United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on Military Personnel and Compensation, Committee on Armed Services, House of Representatives

August 1991

ARMY RESERVE FORCES

Applying Features of Other Countries' Reserves Could Provide Benefits

GAO/NSIAD-91-239

GAO
United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-244161

August 30, 1991

The Honorable Beverly B. Byron
Chairman, Subcommittee on Military
Personnel and Compensation
Committee on Armed Services
House of Representatives

Dear Madam Chairman:

This report responds to your request that we review the reserve force structures of selected countries. The report contains recommendations to the Secretary of the Army concerning features of these reserve force structures that might be applied to the U.S. Army.

As arranged with your office, we are sending copies of this report to the Chairmen of the House and Senate Committees on Armed Services and Appropriations; the Secretaries of Defense and the Army; and the Director, Office of Management and Budget. Copies will also be made available to other interested parties upon request.

Please contact me at (202) 275-4141 if you or your staff have any questions concerning this report. GAO staff members who made major contributions to this report are listed in appendix II.

Sincerely yours,

Richard Davis

Richard Davis
Director, Army Issues

Executive Summary

Purpose

Given the changed security environment and significantly reduced defense spending, the Army plans to reduce its active and reserve forces by about 250,000 over 3 years. To reduce costs, the Army is considering whether it can rely more heavily on reserves to meet its requirements as many other countries do. At the request of the Chairman, Subcommittee on Military Personnel and Compensation, House Committee on Armed Services, GAO examined how Germany, the Netherlands, Norway, the United Kingdom, and the Soviet Union organize and train their army reserves to identify features that the U.S. Army might consider as it restructures its forces.

Background

In the early 1970s the Department of Defense (DOD) adopted a Total Force Policy that called for the integration of active and reserve forces. A result of this policy has been a growing reliance on reserves, particularly in the Army, where members of the Army Reserve and National Guard now comprise about half of all Army personnel. These reserve forces are generally less costly to maintain than active forces. To retain a smaller Army yet provide a means of force generation, the Army plans to establish two cadre divisions over the next 3 years. Cadre divisions would be staffed at less than their full wartime personnel requirements in peacetime and brought up to strength upon mobilization.

All the countries GAO examined rely heavily on reserves, and some plan to increase this reliance. However, key differences exist between these countries and the United States, such as the broader range of U.S. defense commitments, smaller size of the European countries, and—except for the United Kingdom—their conscription rather than voluntary military services. Also, because these countries have not mobilized large numbers of reserves in recent years, there is little evidence to suggest whether their methods of organizing and training reserves are more effective than those of the United States.

Results in Brief

While key differences exist between the United States and GAO's case-study countries, certain features of how they organize and train their reserve forces merit consideration because they have potential for improving reserve operations, saving costs, or mitigating the risks of relying on reserves. The U.S. Army already employs some of these features to a limited extent.

With respect to organization, the identified features that may be relevant to the U.S. Army in restructuring its forces include

- assigning reserves both combat and support roles but in some cases restricting key leadership roles and critical missions to active forces,
- using reserves to round out active forces at the battalion and company level rather than the larger brigade level, and
- integrating reserves with more-intensively trained active forces.

As it studies how it will integrate cadre forces into its reorganized forces, the Army could learn from Germany's recent testing of various cadre models and the experiences of the Soviet Union, whose large military force structure is built on the cadre concept. Because the Army's earlier experiences with cadre forces generated concerns over their merits, GAO believes that alternatives to cadre divisions for force generation should be considered.

Identified features of training that warrant consideration include

- policies or mechanisms to retain reservists in positions related to their prior active duty service to reduce the need for retraining and
- variations in the amount of training required of reservists so that training resources can be targeted to the greatest needs.

Principal Findings

Risks of Relying on Reserves Tempered by Selectively Assigning Roles

Statistics showing a high reliance on reserves in both the United States and the case-study countries are deceptive since not all reserves are at equal states of readiness. In some cases, large blocks of reserves are not required to train, and training requirements for others are not rigorously enforced. Some countries temper the reliance they place on their reserves by assigning them reinforcement rather than early deployment missions, support roles rather than combat missions, and missions in rear areas rather than on the front line. Some also restrict key leadership positions to their active forces and, upon mobilization, mix their reserves with active forces whose training is more up-to-date. The practice of using reserves to round out active forces is employed at the battalion and company level rather than at the brigade level used in the United States. In assigning critical missions to reserves, some countries rely on those with the most recent active duty service or those handpicked because of their competencies.

Cadre Systems Used to Generate Forces

Both the Soviet Union and Germany use cadre systems to mix the experience of active personnel with less costly reserves and to provide for force generation in wartime. These systems offer insights about how cadres might be organized.

As of April 1991, about 102 of the estimated 185 Soviet divisions were cadre divisions staffed at 5 to 50 percent of their wartime personnel levels. The Soviet Union couples its use of cadre forces with an approach that enables it to transform smaller units to larger ones and vice versa, thereby providing flexibility in tailoring its forces to meet contingencies.

In Germany, one of each brigade's five combat battalions is a cadre battalion that, upon mobilization, would be filled using surplus active forces and some reserves. In expanding its use of cadres, Germany plans to pair active and cadre battalions in most brigades. Upon mobilization, half of each active battalion's personnel will be transferred to each cadre battalion, with both battalions then filled with reserves. Germany is testing leadership options for its cadre forces, the use of cadres at the company level, and the feasibility of cadres for support as well as combat units. While Germany looked to cadres to save money, its tests show that cost savings may be less than anticipated because cadre units may require more officers than other units.

In examining how it will establish cadre forces, the U.S. Army has confined its study to heavy combat divisions without considering the potential for introducing cadres at other force levels, such as the battalion or company level, or for other types of forces, such as light forces and combat support and combat service support units. Also, although reservations about cadre forces have been voiced, the Army plans to establish its cadre divisions before testing the concept. The Institute for Defense Analysis has developed a force structure model providing a means of force generation that suggests that alternatives to cadres may exist.

Certain Practices Aimed at Improving the Efficient Use of Reserve Training Resources and Equipment

The U.S. Army incurs costs for retraining reservists who, for various reasons, do not continue in the specialty gained on active duty or in another reserve unit. The Army Reserve has initiated an automated position reservation system to improve the match between vacancies and previously acquired skills. However, the problem persists, particularly in the National Guard, which has no such system. GAO found that some countries actively seek to retain reserves in positions related to

their prior military service to reduce the need for such retraining. The Netherlands transfers some active units intact into the reserves, where they retain their same roles, remain in a non-training status for a period of time, and are later recalled for refresher training. Both Norway and the Soviet Union try to assign reservists the same military specialties they had on active duty.

The U.S. Army requires the same amount of training for most reserves but has recognized the desirability of reducing training requirements for some reservists. GAO found that some countries vary the amount of training provided reservists according to complexity of mission, recent active duty service, and relevance of the reservists' civilian jobs to their military positions. By reducing training requirements for some reservists, these countries can target training resources on the greatest needs.

Practices offering potential savings to both active and reserve forces include sharing equipment among units, storing equipment in humidity-controlled bags, and entering into agreements with their civilian sectors to provide assets and services, such as vehicles, food, and medical services, upon mobilization.

Recommendations

Before the Army fully incorporates cadre forces into its force structure, GAO recommends that the Secretary of the Army (1) test the cadre concept at various organizational levels, for support as well as combat units, and under various staffing and leadership arrangements and (2) consider alternatives to cadres for force generation. GAO also recommends that the Secretary of the Army examine several other approaches and techniques used by other countries for assigning and training reserves and determine whether they might offer advantages and savings over current U.S. methods. GAO makes futher recommendations in chapter 3.

Agency Comments

As requested, GAO did not obtain written DOD comments on this report but discussed its findings and recommendations with DOD officials and incorporated their comments where appropriate.

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Abbreviations

DOD	Department of Defense
GAO	General Accounting Office
NATO	North Atlantic Treaty Organization
RIM	Rechtstreeks Instromend Mobilisabel

Introduction

Since adopting a Total Force Policy in the early 1970s,[1] the United States has increasingly based its security on its ability to rapidly and efficiently mobilize and deploy combat-ready units and individuals from its reserve forces. While all the services have increased their reliance on reserves under the Total Force Policy, the results have been the most dramatic in the Army. Members of the Army Reserve and National Guard now comprise about half of all Army personnel, including about half of the Army's combat troops and about two-thirds of its support forces. Ten of the Army's 28 divisions are in the Guard, and 7 of 18 active divisions have one of their three combat brigades filled by reservists. The major reliance that the Army has placed on its reserves was demonstrated when the President needed to call reserves to active duty just 3 weeks into Operation Desert Shield. About 146,500 Army reservists of all types reported for active duty in conjunction with the Persian Gulf war.

