number of company leaders receiving the

guides was unclear. It should also be noted that providing leaders with guides did not guarantee they would be used during the rotation.

No attempt was made to keep T/Ms blind regarding the experimental condition in effect for each rotation (i.e., baseline vs. experimental). T/Ms on the Warrior Leadership Council should certainly have been aware of the experimental condition in effect, as they were responsible for the distribution of the Warrior Leader's Guides. However, other T/Ms may have been unaware of the experimental conditions, as their data collection role did not change in any way across baseline and experimental rotations. The actions on contact research plan developed by the Council and approved by the Deputy Commander and Command Sergeant Major of the JRTC Operations Group is shown in Appendix B.

Results

The organization of this section closely parallels the general layout of the Actions on Contact Checklist (see Appendix A). Analyses of the results for individual checklist items were based on the calculation of descriptive statistics (i.e., frequency distributions). Chi-square tests were also performed for each item, as well as when the relationship between two items was of interest (e.g., how rehearsals were related to unit performance in an attack). Each analysis was based on the maximum sample size of checklists available for that analysis; thus, sample sizes varied somewhat across analyses due to missing checklist data.

Unit Background

Section II of the Actions on Contact Checklist dealt with the background of unit personnel, reflecting their potential degree of preparation for the successful conduct of actions on contact. Three background items were measured nominally (yes vs. no). Ideally, one would want baseline and experimental group units to be roughly equivalent in terms of their background characteristics, in order to make any resulting group differences in actions on contact more clearly interpretable. Unfortunately, this did not happen.

Results for the three background items are shown in Table 2. Units in the baseline group performed better than experimental units on all three items, with statistically significant ($p < .05$)

Table 2
Percentage of Baseline and Experimental Group Units on Three Background Items

| | Group Percentage | | | | | |
Background Items	Baseline	Experimental	*df*	*n*	χ^2	*p*
Had current SOP that included actions on contact	65.5	60.9	1	741	1.47	.225
Used references to establish unit SOP	40.2	29.7	1	722	7.53	.006
Soldiers familiar with forms of contact	81.9	75.4	1	731	4.16	.041

Note. The two tasks with significantly different group percentages are shaded. SOP = Standing Operating Procedure.

group differences found on two items. Compared with units in the experimental group, baseline units were significantly more likely to have used references in establishing their SOP and to have individual Soldiers who were familiar with the forms of contact. Across groups, the references most frequently listed by T/Ms in the second background item were a variety of U.S. Army field manuals. Overall, these results suggested that experimental units were not as well prepared for actions on contact as baseline units. One should keep this disadvantage in mind as the remaining results of the investigation are presented.

Planning

Section III of the Actions on Contact Checklist sought to determine whether or not units performed a series of 13 planning tasks. Results are summarized in Table 3. Compared with the baseline units, a higher percentage of experimental units completed nine of the 13 tasks, with a statistically significant group difference on one task. Specifically, units in the experimental group were significantly more likely than baseline units to have personnel who were informed about and understood the unit's courses of action for expected and unexpected enemy contact. Overall, these results suggested that units in the experimental group made slightly better plans for actions on contact than units in the baseline group.

Table 3
Percentage of Baseline and Experimental Group Units Performing 13 Planning Tasks

Planning Tasks	Group Percentage Baseline	Experimental	df	n	χ^2	p
Leaders developed courses of action	76.1	81.4	1	750	2.63	.105
Personnel understood courses of action	70.5	78.9	1	744	5.90	.015
React to Contact rehearsed	62.9	64.3	1	746	.14	.710
Foreign security forces included	54.7	53.1	1	646	.12	.724
Coordinated for indirect fire & aviation	57.3	62.9	1	739	2.10	.147
Planned for enemy prisoners of war	33.2	28.9	1	749	1.43	.231
Coordinated with other units in AO	51.9	58.9	1	739	3.25	.071
Had capability to communicate	71.1	75.0	1	745	1.27	.259
Rehearsed the communication plan	44.2	47.2	1	746	.58	.446
Personnel understood ROE and EOF	86.7	85.9	1	751	.09	.766
Resupply & casualty evacuation planned	75.8	77.7	1	748	.33	.568
Leaders conducted PCIs/PCCs	82.9	87.3	1	741	2.40	.122
Leaders conducted PMCSs	69.7	69.5	1	734	.00	.947

Notes. The task with a significantly different group percentage is shaded. AO = Area of Operation, ROE = Rules of Engagement, EOF = Escalation of Force, PCIs = Pre-Combat Inspections, PCCs = Pre-Combat Checks, PMCSs = Preventive Maintenance Checks and Services.

