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Analysis

**ALTERNATIVE DEPLOYMENT DURATION -
RESERVE COMPONENT
(ADD RC)**

FEBRUARY 2003



**CENTER FOR ARMY ANALYSIS
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13. ABSTRACT (<i>Maximum 200 Words</i>) This project examines some possible direct effects of shorter Reserve Component deployments to small-scale contingencies. The Reserve Component is used more frequently to support these operations, many of which include a 180-day rotation. Ninety and 120-day rotations were examined as alternatives. The analysis indicates that there is little benefit to the Army of shortening rotation durations other than reducing the time individual reservists spend deployed. For the Army, the costs increase, personnel tempo increases, and there is more risk in the operations.				
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ALTERNATIVE DEPLOYMENT DURATION FOR THE RESERVE COMPONENT SUMMARY

THE PROJECT PURPOSE

Examine the impact on the Army of shortening the length of Reserve Component operational deployments in support of the Bosnia Stabilization Force (SFOR) (Operation JOINT FORGE).

THE PROJECT SPONSOR was Deputy Chief of Staff for Operations and Plans, Operations, Readiness, and Mobilization Directorate.

THE PROJECT OBJECTIVES were to:

- (1) Develop the current model of Reserve Component deployments to Operation JOINT FORGE.
- (2) Identify the training, personnel, policy, and resource issues associated with a Reserve Component rotation.
- (3) Determine potential impacts of changing deployment duration on the Army.
- (4) Identify various “myths” surrounding Reserve Component deployments and evaluate available evidence to see if they are supportable.

THE SCOPE OF THE PROJECT

Although Reserve Component soldiers and units mobilize to support numerous Army missions, this analysis was limited to SFOR rotations using the current 180-day rotation model.

THE MAIN ASSUMPTION

The main assumption is that the theater-specific training requirements for units participating in the rotations are the same regardless of the length of the actual deployment.

THE PRINCIPAL FINDINGS are: There does not appear to be a compelling reason to shorten rotation lengths for Reserve Component soldiers and units, although it would reduce the time individuals spent deployed. The most immediate impact of shortening deployments is that the operation costs would increase and that the deployment tempo for Reserve Component soldiers,

as a whole, would increase. There are also a number of other areas that shorter rotations would affect. Most of the effects would be detrimental to the Army.

THE PRINCIPAL RECOMMENDATIONS are:

- (1) Do not modify the current rotation schedule unless operational requirements dictate.
- (2) To address concerns about the length of an entire rotation, re-examine the pre-deployment training requirements and when they are conducted. Since the requirements typically start several months prior to mobilization, Reservist find their lives disrupted with frequent absences from work and home.
- (3) In some cases, there are sufficient Reserve Component units to support short rotations, given restrictions on reuse. If a decision were made to shorten rotations, it would be prudent to examine the types of units that could support the shorter rotations without shifting deployments to the Active Component.
- (4) If shorter rotations are considered, there will need to be some steps taken to mitigate risk to the mission accomplishment, since part of the mission success is the relationships built between the soldiers performing the mission and the general population.

THE PROJECT EFFORT was directed by LTC Robert L. Steinrauf, Center for Army Analysis, Force Strategy Division.

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1 OVERVIEW

1.1 Background

During the 2001 Quadrennial Defense Review, individuals with the Office of the Secretary of Defense (OSD) asked the Assistant Vice Chief of Staff of the Army (AVCSA) why the Army did not use shorter rotations of reserve units to support ongoing long-term operations. To address this issue, the AVCSA wanted to know what impact shortened Reserve Component deployments to Bosnia would have on the Army. He assigned responsibility for the analysis to the Deputy Chief of Staff for Operations and Plans, Operations, Readiness, and Mobilization Directorate.

Current Army policy is for units to rotate through the stabilization force (SFOR) mission in Bosnia every six months. The Air Force rotates its units through its ongoing missions more rapidly, with some Active Component units remaining deployed for 90 days, while Reserve Component units remain deployed for even shorter periods. In addition to differences between Service components, there is a growing body of anecdotal evidence that longer duration deployments adversely impact Reserve Component soldiers.

Figure 1 shows the current schedule for the SFOR mission, with the National Guard responsible for all rotations scheduled starting in October 2002. The intent is for these divisions to provide the majority of the units and personnel required to perform the mission, with assistance from other National Guard units or active component units as necessary. Changes in deployment duration will have an immediate effect on scheduling.