Role of Reserves a Major Focus as DOD Reduces Its Forces

The Department of Defense (DOD) is at a critical juncture as it examines how best to reduce and restructure its forces in response to a planned 15 percent decline in DOD budget authority over the next 5 years. According to the President's fiscal year 1992 budget, the Army plans to reduce its active forces, which stood at 751,000 in fiscal year 1990, to 618,000 by fiscal year 1993; selected reserves in the National Guard and Army Reserve would be cut from 754,000 to 621,000 over this same period.[2]

The magnitude of these reductions coupled with the reduced Soviet threat is causing the Army to reevaluate its use of both active and reserve forces in searching for the most effective combination of forces. The generally lower cost of reserves relative to active forces and the changing security environment have led to suggestions that the Army further reduce its active forces and rely more heavily on reserves as many other countries do.

[1]The primary objective of this policy has been to maintain the smallest possible active duty peacetime force and to integrate the active, reserve, civilian, and allied forces in the most effective and efficient manner.

[2]Substantial congressional opposition to the size of the proposed reserve force reductions surfaced in committee actions in May and June 1991, raising questions about whether these plans will proceed.

Limitations in Applying the Experiences of Other Countries to the U.S. Military

While many countries view the U.S. military as the world's premier force and look to it for ways to improve their own military forces, the United States itself has modeled some features of its military after foreign systems. For example, the national war college and some of its military unit structures were modeled after the German system. However, certain factors limit the extent to which concepts from other systems can be directly applied within the U.S. context. These factors include the type of service (conscription versus voluntary), extent of the country's defense commitments, size of the country, and proximity of the country to its expected theater of conflict.

First, of the countries we reviewed—Germany, the Netherlands, Norway, the United Kingdom, and the Soviet Union—only the United Kingdom has a volunteer system similar to that in the United States. The rest have a conscription, or draft, system. Whereas conscription ensures a predictable flow of personnel into the active and reserve forces, the volunteer systems of the United Kingdom and the United States provide no such guarantee. As a result of this difference, both of these countries must be sensitive to the impact of policy and operational changes on their ability to attract qualified personnel. Certain requirements easily imposed within a conscript system might have to be accompanied by an incentive within these voluntary systems.

Second, the extent of a country's defense commitments affects how it designs its force structure. With the possible exception of the Soviet Union, none of the countries we studied has defined its defense mission as broadly as the United States, which has deployed forces in Asia and the Pacific, Japan, Korea, and Europe. In contrast, the militaries of Norway, the Netherlands, and Germany are designed primarily to defend their homelands and to fulfill their commitments to the North Atlantic Treaty Organization (NATO). The United Kingdom retains defense commitments with some of its former colonies and, as demonstrated in the Persian Gulf war, has been willing to further extend its mission, if warranted.

Third, all the countries we reviewed, except the Soviet Union, are considerably smaller than the United States. The Netherlands, for example, is about half the size of New Jersey, and the Norway mainland is about the size of New Mexico. One can reach any point in the Netherlands by driving only 215 miles. The breadth of Germany can be traveled by train within about 10 hours. In contrast, the militaries of the United States and the Soviet Union project their influence over large geographic areas,

need lead times for mobilization of their vast resources, and need substantial airlift and sealift capabilities to deploy their large forces.

Reliance on Reserves Largely Untested

With the exception of the Soviet Union, the countries we examined have had few occasions to use their reserves over the last 20 years. Accordingly, there is little objective evidence to suggest whether the high reliance they place on their reserve forces is justified or whether the ways in which they organize and train their reserves produce better results than those methods used by the United States.

Germany and the Netherlands have not used their army reserves in any military conflicts over the last 20 years. Norway has not mobilized its reserves over the last 20 years except in 1978, when it mobilized an infantry battalion, medical company, and maintenance company to support the United Nations in southern Lebanon.

Until the Persian Gulf war, the United Kingdom had not used its reserves in military operations over the last 20 years, except on a volunteer basis in the Falkland Islands crisis. According to a British official, about 1,000 Territorial Army reserves volunteered for service in the Gulf, and an additional 200 reservists—mostly medical personnel—were selected to serve in the operation.

According to Defense Intelligence Agency officials, over the last 25 years the Soviet Union has used units comprised of some reservists in Afghanistan, Czechoslovakia, and Poland and along the Soviet-Chinese border. The Soviets also used some reservists to quell public unrest in its Azerbaijan Republic.

Other Countries Anticipate Changes in Their Military Forces

The dissolution of the Warsaw Pact, projected increase in the warning time for any resurgence of the Soviet threat to Europe, reduced troop levels in Europe, revisions to NATO's military strategy, and domestic pressures to reduce defense spending are leading the countries included in our review to look at ways to reduce and restructure their forces. These countries, except for Norway and the Soviet Union, both of which already depend heavily on their reserves, anticipate larger roles for their reserve forces.

Several factors have converged to force a major restructuring of U.K. forces. According to the results of a defense study released in July 1990, the United Kingdom plans to place greater reliance on reserve forces as

it withdraws some active forces from Germany. The study results are due not only to the reduced threat in Europe and domestic pressures to reduce defense spending, but also to the United Kingdom's lack of bases and training areas to receive the troops that will return from Germany. The study suggested that active army forces be reduced by about 20 percent. However, the United Kingdom has not announced its final restructuring plans, and, according to one British spokesman, the study results may be reexamined in light of experiences in the Persian Gulf war.

The German government is absorbing some former East German troops into its active army as a result of reunification. Within 3 to 4 years, it plans to reduce its combined active army, which stood at about 340,000 soldiers in 1990, to about 260,000. In addition, the army will restructure most of its brigades to incorporate some cadre battalions.[3]

The Soviet Union is considering two alternatives for reducing and restructuring its forces. One alternative is to maintain a much smaller, streamlined, and technically modern regular (cadre) army, which would entail downsizing, restructuring, and modernizing its current army. The second alternative is to fundamentally change the army's organizational structure, shifting to a smaller regular army with reserves who would be trained on a territorial basis. The Soviet Union is also debating whether to move from universal conscription to a volunteer force, although some Soviet defense analysts believe that the Soviets could not afford the cost of a volunteer army given its severe economic problems.

Objectives, Scope, and Methodology

At the request of the Chairman, Subcommittee on Military Personnel and Compensation, House Committee on Armed Services, we examined how selected countries organize, train, and equip their reserves to identify features that DOD might consider as it redefines the role and use of reserves in the United States. We limited our review to the army reserves in these countries because most of the debate in the United States over the role of reserves has focused on the Army. Also, the majority of the reserves in these countries serve in their armies.

For our case studies, we selected (1) Germany because of the Committee's interest in proposed changes in its military forces; (2) the Soviet Union because of the Committee's interest in its use of cadre forces;

[3]Although German unification has taken place, this report addresses only the forces of the former Federal Republic of Germany.

(3) the United Kingdom because, like the United States, it has a voluntary army and broad defense commitments; (4) Norway because of the high proportion of reserves in its total force (almost 90 percent); and (5) the Netherlands because it emphasizes continuity in its military units.

To obtain an understanding of the reserve forces of Germany, the United Kingdom, Norway, and the Netherlands, we interviewed military attachés at these countries' embassies in Washington, D.C., and reviewed articles, reports, and other documents related to their military systems. We also visited these countries and interviewed Ministry of Defense officials, representatives of their military services, U.S. embassy representatives, and academic experts.

To obtain information on the Soviet Union's reserve force structure, we reviewed public literature and documents related to the Soviet military and interviewed knowledgeable academic experts and DOD officials. These individuals included representatives of the Office of the Under Secretary of Defense (Policy) for Strategy and Resources and the Defense Intelligence Agency and defense analysts at BDM Corporation and the Institute for Defense Analysis. In view of the major changes that were occurring in the Soviet military at the time of our review, we did not conduct field work in the Soviet Union.

To obtain information on the U.S. Army National Guard and Army Reserve, we reviewed various DOD, Army, and Army National Guard regulations, studies, and reports. We also interviewed individuals responsible for papers related to DOD's Total Force Policy Study, as well as the director of the study itself. To gain a sense of the systemic problems that have adversely affected the Army National Guard and Army Reserve, we reviewed reports by our office dealing with reserve training issued over the past 4 years. In addition, we obtained views on the organization and training of the Guard and Army Reserve from representatives of the National Guard Bureau, Army National Guard, and the Office of the Chief of the Army Reserve and views on the use of cadre forces from a representative of the War Plans Division of the Army's Deputy Chief of Staff for Operations and Plans. We also obtained information from various military analysts and DOD consultants knowledgeable about various aspects of the Army Reserve.

We concentrated our work on describing various features of the reserve force structures of the selected countries that appeared to have some potential for application to the U.S. reserve system without drawing

conclusions on their impact. We also gathered data where possible and obtained views on the perceived advantages and disadvantages of the features we identified. In some cases, the U.S. Army already uses some of the features we identified to some extent, the question becoming one of whether their use could be expanded.

We did not attempt to quantify the specific amount of cost savings that might result from adopting the features we identified. While certain features might lead to cost savings, implementing some changes could entail additional costs, such as investments in equipment and facilities and added pay and benefits incentives.