Among the five types of rehearsals performed by units (i.e., confirmation brief, back brief, combined arms rehearsal, support rehearsal, and battle drill/SOP rehearsal), no statistically

significant group differences were found. Across all units observed, usage percentages ranged from 4.4% for the support rehearsal to 45.5% for the battle drill/SOP rehearsal. Regarding the six rehearsal techniques used (i.e., full dress, reduced force, terrain model, sketch map, map, and radio), only the terrain model was associated with a significant group difference [$\chi^2(1, N = 752)$ = 4.45, $p = .035$]. Significantly more units in the experimental group used a terrain model (50.8%) than units in the baseline group (42.7%). Across all units observed, usage percentages ranged from 8.4% for the radio to 45.3% for the terrain model. It should be noted that units were not limited to using only one rehearsal type and one rehearsal technique, though 63.1% of the units used no more than one type of rehearsal and 55.2% used no more than one rehearsal technique. No significant group differences were found in the number of rehearsal types and techniques performed.

Execution

Section IV of the Actions on Contact Checklist sought to determine whether or not units executed a series of five initial actions, nine attack tasks, and 12 consolidation and reorganization tasks. Results for the initial actions are summarized in Table 4. Compared with baseline units, a higher percentage of experimental units completed each of the five initial actions, though no statistically significant group differences were found. Overall, 70.5% of the units decided to attack, while 29.5% decided to break contact. Units in the baseline and experimental groups were not significantly different in this regard.

Table 4
Percentage of Baseline and Experimental Group Units Performing Five Initial Actions

| | Group Percentage | | | | | |
Initial Actions	Baseline	Experimental	df	n	χ^2	p
Took cover & suppressed the enemy	82.8	83.5	1	730	.05	.817
Leader maneuvered properly to attack	60.5	62.7	1	717	.33	.568
Situation report immediately sent higher	79.7	84.9	1	717	2.76	.096
Assessed situation, developed course of action, & notified personnel in contact	73.9	77.9	1	719	1.38	.240
Resources allocated; indirect fire & aviation assets requested [a]	49.7	57.1	1	490	2.30	.129

[a] If the decision had been made to attack the enemy position.

Results for the attack tasks are summarized in Table 5. Note these results are based on generally lower sample sizes, because they do not include the units who decided to break contact. Compared with baseline units, a higher percentage of experimental units completed six of the nine attack tasks, with a significant group difference on one task. Specifically, units in the experimental group were significantly more likely than baseline units to have given a prearranged signal to the base of fire element to lift or shift fires to the opposite flank of the enemy position.

Table 5

Percentage of Baseline and Experimental Group Units Performing Nine Attack Tasks

Attack Tasks	Group Percentage		*df*	*n*	χ^2	*p*
	Baseline	Experimental				
Assault element dismounted vehicles in a secure location (if mounted)	73.7	71.3	1	422	.24	.621
Leader determined if elements not in contact could maneuver	72.5	74.0	1	485	.12	.726
Assault element moved into position without being detected	46.4	45.6	1	468	.02	.878
Prearranged signal given to lift or shift fires to the opposite flank	49.2	61.3	1	457	5.71	.017
Handover of direct fires executed by assault & base of fire units	48.1	53.9	1	455	1.31	.252
Assault unit picked up & maintained effective fires through the assault	70.9	66.9	1	474	.78	.376
Shifted indirect fires to isolate the enemy position	49.8	54.6	1	333	.69	.407
Soldiers maintained contact with team members & leaders	85.2	87.9	1	488	.65	.421
Assault element effectively seized the enemy position	76.1	78.8	1	478	.41	.520

Notes. The task with a significantly different group percentage is shaded.

No significant group differences were found in either the movement formations or movement techniques of assaulting units. Overall, the most frequently used movement formations were the wedge (49.5%), line (19.3%), column (18.2%), and herringbone (9.1%). The least frequently used formations were the file (6.1%), vee (3.0%), echelon (2.1%), and coil (0.7%). In terms of their movement techniques, most assaulting units used the traveling technique (41.4%), followed by bounding overwatch (33.6%) and traveling overwatch (25.0%). Similarly, no significant group differences were found in the individual movement techniques observed by T/Ms. Overall, the most frequently observed individual movement technique was the rush (89.3%), followed by the high crawl (8.7%) and low crawl (2.0%).

Results for the consolidation and reorganization tasks are summarized in Table 6. For seven of the 12 tasks, the experimental units had higher completion rates than the baseline units, with significantly higher completion rates on four tasks. In particular, units in the experimental group were significantly more likely than baseline units to have signaled their base of fire element to move to a designated position, to have established observation posts, to have covered the most dangerous avenues of approach for counterattack, and to have redistributed ammunition, critical equipment, and supplies. In contrast, baseline units had higher completion rates than experimental units for the remaining five tasks, with a significantly higher completion rate on one task (i.e., conducting tactical site exploitation operations).

