RESERVE COMPONENT PROGRAMS

FISCAL YEAR 1993

Report of the
Reserve Forces
Policy Board

January 1994

"The men and women who serve under the American flag will be the best trained, best equipped, best prepared fighting force in the world, so long as I am President."

Bill Clinton
President of the United States

THE SECRETARY OF DEFENSE

WASHINGTON, THE DISTRICT OF COLUMBIA

3 MAR 1994

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Annual Report of the Reserve Forces Policy Board for Fiscal Year 1993

The Annual Report of the Reserve Forces Policy Board for Fiscal Year 1993 is provided to you in compliance with Title 10, United States Code, Section 113(c)(3).

In this report, the Board has reviewed the progress that has been made by the Department in improving the readiness of the Reserve components, and has identified areas where, in the Board's judgment, further improvements are required to make the Reserve components more effective members of the Total Force. The report also describes the changes the Reserve components are making to adapt to the post-Cold War era.

The report represents the collective views of the members of the Board, and not the official policy positions of this Department or any other Department or agency of the United States government.

I value the contributions of the Board toward our efforts to ensure that the Reserve components are adequately manned, equipped, trained, and ready as part of the Total Force.

William J. Perry

Attachment:
As Stated

THE SECRETARY OF DEFENSE

WASHINGTON, THE DISTRICT OF COLUMBIA

3 MAR 1994

Honorable Albert Gore, Jr.
President of the Senate
Washington, DC 20510

Dear Mr. President:

The Annual Report of the Reserve Forces Policy Board for Fiscal Year 1993 is provided to you in compliance with Title 10, United States Code, Section 113(c)(3).

In this report, the Board has reviewed the progress that has been made by the Department in improving the readiness of the Reserve components, and has identified areas where, in the Board's judgment, further improvements are required to make the Reserve components more effective members of the Total Force. The report also describes the changes the Reserve components are making to adapt to the post-Cold War era.

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I value the contributions of the Board toward our efforts to ensure that the Reserve components are adequately manned, equipped, trained, and ready as part of the Total Force.

Sincerely,

William J. Perry

Enclosure:
As Stated

THE SECRETARY OF DEFENSE

WASHINGTON, THE DISTRICT OF COLUMBIA

3 MAR 1994

Honorable Thomas S. Foley
Speaker of the House
of Representatives
Washington, DC 20515

Dear Mr. Speaker:

The Annual Report of the Reserve Forces Policy Board for Fiscal Year 1993 is provided to you in compliance with Title 10, United States Code, Section 113(c)(3).

In this report, the Board has reviewed the progress that has been made by the Department in improving the readiness of the Reserve components, and has identified areas where, in the Board's judgment, further improvements are required to make the Reserve components more effective members of the Total Force. The report also describes the changes the Reserve components are making to adapt to the post-Cold War era.

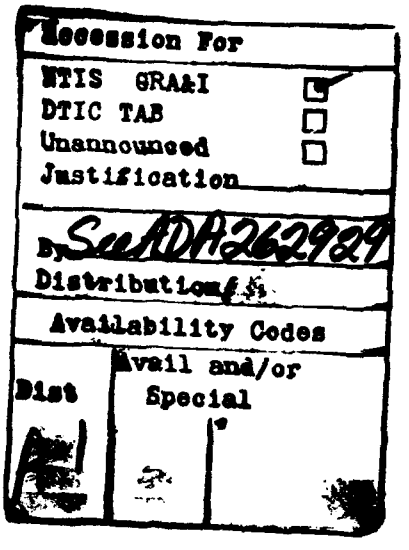
The report represents the collective views of the members of the Board, and not the official policy positions of this Department or any other Department or agency of the United States government.

I value the contributions of the Board toward our efforts to ensure that the Reserve components are adequately manned, equipped, trained, and ready as part of the Total Force.

Sincerely,

William J. Perry

Enclosure:
As Stated



This report represents the Reserve Forces Policy Board's independent review of Reserve component issues and provides a consensus evaluation of Reserve component programs. It includes the collective views of the Board members and does not necessarily reflect the official policy positions of the Department of Defense or any other department or agency of the United States Government.

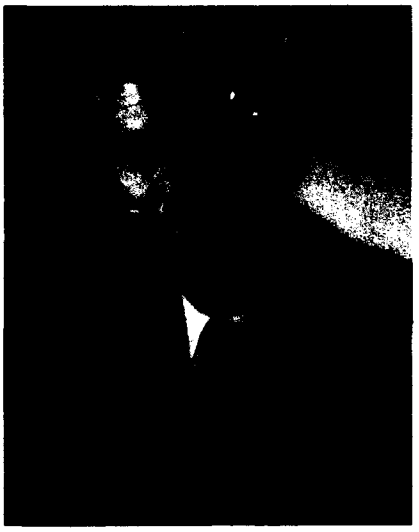
Reserve Component Programs Fiscal Year 1993

The Annual Report of the Reserve Forces Policy Board

Office of the Secretary of Defense
Washington, DC 20301-7300

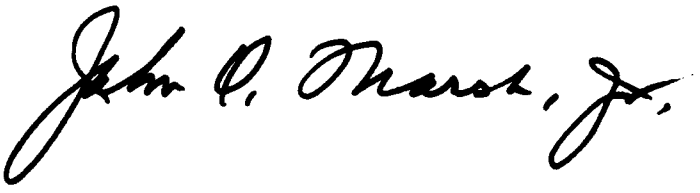
January 1994

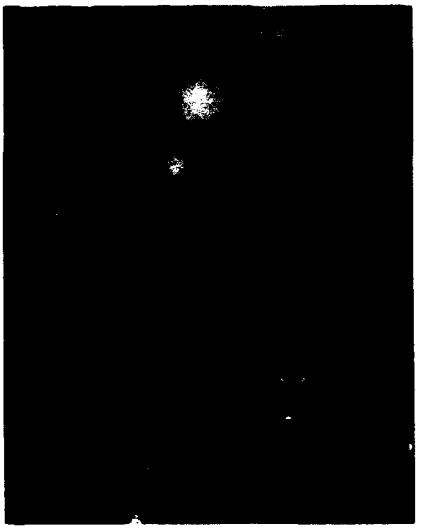
Reserve Forces Policy Board Members and Staff



Honorable John O. Marsh, Jr.

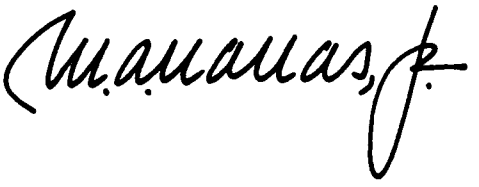
Chairman, Reserve Forces Policy Board. Partner, Hazel & Thomas, P.C., Winchester, Virginia. Legislative Counsel to the Secretary of Defense, 1989-1990; Secretary of the Army, 1981-1989; Counselor, with Cabinet rank, to President Gerald Ford; Assistant for National Security Affairs to the Vice-President; Assistant Secretary of Defense for Legislative Affairs; Representative in Congress from Virginia, 1963-1971. Appointed Chairman, November 16, 1989.

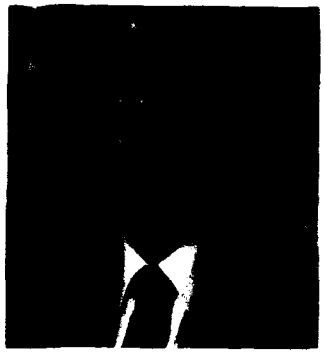




Major General William A. Navas, Jr. United States Army

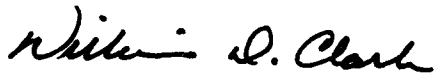
Military Executive, Reserve Forces Policy Board. Vice Chief, National Guard Bureau, 1990-1992; Deputy Director, Army National Guard, 1987-1990. Assigned to Board August 17, 1992.

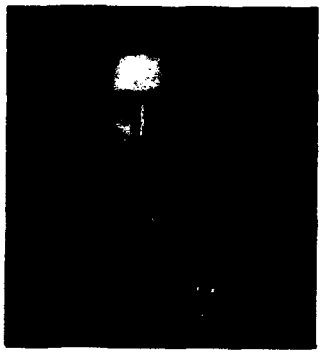




MR. WILLIAM D. CLARK

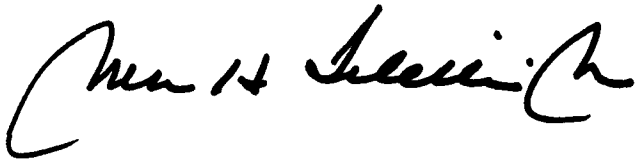
Acting Assistant Secretary of the Army (Manpower and Reserve Affairs), Washington, DC.





LIEUTENANT GENERAL JOHN H. TILELLI, JR.
UNITED STATES ARMY

Deputy Chief of Staff for Operations and Plans, Headquarters, Department of the Army, Washington, DC. Assigned to Board May 14, 1993.



MAJOR GENERAL RICHARD C. ALEXANDER
ARMY NATIONAL GUARD OF THE UNITED STATES

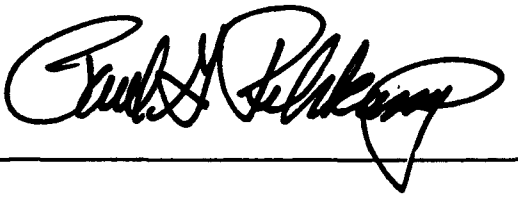
The Adjutant General for the State of Ohio, Columbus, Ohio. Assigned to Board August 1, 1993.

MAJOR GENERAL RONALD O. HARRISON
ARMY NATIONAL GUARD OF THE UNITED STATES

The Adjutant General for the State of Florida, St. Augustine, Florida. Assigned to Board October 1, 1993.

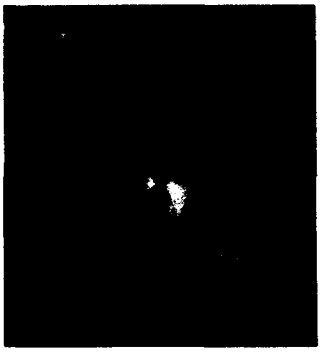
MAJOR GENERAL PAUL G. REHKAMP
UNITED STATES ARMY RESERVE

Assistant Deputy Chief of Staff for Operations and Plans (IMA), Headquarters, Department of the Army, Washington, DC. Funeral Director, Rehkamp Funeral Homes, Marshall, Minnesota. Assigned to Board February 17, 1992.



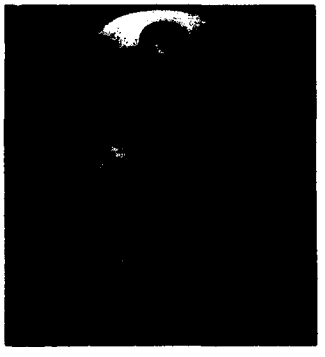
MAJOR GENERAL KENNETH A. BOULDIN
UNITED STATES ARMY RESERVE

Commander, 125th Army Reserve Command, Nashville, Tennessee. Vice President, Comdisco Federal, Arlington, Virginia. Assigned to Board April 11, 1991.



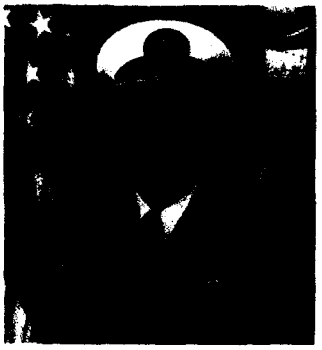
HONORABLE FREDERICK F. Y. PANG

Assistant Secretary of the Navy (Manpower and Reserve Affairs), Washington, DC. Assigned to Board November 15, 1993.



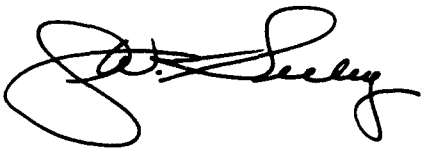
REAR ADMIRAL PHILIP A. DUR
UNITED STATES NAVY

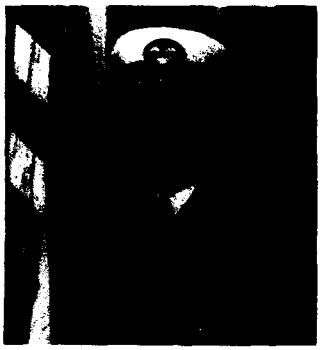
Director, Strategy and Policy Division, Office of the Chief of Naval Operations, Washington, DC. Assigned to Board August 3, 1993.



REAR ADMIRAL JIMMIE W. SEELEY
UNITED STATES NAVAL RESERVE

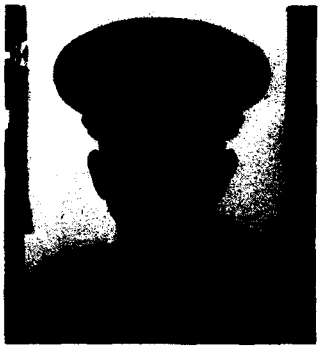
Director for Plans (N5), Commander-in-Chief, U.S. Atlantic Fleet, Norfolk, Virginia. Captain, Miami Air International, Inc., Miami, Florida. Assigned to Board May 22, 1992.





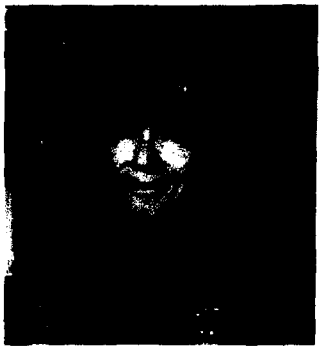
REAR ADMIRAL GRANT T. HOLLETT, JR.
UNITED STATES NAVAL RESERVE

Assistant Deputy Commander, Joint Force Atlantic, US Atlantic Command, Norfolk, Virginia. President, Cherry Electrical Products, Waukegan, Illinois. Assigned to Board August 1, 1993.



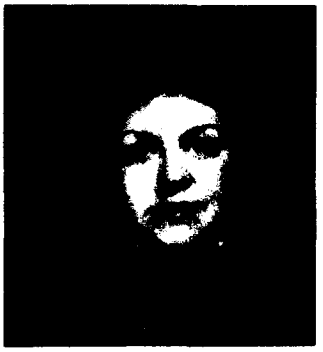
MAJOR GENERAL JOHN T. COYNE
UNITED STATES MARINE CORPS RESERVE

Assistant Deputy Chief of Staff, Manpower and Reserve Affairs for Reserve Affairs, Headquarters, United States Marine Corps, Washington, DC. Attorney, Jordan Coyne Savits & Lopata, Washington, D.C. Assigned to Board October 1, 1992.



MAJOR GENERAL LARRY S. TAYLOR
UNITED STATES MARINE CORPS RESERVE

Commanding General, 4th Marine Aircraft Wing, New Orleans, Louisiana. Captain, Northwest Airlines. Assigned to Board October 1, 1992.



MS. JUDY ANN MILLER

Acting Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations, and Environment), Washington, DC.

MAJOR GENERAL WILLIAM B. DAVITTE
UNITED STATES AIR FORCE

Director, Military Personnel Policy, Office of the Deputy Chief of Staff, Personnel, Department of the Air Force, Washington, DC. Assigned to Board July 29, 1993.

MAJOR GENERAL DRENNAN A. CLARK
AIR NATIONAL GUARD OF THE UNITED STATES

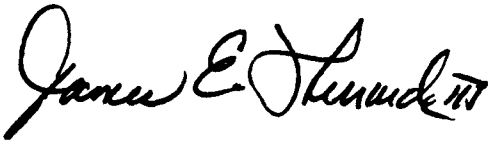
The Adjutant General of the State of Nevada, Carson City, Nevada. Assigned to Board June 1, 1991.

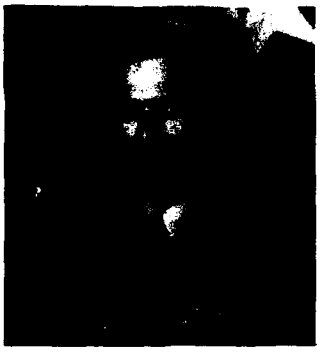
MAJOR GENERAL RUSSELL C. DAVIS
AIR NATIONAL GUARD OF THE UNITED STATES

Commanding General, District of Columbia National Guard, Washington, DC. Assigned to Board April 1, 1993.

MAJOR GENERAL JAMES E. SHERRARD, III
UNITED STATES AIR FORCE RESERVE

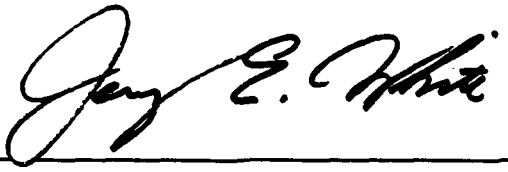
Commander, Fourth Air Force, McClellan Air Force Base, California. Assigned to Board June 1, 1991.





MAJOR GENERAL JERRY E. WHITE
UNITED STATES AIR FORCE RESERVE

Mobilization Assistant to the Commander (IMA), Air Force Materiel Command. Chief Executive Officer, The Navigators, Colorado Springs, Colorado. Assigned to Board September 1, 1992.



REAR ADMIRAL GREGORY A. PENINGTON
UNITED STATES COAST GUARD

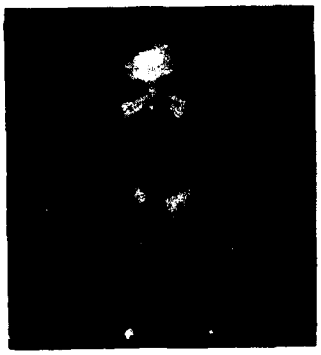
Chief, Office of Readiness and Reserve, Headquarters, United States Coast Guard, Washington, DC. Assigned to Board July 1, 1993.

REAR ADMIRAL G. ROBERT MERRILEES
UNITED STATES COAST GUARD RESERVE

Senior Reserve Officer, Atlantic Area, Governors Island, New York. Community Relations Specialist, National Aeronautics and Space Administration, Kennedy Space Center, Florida. Assigned to Board January 5, 1991.

Staff

Senior Policy Advisor

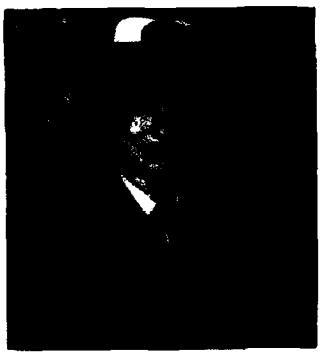


Colonel Richard P. Morton
Army National Guard
of the United States

Senior Policy Advisor

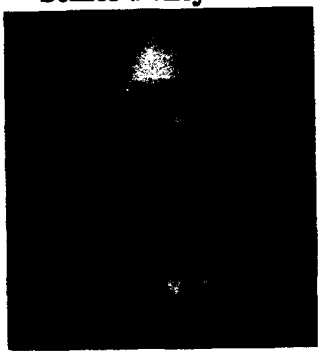
Colonel Michael D. Brownell
U.S. Army Reserve

Senior Policy Advisor



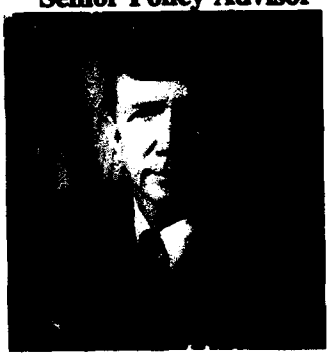
Captain Mileva M. Hartman
U.S. Naval Reserve

Senior Policy Advisor



Colonel Joseph J. Klocek
U.S. Marine Corps Reserve

Senior Policy Advisor



Colonel Frank C. Khare
Air National Guard
of the United States

Senior Policy Advisor

Colonel Alec K. Sawyer
U. S. Air Force Reserve

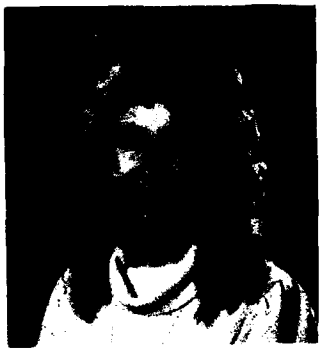
Military Assistant

Master Sergeant Larry R. Adams
U.S. Marine Corps Reserve

Part-Time Consultant

Major General William R. Berkman
U.S. Army Reserve (Ret)

Executive Secretary



Mrs. Brenda S. Dent

Former Board Members and Staff

The following Reserve Forces Policy Board members and staff completed their service during the past year:

- Rear Admiral Edward B. Baker, Jr., USN
- Honorable J. Gary Cooper
- Rear Admiral David A. Janes, USNR
- Major General Warren G. Lawson, ARNGUS
- Rear Admiral John W. Lockwood, USCG
- Major General Donald L. Owens, ANGUS
- Lieutenant General J. H. Binford Peay, III, USA
- Honorable Barbara Spyridon Pope
- Brigadier General Charles T. Robertson, Jr., USAF
- Honorable Robert S. Silberman
- Major General Charles J. Wing, ARNGUS
- Colonel James C. Ward, USAFR

Liaison Officers

The following individuals served as liaison officers to the Board or points of contact in preparation of the Board's annual report:

- Colonel Gerald D. Ball, USAF
  Office of the Secretary of the Air Force
- Colonel Richard Blair, USAR
  Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict
- Commander Tom Daniel, USN
  Office of the Assistant Secretary of Defense for Reserve Affairs
- Lieutenant Colonel Stan Davidson, USAR
  Office of the Chief, Army Reserve
- Colonel John Deaton, ANGUS
  The Joint Staff (J-8)
- Lieutenant Colonel Garfield J. Fricke, ANGUS
  Headquarters, U.S. Air Force
- Major Peter F. Grace, USMCR
  Headquarters, U.S. Marine Corps
- Captain David A. Grupe, USNR
  Office of the Secretary of the Navy
- Colonel Michael Hargett, USAR
  Office of the Secretary of the Army
- Colonel Paul Lavender, USAFR
  Headquarters, U.S. Air Force
- Mr. Steven Lyons
  Office of the DoD Comptroller
- Colonel David J. MacKay, USAFR
  Office of the Assistant Secretary of Defense for Personnel and Readiness
- Major Stan Miller, USA
  Headquarters, Department of the Army
- Lieutenant Colonel John Molino, USA
  Office of of the Assistant Secretary of Defense for Legislative Affairs
- Lieutenant Commander Dale Rausch, USCGR
  Headquarters, U.S. Coast Guard
- Major Raj Richardson, ARNGUS
  National Guard Bureau

- Major Bruce Fitch, USA
  Office of the Assistant Secretary of Defense for Public Affairs

- Lieutenant Colonel Stephen Scanlon, USAR
  Office of the Assistant Secretary of Defense for Health Affairs

- Major Stan Spillers, USAF
  National Guard Bureau

- Mr. Walter Steiner
  Office of the Director of Naval Reserve

- Colonel Steve Strom, USA
  Office of the Under Secretary of Defense for Policy

Adjunct Staff

The Board is also supported by individuals from various Reserve components who provide administrative support for Board meetings, assist in the preparation of the Annual Report, and assist on special projects. Those who served the Board as Adjunct Staff during Fiscal Year 1993 are listed below:

- Yeoman First Class Joseph W. Abell, USCGR

- Specialist Irene L. Boyle, MDARNG

- Yeoman First Class Andrea G. Brooks-McKenzie, USNR

- Master Sergeant William R. Brown, USAFR

- Yeoman Third Class Juanita D. Catchings, USNR

- Lieutenant Colonel Billie Miller Cooper, CAARNG

- Corporal Shawn L. DeVaughn, USAR

- Corporal Darrell Donnelly, USMCR

- Sergeant David B. Epperson II, USAR

- Captain Joan Fowler, USAR

- Sergeant Charmale D. Gallagher, USMCR

- Major Raymond F. Knapp, USAFR

- Master Sergeant Charles Kohler [illegible]AR

- Staff Sergeant Sheri A. Payne, USAFR

- Sergeant Terese C. Stockwell, USMCR

- Staff Sergeant Lisha R. Tucker, MOANG

- Lieutenant Charles F. Wesley, Jr., DCANG

- Colonel Ernest R. Zuick, CAANG

The logo of the Reserve Forces Policy Board represents the Total Force as the shield for the Nation. The United States is identified by its national symbol, the eagle. The blue field represents the Military Departments of the Army, Navy, and Air Force. The Marine Corps is a part of the Department of the Navy. The Coast Guard may become a part of that Department in time of war. Integrated in that field are three stars depicting the Active component, National Guard, and Reserve. The seven vertical stripes of the shield stand for the seven Reserve components - Army National Guard, Army Reserve, Marine Corps Reserve, Naval Reserve, Air National Guard, Air Force Reserve, and Coast Guard Reserve.

The Annual Report of the Reserve Forces Policy Board is a reflection of the consensus of the 22-member Board. Although most recommendations and proposed policy changes have unanimous support, neither this report nor the signatures of the members purport that the signers, the Military Services, or the Department of Defense concur with every recommended action or position.

The Board's independent review of Reserve component issues is presented, as well as a consensus evaluation of Reserve component programs. The report includes the collective views of the Board members and covers the period of October 1, 1992 through September 30, 1993.

Executive Summary

General

The past year has been a transitional period for both the Active and Reserve components. The national security environment has changed from one in which there was a known enemy to a less predictable, but still dangerous world. Changes in the world economic and political environment, domestic concerns, and budgetary impacts have challenged the Nation to develop a mix of military forces to meet future defense needs at an affordable cost.

One of the Department of Defense's most important tasks is to define the roles and missions of the Reserve components. In addition to their traditional roles, Reserve component forces will also help promote international stability and security during peacekeeping, peace enforcement, and humanitarian assistance operations.

Other missions considered appropriate to the Reserve components will include support of Active component forces engaged in strategic airlift, civil affairs, and other missions. During prolonged operations, or when Active component forces redeploy during a major regional conflict, the Reserve components will provide a rotational or replacement base.

When properly resourced, the Reserve components have the skills, training, equipment, and capability to deal with many of the problems and concerns confronting the Nation. They have capabilities that can be effectively used for non-traditional missions without losing their warfighting edge. These capabilities should be programmed for joint use across Service boundaries.

Whatever their force structure, roles, missions, and functions, the Reserve components must be capable, affordable, relevant, and accessible. Together, these four imperatives support the vision of the future contribution of the Reserve components to national security.

Force Structure

The Total Force Policy has served our Nation well. The Reserve components have made a substantial contribution to the strategy of deterrence. They have not only been included in all recent wartime operations, but also in ongoing operational, drug interdiction, peacekeeping, and humanitarian missions.

