
# TIME AND RESOURCES REQUIRED FOR POSTMOBILIZATION TRAINING OF AC/ARNG INTEGRATED HEAVY DIVISIONS



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# TIME AND RESOURCES REQUIRED FOR POSTMOBILIZATION TRAINING OF AC/ARNG INTEGRATED HEAVY DIVISIONS

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Prepared for the
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*Arroyo Center*

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# PREFACE

This report contains the results of analysis by RAND's Arroyo Center on the postmobilization training process for integrated divisions composed of elements of the Army National Guard (ARNG) and the Active Component (AC). As part of an effort to redesign ARNG divisions, the Secretary of the Army directed a study of a proposal to form two integrated divisions, each constructed by merging three ARNG enhanced separate brigades with an Active Component division headquarters.

The U.S. Army Training and Doctrine Command (TRADOC) was given the task of developing the concept and assessing its viability. The analysis presented in this report is part of that assessment. The material presented here was previously delivered as an executive-level annotated briefing to the Commanding Generals of U.S. Army Forces Command (FORSCOM) and TRADOC.

This analysis was sponsored by the Deputy Chief of Staff, Combat Development, TRADOC, and was carried out in the Manpower and Training Program of RAND's Arroyo Center, a federally funded research and development center sponsored by the United States Army.

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# SUMMARY

## BACKGROUND

Recommendations made by the Commission on Roles and Missions[1] have led the Army to redesign some of the divisions in the Army National Guard (ARNG).[2] As part of the redesign effort, the Secretary of the Army directed a study of a proposal to form two AC/ARNG integrated divisions with the purpose of better integrating the Active and Reserve Components. Each such integrated division would be formed by merging three ARNG enhanced separate brigades (ESBs) with an Active Component division headquarters.[3]

The Army studied three alternative integrated division designs. One was a heavy division composed of an Active Component headquarters, division troop units from the Army National Guard, Army Reserve, or the Active Component, and three ARNG heavy ESBs. This organization could deploy either as a standard Army of Excellence (AOE) division or as three separate brigades. Upon mobilization as a division, the unit would reorganize into a standard AOE configuration with divisional units in the separate brigades falling under the command and control of divisional troop headquarters units.

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[1]U.S. Department of Defense, Commission on Roles and Missions of the Armed Forces, *Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces*, Washington, D.C., U.S. Government Printing Office, 1995.

[2]Secretary of the Army, Memorandum to the Secretary of Defense, "Army National Guard Division Redesign Decision," May 1996.

[3]The personnel for the divisional troop units could be drawn from the Active Component (AC), Army National Guard (ARNG), or the U.S. Army Reserves (USAR).

A second alternative design was to have an active division headquarters that would only oversee the pre- and postmobilization training of three heavy ESBs. No additional divisional troop units would be required. These units would not be deployable as a division; only the ESBs would deploy.

A final alternative mirrored the first except that the three ESBs would be reorganized into standard divisional brigades and divisional combat support and combat service support units, not separate brigades. This alternative would require fewer personnel than the first one, but the unit could only deploy as a division.

The primary difference between the first and third alternatives is flexibility. The first alternative affords decisionmakers the latitude to mobilize and deploy a range of forces. For example, if facilities were a constraint, they could sequentially mobilize three separate brigades and send them to a combat theater as each completed training. Or they could mobilize a single brigade. The second alternative, which we did not evaluate, recognizes the Army's reduced ability to interact with RC units during peacetime.

## PURPOSE AND APPROACH

Key aspects of evaluating this concept are the costs, effectiveness, and timeliness of the process that would be required after mobilization: to prepare and train the integrated division, configured in a standard AOE organization, for deployment to combat. This report describes RAND's analysis of such a postmobilization training process. Of course, that process would apply only to alternative 1, deploying as an integrated division, and alternative 3. This analysis applies only to integrated divisions with units resourced at the same level as ARNG ESBs. It does not apply to ARNG divisions that are currently resourced at much lower levels.

Our analysis began with the postmobilization training model and training resource requirements we have previously developed for ARNG enhanced heavy brigades.[4] The previous study found that U.S.

[4]Thomas F. Lippiatt, James C. Crowley, Patricia K. Dey, and Jerry M. Sollinger, *Postmobilization Training Resource Requirements: Army National Guard Heavy Enhanced Brigades*, Santa Monica, CA: RAND, MR-662-A, 1996.

Forces Command (FORSCOM) could provide sufficient training resources to operate three heavy ESB postmobilization training sites. The major constraint on the number of sites was the availability of AC trainers.

For the divisional analysis, we developed three alternative postmobilization training strategies. These strategies were developed with the training resources currently available for the ESBs in mind and with the goal of minimizing additional resources that might be required to train integrated divisions. We also wanted to provide the FORSCOM commander with postmobilization training strategies that varied in terms of time to train, risk, and flexibility. For each of the three strategies we calculated the time and resources needed to execute it and compared these with the requirements needed to prepare and mobilize the enhanced separate brigades. The goal is to tell the Army what additional time and resources—i.e., beyond what has been provided to train the enhanced brigades—are needed to prepare and mobilize the integrated division for combat.

## TRAINING REQUIREMENTS

We based our methodology for the division-level training on that used by active divisions and their major subordinate commands (MSCs). We also discussed strategies with the Battle Command Training Program (BCTP) staff at Fort Leavenworth. We assumed that the same level of peacetime training and other resources provided to the enhanced brigades would be provided to the integrated division, and we assumed that the division troop units would be drawn from either the ARNG or the USAR, because this is the lowest-cost option and poses the greatest training challenge. Moreover, it would have the most significant effect on training resource requirements.

The requirements for the division-level training fall into two categories: preparatory and primary. Preparatory events develop proficiency and sustain skills between primary events. Primary events directly train divisional warfighting skills and involve all major command-and-control elements of the division. Table S.1 summarizes the events and provides an estimated time to conduct each one. These events refer to the training of the divisional elements only.

**Table S.1**

**Division and MSC Postmobilization Training Events**

| Events | Time Required |
|---|---|
| Preparatory | |
| Individual and section training | 10 days |
| CP and order drills | 10 days |
| MAPEX/CPX without BCTs | 10 days |
| Primary | |
| BCTP seminar | 8 days |
| BCTP ramp-up training | 20 days |
| Warfighter exercise | 15 days + 5-day division order prep |
| Division FTX/ICE (–) | 8 days including optional 3-day prep |

The combat brigades and maneuver battalions go through their own series of training events.

## STRATEGIES

We posit three alternative strategies to accomplish the divisional postmobilization training model.

Strategy A trains **three brigade combat teams in parallel at three sites.** The division, one brigade combat team, and all MSCs, including the divisional cavalry squadron, go to Fort Irwin. The other two brigade combat teams go to Fort Hood and Yakima Training Area. This strategy generates the first division in the shortest time but also provides the least time for the division units to operate together at the same location.

Strategy B has **all brigade combat team and battalion task force maneuver training at Fort Irwin.** As in the first strategy, the division, one brigade combat team, and MSCs go to Fort Irwin immediately and begin training. The other two brigades would mobilize and report to two company-level training sites (Fort Hood and Yakima), where they would complete training through company team lanes. They then report to Fort Irwin in a staggered sequence for brigade- and battalion-level training. This sequencing is necessary because Fort Irwin can accommodate only one brigade combat team at a

time for maneuver and live-fire training. This strategy takes longer to generate the first division but allows more time for the divisional units to operate together.

Strategy C employs **two division sites** (one site for each division), with smaller, subsidiary sites for preliminary training. All force-on-force maneuver training takes place at the division sites. As in the other strategies, the division, one maneuver brigade, and the aviation brigade go to a single division site.[5] The other two brigades first go to smaller, less capable sites to complete gunnery and platoon drills. Then, in staggered sequence, they report to their division's site to complete their training. This strategy takes the longest to generate the first division, but sufficient training resources would be available to allow the FORSCOM commander the flexibility to open a third site to train an ARNG armored cavalry regiment (ACR) or another heavy ESB. He would also have the option of opening only one division training site, leaving resources available to open two sites for brigade-level training.

## TIME REQUIRED

Table S.2 shows the *minimum* time required for the three strategies to prepare the first and second trained divisions. The first strategy, which employs three training sites (the maximum that the Army can support), produces the divisions in the shortest time. The second division does not take as long as the first because it commences some of the lower-level training before the first departs. The second strategy passes all the brigade combat teams through one site, Fort Irwin in this case, and thus takes longer than the first to produce both the first and second divisions. The third strategy takes the same amount of time for one or two divisions because each division trains at a separate site.

[5]Each site considered here has only enough maneuver space to support the training of one brigade at a time. A division site is where the division headquarters and its divisional troop units train as well as each brigade combat team in sequence.

**Table S.2**

**Minimum Time in Days Required After M-day for Trained Division**

| Strategy | First Division | Second Division |
|---|---|---|
| A | 132 | 217 |
| B | 185 | 303 |
| C | 239 | 239 |

## OTHER RESOURCES REQUIRED

We assume that the divisional elements are resourced at the same level as the enhanced brigades. That is, they receive the same sort of pre- and postmobilization support and training that the enhanced brigades do. In addition to the increased full-time support manning, recruiting priorities, and travel and training funds provided by National Guard Bureau (NGB), TRADOC and FORSCOM and the United States Army Reserve (USAR) provide the enhanced brigades support during peacetime training, and the divisional elements should receive it as well.

Additional dedicated trainers and training support will be required for both pre- and postmobilization. For the premobilization period, this additional support includes both command-and-control and field training for divisional headquarters, combat support, and combat service support elements provided by the AC Regional Training Brigades (RTBs), TRADOC's Battle Command Training Program, and the USAR's Divisions (Exercise). It would also include a Resident Training Detachment (RTD) of 94 AC soldiers for each division, for a total of 188 additional people. Although this total is not numerically large, it could be significant because all are experienced officers and enlisted personnel, focusing on early-deploying RC support units. With one exception, these trainers could be provided by the current active structure dedicated to RC training support. The exception is approximately 20 RTD personnel required for each division's aviation elements.

Postmobilization training also requires some additional support. This amounts to 108 AC trainers for each division, some field and simulations trainers, and either one or two Battle Command Training Program teams.

## ASSESSMENT

Any of the three strategies will produce divisions capable of carrying out a variety of missions. Thus, no strategy is "best." Each has different risks and tradeoffs, and policymakers will have to decide which of these best suit the needs of the moment. Here we highlight the tradeoffs, employing three primary criteria: force generation, training quality, and resources.

### Force Generation

The first strategy, three parallel sites, provides a trained division in the shortest time but poses the greatest risk. Since three sites have to open simultaneously, the division's training could be adversely affected if active units have not departed. Also, cadre and trainers have to report to and prepare the three sites, increasing the potential for something to go wrong. This strategy also has the least flexibility. For example, if one brigade has lower readiness than the other two, it will not be possible to provide additional time to address personnel or equipment problems without affecting the total time required to prepare the division.

The second strategy, in which all brigades pass through Fort Irwin, takes 53 days longer to produce the first division but faces less risk in meeting the timeline because all training above company level takes place at one site, where the bulk of the brigade trainers reside during peacetime. Also, because only one brigade has to be ready and prepared to start collective training shortly after M-day, there is an opportunity to deal with any readiness problems by sending the most ready brigade first while the other two correct deficiencies.

The third strategy, two division sites, takes longer to produce the first division but produces the second division almost two months sooner than the second strategy. It has similar risks to the first strategy. It has the advantage of leaving a residual combat brigade training ca-

pability, which would allow training one heavy brigade or an armored cavalry regiment concurrently with the two divisions.