Table 6

Percentage of Baseline and Experimental Group Units Performing 12 Consolidation and Reorganization Tasks

| Consolidation & Reorganization Tasks | Group Percentage | | *df* | *n* | χ^2 | *p* |
	Baseline	Experimental				
Established local security	89.3	89.1	1	695	.01	.940
Assault leader signaled base of fire element to move to designated position	59.6	74.6	1	470	9.52	.002
Covered most dangerous avenues of approach for a counterattack	74.4	83.8	1	652	7.16	.007
Redistributed personnel as needed	80.1	81.2	1	650	.09	.759
Redistributed ammunition, critical equipment, & supplies	61.7	72.6	1	629	7.23	.007
Established observation posts	40.8	55.2	1	576	10.09	.001
Casualties treated & evacuated	95.8	94.9	1	662	.27	.603
Vehicle recovery executed, if necessary	91.0	89.8	1	453	.15	.696
Conducted TSE operations	65.8	56.1	1	556	4.52	.033
Enemy detainees searched, silenced, segregated, safeguarded, & evacuated	72.7	72.6	1	424	.00	.983
Prepared & submitted ACE reports	63.6	70.4	1	657	2.86	.091
Avoided fratricide & civilian casualties	83.2	84.9	1	662	.31	.578

Notes. Tasks with significantly different group percentages are shaded. TSE = Tactical Site Exploitation, ACE = Ammunition, Casualty, & Equipment.

Combining the results for the 26 execution tasks contained in Section IV of the Actions on Contact Checklist, experimental group performance exceeded baseline group performance on 18 tasks (see Tables 4 through 6). Statistically significant group differences were found on six tasks, with higher experimental group performance found on five of those six. On balance, experimental group units tended to perform better on the execution tasks than baseline units, though the strongest group differences were found in the area of consolidation and reorganization.

Follow-up Operations

Section V of the Actions on Contact Checklist sought to determine whether or not units executed a series of four follow-up tasks. Results are summarized in Table 7. A higher percentage of experimental units completed two of the four tasks, with a statistically significant group difference on one task. Specifically, units in the experimental group were significantly more likely than baseline units to have internally and externally disseminated the information they obtained from debriefing the unit in contact. Overall, these results suggested that the follow-up operations of experimental units were slightly better than those of baseline units.

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Table 7

Percentage of Baseline and Experimental Group Units Performing Four Follow-up Tasks

| Follow-up Tasks | Group Percentage | | *df* | *n* | χ^2 | *p* |
	Baseline	Experimental				
Reconstituted & prepared for future operations	92.0	91.3	1	726	.10	.757
Conducted an AAR of the operation	75.7	80.9	1	731	2.50	.114
Debriefed the unit in contact	73.5	73.0	1	716	.02	.889
Disseminated the information obtained from the debriefing	63.0	72.4	1	672	5.88	.015

Notes. The task with a significantly different group percentage is shaded. AAR = After Action Review.

T/Ms provided written comments on 31.0% of the checklists. No group differences were found in either the number of T/Ms commenting or in the general thematic content of their comments. Overall, the most frequently mentioned areas for sustainment were communication (15% of the checklists), rehearsals (12%), and violence of action or aggressiveness (8%). The most frequently mentioned areas for improvement were communication (16%), rehearsals (12%), and movement/maneuver techniques (8%).

Strengths and Weaknesses

Excluding the three background items, a total of 43 unit performance tasks were measured nominally in the present investigation. Of these, 13 tasks were related to planning, 26 were related to the execution of actions on contact, and four were related to follow-up operations. Across all baseline and experimental units observed, the 10 tasks with the highest completion percentages are shown in Table 8, while the 10 tasks with the lowest completion percentages are shown in Table 9.

Rehearsals and Attack Execution

A unit's propensity to conduct rehearsals was found to have a strong positive relationship with mission accomplishment in three of four previous JRTC investigations (Evans & Baus, 2006; Evans et al., 2007, 2009). Although the Actions on Contact Checklist did not directly ask T/Ms about the mission accomplishment of observed units, the nine attack tasks in the execution section of the checklist are the items most similar to the mission accomplishment concept. Using these nine tasks as mission accomplishment criteria, a comparison of units that rehearsed the React to Contact battle drill with units that did not rehearse this battle drill was performed. The results of this comparison are summarized in Table 10. Across all baseline and experimental rotations, rehearsing units performed significantly better than non-rehearsing units on each of the nine tasks.