Efforts made over the last decade to strengthen the Reserve components have paid great dividends. The Reserve components are now full partners with the Active components under the Total Force Policy and have been integrated into virtually all operational plans.

Greater dependence is being placed on the Reserve components. The recent use of

Presidential call-up authority in support of wartime operations, and the subsequent employment of Reserve component personnel in numerous humanitarian, peacekeeping and domestic crises clearly demonstrates that the Reserve components have, and must maintain, the capability to react anywhere in the world.

The *National Defense Authorization Act for Fiscal Year 1993* provided for a significantly reduced budget for the Department of Defense. The Reserve components provide a cost-effective means for augmenting Active components and maintaining important capabilities in the Total Force. The citizen-soldier provides a low-cost deterrent to conflict, an immediate response capability to domestic crises, and a critical surge mobilization capability. The Reserve components have repeatedly demonstrated that they can accept additional roles and missions if adequately resourced.

Roles, Missions, and Functions

The Bottom-Up Review provided an important opportunity to further clarify Service roles, missions, and functions in selected areas and to build on the recommendations of the Joint Staff Roles and Missions Report. As the transition continues from base force to the post-Cold War environment, several important matters raised in the Bottom-Up Review will require further attention. The Reserve components remain ideally positioned to enhance national security with efficient and cost-effective forces.

Peacekeeping operations typically require heavier concentrations of combat support and combat service support forces than combat operations. Emphasis is placed on medical, engineering, transportation, and command and control capabilities. The mix of Active and Reserve component forces may need to be reviewed, in light of increased U.S. participation in peacekeeping operations.

In the *National Defense Authorization Act for Fiscal Year 1993*, Congress authorized and funded the National Guard to enter into agreements with the Nation's governors for the purpose of conducting programs targeted at youth-at-risk. The goals of the programs include providing young people with the values, self-esteem, skills, education and self-discipline to succeed as students and adults. The Reserve components are playing a greater role in civil-military outreach programs, many aimed at youth-at-risk, including drug demand reduction programs.

In an era where every foreseeable operation, foreign and domestic, in war or in peacetime, will require some aspect of civil affairs participation, it is critical that each Service be aware of its civil affairs assets.

The Reserve components are capable of being assigned missions that require high skill levels and quick response. They have repeatedly demonstrated that they have the capacity to mobilize quickly, but they must be programmed and resourced to do so.

Personnel

Personnel programs, policies and legislation that affect personnel strength levels, full-time support resources, family and employer support, transition and education benefits, assignment of women, recruiting and retention incentives, and pay, perhaps are more important today than ever before. Personnel readiness cannot be attained and sustained without adequate legislation, programs, and policies. The efficient management of Reserve component personnel is essential to the continued success of theTotal Force.

Most Reserve components experienced reductions in authorized strength levels. Some Reserve components experienced difficulty in meeting authorized staffing levels or were unable to meet their recruiting goals for non-prior or prior service accessions. Adequate

recruiting and retention incentives continue to be needed to attract and retain quality people.

Adequate Full-Time Support (FTS) is essential to Reserve component unit readiness. Resourcing FTS requirements at appropriate levels is critical for readiness and worldwide operational commitments. Full-time support positions were funded at less than 80 percent of requirements in the Army National Guard and Army Reserve, causing a negative effect on readiness. Full-time support personnel perform the day-to-day administration and operations necessary to enable drilling Reservists to devote their time to mission-related training and events.

Women now comprise 13 percent of the Selected Reserve. Through precedent-setting efforts on the part of Congress and the Department of Defense, the number of career fields that are open for the assignment of women has increased significantly. The Board has consistently supported the expansion of opportunities for women in the Reserve components.

The Montgomery G.I. Bill (MGIB) continues to be one of the most important recruiting and retention incentives for the Reserve components. Since its inception, over 316,000 National Guardsmen and Reservists have applied for educational assistance. More than 175,000 Selected Reserve members are participating. The *National Defense Authorization Act for Fiscal Year 1994* includes a provision expanding MGIB benefits beyond the baccalaureate degree. The Board commends the Congress for its continued support for and enhancements to the MGIB program.

Training

The increased availability of interoperable, affordable, high technology simulators has enabled the Reserve components to reduce training costs and increase training time by enabling personnel to train at armories and Reserve centers, instead of traveling to remote ranges and training areas. Training delivery systems (including computer-assisted instruction, interactive courseware, simulators, and war-gaming systems) minimize the cost of training while increasing the amount of hands-on training.

Additional funding is needed for simulators, training devices, and associated facility requirements. The adoption of interactive courseware and computer-based training is proceeding slowly because of insufficient funding.

The Board supports increased opportunities for Reserve component participation at joint Service schools. Joint training offers the opportunity for elements of more than one Service to participate together in training activities and operations. Joint training opportunities enhance readiness and mobilization planning by increasing the experience of commanders and staffs in working with other Services.

Some joint training opportunities are available through joint Service schools. However, only a small number of Reserve component members are receiving joint professional military education, due primarily to training costs and the limited number of Reserve component joint training "seats."

Overseas training provides some of the most effective training opportunities for Reserve component units and members. The planning necessary for a Reserve component unit to prepare and execute an overseas training mission closely parallels the planning required to mobilize and deploy. In addition to exercising mobilization, deployment, operational, and redeployment plans, overseas training opportunities strengthen wartime command relationships and provide the experience of operating in various theaters.

The Services reported that more than 93,000 Reserve component personnel trained in over 90 foreign nations, U.S. territories overseas,

and Antarctica during Fiscal Year 1993. The Commander-in-Chief, U.S. Southern Command, has been a leader in the expansion of the Overseas Deployment Training Program. The highly successful U.S. Southern Command model features rotation of Reserve component units in three increments, overlapping tours, and using Full-Time Support personnel to accomplish specific long-duration tasks identified by the Commander-in-Chief.

The Board notes that readiness continues to be enhanced in those units able to participate in regular training and exercises overseas. Training opportunities in other mission areas, such as humanitarian assistance, could be increased and should be encouraged. The use of Reserve component units for peacetime humanitarian missions increases goodwill and provides role models for emerging democracies.

Access to members of the Reserve components would be facilitated if the Secretary of Defense had authority to involuntarily call units and individual members of the Reserve components to active duty, as necessary, for peacetime operational missions such as humanitarian, peacekeeping, disaster relief, and support missions. The Board believes that broad authority is needed to provide flexibility to meet premobilization requirements and to support immediate crisis response actions.

The Board supports the Department of Defense proposal to amend Title 10 U.S.C. 673b to extend the period of time Reservists can be ordered to active duty from 90 days plus an additional 90 days to 180 days plus 180 days, and to provide authority for the Secretary of Defense to order to active duty up to 25,000 members of the Selected Reserve for operational missions, as needed.

Equipment

Department of Defense policy, "first to deploy/employ, first to be equipped," gives equipping priority to early-deploying units, regardless of component. As a result, some Reserve units have a higher equipping priority than Active component units. The net effect enables the Reserve components to be more capable, affordable, relevant and available.

All Services are redistributing equipment from the Active component to the Reserve components and will continue this practice throughout the period of Active component drawdowns. Each of the Reserve components is involved in the development of policies and procedures affecting this process.

National Guard and Reserve Equipment Appropriations consist of funds dedicated for the purchase of Reserve component equipment. These funds are in addition to those requested by the Department of Defense in the President's budget and some are designated by Congress for the purchase of specific items of equipment. These appropriations have significantly helped to reduce critical equipment shortages in the Reserve components.

New and modern equipment continues to enhance Reserve component readiness and their capability to mobilize. Such equipment reduces costs for repair and parts stockage for older, non-supportable equipment, and allows Reserve component personnel to train with and maintain equipment they will utilize during mobilization.

The Reserve components must ensure that their equipment is equal in quality and compatible to that used by the Active components. With the current drawdown of Active component forces, there is a potential for a continuous upgrade of compatible equipment in the Reserve components.

Although the Reserve components have received large amounts of modern equipment in recent years, significant equipment shortages remain. Obsolete and incompatible equipment is still maintained within the Reserve component inventory. The ability of the Reserve components to effectively reinforce the

Active components upon mobilization will be directly proportional to the efforts made to continue to modernize weapons systems and equipment assigned to the Reserve components.

Aircraft survivability equipment is still critically short. To acquire and maintain adequate defense systems, Reserve component forces must have systems which are compatible with Active component forces for the purposes of training, maintenance, and supportability of equipment while deployed. A lack of deceptive electronic countermeasures and radar warning devices equipment severely limits readiness, and would limit survivability of aircraft and crews in combat conditions.

A major effort is underway to provide automated data processing support for management of Reserve component personnel, training, and logistics. The goal is to provide a capability and jointness, using microcomputers at the local level. On-line communication and interaction with larger systems is essential to reduce delays, improve efficiency of operations, and make current information available to various levels of command. The DoD continues to work with the Reserve components to ensure that all applications and data sources are not only capable of interconnectivity, but also interoperable between the Active and Reserve components.

Training effectiveness is often determined by the equipment available. Training equipment shortages vary by type of unit. In some cases, they are major end items; but significant shortages also exist for training on support equipment. Some equipment has imbedded training capability which greatly enhances the ability to train operators. Coupled with the use of training simulators and devices, this equipment will satisfy some unit, individual, and collective training requirements.

Facilities

It is essential that the Reserve components have modern, appropriately-sized and configured facilities. Attempting to maintain aging and obsolete facilities requires an inordinate amount of a Reserve component's limited funding. Even with Congressional military construction add-ons, the military construction backlog and the percentage of inadequate facilities continues to increase, requiring even more aggressive support by both DoD and the Congress. The morale, security, and retention of quality personnel, as well as both individual and unit readiness, are all affected by the adequacy of facilities.

For reasons of economy and efficiency, joint use of facilities by more than one Reserve component is being emphasized by the Department of Defense. All new construction is evaluated for potential joint-use. Additionally, some Reserve components often share facilities with Active component units.

Many Reserve component facilities are considered inadequate, and the percentage of inadequate facilities is increasing. Renovation or new construction becomes necessary when a facility's functional obsolescence, physical deterioration, or overcrowding adversely affects the mission. Operating costs for Reserve component units can be reduced and unit readiness improved when units operate from modern and efficient facilities.

The DoD recognizes this need for modern, efficient facilities, and believes that its budget represents a balanced approach to military construction requirements for the Active and Reserve components. Congress has made major additions to Reserve component military construction budget requests over the last few years, with most of those additional appropriations supporting improved readiness and mobilization capability for the Reserve components.

The Reserve components reported an increase in the number of completed projects during Fiscal Year 1993, reflecting a positive effort by both DoD and Congress to reduce the negative trend in military construction in previous years.

The Board recognizes there are important Reserve component facilities implications associated with pending DoD force structure, force mix, end-strength, and base closure decisions. In some cases, missions transferred to the Reserve components from the Active components will require substantial new construction. In other cases, units leaving the force structure may present an opportunity to consolidate or move from leased facilities into owned facilities. To ensure opportunities are not missed, careful management and oversight is essential.

The size, complexity and condition of the Reserve component physical plant infrastructure, combined with the significant force structure changes taking place, requires a balanced investment strategy. A combination of renovation, replacement, additions, and leased space is required to support the Reserve components. To further enhance this investment strategy, the Department of Defense has increased emphasis on the joint use of facilities and the use of Reserve enclaves on closing active installations.

Programming for facility construction and the leasing of temporary facilities is an integral part of the start-up costs for new units. Leased facilities can be a cost-effective, short-term solution to meet the immediate needs of newly-formed units; but leasing costs must be paid from already inadequate operations and maintenance funds.

Each unit has specialized storage requirements. Lack of suitable storage space either causes equipment not to be available for training, or makes it subject to potential theft, damage, or exposure to the elements. Equipment which is not properly stored often deteriorates, contributing to higher operating costs, reduced training opportunities, and lower readiness levels.

The Base Realignment and Closure Commission was established to consider base closure recommendations. Reserve component training and readiness is impacted by nearly all base closures. Some base closure decisions were made without adequate consideration of the impact on adjacent or tenant Reserve component units. In some cases, base closures can provide expanded opportunities for consolidation and joint use.

Environmental Programs

Environmental issues and their legal and regulatory requirements will continue to have a growing impact on the entire defense community. Violations of Federal, state, or local environmental laws can result in both civil and criminal penalties. Therefore, commanders must know the laws, provide training for subordinates, and ensure that all environmental requirements are met. Significant progress has been made in five major areas: site identification and assessment, pollution prevention, individual and organizational environmental training, recycling, and elimination of hazards. Future challenges include the burgeoning number and scope of environmental regulations; the ever-increasing need for trained professionals to ensure compliance with these regulations; and replacing trained personnel who leave to accept higher-paying positions in the private sector.

To accomplish environmental objectives, DoD continues to receive support from an environmentally conscious Congress. Funding support has significantly increased in the last few years.

The leading cleanup expenses in the Reserve components are for contamination cleanup, asbestos removal, and underground storage/petroleum, oils, lubricants (POL)-related cleanup. Hazardous waste remains a significant problem, though most sites have had initial inspections and cleanup programs have begun.

DoD environmental training program requirements, including those developed by Reserve components, continue to increase. The major factors are an increased number of positions requiring specially-trained individuals,

a high turnover rate as qualified people leave for higher paying environmental positions outside DoD, and the ever-increasing complexity and number of environmental laws and regulations.

The Reserve components are actively pursuing programs to minimize hazardous waste material generation, to prevent pollution, and to recycle materials. Recyclable materials and procedures are used to minimize bulk sent to landfills, reduce manufacturing costs, and save raw materials.

The Board commends DoD efforts to assist the Reserve components in complying with environmental requirements. The Board is, however, concerned about adequate funding for the problems already identified, and about protection from personal liability (civil and criminal) for Reserve component commanders and members who are operating reasonably and responsibly.

Readiness Initiatives

The 102nd Congress enacted legislation to enhance the readiness of the Army National Guard. Title XI, entitled the "Army Guard Combat Readiness Reform Act," added a series of requirements to further improve the deployability of Army National Guard members, to sharpen the emphasis on unit and leadership training, to strengthen unit capability assessments, and to increase the compatibility of Active and Reserve component units. The Assistant Secretary of Defense for Reserve Affairs was assigned responsibility for conducting an assessment of the feasibility of extending the implementation of the provisions of Title XI to all Reserve components.

In addition, the DoD initiated numerous actions and studies to enhance the readiness and accessibility of the Reserve components. One example is the Senior Level Working Group on Accessibility of Reserve Component Forces that was established by the Assistant Secretary of Defense for Reserve Affairs as a continuation of the Bottom-Up review. This working group consists of representatives of DoD, the Joint Staff, the Services, the Reserve components, U.S. Transportation Command, and U.S. Army Forces Command.

The task of the Senior Level Working Group is to identify and develop solutions for a full range of accessibility issues, legislative and regulatory changes, mobilization policy guidance, use of volunteers, and methods to meet domestic mission needs more effectively. Following the initial assessments and recommendations to be completed in early 1994, the advisory group will continue to monitor and reevaluate efforts to improve the accessibility of the Reserve components.

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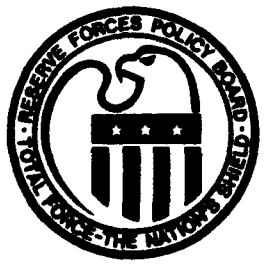

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Preface

Purpose of Report

To fulfill its charter, the Board is composed of members of the Reserve components, representatives from the Active components, and secretariat appointees who have responsibility for National Guard and Reserve matters.

The Board considers issues from many sources including: the Congress; the Office of the Secretary of Defense; the Military Services; Service committees, councils, and boards; theater commanders; and individual National Guard and Reserve members. The Board establishes and maintains communications with public and private individuals and agencies outside the Department of Defense, as necessary, to accomplish its mission.

The law requires "an annual report from the Reserve Forces Policy Board on the Reserve programs of the Department of Defense . . ." (10 USC 113(c)(3)). The report is submitted annually, by the Secretary of Defense, to the President and the Congress. It includes the Coast Guard Reserve, which is in the Department of Transportation during peacetime. The report contains recommendations for changes to policies, procedures, or laws which affect the Reserve components.

Organization of the Report

The report is divided into ten chapters: Introduction; Contributions of the Reserve Components; Force Structure; Roles, Missions, and Functions; Personnel; Training and Mobilization; Equipment; Facilities; Environmental Issues, and Readiness Initiatives. Board recommendations follow each topic. Reserve Component Command and Control Diagrams are provided in Appendix B.

All data contained in this report is as of September 30, 1993 unless otherwise indicated. Certain policy and legislative changes have been enacted since September 30, 1993. In those cases where this information was available prior to press time, those changes have been noted.

History of the Reserve Forces Policy Board

In 1992, the Reserve Forces Policy Board commemorated the 40th anniversary of its founding. Tracing its origin back to President Truman's Executive Order 10007 of October 15, 1947, the Board first operated as the Committee on Civilian Components. The Committee became the Civilian Component Board in 1949, and acted as an administrative body within the Department of Defense.

On July 9, 1952, Congress passed the Armed Forces Act of 1952. This Act established the

Reserve Forces Policy Board to serve as "the principal policy adviser to the Secretary of Defense on matters relating to the reserve components." The Reserve Officer Personnel Act in 1954, and the Reserve Bill of Rights and Revitalization Act in 1967, underscored the Board's role and expanded its authority, responsibility, and membership.

The United States is unique among world military powers by providing, in the Board, a mechanism by which the seven Reserve components participate in the formulation of major policies affecting the role of their forces in the national defense. The Board's statutory authority and independence make this participation effective.

The Board continues to operate as part of the Secretary of Defense's team, and is a means by which the Secretary brings into consultation the entire range of Active and Reserve component expertise.

Individuals who have served as chairmen and military executives on the Board, from its inception to the present, are:

Chairmen

Charles H. Buford
Inception - March 1953

Arthur S. Adams
March 1953 - September 1955

Milton G. Baker
September 1955 - September 1957

John Slezak
October 1957 - September 1977

Louis J. Conti
October 1977 - September 1985

Will Hill Tankersley
October 1985 - October 1989

John O. Marsh, Jr.
November 1989 - Present

Military Executives

RADM Irving M. McQuiston, USNR
Inception - June 1959

MG Ralph A. Palladino, USAR
July 1959 - December 1968

Maj Gen John S. Patton, USAFR
January 1969 - January 1973

RADM John B. Johnson, USNR
January 1973 - January 1975

MG W. Stanford Smith, USAR
January 1975 - April 1979

Maj Gen Joseph D. Zink, ANGUS
May 1979 - June 1983

LTG LaVern E. Weber, ARNGUS
June 1983 - June 1984

MG James D. Delk, ARNGUS
September 1984 - August 1986

MG William R. Berkman, USAR
August 1986 - July 1992

MG William A. Navas, Jr., ARNGUS
August 1992 - Present

Comments and Additional Copies

The Board appreciates the helpful comments and recommendations that have followed previous reports. A limited number of copies of this report are available for official distribution. Comments and requests for additional copies should be addressed to:

Reserve Forces Policy Board
Office Of The Secretary Of Defense
7300 Defense Pentagon
Washington DC 20301-7300

(703) 697-4486

Introduction 1

"Before we ask you to put your life in harm's way, it is our solemn responsibility to take your advice, to give you the tools you need, and then to give you our complete support."

Bill Clinton
President of the United States

General

Since the inception of the Total Force Policy in 1973, the Reserve components have primarily been sized and structured to support the missions of the Active components. During the Cold War years, that force structure was designed to meet the demands of a global conflict with the Soviet Union and the Warsaw Pact countries.

Major improvements were made in the 1980s to increase the readiness of Reserve component forces. Among these improvements was a significant increase in Force structure, during which time the Selected Reserve grew from 850,000 to 1,193,500. Now that the threat of global conflict has diminished, the Reserve components must be adapted to meet the new dangers of the post-Cold War era.

The past year has been a transitional period for both the Active and Reserve components. The national security environment has changed from one in which there was a defined threat to a less predictable, but still dangerous world. Changes in the world economic and political environment, domestic concerns, and budgetary impacts have challenged the Nation to develop a mix of military forces to meet future defense needs at an affordable cost.

The Department of Defense is faced with the challenge of restructuring its defense strategy, forces, programs, and budgets to meet these new realities. A more flexible, capabilities-based strategy is needed.

A Defense Strategy for the New Era

This year a process called the Bottom-Up Review was used to provide a methodology to make decisions between strategic options and available resources. The Bottom-Up Review outlined the strategy, force structure, modernization programs, and infrastructure needed to meet these new challenges and to respond to new opportunities.

The Bottom-Up Review represented a close collaboration between the civilian and military leadership of the Department of Defense. Task forces included representatives from the Office of the Secretary of Defense, the Joint Staff, the unified and specified commands, the Services and, where appropriate, other defense agencies. Numerous studies helped to formulate the key issues for decision-makers and provided the analytical underpinning for the review.

Most striking in the transition from the Cold War are the changes in the nature of the dangers to our national security interests. The new dangers fall into four broad categories:

- **Dangers Posed by Weapons of Mass Destruction**

  These dangers include the proliferation and dangers associated with the large stocks of weapons remaining in the former Soviet Union.

- **Regional Dangers**

  These dangers are posed primarily by major regional powers with interests contrary to our own. Such dangers are also posed by smaller, often internal conflicts based on ethnic or religious animosities, state-sponsored terrorism, or subversion of friendly governments.

- **Dangers to Democracy and Reform**

  Such dangers exist in the former Soviet Union, Eastern Europe, and elsewhere.

- **Economic Dangers**

  Economic dangers to our national security could result, if we fail to build a strong, competitive, and growing economy.

Our Armed Forces are central to combating the first two dangers and can play a significant role in meeting the second two. Predictions and

conclusions about the nature and characteristics of these dangers will help mold our strategy and decisions concerning the size and shape our future military forces.

The requirement to thwart new dangers and seize new opportunities sets the objectives our forces should try to achieve. The discussion that follows describes the dangers and opportunities as now foreseen and outlines a proposed strategy for dealing with them.

National Military Strategy and the Reserve Components

It is prudent for the United States to maintain sufficient military power to be able to win two major regional conflicts that could occur nearly simultaneously. With this capability, we will be confident, and our allies, as well as potential enemies, will know that a single regional conflict will not place our interests and allies in other regions at risk.

Further, sizing our forces for two major regional conflicts provides a hedge against the possibility that a future adversary might one day confront us with a larger-than-expected threat or enlist other nations to form a coalition against our interests. The dynamic and unpredictable post-Cold War environment demands that we maintain military capabilities flexible and responsive enough to cope with unforeseen dangers. Thus, U.S. forces will be structured to achieve decisive victory in two nearly simultaneous major regional conflicts and to conduct combat operations characterized by rapid response and high probability of success, while minimizing the risk of significant American casualties.

The force being planned to implement that strategy is one able to respond to the dangers of the post-Cold War world. The Reserve components are essential elements of that strategy and full partners in the Total Force.

The Secretary of Defense expects that the Reserve components will provide "compensating leverage," which means using the Reserve components to reduce the risks associated with smaller Active component forces and to control the costs of the Total Force. This necessitates making smarter use of the Reserve components and using their strengths properly. It also means funding the Reserve components at a level that reflects how they will be used in a crisis. It is anticipated that Reserve forces will be relied on to respond more often and more quickly.

The Secretary of Defense also expects that the Reserve components will play a crucial role in response to regional crises. The Reserve components will continue to support Active forces deploying from the United States. They will fill in for Active forces overseas that are called to a crisis elsewhere. With respect to peacekeeping and humanitarian assistance, the Reserve components will play a key role. They will support Active forces in these operations by providing strategic airlift and combat service support, including help in civil affairs. They can also provide a rotational base to relieve Active component forces which must be committed elsewhere, or can be used in lieu of Active component forces for short-term missions.

Reserve component forces will also contribute to international stability and security during peacekeeping, peace enforcement, and humanitarian assistance operations. Other tasks considered appropriate to the Reserve components will include support of Active component forces with strategic airlift, civil affairs, and other capabilities. During prolonged operations, or when Active component forces redeploy during a major regional conflict, the Reserve components will provide a rotational or replacement base.

The Army and Air National Guard will continue to serve as the first line of defense for domestic emergencies. They will provide forces to respond to natural disasters, domestic unrest, and other threats to domestic tranquillity. Also, the Air National Guard will provide continental air defense and protect U.S. airspace.

Toward a New Vision

After a Cold War spanning a half-century and considerable investment in national defense, the United States is reducing its military forces. The Bottom-Up Review provided a methodology to adjust force structure to the changing national security environment.

The Board recognizes that force structure determinations are service-unique and will be adapted to meet mission requirements. The Reserve components have traditionally been focused on warfighting. Now they must not only maintain this capability, but also have the capability to support peacetime domestic and overseas operations.

Terms such as "disaster assistance," "humanitarian assistance," "critical humanitarian emergency," "nation building," "forward presence," "peacekeeping," and "peacemaking" are entering our lexicon to further define the nature and scope of such operations. This is an area that needs careful study to adequately define the parameters of future military operations.

The Reserve components possess capabilities that have proven their value in both domestic and overseas operations. Some elements of the Reserve components can be realigned to meet these new requirements. In this ever-changing world, such realignments should be accomplished before any further reductions of Reserve component force structure take place.

Reliance on the Reserve components is an essential element of the Total Force Policy. As defense budgets shrink, the Nation will depend more on the Reserve components to respond to ever-changing world events. Should a new threat emerge, the Reserve components will form the base of a reconstituted force. The Bottom-Up Review provides planning guidance; the Board's recommendations in this report are intended to fit within that framework.

The Reserve components have the skills, training, equipment, and capabilities to deal with many of the challenges confronting the Nation. They have capabilities that can be effectively utilized for non-traditional missions without losing their "warfighting" edge. These capabilities should be programmed for joint use across Service boundaries.

A Vision for the Reserve Components

Discussions and studies concerning roles, missions, functions, and force structure are primarily Service-specific. These areas are receiving an appropriate level of discourse and participation by all components. The Board has therefore focused its attention to the issue of "readiness," which impacts the entire Department of Defense, and particularly the Reserve components.

As previously indicated, National security is not confined to national defense, but encompasses a more diverse range of activities. The shift from a Cold War deterrent strategy to crisis response planning provides an opportunity to look at how our military resources might be effectively utilized to serve the nation and the world in new ways.