## Training Quality

The second strategy, which passes all units through Fort Irwin, clearly offers the best quality. Training occurs at the National Training Center (NTC) and would benefit from the many training resources there, including the instrumentation and live-fire ranges. It is the best match of premobilization trainer and professional opposing force (OPFOR) experience with postmobilization requirements. The other two strategies require the NTC operations group to form as many as three trainer groups, diluting their experience. Also, under the second strategy the 11th ACR (the NTC OPFOR) can focus its efforts on battalion and brigade training.

The second and third strategies also offer the advantage of having the divisional elements work together for longer periods, enhancing opportunities for team-building, cohesion, and integration. However, both strategies create substantial periods of inactivity for some of the units because the brigades mobilize sequentially, and the ones that mobilize early have to wait for the later brigades to finish their training before they begin the primary division-level training events.

## Resource Requirements

Training a division rather than three separate brigades requires between 300 and 400 additional AC trainers, one or two teams from TRADOC's Battle Command Training Program, and simulations and support unit training personnel from the USAR's Divisions (Exercise). The number varies by strategy.

The first strategy, using three simultaneous locations, requires the fewest divisional-level trainers because only one division trains at a time. Thus, it requires only one BCTP team and one set of simulations, support units, and training support personnel. The other strategies have two divisions training at once and thus require two BCTP teams.

On the other hand, the second strategy, which uses only two gunnery sites, requires fewer brigade combat team trainers and training sup-

port personnel and a smaller OPFOR (for a total of about 3,500 fewer people). Thus, while the divisional training requirement is higher, the total is lower.

## CONCLUSIONS

Under various alternatives we considered, the total time from mobilization until a division is trained for deployment ranged from 132 to 239 days for the first division and 217 to 239 days for the second. The division alternatives with the shortest training times also involve the most risk, particularly because they provide a limited time for the entire division to train together at a single location.

Since all three strategies appear capable of providing a trained division but differ in timelines, costs, and risks, we needed a basis from which to draw conclusions about the viability of an integrated division versus the enhanced separate brigade. We decided that the most reasonable way to compare timelines, costs, and risks was to compare the divisional strategy that employs three brigade-level sites with the enhanced brigade strategy that also employs three brigade sites. Based on this comparison we conclude the following:

- It takes longer to prepare divisions for deployment than it does separate brigades—at least a month for the first division and two months for the second. This additional time is required for the division-level training.
- Divisions take more training resources than separate brigades. More trainers and training support personnel are required for postmobilization, and more trainer, training support personnel, and money are required for premobilization. The Army could obtain some of these resources by making some changes in its current plans, but this could affect its ability to mobilize and prepare other earlier-deploying units.

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## ABBREVIATIONS

| | |
|---|---|
| AC | Active Component |
| ACR | Armored Cavalry Regiment |
| ADT | Active Duty for Training |
| AGR | Active Guard/Reserve |
| AOE | Army of Excellence |
| ARNG | Army National Guard |
| AT | Annual Training |
| ATK | Attack |
| BCBST | Brigade Command and Battle Staff Training |
| BCT | Brigade Combat Team |
| BCTP | Battle Command Training Program |
| BDE | Brigade |
| BN | Battalion |
| BNTF | Battalion Task Force |
| BOS | Battlefield Operating System |
| C2 | Command and Control |
| CALFEX | Combined Arms Live Fire Exercise |
| CAV | Cavalry |

| | |
|---|---|
| CFX | Command Field Exercise |
| CINC | Commander in Chief |
| CO | Company |
| COFT | Conduct of Fire Trainer |
| CONUS | Continental United States |
| CP | Command Post |
| CPX | Command Post Exercise |
| CS | Combat Support |
| CSS | Combat Service Support |
| DISCOM | Division Support Command |
| DIV | Division |
| ESB | Enhanced Separate Brigade |
| FORSCOM | U.S. Army Forces Command |
| FTX | Field Training Exercise |
| GS | General Support |
| HHC | Headquarters Company |
| ICE | Live Fire Interdiction, Counterfire Exercise |
| IDT | Inactive Duty Training |
| M-day | Mobilization Day |
| MAPEX | Map Exercise |
| MLRS | Multiple Launch Rocket System |
| MOS | Military Occupational Specialty |
| MPRC | Multi-Purpose Range Complex |
| MSC | Major Subordinate Command |
| NTC | National Training Center |
| OPFOR | Opposing Force |
| PLT | Platoon |

| | |
|---|---|
| POM | Preparation for Overseas Movement |
| RC | Reserve Component |
| RTB | Regional Training Brigade |
| RTD | Resident Training Detachment |
| SOP | Standard Operating Procedure |
| SQN | Squadron |
| TDY | Temporary Duty |
| TF | Task Force |
| TOC | Tactical Operations Center |
| TOE | Table of Organization and Equipment |
| TRADOC | U.S. Army Training and Doctrine Command |
| USAR | United States Army Reserves |

Chapter One

# INTRODUCTION

## BACKGROUND AND PURPOSE

As a result of recommendations from the Commission on Roles and Missions,[1] the Army is redesigning the Army National Guard divisions. As part of the redesign effort, the Secretary of the Army directed the Army to study and test a proposal to form two divisions by merging six Army National Guard (ARNG) enhanced separate brigades (ESBs), three per division, with an Active Component division headquarters.[2] Three organizational alternatives were proposed for further assessment:[3]

- A heavy division composed of an Active Component headquarters, division troop units from either the Army National Guard, Army Reserve, or the Active Component, and three ARNG heavy ESBs. This organization could provide the flexibility to deploy as either a standard Army of Excellence (AOE) division[4] or as three

[1]U.S. Department of Defense, Commission on Roles and Missions of the Armed Forces, *Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces*, Washington, D.C., U.S. Government Printing Office, 1995.

[2]Secretary of the Army, Memorandum to the Secretary of Defense, "Army National Guard Division Redesign Decision," May 1996.

[3]The Army's Training and Doctrine Command (TRADOC) was given the task to develop and assess this concept. The assessment was to determine the viability of each alternative by addressing doctrine, organization, training, mobilization, mission capability, and resource impacts. See *AC/ARNG Integrated Division Concept Study*, Force Design Directorate, Fort Leavenworth, KS, August 1997.

[4]This is the heavy division structure found in today's force. Appendix C contains a more detailed description and indicates which elements of the AOE division are present in the ESBs.

separate brigades. Upon mobilization as a division, the unit would assume the standard AOE configuration with cavalry troops, combat support, and combat service support units in the separate brigades reorganizing and falling under the command and control of divisional troop headquarters units. This option provides decisionmakers the flexibility of mobilizing a single brigade, mobilizing all brigades but sending them to different locations, or mobilizing an entire division.

- An active division headquarters that only oversees the pre- and postmobilization training of three heavy ESBs. No additional divisional troop units would be required. These units would not be deployable as a division; only the ESBs would deploy. This option recognizes the difficulty that AC divisions now have in finding time to work with RC units during peacetime because of downsizing and increased operational pace.
- A heavy division, like the first alternative, composed of an Active Component headquarters, division troop units from either the Army National Guard, Army Reserve, or the Active Component, but with three divisional brigade combat teams (formed from ARNG heavy ESBs). Because of its less redundant structure, this alternative would require fewer personnel than the first one,[5] but the unit would be deployable only as a division.

A key consideration in the evaluation of this concept is the postmobilization process required to prepare and train the division for deployment to a combat theater. This report describes RAND's analysis of alternative strategies for postmobilization training of such a division. This analysis applies only to integrated divisions with units resourced at the same level as ARNG ESBs. It does not apply to ARNG divisions, which are currently resourced at much lower levels.

## APPROACH

Our approach was to estimate the time and resources required for postmobilization training for an entire AC/ARNG integrated division

[5]Because they are capable of deploying independently, separate brigades have elements that are also found within a division's troop units (e.g., some of the maintenance and administrative personnel).

to deploy as a unit. Our analysis began with the postmobilization training model and training resource requirements we developed previously for ARNG enhanced heavy brigades.[6] That earlier study found that the U.S. Army's Forces Command (FORSCOM) could provide sufficient training resources to open three heavy ESB postmobilization training sites. The major constraint on the number of sites was the availability of Active Component trainers. We adopted the same methodology for our analysis of the integrated divisions.

For the divisional analysis, we developed three alternative postmobilization training strategies. These strategies were developed with the training resources currently available for the ESBs in mind and with the goal of minimizing additional resources that might be required to train integrated divisions. We also wanted to provide the FORSCOM commander with postmobilization training options that varied in terms of time to train, risk, and flexibility. We calculated the time and resources needed to execute each strategy, and compared these with the time and resources needed to prepare and mobilize the ESBs.

## ORGANIZATION OF THIS REPORT

Chapter Two summarizes the highlights of the previous Arroyo Center research project that analyzed the resources necessary to train Army National Guard heavy ESBs.[7] We summarize that work here because it directly shapes the analysis of the training requirements and resources required to train the integrated division. Chapter Three describes the alternative strategies, and Chapter Four details the additional resources necessary to carry out the three strategies. By additional resources we mean those required to train the two integrated divisions beyond what it would require to train six ESBs. In Chapter Five we assess the different training strategies by applying several different criteria. Chapter Five also provides the feedback

[6]Thomas F. Lippiatt, James C. Crowley, Patricia K. Dey, and Jerry M. Sollinger, *Postmobilization Training Resource Requirements: Army National Guard Heavy Enhanced Brigades*, Santa Monica, CA: RAND, MR-662-A, 1996.

[7]As noted above, the results of that research, with all details of the supporting analysis, can be found in the earlier monograph (Lippiatt et al., 1996).

obtained from reviews by senior Army trainers, along with our conclusions.

The report also has three appendixes. Appendix A describes the resident training detachments required for the two alternatives, and Appendix B lists the trainers required beyond those FORSCOM has already planned for ESBs. Appendix C details the structure of an AOE division and indicates what elements of that structure are present in the ESBs.

Chapter Two

# SUMMARY OF RAND RESEARCH ON POSTMOBILIZATION TRAINING FOR ENHANCED BRIGADES

As mentioned, RAND previously conducted a comprehensive study to determine the postmobilization resources needed to prepare heavy ESBs for deployment to a combat theater. As part of that study, we developed a detailed training model for such brigades. In that model, we laid out a complete schedule of events for each organization in a brigade combat team (BCT) in the postmobilization training program.[1] We then developed three options for executing the model and determined the resources needed to execute each.

That previous analysis provided the basis for the integrated division study. First, it provided a brigade training model upon which to superimpose division-level events, which allows us to develop a training model for the integrated division. Second, the brigade training model and the resources identified for training three enhanced separate brigades give us a point of comparison, against which we can measure the postmobilization time and resources required to train an integrated division.

[1]A divisional brigade combat team is not a fixed organization. Instead it contains a headquarters and headquarters company and is assigned a number of maneuver battalions, typically from three to five. It also has other combat support and combat service support organizations attached or placed in support. Task-organized brigades are referred to as brigade combat teams. A typical brigade combat team would have three maneuver battalions assigned, a combat engineer battalion, a field artillery battalion, an air defense battery, and a forward support battalion in direct support. Other small detachment-sized elements such as signal, intelligence, and MPs are also normally provided. On the other hand, a separate brigade is a fixed organization that includes all the elements normally assigned to a divisional brigade combat team. It also contains enhanced support structure to provide capabilities normally provided to BCTs by the division. For simplicity, we call both entities BCTs throughout this document.

## ASSUMPTIONS

To develop this heavy ESB postmobilization training model, it was necessary to make assumptions about the levels of premobilization training and of the readiness at which the brigades would begin postmobilization training. We bring the same set of assumptions to our analysis of the postmobilization training requirements of the integrated divisions.