Table 8
Ten Tasks with the Highest Unit Completion Percentages

Tasks	Type of Task	*n*	Percentage
Casualties treated & evacuated	Execution (CR)	662	95.5
Reconstituted & prepared for future operations	Follow-up	726	91.7
Vehicle recovery executed, if necessary	Execution (CR)	453	90.7
Established local security	Execution (CR)	695	89.2
Personnel understood ROE and EOF	Planning	751	86.4
Maintained contact with team members & leaders	Execution (AT)	488	86.1
Leaders conducted PCIs/PCCs prior to departure	Planning	741	84.3
Avoided fratricide & civilian casualties	Execution (CR)	662	83.7
Took cover & suppressed the enemy	Execution (IA)	730	83.0
Situation report immediately sent higher	Execution (IA)	717	81.5

Notes. Tasks are shown in descending order of completion percentage. CR = Consolidation & Reorganization, AT = Attack Task, IA = Initial Action, ROE = Rules of Engagement, EOF = Escalation of Force, PCIs = Pre-Combat Inspections, PCCs = Pre-Combat Checks.

Table 9
Ten Tasks with the Lowest Unit Completion Percentages

Tasks	Type of Task	*n*	Percentage
Developed & rehearsed plan for enemy prisoners of war	Planning	749	31.8
Established observation posts	Execution (CR)	576	45.1
Rehearsed the communication plan	Planning	746	45.2
Moved into position without being detected	Execution (AT)	468	46.2
Executed handover of direct fires	Execution (AT)	455	49.9
Shifted indirect fires to isolate the enemy position	Execution (AT)	333	51.4
Coordinated for indirect fire & aviation assets	Execution (IA)	490	52.0
Gave prearranged signal to lift/shift fires to opposite flank	Execution (AT)	457	53.0
Coordinated with other units operating in the area	Planning	739	54.3
Included foreign security forces in planning	Planning	646	54.3

Note. Tasks are shown in ascending order of completion percentage. CR = Consolidation & Reorganization, AT = Attack Task, IA = Initial Action.

Table 10

Percentage of Rehearsing and Non-rehearsing Units Performing Nine Attack Tasks

Attack Tasks	Unit Percentage Rehearsing	Non-rehearsing	*df*	*n*	χ^2	*p*
Prearranged signal given to lift or shift fires to the opposite flank	62.4	33.3	1	453	33.95	.000
Handover of direct fires executed by assault & base of fire units	58.8	31.3	1	451	30.22	.000
Assault unit picked up & maintained effective fires through the assault	76.8	55.6	1	470	22.30	.000
Soldiers maintained contact with team members & leaders	91.1	76.2	1	484	20.30	.000
Assault element moved into position without being detected	52.9	33.5	1	464	15.77	.000
Assault element effectively seized the enemy position	81.6	67.9	1	474	11.14	.001
Leader determined if elements not in contact could maneuver	77.6	64.5	1	481	9.49	.002
Assault element dismounted vehicles in a secure location (if mounted)	77.9	63.8	1	418	9.35	.002
Shifted indirect fires to isolate the enemy position	56.9	41.1	1	330	7.40	.007

Notes. Attack tasks are shown in decreasing order of effect size. Tasks with significantly different unit percentages are shaded.

Discussion

One purpose of the present investigation was to determine the overall prevalence and quality of small unit actions on contact during JRTC training missions, in an attempt to pinpoint those areas in which units have the greatest difficulty. Based on the combined results from nine JRTC rotations, several areas of relative weakness were found (see Table 9). Eight of the 10 weakest small unit tasks were related to either planning (e.g., developing & rehearsing a plan for enemy prisoners of war) or attack execution (e.g., moving into an assault position without being detected). These results suggested the greatest improvement in unit actions on contact may come from concentrating training efforts in these two areas. In contrast, one area of relative strength was also found (see Table 8). Specifically, four of the 10 most strongly performed tasks were in the area of consolidation and reorganization (e.g., treating & evacuating casualties).

A second purpose of the investigation was to evaluate the effectiveness of the Warrior Leader's Guide for Actions on Contact. Overall, units that were given this job performance aid at the beginning of their rotations had higher completion percentages than baseline units on 29 of the 43 tasks measured. Experimental units performed significantly better than baseline units on seven of these tasks, particularly in the area of consolidation and reorganization. This rather modest level of efficacy for the Warrior Leader's Guide was found despite the fact that

experimental units were not as prepared to perform actions on contact as were those in the baseline group (see Table 2).

The effectiveness of the Warrior Leader's Guide for improving unit performance during actions on contact was not as strong as the effectiveness of several other job performance aids that have been evaluated at JRTC (Evans & Baus, 2006; Evans et al., 2007, 2009, 2010). Because small unit actions on contact have traditionally been trained through the use of battle drills, it was probably unrealistic to expect small unit leaders would have the time to refer to a pocket reference during a firefight. Indeed, we found the guide to have its greatest value during the post-attack period of consolidation and reorganization, perhaps serving to remind leaders of the various unit tasks that need to be accomplished at that time.