We conducted our review from April 1990 to April 1991 in accordance with generally accepted government auditing standards. As requested, we did not obtain official DOD comments on this report. However, we discussed our findings and recommendations with DOD officials and incorporated their comments where appropriate.

Options for Improving the Organization of Reserve Forces

As the U.S. Army restructures its forces, it will focus on several key issues concerning the role and organization of its reserves. These issues include whether the Army should (1) modify its mix of active and reserve forces, (2) assign combat roles and early deployment missions to the reserves, and (3) adopt cadre forces as a means of generating additional forces when they are needed.

We examined how each of the case-study countries organizes its reserve forces to identify features that the Army might consider in approaching these issues. We found that these countries

- rely heavily on reserves to meet their military commitments and, in some cases, may increase this reliance because of planned reductions in active forces;
- generally assign both combat and support roles to their reserves but in many cases restrict key leadership roles and missions to their active forces; and
- employ cadre concepts in some cases to provide a means of expanding their military forces.

Both the United States and Case-Study Countries Rely Heavily on Reserve Forces

The early call-up of reserve forces for use in the Gulf war underscored the reliance that the United States places on its reserves. In examining the active-reserve force mix of the case-study countries, we found that they also depend heavily on reserves to meet their military requirements. Table 2.1 shows the mix of active and reserve army forces for our case-study countries and the United States. Appendix I briefly describes those countries' various categories of reserves shown in the table.

Table 2.1: Force Structures of the Armies of the United States and Selected Countries

In thousands

Country and type of reserve force	Reserves			Active forces
	Assigned to units	Assigned to pools	Total	
Germany				
Standby Readiness Reserve	12	0	12	
Alert Reserve	686[a]	0	686	
Army Manpower Reserve	0	280	280	
National Manpower Reserve	0	3,000	3,000	
Total	**698**	**3,280**	**3,978**	**287**
Netherlands	148	0	148	65
Norway	146	0	146	19
Soviet Union	3,000[a,b]	0	3,000	1,473
United Kingdom				
Territorial Army	75[a]	0	75	
Individual Reserve	0	187	187	
Ulster Defense Regiment	6	0	6	
Total	**81**	**187**	**268**	**150**
United States				
Army National Guard				
Selected Reserve	444[a]	0	444	
Inactive National Guard	11	0	11	
Standby Reserve	0	1	1	
Subtotal	**455**	**1**	**456**	
Army Reserve				
Selected Reserve	310[a]	0	310	
Individual Mobilization Augmentees	14	0	14	
Individual Ready Reserve	0	284	284	
Subtotal	**324**	**284**	**608**	
Retired Reserve	0	595	595	
Total	**779**	**880**	**1,659**	**751**

Note: Dates of statistics are as follows: Germany (Dec. 1990); Netherlands (Sept. 1990); Norway (June 1990); Soviet Union (June 1990); United Kingdom (Dec. 1990); and United States (Sept. 1990). Germany's statistics do not include the former East German Army, some of which will be integrated into Germany's force.

[a]These reserves listed as assigned to units also include some reserves assigned to pools, but the breakdown is not readily available.

[b]Represents reservists who completed their active duty obligation within the last 5 years. About 2 million of these reservists are needed to bring Soviet divisions up to wartime strength. There are millions more reservists who retain a military obligation to age 50 for enlisted personnel and to age 55 for officers.

The reasons for relying on reserves vary from country to country but include policy decisions to maintain small peacetime active armies, the lower cost of reserves compared with active forces, and their overall assessments that relying on reserves does not pose undue risks to their national security. Given the projected increase in warning time for any resurgence of the Soviet threat, the European countries that we reviewed now believe that they may be able to further increase their reliance on reserves.

Although the armies of all our case-study countries have a high proportion of reserve forces, the statistics are difficult to interpret since not all reserves are at the same level of readiness. First, there are large variations in the amount of training required of the different categories of reserves in the case-study countries. Some reserves, including U.S. Individual Ready Reserves, U.S. retirees, a high proportion of U.K. Individual Reserves, and the German National Manpower Reserves, are not required to regularly train. Also, some countries do not require employers to release employees for reserve training or have sufficient funding for required training. As a result, they do not rigorously enforce their reserve training requirements.

Second, the levels of equipment and training provided to reserve units in peacetime vary widely, thereby creating differences in individual units' effectiveness. Third, all of the foreign countries we studied, except the United Kingdom, are conscript countries whose reservists have all had prior active service. In contrast, only about 58 percent of U.S. National Guardsmen and Army Reservists who joined reserve units in fiscal year 1990 had prior active or reserve service. Finally, statistics on the force mix do not tell the entire story about how reliant these countries are on their reserves. To be meaningful, such data must be coupled with information regarding the roles reserves are assigned and how critical these roles are to their army's operations.

Roles Assigned to Reserves in Selective Manner

As in the United States, we found that the case-study countries (1) generally assign the full range of combat, combat support, and combat service support roles to their reserves and (2) would need to use their reserves in all three capacities should a full mobilization be required. The reliance these countries place on their reserves, however, is tempered by the fact that, in many cases, they focus their reliance on the readiest of their reserves—those with the most recent active duty service or those hand-picked because of their abilities. Also, some countries

restrict key leadership roles to their active forces and, upon mobilization, would mix their reserves with active forces whose training is more intensive.

In the United States, about 74 percent of Army National Guard personnel are in combat units, while about 75 percent of Army Reserve personnel are either in combat support or combat service support units. However, almost all of the Army Reserves and Army National Guardsmen used in the Persian Gulf war served in support capacities; the Army called up three major reserve combat units, provided them extensive pre-deployment training, but never sent them to the Gulf.[1]

The contrast between how reserve combat and support units were used in the Persian Gulf war was a function of the Army's options. For support functions, the Army had little choice but to call on its reserves because, in some cases, it had little capability in its active force. As shown by table 2.2, the Army relies heavily on its reserves for certain functions.

[1]These were three National Guard infantry brigades that round out three active divisions. Only two of these divisions deployed to the Gulf.

Table 2.2: Army Support Units of Which 50 Percent or More Are Army National Guard and Army Reserve Forces

Type of unit	Percentage
Army National Guard	
Heavy equipment maintenance companies	7(
Public affairs units	5(
Supply and services companies	5:
Army Reserve	
Training divisions and brigades	10(
Railroad units	10(
Judge advocate general units	9(
Civil affairs units	97
Pathfinders detachments	8:
Chemical smoke generator units	7:
Psychological operations units	6(
Military intelligence units	63
Hospitals	59
Corps support groups, headquarters	58
Light equipment maintenance companies	56
Petroleum, oil, and lubricant companies	56
Truck companies	55

[a]Based on a count of like units.

Source: Reserve Component Programs Fiscal Year 1989: The Annual Report of the Reserve Forces Policy Board.

In contrast to this dependence on reserve support forces, the Army had enough combat capability in its active force to enable it to use few reserve combat forces in the Gulf.

The experiences of the Persian Gulf war have led to considerable review of the roles assigned to reserve forces within the total force. The Army's decision not to immediately deploy the National Guard roundout brigades has raised questions about the extent to which the Army should continue to assign early combat roles to the reserves. For example, DOD's January 1991 report to the Congress on the Total Force Policy concluded that combat reserves should not be counted on for contingencies lasting less than 60 days. Questions also remain over the extent to which reserve support forces should be retained in the contingency force, due to problems of availability and immediate deployability.

We found that the case-study countries generally assign combat and support roles to their reserves in a selective manner. For instance, Germany relies heavily on its reserves in terms of numbers—about 70 percent of its total army—and assigns them the full range of roles. Some

German reserves are used to augment the regular army in combat roles and provide combat support for cadre battalions. However, Germany assigns many reserve units roles that it normally does not assign to active forces, such as providing security for bridges and power plants, and often designates them to serve in rear areas, such as for traffic control.

In addition, if reserve forces are needed to complete active combat units where rapid deployment is essential, Germany would call on a select group of reserves—its Standby Readiness Reserves—who are hand-picked from the conscript service because of their capabilities. These reservists have been off active duty less than 12 months and, according to Germany's mobilization procedures, are to be mobilized within a day to fill out active battalions.

Because Norway's reserves represent almost 90 percent of its army's forces, reserves are used in all capacities to fill out its 13 brigades. However, Norway staffs its one key brigade, whose role is to defend NATO's northern flank, more heavily with active forces than its other 12 brigades. And although it relies heavily on reserve units for local defense purposes and support missions, it generally assigns active duty officers to command units at the battalion level and above and reserve officers to lead smaller units at the company level and below. According to a U.S. Army attaché in Norway, active duty officers are assigned to command the larger military units because, these officers have more extensive training and greater expertise.