There is a demonstrated requirement for forces to be ready to respond to a wide range of operations, from wartime operations to domestic action. Congress has encouraged the Department of Defense to become more involved in the areas of education, counterdrug, youth, and medical programs. Current humanitarian support programs provide a successful working model and demonstrate that the Reserve components are ideally suited to perform these missions.

The Four Imperatives

Regardless of the force structure, roles, missions, and functions assigned to the Reserve components, it is necessary that they be capable and ready to perform their Total Force missions when required.

Focusing on readiness, the Board has developed four imperatives, scenario

independent, that will enhance Reserve component readiness. Together, these four imperatives support the vision of the future contribution of the Reserve components to national security. To ensure that readiness is attained and maintained, the Reserve components must be:

- **Capable**

  The Reserve components must have a clear purpose and be organized, equipped, trained, and sustained to perform their assigned functions. Additionally, there must be clear and measurable standards to assess their capability.

- **Affordable**

  The Reserve components must be recognized as a cost-effective and efficient force, providing mission capabilities on demand. The cost of maintaining mission capabilities in the Reserve components should be measurably less than the cost of maintaining equivalent readiness in the Active components if the principle of "compensating leverage" is applied.

- **Relevant**

  The Reserve components must be appropriately structured, adequately trained, have modern equipment and be fully integrated with Active component forces. The Reserve components must also be sized and shaped to meet future warfighting and domestic needs and to provide strategic insurance for future requirements.

- **Accessible**

A Reserve component member or unit must be accessible for call to active duty, either voluntarily or involuntarily, to meet operational requirements. Statutes, policies and regulations, along with political will, are among the factors impacting on improving Reserve component accessibility. It is necessary to implement strategies to reduce or eliminate the impact of these factors.

A Strategy to Support the Vision

A critical imperative for a capable and ready unit is that it be accessible when and where needed. The Reserve components have been involved in overseas training for many years. During the last ten years, that involvement has evolved into an overseas training model.

In 1984, a CJCS-approved, U.S. Southern Command-sponsored, combined task force training exercise was conducted on the western coast of the Republic of Panama. A total of 750 soldiers from the Puerto Rico, Louisiana, and Florida Army National Guard, the 193d Infantry Brigade of the Active component, and the Panama Defense Force joined to construct a 15 kilometer road during a six-month period.

The exercise objective was to provide realistic, environmentally unconstrained engineer training, tropical medical training, and logistical over-the-shore training not available in the United States during annual training.

Since the scope extended beyond tasks which could reasonably be accomplished within normal two-week annual training period, the concept of using a small duration staff to coordinate all aspects of the exercise for the six month period, with units rotating in and out every twenty-one days, was born.

Normal costs for movement, pay and allowances, and other supplies were paid for as they would have been in the course of any Reserve component annual training. For purposes of this discussion, this model has been dubbed the "Panama Model," or the "Panama Paradigm." That model has been modified somewhat as it has been applied to other overseas areas, but it continues to maintain its basic structure and its primary purpose to support annual training overseas primarily for *training* benefits, although it is recognized that there are some operational benefits to the supported command.

Today, and in the future, it will become increasingly important to be able to provide the Commanders-In-Chief (CINCs) with Reserve component assets, not only to meet the ever-increasing volume of operational requirements, but to provide a mechanism to facilitate planning for the employment of Reserve component forces as they would be utilized in wartime.

Therefore, many of the overseas activities envisioned for the future are likely to require *operational* objectives as a primary goal, with accompanying training sustainment benefits. It should also be noted that in conducting these operational missions, Reserve component units and individuals are normally assigned to duties which are consistent with their military unit's mission and individual military specialties.

The challenge is to provide Reserve component forces that can adjust to the shifting focus using appropriate elements from experience gained from the Panama Model as well as lessons learned from the Persian Gulf war. Figure 1-1 portrays the challenge of responding to operational requirements, which has been dubbed the Reserve component "TASK FORCE TOMORROW."

The impact of the operational focus will cause modifications in some of the less apparent areas of missions, resources, status of personnel, duration, and command and control which such a task force would necessitate. The resulting model (Figure 1-2) incorporates some of these considerations.

The mission statement and concept of operation, both show the intent of providing the CINC with a Reserve component force directed to support a portion of the command's operational requirements. Both the duration cadre and rotational elements can be sized and structured to meet the CINCs specific operational requirements. Likewise, the duration of the overall rotational support provided should be commensurate with the scope of operational requirements and reflect appropriate consideration for civilian employment concerns.

Figure 1-1
THE CHALLENGE

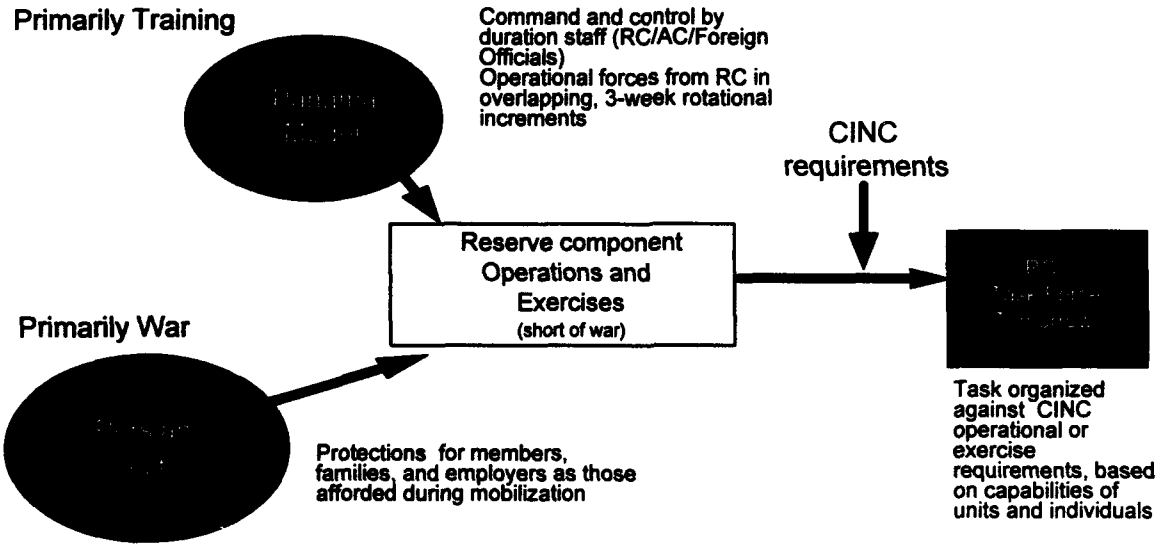
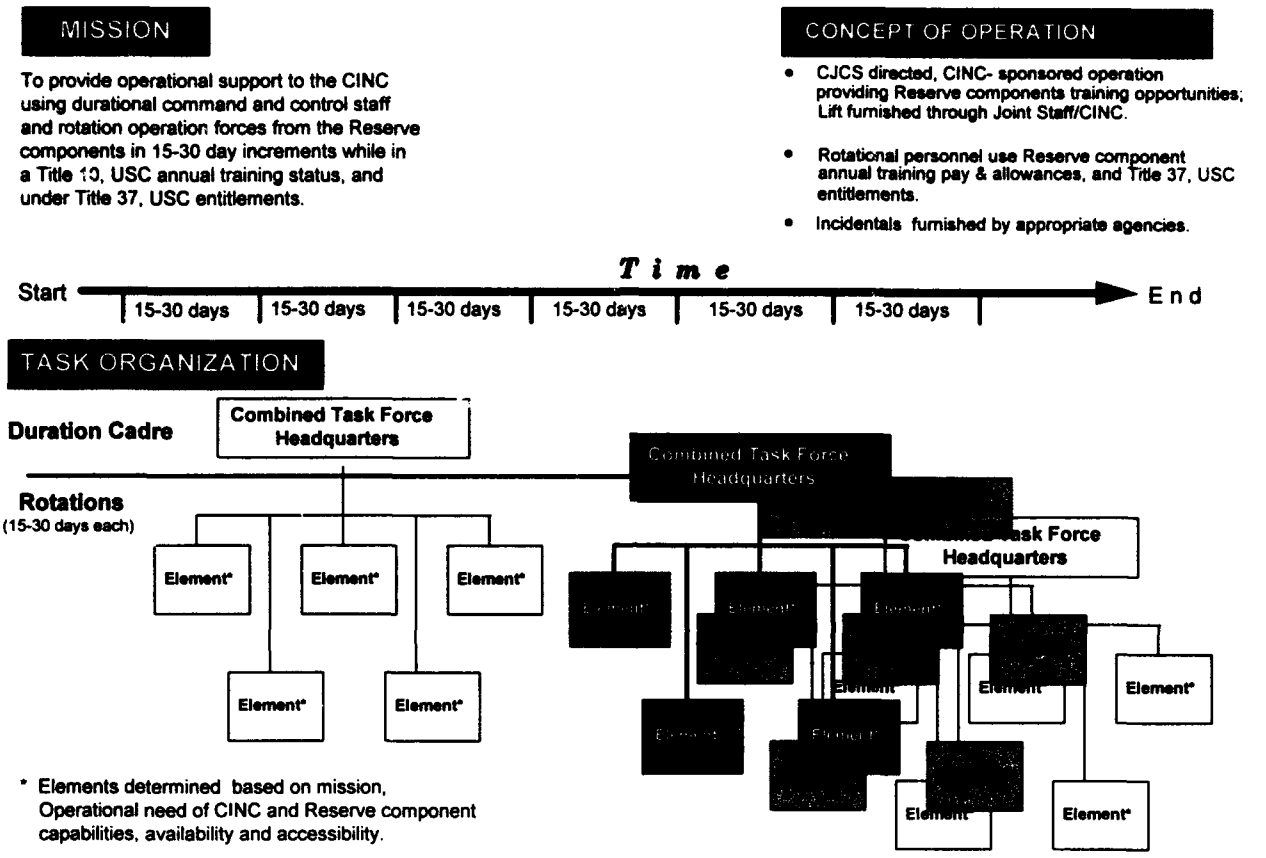


Figure 1-2
TASK FORCE TOMORROW

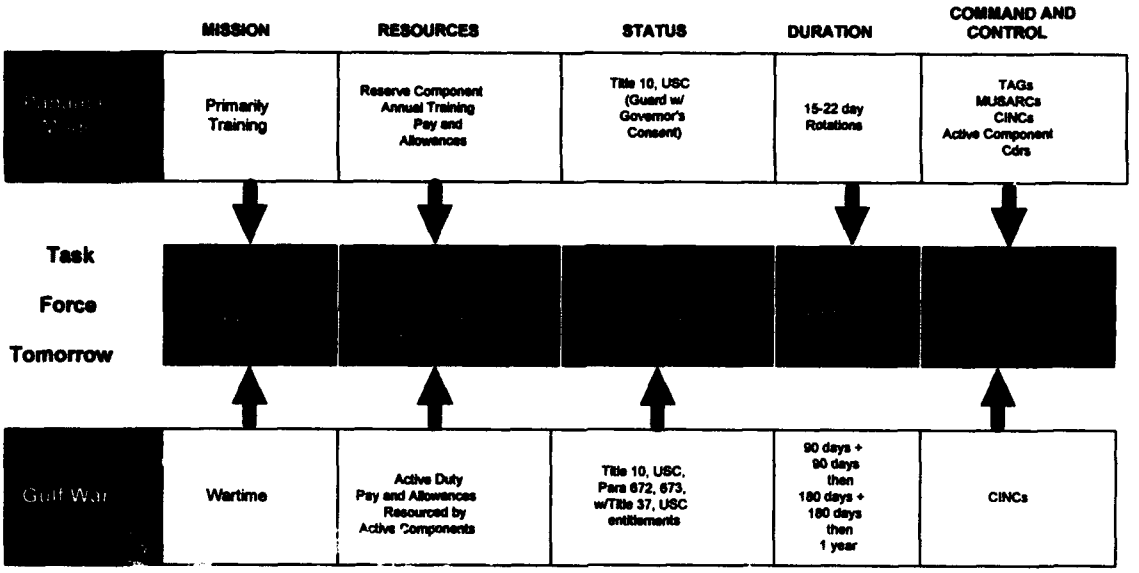


Having a relevant model to apply provides the focus necessary to study the elements which enable the model to work. A cursory review of those elements indicates that current policies may not provide the necessary framework to enable the TASK FORCE TOMORROW model to be fully successful.

The TASK FORCE TOMORROW model displays an evolution of like elements, utilizing applicable experiences from previous overseas training exercises, peacetime operations (such as the former Aviation Classification and Repair Activity Depots (AVCRAD) in Belgium, the Equipment Maintenance Center-Europe (EMC-E) in Germany, and the Navy's contributory support concept), as well as lessons learned from the Persian Gulf war.

Figure 1-3 highlights and outlines the resultant elements of the TASK FORCE TOMORROW model. These elements provide a starting point for a detailed review of doctrine, policy, and statutory requirements which may need to be modified to facilitate use of the model for various operational missions.

Figure 1-3
TASK FORCE TOMORROW ELEMENTS



Employment of this model will enable Reserve component forces to effectively support theater CINCs and assist the CINCs in planning for the operational use of Reserve component forces.

A vision for the future is essential to meeting the national security challenges that lie ahead. The opportunities which present themselves must be seized, or that vision may never be realized.

A quote from Shakespeare's *Julius Caesar* provides a perspective which is applicable today:

> *"There is a tide in the affairs of men, which taken at the flood, leads on to fortune; Omitted, all the voyages of their life is bound in shallows and in miseries. On such full sea we are now afloat; And we must take the current when it serves, or lose our venture."*

The Bottom-Up Review has provided an opportunity to "take the current" and further clarify roles, missions, and functions.

A series of readiness and training improvements are necessary to ensure that the Reserve components can meet the demands of the new defense strategy. They are discussed in the chapters which follow.

The world remains a dangerous place. As James Thurber suggested, "Somewhere, just out of sight, the Unicorns are gathering." The Bottom-Up Review and the Board's vision for Reserve components contained in this document provide tools for the Nation to prepare for those gatherings.

The Armed Forces of the United States must remain vigilant, and the Reserve components ready and accessible. Through the sound application of the four imperatives and the TASK FORCE TOMORROW model, the Reserve components can effectively contribute to the future national security as envisioned by the Total Force Policy.

Composition of the Reserve Components 2

"I very strongly believe that both the Reserves and the Guard must play an indispensable role in our military planning for the future, particularly with the downsizing that's taking place with the active duty forces."

Honorable William J. Perry
Secretary of Defense

Total Force Policy

The Department of Defense (DoD) defines Total Force as "The totality of organizations, units, and manpower that comprise the Defense Department's resources for meeting the national military strategy. It includes the manpower resources comprising Active and Reserve military personnel, civilian personnel, contractor staff, and host-nation support personnel." The Department of Defense implemented the Total Force Policy in 1973. It has been fundamental to U.S. national security policy ever since.

Efforts made over the last decade to strengthen the Reserve components have paid great dividends. The Reserve components are now full partners with the Active components under the Total Force Policy and have been integrated into virtually all theater operational plans. Most operations can not be successfully conducted without the Reserve components.

Since the Total Force Policy was implemented, the Reserve components have achieved unprecedented levels of capability and readiness. This readiness has been the critical factor in the ability of the Reserve components to successfully respond to military aggression in the Persian Gulf, as well as domestic crises (such as hurricanes, earthquakes, and floods) and numerous humanitarian and peacekeeping missions.

Total Military Mobilization Manpower

Figure 2-1 provides the percentages of military personnel, by category, who are available for mobilization.

Composition of the Reserve Components

The seven Reserve components are the Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, Air Force Reserve, and Coast Guard Reserve.

All Reserve component personnel are assigned to one of three categories: the Ready Reserve, the Standby Reserve, or the Retired Reserve. All National Guard members are in the Ready Reserve.

Ready Reserve

The Ready Reserve consists of the Selected Reserve, the Individual Ready Reserve (IRR), and the Inactive National Guard (ING). Some personnel are organized in units; others train as individuals. All are subject to recall in time of war or national emergency.

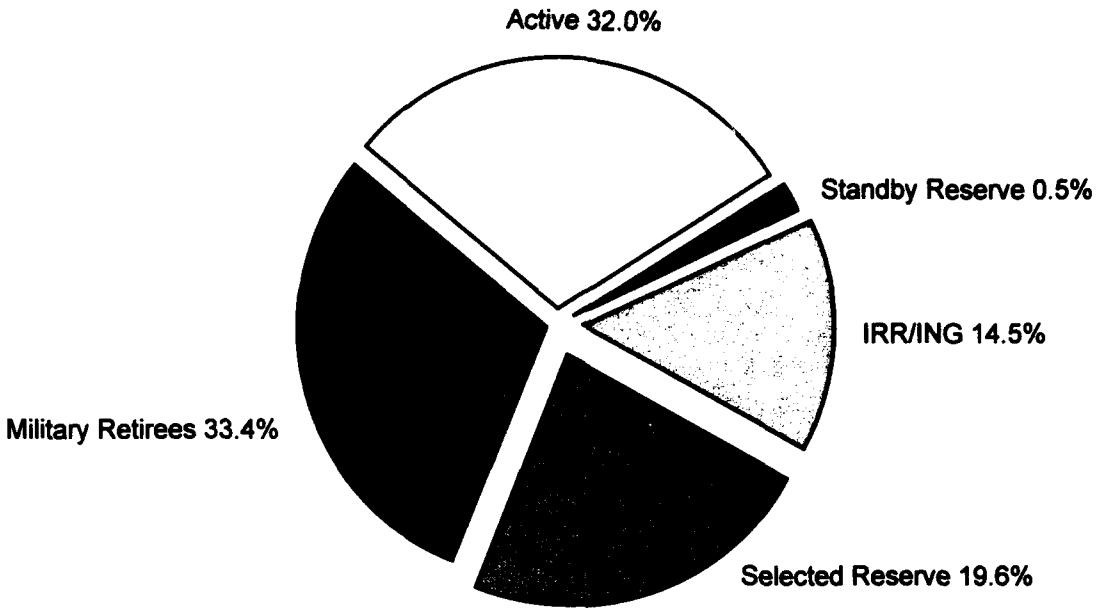
The Selected Reserve is comprised of Reserve component personnel assigned to units, Full-Time Support (FTS) personnel, and individuals who serve as Individual Mobilization Augmentees (IMA).

Selected Reserve units may be either operational or augmentation units. Operational units train and deploy as units. Augmentation units train as units in peacetime, but are absorbed into Active units upon mobilization. Selected Reserve units are manned by drilling members of the Reserve components and supported by Full-Time Support personnel.

Selected Reservists who have not completed initial training are mobilizable, but cannot be deployed on land outside the United States until completion of minimum training requirements.

The President may involuntarily order members of the Selected Reserve to active duty for peacetime operational missions by exercising the call-up authority prescribed in Title 10, United States Code. Members of the Coast Guard Reserve may be ordered to active duty by the Secretary of Transportation for up to 30 days in a four-month period and 60 days in a two-year period. Currently, the Secretary of Defense does not have comparable call-up authority; the Services are dependent upon volunteers from the National Guard and Reserve to meet the short-term operational needs of the Active components.

Figure 2-1
TOTAL MILITARY MOBILIZATION MANPOWER



Total= 5,448,911 Personnel

Source: Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993.

Individual Ready Reserve and Inactive National Guard members are trained individuals who previously served in the Active component or Selected Reserve. Individual Ready Reserve and Inactive National Guard members usually have a remaining military service obligation. They are liable for mobilization and limited involuntary active duty for training. They may train voluntarily for retirement points and promotion, with or without pay.

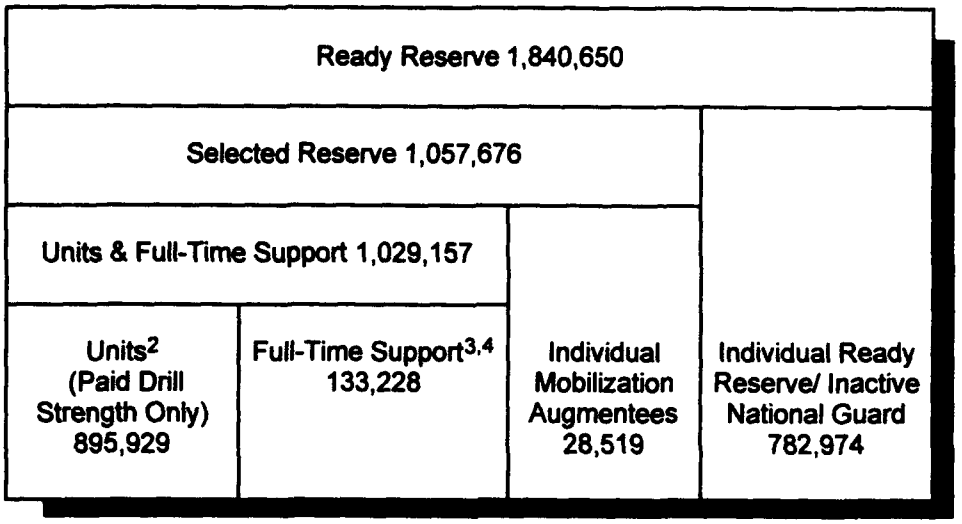
Figure 2-2 shows the composition of the Ready Reserve.

The Standby Reserve consists of personnel, such as key federal employees, who are not required to train and are not assigned to units. These individuals could be mobilized to fill specific manpower needs.

The Retired Reserve consists of:

- Personnel receiving retired pay resulting from Active and/or Reserve service;
- Reserve component personnel who are otherwise eligible for retired pay, but have not reached age 60 and have not elected discharge and are not voluntary members of the Ready or Standby Reserve; and
- Retired enlisted members with 20 or more years of active duty.

Figure 2-2
COMPOSITION OF THE READY RESERVE



Notes:
1. Numbers rounded to nearest hundred.
2. Includes training pipeline.
3. Excludes civilians.
4. Includes only those Military Technicians with dual status.

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

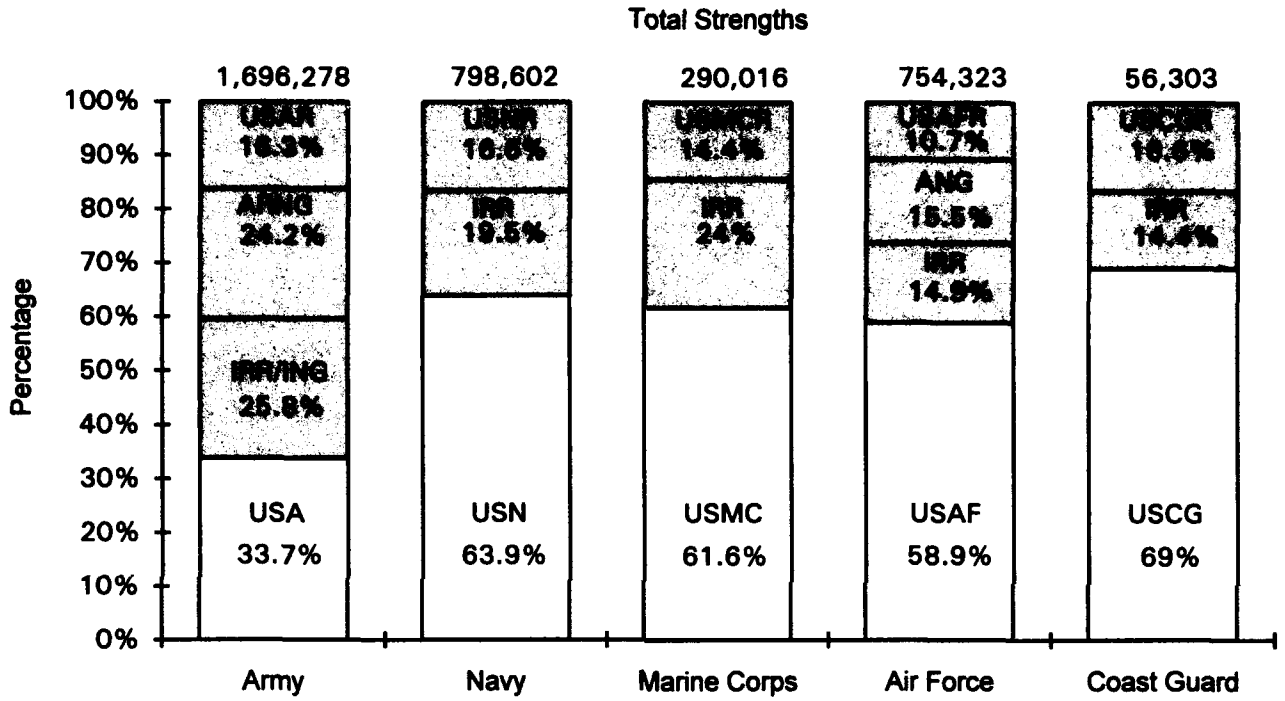
When retired enlisted personnel with 20 or more years of Active duty complete a total of 30 years of service, they are placed on the appropriate Regular or Reserve retired list. All retired members who have completed at least 20 years of active federal service, Regular or Reserve, regardless of the retired list to which they are assigned, may be ordered to active duty by the Secretary of the appropriate Military Department (under regulations prescribed by the Secretary of Defense) in accordance with Title 10 USC 688.

Figure 2-3 shows the percentage, by Service, of the contributions of the Active and Reserve components to the total military force.

Employment of the Reserve Components

In the past, potential threats to the United States and its interests have been the primary factors in shaping force structure decisions. Shaping structure on perceived threats alone is not always prudent. Structure decisions should be based on capability, assuring that sufficient forces are available regardless of threat. Using capabilities as the driving factor in the determination of structure has been promoted by the Joint Chiefs of Staff. By deriving a force based on capabilities, military forces can effectively deal with domestic crises as well as traditional roles, allowing for an appropriate response across the entire spectrum of conflict.

Figure 2-3
PARTNERS IN THE TOTAL MILITARY FORCE



Note: Excludes civilian employees.
Sources: Assistant Secretary of Defense for Reserve Affairs and the Coast Guard Reserve.
Data as of September 30, 1993.