We assume that the ARNG brigades will attempt to meet the training goals described in the regulation that outlines the Army's policy for premobilization reserve component training, that is, FORSCOM/ARNG Regulation 350-2.[2] These goals include tank and Bradley crew gunnery qualification, platoon-level maneuver proficiency, field sustainment, and command-and-control training at the level organized. However, we do not assume that these goals will necessarily be met. Many factors—e.g., attendance at annual training, attrition, and job turbulence—limit the ability of ESBs to reach and sustain these goals.[3]

We assume, instead, that the brigades will enter postmobilization training at the level achieved by the better brigades during annual training (AT).[4] We define this higher level of demonstrated proficiency as accomplishing the following during annual training:

- Seventy percent of assigned unit personnel attend annual training with the unit. This results in some crews and platoons that are composed of members from several crews or platoons.
- Most of the tank and Bradley crews firing during Annual Training meet Table VIII qualification requirements (more than 85 percent).

[2]U.S. Forces Command/Army National Guard, Regulation 350-2, *Reserve Component Training*, Fort McPherson, GA, June 1996.

[3]Job turbulence and attrition would affect the training readiness of any unit, active or reserve, but it is more difficult for the Reserve Components, with their more limited training time, to compensate for these problems.

[4]The process of "enhancing" the ARNG separate brigades has been ongoing for some time. At the time of this study, some of the brigades had clearly progressed further in the process than others, for a variety of reasons. We made the optimistic assumption that, in time, all of the ESBs could achieve the level of performance and training readiness that we were currently observing (1991, 1992, and 1993) in the "better" brigades.

- Platoon offensive and defensive maneuver training are accomplished but, typically, in daylight only and for a subset of the tasks required for full combat proficiency.
- The brigade has demonstrated its ability to support itself in the field during its most recent annual training, and command and staff training should have taken place during the year at the level at which the unit was organized. That is, a battalion has had command and staff training at battalion level.
- Finally, all training has been conducted to the standards specified in Army training publications.

A brigade at this level of proficiency includes crew members trained well enough to start initial tank or Bradley live-fire tables after minimal refresher training. The brigade's platoons are trained well enough to go through a full set of specialized platoon situation training exercises (STX) after three to four days of refresher training. The primary purpose of the refresher training is to integrate cross-leveled personnel and replacements and to train a full set of required tasks.

We also assume that brigade-level postmobilization training focuses on the three missions developed by the Enhanced Brigade Task Force,[5] i.e., Attack, Defend, and Movement to Contact. However, we realize that the actual postmobilization Mission Essential Task List (METL) could change based on the CINC's theater requirements, and we purposely developed a training model that had sufficient time and resources to adjust to changed requirements.

We further assume that some key events have occurred by the time the brigades are ready to commence collective training, which we posit as M+18.[6] Our analysis assumes that the personnel readiness status for all units is at, or at least close to, P-1, that is, 90 percent of required personnel are present, qualified for their duty positions, and stabilized. We also assume that the equipment is ready, by

[5]Memorandum to Chief of Staff of the Army from DAMO-TRR, April 1994.

[6]In this analysis we assume that all preparation for deployment begins on the day the unit is mobilized, which we refer to as "M-day." Elements of the unit or the entire unit could be brought onto active duty prior to formal mobilization, and its preparation time would begin at that time.

which we mean that the unit has its major combat systems and all equipment needed for training, and, further, that almost all of that equipment is fully operational by M+18.[7] And we assume that the supply and maintenance support systems are able to keep the equipment operational and that the training site will have sufficient support (facilities, Multiple Integrated Laser Engagement System [MILES], personnel, parts, training ammunition, etc.) to begin training and to maintain the high operational tempo (OPTEMPO) of the training.[8]

Finally, we presuppose that both the trainers and the Opposing Forces (OPFOR) have completed their preparation for the training.[9] We regard these assumptions as reasonable but optimistic.[10] Should they not hold, it will take longer to prepare the units for deployment than the times we use here.

## THE TRAINING MODEL

Figure 1 presents an overview of our training model for an ESB. The large bar depicts the training for the combat elements, with the numbers atop the bar showing the time for each segment and those below showing cumulative days elapsed. The shorter bar shows the training for the commanders and staffs. This training occurs in parallel with that of the combat units. Training for combat support/combat service support (CS/CSS) units, although not shown in the figure, also proceeds in parallel.[11]

The full training model contains detailed day-by-day training events for each unit in the brigade and incorporates as much parallel train-

[7]See Army Regulation 220-1 for specific definitions of personnel, equipment on hand, and equipment serviceability ratings.

[8]At present, it is our understanding that the requirement for spare parts and training ammunition to support postmobilization training of ARNG combat units has not been funded. This issue deserves further investigation because it could seriously affect the postmobilization training.

[9]For most maneuver training, the Army will place "enemy forces" into the field to oppose the unit being trained. These are called OPFOR.

[10]With the further downsizing and funding shortfalls we see today, some would consider many of these assumptions extremely optimistic.

[11]See Lippiatt et al. (1996) for a detailed description of these activities.

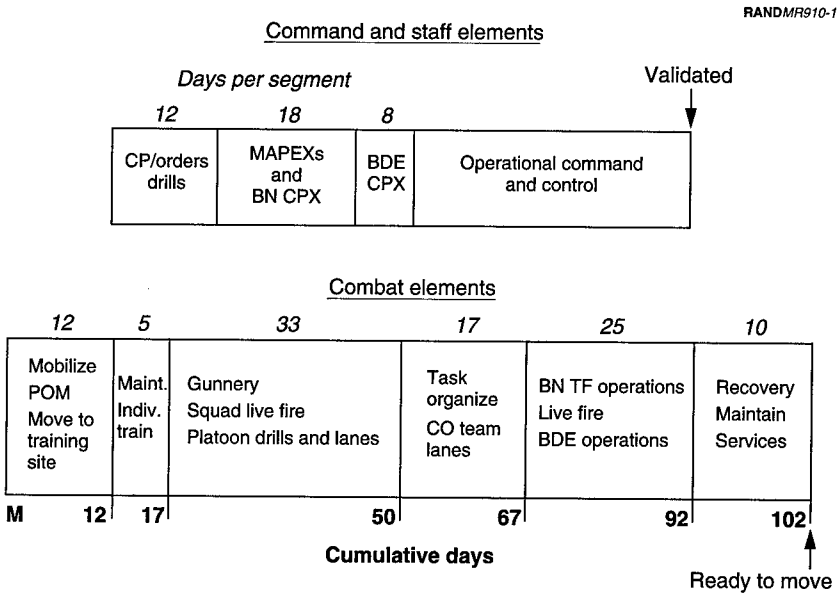


**Figure 1—Postmobilization Heavy ESB Training Model**

ing as possible to reduce the overall time requirement. Following the training events in this model, the brigade is validated on tactical missions in 92 days and ready to move in 102.[12] Actual times could vary, of course, depending on the premobilization readiness of the unit and its deployment mission.

We used the training model as a basis for determining the resources needed for postmobilization training. The most important training resources to train enhanced brigades are the sites and several categories of training personnel. We canvassed the Army to identify the training sites, trainers, training support personnel, OPFOR, and garrison support that would be available to support the training of the enhanced brigades. This survey showed that considering the avail-

[12]The 102-day figure used in this report is RAND's estimate of the time it will take to prepare and train the brigades, not official DoD policy. DoD sets a goal of having the brigades ready to deploy in 90 days.

ability of all these resources, the Army could support up to three heavy brigade-level training sites.

## Training Sites

Our analysis showed that five sites had sufficient space and facilities to support company-, battalion-, and brigade-level training. The Army has subsequently identified Forts Irwin and Hood and the Yakima Training Center as the ones it would use. Not all sites would be available immediately upon mobilization. Fort Irwin would be available almost immediately because it would not take long for any AC unit training there to pack up and return home to prepare for deployment. However, Fort Hood and the Yakima Training Center may be involved with the training and deployment of AC units, which could delay the training of the enhanced ARNG brigades at those sites between 30 and 45 days.

Although few installations have the space to support force-on-force maneuver and Combined Arms Live Fire Exercises (CALFEX) training required by the training model for company-, battalion-, and brigade-level training, quite a few can support the required gunnery (through platoon-level qualification on Table XII) and platoon- or section-level drill training.[13] We found that we could speed the deployment of brigades by using these installations for gunnery and lower-level collective training (we call them "gunnery sites"). Our prior study showed that using gunnery training sites enables all brigades following the initial set of three brigades to arrive at the brigade sites having already completed gunnery and some platoon-level training. This strategy reduces the time required at brigade training sites by 23 days. Using gunnery sites, the fourth through sixth brigades could be validated for combat missions at M+149 and ready for movement at M+159. The gunnery sites also figure into our strategies for the integrated divisions. Again, early access to some potential gunnery sites, e.g., Fort Riley and Fort Carson, may be delayed because of AC postalert training.

[13]Drill training differs from fuller forms of maneuver training in that the organization practices the tasks without an OPFOR.

## Personnel and OPFOR

Training requires six categories of personnel: trainers, training management personnel, training support personnel, simulation support personnel, installation and higher-echelon support personnel, and OPFOR.

Our analysis of ESB postmobilization training shows that it requires about 1,800 active component trainers and training managers to staff three brigade training sites. Almost all these personnel can be drawn from the NTC and AC organizations dedicated to support RC training in peacetime.[14,15]

About 1,000 training support personnel are also needed. Such personnel are needed for many types of general support to training that do not require trainer skills. Included are range guards, drivers, and similar personnel. The ARNG divisions can supply them.

Some additional units are required for the training sites because some of the support units normally there in peacetime will have deployed. Such units provide higher-echelon support to AC maneuver units. Meeting this requirement takes an additional 5,000 people (about 1,700 per brigade training site). Some of these functions could be contracted to private firms, or RC units could be tasked to provide them. In addition, the USAR Divisions (Exercise) are also tasked to provide simulations support.

The OPFOR requirement is about the equivalent of a separate brigade at each training site. The OPFOR at the NTC, the 11th ACR, can provide some of the OPFOR required, but additional forces must come from the ARNG divisions.

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[14]Our analysis revealed some MOS or branch shortages. This shortfall is less than 200, and we assumed that they could be provided by individual replacement from the Army at large. A more important point is that three heavy brigade–level sites is the most that can be staffed with available AC personnel currently programmed to support RC readiness.

[15]At the time we did this study, just under 8,000 AC soldiers were dedicated to RC support. Since then, this level of support has been reviewed by the Army's leadership and is in the process of being reduced to just over 6,000, with the details of this organization being finalized. Our review of the new organizational concept indicates that sufficient postmobilization AC trainers will continue to be available for up to three brigade training sites.

## Key Implications from the Brigade Analysis

The total requirement for Reserve Component forces to be mobilized to support training three heavy enhanced brigades is about 20,000, according to the previous analysis.

The assumptions about and resource analysis of the ESB postmobilization training provide the foundation of our analysis of the time and additional resources required for the division elements. Key assumptions for the brigade analysis are those about the ESBs' levels of training, personnel and equipment status, and the preparedness of the trainers and training support personnel. Should any of these not hold, it will take longer than the 102 days we posit to produce a trained brigade.

From a resource perspective, a crucial item is the availability of the training sites—brigade, company, and gunnery. The Army has more than enough facilities to support the training, but their availability is problematic. With the exception of Fort Irwin, the facilities designated by the Army for the brigade sites and those that could serve as company sites have commitments to active units during mobilization. Any delay in deploying the AC units will necessarily slow RC deployments.

Chapter Three

# THE INTEGRATED DIVISION POSTMOBILIZATION TRAINING MODEL AND ALTERNATIVE TRAINING STRATEGIES

This chapter describes our divisional postmobilization training model and alternative strategies for executing that model. Our approach was similar to the one we used for the enhanced brigades.[1] Here we describe our approach to determining what training events the integrated division should conduct, the sources of our information, the key training events for active divisions and their major subordinate commands (MSCs), our assumptions about the integrated division, our recommended training events for the integrated division, and three suggested strategies for accomplishing those events. Additional resources required to train the divisions are discussed in the next chapter.