The United Kingdom has assigned combat roles to over 38 percent of the Territorial Army—that is, those reserves usually organized into units. About 36 percent of the active army serves in combat roles. In the event of war, the Territorial Army would comprise over 50 percent of the British Army's infantry forces in Germany. The United Kingdom also assigns these reservists roles such as guarding key points within the United Kingdom. The U.K. Individual Reserves are assigned the full range of roles, but because they are individuals rather than members of units, they would be used primarily as replacements.

Soviet reservists are used to complete divisions that are staffed at 5 to 80 percent of their wartime strength in peacetime. The reservists do not form separate units. Active personnel fill key positions, while reservists are used for semiskilled and non-skilled positions. The first units that the Soviets would mobilize would be those consisting primarily of active personnel, while units mobilized later would have larger proportions of

reservists. Units with larger numbers of reserves would maintain and control areas initially secured by units staffed more heavily with active personnel. Upon mobilization, the Soviet Union would call on what it considers the readiest of its reserves—those who have completed their conscription service within the last 5 years. There are about 3 million army reservists who meet this criterion.

None of the countries we examined employ the roundout concept at the level used by the U.S. Army—that is, at the brigade level. As noted, where such large reserve units are used, they are generally mixed with active forces or placed under active leadership. Roundout at lower levels is more common in the case-study countries. For example, four of the five battalions in each German Field Army brigade would each be rounded out with a reserve company should the battalion be activated for combat. These reserve companies would serve in place of the battalions' new recruit companies, which are not considered ready for modern warfare while in a training status. The fifth battalion in each brigade is a cadre battalion with a skeletal core of active personnel.

DOD is also examining whether to employ the roundout concept at levels lower than the brigade level. To enhance the DOD Total Force Policy and foster greater active and reserve component integration, DOD's Total Force Policy study suggests expanding the Army's roundout concept. The study states that the concept might include reserve companies and batteries that would round out active battalions or reserve platoons that would round out active companies.

Cadre Forces Used to Reduce Costs and Provide a Means of Generating Forces

With increased warning time for a European conflict and continuing budgetary pressures to reduce defense spending, the United States is considering how it can reduce the size of its peacetime army while retaining the capacity to generate additional forces if needed. One mechanism that the Army plans to use is cadre divisions. In examining the use of cadre forces in the case-study countries, we found that both Germany and the Soviet Union employ cadre forces in their armies and that Germany is expanding its use of cadre units and is modifying their designs. We also found that the Institute for Defense Analysis has developed a "Unit Cohesion Model" that has some features similar to those of the Netherlands' Rechtstreeks Instromend Mobilisabel (RIM) system. This model offers an alternative to cadre divisions as a means of force generation.

Germany Currently Testing Modifications to Its Present Cadre System

Germany has focused its current cadre system on the battalion level and, in expanding the concept, plans to use more cadres at the battalion level and possibly introduce them at the company level. Germany is also examining the types of units—such as armor, artillery, engineer, and armored cavalry—for which the concept is best suited and alternative leadership arrangements.

Germany's current system consists of one cadre battalion for each of its armored and infantry brigades. According to a German defense official, Germany established cadre battalions to permit the army to keep more brigades at less cost. The cadre system saves money because the cadre battalions have few full-time personnel. Under the present system, one of five battalions in each of 32 brigades is a cadre battalion. In peacetime, the cadre battalion consists of an active army commander, a noncommissioned officer, and up to five conscripts plus a full set of equipment. When the cadre battalion is mobilized, four companies are added to the battalion. Three of the companies come from three of the brigades' other active duty battalions, each of which has an extra company not required for mobilization assigned to it in peacetime. A fourth company, with about 160 people, is filled up to 60 percent by reservists and the remainder by active personnel from throughout the brigade.

This fourth company rounds out the battalion and provides command and control and combat support. Where possible, reservists with civilian occupations similar to the military positions needed are selected for the cadre battalions. These occupations may include, for example, mechanics, bakers, architects, doctors, or medical technicians. According to a German military attaché, the cadre battalions may be more proficient than some similar active battalions when deployed because of this match between civilian and military positions and because the cadre battalions are given special attention at all command levels during mobilization exercises.

Germany is in the process of downsizing and reorganizing its army. This will result in a decrease in the number of brigades with cadre battalions but an increase in the number of cadre battalions, as shown in table 2.3.

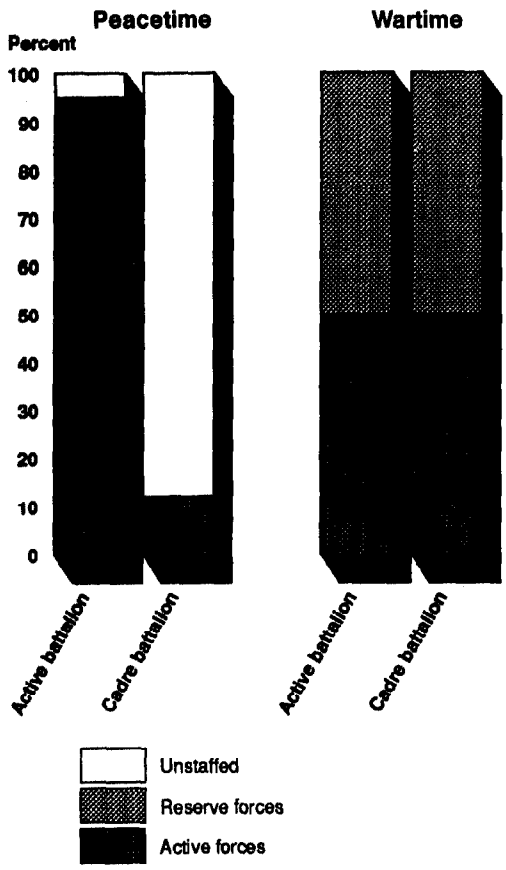
Table 2.3: Germany's Existing and Planned Cadre Systems

	Existing	Planned
Total brigades	48	28
Brigades with cadre battalions	32	21
Cadre battalions per brigade	1	2 or 4
Cadre battalions	32	46

The German army is field-testing various cadre force models before incorporating a new cadre system as a permanent feature of its revised force structure. The new force structure will have standard combat brigades instead of separate armor and infantry brigades. Each standard brigade will have five combat battalions—two armored, two infantry, and one field artillery. The objectives of the field trials are to determine (1) the most effective and economical mix of active and reserve personnel for two of the combat battalions in each brigade in peacetime so that they can be reconstituted to full wartime strength when needed and (2) how to use the cadre concept when a brigade contains a battalion or company of a single type, such as an engineer battalion or an armored cavalry company. The latter problem may entail instituting cadres at the company level.

One cadre model being tested, as shown in figure 2.1, involves the pairing of two battalions, either armored or infantry. In peacetime, one battalion would be staffed with active personnel at 95 to 97 percent of its wartime requirements. The other battalion —the cadre unit—would be staffed with active personnel at 12 to 16 percent of its wartime requirements. Upon mobilization, active duty personnel would be redistributed between the two battalions, and reserves would be used to fill out both battalions. The result would be a 50-50 mix of active and reserve forces in each battalion.

Figure 2.1: Peacetime and Wartime Staffing of Paired Battalions in the German Cadre Model



Germany plans for only one of the two paired battalions to train at a time. This would enable both paired battalions to use the same equipment when they train and to store the remaining equipment required for the two battalions. Reservists and active personnel would participate together in the mobilization exercises. The reservists for a particular battalion would come from a relatively small geographic area to facilitate this training.

One additional feature under consideration is for the commander of the highly staffed battalion to also be responsible for the cadre battalion. Upon mobilization, the commander would lead the cadre battalion, and his deputy commander would remain to lead the other paired battalion. According to one German military officer, the purpose of this leadership arrangement is to provide an incentive to the commander to ensure that both paired battalions receive sufficient peacetime training.

One German official said that the purpose of testing the cadre models is not to determine whether the army will implement the new cadre concept, but rather to determine what combination of staffing and leadership appears to work best. According to German Army officials, the original reasons for considering this new cadre concept were (1) demographic changes creating a shortage of conscripts; (2) the expected increase in warning time, permitting more time to reconstitute forces; and (3) the potential for cost savings in the face of pressures to reduce defense expenditures. However, German unification has eliminated the anticipated shortage of conscripts, and German officials are now uncertain that implementing the cadre concept will result in as much cost savings as anticipated. According to one German official, the army should save on repair parts and fuel since some units will share equipment for training purposes with the rest of their equipment being stored.

The primary savings that Germany anticipates from its new cadre system will be in overall personnel costs, since 21 of its proposed 28 brigades will have cadre battalions that will be staffed in peacetime at less than their wartime personnel levels. The actual staffing levels will depend on the cadre model selected. However, field-testing is showing that the cadre units may have to be heavily staffed with officers and noncommissioned officers, which would offset some of the cost savings. Germany will fully staff the remaining seven brigades with active personnel and use them where a rapid response is required.