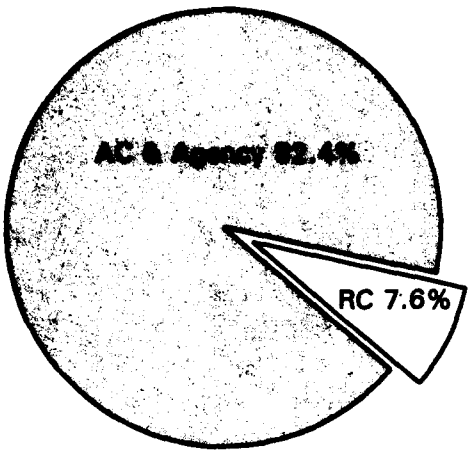
The Reserve components routinely accomplish a wide variety of training and operational missions in locations around the world. Such varied and challenging training and operational missions enhance the readiness of the Reserve components and prepare members of the Reserve components to perform world-wide missions.

The Board believes that it is desirable that the Reserve components actively participate in force structure decisions to ensure that the respective abilities, contributions, and cost effectiveness of the Reserve component are appropriately considered.

Resourcing the Reserve Components

The Reserve components provide a cost-effective means for augmenting Active components and maintaining important capabilities in the Total Force. The citizen-soldier provides a low-cost deterrent to conflict, an immediate response capability to domestic crises, and a critical surge mobilization capability. The Reserve components have repeatedly demonstrated that they can accept additional functions if adequately resourced.

Department of Defense
Total Obligation Authority (in Billions)



- Active Component (AC) & Agency $235,643
- Reserve Component (RC) $19,307

Reserve components are funded by four separate budget appropriations: personnel, operations and maintenance, military construction, and equipment procurement funds. Service procurement funding has been supplemented by dedicated Congressional appropriations each year since 1982.

Figure 2-4 displays Reserve component appropriations for Fiscal Years 1992 through 1994.

The Army National Guard experienced a shortfall in operation and maintenance funding, logistics support, air operating tempo, and school travel funds.

The funding for the Army Reserve was also insufficient. When congressional action increased the Army Reserve end strength, an additional $13.6 million was needed. To compensate for funding shortfalls, facility maintenance, operating tempo, and supply purchases were reduced. Backlogs in organizational clothing and equipment, repair parts, and facility maintenance continue to grow.

Naval Reserve and Marine Corps Reserve funding was adequate to meet Fiscal Year 1993 requirements. However, the Marine Corps Reserve projects a shortfall of $2.8 million in 1994 as a result of Defense Finance and Accounting fees and simulator procurement.

The Air National Guard incurred some unforeseen, unbudgeted costs associated with converting units to new weapon systems, requiring a reallocation of funds from other programs. Programs such as depot maintenance were either canceled, partially funded, or deferred until the following year. Unit conversion costs in Fiscal Year 1993, as well as the impact expected by units programmed for conversion during 1994, will force modifications to aircraft, facility maintenance, and repair programs. Combat readiness and quality of life standards will be severely impaired because of continued insufficient funding to fully support aircraft conversion and modernization efforts.

The Air Force Reserve experienced unbudgeted costs from unit conversions, base realignment actions, and work-year increases. To live within available funding, the Air Force Reserve implemented numerous freezes and restrictions to requirements such as travel, supplies, and depot maintenance, and reduced flying hours by approximately 10 percent. Additional unit conversions and base realignment transfers programmed FY 1994 will again force restrictive management actions to requirements such as aircraft repair, facility maintenance, and flying hours.

The Coast Guard Reserve Operations and Maintenance authorization was adequate due to reductions in end strength.

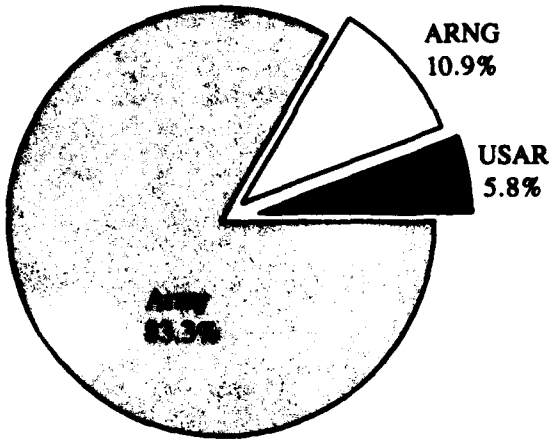
Figure 2-4
RESERVE COMPONENT APPROPRIATIONS
($ in Millions)

Component	FY92	FY93	FY94	Percent Change FY92-FY93
Army National Guard				
Personnel	3,388.6	3,364.4	3,340.3	-0.7%
Operations and Maintenance	2,211.7	2,309.7	2,230.4	4.4%
Military Construction	231.1	215.0	302.7	-7.0%
Procurement[1]	970.4	1,085.2	873.6	11.8%
Army Reserve				
Personnel	2,314.2	2,182.2	2,149.1	-5.7%
Operations and Maintenance	1,017.9	1,037.2	1,075.1	1.9%
Military Construction	110.4	42.2	102.0	-61.8%
Procurement[1]	300.1	163.7	-355.6	-45.5%
Naval Reserve				
Personnel	1,707.4	1,655.8	1,555.8	-3.0%
Operations and Maintenance	871.8	864.3	763.1	-.9%
Military Construction	59.9	15.4	25.0	-74.3%
Procurement[1]	531.1	266.3	119.0	-49.9%
Marine Corps Reserve[2]				
Personnel	345.0	340.3	350.9	-1.4%
Operations and Maintenance	92.8	79.6	83.1	-14.2%
Military Construction[1]	N/A	N/A	N/A	N/A
Procurement[1]	158.0	205.0	50.0	29.7%
Air National Guard				
Personnel	1,179.6	1,210.8	1,223.5	2.6%
Operations and Maintenance	2,364.8	2,562.3	2,632.3	8.4%
Military Construction	217.6	305.8	247.5	40.5%
Procurement[1]	1,059.9	932.3	204.7	-12.0%
Air Force Reserve				
Personnel	721.6	715.4	782.0	-.9%
Operations and Maintenance	1,154.7	1,241.8	1,335.4	7.5%
Military Construction	9.7	15.4	74.5	58.8%
Procurement[1]	513.8	179.4	120.7	-65.0%
Coast Guard Reserve				
Personnel	67.0	65.0	58.0	-3.0%
Operations and Maintenance	8.0	8.0	6.0	0.0%
Military Construction[3]	N/A	N/A	N/A	N/A
Procurement[3]	N/A	N/A	N/A	N/A
Totals				
Personnel	9,723.4	9,533.9	9,459.6	-1.9%
Operations and Maintenance	7,721.7	8,102.9	8,152.4	4.9%
Military Construction	628.7	593.8	751.7	-5.6%
Procurement[1]	3,534.1	2,831.9	1,012.4	-19.9%

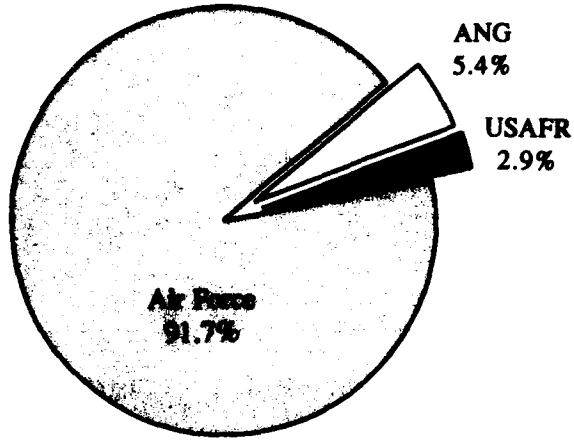
Notes:
1. Procurement includes amounts budgeted by the Services as well as NGREA funds (To include FY 1994 Appropriations).
2. Marine Corps Reserve figures are included in Naval Reserve Military Construction.
3. Coast Guard Reserve has no separate appropriations for Military Construction or Procurement.

Source: DoD Comptroller.
Data as of September 30, 1993.

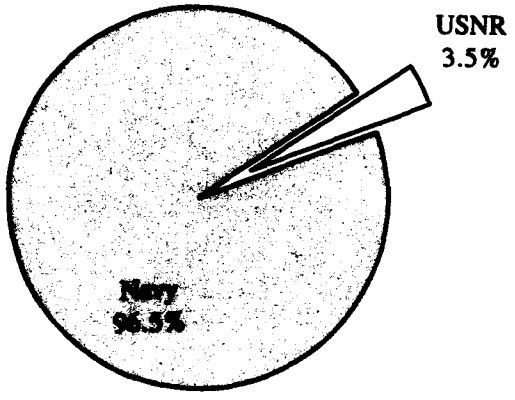
DEPARTMENT OF THE ARMY
Total Obligation Authority

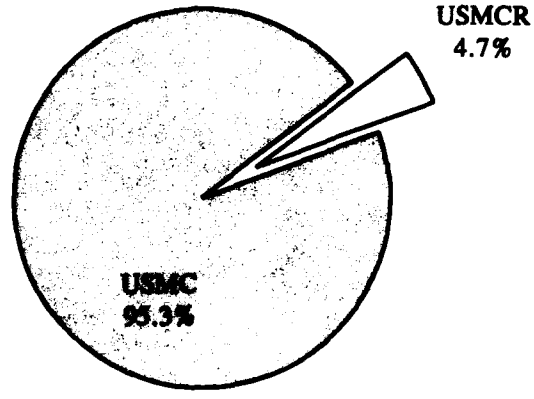


DEPARTMENT OF THE AIR FORCE
Total Obligation Authority



DEPARTMENT OF THE NAVY
Total Obligation Authority





The Board continues to recommend against the concept of "equal cuts" in Active and Reserve component forces and budgets without appropriate analysis. Further, the Board believes it important to:

- *provide adequate Full-Time Support personnel to the Reserve components;*
- *resource the Reserve components with the necessary personnel and equipment;*
- *provide training support through adequate facilities, ranges, simulators, and schools;*
- *provide sufficient ground vehicle miles, flying hours, and steaming days to maintain individual and unit proficiency;*
- *properly equip combat support and combat service support units, and greatly enhance training support for these units.*

Force Structure 3

"As we reduce the size of the Active component, we must use the National Guard and Reserve as a form of compensating leverage to reduce risks and contain defense costs in the post-Cold War era."

Honorable Deborah R. Lee
Assistant Secretary of Defense for Reserve Affairs

General

The Total Force Policy has served our Nation well, not only in wartime operations but also in ongoing operational, drug interdiction, peacekeeping, and humanitarian missions.

The mission of the Reserve components is to provide trained, well-equipped units and individuals for active duty in time of war, national emergency, or at such other times as the national security requires. In addition to its federal mission, the National Guard has a state mission to protect life and property, and to preserve peace, order, and public safety. This dual status is derived from the U.S. Constitution.

Total Force Structure

The Reserve components are an integral part of the Total Force.

- Army National Guard and Army Reserve units provide essential combat, combat support, and combat service support units to the Total Army.

- Naval Reserve units are an integral part of most mission areas of the Navy, including fleet logistics; maritime patrol, carrier and helicopter wings; mobile construction forces; surface combatants; operational and medical support units.

- Marine Corps Reserve includes a Marine division, air wing, and a force service support group. These forces provide combat, combat support, and combat service support.

- The Air National Guard and Air Force Reserve perform a broad range of combat and combat support missions, including counterair, interdiction, close air support, reconnaissance, strategic airlift, tactical airlift, aerial refueling, aeromedical evacuation, aerospace rescue and recovery, and special operations.

- The Coast Guard Reserve augments the Coast Guard in all mission areas, and provides the Active component with specialized port security elements.

The Board recommends that lessons learned from recent operations be carefully considered in force structure decisions affecting the Total Force.

Army National Guard and Army Reserve

The Army relies heavily on the Army National Guard and Army Reserve; over half of the Army force structure is in the Reserve components, including forces in each of the strategic force packages. The Army National Guard has an authorized strength of 422,725. The Army Reserve has an authorized strength of 279,615 soldiers in the Selected Reserve, plus 279,600 members in the Individual Ready Reserve and an additional 599,965 members in the Retired Reserve.

Some Army National Guard and Army Reserve units fill out Active divisions and are called "roundout" units. This program merges a Reserve component brigade with Active component brigades to form a "composite" higher echelon organization. The Army National Guard currently has seven roundout brigades. Roundout units are an integral part of the units they supportare given the same equipment priorities. Another program is called "roundup." Under this concept, an additional like-sized unit is added to a higher echelon organization giving it additional capability. The Army National Guard currently has three roundup brigades.

The Bottom-Up Review called for 15 Army National Guard enhanced readiness brigades, organized and resourced to be quickly mobilized and deployed to fast-evolving regional conflicts. These brigades will displace the existing roundout/roundup concept as they enter the force structure in the 1996-99 timeframe.

Significant reductions are programmed for the Army National Guard and Army Reserve over the next five years. Force structure changes in the Army National Guard have already resulted in a loss of two Divisions (from 10 to 8) in Fiscal Year 1993. As a result of strength reductions that were programmed for Fiscal Year 1993, the Army National Guard lost 109 infantry, armor, armored cavalry, field artillery, aviation, engineer, signal, maintenance, transportation, public affairs, postal, medical and chemical units/subunits consisting of 19,009 spaces. In 1994, the Army National Guard will lose approximately 7,000 positions.

Stabilization of force structure is necessary to facilitate long-range planning in the Reserve components. The eventual requirement to move units geographically will impact readiness. The uncertainties and current programmed reductions have already affected units on the reduction list.

The Army Reserve activated 62 units with 3,007 spaces, converted 201 units with 27,561 spaces (approximately 10% of the United States Army Reserve force), and inactivated 104 units with 12,923 spaces during Fiscal Year 1993. The net change was a reduction of 19,800 spaces. Almost half of these changes were the result of a program to modernize the Army's medical force. Most conversions were made as a result of changes in the Army warfighting doctrine.

Army Reserve readiness is being degraded by the short reaction time provided to execute many force structure changes. The largest single impact is the freeze of medical inactivations. This congressionally-mandated freeze has caused retention of 136 medical units which are of obsolete design, necessitating the early inactivation of over 5,000 spaces in on-medical units that were previously scheduled for inactivation in Fiscal Year 1995 and

beyond. By law, personnel in freeze-affected units as of September 1992 must be retained until the freeze has been lifted. Most personnel have transferred to other medical units and Full-Time Support personnel are being realigned. Most unit equipment has been turned in. These actions have created a great deal of turbulence and adversely affected the Army Reserve.

In Fiscal Year 1994, net reductions increase to 26,300 and conversions will affect 145 units/15,959 spaces (approximately 6% of the United States Army Reserve force). Additional programmed reductions will reduce Army Reserve end-strength from 279,600 to 230,000 by Fiscal Year 1996.

Army National Guard and Army Reserve contributions to the Army are reflected in Figure 3-1.

Figure 3-1
ARMY NATIONAL GUARD AND ARMY RESERVE CONTRIBUTIONS TO THE ARMY

Unit Type	Army National Guard Number Units	Army Reserve Number Units	Combined Percent of Total Army
Training Divisions	0	12	100%
Chemical Brigades	1	3	100%
Water Supply Battalions	2	3	100%
Enemy Prisoner of War Brigades	0	1	100%
Theater Support Group	0	1	100%
Heavy Helicopter Units	3	0	100%
Judge Advocate General Units	4	137	100%
Public Affairs Units	48	26	100%
Theater Defense Brigades	3	1	100%
Roundout/Roundup Brigades	7	0	100%
Civil Affairs Units	0	36	97%
Petroleum Support Battalions	6	6	86%
Medical Brigades	3	9	86%
Chemical Battalions	2	9	85%
Training Brigades	0	3	83%
Motor Battalions	9	14	79%
Maintenance Battalions	20	17	76%
Engineer Battalions (Combat Heavy)	14	17	76%
Psychological Operations Units	0	37	75%
Hospitals	22	50	73%
Medical Groups	3	7	71%
Separate Brigades	9	1	67%
Petroleum Groups	0	2	67%
Corps Support Group	4	15	66%
Field Artillery Battalions	90	10	62%
Engineer Battalions (Combat)	29	16	58%
Terminal Battalions	0	4	57%
Military Police Battalions	9	7	57%
Military Police Brigades	3	2	56%
Medium Helicopter Battalions	4	2	55%
Infantry Divisions	3	0	50%
Corps Support Command	1	2	50%
Light Infantry Divisions	1	0	50%
Area Support Groups	9	8	47%
Attack Helicopter Battalions	21	3	46%
Aviation Brigades	15	0	45%
Special Forces Groups	2	2	44%
Ordnance Battalions	0	5	42%
Armor Divisions	2	0	40%
Theater Army Area Commands	0	2	40%
Signal Battalions	31	4	40%
Air Assault Battalions	2	5	39%
Infantry Divisions (Mech)	3	0	38%
Military Intelligence Battalions	7	15	37%
Armored Cavalry Regiments	1	0	33%
Air Defense Brigades	3	0	33%
Air Defense Battalions	12	0	30%
Mechanized Divisions	2	0	30%
Engineer Battalions (Topographical)	1	0	25%

Sources: Army National Guard, Army Reserve and Army (DAMO-FDF).
Data as of September 30, 1993.

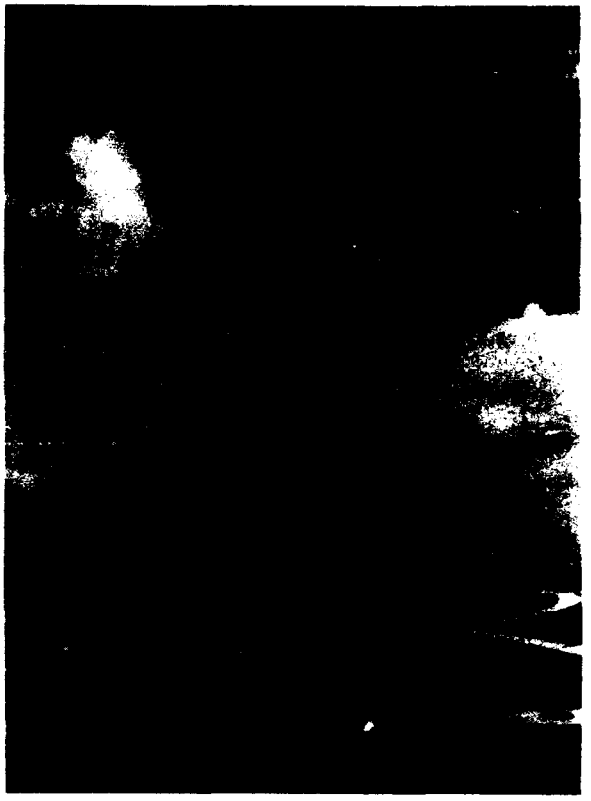
Naval Reserve

The Naval Reserve is organized into two general types of units:

- **Commissioned Units**: Reserve units, with organic equipment, such as aircraft squadrons, Naval Reserve Force (NRF) ships, cargo handling battalions, mobile inshore undersea warfare units, and mobile construction battalions. These units are tasked to deliver a complete operational entity to the operating force and are commanded by either Active or Reserve component officers, and staffed primarily by Selected Reserve personnel. Thirty-two percent of Selected Reserve personnel are assigned to commissioned units.

- **Augmentation Units**: Units that augment Active component units with trained personnel. Such units are tailored to augment designated ships, the Military Sealift Command, special warfare commands, Marine expeditionary forces, security groups, intelligence staffs, communication and meteorological activities, medical and dental facilities, intermediate maintenance units, shore command and headquarters organizations. Their function is to allow for peak operations for an indefinite period of time. They also provide a surge capability, and then sustain the high level of activity required to support deployed forces. Sixty-eight percent of Selected Reserve personnel serve in augmentation units.

Naval Reserve Force ships are under the operational control of the Commanders-in-Chief, Atlantic or Pacific Fleet, while those designated as Reserve Frigate Training ships come under the operational control of Commander, Surface Group Six, who is assigned to the Commander, Naval Reserve Force. Naval Reserve personnel train on



Naval Reserve Force ships and craft, providing approximately one-third of their mobilization personnel. Naval Reserve Force ships are staffed (at reduced strength from normal peacetime levels) by Active component personnel, Training and Administration of Reserve (TAR) program personnel, and members of the Selected Reserve.

Naval Reserve reductions in Fiscal Year 1993 consisted of reduced augmentee staffing in mission areas where excess capability exists. Included were reductions in mission areas such as control of shipping, communications, and intelligence, as well as functional areas such as ship augmentation and base and staff support. The Naval Reserve established 100 new augment units, but disestablished six commissioned and 194 augment units. The net change was a reduction of 100 units.

Contributions of the Naval Reserve to the Navy are displayed in figure 3-2.

Figure 3-2
NAVAL RESERVE CONTRIBUTIONS TO THE NAVY

Unit Type	Number Units	Percent of Navy[1]
Mobile Inshore Undersea Warfare Units	28	100%
Logistics Support Squadrons	11	100%
Naval Embarked Advisory Teams (NEAT)	7	100%
Strike Rescue/Special Warfare Support Helicopter Squadrons	2	100%
Mobile Inshore Undersea Warfare Groups	2	100%
Fighter Composite/Service Squadrons (U.S. Based)	2	100%
Heavy Logistics Support (C-130)	2	100%
Naval Control of Shipping (Military Personnel)	27	99%
Cargo Handling Battalions	12	93%
Military Sealift Command (Personnel)	38	85%
Mobile Construction Battalions	15	68%
Intelligence Program (Personnel)	5,027	61%
Mobile Diving & Salvage Units	14	60%
Special Boat Units	4	57%
Airborne Mine Countermeasures Squadrons	2	53%
Fleet Hospitals	7	48%
Frigates (FFG-7s/FF-1052s)	24	40%
LAMPS MK-I Anti-Submarine Warfare Squadrons	3	40%
Naval Special Warfare Units	11	38%
Mobile Mine Assembly Groups (MOMAG)	18	33%
Explosive Ordnance Disposal Units	5	33%
Carrier Air Wings	2	28%
Maritime Patrol Squadrons	13	24%
Amphibious Warfare Ships	2	15%

Note:
1. Percentages determined by counting like-type units or personnel.

Source: Naval Reserve.
Data as of September 30, 1993.

Marine Corps Reserve

The Marine Corps Reserve augment and reinforce Active component units. Selected Marine Corps Reserve units are not categorized as early or late deploying; all are considered "M-Day" assets. The Active and Reserve components are closely integrated through horizontal fielding of equipment, weaponry, technology, and training. When task organized, there is no distinction between Active and Reserve component Marines.

The Marine Reserve Force provides peacetime command, control, and resource allocation for the Marine Corps Reserve. It provides unity of command in Marine Corps Reserve training, operations, and mobilization planning. Major components are the 4th Marine Division (Reinforced), the 4th Marine Aircraft Wing, the 4th Force Service Support Group, and the Marine Corps Reserve Support Command. Selected Reserve units are prepared to independently accomplish a variety of assignments or perform an assigned task with Active component units.

Force structure changes during Fiscal Year 1993 were designed to align Marine Corps Reserve capabilities with those of the Active component. Major changes include: one M60A1 tank battalion with 1,804 Selected Reservists was converted to M1A1 tanks; the Anti-Tank (TOW) Company was reorganized to AT(TOW) platoons and sections; two CH-53 detachments with 202 Selected Reservists were reorganized at Alameda, California and Willow Grove Pennsylvania; and two F-4 squadrons with 250 Selected Reservists were reorganized into F/A-18 squadrons at Andrews Air Force Base, Maryland and Dallas, Texas. In addition, Headquarters, Marine Reserve Force was activated in New Orleans, Louisiana.

The Marine Corps Individual Ready Reserve is a source of individual manpower to be used during mobilization for base support and combat casualty replacements. Marine Corps mobilization plans include provisions for intensive combat refresher training and individual skill training prior to deployment.

Contributions of the Marine Corps Reserve to the Marine Corps are displayed in Figure 3-3.

Figure 3-3
MARINE CORPS RESERVE CONTRIBUTIONS TO THE MARINE CORPS

Unit Type[1]	Number Units	Percent of Marine Corps
Civil Affairs Groups	2	100%
Air-Naval Gunfire Liaison Companies	2	50%
Tank Battalions	2	50%
Force Reconnaissance Companies	2	50%
Infantry Regiments	3	27%
Light Armored Infantry (LAI) Battalions	1	25%
Engineer Support Battalions	1	25%
Landing Support Battalions	1	25%
Artillery Regiments	1	25%
Aircraft Types[2]		
Marine Aircraft Wing	1	25%
Marine Aerial Refueler Transport Squadron	2	50%
Marine Wing Headquarters Squadron	1	25%
Marine Aircraft Group	4	25%
Adversary Squadron	1	100%
Marine Observation Squadron	1	100%
Marine Aviation Logistics Squadron	4	25%
Marine Light Attack Helicopter Squadron	2	22%
Marine Fighter/Attack Squadron	4	21%
Marine Attack Squadron	2	16%
Marine Medium Helicopter Squadron	2	11%
Marine Heavy Helicopter Squadron	1	9%
Marine Air Control Group	1	25%
Marine Wing Communications Squadron	1	25%
Marine Tactical Air Control Squadron	1	25%
Marine Air Support Squadron	1	25%
Low Altitude Air Defense (LAAD) Battalion	1	25%
Light Antiaircraft Missile (LAAM) Battalion	1	25%
Marine Air Traffic Control Squadron	1	25%
Marine Air Control Squadron	1	14%
Marine Wing Support Group	1	25%
Headquarters and Headquarters Squadron	1	25%
Marine Wing Support Squadron	4	25%

Notes:
1. Percentages determined by counting like-type units.
2. Percentages determined by counting primary authorized aircraft.

Source: Marine Corps Reserve.
Data as of September 30, 1993.

Air National Guard and Air Force Reserve

Air National Guard and Air Force Reserve units are aligned with wartime gaining commands and train with them regularly. This facilitates integration into the Active force upon mobilization. In addition to flying and maintaining Reserve component aircraft, thousands of Air Force Reserve personnel fly and maintain Active component aircraft in the Air Force Reserve Associate Program.

The Air National Guard activated one Air Refueling Squadron during Fiscal Year 1993, resulting in the addition of 234 Selected Reservists, 50 AGR personnel, and 71 civilians. Unit inactivations resulted in the loss of two detachment-size units. Ten units were converted to another type of aircraft. In addition, four units had a reduction of assigned aircraft. Aircraft conversions in the fighter arena were as the result of two factors: equipment modernization (A-7 to F-16, etc.) and the assignment of new missions. The drawdown of the Active component influenced changes in missions and aircraft. Reduction in the overall fighter force resulted in an increase in airlift and tanker units. To meet the Air Force fighter wing equivalency, the number of aircraft assigned to some fighter units was reduced.