## APPROACH

Our analysis involved three phases. The first effort was data collection. We reviewed the training strategies of Active Component divisions and their major subordinate commands and interviewed trainers in those divisions about their training strategies and training events in those strategies. We also discussed division training strategies with the BCTP staff. Based on current AC training strategies and assumptions about the status of the divisions at the start of mobilization, we designed a postmobilization strategy for the integrated division and its MSCs.

[1]Again, see Lippiatt et al. (1996). Three training strategies were developed in this study to implement the brigade training model shown in Figure 1.

We then compared the division-level training events with those required by the model for the enhanced brigades to ensure that the divisional training could be scheduled in a reasonable sequence but in a way that would not conflict with the maneuver brigade training. For example, we did not schedule a divisional-level CPX when the brigades were involved in battalion-level training events. Where necessary to accommodate the additional division- and MSC-level training, the model was extended.

With scheduling conflicts resolved, we developed a division-level timeline and identified any additional resources required to support the divisional and MSC training events, beyond the resources already provided to train the ESBs.

## SOURCES OF INFORMATION

Data collection involved extensive interaction with two active Army divisions, the 1st Cavalry Division and the 3rd Mechanized Infantry Division. We reviewed their training programs in detail, including interviews with training staff at division and MSC level. We also took into account the experience of those active CONUS-based brigades with split basing, that is, brigades stationed in the CONUS but with the remainder of the division in Europe or Korea. The "split-based" brigades we examined were in the 1st Armored Division and 1st Infantry Division. We also examined CONUS-based divisions that had brigades at different installations, that is, the 3rd and 4th Mechanized Infantry Divisions. This experience seemed particularly relevant for our analysis of premobilization training because the components of the proposed integrated division will be geographically dispersed.

The next phase of data collection involved a working group meeting at TRADOC's Combined Arms Center, Fort Leavenworth. The purpose of this meeting was to define alternative training strategies and to identify the advantages and disadvantages of each. The working group drew wide representation from across the Army. Representatives attended from the National Guard Bureau, the 49th ARNG Division in Texas, the Battle Command Training Program, the Combined Arms Services Command, the Deputy Chief of Staff for Operations (G-3) of Army Forces Command, the Combined Arms Center, and TRADOC's Integrated Division Project.

Finally, we interviewed several active and retired senior trainers and attended a divisional Battle Command Training Program (BCTP) Warfighter exercise.[2] Interviews in the active force included the director of BCTP; the Assistant Deputy Chief of Staff for Training, TRADOC; the Deputy Commanding General (a former ESB commander), G-3, and deputy G-3, Forces Command; and the Commanding General of First Army, as well as two First Army M-day general officers (one a former ESB commander). We also interviewed a former commandant of the Armor School and a former commanding general of Forces Command. In addition, we discussed our divisional training strategies and their implications with BCTP staff and numerous divisional personnel.

## ACTIVE DIVISION AND MSC TRAINING EVENTS

Analysis of the input from the AC sources shows nine types of major events that constitute the "battle focused" training (i.e., direct training for wartime missions) of the division and its MSCs. These nine types of events fall into two categories, primary and preparatory. Preparatory events include such activities as individual and section training, command post drills, and orders preparation exercises. The primary events are ones that exercise the warfighting tasks of the division headquarters company (HHC) and its MSCs.

### Preparatory Events

Preparatory events develop proficiency before primary events and sustain it between them. They include division participation in corps

[2]The BCTP is a part of the Army's Combat Training Center Program. Its purpose is to provide command and battle staff training for division and corps. The divisional exercises include two events. The first event, the seminar, involves the division commanders, key division staff officers, and BCT and MSC commanders and key staff. It is a five-day series of professional discussions, workshops, and decisionmaking exercises to help mold the divisional team and polish its warfighting skills. The Warfighter exercise is a week-long event conducted in a field CPX mode for the division- and brigade/MSC-level command-and-control elements, exercising their warfighting skills in a realistic environment against a highly competent OPFOR. The exercises are supported by the Corps Battle Simulation (CBS) and conducted by a permanent BCTP organization stationed at Fort Leavenworth. There are also corps BCTP exercises. The seminar for these exercises involves the division commander and key staff. For corps Warfighter exercises, only the divisional command posts are in the field.

BCTP, joint and other higher-echelon command post exercises, and a variety of internal command post, communication, and map exercises. Typically, divisions try to have such an exercise at least quarterly. Also relevant are professional development classes, which typically take place on a weekly to monthly basis, and the normal staff section training.

## Primary Events

Primary events directly train divisional warfighting skills and involve all major command-and-control elements of the division. There are four primary events: the divisional BCTP exercise, the live-fire Interdiction, Counterfire Exercise (ICE), a reduced-scale divisional field training exercise (FTX), and NTC and operational deployments.

Divisional and MSC training revolves around biannual divisional BCTP Warfighter exercises. The Warfighter exercises are preceded by a seminar and two or more preparatory, or "ramp-up," exercises that mimic to the degree possible the actual BCTP Warfighter. Each exercise spans about four weeks for the division and three weeks for the MSCs.[3]

The live-fire ICE exercise is a logical follow-on to the Warfighter. During an ICE, the divisions exercise the divisional command and control (C2), attack helicopter, electronic warfare, intelligence, field artillery, and air defense elements to perform deep attack, interdiction, and counterfire functions on the ground, but they scale down the distance and level of unit participation to conform to the live-fire areas available.

The 3rd Infantry Division conducted a reduced-scale divisional FTX in conjunction with its Bright Star deployment.[4] This exercise involved only one maneuver brigade, but it exercised movement of el-

[3]Approximately one week is spent with the division preparing its operations order (OPORD). The MSCs and brigades spend the next week preparing their OPORDs. The third week is devoted to command post (CP) setup, communications checks, rehearsals, and other direct preparation. The actual exercise occurs during the fourth week.

[4]Bright Star is a biannual exercise that takes place in Egypt. The deployed force has varied in size between a brigade combat team (minus) with one maneuver battalion to a full brigade with some divisional elements.

ements from all MSCs and divisional C2 in a force-on-force exercise against an Egyptian force. While only the 3rd Infantry Division had such an exercise, our training contacts in the other divisions thought such an exercise would greatly benefit any divisional training strategy.

Preparation for an NTC rotation is also regarded as a primary division and MSC event, even though the division does not participate directly in the NTC training. The MSCs as well as the division staff get deeply involved in the preparation of the brigades and their movement to and from Fort Irwin. The MSCs also send elements to support and participate in the rotation. Although this level of activity is below that likely to be experienced in combat, this preparation and participation translates well into the types of activities these organizations would be involved in during combat. Many of the active divisions also have units involved in actual deployments (e.g., peacekeeping operations in Kuwait and elsewhere), and these exercise division- and MSC-level combat skills as well.

## Other Factors That Develop Division-Level Skills

A major factor in the development of division-level skills cited independently by all senior trainers we interviewed is the command and control that is exercised overseeing day-to-day operations. Typically, the division commander exercises command and control of his units through his division staff (in conjunction with the installation staff). This day-to-day interaction exercises division operating procedures, causes commanders and staffs to get to know each other, and generally results in well-understood operational procedures. Although not quantifiable, this routine interaction enhances the division's ability to deploy and conduct combat operations.

Another related aspect brought up during our review sessions was the sequential nature of brigade NTC rotations and other brigade training. To some extent, this allows division commanders and staffs to focus on each brigade individually to develop mutual understandings and gives the chain of command the opportunity to oversee and support the training of their subordinates. This was seen as important because team building would be much more difficult if all brigades were training simultaneously.

Finally we note that these divisional peacetime training strategies were not seen as ideal or even fully adequate. These divisions have a large number of demands on leader and staff time. But these strategies represent the best use of available time given numerous priorities and missions.

## ASSUMPTIONS

A key assumption we make is that the divisional base in the integrated division's MSCs would be formed from Army National Guard or USAR resources. Although TRADOC's study did not specify the component that would furnish these units, use of Reserve Component units would provide the most difficult training requirement, and use of RC personnel seems the most likely manning option. Further, as we did for the enhanced brigades, we make several assumptions about the premobilization training and readiness levels of the integrated division at the start of the postmobilization period. We assume that the training levels currently achieved by the better brigades would continue for those in the integrated divisions. Should this not be the case, it would take longer to train the division's BCTs. The overall assumption is that the integrated division will be able to start an aggressive training program soon after its mobilization.

### Premobilization

As we did for the ESBs, we assume the division and its MSCs will seek to meet the training goals set forth in FORSCOM/ARNG Regulation 350-2. We further assume current training methods for an "Army of Excellence" (AOE) division and currently available training aids, devices, simulations, and simulators (TADSS). We also assume that integrated divisions and their MSCs would receive the same general level of priority for resources as ESBs, that is, AC support, temporary duty (TDY) funding, full-time manning, additional training days, training funds, and other resources necessary to support training.

We assume that the premobilization training focus of the integrated division and its major subordinate commands is on operations as a division under both organizational alternatives 1 and 3 rather than on operations as three separate brigades. This would not change the

premobilization training conducted by the BCTs or their focus. The key difference would be that the brigades would participate in command-and-control exercises with the division rather than with an AC division or independently.

We assume that the integrated division's premobilization training programs establish basic operating procedures and working relationships effective enough to move into an aggressive training program with minimum remediation time. We believe that the following command and staff training events provide a reasonable basis from which to begin postmobilization training and are consistent with the goals of FORSCOM/ARNG Regulation 350-2.

- Division BCTP once every two years
- Brigade/battalion BCBST on alternate years (with the division headquarters and its major subordinate commands participating)
- BOS exercises for division support elements every year
- Division/MSC SOPs developed and practiced

The division, brigades, and MSCs go through a division BCTP every two years and the division participates with the brigades and battalions in the Brigade Command and Battle Staff Training (BCBST) in the alternate years.[5] The latter exercise includes the division and MSC staffs participating in their wartime roles as higher and supporting headquarters.

The division with its combat support and combat service support elements conducts Battlefield Operating System (BOS) exercises every year.[6] BOS exercises are walk-through or rehearsal exercises during which the appropriate set of division, MSC, and brigade leaders and

[5]The BCBST program is a part of the BCTP program based at Fort Leavenworth. This program focuses on training ARNG combat brigades and their battalions in a simulations-based exercise. Like divisional BCTP, there are separate seminar and field CPX events.

[6]FM 25-100, *Training the Force*, the Army's capstone training manual, defines Battlefield Operating Systems as the major functions performed by a force to execute operations successfully. These functions are command and control, intelligence, maneuver, fire support, air defense, mobility and survivability, and combat service support.

staff practice the tasks and procedures necessary to ensure that the specific BOS function being trained could be performed in a tactical situation. An example could be a terrain board exercise supervised by the Assistant Division Commander for Support (ADC-S) with key personnel from the division G-1 and G-4 sections, brigade S-1 and S-4 sections, the Division Support Command (DISCOM), and the Forward Support Battalions rehearsing and reviewing combat service support procedures to support a division attack. These exercises would precede the more demanding BCTP exercises in which all BOSs are integrated in a complete tactical exercise.

We assume that premobilization training within ESBs would be unchanged, with one exception. For both TRADOC alternatives, the cavalry troops, which are currently assigned to the ESBs, would train under division cavalry squadron's control.

To develop effective working relationships throughout the division, we further assume that the SOPs for the integrated division and its MSC have been developed and practiced; that the division and its MSCs would oversee and provide support during annual training and other major training events; and that sufficient funds for temporary duty (TDY) or additional active duty for training (ADT) funds are provided to support these activities. Unlike the Active Component divisions during a brigade NTC preparation period, premobilization training will not provide the opportunity for the division commander and his senior staff to oversee and support the field training of each of the brigade combat teams as a whole.

During our reviews with senior trainers, these events were seen as needed and achievable. Moreover, focusing on employment as a divisional brigade was seen as a sound approach for either alternative. This would not change current premobilization training activities, and the consensus was that a CINC who gained an ESB to be employed in a full combat role would attach it to a division rather than use it directly under corps command.