Soviet Cadre System Geared to Quickly Build New Forces

Since 1935, the Soviet Union has used the cadre force concept to permit the shifting of large numbers of designated, trained reservists to quickly fill out existing active army units. The Soviet army couples its cadre concept with a "telescoping" approach that enables it to create larger units from smaller ones and to break up larger units into smaller ones.

As of April 1991, 102 of the Soviet Union's estimated 185 army divisions were cadre divisions staffed in peacetime with active forces representing from 5 to 50 percent of their wartime levels. The Soviet system provides for significant amounts of equipment and weapons to be placed in storage to enable the army to replace early combat losses, equip new units being formed, and mobilize new means of transportation. The Soviets generate forces during mobilization in four basic ways. They may

- add personnel to fill peacetime units to their wartime personnel requirements;

- activate completely new units, equipping them with stored equipment;
- transform some larger units to smaller units, such as a regiment to a battalion; or
- convert smaller units to larger ones, such as a division to a corps, regiment to a division, or battalion to a regiment.

The latter two actions represent what one Soviet defense analyst termed telescoping of forces. Under this approach, an existing unit is transformed into a new larger or smaller unit. When larger units are formed from smaller ones, they are filled out by assigning people and equipment from other units. The Soviets have used the telescoping concept extensively over the years and have designated certain battalions and regiments for telescoping and assigned certain senior commanders to them in anticipation of the telescoping actions. According to U.S. analysts specializing in Soviet defense, this system provides the Soviets a great deal of flexibility in developing needed units upon mobilization.

An additional feature of the Soviet army is that units are maintained at various states of readiness based on their role and priority for deployment. This practice has carried over from the Soviet Union's World War II experience. During the war, the Soviets generated more than 600 new rifle divisions, maintaining more than 500 rifle divisions in the field at any one time. Recognizing that they had neither the personnel nor the equipment to form these units on an equal basis, the Soviets staffed and equipped the units according to their mission, terrain they would face, and expected enemy. For example, there were at least 14 authorized rifle division variations, 20 rifle regiment variations, 25 rifle battalion variations, and 20 rifle company variations. The highest-caliber soldiers and best equipment were allocated to the most important units, such as those with decisive offensive or defensive missions.

Unit Cohesion Model Based on Dutch RIM System

One potential force generation alternative to the cadre system is the Unit Cohesion Model developed by the Institute for Defense Analysis.[2] Certain aspects of this model are similar to the Netherlands' RIM system. The theory behind the model is to provide a means of expanding peacetime forces while maintaining unit cohesion.

[2]This model is presented in the Institute's November 1990 report, Alternative Concepts for Organizing the Total Force, prepared for the Assistant Secretary of Defense for Force Management and Personnel.

The Institute's model for combat units is based on a combination of ready units and two levels of standby units. A ready unit would contain active duty personnel, who would normally serve and train together for 3 years, reaching a high level of training proficiency and unit cohesion. After 3 years, members of the ready unit would move on to new positions or retire. Each member of the former ready unit—whether remaining on active duty, joining the reserves, or moving on to civilian life—would become a member of the same specified standby unit. This standby unit would then be subject to mobilization for 1 year. In theory, because the standby unit contains the former ready unit members, who presumably gained a high level of cohesion and proficiency while on active duty, the unit should be able to quickly become ready for combat upon mobilization.

As part of this model, active duty members of the standby unit have two roles. That is, in addition to being assigned to the standby unit, they also hold a second active-duty assignment in a non-combat position. For example, they might hold a position related to recruiting, serve as an instructor, or attend advanced training as a student. Upon mobilization, these active duty personnel would return to their standby units to enhance unit capabilities with their recent active duty expertise and to maintain unit cohesion.

After 1 year in initial standby units, some members of the initial standby units would then be reassigned to newly forming ready units. As members in a secondary standby status retire or move to other units, initial standby units would become smaller. Therefore, when the standby units with reduced personnel are mobilized, several of these partial units would be combined to form a single unit.

U.S. Army Planning for Cadre Divisions May Not Include Consideration of All Alternatives

In a February 1991 letter to the Congress, the Secretary of the Army stated that in April 1990, the Army had begun studying cadre division requirements and the feasibility of including cadre divisions in the Army's force. To retain a smaller Army in peacetime yet provide for additional forces if needed, the Army is now proceeding into full development of the cadre concept and plans to establish two cadre divisions by fiscal year 1994. The Army's Training and Doctrine Command is analyzing various factors involved in establishing heavy division cadres. Specifically, it is examining whether cadre divisions should be composed of active or reserve forces, what capabilities they would need, the percentage of personnel that the divisions should maintain prior to mobilization, the sources of personnel for the divisions upon mobilization, the

physical location of the divisions, and the amount of equipment that the divisions should possess. It is also developing plans for an evaluation period for the cadre units once they are established. The Training and Doctrine Command is to provide a report of its findings to Army headquarters in August 1991.

While the Army's plans for examining cadre forces appear to address key aspects of the organization and staffing of cadre divisions, the scope of its study appears to be narrow. First, the Army appears to be examining how the cadre concept can be implemented only at the division level and not at other force levels, such as the battalion or company level. Germany's experience with cadre forces raises the possibility of cadres being employed at the battalion and company levels.

Second, the Army is looking only at heavy divisions, apparently excluding consideration of cadres among light forces and combat support and combat service support units. Given the fact that relatively less training may be required of noncombat units, incorporating the cadre concept into support units could be as feasible as employing it at the heavy division level.

Third, the Army appears to have settled on using cadre divisions as its means of force generation to the possible exclusion of other alternatives. Some reservations about cadre forces have been voiced in some quarters. For example, National Guard Bureau officials pointed out to us that, until the early 1970s, the Army used cadres and found significant drawbacks. These included their limited mobility, virtually nonexistent training opportunities, and limited upward mobility and career progression. They said that if the Army returns to using cadres, it should test the cadre concept to determine full-time manning requirements, training strategies, and the support required to accomplish post-mobilization missions.

Finally, the Army appears to be setting an evaluation period following establishment of the cadre divisions in 1994, and not testing force generation alternatives on an ongoing basis. Testing out various types of cadre forces and alternative organizational means of generating forces while conducting continuous evaluations would permit a simultaneous weighing of their merits.

Conclusions

The changing geopolitical environment and planned reductions in the size of the U.S. Army have presented an opportunity to explore whether

placing greater reliance on reserves is consistent with U.S. security interests and, if so, how this could best be accomplished. The countries we reviewed would all rely heavily on their reserves in the event of a full mobilization of their forces. However, they tend to mitigate this reliance by focusing on the readiest of their reserves, selectively assigning them roles, and reserving leadership roles to active forces in selected cases. They also tend to use the roundout concept at organizational levels below the brigade level and to integrate reserves with more-recently trained active forces.

Key differences between these countries and the United States may limit the extent to which these practices could or should be adopted by the U.S. Army. Nevertheless, we believe that certain features of their systems merit consideration as the Army reexamines how it will organize and use its reserves in the future. In particular, the German and Soviet cadre systems and the Unit Cohesion Model being developed by the Institute for Defense Analysis demonstrate a wide range of organizational arrangements toward force expansion that might be considered.

In our opinion, it may be too soon for the Army to settle on a single cadre model—that is, heavy division cadres—to the exclusion of other cadre models and other techniques for force generation. The Army's current examination of cadre concepts offers an opportunity to evaluate the pros and cons of various cadre models and to explore alternative organizational arrangements before a firm decision is made on incorporating cadre forces into its structure. A combination of various techniques rather than a single alternative might also be considered. We believe that a thorough assessment of the cadre concept would include (1) the levels at which cadre forces will be used—division, brigade, battalion, and/or company; (2) the types of units—combat, combat support, and combat service support—best suited to the cadre concept; (3) the appropriate levels of personnel in peacetime; (4) arrangements for training; and (5) the most effective leadership configurations.

Concurrent testing of the cadre concept on a small scale but under a number of variations in terms of organizational levels, types of units, personnel required in peacetime, leadership arrangements, and training strategies would be desirable before the concept is fully institutionalized. In this regard, the Army may be able to benefit from Germany's evaluation of alternative cadre models over the last 2 years.

Recommendation

Before the Army fully incorporates cadre forces into its force structure, we recommend that the Secretary of the Army (1) use the lessons learned in other countries to test the cadre concept at both the division and other organizational levels, for support as well as combat units, and under various staffing and leadership arrangements and (2) explore alternatives to the cadre concept, such as the Unit Cohesion Model.

Options for Improving the Effectiveness of Reserve Training Resources

In 1989, we evaluated the training that the Army was providing to its reserve forces and identified various factors adversely affecting this training.[1] These factors include limited training time, high personnel turnover within units, uneven participation and administrative diversions associated with weekend drills, shortages of equipment with which to train, and insufficient opportunities for realistic training. The Army has recognized the training deficiencies that exist in its reserve components and has developed a strategy for improving reserve training. If the Army decides to place greater reliance on its reserves, it will need to continue these efforts as well as seek new ways to improve reserve training.