Air National Guard authorized end strength will decrease from 119,300 to 117,700 in Fiscal Year 1994. To meet the 20 fighter wing equivalency cap, reductions in the number of aircraft assigned to units will continue as fighters decrease from 18 PAA to 15 PAA. The Air National Guard performs 100 percent of CINCNORAD's Air Defense CONUS mission, however, the changing world situation has lessened this requirement. Two air defense units will convert to other missions and three units will discontinue their 24-hour alert responsibility. The Air National Guard will gain long range bombers for the first time. The 184th Fighter Group, McConnell Air Force Base, Kansas, will convert from the F-16 training mission to the B-1B near the end of Fiscal Year 1994, giving the Air National Guard aircraft in all major mission areas of Air Force operations.

Three Air National Guard units previously identified to support the NATO Airbase Satellite System were remissioned to a combat communications mission in support of initial communications requirements in Europe. Another unit, previously aligned with Europe was remissioned to the Pacific, providing an initial communications capability.

The Air Force Reserve is contributing to the Total Force in nearly every major mission area. In FY 1993, the Air Force Reserve began reducing the size of its units, mirroring Active component efforts to streamline their forces. The goal is to achieve smaller unit sizes which are uniform across the Active component, Air National Guard and Air Force Reserve. Unit activations were the 22nd Air Force at Dobbins Air Force Base, Georgia and the 317th AS activated at Charleston Air Force Base, South Carolina. Unit conversions affected force structure in A-10, F-16, C-130, and KC-135 squadrons. Units deactivated were one airlift group, one aeromedical evacuation squadron, three aerial port and two mobile aerial port squadrons, one security police squadron, and one civil engineering squadron.

It is anticipated that force structure reductions will have an impact on all air components. As Reserve component fighter units are reduced, unit conversions and inactivations will increase. Fiscal year 1994 begins the F-16 drawdown, with a conversion of one unit to KC-135Rs; an MH-60G unit converts to HH-60Gs; A-10s convert to OA-10s and B-52Hs; while one A-10 and one OA-10 unit inactivates. WC-130Es upgrade to H models while a AC-130A unit upgrades to H models. All conversions and deactivations are planned to maximize the effectiveness of the remaining force structure.

Contributions of the Air National Guard and Air Force Reserve to the Air Force are displayed in figure 3-4.

Figure 3-4
AIR NATIONAL GUARD AND AIR FORCE RESERVE CONTRIBUTIONS TO THE AIR FORCE

	Air National Guard Number Units	Air Force Reserve Number Units	Combined Percent of Total Air Force
Flying Units			
Aircraft[1]			
Weather Reconnaissance	0	10	100%
Aerial Spraying	0	8	100%
Strategic Interceptor Force	234	0	100%
Tactical Reconnaissance	72	0	100%
Tactical Airlift	174	96	61%
Air Rescue/Recovery	24	25	57%
Aerial Refueling/Strategic Tankers	172	50	45%
Tactical Air Support	30	18	40%
Tactical Fighters	728	219	37%
Strategic Airlift	27	60	25%
Special Operations	6	14	16%
Support Aircraft	54	0	15%
Aircrews[2]			
Aeromedical Evacuation	1,226	4,147	97%
Strategic Airlift (Associate)	0	4,657	50%
Tanker/Cargo (Associate)	0	1,381	43%
Aeromedical Airlift (Associate)	0	237	30%
Non-Flying Units			
Engineering Installation	19	0	78%
Aerial Port	23	68	75%
Combat Communications	47	0	71%
Aircraft Control & Warning	4	0	62%
Tactical Control	37	0	62%
Combat Logistics Support Squadrons	0	6	59%
Reconnaissance (Technical)	2	0	56%
Civil Engineering[3]	98	54	45%
Weather	34	0	41%
Strategic Airlift Maintenance (Associate)	0	34	40%
Security Police	89	42	25%
Medical[4]	92	91	22%
Communications Squadrons	0	34	6%
Electronic Security	1	2	2%

Notes:
1. Primary Authorized Aircraft count.
2. Authorized personnel.
3. Includes Red Horse Units.
4. Excludes aeromedical and evacuation personnel.

Sources: The Air National Guard and the Air Force Reserve.
Data as of September 30, 1993.

Coast Guard Reserve

Coast Guard Reserve units are primarily responsible for training individuals to augment Active component units and commands. The Coast Guard Reserve has three deployable port security units, which mobilize as units.

Several Coast Guard Reserve units were inactivated in Fiscal Year 1993. One unit in Spokane, Washington, was an inland unit that did not have adequate training opportunities. Six other units were merged. A review is underway to identify the optimum locations for the deployable Port Security Units. A Quality Action Team was recently chartered to examine and recommend improvements in the Coast Guard's policies for organizing the Selected Reserve and providing field-level Reserve component support and oversight. The results of this study are expected to be released shortly.

Planning criteria from the Department of Defense should be received in a timely manner to ensure the Coast Guard's planning process reflects current requirements. Coast Guard

Selected Reserve strength should be adequately funded to ensure that it will be capable of performing its assigned missions.

Contributions of the Coast Guard Reserve to the Coast Guard are displayed in Figure 3-5.

Figure 3-5
COAST GUARD RESERVE CONTRIBUTIONS TO THE COAST GUARD

Unit Type	Number Billets	Percent of Coast Guard[1]
Deployable Port Security Units	351	100%
Marine Safety Offices	2,556	43%
Operational Shore Facilities	1,327	39%
Command & Control	1,896	23%
Small Boat Stations	1,178	23%
Vessels	271	3%
Repair/Supply/Research	87	3%

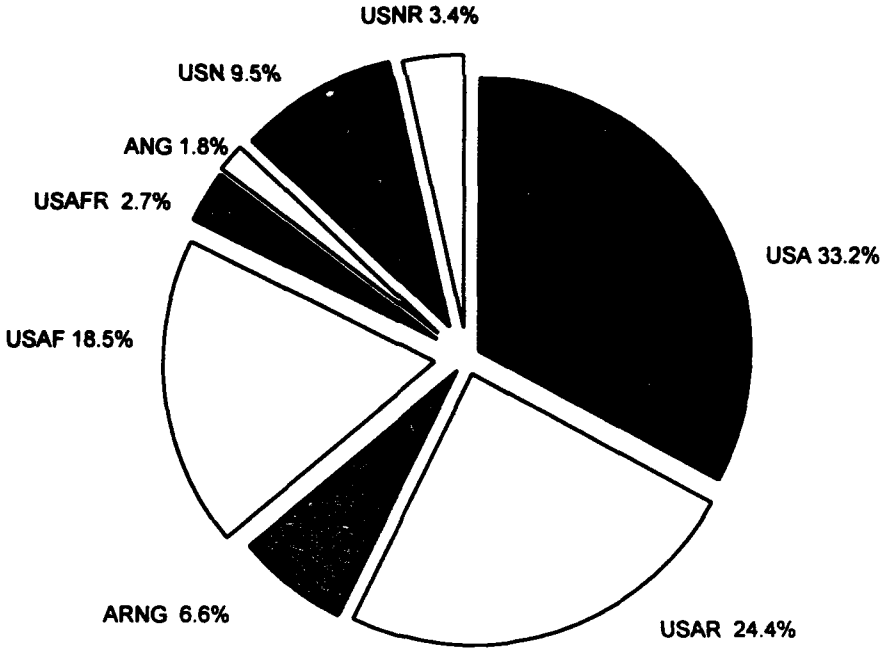
Note:
1. Percentages determined by counting mobilization billets.
Source: Coast Guard Reserve.
Data as of September 30, 1993.

Special Operations Forces

Special Operations Forces add to the theater commander's broad range of military options. They are capable of conducting integrated, joint, and combined operations in remote, urban, or rural environments during peace and war. Highly trained crews and modified aircraft provide the unique capability to support SOF missions at night and during adverse weather.

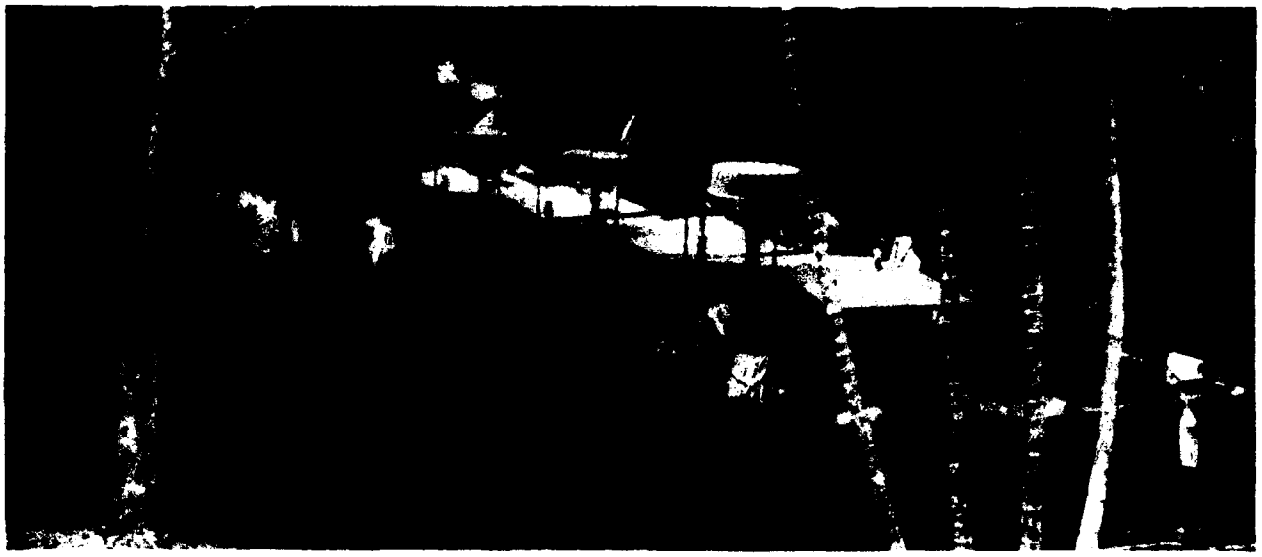
The Total Force has approximately 44,900 personnel dedicated to special operations, of which 17,420 are in the Reserve components. Reserve component contributions to special operations forces are shown in Figure 3-6.

Figure 3-6
RESERVE COMPONENT CONTRIBUTIONS TO SPECIAL OPERATIONS FORCES



Note: Numbers may not add to 100% due to rounding.

Source: Assistant Secretary of Defense for Special Operations/Low Intensity Conflict. Data as of September 30, 1993.



Reserve component special operations forces provide the Department of Defense with a significant capability. These units support world-wide operations and contingencies.

The Army National Guard contributes two special forces groups and one special operations aviation battalion to special operations.

The Army Reserve constitutes approximately 50 percent of the Army's special operations forces. The Army Reserve contributes two special forces groups, 37 psychological operation units, and 36 civil affairs units.

Naval Reserve units in the Special Operations program provide planning, staffing, equipment maintenance, and training support to their various Active component and joint commands. The Naval Special Operations program also includes two special boat squadrons and four special boat units.

The Marine Corps Reserve does not have units that are formally designated special operations units; however, two Marine Corps Reserve Civil Affairs groups are organized to augment and reinforce the Active component in the same manner as other Selected Reserve units.

The Air National Guard has one Special Operations Group, the 193rd Special Operations Group. In addition to planned contingency tasking, the unit routinely provides volunteers to support Air Force requirements for peacetime tasking. It flew Senior Hunter missions from Kadena AB on a voluntary basis by rotating unit personnel for 21-day deployments. The remote location of the areas of sensitivity from Kadena AB required extensive air refueling to accomplish the mission with satisfactory station times and proved the necessity of air refueling capability of Senior Hunter aircraft in a world with shrinking forward operating bases. In addition to planned contingency taskings, the Air National Guard routinely provides volunteers to support Air Force special operations requirements.

The Air Force Reserve has one special operations wing which includes a AC-130A gunship squadron and a special operations helicopter squadron. Air Force Reserve special operations forces are often called for priority search and rescue missions, as well as counterdrug support to law enforcement agencies. AC-130A gunships and MH-60 helicopters of the Air Force Reserve's 919th Special Operations Wing routinely deploy to support Air Force taskings.

The Coast Guard Reserve does not have special operations units.

Civil affairs units and personnel perform many essential functions prior to, during, and subsequent to military operations. They assist

foreign governments with various governmental, public facilities, and economic functions as well as management of displaced persons and refugees. Civil affairs personnel acquire their functional expertise from their civilian education, professions, careers, and organizations, as well as military training. Civil affairs units are currently found only in the Army and Marine Corps.

Psychological operations are a vital part of the broad range of U.S. political, military, economic, and informational activities. The purpose of psychological operations is to induce or reinforce attitudes and behavior that support the Theater CINC's overall PSYOP campaign plan. Members of PSYOP units are trained in specific regional areas and languages.

The Board recommends that appropriate analysis, with total involvement of all components, and attention to the lessons learned from recent wartime and domestic operations, be accomplished before approving reductions in Reserve component special operations forces to ensure full consideration of Reserve component cost effectiveness and maintenance of sufficient force capability.

The Board recommends that the Navy and Air Force consider identifying members of their Reserve components who, by reason of civilian education and professional experience, could be of potential value in civil affairs operations.

The Board recommends that as budget constraints and consideration of reduced threats cause the Services to make reductions in the Active forces, there be a thorough analysis of the feasibility and cost effectiveness of transferring those capabilities to the Reserve components.

Summary

Greater dependence is being placed on the Reserve components. Most warfighting contingency plans and peacetime operations include the Reserve components. The recent use of Presidential call-up authority in support of wartime operations, and the subsequent employment of Reserve component personnel in numerous humanitarian, peacekeeping and domestic crises clearly demonstrates that the Reserve components have and must maintain the capability to serve where required anywhere in the world.

Roles, Missions, and Functions 4

"As the pace and duration of contingency operations increase, the nation must be prepared to go to the National Guard and Reserve. We simply do not have the numbers or the skills in the Active component to do it all."

General Gordon R. Sullivan, USA
Chief of Staff, United States Army

General

To ensure that our Armed Forces are properly structured to meet future challenges, the roles, missions, and functions among the Services and combatant commands must be continuously reviewed. These terms are described in the Bottom-Up Review as follows:

Roles:

The broad and enduring purposes for which the military services were established by the Congress;

Missions:

The tasks assigned by the President or Secretary of Defense to the combatant commanders; and

Functions:

The specific responsibilities assigned by the President or the Secretary of Defense to enable the Services to fulfill their legally established roles.

Reserve Component Roles

Army National Guard

The Army National Guard has Federal, state and community functions. It is directly accessible to the National Command Authority and is responsive to state governors as well.

- Its Federal function is to support U.S. national security objectives;
- Its State function is to protect life and property, and to preserve peace, order and public safety;
- Its Community function is to participate in local, State and national programs that add value to America.

The Army National Guard is changing its focus from reinforcing a forward-deployed Army during global conflict to a force that is prepared for the complete operational spectrum. This spectrum ranges from short-warning contingency operations and domestic emergencies to protracted conflicts.

The Army National Guard has developed the Project STANDARD BEARER initiative to enhance the readiness and mission capability of early deploying units through prioritizing resources. The deployability rate for these units is currently 97 percent, and mission capability continues to increase.

Accessibility of these high-priority units has been enhanced by the Operational Unit Program, which provides the 55 earliest-deploying Army National Guard units in the Contingency Force Pool (CFP) for deployment within seven days of alert in a volunteer Federal status. The Operational Unit Program is not contingent upon Title 10 USC 673b Presidential Call-up Authority.

Army Reserve

The Army Reserve is a Federal force whose function is to provide trained units and qualified individuals for active duty in time of war or national emergency and at such other times as the national security requires.

The Army Reserve has extensive civil affairs, engineer, medical, training, and transportation assets that are well suited for domestic and humanitarian missions. The Army Reserve's capability in its primary support function is enhanced by the civilian experience and unique skills of its soldiers.

Army Reserve soldiers serve in a number of capacities:

- **Troop Program Units (TPU)**: Troop program units comprise the majority of the Army's

combat service support capability. In some areas, as much as 100 percent of the Army's support capabilities are found in the Army Reserve. The Army Reserve also provides over 70 percent of the medical assets of the Army. Currently, there are over 400 Army Reserve units in the Contingency Force Pool. With further equipment modernization, the capability of the Army Reserve will be enhanced across the full spectrum of wartime and peacetime operations.

- **Individual Mobilization Augmentees (IMA)**: IMAs are assigned to Active component commands and certain Federal agencies. Upon mobilization, they are integrated into their assigned organization or agency.

- **Individual Ready Reserve (IRR)**: The IRR provides a pool of skilled and experienced soldiers as individual replacements.

- **Retired Reserve**: Although retired, these soldiers possess vast combat and unit experience. During Operations DESERT SHIELD/STORM, many retirees were called to active duty to fill critical skill shortages.

Naval Reserve

The function of the Naval Reserve is to provide trained and qualified personnel and units to provide swift augmentation to the Navy. The Naval Reserve is composed of personnel in the Selected Reserve, the Individual Ready Reserve, and the Retired Reserve. The Selected Reserve is the primary source of units and personnel for immediate expansion of the Navy.

The Naval Reserve is an integral part of the Navy's total capability across the full spectrum of conflict and is available for crisis response and contributory support. Naval Reserve training missions are designed to provide support to Active component commands and to maintain the readiness of Naval Reserve personnel.

The Selected Reserve is organized into two types of units: Commissioned units are complete operational entities, comprising 32 percent of the Selected Reserve; the remaining 68 percent of the Selected Reserve includes 2,951 augmentation units to support bases, ships, and staffs. These units provide personnel for virtually every type of Navy organization.

The Naval Reserve has significantly increased its involvement in joint operations, environmental and disaster preparedness support, drug interdiction, and drug demand reduction programs.

Marine Corps Reserve

The Marine Corps Reserve's function is to provide trained and qualified units and individuals for active duty in time of war, national emergency, and at such times as national security may require. Members of the Marine Corps Reserve augment and reinforce Active component units. The Marine Corps Reserve structure "mirrors" that of the Active component and its units are totally interoperable.

The Marine Corps Reserve augments, reinforces, or conducts major exercises; supports training events like combined arms

exercises; provides augmentation units to support logistics requirements at bases and stations; and augments maintenance cycles for the Maritime Propositioned Force.

The Navy-Marine Corps team provides Marine Expeditionary Forces, shaped for joint operations, operating forward from the sea, and tailored for the full spectrum of military operations from crisis response to full mobilization.

The Marine Corps Reserve maintains flexibility and a high state of readiness to perform combat and multiple contingency operations and provides peacetime support to the Active component.

Air National Guard

The Air National Guard was established as the National Guard component of the Air Force in 1947. Like its Army counterpart, the Air National Guard has a Federal, state and community function.

The Air National Guard is organized like the Active component, meets the same inspection standards, and is fully integrated into Air Force missions worldwide. The post-Cold War environment of regional conflicts of varying size in unspecified areas requires the Air National Guard to be sized with the right capabilities to meet the specific needs of the Air Force.

Access to the Air National Guard in the early stages of a contingency is primarily through the use of volunteers. Although this has been successful, improved call-up authority is needed. Following the initial response, continued access to the Air National Guard is essential to meet mission requirements.

In addition to its mobilization role, the Air National Guard is prepared to further expand its involvement in humanitarian efforts, such as peacekeeping, disaster relief, counterdrug efforts and drug demand reduction, and assistance to medically underserved communities.

Air Force Reserve

The function of the Air Force Reserve is to provide trained and qualified units and individuals for active duty in time of war, national emergency, and at such times as national security may require. To that end, Air Force Reserve units are organized the same as Active component units, trained and equipped to the same standards, and inspected using identical criteria. As a result, when units of the Air Force Reserve report in support of ongoing contingencies, military operations, or overall Air Force taskings, Reserve and Active duty crews and equipment are virtually indistinguishable. The Air Force Reserve plays an integral day in day-to-day Air Force missions, extending the Active component's capability to meet peacetime operations such as humanitarian assistance, peacekeeping, and disaster response, as well as providing additional units and personnel in traditional warfighting roles and for routine military operations.

Several Active component operational functions have been transferred to the Air Force Reserve, or are being considered for transfer, causing a re-prioritization of Reserve assets. There is also an expansion of Reserve participation in nontraditional operations (humanitarian, peacekeeping, and disaster relief) and a concurrent goal to increase participation in joint exercises.

Coast Guard Reserve

The function of the Coast Guard Reserve is to provide trained individuals to augment the Active component, providing a surge capability for both domestic emergencies and maritime operations. The Coast Guard may become part of the Department of the Navy upon mobilization.

The multi-mission roles of the Coast Guard Reserve include search and rescue, combating major oil spills, drug interdiction, protecting ports and waterways, and conducting numerous other maritime operations.

The Secretary of Transportation has authority under Title 14, USC, to involuntarily call members of the Coast Guard Reserve to active duty to support surge requirements. The Coast Guard Reserve provides a flexible and cost-effective response capability.

Special Operations Forces

Special operations forces bring unique and important operational capabilities to the Total Force in both peacetime and conflict. Special operations forces are found in the Reserve components of the Army, Navy, Marine Corps, and the Air Force.

Title 10 USC 167 provides that "unless otherwise directed by the Secretary of Defense, all Active and Reserve component special operations forces of the Armed Forces stationed in the United States shall be assigned to the Special Operations Command (USSOCOM)." The principal function of the Special Operations Command is to prepare special operations forces to carry out assigned missions.

Special operations activities include direct action, strategic reconnaissance, unconventional warfare, foreign internal defense, civil affairs, psychological operations, counterterrorism, humanitarian assistance, theater search and rescue, and such other activities as may be specified by the President or the Secretary of Defense.

New Reserve Component Operations

Peacekeeping, peace enforcement, humanitarian assistance, and disaster relief operations place new demands on the Armed Forces and require some redefinition of missions and functions, with an attendant impact on resource allocation. Of these potential missions, peacekeeping and peace enforcement operations will be the most demanding. Peacekeeping operations typically require heavier concentrations of combat support and combat service support forces than combat operations. Emphasis is placed on medical, engineering,

transportation, civil affairs, and command and control capabilities.

The mix of Active and Reserve component forces may need to be reviewed in light of changes in the strategic environment.

All Reserve components report funding difficulties when responding to new taskings with short lead-times, coupled with programming and funding restrictions. Added taskings typically require a reprioritization of funding, displacing other requirements.

Functions and taskings transferred, or newly added to, the Reserve components in Fiscal Year 1993 include:

- The Joint Military-to-Military Program (JMMP) was initiated in 1993. The National Guard has affiliations with three countries, with plans for 11 additional countries in 1994. The Army Reserve has linguists and other team members in nine countries, with increased participation planned for the future.

- The Youth Opportunity Program was initiated by the National Guard in Fiscal Year 1993. The program's goal is to "add value" to America by providing role models and programs to help inner city disadvantaged youth.

- Operation GUARDCARE was initiated by the National Guard to provide medical care to medically underserved areas.

- The Army National Guard and Army Reserve increased sustainment support of Active component missions in Southwest Asia, prepositioned equipment and supply maintenance, provided long haul transportation, participated in Operation RETROEUR (Removal of Equipment from U.S. Army Europe), and increased overseas deployment training in support of theater missions.

- The Naval Reserve now has two C-130T squadrons to perform worldwide high priority, short lead time, and organic heavy airlift logistic support. With the decommissioning of the last two organic Active component Navy airlift squadrons, Naval Reserve airlift units have increased operations in the Mediterranean and Pacific theaters.

- The Naval Reserve expanded its support for USSPACECOM, provided logistic support to the fleet CINCs, and utilized medical personnel to support SOUTHCOM humanitarian and counterdrug operations.

- The drawdown of Active component forces has provided the Air National Guard with modern aircraft as illustrated by the phaseout of A-7s and older versions of the C-130. Night interdiction capability for the Air Force Reserve and the Air National Guard was implemented in Fiscal Year 1993. One F-16C unit is now equipped with LANTIRN and will achieve initial operational capability in 1994.

- Air National Guard participation in the B-1 Bomber mission was initiated in Fiscal Year 1993.

- The Air Force Reserve established the 7th Space Operations Squadron, dedicated to satellite control, at Falcon AFB in January 1993. This represents the first Selected Reserve unit of any Service engaged in the space mission area.

- The Air Force Reserve established the first Reserve component strategic bomber unit at Barksdale AFB, receiving its initial B-52H in December 1993. This constitutes entry of the Air Force Reserve, and more broadly, the Air Reserve Components into the bomber mission area.

The Bottom-Up Review determined that it is necessary to maintain multiservice capabilities and validated the need for a balanced force that is responsive to a broad array of possible contingencies. To optimize these capabilities, the Active components need to have an increased understanding of Reserve component funding restrictions, and greater flexibility are needed to transfer funds between accounts.

The Board believes that the flexibility of complementary, multiservice Reserve component capabilities is an important asset.

Contingency Forces

Under the proposed defense strategy and force structure, expeditionary ground force capabilities appear sufficient for any single contingency. However, if the Total Force is required to support more than one contingency at a time, extraordinary demands would be placed on certain elements of the force, such as Army airborne and air assault forces, Marine expeditionary forces, and some special operations forces.

Contingency Operations/Operational Missions

Army National Guard participation in joint and combined exercise training included humanitarian and security assistance to the Republic of Maldives, consisting of minor construction of facilities and training host nation security forces; teaching the Bangladesh Army to perform disaster relief operations; teaching the Thai Army advanced infantry skills; and working on training deployments with the Australian Army. Additional exercises were held in Japan and Korea.

During Operation RESTORE HOPE (Somalia), 49 Army Reserve volunteers from several units were voluntarily ordered to active duty to perform general postal support for a six-month period. These personnel staffed the newly-formed 711th AG Company, a provisional Active component postal unit with Army Reserve equipment. Seventy-four other unit personnel, 86 IMAs, and 22 members of the IRR were voluntarily ordered to active duty in support of the Somalia operation during Fiscal Year 1993. In addition, members of the Army Reserve's 4th Civil Affairs Group served as interpreters in Honduras.