Another factor limiting the observed effectiveness of the job performance aid in the present investigation was the high likelihood that some leaders in experimental group units may not have used the Warrior Leader's Guide in planning and executing their actions on contact. Specifically, we did not know which leaders actually used the guide and which did not. One way to obtain this kind of information in future investigations would be to include a question about observed job aid usage on the measurement instrument (i.e., the checklist) being used by T/Ms.

Our strongest, and perhaps the most important, findings were related to the conduct of unit rehearsals. Units that rehearsed React to Contact performed significantly better on all nine measures of attack performance than units that did not rehearse this battle drill (see Table 10). In comparing the relative effectiveness of rehearsals versus job performance aids for improving the actions on contact of most units, the results are clear. Battle drill and mission rehearsals are much more likely to have a positive impact on unit performance than distributing job aids to leaders, at least in the area of small unit actions on contact.

Based on the overall results obtained in the present investigation, both the authors and members of the Warrior Leadership Council recommend the continued use of the Warrior Leader's Guide for Actions on Contact by units training at JRTC, as well as by units training at their home stations. The continued use of the Actions on Contact Checklist at JRTC is also recommended, so T/Ms can systematically gather supporting unit performance data to use in their AARs. In particular, it is recommended that the checklist be included in the next printing of JRTC's *T/M Handbook*. Finally, T/Ms should strongly encourage units to conduct rehearsals prior to all operations, especially those likely to involve enemy contact.

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Appendix A

Enlarged View of the Actions on Contact Checklist

ACTIONS ON CONTACT CHECKLIST

Disclosure: Data collected with this form will be used for routine research purposes only. Information will not be used in whole or part in making any determination about an individual or unit. Information gathered will be used for statistical control purposes only and will not be disclosed to any unit undergoing rotations at the Joint Readiness Training Center.

SECTION I: GENERAL INFORMATION

DATES OBSERVED: FROM _____ **TO** _____

SIZE UNIT OBSERVED: CO BTRY TRP PLT SECT SQD DET

TYPE UNIT OBSERVED: IN AR SF RSTA CAV FA EN ADA AVN SC MI MP MS OD CHEM QM
TC CA PSYOP Multiple Types Other

ROTATION PHASE: STX FOF LF

TYPE OF OPERATION OBSERVED: EXPECTED UNEXPECTED (**Please Circle One**)

CONTACT INITIATED BY: FRIENDLY FORCES ENEMY FORCES (**Please Circle One**)

SECTION II: UNIT INFORMATION

1a. Did the unit have a current SOP which included Actions on Contact? **YES NO**

1b. What references were used to establish the unit SOP? (Please identify references)

_____

2. Were individual Soldiers familiar with the Forms of Contact? **YES NO**

SECTION III: PLANNING PHASE

1. During Troop Leading Procedures (TLPs), did the Commander/Leaders develop Courses of Action for
    expected and unexpected enemy contact? **YES NO**

2. Were subordinate units, Leaders, Soldiers, and Attachments informed and have a clear understanding
    of the Courses of Action? **YES NO**

3a. Did the unit rehearse React to Contact? **YES NO**

3b. What type of rehearsal was performed by the unit? NA Confirmation Brief Back Brief Combined
    Arms Rehearsal Support Rehearsal Battle Drill/SOP Rehearsal (**Please Circle All That Apply**)

3c. What type of rehearsal was performed by the unit? NA Full Dress Reduced Force
    Terrain Model Sketch Map Map Radio (**Please Circle All that Apply**)

4. Did the unit include Foreign Security Forces in the planning phase? **YES NO**

5. Did the unit make coordination for Indirect Fire and Aviation assets? **YES NO**

6. Did the unit develop and rehearse a plan for Enemy Prisoner of War Operations? **YES NO**

7. Did the unit coordinate with other units operating in the Area of Operations? **YES NO**

8a. Did the unit have the capability to effectively communicate with higher, lower, and adjacent units,
    including Foreign Security Forces? **YES NO**

8b. Was the communication plan rehearsed? **YES NO**

9. Did unit Leaders and Soldiers understand the Rules of Engagement (Lethal and Nonlethal)
    and Escalation of Force? **YES NO**

10. Did the unit have a plan for ammunition, equipment resupply, and casualty evacuation? **YES NO**

11a. Did unit Leaders conduct PCIs/PCCs prior to departure? **YES NO**

11b. Did unit Leaders conduct PMCSs prior to departure? **YES NO**

SECTION IV: EXECUTION PHASE

Actions on Enemy Contact

1. Did the unit in contact, mounted or dismounted, take up the nearest covered position and fire on
    and suppress the enemy? **YES NO**

2. If suppressive fires on the enemy were achieved by the element in contact, did the leader maneuver a
    team (using proper fire and movement techniques) to attack the enemy position? **YES NO**