We reviewed how the case-study countries train their reserve forces and identified features that might be considered within the U.S. context. Specifically, we found that in some cases the case-study countries

- make concerted efforts to assign reservists to positions related to their prior active duty service to avoid the need for extensive retraining in another skill and
- target training resources on the most critical needs by varying the amount of training they provide their reserves based on recent active duty service, complexity of mission, or maintenance of skill proficiency in a civilian occupation.

In addition, we found that some countries economize on maintenance and training costs by (1) sharing equipment among units, (2) storing equipment in humidity-controlled bags as an alternative to building special warehouses, and (3) entering into agreements with their private sectors to provide for certain equipment and services to be used upon mobilization. These cost-saving measures are applicable to both active and reserve forces.

None of these features were used universally by the countries we examined, and none is without its drawbacks. Also, in some instances, the U.S. Army already employs these concepts to a limited extent and could simply consider expanding them. Military officials of the United States and the countries we visited noted that the U.S. Army's training of its reservists is, in many respects, superior to that provided by other countries and that they continue to look to the United States for ways to improve their own training.

[1] Army Training: Management Initiatives Needed to Enhance Reservists' Training (GAO/NSIAD-89-140, June 30, 1989).

Assignment Policies Reduce the Need to Retrain Personnel

Our past reviews evaluating the Army's training of its reserves have shown that the proficiency of reserve units is often hampered by the difficulties reservists experience in obtaining the training needed to qualify them for the positions they fill. The problem of retraining exists because many former active duty soldiers and reservists either (1) join reserve units that do not need the skills they attained on active duty or in other reserve units or (2) choose to acquire a new skill rather than continue in the one they gained while on active duty. In fiscal year 1990, over 55 percent of the 82,493 who joined Army National Guard units and 61 percent of the 76,582 who joined Army Reserve units had prior military service. Over 50 percent of these Guardsmen and about 45 percent of the Army Reservists with prior service required retraining.

The difficulty that these reservists face is in obtaining the necessary retraining on a part-time basis. Unless a reservist attends Advanced Individual Training or a special military school for retraining, it can sometimes take several years to obtain the necessary retraining. In our June 1989 report we pointed out that most soldiers are unable to attend further training at Army schools because of civilian job commitments that preclude them from attending Advanced Individual Training programs lasting up to 10 months. A second impediment is that reserve unit leadership is sometimes reluctant to send key individuals to school knowing that their absence may disrupt operations of the unit.

Like the United States, some of the case-study countries seek to avoid the problems and costs associated with retraining by assigning reservists to the same positions they held while on active duty. A good example of this alignment with prior active duty service occurs in the Netherlands' RIM system. Every 2 months the Netherlands inducts up to 6,000 conscripts and assigns them to units for 4 to 6 months of basic training and 10 months of active duty service. These conscripts then go on leave for 4 to 6 months, during which they do not train but may be recalled as part of their original unit at any point. Thereafter, the conscripts become reservists. At that point, some are designated as part of the RIM system and remain assigned to the same unit and in the same capacity as when they were on active duty.[2] The only difference is that the former active unit is then designated a reserve unit. Those reservists in the RIM units are not required to train for the next 14 to 16 months since they serve in the same roles as they did on active duty.

[2]Not all reservists are part of the RIM system. Others are assigned to mobilization units other than their former active units and are provided training.

According to a German military official, the German army assigns its reserves the same military occupational specialty as they had on active duty to the extent possible. He noted, however, that this is not always possible since it would not be practical to retain as many infantrymen in the reserves as hold that designation in the active force. Both the Soviet Union and Norway also try to retain their reservists in the same military specialties as their active duty service.

It may be easier for the European countries to assign their reservists to the same military specialties they had on active duty, since these countries are small and geographic boundaries do not pose as great an obstacle to reserve assignments as in the United States. Also, under conscription, these foreign armies can dictate the terms of their reservists' continuing obligations. Under current regulations, the U.S. Army cannot force a reservist to accept assignment to a unit that is beyond a 50-mile radius of the reservist's home or that requires a commute of more than 1-1/2 hours of driving time.[3] As a result, if there is no suitable unit matching the individual's skills within this geographic range, the Army must either assign the reservist a new military specialty or in some cases permit the reservist to join the Individual Ready Reserves.

In April 1990, the Army modified its automated position reservation system to improve the match between vacancies to be filled and qualified individuals. Under the revised system, a person requesting assignment to a reserve unit must fill the highest-priority unit vacancy matching the individual's military occupational specialty within the specified geographic range. If there is no match, then the person would fill a unit vacancy where the unit commander can provide the necessary training for the new specialty. As a last resort, individuals may fill unit vacancies not matching their existing skills on the condition that they agree to obtain the necessary retraining either before or shortly after reporting to the unit. It should be noted that the latter two options require a plan for achieving the training needed for the position but do not eliminate the problem of having to retrain the individuals selected for the vacancies. Also, this automated system covers vacancies only in the Army Reserve but not the Army National Guard. Because the National Guard lacks an automated vacancy system, individual Guard units in many cases accept individuals for vacancies unrelated to their existing skills.

[3]These criteria are extended to 100 miles and 3 hours if government meals and quarters are provided.

Several impediments would still have to be overcome for the Army to better align its reserve assignments with existing skills. First, it might be necessary for the Army to extend the geographic range within which it assigns reservists to units. Extending recruiting ranges would require amending existing Army regulations, might inhibit participation in training, and could hinder reserve recruitment given the longer commuting distances. Longer commutes to drilling stations might be more palatable to reservists if the current strategy were modified to require fewer weekend drills in favor of longer drill periods or extended annual training. Second, the Army might re-station certain units where it could draw from larger population areas. Re-stationing units would entail short-term costs and could meet with political and organizational resistance. Third, in some instances, given the U.S. voluntary system, the Army might have to offer an incentive to entice departing active duty soldiers to continue with their existing specialty in the reserves. Finally, the pool of Individual Ready Reserves might be expanded and the number of reservists in units reduced.

Stratified Training Requirements Target Resources on the Most Critical Needs

The U.S. Army's strategy for training reservists is essentially the same as that used to train active duty soldiers. Reservists without prior active duty service are required to have 8 weeks of basic training and then, depending on their specialty, from 4 to 47 weeks of Advanced Individual Training. Those with prior military service will have reclassification training if they change their specialty. Thereafter, the Army applies minimum training requirements to all members of the selected reserves of the National Guard and Army Reserve. These reservists must participate annually in at least 48 training periods—usually 4 hours each—and 14 days of active duty training—usually accomplished in a 2-week block—for a total of 38 days of training a year. National Guardsmen are required to participate in a fifteenth day of active duty training for a total of 39 days a year. These training requirements are applied across-the-board for both Guardsmen and Army Reservists except that additional training is offered for certain specialized skills. In some instances, the Secretary of the Army may excuse Army National Guard units from certain training.[4]

Table 3.1 shows the amount of training required for reserve forces in the armies of the United States and the case-study countries. Most

[4]An exception to these minimum requirements is made for Individual Mobilization Augmentees whose training is determined by the active units in which they are designated to serve. These reservists numbered about 14,000 as of September 30, 1990.

reserve training is accomplished in units in both the United States and the case-study countries. However, the countries we reviewed sometimes vary the amount of training required of reservists based on their age, the complexity of the skill, or how recently the reservist served on active duty. Reservists serving in positions similar to their civilian occupations are also subject to reduced training requirements in some countries. By stratifying training requirements, these countries are better able to focus their limited training funds on those reservists who they believe need the most training.

Table 3.1: Training Required for Army Reserve Forces of the United States and Case-Study Countries

Country and category of reservist	Days of required training		Frequency
	Consecutive	Other	
United States			
Army National Guard[a]	15	24	Required every year
Army Reserve[a]	14	24	Required every year
Individual Ready Reserve	0	0	Opportunities available on a voluntary basis
Norway			
Up to age 35	21	0	5 sessions through age 35
Over age 35	12	0	2 sessions over age 35
Netherlands[b]			
RIM unit members	0[c]	0	
Other units or individuals	14–28	0	Several training exercises over a 6-year period
Germany			
Standby Readiness Reserve[d]	0	0	
Alert Reserve	6–12	0	1 session every 2 or 3 years depending on type of unit
Other reserves	0	0	
United Kingdom			
Territorial Army[a]	15	4–12	Required every year
Individual Reserve	0–15	0	Required every year, but not enforced
Soviet Union			
Up to age 35	Maximum 3 months	0	4 courses during age bracket
Over age 35	Various	0	Various

[a]Other training is usually satisfied through weekend drills.

[b]In addition to the Netherlands' training listed, selected units and individuals may be called up to participate in an annual 3- to 4-day mobilization exercise.

[c]No required training while in a RIM unit; after leaving the RIM, these reservists receive one refresher training course of 14 days.

[d]These reserves remain on standby for 1 year and then move into the Alert Reserve.