The Naval Reserve provided over 60,000 days of contributory support while performing numerous operational missions and participating in over 125 exercises in support of CINC requirements. For example, Reserve crews flew numerous surveillance flights off the coast of Yugoslavia in support of the UN embargo operations. Reserve VR crews operated a continuous C-9B/C-130T detachment in the Mediterranean and a C-9B detachment in the Pacific to provide critical logistical support for sensitive operations. Additionally, HCS detachments aboard the USS Theodore Roosevelt provided Combat Search and Rescue support for the Carrier Battle Group thorough out its Mediterranean deployment.

The Air National Guard utilized most of its C-130 tactical airlift units, all of its strategic airlift units, several of its KC-135 units, its F-4G Wild Weasel unit, its EC-130 Special Operations unit, and all of its Air Defense units in operational missions during Fiscal Year 1993. Airlift support was provided for Operations PROVIDE PROMISE (Bosnia), PROVIDE RELIEF AND RESTORE HOPE (Somalia). Additionally, Air National Guard aircraft and crews flew operations in and around the Persian Gulf.

Coronet Nighthawk operations supported U.S. Southern Command counterdrug operations in the form of six air defense fighter aircraft, crews and support equipment and personnel throughout the year. SOUTHERN SPIRIT is an operational rotation opportunity, in conjunction with Operation PHOENIX OAK, for aeromedical evacuation units to gain both clinical and aeromedical evacuation training opportunities in Panama. There are 26 two-week rotations involving 13 Air National Guard units and 13 Air Force Reserve units.

The Air National Guard's air defense fighter force continues to provide air sovereignty coverage for the continental U.S. through operations of aircraft and personnel at 14 alert sites throughout the country.

Air National Guard combat communications units continued to support Operations DESERT WATCH and DESERT CALM communications requirements in Southwest Asia. Counterdrug operations were supported with satellite communications from three units on a rotating basis, accompanied by operations and maintenance personnel. Over 150 personnel participated in TEAM SPIRIT 93. Air traffic control personnel assisted with flood relief efforts. 125 Air National Guard personnel supported Active component flying forces in a joint coalition exercise in the Middle East and in Europe.

At any given time, 365 days a year, Air Force Reserve airlift and tanker assets are supporting Air Mobility Command operational requirements, providing over 25 percent of the Air Force's annual airlift workload. In Somalia, Air Force Reserve crews flew 934 missions in support of Operations PROVIDE RELIEF and RESTORE HOPE. Reserve units have flown over 475 airdrop and airland C-130 missions into Sarajevo and Bosnia-Herzegovina carrying emergency relief supplies. Both of these missions are continuing into 1994.

Although all Reservists have been demobilized following Operations DESERT SHIELD/STORM, Air Force Reservists are still present in the Persian Gulf supporting Operation SOUTHERN WATCH. Tactical airlift and combat search and rescue units rotated through the theater, flying 82 and 68 missions respectively. In Operation PROVIDE COMFORT II, Reserve F-16's flew from Turkey on air sovereignty and close air support operations over northern Iraq and Kurdish refugees.

Naval Reserve Combat Strike Rescue helicopter squadrons, HCS-4, deployed with an Active component helicopter unit aboard the USS Theodore Roosevelt to provide additional combat search and rescue capability.

The Coast Guard Reserve averaged approximately 154,300 hours of inactive duty training per month in support of operational missions. Its augmentation support includes the Vessel Traffic Services Program, the Coast Guard Intelligence Coordination Center, and major command staffs. Coast Guard Reservists routinely augment Active component units for significant maritime events such as: Space Shuttle launches in Florida, SEAFAIR in Washington State, OPSAIL 93 in New York, the America's Cup in California, and Operation SUMMER STOCK, which operates Coast Guard stations on the Great Lakes during summer boating surges.

Theater Operations

Overseas Presence

Over the last six years the Army National Guard has deployed between 19,000 and 28,000 soldiers each year via the Overseas Deployment Training (ODT) program. Approximately 26,000 soldiers took part in ODT in Fiscal Year 1993. These soldiers trained worldwide in over 40 different countries. The training focused on mission training and exercise participation.

Direct support of military operations in theater was provided by the Army National Guard in the form of public affairs, maintenance, and military police (MP). The Army National Guard deployed MP platoons to Panama and to Soto Cano, Honduras to augment existing forces. Over 800 soldiers deployed to Panama to attend the Jungle Operations Training Center (JOTC). Additionally, 1,300 infantry and 450 field artillery soldiers conducted deployments for training to work with the Honduran Army.

The Army National Guard and Army Reserve became involved in the Joint Military-to-Military Program in June 1993. The program's charter is to provide Eastern European countries non-lethal military training. Using the Reserve component as a role model of a military force which is subject to civil authority, Army National Guard and Army Reserve personnel demonstrate their capability to respond to peacetime emergencies and role in providing for a strong national defense.

In the European Command theater, over 3,900 Reserve component soldiers supported the retrograde of equipment from U.S. Army Europe (RETROEUR) program. Another 2,000 soldiers supported the establishment and maintenance of Theater Reserve Unit Sets, Army Readiness Package South facilities in Italy.

Army Reserve Special Operations Forces participated in Army and JCS-directed exercises, as well as operational missions. 2,391 Army Reserve Special Operations Forces soldiers were trained under the Overseas Deployment Training program. Special Operations Forces from civil affairs and psychological operation units conducted numerous worldwide operations under the Military-to-Military Program. Army Reserve presence in Korea consists of three Rear Tactical Operations Centers for a total of 93 spaces. Army Reserve presence in Europe consists of CS/CSS structure including 7th U.S. Army Reserve Command and subordinate units (878 spaces).

Forward Presence Naval Forces During Peacetime

United States commitments and responsibilities world-wide require an overseas presence. These presence forces, both forward deployed and forward based, are used to deter aggression, enhance regional stability, protect and promote U.S. interests, improve interoperability with allies, and provide timely initial crisis response.

Forward presence long has been the hallmark of naval forces and, as overseas bases are closed, these forces inevitably will shoulder an increasing portion of national forward presence requirements.

The Naval Air Reserve provides fleet logistics support and maintains a continuous forward presence in the Mediterranean theater with two C-9 and one C-130 aircraft. A minimum of one C-9/C-130 aircraft is continuously detached to support fleet requirements in the Western Pacific theater. In addition to fleet logistics support, the Naval Reserve provided relief flights for the ongoing international humanitarian efforts in Bosnia and Croatia.

Naval Reserve Maritime Patrol (P-3) squadrons routinely deploy to forward sites providing direct support to fleet commanders. Reserve helicopter squadrons deployed aboard FFG-7 class frigates assisted in drug interdiction operations. Helicopter squadron HCS-4 deployed HH-60H strike rescue helicopters for carrier support in the Mediterranean.

Naval Reserve Force provided the equivalent of 60,000 days of support to Active component forward presence missions. Much of this support was directly related to fleet exercises and ongoing operational requirements. Examples of such missions include Operation DEEP FREEZE (Antarctica), cargo handling; and a continuous Reserve presence in Bahrain and the United Arab Emirates.

Air Reserve Component Theater Air Operations

Air National Guard and Air Force Reserve flying and ground support units are actively providing support to CINCs through air component theater commanders. Air National Guard and Air Force Reserve strategic airlift and air refueling aircraft support TRANSCOM's operations on a daily basis. Through USAFE, C-130 intra-theater airlift benefits CINCEUR, not only assisting with Bosnian humanitarian airlift operations, but through normal military support within the European theater. The Reserve-only CORONET OAK operation at Howard AFB, Panama has supported

USSOUTHCOM with C-130 intra-theater airlift for the last 15 years. Additionally, Air Reserve component ground support units, including security police, civil engineers, aerial port, medical, and air base support personnel may be found assisting in all the overseas theaters on a nearly continuous basis.

Within the CONUS, supporting USACOM and NORAD, the Air National Guard assumes full responsibility for the U.S. portion of North American air defense and the maintenance of U.S. territorial air sovereignty.

Air Reserve component forces are also assisting the regional CINCs. Fighter and combat search and rescue were provided to CINCCENT, and Air National Guard and Air Force Reserve fighters are supporting Operation DENY FLIGHT in Bosnia. CINCPAC receives support in the form of exercise participation in Alaska and the Far East, and particularly from Air National Guard air refueling forces in and around the Pacific.

Congress directed the Secretary of Defense to undertake a study of operational support airlift aircraft and administrative transport airlift aircraft operated by the National Guard and the Reserve. These aircraft are used to meet wartime missions for the movement of personnel and cargo required to support the war fighting CINCs. During peacetime the Services employ these aircraft to provide essential training, transitional pilot training, and transport supplies and materiel to meet the logistical needs of the Military departments.

The study made the following recommendations:

- Airlift aircraft should be called Service Support Airlift (SSA) aircraft and the term OSA should be used to define missions as well as types of aircraft.

- The Services should determine their SSA aircraft wartime requirements based on force structure defined by the Bottom-Up Review.

Results should be included in the Program Objective Memoranda for Fiscal Year 1996.

- DoD should consider increased use of the Reserve components for SSA missions and determine the proper mix of Active and Reserve component forces.

- DoD should limit the number of types of SSA aircraft as the fleet is modernized, emphasizing capabilities that are interchangeable, and those that have low maintenance costs.

The Bottom-Up Review assessment of theater air operations drew heavily on Joint Staff analyses exploring the contributions of the Air Reserve components under a variety of scenarios and circumstances. In addition, some independent modeling examined the capabilities of modern munitions against large armored forces.

Supporting Democracy

The Department of Defense continued its efforts to support democracy in Central and Eastern Europe and the Nations of the former Soviet Union. The Army National Guard and Army Reserve provided members for Military Liaison or Facilitating Teams in the following countries: Albania, Belarus, Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, and Ukraine. Liaison Teams work with the United States Ambassador, Minister of Defense, and General Staff of the host country to identify the nation's needs and to develop a workplan for U.S. assistance. Facilitating Teams are used for countries where there is not a formal agreement. They arrange for appropriate traveling contact teams. The Belarussian Facilitating Team is headed by a U.S. Army Reserve officer.

Members of the Reserve components have many skills that are useful to foreign nation Military-to-Military programs. The value of the Reserve components cannot be overestimated, because they consist of a large pool of highly-trained and experienced individuals available for many types of missions. For example, the Army National Guard and Army Reserve are the principal providers of certain combat support and combat service support expertise, such as medical, civil affairs, engineering, maintenance and transportation often gained from their civilian job experiences, all specialties of value in the Military-to-Military program. Additionally, many Reserve component members are fluent in host nation languages.

Army National Guard and Army Reserve soldiers served in such other areas as linguistic support, training, music, refugee operations and force modernization. Given adequate resources, the Reserve components can expand these activities to other countries.

The Naval Reserve is also becoming involved in Military-to-Military programs with several Eastern European nations. The scope of the assistance remains to be determined, but will include training opportunities for Naval Reservists during annual training and active duty training periods.

Air Force Reserve units have had limited involvement in activities associated with demilitarization of the former Soviet Union. However, as Military-to-Military confidence building measures with Eastern European countries increase, Air Force Reserve representatives will be included on the teams.

Reserve Component Participation in New Mission Areas

Peacekeeping

Peacekeeping is non-combat military operations (exclusive of self-defense), that are undertaken by outside forces with the consent of all major belligerent parties, designed to monitor and facilitate implementation of an existing truce agreement is support of diplomatic efforts to reach a political settlement to the dispute.

Reserve component involvement in peacekeeping operations increased significantly during Fiscal Year 1993.

Army National Guard and Army Reserve

Army National Guard soldiers are forward deployed in Southwest Asia in support of post-operations activities and in Cambodia under the auspices of the United Nations.

In addition, the Army has developed the Multinational Force and Observers Pilot Sinai Initiative. Beginning in 1994, Army National Guard and Army Reserve soldiers will be eligible to volunteer for an extended active duty tour with an Active component Infantry battalion task force and deploy to the Sinai Peninsula. The force will be formed during the summer, trained during the fall, and deployed to the Sinai in January 1995. Army National Guard soldiers will comprise 75 percent of the battalion, including almost 47 percent of the leadership positions. The Army Reserve has been assigned approximately 40 positions. Volunteers will serve on active duty for 11 months, and serve six months in the Sinai.

Naval Reserve

The Naval Reserve provided increased C-9 and C-130T airlift support to the fleet in several troubled regions around the world, including the relief effort in Somalia, Bosnia, and operations in the Western Pacific. Maritime Patrol wings have provided increased support in the Mediterranean.

The Naval Reserve was involved in the major international peacekeeping operations in Somalia and countries in the former Republic of Yugoslavia. Support to Somalia's Operation RESTORE HOPE included harbor pilots, Military Sealift personnel, and construction battalions. Other Naval Reservists were used to augment fleet peacekeeping activities.

Marine Corps Reserve

Although the Marine Corps Reserve was not significantly involved in international peacekeeping activities, 112 Reserve volunteers supported the U.S.-led relief effort in Somalia. Of these 112 Reservists, 20 were deployed to Somalia, and 92 remained in the U.S. to fill billets vacated by deployed Active component Marines and staff vacant headquarters positions.

Air National Guard and Air Force Reserve

Air National Guard and Air Force Reserve involvement in peacekeeping activities included enforcement of the no-fly zone over Iraq and airlift units to transport personnel and supplies to U.S. forces in the Somalia, Bosnia, and Iraq theaters of operation.

Peace Enforcement

Peace enforcement is described in the Bottom-Up Review as operations that encourage hostile parties to reach a peace agreement, usually conducted in a multinational context such as under auspices of the United Nations.

Plans for increased Reserve component participation in peace enforcement operations are considered an important part of our Nation's defense strategy.

Humanitarian Assistance and Disaster/Famine Relief

Humanitarian assistance and Disaster/Famine Relief Operations are described in the Bottom-Up Review as "operations directed at alleviating human suffering and meeting the basic needs of victims of social dislocation, economic strife, political conflict, or natural disaster".

Humanitarian Assistance

The Army National Guard deployed nearly 7,500 citizen soldiers in support of overseas humanitarian operations/host nation support missions. This included the construction of over 37 kilometers of road; 54 schools, 7 medical clinics, 12 bridges; 360 culverts; and 36 wells. Nearly 700 medical personnel were deployed to SOUTHCOM, USACOM, and PACOM to provide basic medical and dental care to the local population. Some major accomplishments include FUERTES CAMINOS, a joint exercise in Panama (4,000 soldiers); CAMINOS DE LA PAZ, a joint exercise in Costa Rica (500 soldiers); and an engineer mission in Jamaica (229 soldiers).

A humanitarian medical mission composed of physicians, nurses, and technicians from the California National Guard arrived in Kiev in September 1993. They vaccinated children, provided pediatric dental care, provided optometry care as well as general medical care at the Kiev Military Hospital and District hospitals in Kozelets and Mironivka. They treated civilians, veterans, and military soldiers and their dependents.

Army National Guard special operations forces conducted numerous humanitarian/civic action, security assistance and foreign internal defense missions in three theaters.

Within the framework of the Military-to-Military Program in Central and Eastern Europe and the former Soviet Union, the Army Reserve has been active in humanitarian assistance and host nation support. Some examples include: radiological medical emergency planning in Lithuania; refugee operations in Hungary; medical and civil affairs assistance in the Ukraine; military band organization and training; engineer assistance in disaster relief planning; Reserve personnel management and training in Romania; planning for training and exercising a corps staff in Poland; and force modernization and the organization of Reserve forces in Hungary. The Army Reserve also provided

humanitarian assistance to support Operation RESTORE HOPE in Somalia.

The Air National Guard provided a total of seven aircraft and 42 crew members for Operation PROVIDE RELIEF in Somalia. C-5 and C-141 aircraft and crews in a strategic airlift flow; four Air National Guard medical units and a total of 13 medical personnel were deployed in support of Operation RESTORE HOPE. A total of 342 Air National Guard personnel (14 units) served on station in Spain for the first quarter of 1993. The Air National Guard provided security police units for RESTORE HOPE. The Air National Guard deployed six medical units and a total of 30 medical personnel to Honduras. Medical readiness exercises in local villages provide health care and immunizations to Hondurans.

The Air National Guard provided ten C-130's and 16 aircrews from July 1992 to January 1993 in support operations. Thirty KC-135s and 47 aircrews provided a Tanker Task Force in Moron, Spain, providing tanker support to the strategic air-bridge into Somalia. One C-141 and six aircrews plus one C-5 aircrew also provided support for the strategic airlift. The Air National Guard has had at least one aircraft and crew supporting PROVIDE PROMISE since July 1992. Three Air Defensive capable aircraft and six crews are being provided. Since February 1993, the Air National Guard has provided ten aircraft and 20 aircrews in support of Operation PROVIDE PROMISE. The Air National Guard was reimbursed $15.4 million during Fiscal Year 1993 for costs incurred in support of humanitarian assistance missions.

The Air Force Reserve participated in Operations PROVIDE PROMISE and PROVIDE RELIEF/RESTORE HOPE as well as exercises in SOUTHCOM. It supported humanitarian assistance by providing airlift under the operational control of the Air Mobility Command as was the case in operations in Latin America. In some cases, the sponsoring CINC may direct air operations, as in Bosnia and Somalia. Air Force Reserve participation was funded by the Air Force.

Operating from Rhein Main AB, Germany, the Air Force Reserve flew 1,094 sorties (6,881 flying hours), transporting 22,863 passengers and 27,931 tons of cargo. They also flew a total of 934 missions (6,596 flying hours), transporting 22,622 passengers and 26,429 tons of cargo from Kenya in support of Operations PROVIDE RELIEF and RESTORE HOPE. Seventeen missions carried humanitarian cargo and supplies into Central and South America. Many PHOENIX OAK (C-130 theater support) missions in Central and South America carried humanitarian items. Additionally, the Air Force Reserve conducted 16 medical deployments with 268 personnel to SOUTHCOM, including four rotations to Ecuador on humanitarian civic action projects. Medical deployments frequently included engineering and base services personnel for fighter squadrons.

Navy Reserve C-130T aircraft in the Mediterranean theater flew numerous supply relief flights to Bosnia and Croatia. Costs for these special missions totaled $57,300. The Fiscal Year 1993 Defense Authorization Act provided specific funding for Naval Reserve transportation costs associated with humanitarian assistance worldwide.

The Naval Reserve conducted overseas humanitarian operations/host nation support missions in five different countries: Drilled water wells and provided medical assistance to several small towns in conjunction with SOUTHCOM exercises in: Panama; drilled water wells in Belize; assisted Active component forces in country with Operation PROVIDE HOPE; in Somalia; assisted the United Nations High Commissioner on humanitarian support plans to Bosnia; and provided construction support for a Haitian refugee camp in Cuba.

The Marine Corps Reserve provided transportation support for humanitarian assistance by transporting donated medical supplies, clothing, food and clean-up supplies into disaster relief areas.

An element of the 4th Marine Air Wing conducted a medical evacuation rescue 490 nautical miles east of Bermuda for a crew member of a Spanish merchant ship.

Disaster/Famine Relief

Disaster/Famine Relief operations are described in the Bottom-Up Review as "domestic or international relief efforts directed at a specific catastrophic event, such as floods, earthquakes or hurricanes. Efforts are directed toward providing medical supplies, clothing, food, and shelter, heavy equipment, and vehicles."

The Florida National Guard provided an essential link between the State government and Joint Task Force Andrew disaster relief missions. As Federal assistance arrived, many relief functions were transferred, allowing the Florida National Guard to focus its efforts in support of law enforcement operations. Operation ANDREW concluded in November 1992 with Guardsmen providing over 243,000 workdays. The total cost of Florida National Guard participation in Operation ANDREW exceeded $28 million.

Seventeen Air National Guard units, under control of the overall operational commander, assisted with relief efforts for Hurricane Andrew. Operations began within hours after the hurricane hit and continued through September 1993. Relief efforts for Hurricane Iniki began eight to ten hours prior to landfall in the Hawaiian Island chain. Six C-130 aircraft and crews departed from California with communications equipment and personnel from the 162 Combat Communications Group, California Air National Guard. A C-130 from the Hawaii Air National Guard was the first aircraft to land on the island of Kauai. Over 4,500 workdays were expended during this two-month operation.

For the first three weeks of the emergency response phase of Operation Iniki, more than 5,500 members of the Hawaii National Guard were directly or indirectly involved in various efforts to serve and assist the County of Kauai. National Guard personnel from California, Alabama, Washington, Oregon, Oklahoma, Alaska, Texas, and West Virginia also provided assistance. National Guard aircraft transported more than 9,500 passengers and 3,400 tons of cargo during the period September-November 1992.

In Fiscal Year 1993, 47 states and territories reported 326 emergency response missions. Over 34,000 men and women in the Army and Air National Guard participated in these missions, providing over 460,000 workdays, exceeding the prior fiscal year by almost *100,000*.

At its operational peak, the total number of National Guard troops involved in the Midwest flood crisis reached well over 10,000 Army and Air National Guard personnel. Missions performed included sandbagging, levee patrolling, evacuation of citizens, security of evacuated areas, traffic control, pumping operations, preparation and serving of meals, hauling, purifying and distributing drinking water, providing public showers, and staffed emergency centers. National Guard efforts were crucial to water being restored, businesses being reopened, and citizens getting their lives back in normal order.

Other mission support in Fiscal Year 1993 by the National Guard included providing emergency power and communications, potable water, search and rescue, medical evacuation, damage assessment, levee and dike repair, road clearance, debris removal, security and patrolling of devastated areas, emergency

shelter, fire fighting, ground transportation, and general aviation support.

A total of 794 Army Reserve personnel assisted in hurricane relief efforts in Florida and Hawaii. Army Reserve personnel included public affairs personnel, combat engineers, medics, mechanics, drivers, and cooks. Army Reserve personnel also assisted during flood relief activities: Nineteen Army Reserve soldiers assigned as Individual Mobilization Augmentees were ordered to active duty to work with Federal Emergency Management Agency coordinators. In addition several aircraft crews performed short missions while in a training status. The Army Reserve provided humanitarian assistance in the form of flood relief, support to Operation RESTORE HOPE in Somalia, Hurricane Andrew, and the Tampa Bay fire. Funds were not programmed or budgeted for Army Reserve transportation support for humanitarian assistance. Funding was obtained through internal reprogramming actions.

Major equipment provided by the Army Reserve included 36 pieces of engineer equipment (bulldozers, loaders, graders, small emplacement excavators, dump trucks, and chain saws), 63 heavy trucks (including tractors with trailers), 75 medium/light vehicles, three helicopters, and other support equipment.

While deployed to Rota, Spain, Naval Reserve aircraft were dispatched to assist a burning vessel 1,380 miles southwest of Spain. The flight crew responded to two Mayday calls, located the vessel, assumed the On-Scene Commander responsibilities, and successfully coordinated the recovery, saving the entire crew of 22 sailors. Another crew flew a life saving medical evacuation flight from Adak to Anchorage, Alaska.

Naval Reserve aircraft also flew four disaster relief flights to the flood victims in the midwestern United States, flew four missions in support of the Hurricane Andrew relief effort, and delivered 22,000 pounds of hospital supplies for earthquake victims in Managua, Nicaragua.

Air Force Reserve helicopters were on the scene quickly in southern Florida after Hurricane Andrew, saving 137 lives in that operation alone. Also, Air Force Reserve personnel and equipment deployed to Miami Airport, Florida, to set up a contingency feeding operation. Volunteers from five units operated the site for 45 days. Air Force Reserve airlifters flew 2,170 hours on 270 missions, moving 4,449 passengers and 7,347 tons of cargo.

The Air Force Reserve also operated six C-5 missions to Iowa to provide assistance with the relief efforts for Mississippi River flooding and supported the Rescue Coordination Center by operating 26 search and rescue missions. Eight units flew over 131 flying hours and were credited with 99 lives saved.

In addition to planned augmentation activities, members of the Coast Guard Reserve were employed in numerous operational missions. This included the interdiction of illegal Haitian and Chinese immigrants, relief for Hurricane Andrew and Hurricane Emily, and Midwest flood relief.

Domestic Missions

In the *Fiscal Year 1993 National Defense Authorization Act*, Congress authorized and funded the National Guard to enter into agreements with the Nation's governors to conduct pilot programs aimed at youth at risk and medically underserved communities. The goals of the programs include providing young people with the values, self-esteem, skills, education and self-discipline to succeed as students and adults. The programs are preventive rather than remedial.

STARBASE

STARBASE is a program for youth 6 through 18 years of age, aimed at improving math and science knowledge and skills. The program starts at the elementary-school level to attract and prepare students at a young age for careers in engineering and other science-related fields. The $2 million program for youth in kindergarten through the 12th grade will be conducted in seven states. STARBASE exposes inner-city children and their teachers to "real-world" applications of math and science through experiential learning, simulations and experiments in aviation and space-related fields. The program also addresses drug-use prevention, health, self-esteem and life skills.

Civilian Youth Opportunities Program (Challe*NG*e)

Challe*NG*e is a $44 million, five-month residential program, with a one-year post-resident mentoring component for youths 16 to 18 years old who are drug-free, unemployed high school drop-outs with no criminal record. The program goal is to significantly improve the life skills and employment potential of youth who cease to attend secondary school before graduating, through military-based training.

Key program components are citizenship, GED/High School diploma attainment, life-coping skills, community projects, health and hygiene, skills training, leadership, and physical training. The program is conducted at National Guard bases and armories. The five-month residential phase is followed by a year-long mentoring relationship with a specially trained Guard member from each youth's community.

The program is staffed by Federally-reimbursed state employees, some of whom may be members of the National Guard. A comprehensive support package, from appropriate clothing to residential training facilities, is provided. Program plans for the states of Alaska, Arizona, Arkansas, Connecticut, Georgia, Illinois, Louisiana, Maryland, New York, Oklahoma and West Virginia have been approved, funded, and are underway. During 1994, it is anticipated that at least five more states will submit plans through the Department of Defense for approval and funding.

Youth Conservation Corps

The Youth Conservation Corps is a $3 million six-week residential version of the Challe*NG*e program, without the GED attainment component, conducted at National Guard bases. The states of Alaska, California, Colorado, Mississippi, Pennsylvania, Virginia, Washington and Wisconsin are currently participating.

Urban Youth Corps

The Urban Youth Corps is a six-week nonresident version of the Youth Conservation Corps conducted at inner-city armories. The states of Missouri, New Jersey and the Commonwealth of Puerto Rico are currently participating.