## Postmobilization

Turning to the assumptions made for the postmobilization period, we assume that the integrated division must be able to attack, defend, and carry out any specific missions desired by the gaining

CINC. If the missions were less demanding, say only rear-area security, then the time required to train the division would be less.

Under TRADOC's alternative 1, some reorganization to shift from separate brigade to division configuration would be required if the decision is made to deploy as a division. We assume that this reorganization can be accomplished during the early stages of mobilization and will not delay brigade-level training, divisional support for this training, or the divisions' internal training programs. We believe this is a reasonable supposition given our other assumptions about premobilization. Moreover, there is time during the early stages of mobilization to accomplish such actions. Gunnery, platoon maneuver, and lower-level command-and-control training require limited divisional support. For this reorganization to take place smoothly, it will require that the soldiers and leaders who will reorganize to form the major subordinate commands have been identified, and that they have had the opportunity to train together in peacetime.

We have applied the training model developed for the enhanced ARNG brigades with the exception that the cavalry troops train as a squadron rather than as separate troops with their brigades. As we do for the brigades, we assume that the trainers and supporting organizations are prepared to begin training on M+18. And, finally, we assume that the resources determined necessary for the training are available. The primary challenge lies in bringing together and developing proficiency in a group of personnel from organizations that have not trained together consistently.

## SUGGESTED TRAINING REQUIREMENTS FOR THE INTEGRATED DIVISION

Based on the experience of the AC divisions, discussions with active and National Guard trainers, and our assumptions, we determined that the division- and MSC-level events listed in Table 1 are those required during the postmobilization period to prepare the integrated division for movement. Preparatory events move from individual and section level to more integrated training. The purpose is to develop basic teamwork and individual proficiencies as well as to integrate new members into organizations. Preparatory events do not involve the brigade combat teams.

**Table 1**

**Division and Major Support Command Postmobilization Training Events**

| Events | Time Required |
|---|---|
| Preparatory | |
| Individual and section training | 10 days |
| CP and order drills | 10 days |
| MAPEX/CPX without BCTs | 10 days |
| Primary | |
| BCTP seminar | 8 days |
| BCTP ramp-up training | 20 days |
| Warfighter | 15 days + 5-day division order prep |
| Division FTX/ICE (–) | 8 days including optional 3-day prep |

Primary events include the BCTP seminar and Warfighter exercise, with one "ramp-up" training event. After the BCTP, we have also included a division (minus) Field Training Exercise/live-fire Interdiction, Counterfire Exercise (FTX/ICE), which is a combination of the reduced-scale division FTX (similar to the Bright Star exercise conducted by the 3rd Infantry Division) and the ICE included in both the 3rd Infantry Division and 1st Cavalry Division strategies. This exercise could be executed with one brigade combat team and divisional MSCs. Divisional deep, close, and rear operations would be included. We have also provided for an optional command field exercise (CFX) to precede this final field exercise.[7]

Prior to and during Warfighter and the BCTP ramp-up training periods, BOS exercises and rehearsals are conducted. The division oversees all the training. During the postmobilization period, the division and MSCs operate from a tactical configuration and exercise the divisional C2 and sustainment to the extent installation arrangements and schedules allow.

[7]A command field exercise (CFX) is a command-and-control exercise where representative command elements from each unit, typically down to company level in a division exercise, go to the field and maneuver as if the entire division were in the field.

## TRAINING STRATEGIES

The training model by itself would not allow us to determine the timelines and resources necessary to train two divisions. The model could be implemented in many different ways. Therefore, we needed to develop a range of implementation strategies and examine the timelines and resource requirements of each.

The training strategies in this section were developed in close coordination with the FORSCOM and Department of the Army planners. These strategies were developed with the training resources currently available for the ESBs in mind, i.e., sufficient resources for three brigade-level training sites, and with the goal of minimizing additional resources that might be required to train integrated divisions. We also wanted to provide the FORSCOM commander with postmobilization training options that varied in terms of time to train, risk, and flexibility in allocating available resources. Therefore, we developed three alternative strategies:

A. Fastest, highest risk in terms of meeting timelines and training quality.

B. Slower, lower risk.

C. Slower for divisions, but allows parallel generation of ESBs/ACR if needed.

In strategy A, the three brigade combat teams train in parallel at three different sites, with the division, one brigade combat team, and all MSCs, including the divisional cavalry squadron, going to Fort Irwin. The complete MSC does not go to Fort Irwin. Rather, only that portion of the MSC normally not attached to or in direct support of the brigade combat team goes to the division site. For example, each brigade combat team has an artillery battalion that accompanies it to its training site. The other elements of the division artillery MSC—the headquarters, the multiple launch rocket system (MLRS) battery, and the counterfire battery—go to Fort Irwin to train with the division headquarters and the other MSCs. The other two brigade combat teams go to Fort Hood and Yakima. This method produces trained brigades in the shortest possible time, but it gives the division very little time together (since most training is done in parallel at different sites). It also poses risks to the timeline; more

time might be required, for example, if some brigades are not fully ready or if trainers and OPFOR are not prepared to begin simultaneously at three sites.

Strategy B calls for all brigade combat team and battalion task force maneuver training to be conducted at Fort Irwin. As in strategy A, the division, one brigade combat team, and MSCs go to Fort Irwin immediately and begin training. The other two brigades report to company-level training sites, where they conduct gunnery training through company team lanes.[8] They then report to Fort Irwin in a staggered sequence. This sequencing is necessary because Fort Irwin can only accommodate one brigade combat team at a time for maneuver and live-fire training. This strategy allows division units much more time together under division oversight and support because much of the training occurs at one place, with brigades training in a staggered sequence.

Strategy C employs one or two division sites depending on the number of divisions being trained. All force-on-force maneuver training takes place at the division sites. As in the other strategies, the division, its first maneuver brigade, and the aviation brigade go initially to a single division site. Following brigades first go to gunnery sites and complete gunnery and platoon drills.[9] Then, in staggered sequence, they report to their division's site to complete their training. This approach gives the Army more flexibility by using one or two sites for division training, leaving the remaining site or sites for parallel training of ESBs or the ACR. The remainder of this chapter describes these three strategies in greater detail.

[8]At a company training site, brigades conduct training events in the brigade training model up to and including company team lanes. To execute training to this level in the timelines postulated in the brigade training model, these sites require approximately the same level of resources, in terms of garrison support and training personnel, and space as brigade training sites. However, they require fewer OPFOR (see Chapter Two).

[9]Gunnery sites require minimal training resources—just a multipurpose range complex (MPRC) and sufficient maneuver space for platoon drills. Gunnery training would be supported internally with oversight from the units' RTDs. Such sites as Forts Stewart, Carson, Riley and Orchard Training Area in Idaho would be adequate.

## Strategy A

Figure 2 depicts the sequence, events, and timelines of strategy A, brigades training in parallel at three different sites (Forts Hood and Irwin and Yakima). The division-level integration occurs as a result of a series of division exercises, shown on the diagram as light gray vertical bars running through all units. The first, the BCTP seminar, occurs early in the mobilization period while lower-level units are moving to their training locations. The next division exercise occurs during the company-level training. This is the BCTP "ramp-up" exercise, but unlike the current BCTP ramp-up exercises, it does not include battalion commanders and staffs because they are training their companies. This exercise could be conducted remotely, or necessary command and staff elements could travel from Fort Hood and Yakima to participate in key events (rehearsals, actual exercise, and After Action Review (AAR)) at Fort Irwin. The next exercise requiring all elements is the BCTP Warfighter exercise, which takes place at Fort Irwin. Because this exercise is being conducted after the completion of the brigade combat team FTXs, a full command and staff set of equipment from the two brigade combat teams would travel there for the exercise. Strategy A ends with two divisional exercises. The first is an optional divisional CFX, which is followed by the division (minus) FTX/ICE.

The brigades that train at Fort Hood and Yakima are ready to move to deployment ports on day 124, and all divisional elements are ready to move between day 132 and 135. Meeting these deployment timelines requires collective training at all sites to begin at M+18.

Under this strategy a second division would mobilize and begin training at gunnery training sites (sites other than the brigade sites) where they would complete gunnery and platoon drills. Gunnery sites must have a multipurpose range complex (MPRC) to support gunnery through Table XII and enough maneuver space for platoon-level maneuver. This training would be done while the first division is still completing the events in the last part of the divisional model at the brigade-level training sites. As the first division leaves these sites, the second division would move in and begin collective training with platoon lanes (around M+130). This procedure shortens the training time required at the brigade training sites for the second division.

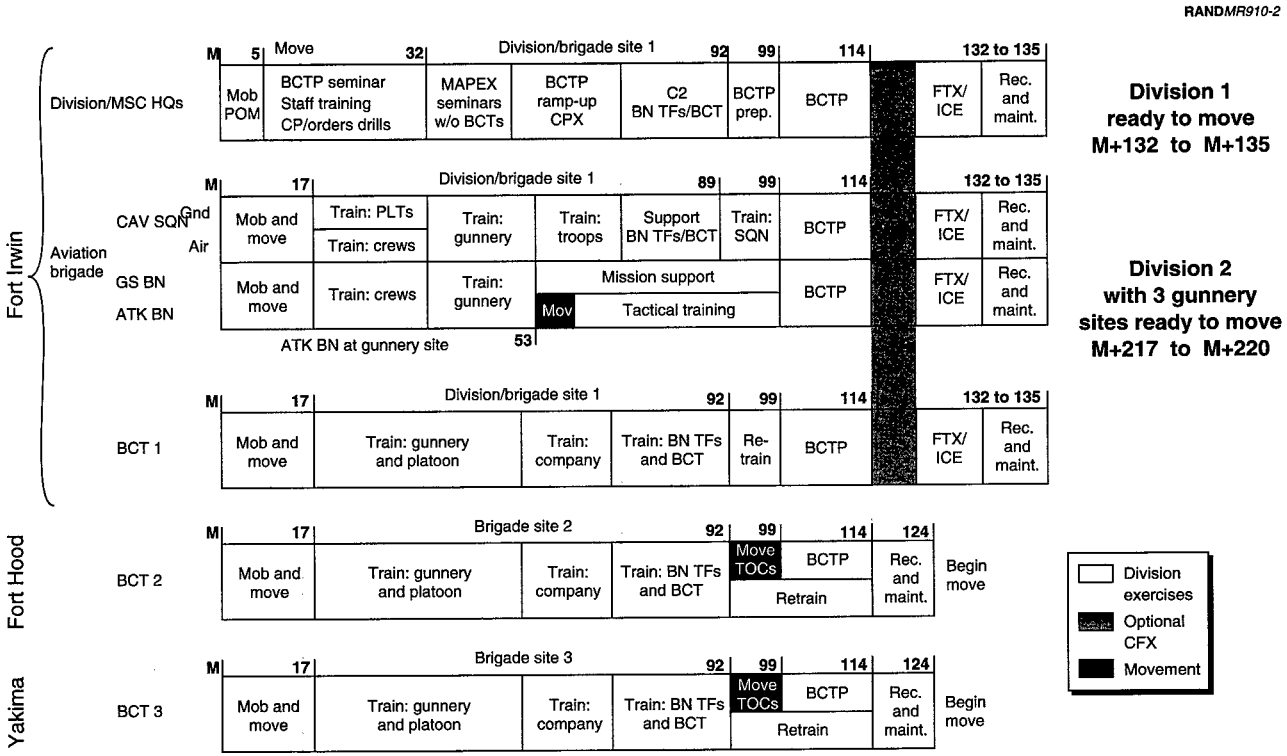



**Figure 2—Strategy A**

Consequently, the second division could be ready to move between day 217 and 220.

The chief advantage of this strategy is speed. If all goes well, it produces trained divisions faster than the other strategies, but as we have said, it also incurs significant risks to meeting the timeline, it spreads the experienced observer/controllers and OPFOR across three different sites, and it provides only a modest opportunity for the elements of the division to train together.