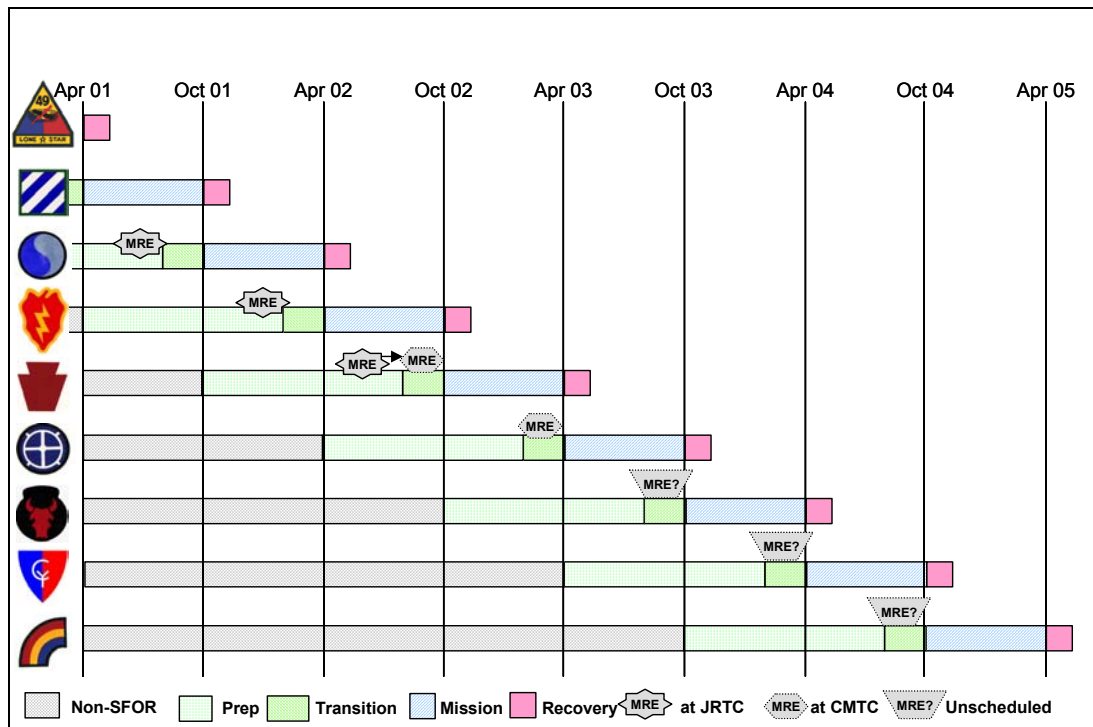


Figure 1. Current Rotation Schedule

1.2 Purpose and Objectives

The purpose of the analysis was to determine the implications of shortening the duration of Reserve Component rotations in general, using the SFOR mission as an example. To do this, we set forth several objectives. The first was to define the current Reserve Component deployment model so that we had an understanding of what was involved in a deployment, and then develop rotation models for three and four month deployments. While doing this, we were able to identify training, personnel, policy, and resource issues associated with a rotation. Next, we determined the potential impacts of changing the deployment duration. Finally, we sought to identify various “myths” about RC deployments (e.g., it causes retention problems) and determine if there was any evidence to support or refute them.

1.3 Assumptions and Key Definitions

To conduct the analysis, we assumed that the pre-mobilization training to meet the theater specific requirements was independent of the length of the rotation. Included in this assumption is that all units participating in a rotation will attend the same mission rehearsal exercise. The final major assumption was that there would be no change in the Presidential Reserve Call-up (PRC) under which SFOR was conducted, which limits mobilization to 270 days.

During this project, it became clear that there are several different ways to activate Reserve Component soldiers beyond PRC. It is useful to define them here. PRC is the authority given to the Secretary of Defense to call to active duty Reserve Component personnel not to exceed 270 days per call-up. Mobilization is the involuntary activation of units or individuals for active duty. However, there are several methods that allow reserve soldiers to voluntarily serve on active duty. These include Temporary Tour of Active Duty (TTAD), Contingency Operations Temporary Tour of Active Duty (COTTAD), Active Duty Special Work (ADSW), and Oversea Deployment for Training (ODT). While each method has unique requirements and characteristics, the end result is the same—Reserve Component soldier serving on active duty. We found each of these is used to get around the limitations on deployment constraints of the current PRC.

1.4 Limitations

There was limited data available to address the questions raised in this project. The lack of data was due to the small number of RC units that have deployed to support small-scale contingency operations, such as SFOR, and the lack of centralized data source and research on the effects of deployments on soldiers. Much of the data that is available is incomplete. For example, there is visibility of units that deploy to support operations, but the units are actually *ad hoc* organizations built around an existing unit. There are also a number of composite units that consist of both active and reserve component soldiers.

2 APPROACH AND METHOD

2.1 Approach

The first step in this analysis was to identify the issues associated with current deployment policies. This consisted of examining the SFOR operation and developing an understanding of how units were identified for deployment, what training requirements were placed on them, and what types of problems could potentially arise from the deployment of Reserve Component units.

Next, it was necessary to develop a conceptual model of the deployment of RC units to SFOR. This model was then used to analyze alternatives and assess changes that would be associated with changes in deployment length.

2.2 Essential Elements of Analysis and Measures of Effectiveness

To address the sponsor's concerns, it was necessary to answer the following essential elements of analysis (EEA).

- What are the direct and indirect impacts of shorter rotations on the Army?
- What are the costs associated with various rotation lengths?
- How would the shorter rotations be implemented?
- What policies and rotation requirements constrain changing rotation duration?
- Is it possible to address the cause of various "myths" without changing rotation length?

Specific measures of effectiveness (MOE) used to address the EEA were:

- What were the monetary costs associated with the various activities defined in the model and how would these costs be affected by a changed rotation policy?
- Can the current training infrastructure and resources support shorter rotations and the associated increases in training?
- Are there sufficient RC units and personnel to support shorter rotations?

2.3 Data Sources

The data came from a number of disparate sources. Data on unit training requirements and current policy came primarily from Forces Command (FORSCOM) G-3 Plans, and Headquarters Department of the Army, Deputy Chief of Staff for Operations and Plans, Operations, Readiness, and Mobilization Directorate. Cost data associated with the SFOR rotations came from the Contingency Operations (CONOPS) fund established by the Defense Finance and Accounting System (DFAS).

While the sources cited above provided the data necessary to directly address the specific issues that concerned the sponsor, it was the interviews with a number of soldiers and Department of the Army civilians that provided the context in which to understand the issues and to capture the realities of mobilizing and deploying reserve component soldiers to overseas operations. Members of the study team spoke with individuals across the

spectrum of activities associated with putting soldiers on the ground in Bosnia—coordinating training, mobilizing soldiers and units, supporting mobilized soldiers and units, preparing for a rotation, or recovering from a deployment.

2.4 Method

Based on the data gathered on what it takes to mobilize, train, deploy, and redeploy forces to conduct Operation JOINT FORGE, the analysis team constructed a conceptual rotation model, as it currently existed. This model was coordinated with various concerned organizations, such as the National Guard Bureau, to ensure it captured the key aspects of the rotations. From this baseline model, it was possible to evaluate direct effects (cost and mobilization days) based on changes to the rotation duration.

The costs from the CONOPS fund were then associated with various activities identified in the Rotation Model. In some cases, the costs associated with conducting a rotation remained fixed, such as the day-to-day expenditure on civilian support operations, while other costs were variable. To determine the factor associated with the variable costs, it was necessary to develop alternative rotation models.

Some factors were determined on a per capita basis, such as the number of soldiers in theater or in training. Other factors were directly related to the duration of the deployment (e.g., it would cost twice as much to transport the personnel to support two 90-day rotations as it would a single 180-day rotation).

These cost factors were applied to the various alternative rotation models and the number of mobilization days determined. These measurable costs were then compared with the current 180-day rotation to address the sponsor's question. In addition, changes necessary to implement a shorter rotation policy were highlighted.

During the development of the rotational model, the analysts explored potentially interesting issues that would be indirectly affected by a change in rotation duration. These were compiled for later consideration by the project sponsor and are included in Appendix C.

3 ROTATION MODEL

The conceptual models presented in this section reflect the salient events associated with deploying reserve component units to Operation JOINT FORGE. FORSCOM provided the basic model, with various reserve component organizations filling in some of the details.

3.1 FORSCOM RC Unit Rotation Model

The figure below captures the various parts of the RC unit rotation model with a notional timeline, and various issues that occur grouped by category (training, personnel, costs, and policy or mission implications). The phases identified in the model do not generally have specified durations, but they are useful in trying to describe the process.

