Mobilization and Train-Up Times for Army Reserve Component Support Units

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This report documents results of RAND research into the time it takes to mobilize and prepare Army Reserve Component (RC) support units for deployment. The capability of RC units is a central issue in designing the future structure of the Army in light of the coming reductions in the Active Component (AC) and the overall shift toward contingency operations as the focus of U.S. military planning. Given the sometimes fast-evolving character of contingencies, the key questions are: How quickly can RC units be available after they are mobilized, and what deployment timelines can they meet?

This report estimates post-mobilization preparation time for RC support units. Support units, as defined here, constitute “combat support” and “combat service support” formations located at Echelons Above Division (EAD) and Echelons Above Corps (EAC).

DATABASE AND APPROACH

Our analyses of support functions include statistical modeling of preparation times for RC support units that were called to duty during the Persian Gulf War. The data include 606 units and cover such functions as artillery, engineering, transportation, chemical, and military police. We carried out a series of regression analyses to predict the time from call-up to critical time-points in the mobilization process (such as the time the unit was “validated” as ready for deployment and the time it was ready to load equipment for overseas transportation). The analyses identified three key factors that were associated with varying preparation times: the unit’s branch, size (weight of equipment), and mode of transportation (by air or sea).
RESULTS

Mobilization and preparation for deployment is a multistep process, which we have broken into several key phases with time estimates for each. Typically, a unit first mobilizes at its home station, moves to a mobilization station, prepares individuals and equipment for overseas movement, conducts collective training to reach standard levels of proficiency on wartime tasks, and is "validated" as ready for deployment. The unit then moves to its Air or Sea Port of Embarkation, from which it transits to the overseas theater.

Our data indicated that the time required for the early phases was similar for all units (3 days from call-up to assemble and reach the mobilization station, and 1 to 3 days to prepare for overseas movement). The analyses showed that the time required for the other phases varied, depending primarily on three factors: (1) the unit’s branch, (2) the total weight of unit equipment (a proxy for the unit’s size), and (3) the mode of transportation from the CONUS to the overseas theater. Numerous other factors were considered, but they did not change the results significantly once the above three factors were taken into account.

Units deploying by air have less flexibility than those deploying by sea. They must be validated on all post-mobilization requirements before their air transportation can be scheduled. Sea-deploying units can defer some validation requirements because training or other activities can continue while the unit’s equipment is in transit. Thus, for sea-deploying units, tasks requiring unit equipment can be scheduled early in the preparation cycle, and individual tasks delayed until the later stages.

Predictions from our analysis models indicate that most types of support units can be validated for air deployment in 8 to 16 days depending on their size; 3 to 9 days more may be needed for a few specific types of units. The time required to schedule airlift, prepare equipment, and move units to the Air Port of Embarkation is 5 to 8 days. Thus, units can be at the airport, ready to deploy, in 13 to 24 days depending on unit size.

With sea deployments the process is more complex because unit equipment is typically shipped in the middle of the process while unit personnel remain in the United States undergoing further
training. The key variable in determining when a unit can be in the theater of operations is the time it takes to get its equipment to the sea port. The analysis presented here indicates that typical units going by sea can have their equipment at the port in 18 days. Units belonging to some branches required 2 to 4 days less time, and artillery units required about 8 days longer. The models also indicate that a typical unit can complete training and validation in 24 to 29 days after call-up, depending on unit size (although again, certain types of units such as artillery take longer, as much as 42 days in total).

Using the methodology developed in this report, we illustrate its use by applying it to a notional Southwest Asia scenario to determine the allocation of units between the Active and Reserve Components. For example, considering a single type of unit, medium truck companies, our methodology shows that of the 19 total truck companies required by the scenario, only the four companies required within the first 30 days of the deployment must come from the AC. RC units could fill the remainder of the requirement, almost 80 percent, provided they are mobilized promptly when the deployment begins. Looking at the same contingency force as a whole, the scenario requires 180,000 support personnel for EAD and EAC support units, all of whom would have to come from the AC if there were no contribution from the RC. Since the notional AC force considered has only 74,000 support spaces available, it cannot meet the requirement without RC participation. Our methodology indicates that all but 37,000 of the support spaces could come from the RC, putting the scenario support requirement well within reach.