Los Angeles Unified School District Outreach Program

This is a $10 million joint California National Guard/Los Angeles Unified School District math and science enhancement program providing year-round state-of-the-art math and science materials and equipment to classes, teacher and student training, and formal, experiential and simulation-based instruction and learning for students and teachers. Program goals are to significantly improve the life skills and employment potential of youth who cease to attend secondary school before graduating, through military-based training. The program will be staffed by Federally-reimbursed state employees, some of who may be members of the National Guard. A comprehensive support package, from appropriate clothing to residential training facilities, will be provided to adequately support the program.

Operation GUARDCARE

Operation GUARDCARE is a Federally-funded pilot program combining the training needs of Army and Air National Guard medical units with the health care needs of medically underserved regions of the United States. Units train in accordance with their mobilization training requirements and coordinate their training with state Civilian Health Organizations (CHO). State health departments identify areas where unit training could fill a medical or public health need and National Guard units plan their training in conjunction with state CHOs to deliver health and medical services in medically underserved areas. The states and CHOs ensure that services provided do not supplant non-federally funded services or compete with commercial sources of medical care. The states participating in the pilot program in Fiscal Year 1993 were Alabama, Arkansas, Maryland, Tennessee, and Washington.

Naval Science Awards Program

The Naval Reserve provides judges for regional, state, and local science fairs, as well as the Naval National Science Award program competition, the international Science and Engineering Fair, and Adopt-A-School Program. As part of the Navy's Personal Excellence Program, air stations and other commands provide tutorial services primarily to "adopted" grammar schools in their vicinity. Campaign Drug Free, although initiated in Fiscal Year 1989, has substantially increased in size and scope. These Naval Reserve domestic missions rely on volunteer participation and financial support; there is no current funding allocated for these programs. These programs have attained impressive results, due in large part to the participation of Naval Reserve military and civilian personnel.

The Young Marine Program

This is a five-year outreach program of the Marine Corps, initiated in 1993, to establish 200 "Young Marine" units. The purpose is to provide positive leadership to youth. The primary focus is on youths aged eight to 18, emphasizing the value of a drug-free lifestyle, self discipline, patriotism, loyalty and dedication to country. First year funding is approximately $500,000, involving 40 Marine Corps Reserve units.

Partnership in Education Program

This Coast Guard Reserve program encourages individual commands to provide tutors, mentors, and administrative assistance to local schools and the Coast Guard Junior Reserve Officer Training Corps (JROTC)

program. The Coast Guard provides guest speakers, field trips, audio-visual materials, and presentations at Coast Guard bases to inner-city youth. The Coast Guard's support of diversity is reflected in its special emphasis programs and a broad spectrum of Coast Guard personnel have been active in promoting cultural awareness.

Counterdrug Operations

Drug Demand Reduction Programs

The Reserve components are playing greater role in civil-military outreach programs, many aimed at youth at risk with drug demand reduction programs such as Drug Abuse Resistance Education (D.A.R.E.).

The National Guard Drug Demand Reduction Program reached more than 445,000 young people throughout the Nation in Fiscal Year 1993. Since its inception, the National Guard's Drug Demand Reduction Program has evolved into 532 programs nationwide that National Guard members support as mentors, tutors and role models. Each of these activities is a result of a community-based needs assessment.

New York National Guard Cadet Corps

This is a community-based preventive program for inner-city youth that focuses on building self-esteem, discipline, team skills, and drug avoidance.

Oregon National Guard Mentors

This program is operated by the Oregon National Guard in collaboration with the Oregon Department of Education and local school districts. Civilians, National Guard members and their families volunteer as mentors for at-risk youth in elementary and middle schools.

Illinois National Guard Youth Fitness

This is a community-based prevention and intervention program focusing on physical fitness as a medium for developing long-term youth life skills.

Kansas National Guard Parent Network

This is a community-based training program designed to fully integrate parents in a prevention strategy.

The National Guard also provided support to:

- The Alabama and New York State D.A.R.E. Association's education program.
- Local school anti-drug fairs and events by providing role models, free items and publications imprinted with an anti-drug message and unit logo.
- Locally-sponsored Red Ribbon Campaigns by purchasing a portion of the ribbons and providing volunteers to distribute them.
- Esteem-building activities conducted by various community organizations.
- D.A.R.E. presentations to over 9,000 students.

Major U.S. Army Reserve commands have incorporated the drug demand reduction message into events sponsored by their Family support coordinators. One command developed a week-long camp, "Camp Wildcat", devoted to educating and building the self-esteem of the children of Army Reserve soldiers. Corporate sponsorship is planned to cover the majority of the costs for next year's camp. Other commands are planning similar camps of their own.

The Naval Reserve, in conjunction with the Marine Corps and Coast Guard, is sponsoring Campaign Drug Free. The focus of Campaign Drug Free is a presentation designed to supplement existing antidrug information in elementary, middle and high schools. Designed in consultation with educators from across the country, presentations have been successfully

conducted from coast-to-coast to over 21,000 school-aged children. Uniformed, volunteer members of the local Naval Reserve unit deliver the message, "If you want to be a success, don't use drugs." The Naval Reserve volunteer serves as a role model from the local civilian community.

The Marine Corps Reserve is significantly increasing its Service-supported civil/military outreach programs. Involvement includes voluntary education outreach programs designed to discourage drug and alcohol abuse presentations to school systems and community youth groups. Programs include Campaign Drug Free, the Marine Corps Community Drug Education Program, and the Young Marine Program. During Fiscal Year 1993, the Marine Corps Reserve participated in a total of 250 presentations to 104 schools, reaching 6,911 students.

Air Force Reserve units participated in drug demand reduction programs through distribution of anti-drug bumper stickers. Also, Air Force Reserve units supported 283 static displays, flyovers and demonstrations for open houses and various ceremonies and civic events. For the third year, the Air Force Reserve Band continued its "Drug Prevention through Demand Reduction," presenting up to 100 programs across the country.

The Coast Guard Reservists participated in Campaign Drug Free. Officer and enlisted Coast Guard Reserve personnel volunteered to make presentations on dangers of drug abuse to youth in the communities. Fifty Reserve component units participated in the program reaching more than 4,500 students. Coast Guard Reservists volunteer to conduct this program on their own time.

Drug Interdiction Operations

The National Guard provided assistance to various law enforcement agencies, principally the U.S. Customs Service, resulting in the seizure of over 485,233 pounds of marijuana, 127,248 pounds of processed cocaine, 1,378 pounds of heroin, 906 pounds of opium, 29,702 pounds of hashish, 5,145 vehicles (includes air and water craft), 9,218 weapons, 512,574 rounds of ammunition, and $94,834,239.30 in cash. The National Guard supported operations that resulted in 44,619 arrests.

The Army Reserve participated in over 140 drug interdiction missions. Army Reserve units participated in medical evacuation support to ground operations, heavy lift support, and aviation support to the National Guard and the Drug Enforcement Administration. The Army Reserve also provided general aviation support to Marine Corps and Special Forces ground-reconnaissance along the Mexican border. The Army Reserve completed construction projects such as border roads in Texas and California and building of training areas for law enforcement agencies in South Carolina and Texas.

The Army Reserve participated in intelligence operations ranging from tactical analysis support to federal agencies regarding drug trafficking/money laundering to strategic studies of drug trafficking/organized crime affecting governments in developing countries and the former Soviet Union. The Army Reserve also provides intelligence analysis for American embassies and the Drug Enforcement Agency (DEA). The Army Reserve has provided transportation support to many local and Federal agencies, and linguists to several Federal agencies to translate foreign documents relating to narcotics trafficking and gang activities in the United States.

Naval Reserve support for law enforcement operations accounted for over 5,000 workdays, divided between three programs: Naval Reserve Force ships operated in the Caribbean, off both sides of South America, and in the Pacific from Mexico to California. Mobile Inshore Undersea Warfare units contributed 3,600 workdays, gathering shipping traffic movement information for law

enforcement agencies. Naval Reserve Security Group units provided another 300 workdays of linguistic support. Naval Air Reserve squadron detachments were able to maintain pilot/crew proficiency while supporting joint operations.

Naval Reserve participation in the reduction of illegal drug trafficking included:

- 545 steaming days for counterdrug missions in the Atlantic; 252 steaming days in the Pacific.
- Maritime Patrol operations in the eastern Pacific Ocean, Gulf of Mexico, and Caribbean.
- Airborne Early Warning operations from Howard AFB, Panama, and Roosevelt Roads, Puerto Rico.
- Tactical air reconnaissance missions in the southwestern portion of the United States.

The Marine Corps Reserve provided counterdrug operational support to law enforcement agencies through personnel, equipment and mission-related training. General support was provided through specific military skills, training, transportation and engineer support. Missions included ground reconnaissance, listening posts, observation posts, aerial reconnaissance, engineer and construction. Individual units received counter-drug training in night-vision goggle use and sensor operations. One unit coordinated training with the Wisconsin National Guard in counterdrug operations. Mobile Training Teams conducted courses in intelligence, counter-terrorism, and a counter-drug course for the Navy/Marine Intelligence Training Center. Instructors coordinated training for sensor control and management platoon counterdrug operations.

The success of Marine Corps Reserve counterdrug operations has resulted in increased demand for mission support to the joint task forces. The tasking of these operations has resulted in increased training and operational capabilities of participating units.

Air National Guard personnel continued to provide support to Federal, state, and local law enforcement agencies conducting counterdrug activities. Air National Guard support consisted of approximately 21,990 officer and 215,016 enlisted workdays in 1993. Air National Guard personnel from various states are supporting the U.S. Customs Service in cargo inspection at ports of entry including air

and water craft, airport baggage, mail centers and cargo containers at seaports. With the exception of cargo inspection support to U.S. Customs Service, counterdrug operations enhance the skills of members who volunteer for counterdrug duties. All personnel participating in the counterdrug program are volunteers and there has been no reported negative impact on Air National Guard training, readiness, and/or mobilization.

The deployment of air defense assets remains one of the most cost-effective counterdrug programs and has been instrumental in interdicting suspected drug trafficking aircraft ranging in size from small engine aircraft to four-engine cargo planes.

At the request of the U.S. Customs Service and the Commander-In-Chief, U.S. Atlantic Command, the Air National Guard continues to staff one full-time radar site in the Caribbean area of operations. This radar deployment has been instrumental in the detection and monitoring of suspected drug trafficking aircraft entering the Bahamas. Within this once prosperous transshipment area, the Air National Guard radars in conjunction with other assets have been able to provide nearly 100 percent radar tracking continuity of suspected aircraft. Air National Guard radar deployments monitor the airways 24 hours a day, 365 days per year. Air National Guard air control units deploy people and equipment on a four to six-week rotational basis with personnel rotations every two weeks.

The Air Force Reserve units expended 440.3 flying hours and 8,154 workdays on drug interdiction such as transportation of controlled delivery drugs, marijuana eradication, civil engineering projects, maritime patrol, intelligence analysts, linguist translators, mobile training teams teaching small unit tactics, and forward looking infra-red missions. The Air Force Reserve received $4.28 million for these operations in Fiscal Year 1993.

Coast Guard Reserve personnel augment Active component commands that are involved in law enforcement and drug interdiction. The Coast Guard Reserve plays a significant role in counterdrug operations on a daily basis.

Enhanced Peacetime Missions

Domestic missions are not new to the Reserve components. However, peacetime missions have not been integrated into decision criteria that determine Reserve component force structure. The National Guard and Reserve continue to perform these missions (in addition to their wartime functions) without formal recognition of requirements in their force structure documents.

The Reserve components can assume additional missions as the Active component draws down. This has been clearly demonstrated by the Army National Guard and the Army Reserve at the Equipment Maintenance Center, Europe. Both the Army National Guard and the Army Reserve could assume increased responsibilities in the retrograde and repair of European theater war reserves. With the downsizing of the force in Europe and the return of equipment to the United States, Reserve component transportation and maintenance units could evacuate and repair much of this equipment. The redistributed equipment would greatly enhance Total Force readiness, and improve the individual and unit skills of the personnel involved.

The Army National Guard has developed the following programs to assume additional missions as the Active component draws down:

Humanitarian Support Unit Program

This program provides volunteer units to support short-notice worldwide humanitarian missions.

Operational Integrations Program

This is a volunteer program designed to provide a mix of Active and Reserve

component personnel organized, trained, and deployed as provisional units to perform overseas presence and peacekeeping operations. The Operational Integrations Program is currently being implemented by the Multinational Force Observer, Sinai Initiative.

Bridging Concept

This is a program designed to provide selected elements of Army National Guard units to support Corps operations. The South Carolina National Guard currently provides volunteers to support XVIII Airborne Corps communication requirements in crisis situations.

The Board recommends that additional or enhanced functional responsibilities be considered for the Reserve components.

The Board recommends that Reserve component programs, similar to the Army National Guard's aviation maintenance program and the Equipment Maintenance Center-Europe, be continued and expanded.

The Board also recommends that Reserve component-sponsored and coordinated youth education programs be supported to the maximum extent possible.

Summary

The Bottom-up Review has provided an important opportunity to further clarify Armed Forces roles, missions, and functions in selected areas and to build on the recommendations of the CJCS Roles and Missions Report. As the transition continues from Base Force to the post-Cold War environment, several important matters raised in the Bottom-up Review will require further attention. The Reserve components remain ideally positioned to enhance national security with efficient and cost-effective forces that reconfirm the Total Force Policy.

Perhaps the most important issue affecting the Total Force is the determination of functions and tasks for the Reserve components. Discussions are continuing at every level and across all Services. Once decided, this division of labor will determine both the size and composition of Reserve component forces.

The Board has engaged in continuous discussions with the senior leadership of this country, military and civilian, on future military operations for the Total Force. All Service components, Active and Reserve, have clearly demonstrated capabilities that lend themselves to meeting the challenges each of these operations entails.

In an era where every foreseeable operation, foreign and domestic, in war or in peacetime, will require some aspect of civil affairs participation, it is critical that each Service be aware of its civil affairs assets.

Every Reserve component within a given Service is capable of either assuming or contributing to that Service's mission. The scope of that capability may be limited by the response time imposed, the quantity of appropriate equipment or the number of skilled personnel available. However, these factors do not prevent the Reserve components from being assigned functions that require high skill levels and quick response. The Reserve components have repeatedly demonstrated that they have the capacity to mobilize quickly, but they must be programmed and resourced to do so.

Personnel 5

"A key element of maintaining forces ready to fight is to maintain the quality of our people"

Bottom-Up Review
October, 1993

General

Most Reserve components experienced reductions in authorized strength and adjusted their recruiting efforts accordingly. Some Reserve components experienced difficulty in meeting authorized staffing levels or were unable to meet their recruiting goals for non-prior or prior service accessions. A continued failure to recruit sufficient numbers of qualified personnel will create an imbalance in some grades and skills. Adequate recruiting and retention incentives continue to be needed to attract and retain quality personnel.

Adequate Full-Time Support (FTS) is essential to Reserve unit readiness. Resourcing FTS requirements at appropriate levels is essential if readiness and worldwide operational commitments are to be met. Currently, the greatest FTS funding shortages are in the Army National Guard and Army Reserve, which were funded at 67 and 63 percent respectively. Full-Time Support authorized strength levels were funded at or above 80 percent of requirements in the other Reserve components.

Personnel readiness cannot be attained and sustained without sufficient personnel resources, benefits and entitlements, employer and family support, adequate and timely pay, and morale-enhancing programs. Because of the reliance placed upon the Reserve components, the necessary personnel resources, policies, and programs must be in place to meet that commitment. The efficient management of Reserve component personnel is essential to the continued success of the Total Force.

Personnel Strengths

Selected Reserve end strengths for most Reserve components were reduced in Fiscal Year 1993, and further reductions are programmed for Fiscal Year 1994. Each of the Reserve components, except the Coast Guard Reserve, achieved overall fill rates of 96 percent or more, although it should be noted that significant shortages exist in various grades and specialties. Although Congress authorized an end strength of 15,150 for the Coast Guard Reserve, the Department of Transportation provided funding for an end strength of 10,500. As a result of this reduction, recruiting for the Coast Guard Reserve was halted completely in February 1993.

Figure 5-1 compares authorized strength levels for Fiscal Years 1989 through 1993. Figure 5-2 lists personnel strength by Reserve component for Fiscal Year 1993 and shows the overall percentage of fill of authorized positions.

Figure 5-1
SELECTED RESERVE AUTHORIZED END STRENGTHS

	FY89 Authorized	FY90 Authorized	FY91 Authorized	FY92 Authorized	FY93 Authorized	FY94 Authorized
ARNG	457,300	458,000	457,424	440,000	422,725	410,000
USAR	320,600	321,700	319,063	308,000	279,615	260,000
USNR[1]	152,600	153,400	154,354	144,000	133,675	118,000
USMCR	43,600	44,000	43,900	42,400	42,315	42,200
ANG	115,200	116,200	117,519	118,100	119,300	117,700
USAFR	83,600	84,900	85,591	83,396	82,300	81,500
USCGR[2]	13,000	15,000	12,700	15,150	15,150	10,000
Total	1,185,900	1,193,200	1,190,551	1,151,046	1,095,080	1,039,400

Notes: 1. Naval Reserve FY 94 authorized strength is 118,000, but is programmed at the level of 113,400 in the Navy budget.
2. Coast Guard FY93 authorized strength was 15,150, but was programmed at the level of 10,500 in the Department of Transportation budget.

Source: DoD Comptroller.
Data as of September 30, 1993.

Figure 5-2
PERSONNEL STRENGTHS BY COMPONENT

Component	FY93 Authorized	FY93 Assigned	Fill Rate	FY94 Authorized
Army National Guard	422,725	409,919	96.9%	410,000
Army Reserve	279,615	275,900	98.6%	260,000
Naval Reserve[1]	133,675	132,395	99.0%	118,000
Marine Corps Reserve	42,315	41,738	98.6%	42,200
Air National Guard	119,300	117,162	98.2%	117,700
Air Force Reserve	82,300	80,562	97.8%	81,500
Coast Guard Reserve[2]	15,150	9,341	61.6%	10,000
Total	1,095,080	1,067,017	97.4%	1,039,400

Notes: 1. Naval Reserve FY 94 authorized strength is 118,000, but is programmed for 113,400 in the Navy budget.
2. Coast Guard Reserve strength was budgeted at 10,500 in the Department of Transportation FY 93 budget, resulting in a 88.9% fill rate.

Sources: DoD Comptroller, Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

The Board recommends that the Reserve components be provided adequate resources to achieve authorized strength levels.

Medical Recruiting

Figure 5-3 reflects Selected Reserve medical staffing levels by specialty, depicting existing shortages. Figure 5-4 shows the potential capability of the Individual Ready Reserve and Inactive National Guard to satisfy some of these shortages.

Operations DESERT SHIELD/STORM re-emphasized the importance of having adequate numbers of qualified health care personnel in

Figure 5-3
SELECTED RESERVE UNIT MEDICAL PERSONNEL STRENGTHS BY SPECIALTY

	Authorized	Assigned	Fill Rate
Army National Guard			
Physicians[1]			
General Surgeon	223	86	39%
Anesthesiologist	37	33	89%
Orthopedic Surgeon	84	23	27%
All Other Physicians	1,178	795	68%
Total Physicians	1,522	937	62%
Nurse Corps			
Nurse Anesthetist	199	66	33%
Operating Room Nurse	234	177	76%
All Other Nurses	1,068	1,023	96%
Total Nurses	1,501	1,266	84%
Enlisted			
LPN	1,627	884	54%
All Other Enlisted	18,546	20,143	109%
Total Enlisted	20,173	21,027	104%
Army Reserve			
Physicians[1]			
General Surgeon	548	504	92%
Anesthesiologist	172	203	118%
Orthopedic Surgeon	329	168	51%
All Other Physicians	2,487	1,751	70%
Total Physicians	3,536	2,626	74%
Nurse Corps			
Nurse Anesthetist	731	476	65%
Operating Room Nurse	854	915	107%
All Other Nurses	5,971	5,952	100%
Total Nurses	7,556	7,343	97%
Enlisted			
LPN	6,841	4,868	71%
All Other Enlisted	23,987	26,164	109%
Total Enlisted	30,828	31,032	101%
Naval Reserve[2]			
Physicians			
General Surgeon	187	127	68%
Anesthesiologist	178	99	56%
Orthopedic Surgeon	138	67	49%
All Other Physicians	1,526	1,087	71%
Total Physicians	2,029	1,380	68%
Nurse Corps			
Nurse Anesthetist	114	83	73%
Operating Room Nurse	380	172	45%
All Other Nurses	2,320	1,786	77%
Total Nurses	2,814	2,041	73%
Naval Reserve (Cont'd)			
Enlisted			
LPN	N/A	N/A	N/A
All Other Enlisted	12,331	9,110	74%
Total Enlisted	12,331	9,110	74%
Air National Guard			
Physicians			
General Surgeon	1	0	0%
Anesthesiologist	N/A	N/A	N/A
Orthopedic Surgeon	N/A	N/A	N/A
All Other Physicians	578	455	79%
Total Physicians	579	455	79%
Nurse Corps			
Nurse Anesthetist	N/A	N/A	N/A
Operating Room Nurse	N/A	N/A	N/A
All Other Nurses	902	830	92%
Total Nurses	902	830	92%
Enlisted			
LPN	N/A	N/A	N/A
All Other Enlisted	4,806	4,576	95%
Total Enlisted	4,806	4,576	95%
Air Force Reserve			
Physicians			
General Surgeon	64	43	67%
Anesthesiologist	105	56	53%
Orthopedic Surgeon	52	22	42%
All Other Physicians	604	508	84%
Total Physicians	825	629	75%
Nurse Corps			
Nurse Anesthetist	100	64	64%
Operating Room Nurse	129	119	92%
All Other Nurses	2,223	2,171	98%
Total Nurses	2,452	2,354	96%
Enlisted			
LPN	N/A	N/A	N/A
All Other Enlisted	7,449	7,660	103%
Total Enlisted	7,449	7,660	103%
Coast Guard Reserve[3]			
Physician Assistant	10	14	140%
Enlisted	64	136	213%

Notes:
1. Includes residents who are not fully qualified in their specialty.
2. The Marine Corps Reserve receives all its medical support from the Navy and the Naval Reserve.
3. US Public Health Service is the Coast Guard's main source of physicians, as well as the Military Services.

Source: The Reserve components.
Data as of September 30, 1993.

Figure 5-4
IRR/ING STRENGTH IN CRITICAL MEDICAL SPECIALTIES

	Army National Guard	Army Reserve	Naval Reserve	Air Force Reserve
General Surgeon	4	403	183	42
Anesthesiologist	2	242	160	30
Orthopedic Surgeon	0	157	98	21
Nurse Anesthetist	3	213	119	30
Operating Room Nurse	5	582	23	81
Licensed Practical Nurse	29	1,710	0	N/A

Source: The Reserve components.
Data as of September 30, 1993.

the Selected Reserve. Substantial numbers of physicians, nurses, and other Reserve component health care personnel volunteered or were called to active duty to support these operations. While personnel who mobilized have remained in the Reserve components in greater numbers than those who did not mobilize, the number of health care professionals being accessed, especially physicians, is declining. Reasons for the decline include the turbulence of Reserve force structure, potential of mobilization and the lack of some type of income loss protection. There is also an indication that the available incentives for professional health care providers to join the Reserve components do not offset the detractors.

The Army National Guard attrition rate for physicians was 16 percent. The attrition rate for Army Nurse Corps officers was 13 percent. Little or no progress was made in reducing shortages in critical nurse, licensed practical nurse, and physician specialties. A lack of recruiting incentives focused toward Army National Guard medical shortages is hindering medical recruiting efforts. Only 25 percent of the Army National Guard Medical Corps positions qualify for recruiting incentives. The Army National Guard has 654 authorizations for field surgeons and 78 authorizations for family practitioners; strength levels for these specialties are 47 percent and 101 percent, respectively.

The Army Reserve physician strength fell to 74 percent of authorized strength at the end of Fiscal Year 1993. Nurse Corps strength remained at 97 percent of authorized strength. The fill rate of some specialties is of continuing concern; for example, orthopedic surgeons are at 51 percent and nurse anesthetists are at 65 percent of authorized strength.

The Naval Reserve ended the year below strength in physicians, nurse corps, and enlisted medical specialties. Vacancies remain in orthopedic surgeon, physician anesthesiologist, nurse anesthetist, and operating room nurse specialties. During Fiscal Year 1993, the STIPEND and Loan Repayment programs for medical specialties continued to attract and retain Medical and Nurse Corps officers in critical skills. Accession of residents in their final two years of residency was authorized and medical recruiting goals increased by 240 percent over 1992. Medical and Nurse Corps recruiting goals for Fiscal Year 1993 were attained. Higher recruiting goals during 1994, coupled with continued use of incentives, will

be required to comply with Congressional direction to maintain medical strength at Fiscal Year 1992 levels.

The Marine Corps Reserve receives its medical support from the Navy and the Naval Reserve.

Air National Guard strength is 79 percent of authorized strength for physicians, 92 percent for nurses, and 95 percent for enlisted health care personnel. A new program to reduce the attrition of Air National Guard physicians and nurses will be implemented in 1994.

The Air Force Reserve ended the year with a shortage in several medical specialties, primarily in general surgeon and orthopedic surgeon specialties. The Nurse Corps had an overall fill rate of 96 percent, but only 64 percent of nurse anesthetist positions were filled. Enlisted health care specialties were well staffed. The Air Force Reserve established a Process Action Team to study the medical officer retention problem. Five categories were identified with 24 associated causes contributing to inadequate retention of medical officers.

The Coast Guard Reserve receives its medical support from the Navy and the Public Health Service.

The Board recommends that adequate resources be devoted to the recruiting and retention of physicians and nurses.

Medical Incentive Programs

The incentive programs enacted by Congress prior to 1990 remain crucial to the Reserve components in recruiting the medical specialties required. It is likely that modifications to some of these programs will be needed, especially in light of downsizing and the lessons learned from Operations DESERT SHIELD/STORM. The Office of the Secretary of Defense is working with the Reserve components to identify needs and determine if the current incentive programs are the most effective way to attract and retain qualified health care providers in the specialties each Reserve component requires.

Figure 5-5 lists enrollment in bonus and incentive programs which were designed to assist in recruiting health care professionals.

Figure 5-5
MEDICAL INCENTIVE PROGRAMS
(Number of Participants)

Component	Loan Repayment Program	Stipend Program	Bonus Test Program
Army National Guard	55	41	3
Army Reserve	1,086	591	221
Naval Reserve	34	85	9
Air National Guard	12	27	0
Air Force Reserve	47	446	208
Coast Guard Reserve	N/A	N/A	N/A
Total	1,234	2,190	441

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993.