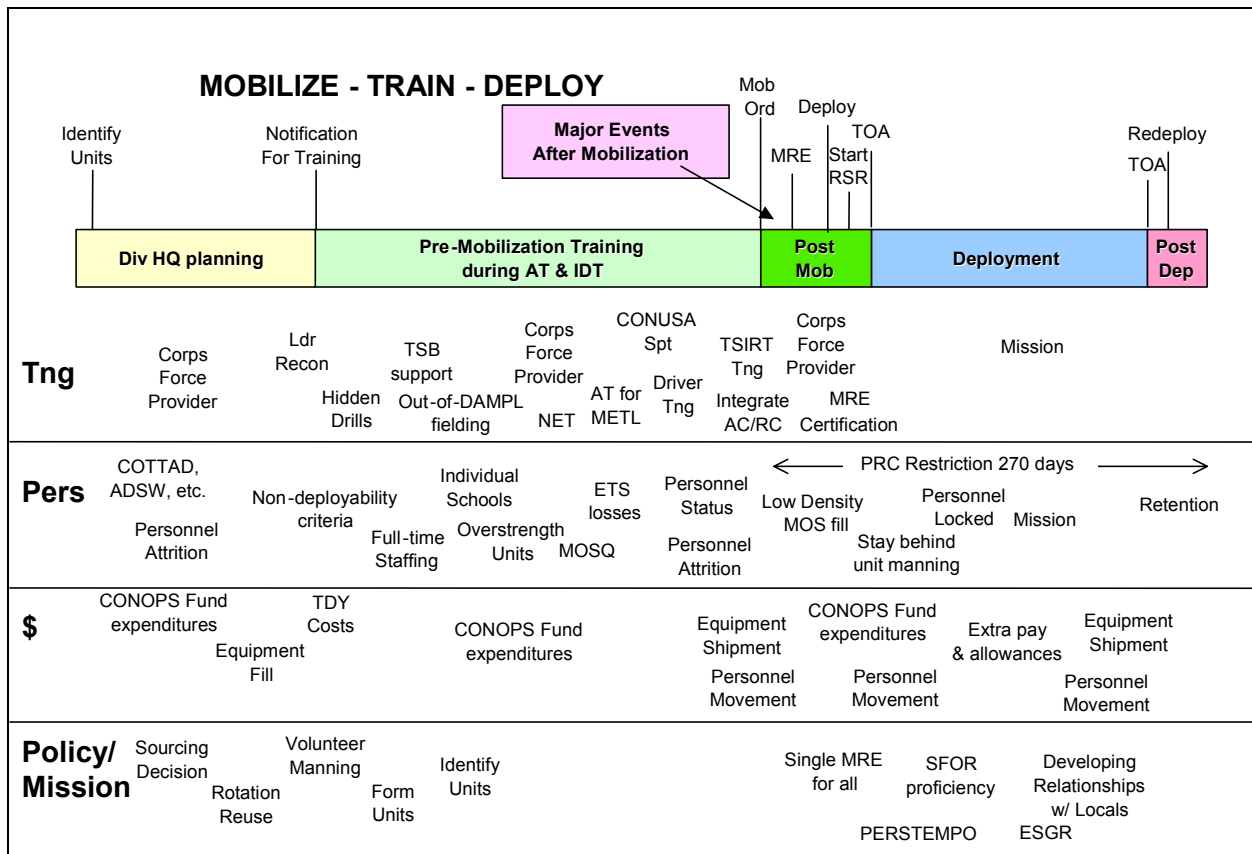


Figure 2. FORSCOM RC Unit Rotation Model

3.2 Training Issues

The general flow of events is that several years prior to the actual start of the rotation, the Army identifies the units that will accomplish the mission. This is done by assigning responsibility to a United States Corps headquarters, which then identifies the major subordinate units that will

provide forces. Through a series of “sourcing conferences”, FORSCOM, the corps headquarters, the Army National Guard Bureau, and the Office of Chief Army Reserves, identify the actual units that will provide the forces. After the sourcing conference, a Notification for Training order is issued to the identified units. This serves to focus the units’ training during the period of time leading up to mobilization. Once mobilized, units engage in post-mobilization training, which includes a Mission Rehearsal Exercise (MRE). Upon deployment to the theater, the new units conduct a “right seat ride” (RSR) with the departing unit for familiarization. Responsibility is transferred to the incoming unit and is marked by the Transfer of Authority (TOA).

There are several training-related events or issues associated with the phases of the model. The corps Force Provider is the Army corps headquarters that is responsible for the rotation. This headquarters is responsible for (1) ensuring that units which eventually deploy to conduct the mission are properly trained and equipped, and (2) conducting the necessary coordination to provide that training (e.g., Continental United States Army (CONUSA) and Training Support Battalion support). This is achieved through planning meetings, training events, etc.

A key aspect of the training appears to be the Leader Recons that take place throughout the pre-deployment period. Many of the officers interviewed during the project indicated that they had made multiple trips to Bosnia to observe the missions they would be required to accomplish. Other recognized training events include annual training (AT), Theater Specific Individual Readiness Training (TSIRT), and the MRE and certification.

Associated with training is often the requirement to field new equipment. This raises several issues since many of the units identified are not scheduled to receive the equipment in the timeframe required to support the mission. This leads to fielding equipment out of sequence with the Department of the Army Master Priority List (DAMPL). New equipment training (NET) might also have to be conducted.

Perhaps the most important training event is the MRE. FORSCOM policy is that all units participating in the rotation must be present for the MRE, and certified for the mission before authorized to deploy.

3.3 Personnel Issues

In the personnel area, there were a number of issues identified. A category of concern throughout the period of time before deployment was adequately manning deploying units. This has several components. First, there is the possibility of soldiers leaving the units or the reserves. Up until the unit is mobilized, individuals in that unit are not legally bound to remain with the unit for the express purpose of conducting the rotation. Some will fail to meet the minimum deployability criteria, some may reach the end of their current enlistment and choose to end their tour of service (ETS), and some may transfer to other units. Second, the Operation JOINT FORGE sourcing document is very specific about the composition of many of the units that will deploy. It lists the grade and military occupational specialty (MOS) required. This presents challenges in terms of having sufficient numbers of MOS qualified (MOSQ) soldiers available to deploy, especially with respect to small population specialties.

The general approaches used to address this concern are to create overstrength units to deploy that are projected to have sufficient soldiers remaining after attrition and to request volunteers to commit to the deployment. In discussions with various sources, the target strength for most units was about 125 percent of required deployment strength. In terms of volunteers, most National

Guard units were able to find sufficient personnel by “recruiting” from the next higher level organization (e.g., request volunteers from a battalion for a company-sized unit).