### Strategy B

Training strategy B uses a single division site, Fort Irwin, and two company-level sites. All brigade combat team and battalion task force maneuver and live-fire training is conducted at Fort Irwin. As in strategy A, the division, one brigade combat team, and the division's major subordinate commands with the divisional cavalry squadron go to Fort Irwin immediately and begin training. The other two brigades would mobilize and report to two company-level training sites, where they would complete training through company team lanes. Because multiple company training lanes are run in parallel for all of the brigade's company teams, company-level training sites require the same gunnery ranges, maneuver space, and trainers and training support as a brigade-level site if the timeline in the training model is to be met. However, they require fewer OPFOR. Figure 3 displays this strategy.

The dotted portions of the bottom two bars indicate that two of the brigades can mobilize later than the division HHC, major subordinate commands, and one brigade combat team. Although they can mobilize later, the second brigade must be ready to begin training at M+37 and the third brigade no later than M+67.

The key brigade and MSC commanders and staff must mobilize at the same time as the division staff so they can attend the BCTP seminar, which is held at Fort Irwin at about M+5.

The third brigade combat team is the last one to pass through Fort Irwin, and it is the one that participates in the CFX and the division (minus) FTX/ICE. While it completes its training and the BCTP Warfighter exercise, the first and second BCTs have an opportunity

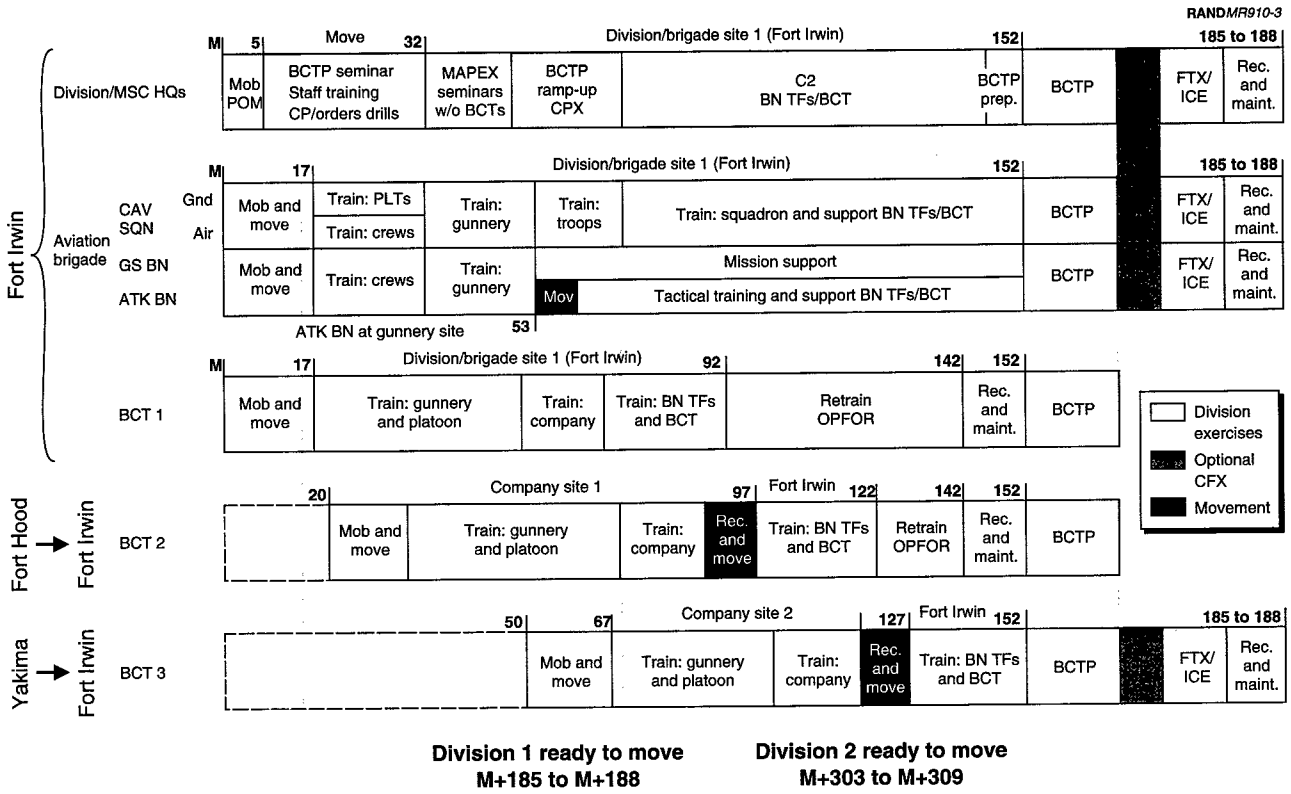



Figure 3—Strategy B

to retrain, act as OPFOR, participate in the CFX or FTX/ICE(–), or deploy early if needed. Block leave for units within these BCTs is also an option. The first division is ready to move 53 days later under this strategy than under strategy A, around day 185.

In strategy B, the second division, one brigade combat team, and the division's major subordinate commands with the divisional cavalry squadron go to company training site 1 (in this example, Fort Hood) to begin training after the BCT 2 of the first division moves to Fort Irwin. Enough time must be allowed so that these units of the second division can complete the first 67 days of the training model through company team lanes and arrive at Fort Irwin by day M+185 to complete training. BCT 2 of the second division moves to company site 2 (in this example, Yakima) some time after BCT 3 of the first division has moved to Fort Irwin. Similarly, BCT 3 of the second division would move to company site 1 some time after the second division and its BCT 1 have moved to Fort Irwin. Using this parallel training strategy, the second division is ready to move in slightly over 300 days, or about 80 days later than in strategy A.

Although this strategy results in slower deployment than strategy A and would require temporary expansion of many Fort Irwin facilities, it offers training advantages.[10] Toward the end of the training period, all division units congregate at a single post, and the division and MSCs can fully control and support the entire division. Also this option provides for all battalion and brigade field training to be conducted by the NTC Operations Group and with the 11th ACR as OPFOR, whereas strategy A effectively requires three Combined Training Centers to be set up early using cadres from the Operations Group and the 11th ACR. This strategy also allows the division commander and his staff to work sequentially with each of the brigade combat teams during their maneuver and live-fire training. This is more difficult for strategy A, in which this training occurs concurrently at three different sites.

[10]Under this strategy, a far larger troop and equipment concentration would be required at Fort Irwin than its current fixed facilities support, and they would be in this harsh environment for an extended period. Additionally, Fort Irwin does not have a Simulations Center. We have considered this issue and believe that, although it is a concern, temporary facilities could be established to provide adequate if austere support.

## Strategy C

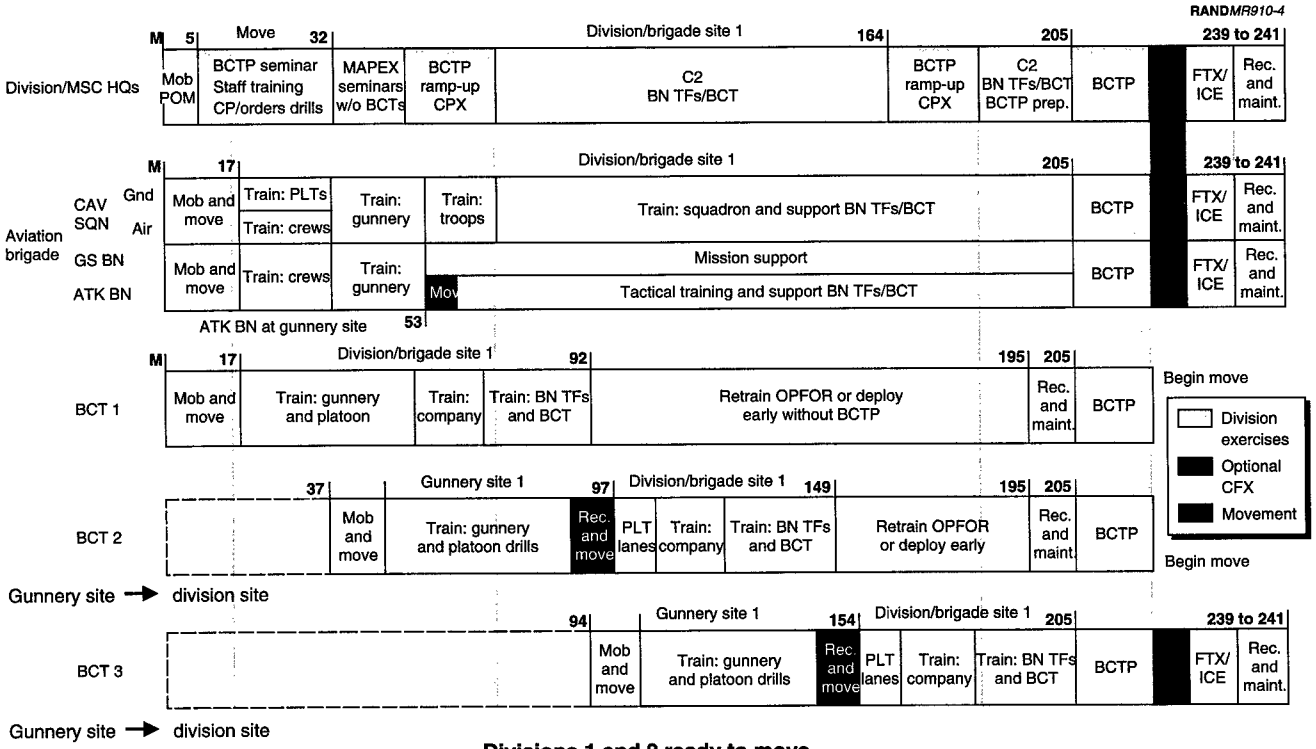
Strategy C, shown in Figure 4, employs one or two division sites and one or two gunnery sites, depending on the number of divisions being trained. All force-on-force maneuver and live-fire training takes place at the division sites. As in the other strategies, the division, one brigade combat team, and the major subordinate commands go to a single division site. The other two brigade combat teams first go to gunnery sites and complete gunnery and platoon drills.

Again, while the brigades going to the gunnery sites can mobilize later than the divisional elements, key brigade staff members have to mobilize early so they can participate in the BCTP seminar and BOS exercises with divisions and MSCs. Arrival at the division site has to be sequenced because maneuver space constraints preclude maneuver training of more than one BCT at a time at one site. As in strategy B, the last BCT passing through the division site participates in the CFX and the division (minus) FTX/ICE.

Under this strategy, either one or two divisions can move by M+239. This strategy requires only one or two brigade training sites with the training support, OPFOR, and trainers needed to conduct training at each site. Thus, because there are sufficient resources for a total of three brigade training sites, training resources would be available to open one or two sites to train other ESBs in parallel with those in the AC/ARNG integrated division. If two divisions are being trained and a third brigade training site is opened, the other heavy ARNG ESB and ACR[11] could be trained there and potentially could begin movement by M+102 and M+159 respectively.[12] Thus, an advantage of this strategy is the potential for training other heavy enhanced brigades or the 278th ACR concurrently with training the AC/ARNG divisions.

[11]Currently, there are seven heavy ARNG ESBs and one ACR in the force structure. Under the integrated division concept considered here, six heavy ESBs would belong to the divisions, leaving one ESB and the ACR to be trained as individual units.

[12]These are the training times for two brigades going through a brigade training site supported by a gunnery training site. See Lippiatt et al. (1996).




**Divisions 1 and 2 ready to move**
**M+239 to M+242**

Figure 4—Strategy C

A disadvantage of this strategy is a large amount of downtime for the early brigades. While strategy B had some potential downtime, the possible need for retraining and potential for providing some of the OPFOR support ameliorates this drawback. This would also be somewhat true for strategy C. However, this strategy extends the potential downtime to over three months. Experience from World War II, Korea, Operation Desert Storm, and the Bosnia deployment indicates that units should deploy soon after completing training or risk losing their training edge.