3. Was a situation report (enemy size, location, and any other information) immediately sent to the next
    higher leader/commander by the unit in contact? **YES NO**

4. Did the next higher leader/commander immediately make an assessment of the situation, develop a
    course of action, and notify their higher element and the subordinate unit in contact? **YES NO**

5. Based on the assessment did the leader/commander make a decision to attack the enemy or
    break contact? Attack Break Contact (**Please Circle One Decision**)

A-2

6. If the decision was made to attack the enemy position, did the leader/commander allocate resources and request indirect fire and aviation assets?   **YES   NO**

Attack

1. If the unit was mounted, did the assault element dismount vehicles in a secure location?   **YES   NO**
2. Did the leader/commander determine if elements not in contact could maneuver based on the location of the enemy, obstacles, size of the enemy force, vulnerable flank, and covered/concealed flanking route to the enemy position?   **YES   NO**
3. Did the assaulting element move into assault position without being detected?   **YES   NO**
4. What movement formation did the assault unit use?   Column   Line   Echelon   Wedge   Vee   Coil   Herringbone   File   **(Please Circle One)**
5. What movement technique did the assault unit use?   Traveling   Traveling Overwatch   Bounding Overwatch   **(Please Circle One)**
6. Did leaders enforce appropriate individual movement techniques?   Rush   High Crawl   Low Crawl   **(Please Circle One)**
7. Once in position did the assaulting element leader give the prearranged signal to the base of fire element to lift or shift fires to the opposite flank of the enemy position?   **YES   NO**
8. Did the assault and base of fire units execute the handover of direct fires responsibilities?   **YES   NO**
9. Did the assault unit pickup and maintain effective fires through the assault?   **YES   NO**
10. Did the unit shift indirect fires to isolate the enemy position?   **YES   NO   NOT AVAILABLE**
11. Did Soldiers maintain contact with team members and leaders?   **YES   NO**
12. Did the assault element effectively seize the enemy position?   **YES   NO**

Consolidate and Reorganize

1. Did the unit establish local security?   **YES   NO   NA**
2. Did the assault leader signal for the base of fire element to move to a designated position?   **YES   NO   NA**
3. Were sectors of fire assigned and key weapons positioned to cover the most dangerous avenue of approach for a counterattack?   **YES   NO   NA**
4. Were personnel redistributed as needed?   **YES   NO   NA**
5. Were ammunition, critical equipment, and supplies redistributed?   **YES   NO   NA**
6. Were observation posts established?   **YES   NO   NA**
7. Were casualties treated and evacuated?   **YES   NO   NA**
8. If necessary, was vehicle recovery executed?   **YES   NO   NA**
9. Did the unit conduct Tactical Site Exploitation Operations of the area?   **YES   NO   NA**
10. Were enemy detainees searched, silenced, segregated, safeguarded, and evacuated to collection points?   **YES   NO   NA**
11. Were ammunition, casualty, and equipment (ACE) reports prepared and submitted?   **YES   NO   NA**
12. Did the unit experience fratricide or civilian casualties?   **YES   NO   NA**

SECTION V: FOLLOW UP OPERATIONS

1. Did the unit reconstitute and prepare for future operations?   **YES   NO**
2. Did the unit conduct an After Action Review of the operation?   **YES   NO**
3. Was the unit in contact debriefed?   **YES   NO**
4. Was the information obtained from the debriefing disseminated to internal units, higher echelons, and adjacent units?   **YES   NO**
5. Identify one area/subject that the unit should sustain _____
6. Identify one area/subject that the unit should improve _____

T/M COMMENTS: _____
_____
_____

T/M Initials _____ Callsign _____ Division/Task Force _____ Rotation Number _____

Appendix B

Actions on Contact Research Plan

DEPARTMENT OF THE ARMY
JOINT READINESS TRAINING CENTER OPERATIONS GROUP
7260 ALABAMA AVENUE
FORT POLK, LOUISIANA 71459-5314

REPLY TO
ATTENTION OF

ATZL-JR   8 December 2009

MEMORANDUM FOR RECORD

SUBJECT: Research Plan – Actions on Contact, Joint Readiness Training Center Operations Group, Warrior Leadership Council, and U.S. Army Research Institute (ARI)

1. Goal. To increase effective Army-wide Actions on Contact, IAW FM 3-21.9: The SBCT Infantry Rifle Platoon and Squad, FM 3-21.10: The Infantry Rifle Company, FM 3-21.11: The SBCT Infantry Rifle Company, ARTEP 7-1: Warrior Battle Drills.