Before mobilization, there are requirements for some soldiers to spend extended periods of time on active duty. Some must attend schools to meet a special skill qualification, while others become full-time staff to support the planning and execution of the mission. There are numerous mechanisms available for reservists to voluntarily serve on active duty. The primary ones are Contingency Operations Temporary Tour of Active Duty (COTTAD), Temporary Tour of Active Duty (TTAD), Active Duty Special Work (ADSW), and Overseas Deployment for Training (ODT). While there are differences between the programs, the result is the same—a reservist on active duty for an extended period of time.

Upon mobilization, all soldiers in the mobilized units are on active duty under the provisions of the Presidential Reserve Call-up (PRC) for no more than 270 days. From this point on, there is little personnel turbulence.

3.4 Cost Issues

The contingency operations fund established for the Operation JOINT FORGE captures many of the direct costs associated with a rotation. The major categories used to account for expenditures are military personnel, civilian personnel, personnel support, operating support, and transportation. These costs will be detailed later in this report.

3.5 Policy and Mission Issues

The policy and mission issues really shape the overall question about changing Reserve Component rotation duration for Operation JOINT FORGE. As more reserve units undertake responsibility for the mission, the Army will need to resolve these issues.

The crux of this category of issues is using reserve units for deployments without breaking them. The sourcing decisions for the first few reserve rotations drew from a large number of National Guard and Army Reserve organizations to meet the requirements. For instance, for the SFOR 10 rotation, National Guard soldiers from 17 different states were designated to deploy. The unit designated to lead the rotation, the 29th Infantry Division, comprised only 40 percent of the 3500 soldiers who were to deploy. The remaining soldiers were members of other National Guard units, active component units, or Army Reserve units. The goal at that time was to increase the percentage of soldiers from the organization designated to conduct the mission. This would decrease the number coordination problems that arise when dealing with units that are not under the administrative control of the higher headquarters.

In both of the previous National Guard-led rotations, the stated policy from the division commanders was that soldiers deploying would be volunteers, and that up to a certain specified date, individuals could elect not to accompany their units on the rotation. While this appeared to have worked adequately, there may be difficulties in finding sufficient volunteers if the demand increases, as described above.

An issue that appeared to be of high interest from both the reserve and active component was how frequently a reserve unit could be given the mission. Based on the rules governing PRC, an individual can only be involuntarily mobilized for active duty once per PRC. The concern was that some soldiers would be called up multiple times when the cycle repeated itself. However,

analytically, this is not a major issue for most unit types for two reasons. First, the pool of units is sufficiently large to support rotations for an extended period of time (e.g., there are 40 light infantry battalions¹ in the National Guard that would be available to support the SFOR requirement for a single light infantry battalion). Second, if the National Guard were solely to perform the missions in the future, the mission would only return every four years. Normal attrition and accession actions would have renewed a large portion of the population by the time the mission returned.

The most immediate issue associated with this project was the policy that all units on a rotation had to conduct the MRE at the same time. As discussed in the next section, a split rotation (e.g., two units splitting the duration) presents difficulties in what to do with the unit that is second.

Finally, proficiency in conducting the SFOR mission should improve over time as a unit performs the mission. The periods of largest risk, at least conceptually, would be when a unit first assumes the mission. This also extends to the relationships that are developed between the peacekeeping force and the local populace.

3.6 Alternative Rotation Schemes

This project examined the implications of a 90-day split rotation and a 120-day rotation. The 90-day rotation model presumes that key units will conduct a full 180-day rotation while non-critical reserve component units would perform the mission for 90 days. As shown in Figure 3, the pre-mobilization events for the RC units would remain the same, but upon mobilization, one group of RC units (Group B) would mobilize and then deploy to the MRE, which would be extended to allow all the units to participate. The other group (Group A) would then mobilize and deploy to the second iteration of the MRE, and then deploy to Bosnia to start the right seat ride. Group B units would stand down for some period of time, and then deploy to Bosnia to assume the mission from the Group A units. The sequence is not authoritative, but provides a useful construct to evaluate the 90-day rotation model.

The 120-day rotation model is similar to the 180-day model; with the only major difference being the mission duration. In order to compare the three models, each model was run for a year.

¹ These include light infantry and air assault battalions in National Guard divisions and separate brigades.