As shown in the table, only the United Kingdom has reserve training requirements in amounts similar to the United States. In the remaining countries, reservists generally do not train on weekends and participate in exercises only once every 2 to 3 years. For example, many Norwegian reservists join their mobilization units about once every 4 years for 3 weeks of refresher training. German Alert Reservists normally train for up to 12 days once every 2 to 3 years, depending on the type of unit.

Variations Based on Recent Active Duty Service

In the United States, although some Individual Ready Reservists train voluntarily, they are not required to train regularly for at least 12 months in recognition of prior active or reserve service. Other reservists are required to fulfill annual training requirements regardless of how recently they may have served on active duty. Although DOD's January 1991 Total Force Policy Study noted that reservists with prior active service should be able to retain their proficiency for 3 to 5 years and therefore only require refresher training, DOD has not proposed reducing the amount of training required for such reservists.

Some of the countries we reviewed do not require reservists to train until they have been out of active service for a specified period of time. For example, as noted above, Dutch reservists assigned to the military's RIM system are not required to train for the 4 to 6 months they are on leave following their basic training nor for the next 14 to 16 months during which they are assigned to a reserve unit. The assumption is that reservists can retain their military proficiency without regular training during this period. Similarly, Germany does not require its reservists to train during the 12 months they are in the Standby Readiness Reserve since they retain the same roles they had while on active duty.

Variations Based on Role

In the United States, the annual requirement for 38 to 39 days of training is imposed on Army Reserve and National Guard forces regardless of the type of unit to which they are assigned. According to the Commander of the Forces Command, however, some reserve combat units cannot obtain the desirable degree of proficiency needed through 2 weeks of annual training and weekend drills without additional collective training. In contrast, the Commander noted that skills in certain combat support and combat service support units could generally be maintained through the existing standard training requirements. He cited units that are staffed with personnel whose proficiency is maintained in civilian jobs, units that are equipment oriented, or units whose personnel perform singular tasks, such as those in artillery, air defense, and noncombat engineer units.

In contrast, Germany, for example, varies its training based on the type of unit involved. Most units participate in 12-day training exercises every 2 years; however, others, such as supply, transportation, medical, and ambulance battalions, train only every 3 years. Moreover, not all reservists in the unit train for the entire 12-day period. Most reservists train only the last 6 days of the mobilization exercise, whereas unit commanders and key personnel in the unit train the entire 12 days.

According to Norway's Chief of Army Training, Norway will soon implement a new training strategy because of budget constraints. Under the new strategy, Norway will focus its training on the highest-priority units, providing more frequent training than in the past. These units are expected to train once every 2 years rather than every 3 to 4 years, and for 15 days instead of 21 days. To focus increased attention on high-priority units, Norway will reduce training for some lower-priority local defense units from 12 days to 7 days, and some other low-priority, non-brigade units may not be required to train at all. Norwegian army officials told us that the advantage of this stratified training strategy is that it focuses attention on the most critical mobilization units.

Reduced Training Where Military Role Is Aligned With Civilian Occupation

The U.S. Army has in certain instances reduced training requirements for reservists whose civilian occupations are closely aligned with their military positions. For example, members of the Individual Ready Reserves in occupations similar to their military positions are assumed to require only limited refresher training upon mobilization. Also, under its Civilian Acquired Skills Program, the Army may reduce the initial training required for individuals whose civilian occupations are aligned to any of 116 military occupational specialties. Examples of these specialties are food service specialist, intelligence analyst, eye specialist, and fire fighter. As an added incentive for enlisting in a specialty in which they already have skills, these individuals may also qualify for an early promotion. However, beyond this reduction in the amount of required initial training, these individuals are thereafter required to meet the same annual training requirements as those working in occupations unrelated to their military specialty.

Several countries we studied reduce the amount of regularly scheduled training required of their reservists if their civilian occupation requires skills similar to their military position. For example, the United Kingdom requires less annual training for members of the Territorial Army engaged in the fields of transport, medical, supply, maintenance, finance, and engineering who maintain their technical skills through their civilian occupations. Although subject to the same requirement as other reservists for participation in 15 days of annual training, these reservists are required to attend only 4 nonsequential days of training throughout the year, as compared with 12 days for other reservists. In addition, they are not required to attend weekly evening meetings.

Norway also makes a concerted effort to assign individuals to jobs related to their civilian occupations to reduce the need for training. As

previously noted, Germany tries to match reservists with civilian occupational skills with positions in the combat support companies of its cadre battalions to reduce the need for training and speed the mobilization process.

Concept of Varied Training Requirements Not Fully Tested in Case-Study Countries

In considering the concept of varying training requirements, it is important to note that our case-study countries may not have fully evaluated the impact of their policies. Most of these countries unevenly enforce their training requirements, and, as a result, participation in training is widely divergent. For example, training in Norway is mandatory, and personnel not attending are subject to prosecution and possible imprisonment. As a result, the training participation rate in Norway is over 90 percent.

In contrast, Germany's participation rate is only about 60 percent due to a liberal exemption policy. One German military official pointed out that the effectiveness of reserve training is adversely affected because so many soldiers are exempted from training requirements. To improve the participation rate, Germany has implemented several benefits, including paying reservists their normal civilian salary while they participate in training. Germany's 280,000 Army Manpower Reserves are not usually called up for training at all.

While members of the U.K. Territorial Army have annual training obligations, which many members fulfill, most of its Individual Reserves—about 25 percent of all U.K. reserves—do not fulfill their 15-day annual training requirement. Although some of these latter reservists train voluntarily, most generally report only 1 day each year for an inventory of uniforms, update of personnel data, and 3 hours of military-related training. The United Kingdom does not rigorously enforce its legal training requirements because (1) employers are not required to release their employees for training and (2) the Army lacks sufficient funding to provide the required training. To encourage participation in training in its Territorial Army, the United Kingdom offers these reservists a bonus.

Figure 3.1: U.K. Territorial Army Infantry Personnel in Training With Active Forces

In the Soviet Union, millions of reservists up to age 50 retain a military obligation. However, according to one Soviet military expert, it is rare for Soviet reservists to be called for any refresher training after having been off active duty beyond 5 years. He also noted that many Soviet reservists reporting for training may not engage in meaningful training because so much Soviet equipment is stored to save on maintenance costs and is therefore unavailable for training.

It should be noted that a large block of U.S. reservists—the Individual Ready Reserves—are generally not required to regularly train, although

some train voluntarily. About 12,000 of the 274,588 reservists in the Individual Ready Reserves as of September 30, 1989, participated in skill retention or professional development education training within the previous year, and 4,000 engaged in active duty tours.[5] A DOD official noted that about 9 percent of the personnel in this revolving pool of individuals have been off active or reserve duty less than 12 months.

Existing Management Process Provides Means to Change Reserve Training Strategy

Recognizing the importance of reserve readiness and the different operating conditions and unique constraints that reserve forces face, the U.S. Army has developed a separate plan to serve as its "road map" for improving reserve training. This plan—the Reserve Components Training Development Action Plan—outlines the specific actions and responsible parties for initiatives to enhance reserve component training.

The existing management process for regularly updating this action plan provides a means for considering changes to reserve training, such as those identified in this report. Through this process, cognizant Army commands, offices, and bureaus identify training issues for inclusion in the training plan. The Director of Training, Office of the Deputy Chief of Staff for Operations and Plans, is responsible for organizing General Officer Steering Committee meetings to consider these issues and for conducting an annual review of these issues for the Vice Chief of Staff of the Army. The Deputy Chief of Staff for Operations and Plans has overall responsibility for managing and implementing the action plan, as well as for providing guidance on the Army's reserve training strategy.

Other Practices Could Reduce Equipment-Related Expenses for Both Active and Reserve Forces

In examining how the case-study countries manage equipment and maintenance requirements for their reserves, we found that they employ various means to economize on these costs. To reduce maintenance costs, they sometimes share equipment among units and store equipment in humidity-controlled environments. To lower procurement costs, they sometimes enter into contingency agreements to use civilian assets should mobilization be required.

[5]Reserve Component Programs Fiscal Year 1989: The Annual Report of the Reserve Forces Policy Board.

Equipment Maintenance and Storage

Several countries are employing or plan to employ techniques for sharing equipment between reserve and active units. Such sharing permits some equipment to remain in storage for long periods of time, thus reducing maintenance costs. For example, reserve and active duty personnel in both Germany and the United Kingdom share some equipment during training exercises. Territorial Army units in the United Kingdom sometimes share specialized equipment, such as chemical warfare equipment. As previously noted, the Soviets dedicate certain equipment for training and put the rest in storage to save on operational and maintenance costs. In addition, under its planned cadre concept, Germany is developing procedures for two battalions to share equipment for training and to store the rest, thereby saving on maintenance costs.