Chapter Four

# ADDITIONAL TRAINING RESOURCES REQUIRED

This chapter describes the additional training resources required to train the integrated divisions. By additional we mean resources beyond those already allocated for the training of the enhanced separate brigades. Both pre- and postmobilization training require additional resources.

## PREMOBILIZATION RESOURCES

Additional assets required fall into two categories: those enhancements that would have to be provided internally by the National Guard, and those that must come from external sources, TRADOC, the USAR, and FORSCOM. The overarching principle is that the division MSCs need to be resourced at the same level as the enhanced brigades.

This additional requirement has both personnel and funding implications for the National Guard. The enhancement of the ARNG separate brigades has required additional resources. They have been provided additional personnel, about 10 percent above the required strength.[1] These additional personnel enable the brigade to send people to individual skill qualification schools and train entry-level soldiers during AT while still having an adequate number available for unit training. The brigades also have additional full-time (AGR) personnel to provide extra training support, and these would be

[1]Although they have been authorized the additional end strength, most of the brigades have not been able to recruit to these levels.

needed for the MSCs as well. Furthermore, additional Active Duty for Training (ADT) funds have been made available for schooling outside of regular unit training periods (particularly annual field training) and for otherwise facilitating unit training.[2]

FORSCOM, the USAR, and TRADOC also face additional requirements. Enhanced separate brigades are supported by Resident Training Detachments (RTDs) of just under 50 Active Component officers and NCOs for each brigade. These detachments augment the brigade's internal training capacity, providing a level of operational experience not generally available to National Guard units. Their mission is to assist in the management, planning, preparation, and execution of training activities, especially weekend training. The other units in the integrated divisions should also be provided RTDs. We calculated the level of this support using current allocation rules that sized the RTDs for the ESBs and found that the additional detachments amount to 94 active component soldiers for each division.[3]

This additional 188 AC RTD trainers required for two integrated divisions is not a large number but is potentially significant, because they are all experienced officers and NCOs. We believe the most available source would be from the proposed AC divisional headquarters and headquarters companies. Under the current integrated division concept, these companies would be manned with 288 AC personnel each. However, a review of the TOEs shows that many positions in these companies do not need to be staffed by active personnel in peacetime. Many are cooks, lawyers, drivers, and similar specialties that could be adequately filled by National Guard part-time personnel. Such a strategy would provide active spaces for the RTD as well as for key staff positions requiring high levels of operational experience within the integrated division's major subordinate headquarters.

FORSCOM and the USAR also support training for the ESBs during Inactive Duty Training (IDT) and AT periods. FORSCOM provides

[2]Currently, because of funding shortfalls, the full-time (AGR) manning levels are below authorized, and the funding levels for ADT are well below those originally envisioned for these brigades.

[3]Appendix A lists the RTDs required for one division.

this support with its Training Support Brigades (TSBs) and the USAR from its Divisions (Exercise). TSBs set up and run field training exercises and gunnery training for combat arms organizations during IDT and AT. TSBs have field artillery, combat engineer, air defense artillery, aviation, infantry, and armor trainers. While they have some signal, supply, maintenance, intelligence, MP, and other specialty trainers, the quantity of these trainers was established to support early-deploying RC support units. Therefore, the TSBs will have to rely heavily on the USAR's Divisions (Exercise) to train these specialty functions.

The Divisions (Exercise) set up and run training exercises for combat service and combat service support organizations. The Divisions (Exercise) also conduct simulation-supported C2 exercises for brigade- and battalion-sized headquarters.

TRADOC provides simulation-supported C2 exercises through BCTP and BCBST exercises conducted by the BCTP teams at Fort Leavenworth.[4] Currently, enhanced separate brigades participate in these same exercises on alternating years. The premobilization training events we list in Chapter Three provide this same level of training for the integrated division's headquarters and divisional base units as currently provided to the ESBs. To support these added divisional- and MSC-level training events, additional support from TRADOC's BCTP teams and the USAR's Divisions (Exercise) would be required.

Our review of the capacity of the TSBs, Divisions (Exercise), and BCTP teams with TRADOC and FORSCOM staffs indicates that although some shift in training priorities would be necessary, the capacity to provide this level of premobilization weekend and annual training support to the integrated divisions, with one exception, exists within the current AC structure supporting the RC and the Divisions (Exercise). The one exception is aviation support. If the divisions' aviation battalions and troops are in addition to the current early-deploying National Guard aviation units, about 40 trainers who are not available in the current or proposed AC support to RC structure may be needed.

[4]BCBST and BCTP exercises were described in Chapters Two and Three.

Finally, the divisions will be geographically dispersed, and the division-level peacetime training will require both technology and support, as well as travel funds, to conduct remote CPX and simulation-based training.

Summarizing, in peacetime the divisional troop units will require additional structure authorizations, and additional AGR and ADT funding, if they are to be resourced at the same level as the ESB requirement. Currently, this additional funding has been restricted for the ESBs, and the divisional units would create an extra burden. If these requirements cannot be met, it will be more difficult for the units to meet their premobilization training goals, which elevates the risk of extending the postmobilization training period. Although additional AC trainers will be required in peacetime RTDs and RTBs, most of the requirement could be met through the restructuring of the AC division headquarters units, using RC personnel for some jobs and thus freeing up AC personnel to fill training positions.

## POSTMOBILIZATION RESOURCES

The types of resources needed for premobilization training are also needed for postmobilization training. FORSCOM has already programmed sufficient AC to RC assets to operate three brigade training sites.[5] However, these do not account for divisional base units not in the separate brigades, such as the MLRS unit, division artillery headquarters, aviation brigade and battalions, and other support and command-and-control units or for the divisional and MSC training events included in our divisional postmobilization training model. In addition to the 94 AC people from the RTDs, the postmobilization trainer requirement is 108 MSC trainers for each division, simulations trainers from USAR Divisions (Exercise), and one or two BCTP teams.[6] As with premobilization AT and IDT training support, our discussions with the FORSCOM staff indicates that the required ad-

[5]As discussed in Chapter Two, a decision has recently been made to reduce the number of AC leaders dedicated to supporting RC training from just under 8,000 to just over 6,000, with the specific details of the organizations still being finalized. However, our review indicates that sufficient AC trainers will be available to support training at three brigade sites at one time; however, once this organization is finalized, further review to verify this conclusion is warranted.

[6]Appendix B provides a detailed listing of the additional AC MSC trainers required.

ditional trainers can be provided from the programmed AC to RC structure and USAR Divisions (Exercise) with the exception of those needed for the aviation battalions. TRADOC can provide the BCTP teams if there is no conflicting requirement from deployed AC units. Additionally, training support personnel and simulations are required to support the simulation-based training events; these resources can also be provided from the USAR Divisions (Exercise).

As with premobilization, providing this level of training support to the integrated divisions during the postmobilization period has the potential to affect training other RC units as well as providing BCTP support to AC divisions already in theater or those preparing to go. While sufficient assets appear available to provide this support, further study of the effects is warranted.[7]

To summarize, resources beyond those presently programmed for the ESBs are required to produce trained divisions. Some of these resources would have to come from the ARNG: the additional personnel authorizations to provide the division units the same level of resources that the ESBs enjoy and additional funding for training, TDY, and so forth. Providing these resources is largely a matter of priorities on the part of the ARNG leadership.

Other resources would have to be provided by TRADOC and FORSCOM. The most significant of these are the approximately 400 additional trainers required for pre- and postmobilization training of the division elements. Most of these trainers are available from the AC forces designated to support the RC and the USAR's Divisions (Exercise). The exception is the approximately 80 trainers required to support the aviation battalions if, as we assume, these are drawn from the ARNG.

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[7]As examples, BCTP teams supported predeployment training for AC divisions both for Bosnia and Operation Desert Storm and in-theater support for Operation Desert Storm. In the case of the USAR Divisions (Exercise) Field Exercise Brigades, which conduct field training for RC combat service support units, these organizations are still being formed, so their capacity to support the total postmobilization training requirement, including two integrated divisions, should be revalidated.

Chapter Five

# ASSESSMENT OF ALTERNATIVES AND CONCLUSIONS

In this chapter we assess the alternatives based on a number of criteria; summarize the comments of the senior trainers we consulted as part of this study; compare the resources, risks, and timelines for conducting postmobilization training for ESBs with integrated divisions; and present our conclusions.

## ASSESSMENT OF ALTERNATIVES

The evaluation of the three strategies requires an assessment of several tradeoffs. This assessment is not designed to indicate which training strategy is best. Rather, the assessment aims at illuminating tradeoffs to provide decisionmakers a basis for selecting the alternative that best meets their current requirements. Policymakers will be interested in multiple factors in selecting a strategy.

We apply three primary criteria in our assessment: force generation, training quality, and additional training resources required. We developed subordinate criteria within each of these primary criteria in cases where we saw significant differences among the strategies.

- Force generation
  - — Timelines to generate forces
  - — Risk to meeting timelines
  - — Flexibility in generating forces (that is, FORSCOM's flexibility to generate ESBs or ACRs and divisions simultaneously)

- Training quality
  - — Division training oversight and leader team building
  - — Opportunity to integrate and practice division support operations
  - — Trainer experience
  - — BCT downtime
  - — OPFOR quality
  - — Instrumentation
  - — Live-fire training capacity
- Training resources
  - — AC trainers
  - — BCTP teams
  - — Divisions (Exercise)
  - — RC mobilization including OPFOR

Table 2 summarizes the assessment of the three strategies.

## Force Generation

Strategy A produces a trained division in the shortest time, but also has the greatest risk in meeting the timelines. Because strategy A opens three sites at the beginning, it could be adversely affected by site availability and the ability of the trainers and the OPFOR to prepare and begin collective training by M+18. Also, because all units report at the same time to different training sites, there are few opportunities in strategy A to address such problems as some brigades being more proficient than others or a significant cross-leveling requirement. The other two strategies stagger the mobilization of the units, so a brigade needing more personnel, training, or time to prepare equipment could be called up early to address any deficiencies. Similarly, an early mobilizing brigade could be cross-leveled with personnel from one mobilizing later, and that unit would have time to make up shortages from the individual replacement system.

**Table 2**

**Comparative Assessment of Strategies**

| Criteria | Strategy A | Strategy B | Strategy C |
|---|---|---|---|
| Force generation timelines | | | |
| First division | M+132 | M+185 | M+239 |
| Second division | M+217 | M+303 | M+239 |
| First BDE/ACR | None | None | M+102 |
| Second BDE/ACR | None | None | M+159 |
| FORSCOM flexibility to generate ESBs/ACR and divisions | No | No | Yes |
| Risk to planned timeline | Worst | Best | Next best |
| Training quality | | | |
| Trainer experience | BN/BDE thin | Best match | BN/BDE thin |
| OPFOR quality | AC cadre thin | Best match | AC cadre thin |
| Division integration/practice | Worst | Next best | Best |
| Division training oversight and leader team building | Worst | Next best | Best |
| Instrumentation (BN/BDE) | Limited at 2 sites | Best | Limited at 2 sites |
| CALFEX capability | Company level only for 2 BDEs | BDE level | Company level only for 2 BDEs |
| Brigade downtime | None | Moderate | Most |
| Resource requirements | | | |
| BCTP teams | One | Two | Two |
| Divisions (Exercise) support | Lowest | High | Highest |
| Postmob trainers for DIV/MSCs | 108 | 216 | 216 |
| Postmob trainers/support for BCTs | 3,200 | 2,600 | 3,200 |
| OPFOR number | 11,000 | 8,300 | 11,000 |
| Total RC mobilization[a] | 6 locations 20,000 | 3 locations 15,500 | 6 locations 20,000 |

[a]"Total RC mobilization" does not include requirements for the USAR Divisions (Exercise) or for possible extra installation support required to support divisional base units.