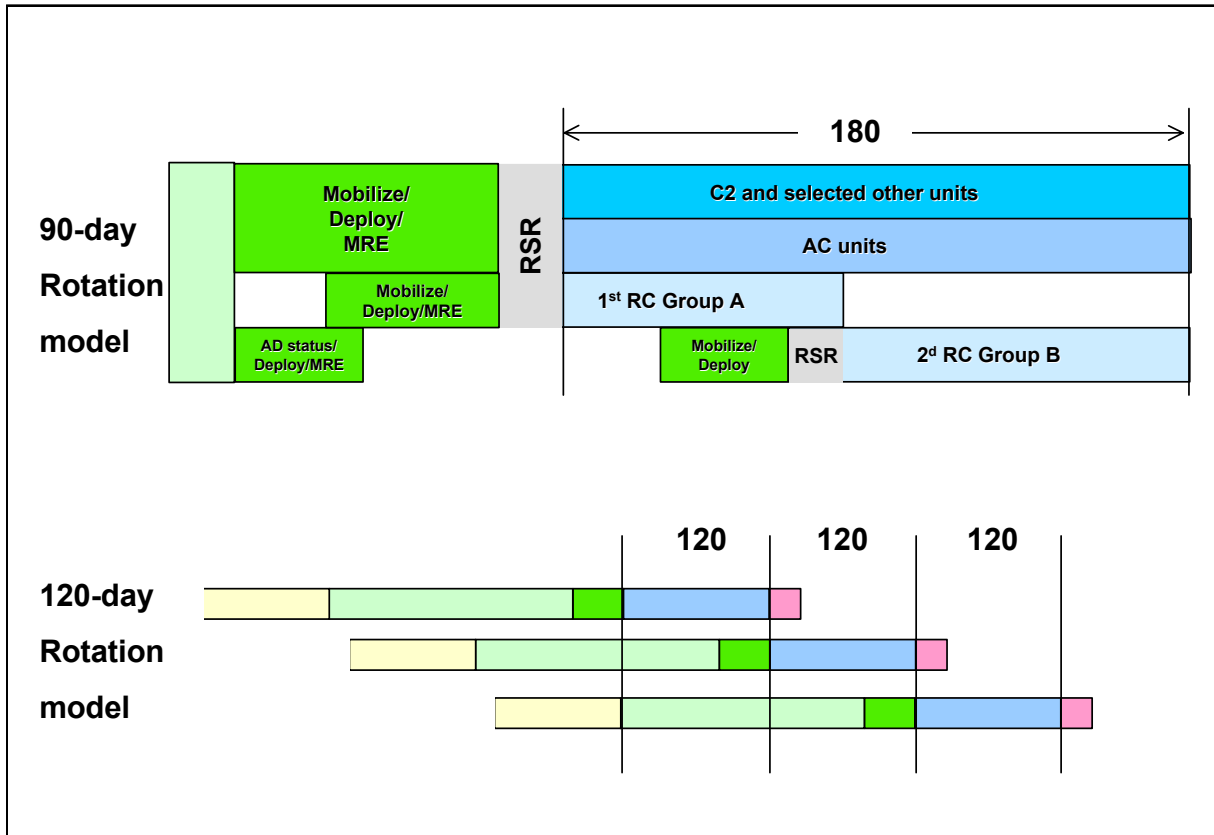


Figure 3. Alternative Rotation Schemes

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4 ANALYSIS

Based on the rotation models, it is possible to compare the number of mobilization days and costs to support each alternative. Using these metrics, it is apparent that the effect of shortening the rotation duration would be more expense with little benefit derived.

4.1 RC Mobilization Days by Model

The main factor in determining the costs associated with a particular model is the total number of days it was necessary to have a reservists mobilized to support the operation over the course of a year. FORSCOM provided the number of mobilization days based on the length of the mission. A soldier would be on duty 270 days to support a 180-day mission, 204 days for a 120-day mission, and 184 days for a 90-day mission.² At various times throughout the year, one unit would be in post-mobilization training or on the right seat ride while another is conducting the mission. At other times, a unit would be on leave after its rotation while another is conducting the mission. This overlap leads to increased numbers of mobilization days. To cover the entire year, the mobilization days are 540, 612, and 736, respectively, as shown in the figure below.

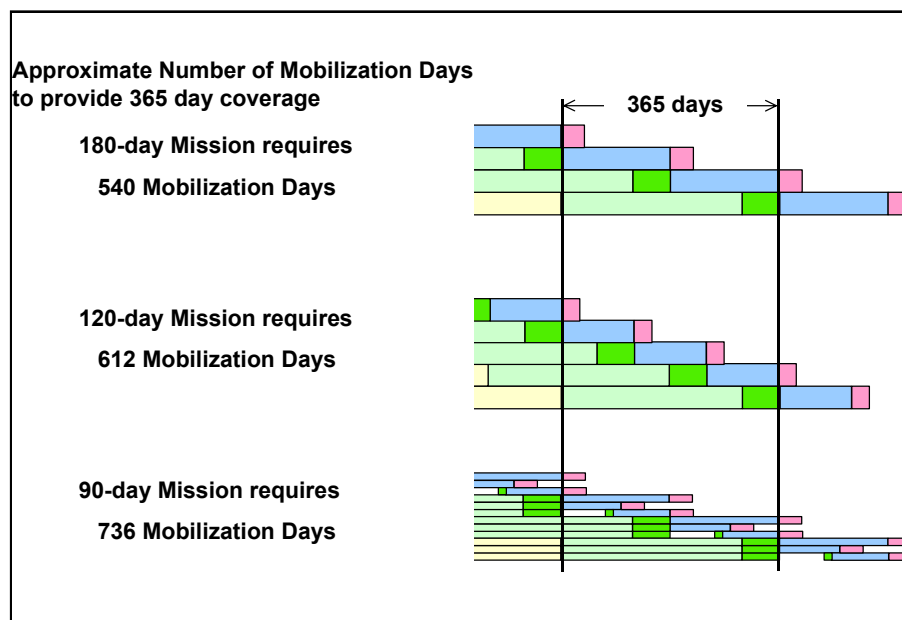


Figure 4. RC Mobilization Days by Rotation Model

4.2 Cost Data and Factors

The figure below compares the cost of 180-day rotation with the various alternative rotation policies. The 180-day rotation cost is based on the contingency operations cost report for FY 2000, provided by the Defense Finance and Accounting Service (DFAS). For the 120 and 90-day rotation schemes, a cost factor for each category was derived based on the models previously developed. For instance, military and civilian pay factors were determined from the number of

² The terms 90, 120, and 180-day refer nominally to three, four, and six-month deployments.

extra man-days incurred to support a shorter rotation (e.g., there is a 13 percent increase in the number of mobilization days for a 120-day mission over a 180-day mission). Some of the cost factors were linked to the time units or individuals actually spent conducting the mission in Bosnia, such as Imminent Danger or Hostile Fire Pay. Finally, some factors were directly related to the relative frequency that the costs were incurred, such as it costing twice as much to airlift individuals to support a 90-day rotation as a 180-day rotation.