According to a DOD official, U.S. reserve units sometimes are able to borrow equipment from other units. However, such sharing is not always possible due to equipment shortages and competition from other users. National Guard officials pointed out that the extreme geographic dispersion of units limits the extent that equipment can be shared. They added that sharing equipment can pose problems during mobilization if a unit is deployed with the equipment leaving other units behind without equipment on which to train. Also, if equipment is stored, it is not available to maintenance personnel for training purposes.

Germany has found that tracked vehicles stored in humidity-controlled protective covers require little maintenance.[6] While Germany has not used this storage method long enough to assess overall cost savings, officials believe that it could reduce both maintenance and associated personnel costs. The disadvantage pointed out by one U.S. official is that the number of personnel who can participate in training exercises at any given time is thereby limited. According to a former chairman of the U.S. Reserve Forces Policy Board, if the United States adopted this type of storage technique, it might be possible to store two-thirds of an armored division's equipment and train on the remaining third.

According to an Army official, the United States has stored some war reserve assets, such as Bradley Fighting Vehicles and M-60 tanks, in humidity-controlled bags in Europe. However, the Army stores most of its prepositioned equipment in Germany in humidity-controlled warehouses rather than in bags. This same Army official stated that because

[6]According to a Reserve Forces Policy Board field study, Israel uses a similar equipment storage system.

it is cheaper to store the equipment in bags than to build new warehouses, the United States should consider expanding its use of bags rather than build additional warehouses if additional storage is needed.

Use of Civilian Assets

The European countries in our study rely considerably on civilian equipment and personnel for mobilization. For example, according to Norwegian officials, the civilian sector would provide about 80 percent of the military's required support, including fuel, transportation, and food, in the event of war. In the Netherlands, civilians may be required to make vehicles such as trucks, tractor trailers, and buses available to the government in case of mobilization. The German government has the authority to acquire civilian equipment for military purposes so long as it provides compensation to the owner. In this regard, the German government has identified the equipment that would be needed in case of war and has notified the owners.

The U.S. military's Civil Air Fleet Program provides a precedent for such agreements. Under this program, the civilian aviation industry has agreed to permit DOD to use commercial aircraft and pilots to move military equipment and personnel if they are needed. According to one DOD official, access to civilian trucks, trailers, ambulances, and electronic equipment could satisfy some military requirements and preclude procuring some items of equipment. Also, recent experiences of the Gulf war in which extensive U.S. contractor, host nation, and allied assistance and assets were employed raise the possibility that broadening contingency agreements for civilian assistance and assets beyond aviation might be feasible. Lining up contingency agreements in peacetime would save time in the event of a crisis.

Conclusions

Placing greater reliance on reserve forces will require the Army to continue to improve its training of reservists. Solutions may not necessarily require increased funding but instead may call for changes in how existing resources are allocated and managed. The features of other countries' training strategies that we identified in this report may offer potential cost savings and an increased focus of training resources on the greatest needs. Therefore, while benefits from these strategies may not be fully proven, they appear worthy of the Army's consideration. Where the Army is already successfully using identified approaches to a limited extent, continuing budgetary pressures could provide an impetus to expand those with cost-saving potential. In some cases, modifications to fit the U.S. context would be needed.

Exploring ways to aid and encourage those leaving the active service or those changing reserve units to continue in their existing military occupational specialties could reduce the cost and difficulties associated with retraining reservists. The Army has taken steps to improve this situation by modifying its automated position reservation system for the Army Reserve to better ensure that individuals continue in their existing military specialties when joining new Army Reserve units. However, certain actions might be taken to further reduce this problem. Options include changing assignment policies, offering incentives to retain a specialty gained on active duty, re-stationing some types of units to provide a larger pool of potential recruits, and revising Army regulations to expand geographic ranges for reserve units. The latter might be coupled with a modified training strategy that would reduce the number of weekend drills in favor of fewer but longer drill periods. As noted, the Army National Guard does not have an automated position reservation system similar to that of the Army Reserve and is therefore further away from solving this problem.

The current approach of requiring the same minimum amount of training for reservists in various types of reserve units may not be the most efficient or effective training strategy. Reserve combat units might need more training based on the complexity of performing in a combined arms environment, while some support units requiring less technical skills may be able to achieve and maintain proficiency with fewer training days. In addition, reservists with prior military service and those with civilian occupations similar to their military positions may not need as much training as other reservists. Varying training requirements based on factors such as recency of active duty service, complexity of mission, and similarity of military specialty and civilian occupation, might permit the Army to focus more of its training resources on those reserves requiring more intensive training.

While the features we identified offer potential benefits, the Army would need to more fully examine how each of these options could be applied to the U.S. context and more fully weigh their costs and benefits than was permitted by the limited scope of this study. We believe that using the existing process established for updating the Reserve Components Training Development Action Plan provides an efficient means of considering the merits of these features, as well as providing for their implementation where warranted.

Certain other practices offer the potential for equipment-related cost savings for both active and reserve forces. For example, the reduced

Soviet threat may permit Army units to increasingly share equipment for training purposes, with the remainder put into storage. While the Army would need to fully assess the impacts of such equipment sharing and storage, the potential it offers in terms of reduced operational and maintenance costs makes this an alternative worth considering. Coupling this sharing of equipment with dry storage techniques for remaining equipment could reap further cost savings. Finally, the broadening of peacetime contingency agreements with the civilian sector for assets and services upon mobilization offers further potential equipment-related cost savings.

Recommendations

In considering the merits of adopting or expanding the features identified in this chapter, we recommend that the Secretary of the Army use the existing management process for updating the Reserve Components Training Development Action Plan to examine

- alternative means of increasing the percentage of reservists who continue in the same military occupational specialty as their active duty service or previous reserve assignment, particularly in the National Guard, and
- the feasibility of stratifying the amount of training required of reservists based on how recently they served on active duty, the complexity of their assignments, and the relevancy of their civilian jobs to their military positions.

As potential cost-saving measures for both active and reserve forces, we also recommend that the Secretary of the Army review the practicality of (1) expanding the sharing of equipment among units, (2) expanding the Army's use of humidity-controlled plastic bags as a means of storing equipment, and (3) entering into additional peacetime contingency agreements with the private sector to provide assets and services upon mobilization.

Description of Reserve Force Categories

Germany

Standby Readiness Reserve	Conscripts released from active duty about 3 months prior to completing their active duty obligation. Within the first 12 months after their release from active duty, these reservists may be recalled to serve out their remaining 3 months' obligation. They generally are used to bring active units up to wartime strength. After 12 months these reservists move into the Alert Reserve.
Alert Reserve	Personnel released from active duty but not selected for the Standby Readiness Reserve. In wartime, these reservists may serve in active or reserve units. Generally, after serving 6 years in this category, reservists are transferred to the Army Manpower Reserve.
Army Manpower Reserve	Personnel pool used as needed to replace losses in time of war. Eventually members of this reserve become members of the National Manpower Reserve.
National Manpower Reserve	Personnel who are still liable for military service but without a mobilization assignment, or who are unavailable for service because of temporary exemptions. They will be called to duty only after the Army Manpower Reserve has been called up.

United Kingdom

Territorial Army	Volunteer, part-time reservists, most of whom serve in independent fully formed units. Some serve in specialist units and are recruited from volunteers with directly transferable civilian skills. Territorial Army forces round out the British forces committed to the North Atlantic Treaty Organization (NATO) and support NATO headquarters. As a result, in wartime, the Territorial Army reinforces the British Army troops deployed in Germany and provides more than half of the required logistics support and medical services. It also provides limited defense of the United Kingdom.

Individual Reserve	Individual reservists who have either served in the regular or Territorial Army. They are a key element in the British defense capability because, upon mobilization, they (1) fill out regular Army units, including those located in Germany; (2) help bring the Territorial Army units up to wartime strength; (3) provide for battle casualty replacements; and (4) form units within the United Kingdom for rear area defense.
Ulster Defense Regiment	A unit responsible for internal security within Northern Ireland

United States

Selected Reserve	Units and individuals in both the Army National Guard and Army Reserves who are designated by the Army, and approved by the Joint Chiefs of Staff, as so essential to initial wartime missions that they have priority for training, equipment, and personnel over all other reserve elements.
Inactive National Guard	Individuals who are in an inactive status and do not train, but are attached to National Guard units and must report annually to their assigned unit.
Standby Reserve	Individuals who have completed all obligated or required service or have been removed from the Individual Ready Reserve because of civilian employment, temporary hardship, or disability. They maintain their military affiliation but are not required to perform training or to be assigned to a unit.
Individual Mobilization Augmentees	Members of the Selected Reserve not assigned to a reserve component but rather assigned to and trained for an active component organization, Selective Service System, or Federal Emergency Management Agency billet that must be filled on or shortly after mobilization.
Individual Ready Reserve	A manpower pool consisting mainly of trained individuals who have previously served in active component units or in the Selected Reserve.

They normally train on a voluntary basis, but they are liable for involuntary active duty for training and fulfillment of mobilization requirements.

Retired Reserve

Personnel who have been placed in retirement status after completing 20 or more qualifying years of reserve and/or active service.

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