2. Concept of Research. The intent is to collect data on the effectiveness of Actions on Contact by units at the company, platoon, and squad levels for nine consecutive rotations. The first rotation will be a pilot rotation to verify usability and suitability of the data collection instrument. We will collect and analyze baseline data for the next four rotations. Based on cumulative analysis of data after each rotation, revisions to data collection methods will be made if needed. The Warrior Leadership Council will then propose an intervention to be introduced to unit commanders and leaders prior to the next four rotations. An example of an intervention may be a training guide to assist the commander or leader in planning and execution of operations. To gauge the overall effectiveness of the intervention, we will statistically compare the effectiveness of unit Actions on Contact operations between the last four and the first four rotations.

3. Scope. Echelons of interest are Battalions, Companies, Troops, Platoons, and Squads with the Battery, Company, and Troop being the center of interest. Units will be observed during the Situational Training, Live Fire, and Force-on-Force phases of the rotation. The research will focus on Unit Information, Planning, and Execution.

4. Data Collection. Trainer/Mentors (T/Ms) at each echelon will collect data using a checklist developed and approved by the Warrior Leadership Council. Measures of interest include the following:

   a. Unit Information.

      (1) Did the unit have a current SOP which included Actions on Contact?

      (2) Were references used to establish the unit SOP?

      (3) Did the SOP identify responsibilities of key unit Leaders?

(4) Were unit Leaders and individual Soldiers familiar with the Forms of Contact?

(5) Did unit Leaders and individual Soldiers understand the current Rules of Engagement?

(6) Was the unit prepared for Day and Night operations?

b. Planning.

(1) Did unit Leaders identify and plan for likely contact situations (expected and unexpected)?

(2) During Troop Leading Procedures did the Commander/Leaders develop courses of action for expected and unexpected enemy contact?

(3) Were subordinate units, Leaders, Soldiers, and Attachments informed and have a clear understanding of the courses of action?

(4) Did the unit rehearse React to Contact?

(5) What type of rehearsal was performed by the unit and what rehearsal technique was performed by the unit?

(6) Did the unit include Foreign Security Forces in the planning phase?

(7) Did the unit make coordination for Indirect Fire and Aviation assets?

(8) Did the unit develop and rehearse a plan for Detainee and Enemy Prisoner of War Operations?

(9) Did the unit have higher echelon CCIR and was it disseminated to subordinate units and individual Soldiers?

(10) Did the unit coordinate with other units operating in the Area of Operations?

(11) Did the unit have the capability to effectively communicate with higher, lower, and adjacent units, including Foreign Security Forces?

(12) Was the communication plan rehearsed?

(13) Did unit Leaders and Soldiers understand the Rules of Engagement and Escalation of Force?

(14) Did the unit have a plan for ammunition, equipment resupply, and casualty evacuation?

(15) Did unit Leaders conduct PCIs, PCCs, and PMCSs prior to departure?

c. Execution.

(1) Actions on Enemy Contact.

(a) Did the unit in contact take up nearest covered position, fire on, and suppress the enemy?

(b) If mounted, did the unit move vehicles to a covered/concealed position with fields of fire on the enemy position?

(c) If suppressive fires on the enemy were achieved by the element in contact, did the leader maneuver a team (using proper fire and movement techniques) to attack the enemy position?

(d) Was a situation report (enemy size, location, and any other information) immediately sent to the next higher leader/commander by the unit in contact?

(e) Did the next higher leader/commander immediately make an assessment of the situation, develop a course of action, and notify the higher element and the subordinate unit in contact?

(f) Based on the assessment, did the leader/commander make a decision to attack the enemy or break contact? What was the decision?

(g) If the decision was made to attack the enemy position, did the leader/commander allocate resources, request indirect fire, and request aviation assets?

(2) Suppress the Enemy.

(a) Based on the volume and accuracy of enemy fire, could the unit in contact gain suppressive fire against and continue to effectively suppress the enemy?

(b) If the unit in contact could not continue to suppress the enemy, did the higher element provide additional resources?

(c) If needed, were indirect fires and aviation assets employed to suppress or fix the enemy?

(3) Attack.

(a) If the unit was mounted, did the assault element dismount vehicles in a secure location?

(b) Did the leader/commander determine if elements not in contact could maneuver based on the location of the enemy, obstacles, size of the enemy force, vulnerable flank, and covered and concealed flanking route to the enemy position?

(c) Did the assault element move into assault position without being detected?

(d) What movement formation did the assault unit use?

(e) What movement technique did the assault unit use?

(f) Did leaders enforce appropriate individual movement techniques?

(g) Once in position, did the assaulting element leader give the prearranged signal to the base of fire element to lift or shift fires to the opposite flank of the enemy position?

(h) Did the assault and base of fire units execute the handover of direct fires responsibilities?

(i) Did the assault unit pickup and maintain effective fires through the assault?

(j) Did the unit shift indirect fires to isolate the enemy position?