CONTINGENCY OPERATIONS COST REPORT OPERATION JOINT FORGE						
DFAS Report						
DoD Component: Army						
PROJECTED COST BASED ON ROTATION LENGTH CHANGES						
INCREMENTAL OBLIGATIONS FOR SEP 00						
FY00 CUMULATIVE OBLIGATIONS AS OF 30 SEP 00						
COST CATEGORIES	180-Day Rotation	120-Day Rotation		90-Day Rotation		
	FY00 Expense	Factor	Proj Cost	Factor	Proj Cost	
(in 000s)						
MILITARY PERSONNEL						
Military Personnel Pay & Allowances						
Reserve Components Called To Active	96,406.73	1.13	108,939.60	1.37	132,077.22	
Imminent Danger or Hostile Fire Pay	9,484.00	1.05	9,958.20	1.10	10,432.40	
Family Separation Allowance	4,006.97	1.05	4,207.32	1.10	4,407.67	
Foreign Duty Pay	865.04	1.05	908.29	1.10	951.54	
Subsistence	36,204.82	1.13	40,911.44	1.37	49,600.60	
Other Military Personnel	4,341.59	1.00	4,341.59	1.00	4,341.59	
TOTAL MILITARY PERSONNEL	151,309.14		169,266.44		201,811.02	
OPERATIONS AND MAINTENANCE						
CIVILIAN PERSONNEL						
Civilian Premium Pay	11,151.10	1.13	12,600.74	1.37	15,277.01	
Civilian Temporary Hires	4,494.00	1.13	5,078.22	1.37	6,156.78	
Other Civilian Personnel	5,860.60	1.00	5,860.60	1.00	5,860.60	
TOTAL CIVILIAN PERSONNEL	21,505.70		23,539.56		27,294.39	
PERSONNEL SUPPORT						
Temporary Duty/Temporary Additional Duty	60,685.80	1.50	91,028.70	2.00	121,371.60	
Clothing and Other Personnel Equipment & Supplies	8,375.00	1.50	12,562.50	2.00	16,750.00	
Medical Support/Health Services	158.50	1.50	237.75	2.00	317.00	
Reserve Component Activation and Deactivation	-	1.50	-	2.00	-	
Other Personnel Support	5,842.80	1.00	5,842.80	1.00	5,842.80	
TOTAL PERSONNEL SUPPORT	75,062.10		109,671.75		144,281.40	
OPERATING SUPPORT						
Training	2,592.50	1.50	3,888.75	2.00	5,185.00	
Operations OPTEMPO (Fuel, Other POL, Parts, etc.)	141,114.70	1.05	148,170.44	1.10	155,226.17	
Other Supplies & Equipment	57,452.40	1.05	60,325.02	1.10	63,197.64	
Facilities/Base Support	198,055.50	1.00	198,055.50	1.00	198,055.50	
Reconstitution	52,588.30	1.13	59,424.78	1.37	72,045.97	
C4I	86,759.10	1.13	98,037.78	1.37	118,859.97	
Other Services, & Misc. Contracts	239,088.40	1.00	239,088.40	1.00	239,088.40	
TOTAL OPERATING SUPPORT	777,650.90		806,990.67		851,658.65	
TRANSPORTATION						
Airlift	65,909.50	1.50	98,864.25	2.00	131,819.00	
Sealift	30,001.90	1.50	45,002.85	1.00	30,001.90	
Ready Reserve Force/Fast Sealift Ship	-	1.50	-	2.00	-	
Port Handling/Inland Transportation	15,699.70	1.50	23,549.55	2.00	31,399.40	
Other Transportation	4,161.30	1.50	6,241.95	2.00	8,322.60	
TOTAL TRANSPORTATION	115,772.40		173,658.60		201,542.90	
TOTAL OPERATIONS AND MAINTENANCE	989,991.10		1,113,860.58		1,224,777.34	
GRAND TOTAL	1,141,300.24		1,283,127.02		1,426,588.35	
Percentage increase over 180 Day Rotation			12%	25%		
"Draft Model of Financial Impact of Rotation Durations -- 1 June 2001 -- Reviewed and Modified by CAA (FS Div) & NGB"						

Table 1. Estimated Annual Cost by Duration

The estimated increases over the current 180-day duration operation are 12 percent and 25 percent for 120-day and 90-day duration rotation, respectively.

4.3 Mission Considerations

Although it is possible to develop objective measures on changes to the deployment duration, it is necessary to subjectively assess the effect of changes on the successful accomplishment of the mission. When a unit first takes responsibility for the mission, there is an inherent period of risk. This is due in part to the lack of familiarity with the complex environment and mission

requirements. As a unit gains more experience in conducting the mission, it becomes more proficient. The figure below shows conceptually what occurs during a 6-month period. There is arguably a degree of risk associated with any level of proficiency at a task, and as the task is repeated over time, proficiency increases and the associated risk decreases. As shown below, there is a period of risk during the first portion of the 6-month period. As the unit proficiency increases over time, the risk is minimized. At the end of the period, the unit is theoretically as proficient as it will become. In contrast, there are two periods of time in which proficiency is at the lowest level, representing a new unit assuming the mission. Basically, the number of periods of risk would increase by 50 percent for the 120-day rotation and 100 percent for the 90-day rotation.

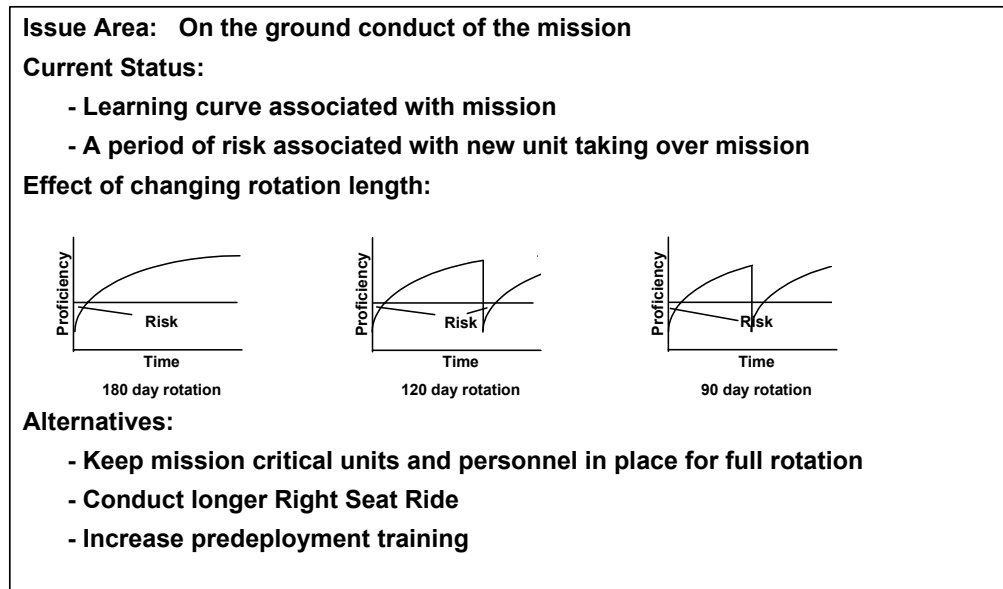


Figure 5. Risk Periods

4.4 Conclusions

Based on the analysis of the mobilization days and the estimated costs, the only apparent reason to shorten rotation duration would be to decrease the individual soldier's active duty time. There would be a 25 percent and 32 percent reduction in time mobilized for individual using the 120-day and 90-day model, respectively. However, this reduction for the individual would actually result in more reserve component soldiers being mobilized, with a net increase of 13 percent and 37 percent, respectively, in the number of mobilization days to support the operation.

This increase in tempo would be one of the non-monetary costs associated with changes. The estimated monetary cost would also increase. A 120-day rotation would increase annual costs by 12 percent (\$141 million) and a 90-day rotation result in a 25 percent increase (\$285 million).

From the perspective of the mission success, increased rotations would correspond to more frequent periods of risk as shown in the previous section. It would be up to the combatant commander to decide if this risk was acceptable given the mission.