Strategy B, although 53 days longer than strategy A, has less risk in meeting the timelines because all training above company team level is done at a single site, therefore placing less stress on trainer and OPFOR preparation. By M+18 it requires only one site to be open and has only one brigade beginning training. Therefore it facilitates maintaining its timelines if one or two of the brigades need to correct deficiencies. The longer timelines also give more time to reorganize the division and to accommodate the possibility that divisional base units might not be ready to begin training and support at M+18.

Strategy C is the slowest to produce the first division, over 100 days slower than strategy A, but it produces the second division over two months faster than strategy B. However, it has the advantage of being able to provide an ARNG ESB and ACR concurrently with training the integrated divisions if they are required. The first ESB could be available in about 90 days. This could be an advantage in certain strategic situations, for example where the first contingency required additional combat forces early and there was no second contingency but a national decision had been made to reestablish a ready force as a credible deterrent. Concerning the risk of meeting timelines, strategy C has some of the same risks as strategy A, but it could better accommodate the chance that some of the divisional brigades or divisional units might not be fully ready to begin training at M+18.

## Training Quality

Strategy B clearly has less quality risk than the other two strategies. It has numerous advantages for training BCTs and the organizations in the BCTs. All training above company team level is done at a single brigade training site, the National Training Center, and this provides the best match of trainer and OPFOR premobilization experience and postmobilization training missions. The Operations Group from the NTC could conduct all battalion, brigade, and division field training exercises and Combined Arms Live Fire Exercises (CALFEX). In contrast, both strategies A and C require a cadre from the Operations Group to form three trainer groups to conduct this training. Strategy B also allows the AC OPFOR cadre (the 11th ACR) to focus its efforts on battalion and brigade training. In strategies A and C, the cadre must spread across three training sites. Finally, only strategy B, which has all battalion task force and brigade maneuver at Fort

Irwin, can take advantage of the instrumentation and unequaled live-fire areas at the National Training Center.[1]

Strategies B and C also provide less risk to training quality for the divisions and their MSCs. By keeping the division together at a single location for a longer period, strategies B and C provide a better chance for divisional integration, cohesion, and team building; to practice integrating divisional support with the brigade combat teams; and to exercise divisional command, control, and oversight. Strategy C provides the entire division the most time together and is best from this perspective.

A major training quality issue with strategies B and C is brigade downtime. This downtime occurs because the brigades are mobilized sequentially, and the brigades that mobilize early must wait for the BCTP Warfighter. In this regard, strategy C is far worse than strategy B.

## Resource Requirements

Strategy A is the least expensive strategy from the perspective of additional divisional and MSC trainers and training support personnel, especially at the critical early stages of mobilization. Because only one division is training at one time, only one BCTP team and one set of simulations and support unit trainers and training support personnel from the Divisions (Exercise) are required. Both strategies B and C require two BCTP teams because two divisions are training in parallel. If BCTP is being used to support in-theater requirements or if training support for RC support units becomes critical, this could become an issue. Also, two sets of postmobilization MSC trainers are required (216 versus 108) for strategies B and C.[2]

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[1]For a more detailed discussion of these advantages, see Lippiatt et al. (1996).

[2]There is a requirement for a BCTP seminar for the second division when its brigades are at the gunnery training sites, but this training event does not require the entire BCTP team. We believe it could be conducted at a time that would not require an additional team. Likewise, the division and MSCs would be going through preliminary training events at the gunnery sites, but more time is available for this training and we do not believe that additional training resources would be required.

On the other hand, strategy B, because gunnery training is conducted only at two sites at any one time, requires fewer (562, about a third of which are RC personnel) brigade combat team trainers and training support personnel (2,660 versus 3,222 for the other options).[3]

Strategy B also requires the smallest OPFOR (8,274 versus 11,327), because it employs company-level training sites, and these demand fewer OPFOR personnel than the brigade-level sites in strategies A and C.[4]

Finally, strategy B requires the mobilization of the fewest RC personnel. Because it uses only three brigade-level training sites, the installation support requirements are smaller.

## SYNOPSIS OF SENIOR TRAINER COMMENTS

To help evaluate the strategies more fully, we interviewed several senior trainers. All agreed that all the proposed strategies could work. However, they pointed out that all involve risk and that implementation would be difficult. In general, they favored strategy B. Both B and C offer more time with all units collocated, and they deemed this close contact important to promote the cohesion and team-building necessary for an efficient unit. Strategy B produces the best match of trainers and OPFOR and has less downtime than strategy C.

None of the senior trainers thought that the proposed strategies would produce a division equal to an active one. However, they believed that the resulting division could carry out a wide variety of missions and would provide a valuable asset to a theater commander. Their primary concern centered on the experience levels of MSC and brigade commanders and staff. Some concern was expressed about the possibility that active component trainers might be diverted during the postmobilization period to fill vacancies in active units.

[3]See Lippiatt et al. (1996) for more detailed discussion.

[4]See Lippiatt et al. (1996).

## COMPARISON OF DIVISION POSTMOBILIZATION TRAINING STRATEGY WITH ESB POSTMOBILIZATION STRATEGY

The feedback from senior trainers indicated that all of the strategies we developed were feasible and would produce a combat-capable division. But as we have shown, each integrated division training strategy had different timelines, costs, and risks.

FORSCOM has decided to implement a postmobilization ESB training strategy that will train three brigades in parallel at three sites.[5] This ESB strategy is the most comparable to integrated division strategy A, and therefore we chose strategy A for comparison.

### Force Generation

Providing divisions rather than separate brigades is slower. A comparison of our models shows that it takes about 30 days longer to produce a division than three enhanced separate brigades and about 60 more days to produce two divisions rather than six enhanced separate brigades.

Moreover, it is apparent that there is a greater risk of not meeting the timelines for divisions than for brigades. More organizations are being trained, more events must be synchronized into the same schedule, and a larger training organization must be prepared and ready early in mobilization.

Providing integrated divisions under strategy A rather than brigades also limits the ability of FORSCOM to provide ARNG ESBs or an armored cavalry regiment unless the slower strategy C is used.

### Training Quality

Based on the input of the senior trainers, we believe that the quality of training for the division can be comparable with the quality of

[5]See Lippiatt et al. (1996) for more detailed discussion of alternative ESB training strategies. The strategy selected by FORSCOM generates ESBs the fastest and potentially suffers the greatest risk.

training of the enhanced separate brigades, but it invites more risk. Again, more organizations are being trained, and a larger training organization must be formed and ready. Additionally, the divisional training strategy is more vulnerable to readiness levels because all divisional units start training simultaneously in strategy A. When separate brigades are being trained, rather than integrated divisions, the three most ready brigades (out of the seven heavy ESBs and ACR in the current force) can be selected for the initial training.

### Resource Requirements

It takes more resources to train a division than three separate brigades. The additional resources are mainly trainers and training support personnel; 296 additional trainers for the two divisions' major subordinate commands,[6] one BCTP team, and additional trainers and training support personnel from the USAR's Divisions (Exercise) are required.

Our review shows that the resources to provide these trainers and training support personnel are available, although providing aviation trainers could be a problem. However, providing these resources could increase the risks in preparing other deploying or deployed units. Less BCTP support would be available for preparing AC divisions, less Divisions (Exercise) support would be available for training deploying RC support units, and fewer replacement personnel would be available to fill out deploying units.

There are also increased premobilization costs involved in preparing the divisions rather than separate brigades for postmobilization. The divisional RTDs, additional requirements for the Divisions (Exercise) and BCTP teams, and funds for increased travel requirements are included.

## CONCLUSIONS

Based on this comparison we conclude the following:

[6]This includes 94 personnel in each division's RTD, and the 108 additional postmobilization trainers. For strategy A, only one set of postmobilization trainers is required.

- It takes longer to prepare divisions for deployment than it does separate brigades—at least a month for the first division and two months for the second. This additional time is required for the division-level training.
- Under various alternatives we considered, the total time from mobilization until a division is trained for deployment ranged from 132 to 239 days for the first division and 217 to 239 days for the second division.
- The division alternatives with the shortest training times also involve the most risk, particularly because they provide a very limited period in which the entire division is together for training at a single location.
- Divisions take more training resources than separate brigades. More trainers and training support personnel are required for postmobilization, and more trainer, training support personnel, and money are required for premobilization. The Army could obtain some of these resources by making some changes in its current plans, but this could impinge on its ability to mobilize and prepare other earlier-deploying units.

Appendix A

# RESIDENT TRAINING DETACHMENTS REQUIRED

**Table A.1**

**Estimated Additional RTD Requirements for Each Division**

| Unit | RTDs Required |
|---|---|
| Division HHC | 0 |
| Division Artillery | 4 |
| MLRS Battalion | 7 |
| DISCOM | 4 |
| Main Support Battalion | 10 |
| Aviation Battalion Maintenance | 3 |
| Engineer Brigade | 4 |
| Aviation Brigade | 4 |
| Attack Battalions | 7 |
| GS Aviation Battalion | 5 |
| Cavalry Squadron | 6 |
| Air Defense Battalion (with GS Company) | 11 |
| MI Battalion (HHC and GS Company) | 11 |
| Signal Battalion | 11 |
| MP Company | 3 |
| Chemical Company | 4 |
| Band | 0 |
| Total | 94 |

Appendix B

# ADDITIONAL TRAINERS REQUIRED

**Table B.1**

**Estimated Postmobilization AC Trainers Required for Each Division in Addition to RTDs**

| Unit | Number of Trainers |
|---|---|
| Division HHC | BCTP |
| Division Artillery | 2 |
| MLRS Battalion | 10 |
| DISCOM | 8 |
| Main Support Battalion | 12 |
| Aviation Battalion Maintenance | 9 |
| Engineer Brigade | 0 |
| Aviation Brigade | 2 |
| Attack Battalions | 13 |
| GS Aviation Battalion | 8 |
| Cavalry Squadron | 27 |
| Air Defense Battalion | 7 |
| MI Battalion | 7 |
| Signal Battalion | 3 |
| MP Company | 0 |
| Chemical Company | 0 |
| Band | 0 |
| Total | 108 |

Appendix C

# ARMY OF EXCELLENCE DIVISION STRUCTURE

This appendix describes the structure of the Army of Excellence division, the standard division structure in today's Army. The boldface entries signify the elements of the AOE structure that already exist in the enhanced separate brigades.

**3 Brigade Combat Teams**

- **1 - Headquarters Company (ESB is larger than DIV BCT)**
- **3 - Maneuver Battalions (2 and 1)**
- **1 - Field Artillery Battalion**
- **1 - Engineering Battalion**
- **1 - Forward Support Battalion**

1 Aviation Brigade

- 1 - Headquarters Company
- 1 - Cavalry Squadron
  - 5 - Troops (**3 Troops**)
- 1 - GS Aviation Battalion
- 1 - Attack Battalion
- 1 - Aviation Support Battalion

1 DISCOM

- 1 - Headquarters Company
- 1 - Main Support Battalion
- **3 - Forward Support Battalions (attached to BCTs)**
- 1 - Aviation Support Battalion (attached to AVN BDE)

1 Division Artillery

- 1 - Headquarters Battery
- **3 - Field Artillery Battalions (attached to BCTs)**
- 1 - MLRS Battery
- 1 - Counter Fire Battery

1 Engineer Brigade

- 1 - Headquarters Company
- **3 - Engineer Battalions (attached to BCTs)**

1 Air Defense Battalion

- 1 - Headquarters Battery
- **3 - Air Defense Artillery Batteries**
- 1 - Support Battery (some support)

1 Military Intelligence Battalion

- 1 - Headquarters and Service Company

Assorted Capabilities (**some in ESBs**)

1 Signal Battalion

- 1 - Headquarters Company
- 4 - Signal Companies (**3 Companies**)

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