(k) Did Soldiers maintain contact with team members and leaders?

(l) Did the assault element effectively seize the enemy position?

(4) Consolidate and reorganize.

(a) Did the unit establish local security?

(b) Did the assault leader signal for the base of fire element to move to a designated position?

(c) Were sectors of fire assigned and key weapons positioned to cover the most dangerous avenue of approach for a counterattack?

(d) Were personnel redistributed as needed?

(e) Were ammunition, critical equipment, and supplies redistributed?

(f) Were observation posts established?

(g) Were casualties treated and evacuated?

(h) If necessary, was vehicle recovery executed?

(i) Did the unit conduct Tactical Site Exploitation Operations of the area?

(j) Were enemy detainees searched, silenced, segregated, safeguarded, and evacuated to collection points?

(k) Were ammunition, casualty, and equipment (ACE) reports prepared and submitted?

(l) Did the unit experience fratricide or civilian casualties?

   d. Follow Up Operations.

(1) Was the unit in contact debriefed?

(2) Was the information obtained from the debriefing disseminated to internal units, higher echelons, and adjacent units?

(3) Did the unit conduct an After Action Review of the operation?

(4) Did the unit reconstitute and prepare for future operations?

5. Responsibilities.

   a.   Operations Group Deputy Commander and Command Sergeant Major shall provide Command oversight to the Actions on Contact investigation.

ATZL-JR
SUBJECT: Research Plan – Actions on Contact, Joint Readiness Training Center Operations Group, Warrior Leadership Council, and U.S. Army Research Institute (ARI)

   b. The ARI technical representative shall provide technical and scientific support to the Warrior Leadership Council, analyze data after each rotation, and provide a written report of the research findings for review by the Council and Commander Operations Group following the conclusion of the investigation.

   c. The ARI Liaison Officer shall provide administrative support and warrior experience to the Warrior Leadership Council, develop and revise the research plan, develop a data collection form to be used by T/Ms, and provide local coordination for plan approval and execution.

   d. T/Ms within each Division shall be responsible for collecting data on measures of interest.

   e. Division members of the Warrior Leadership Council shall be responsible for insuring T/M data collection forms in their respective Divisions provide satisfactory data on measures of interest as outlined in Paragraph 4.

   f. Through its regularly scheduled meetings after each rotation, the Warrior Leadership Council shall insure consistency and continuity of data collection efforts across Divisions.

6. Points of Contact. Major Joshua Snyder, Warrior Leadership Council Chairman, Joshua.snyder@us.army.mil, 531-0132; First Sergeant James Jones, Warrior Leadership Council Vice Chairman, James.E.Jones@us.army.mil, 556-3346; Bill Gates, U.S. Army Research Institute Liaison Officer, 531-1248; julius.gates@us.army.mil.

THEODORE R. SUTTON   ERIC R.P. CONRAD
Command Sergeant Major, USA   COL, EN
                                                Deputy Commander

Appendix C

List of Acronyms and Abbreviations

AAR	After Action Review
ACE	Ammunition, Casualty, and Equipment
ADA	Air Defense Artillery
AO	Area of Operation
AR	Armor
ARI	U.S. Army Research Institute for the Behavioral and Social Sciences
ARTEP	Army Training and Evaluation Program
AT	Attack Task
AVN	Aviation
BN	Battalion
BTRY	Battery
CA	Civil Affairs
CAV	Cavalry
CCIR	Commander's Critical Information Requirements
CHEM	Chemical
CO	Company
COL	Colonel
CR	Consolidation and Reorganization
DET	Detachment
EN	Engineer
EOF	Escalation of Force
FA	Field Artillery
FM	Field Manual
FOF	Force on Force
IA	Initial Action
IAW	In Accordance With
IN	Infantry
JRTC	Joint Readiness Training Center
LF	Live Fire
MI	Military Intelligence
MP	Military Police
MS	Medical Service
NA	Not Applicable
OD	Ordnance

PCC	Pre-Combat Check
PCI	Pre-Combat Inspection
PLT	Platoon
PMCS	Preventive Maintenance Checks and Services
PSYOP	Psychological Operations
QM	Quartermaster
RDECOM	U.S. Army Research, Development, and Engineering Command
ROE	Rules of Engagement
RSTA	Reconnaissance, Surveillance, and Target Acquisition
SBCT	Stryker Brigade Combat Team
SC	Signal Corps
SECT	Section
SF	Special Forces
SMA	Sergeant Major of the Army
SOP	Standing Operating Procedure
SQD	Squad
SQDN	Squadron
STX	Situational Training Exercise
TC	Transportation Corps
T/M	Trainer/Mentor
TRADOC	U.S. Army Training and Doctrine Command
TRP	Troop
TSE	Tactical Site Exploitation