As the frequency of rotations increase, the number of mission rehearsal exercises would increase and compete for training time with Combat Training Center rotations. However, the increased number of units required to support the rotations would increase training opportunities for RC units.

The Army would also have to more closely manage soldiers in career fields that are not large enough to provide an adequate force pool. It would also have to do the same for units.

While shorter rotations would reduce the time Reservist spend away from their civilian jobs, even the 90-day rotation model would still exceed the employers' stated threshold for absences.

Based on ease of implementation, the 120-day model would be the easiest to implement, since it would basically add an additional rotation per year. The 90-day model would require significant change in the current way the Army supports the SFOR rotation. It would be the most expensive and least effective.

APPENDIX A PROJECT CONTRIBUTORS

1. PROJECT TEAM

a. Project Director

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APPENDIX B REQUEST FOR ANALYTICAL SUPPORT

P *Performing Division:* FS *Account Number:* 2001137

A *Tasking:* Verbal *Mode (Contract-Yes/No):* No

R *Acronym:* ADD-RC

T

Title: Alternative Deployment Duration for the Reserve Component

1 *Start Date:* 14-May-01 *Estimated Completion Date:* 01-Jul-15

Requestor/Sponsor (i.e., DCSOPS): DCSOPS *Sponsor Division:* ODO

Resource Estimates: a. *Estimated PSM:* 5 b. *Estimated Funds:* \$0.00

c. *Models to be*

Description/Abstract: Objective: Determine the effect on the Army of changing Reserve Component rotation lengths. Abstract: This project identifies issues associated with deploying Reserve Component units to meet operational requirements in long-term, ongoing smaller scale contingencies and the effects of changing deployment lengths on these issues.

Study Director/POC Signature: Original Signed *Phone#:* 703-806-5676

Study Director/POC: LTC Robert Steinrauf

If this Request is for an External Project expected to consume 6 PSM or more, Part 2 Information is Not Required. See Chap 3 of the Project Directors' Guide for preparation of a Formal Project Directive.

Background: Current Army policy is for Reserve Component units to conduct 179-day rotations in support of ongoing operations, specifically Operation Joint Forge in Bosnia. The Army leadership wants to know what would be the effect on Reserve Component units, and the Army in general, of shortening the rotation length for those units.

P

A

R *Scope:* Define the current RC rotation model; Identify training, personnel, and resource issues associated with an RC rotation; Develop alternative rotation schemes; Determine affects of changing rotation length on the issues identified above

T *Issues:* Are there sufficient RC units to support shorter rotation lengths? Are there causal relationship between RC retention and deployments? What affect do deployments have on employer support? Does the composition of units change significantly between pre-notification and mobilization? What are the associated costs and benefits of changing deployment duration? Are there economies of scale to be gained by shortening deployments?

2 *Milestones:* End of May - Brief project plan to sponsor and DCSPRO; Mid June - Brief initial results to sponsor; Mid July - Brief final results to sponsor

Signatures Division Chief Signature: Original Signed and Dated *Date:*

Division Chief Concurrence: COL Mark Hanson

Sponsor Signature: Original Signed and Dated *Date:*

Sponsor Concurrence (COL/DA Div Chief/GO/SES) COL Robert Cox

Entry Date: 17-May-01

Print Date: 07-Nov-01

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APPENDIX C ISSUE AREA ANALYSIS SUMMARIES

The following charts capture a number of issues that arose during the conduct of the project. While not directly related to the rotation duration, these issues were deemed noteworthy. Therefore, the issue areas are presented in abbreviated format in this appendix.

Issue Area: Manning RC Units with Volunteers

Current Status:

- Self-selection process to man units (i.e., soldiers are given the option of changing units early in the process)
- Some personnel are on extended active duty (e.g., division planning staffs)
- Units try to get 120-150% overstrength manning to account for attrition
- Difficulties in finding volunteers in some low density specialties
- Soldiers not bound to deploy until mobilization

Effect of changing rotation length:

120-day rotations—requires increased volunteers to man additional rotation

90-day rotations—doubles the number of volunteers needed for units that will conduct split rotations

Alternatives:

- spread sourcing over more units
- use AC soldiers to support unfilled low density requirements

Figure 6. Manning RC Units

Issue Area: Force structure required to support a rotation policy

Current Status:

- SFOR has several unit requirements for which there exists only one UIC per division (e.g. signal battalion)

Effect of changing rotation length:

- 120-day rotations — would need an additional rotations worth of units

- 90-day rotations — divisions will have insufficient number of some units to conduct two multiple 90-day rotation, requiring either support from other units or leaving units in place for entire 6 month deployment (such as Aviation, MP, and MI companies)

Alternatives:

- Support RC divisional units with appropriate RC EAD/EAC units;
- support RC divisional units with ESBs;
- support RC divisional units with AC units;
- expand the list of acceptable SRCs to fill SFOR requirements;
- deploy key leaders and personnel for the duration and rotate subordinate portions of the units;
- create *ad hoc* units filled by individual placement

Figure 7. Units Supporting a Rotation

Issue Area: Sourcing Decision

Current Status:

- Sourcing conference results in requirements being assigned to various components to fill
- Components respond with UIC level for sourcing requirements
- Multiple reasons combine to generate a multi-comp, multi-state force

Effect of changing rotation length:

120-day rotations—requires an additional rotation; low density units tapped more frequently; lead time for units could push out implementation; increase AC and RC tempo; could require going back to the same division every 3 years

90-day rotations—requires RC units to find a like unit with which to split the rotation; insufficient subordinate units in a division require tapping other divisions for support; reuses units more frequently decreasing normal turnover

Alternatives:

- use AC headquarters to source third rotation to maintain current frequency in RC
- manage rotation based on personnel and quantity of units available to meet reuse goals

Figure 8. Sourcing SFOR Requirements

Issue Area: Financial Impact of duration changes

Current Status:

- Incremental costs (costs over and above “normal” expenditures) do not always account for ALL costs, some become lost in normal operational budgeting.
- Past rotations have been executed under different rules and have required dissimilar coordination efforts which make comparisons of direct costs difficult and potentially misleading.
- Future rotations will have higher RC participation than during FY 00

Effect of changing rotation length:

General observations—The largest costs tend to be associated with operations in theater and will change only marginally as rotation length changes; increases will not be in direct proportion to change in rotation duration (cutting the duration in half does not double the cost).

120-day rotations—total direct cost of rotation is ESTIMATED to increase by approximately 11%.

90-day rotations—total direct cost of rotation is ESTIMATED to increase by approximately 25%.

Alternatives: This analysis was only able to identify “direct costs” and does not evaluate the impact of “opportunity costs” of performing other operations or missions and the fiscal effect on changes on retention, training, recruitment, and retirement that would result from duration modifications.

Figure 9. Financial Impact

Issue Area: MREs at JRTC Impacting Throughput Training

Current Status:

- CSA's intent is for all maneuver battalion and brigade commanders to rotate through a CTC rotation during command tenure

- 9 Battalion and 1 brigade commanders of light units missed throughput during FY 99/00 due to conflicts in JRTC rotation schedules and/or command calendar

Effect of changing rotation length:

- 120-day rotations—would require an additional MRE per year at a JRTC location with the additional loss of throughput training availability

- 90-day rotations—longer MRE length (or additional MREs) would reduce JRTC availability for normal unit rotations

Alternatives:

- non-JRTC MRE site will ease throughput rotation scheduling for light battalions to better meet CSA's intent, but could shift the problem to another CTC

- a dedicated, manned, and equipped non-CTC site (perhaps a warfighting center) would free up all CTC locations for throughput training

Figure 10. Impact of MRE on JRTC Training

Issue Area: Impact of rotation policy on RC days deployed

Current Status:

- 180 day rotation policy mobilizes RC soldiers for approximately 270 days based on the FORSCOM Mobilize-Train-Deploy model
- the training requirements for deployment are independent of rotation length

Effect of changing rotation length:

120-day rotations — Mobilizes RC soldiers for approximately 204 days; 24% reduction from current policy, but RC PERSTEMPO due to SFOR will increase by approximately 13% because of the requirement to man an additional rotation per year

90-day rotations — Mobilizes RC soldiers for approximately 187-202 days; 25-30% reduction from current policy, but RC PERSTEMPO due to SFOR will increase by over 35%

Alternatives:

- Use AC units/soldiers to man additional rotation (120-day rotation)
- split AC/RC rotations at unit level

Figure 11. RC PERSTEMPO

Issue: Employer Support to Guard and Reserve (ESGR)

Current Status:

- Nearly 80% of businesses surveyed by OASD(RA) report being seriously impacted by absences up to 30 days

- All rotation models proposed require mobilization periods in excess of 30 days

Effect of changing rotation length:

120 day rotations - the number of business impacted by employee absences likely to increase as the number of RC soldiers mobilized increases depending on the mix of AC/RC units to fill the additional rotation per year

90 day rotations - almost twice the number of RC soldiers will have to mobilize to support these rotations, significantly increasing the number of employers impacted by employee absences

Alternatives:

- Limit deployments to 2 week AT periods;
- work with employers to minimize impacts

Figure 12. Employer Support to Guard and Reserve

Issue: Presidential Reserve Callup (PRC)

Current Status:

- RC soldiers can be involuntarily called to active duty for a total of 270 days for a named operation
- Current 6 month rotation model results in approximately 270 days of mobilized active duty

Effect of changing rotation length:

- 120 day rotations - results in approximately 200 days mobilized using FORSCOM Mobilize-Train-Deploy model; precludes using individual for another rotation
- 90 day rotations - results in at least 185 days mobilized using FORSCOM Mobilize-Train-Deploy model; precludes using individual for another rotation

Alternatives:

- Shorten postmobilization/predeployment training time to decrease the time mobilized;
- change rotation model and the prerequisite mission training

Figure 13. Presidential Reserve Call-Up

Issue: Retention of RC personnel who deploy based on deployment duration

Current Status:

- Retention data is currently not tracked for RC soldiers participating in SFOR
- Anecdotal evidence exists that retention rates increase before and during deployments
- Some cases of soldiers choosing to ETS after notification for training but prior to mobilization

Effect of changing rotation length:

- 120 day rotations - No evidence to support decrease in retention due to deployment
- 90 day rotations - No evidence to support decrease in retention due to deployment

Alternatives:

- Institute a central tracking system for both ARNG and USAR retention;
- Require service extensions for those who volunteer to deploy but have ETS dates prior to projected mobilization date

Figure 14. RC Retention

Issue Area: Theater Specific IRT Site Resources

Current Status:

- 600 slots per month are available for Bosnia TSIRT rotations at Fort Benning; SFOR-10 RC soldiers require 90% of projected fill over 12-month period prior to deployment
- Number of RC soldiers participating in SFOR increasing
- TSIRT putting strain on Ft. Benning support units (Medical, Signal) as well as on availability of qualified instructors
- Current training requirements being fulfilled through an additional cycle of trainees over weekend periods
- RC units required to attend TSIRT at Ft. Benning, AC units can conduct training at home station

Effect of changing rotation length:

- 120-day rotations—may face lack of available slots and resources to meet training requirements prior to deployment
- 90-day rotations—increased requirement for training

Alternatives:

- alternative Balkan-specific TSIRT location(s)
- “deployable” TSIRT teams
- Train-the-trainer system

Figure 15. Theater Specific Individual Replacement Training

GLOSSARY

AC	Active Component
ADD-RC	Alternative Deployment Durations for the Reserve Component
ADSW	Active Duty Special Work
ARNG	Army National Guard
AT	Annual Training
AVCSA	Assistant Vice Chief of Staff of the Army
CMTC	Combined Arms Maneuver Training Center
CONOPS	Contingency Operations
CONUSA	Continental United States Army
COTTAD	contingency operation temporary tour of active duty
CSA	Chief of Staff, Army
CTC	combat training center
DAMPL	Department of the Army Master Priority List
DFAS	Defense Finance and Accounting System
EAC	echelon above corps
EAD	echelon above division
EEA	essential elements of analysis
ESB	enhanced separate brigade
ESGR	Employer Support to Guard and Reserve
ETS	expiration term of service
FORSCOM	U. S. Army Forces Command
FY	fiscal year
IDT	individual deployment for training
JRTC	Joint Readiness Training Center
METL	mission essential task list
MI	military intelligence
MOE	measure of effectiveness
MOS	military occupational specialty
MOSQ	military occupational specialty qualification

MP	military police
MRE	mission rehearsal exercise
NET	new equipment training
OASD(RA)	Office of the Assistant Secretary of Defense for Reserve Affairs
ODT	Oversea Deployment for Training
OSD	Office of the Secretary of Defense
PERSTEMPO	personnel tempo
PRC	Presidential Reserve Callup
RC	Reserve Component
RSR	right seat ride
SFOR	stabilization force
SRC	standard requirement code
TDY	temporary duty
TOA	Transfer of Authority
TSB	training support battalion
TSIRT	theater specific individual readiness training
TTAD	temporary tour of duty
UIC	unit identification code
USAR	United States Army Reserve