Personnel Shortages (Officer, Warrant Officer, Enlisted)

Each of the Reserve components continues to have personnel shortages of 10 percent or more in various officer, warrant officer, and enlisted categories. Although some improvements have been made, significant shortages persist, especially in captains and warrant officers in the Army National Guard and Army Reserve.

The Army National Guard has 42 officer, 42 warrant officer, and 147 enlisted specialties with less than a 90 percent fill rate. There is a need to increase the number of initial entry training seats so that more non-prior service soldiers can be recruited.

The Army Reserve has 173 officer, 58 warrant officer, and 209 enlisted specialties with shortages of over 10 percent. The Army Reserve is not resourced to fill every specialty to 100 percent authorized strength, and a lower than 90 percent fill-rate in some specialties is expected. Notwithstanding, continuing efforts should be made to fill these specialties to increase unit readiness.

The Naval Reserve has 48 officer, two warrant officer, and 29 enlisted specialties filled at less than 90 percent for Fiscal Year 1993. Most of the shortages are in medical areas, one of the lowest being family practice physician (288 authorized/80 assigned for a 28 percent fill rate). Other shortages were: neurosurgeon, orthopedic surgeon, and dental officer.

The Marine Corps Reserve has 30 officer, 10 warrant officer, and 119 enlisted specialties that are less than 90 percent filled. To reduce the number of enlisted vacancies, enlistment and reenlistment bonuses were targeted on military occupational specialties with the highest shortages.

The Air National Guard has 32 officer and 49 enlisted specialties filled at less than 90

percent. To reduce these shortages, increased emphasis was placed on filling positions requiring critical skills and the states were provided greater flexibility in managing vacancies.

The Air Force Reserve has 65 officer and 37 enlisted specialty shortages at the end of Fiscal Year 1993. Most of these vacancies were in the Individual Mobilization Augmentee program and pertained to medical skills. Projected force structure changes may modify some of these requirements.

The Coast Guard Reserve has three officer, one warrant officer, and seven enlisted specialties under 90 percent filled. In order to alleviate these shortages, Selected Reservists drill at sites where the maximum opportunity exists to gain experience and work in their mobilization billets.

Selected Reserve officer, warrant officer, and enlisted shortages by pay grade are listed in Figures 5-6, 5-7, and 5-8, respectively.

Figure 5-6
OFFICER SHORTAGES BY PAY GRADE

Grade	Authorized	Assigned	Over/(Short)	Fill Rate	IRR/ING
Army National Guard					
01/02	11,764	14,978	3,214	127%	231
03	13,339	11,044	(2,295)	83%	215
04	6,866	6,467	(399)	94%	51
05	3,251	3,539	(288)	109%	12
06	985	1,414	429	144%	7
Total	36,205	37,442	(681)	103%	516
Army Reserve					
01/02	7,666	11,766	4,100	153%	25,797
03	17,444	13,830	(3,614)	79%	22,528
04	14,871	12,940	(1,931)	87%	9,480
05	8,723	10,152	1,429	116%	4,169
06	2,061	3,030	969	147%	1,279
Total	50,765	51,718	953	102%	63,253
Naval Reserve					
01/02	3,574	1,146	(2,428)	32%	3,143
03	7,961	8,800	839	119%	7,582
04	7,846	9,815	1,969	125%	3,599
05	4,476	4,955	479	111%	3,301
06	1,541	2,011	470	130%	2,185
Total	25,398	26,727	1,329	105%	19,810
Marine Corps Reserve					
01/02	682	95	(587)	14%	615
03	1025	1,285	260	125%	2,682
04	732	1,022	290	140%	1,003
05	443	504	61	114%	433
06	180	226	46	126%	242
Total	3,062	3,132	70	102%	4,975
Air National Guard					
01/02	0	2,216	2,216	N/A	N/A
03	4,736	4,251	(485)	90%	N/A
04	5,163	3,835	(1,328)	74%	N/A
05	3,718	3,229	(489)	87%	N/A
06	700	586	(114)	84%	N/A
Total	14,317	14,117	(200)	99%	N/A
Air Force Reserve					
01/02	855	1,661	806	194%	6,631
03	5,465	4,981	(484)	91%	10,712
04	4,872	4,667	(205)	98%	1,953
05	3,742	3,290	(452)	88%	567
06	1,192	1,171	(21)	98%	117
Total	16,126	15,770	(356)	98%	19,980
Coast Guard Reserve					
01/02	151	165	14	109%	35
03	434	390	(44)	90%	87
04	295	354	59	120%	178
05	155	140	(15)	90%	69
06	26	41	15	158%	21
Total	1,061	1,090	29	103%	390

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

Figure 5-7
WARRANT OFFICER SHORTAGES BY PAY GRADE

Grade	Authorized	Assigned	Over/(Short)	Fill Rate	IRR/ING
Army National Guard					
W1/W2	6,647	3,823	(2,824)	58%	71
W3/W4	4,146	5,210	1,064	126%	25
W5	225	23	(202)	10%	0
Total	11,018	9,056	(1,962)	82%	96
Army Reserve					
W1	655	275	(380)	42%	210
W2	2,373	1,095	(1,278)	46%	1,882
W3/W4	2,157	3,091	934	143%	2,166
W5	134	0	(134)	0%	0
Total	5,319	4,461	(858)	84%	4,258
Naval Reserve					
W1/W2	165	107	(58)	65%	12
W3	167	106	(61)	63%	5
W4	95	153	58	161%	33
Total	427	366	(61)	86%	50
Marine Corps Reserve					
W1/W5	332	504	172	152%	205
Air National Guard					
W1/W5	N/A	N/A	N/A	N/A	N/A
Air Force Reserve					
W1/W5	N/A	N/A	N/A	N/A	N/A
Coast Guard Reserve					
W1/W4	243	226	(17)	93%	101

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components. Data as of September 30, 1993.

Figure 5-8
ENLISTED SHORTAGES BY PAY GRADE

Grade	Authorized	Assigned	Over/(Short)	Fill Rate	IRR/ING
Army National Guard					
E1/E4	217,140	185,222		85%	3,320
E5	84,312	91,855		109%	1,986
E6	45,954	54,722		119%	783
E7	27,942	22,301		80%	154
E8	8,209	7,362		90%	33
Total	383,557	361,462		94%	6,276
Army Reserve					
E1/E4	100,858	118,622		118%	366,988
E5	42,243	38,705		92%	45,983
E6	35,218	28,186		80%	13,650
E7	22,811	22,167		97%	6,633
E8	10,237	9,935		97%	2,611
Total	211,367	217,615		103%	435,865
Naval Reserve					
E1/E4	41,127	42,979		87%	95,644
E5	22,946	30,287		109%	30,135
E6	14,241	21,933		114%	8,712
E7	6,161	7,693		91%	1,478
E8	1,266	1,707		101%	274
Total	85,741	104,599		98%	136,243
Marine Corps Reserve					
E1/E4	24,309	28,773		118%	52,325
E5	4,571	4,842		106%	9,469
E6	2,370	2,462		104%	1,720
E7	1,159	1,287		111%	545
E8	578	535		93%	191
Total	32,987	37,899		115%	64,250
Air National Guard					
E1/E4	29,105	26,251		90%	N/A
E5	34,692	32,061		92%	N/A
E6	23,062	24,859		107%	N/A
E7	14,574	14,151		97%	N/A
E8	4,822	4,049		84%	N/A
Total	106,255	101,371		95%	N/A
Air Force Reserve					
E1/E4	19,297	11,161		58%	64,501
E5	20,326	26,448		130%	24,072
E6	12,525	14,953		119%	2,946
E7	8,428	8,923		104%	670
E8	2,726	2,216		77%	61
Total	63,302	63,701		100%	92,250
Coast Guard Reserve					
E1/E4	2,619	3,430		130%	5,443
E5	1,628	1,893		117%	1,316
E6	1,508	1,573		104%	530
E7	832	842		101%	204
E8	151	180		117%	58
Total	6,738	7,918		117%	7,551

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

The Board encourages the Reserve components to closely monitor skill shortages and place greater emphasis on filling critical skills.

Reenlistment Rates

Reserve component reenlistment rates were generally similar to the previous year. First-term and beyond-first-term retention improved in the Naval Reserve and first-term reenlistment rates declined in the Army Reserve. Reenlistment rates for first term and beyond first-term personnel are shown in Figure 5-9.

Retention is a cornerstone of personnel readiness. An effective retention program works in partnership with recruiting and helps the Reserve components achieve and maintain authorized staffing levels. Retention also reduces recruiting and training costs.

Attrition

Attrition results in the loss of trained personnel and a substantial training investment. Although some attrition is desirable to preclude stagnation and provide opportunities for upward mobility, retention of adequate numbers of trained personnel is essential.

A member lost from a Reserve unit is, however, not necessarily a loss to the military.

Figure 5-9
REENLISTMENT RATES

	First Term			Beyond First Term		
	FY92	FY93	Difference	FY92	FY93	Difference
Army National Guard	53%	53%	0%	69%	70%	1%
Army Reserve	88%	78%	-10%	83%	82%	-1%
Naval Reserve	79%	84%	5%	88%	91%	3%
Marine Corps Reserve	83%	81%	-2%	90%	85%	-5%
Air National Guard	87%	86%	-1%	96%	96%	0
Air Force Reserve	86%	81%	-5%	90%	95%	5%
Coast Guard Reserve [1]						

Note: 1. Data not available for Coast Guard Reserve.
Sources: The Reserve components.
Data as of September 30, 1993.

Some personnel transition to the Active components, other Reserve components, the Individual Ready Reserve, or the Retired Reserve where they continue to be mobilizable assets. Although some personnel loss is expected, the Services should carefully monitor attrition rates, identify causes for losses, seek solutions, and implement appropriate programs.

Attrition rates for grades E-1 through E-5 and O-1 through O-3, compared with Fiscal Year 1992, are listed in Figure 5-10.

The most significant reasons for attrition in the Army National Guard are the reduction of over 19,000 positions in inactivated units, turbulence resulting from downsizing and/or relocating units, and a public perception that military forces are no longer needed. Retention rates dipped during the first half of the year, but recovered during the second half of the year.

Attrition within the Army Reserve continues to be an area of concern. A recent survey has shown that commitment to the Army Reserve and intent to stay beyond current obligation are at their highest levels in over five years. Despite these positive trends, the uncertainties of downsizing have impacted attrition rates. The primary reasons for attrition are voluntary or involuntary transfer to the Individual Ready Reserve, transfer to an Active component, and expiration of term of service.

Family and job conflicts continue to be reported as the major causes of attrition in the Naval Reserve. The Naval Reserve considers 12 percent as an acceptable attrition rate. Over 650 enlisted personnel involuntarily separated in Fiscal Year 1993 because of strength reductions; another 4,100 enlisted members are projected to involuntarily separate because of strength reductions in 1994. The Naval Reserve is curbing its attrition rate by converting ratings, using on-the-job-training for apprentice rates where imbalances exist, and controlling entry into ratings through examination and rating conversions.

The Marine Corps identified unsatisfactory participation, physical disability not-in-line-of-

Figure 5-10
ATTRITION RATES

	FY 92		FY 93	
Component	E1 - E5	O1 - O3	E1 - E5	O1 - O3
Army National Guard	13%	14%	26%	13%
Army Reserve	34%	16%	40%	17%
Naval Reserve	22%	18%	24%	12%
Marine Corps Reserve	20%	1%	17%	<1%
Air National Guard	11%	5%	12%	5%
Air Force Reserve	16%	16%	18%	9%
Coast Guard Reserve	17%	5%	29%	8%

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

duty, substance abuse, acceptance of commission/warrant officer appointment and completion of required service as primary factors affecting attrition from the Selected Reserve. Attrition studies are underway to identify the magnitude and causes of attrition for the first term and career populations.

Major causes of attrition in the Air National Guard are expiration term of service, resignation, voluntary release, and transfers to the Active component and the Air Force Reserve. The Air National Guard is conducting an attrition study to provide commanders with data to implement programs to decrease attrition.

Major causes for attrition in the Air Force Reserve are unsuccessful completion of basic training, unsatisfactory participation, administrative discharge, failure to obtain required physical examinations, and voluntary reassignment. Retention is tracked by functional area (operations, medical, maintenance, etc.) to show gains, losses, and reenlistment data. The results enable commanders and functional managers to spot negative trends and initiate corrective action.

The Coast Guard Reserve reported losses of 1,564 enlisted personnel and 43 officers. In Fiscal Year 1994, an additional 1,275 enlisted personnel with over 15 years of service are expected to be involuntarily discharged to reduce strength to funded levels.

The Board recommends that Reserve component commanders give priority attention to developing and maintaining a strong retention program as a means of reducing training costs, maintaining a highly skilled and experienced force, and increasing readiness.

Skill Mismatch/Force Alignment

Force alignment is the process of matching individual skills and qualifications with the requirements of Reserve component positions. Because Reservists are subject to frequent civilian job changes, often requiring a move to a new location, continuous management of skills, grades, specialties, and positions of all assigned personnel is required.

The Army National Guard requires that all prior service soldiers be qualified or begin training within one year of enlistment. Completing the appropriate level of military education is required for promotion within a soldier's duty military occupational specialty. Cross-leveling between units helps retain qualified soldiers.

The Army Reserve implemented three major programs during Fiscal Year 1993 to improve force alignment and reduce skill mismatches of enlisted personnel. Unit position assignments, duty military occupational qualification coding, and training requirements were automated.

Naval Reserve Recruiting uses a billet requisition system to better match billet requirements and individual skills. Critical specialties and specific Navy enlisted classification codes are targeted for bonus payments. A critical specialty category model is used to allocate bonuses to shortage skills.

The Marine Corps closely monitors skill mismatches. Nonprior service members are recruited and trained to achieve the goal of a 100 percent skill match. All prior service accessions must be qualified or begin on-the-job-training or formal school training within 18 months of joining a unit. Enlistment and reenlistment bonuses target skill shortfalls. Funding and quota allocation for attendance at MOS-producing schools also receives a high priority. The 4th Marine Aircraft Wing decreased skill mismatches through use of the Maintenance Air Reserve Segmented Accelerated Training Program, the Project ChalleNGe Program, and Mobile Training Teams.

The Air National Guard reduced skill mismatches by recruiting qualified prior service personnel to fill vacant positions.

The Air Force Reserve has few skill or grade mismatches, since qualified prior service personnel are recruited wherever possible to fill vacant positions.

The Coast Guard Reserve has combined the fire and safety technician and port security ratings, providing increased assignment flexibility.

The Board commends the efforts of the Reserve components in improving force alignment and reducing skill mismatches.

Full-Time Support

A relatively small number of Full-Time Support (FTS) personnel can meet day-to-day unit administrative, logistical, and operational requirements, enabling Reservists to devote the majority of their time to training. FTS personnel provide the continuity and stability needed to improve unit readiness.

Full-Time Support categories are as follows:

Active Guard/Reserve (AGR)

National Guard or Reserve members of the Selected Reserve serving on active duty or full-time National Guard duty for the purpose of organizing, administering, recruiting, instructing, or training Reserve component units. This classification includes Naval Reserve Training and Administration of the Reserve (TAR) personnel, Marine Corps FTS personnel, and statutory-tour personnel.

Military Technicians (MT) and Air Reserve Technicians (ART)

Drilling reservists who are also Federal civilian employees providing skilled Full-Time Support in Reserve organizations and units. They are required to be members of the Selected Reserve in the component they support and simultaneously maintain civil service status. The Army National Guard, the Air National Guard, the Army Reserve, and the Air Force Reserve are the only components that employ this category of FTS personnel.

Active Component (AC)

Military personnel on active duty assigned or attached to Reserve component organizations and units to provide advice, liaison, management, administration, training, and/or maintenance support. They are paid from Active component appropriations. All Coast Guard military personnel assigned to FTS positions are in this classification, however, these positions are paid from Coast Guard Reserve training appropriations, and not Active component appropriations.

Civil Service (CS)

Federal (Title 5) and state civil service personnel, other than MTs and ARTs, who provide Full-Time Support to Reserve components, but do not occupy technician positions and are not required to be members of the Selected Reserve.

There is a significant number of validated Full-Time Support requirements in some Reserve components which have not been authorized for fill, and not all authorized positions are funded. Naval Reserve, Marine Corps Reserve, Air National Guard, and Air Force Reserve FTS personnel authorized strength levels are 98 percent, 96 percent, 91 percent, and 86 percent, respectively. However, Army National Guard and Army Reserve FTS personnel authorized strength was 67 percent and 63 percent respectively.

At 67 percent, the Army National Guard FTS fill-rate percentage was three percent lower than Fiscal Year 1992. Because of inadequate funding, the Army National Guard continues to experience critical shortages of FTS personnel in logistics, supply, maintenance, administration, and training.

The Army Reserve FTS authorized strength was 63 percent of requirements, and only eight

percent of Selected Reserve authorized end strength. To improve readiness, the Army Reserve FTS program should be adequately funded.

Only 636 of 786 validated Air Force Reserve Statutory Tour FTS requirements are funded, an effective fill rate of 80 percent, which limits the Active component's efficiency and ease of employing the Air Force Reserve. The Air Force Reserve Statutory Tour Program provides support and necessary Reserve expertise to the Active component as they increase their use and reliance on the Air Force Reserve. This program also provides headquarters-level administration and planning necessary to maintain an effective and efficient force.

All authorized FTS positions in the Coast Guard Reserve were filled; however, the ratio of Coast Guard Reserve FTS to Selected Reserve is 1 to 12, as compared to an overall rate of 1 to 8 for Department of Defense. Fiscal Year 1993 budget cuts caused the loss of 35 FTS positions; an additional 88 FTS positions are projected to be cut in 1994 in conjunction with the downsizing of the Selected Reserve.

Figure 5-11 lists FTS strength, by category, for each Reserve component.

The Board recommends that FTS requirements be fully funded in each of the Reserve components.

Figure 5-11
FULL-TIME SUPPORT PERSONNEL STRENGTHS

	Army National Guard	Army Reserve	Naval Reserve	Marine Corps Reserve	Air National Guard	Air Force Reserve	DoD Total	Coast Guard Reserve	Total
AGR/TAR Personnel[1,2]									
Required	40,475	17,875	22,306	2,285	9,106	786	92,833	74	92,907
Authorized	24,686	12,637	21,701	2,285	9,106	636	71,051	74	71,125
Assigned	24,430	12,637	21,458	2,266	9,089	636	70,516	74	70,590
Military Technicians[2]									
Required	37,495	15,242	N/A	N/A	29,187	10,946	92,870	N/A	92,870
Authorized	27,084	7,339	N/A	N/A	25,424	10,517	70,364	N/A	70,364
Assigned	27,297	6,114	N/A	N/A	24,958	9,719	67,728	N/A	67,728
Active Component[3]									
Required	112	1,240	5,224	4,833	725	918	13,052	570	13,622
Authorized	112	1,240	5,123	4,630	725	806	12,636	570	13,206
Assigned	109	692	5,123	4,833	719	698	12,174	570	12,744
Civil Service									
Required	567	1,133	2,823	280	1,979	7,492	14,274	106	14,380
Authorized	449	1,133	2,823	155	1,940	5,279	11,779	106	11,885
Assigned	449	1,152	2,823	155	1,764	4,625	10,968	106	11,074
Totals									
Required	78,649	35,490	30,353	7,398	40,997	20,142	213,029	750	213,779
Authorized	52,331	22,349	29,647	7,070	37,195	17,238	165,830	750	166,580
Shortfall	26,318	13,141	706	328	3,802	2,904	47,199	0	47,199
Percent Authorized of Required	**67%**	**63%**	**98%**	**96%**	**91%**	**86%**	**78%**	**100%**	**78%**
Assigned	52,285	20,595	29,404	7,254	36,170	15,678	161,386	750	162,136
FTS Authorizations as a Percent of Authorized Enl Strength	12%	8%	22%	17%	31%	21%	15%	5%	15%

Notes:
1. Includes AGR in the Army, officers and enlisted on Statutory Tours in the Air Force Reserve, TAR in the Naval Reserve, and Reserve military FTS in the Marine Corps Reserve.
2. Air National Guard AGR and MT positions can be filled by either status personnel. All ANG requirements are shown as Military Technicians. USAR includes SOF technicians.
3. Includes AC assigned or attached to RC organizations who provided support exclusively to the Reserve components.

Sources: The DoD Comptroller, Office of the Assistant Secretary of Defense for Reserve Affairs, and the Reserve components.

Data as of September 30, 1993.

Employer Support

The National Committee for Employer Support of the Guard and Reserve (NCESGR) promotes cooperation and understanding between Reserve component members and their civilian employers. Employer support is critical to a successful National Guard and Reserve component program. NCESGR urges Reserve commands and units to actively address employer concerns about Reserve component duty requirements.

During Fiscal Year 1993, NCESGR noted an increased number of employer inquiries and complaints about perceived excessive training duty. During the first six months of 1993, over eight percent of calls received from employers involved "excessive duty." These calls represented a four-fold increase over the rate of such calls in 1989, the last full year before Operations DESERT SHIELD/STORM.

Employer complaints are frequently based on an erroneous understanding that members of the Reserve components are required to perform duty only one weekend per month and two-weeks of annual training. However, members of the Reserve components will likely require more released time from their jobs because of increased Reserve component roles, missions, and training requirements. It is important that commanders explain to employers the importance of the duty being performed and accommodate employer concerns to the extent possible.

The NCESGR has more than 4,200 volunteers throughout 55 state, territorial, and District of Columbia committees and conducts various programs to enhance employer support. The "Bosslift" Program increases employer awareness by encouraging employers to visit National Guard and Reserve training sites and observe military activities. The "Mission One" Program provides a trained volunteer at every National Guard and Reserve training site to extend the grassroots effort to communities, to provide information about NCESGR services and programs, and to obtain information about local employment policies. The NCESGR ombudsman, through a toll-free hotline, provides information, informal mediation, and referrals in employer conflicts and trains ombudsmen at the state level.

The NCESGR is not an enforcement agency and does not offer legal counsel and advice. However, many employer-employee conflicts have been resolved by NCESGR without resorting to the Department of Labor (non-Federal employees) or the Merit Systems Protection Board (Federal employees). The NCESGR also manages an awards program to recognize employers, volunteers, and others who provide support to National Guard and Reserve members and units. National Guard and Reserve members can recognize their employers by nominating them for the "My Boss is a Pro" Certificate.

The Board commends NCESGR for its outstanding efforts and success in improving employer support of Reserve components and its efforts in encouraging Congress to enact the Uniformed Services Employment and Reemployment Rights Act.

The Board recommends that NCESGR continue to pursue tax benefit legislation for employers who provide extraordinary support such as supplementing salaries, maintaining health care coverage, and other types of benefits for their Reserve component employees on active duty in support of military requirements.

Reemployment Rights

Legislation to revise the 53 year-old *Veterans' Reemployment Rights (VRR) Act* has been introduced in the Congress as the *Uniformed Services Employment and Reemployment Rights Act* (H.R. 995). This legislation is intended to balance the needs of the Armed Forces, members of the uniformed services, veterans, and employers and is designed to provide protections that are

generally based on duration, rather than type, of military duty performed. A provision is included under which damages may be assessed against state or private employers who fail to comply with the law. The bill prohibits hiring discrimination and, if enacted, would simplify and clarify the rights and responsibilities of employers and employees who perform noncareer military service, including service in Reserve components.

The Board encourages Congress to enact the Uniformed Services Unemployment and Reemployment Rights Act.

Individual Ready Reserve Screening

The Individual Ready Reserve consists of individuals who have completed their Active component or Selected Reserve commitment and have a remaining service obligation and non-obligated personnel who desire to remain in an active status. The total number of Individual Ready Reserve members by Service as of September 30, 1993, are listed below.

Army Reserve	438,036
Naval Reserve	156,257
Marine Corps Reserve	69,539
Air Force Reserve	112,248
Coast Guard Reserve	8,130
Total	784,210

Each of the Reserve components conducts an annual Individual Ready Reserve (IRR) screening, either by mailing surveys to members or by requesting them to report to a screening location. Screening is valuable in managing IRR personnel, for testing mobilization procedures, and also as a recruiting tool to provide information about opportunities for service in the Selected Reserve. The accuracy of personnel data has improved significantly as a result of IRR screening.

Funding for IRR screening currently satisfies Reserve component screening requirements. However, as the Active components downsize, the IRR will grow significantly. For example, the Air Force Reserve projects that its IRR will increase from 112,000 to over 115,000 by 1994 and to 121,000 by 1995. More attention to and reliance on IRR resources will occur as a result of the drawdown and in response to any projected changes in the Selective Service System.

The Board recommends that the Reserve components be required to screen IRR members and that adequate funding be provided to continue annual IRR screening.

Dental Panoral Radiographs/DNA Profile Analysis

Department of Defense policy requires a dental panoral x-ray to be completed by each Selected Reserve member and a duplicate copy to be filed at the Central Panograph Storage Facility in Monterey, California.

As of September 30, 1993, the percentages of personnel having acceptable duplicate x-rays on file was:

	Panographs on File
Army National Guard	94%
Army Reserve	90%
Naval Reserve	84%
Marine Corps Reserve	96%
Air National Guard	83%
Air Force Reserve	60%
Coast Guard Reserve	26%

To correct the shortage of duplicates on file, the Reserve components are using reports developed by the Defense Manpower Data Center to track panograph completions and to provide progress reports directly to units. Although an overall improvement occurred during Fiscal Year

1993, added emphasis to reach 100 percent compliance with this requirement is needed.

At some future time, deoxyribonucleic acid (DNA) profile analysis is expected to replace the panoral X-ray. A DNA sample consists of a drop of blood and a saliva sample. The sample is catalogued and stored at the Armed Forces DNA Repository. A DNA "fingerprint" is unique to an individual. The one-time cost to collect a sample, a near 100 percent accuracy, and speed of retrieval for casualty identification are among the advantages of the DNA collection program.

DoD has directed the Services to establish a program to collect specimens from Service members. The Army Surgeon General is the DoD executive agent for the program. The first phase of specimen collection began in April 1993. Specimen collection will become part of the physical examination. A database has been created and data is being passed to the Defense Manpower Data Center where it is entered into the Defense Eligibility Enrollment System (DEERS). At the installation level, the medical facility or personnel office having DEERS access will be able to determine whether a DNA specimen has been collected.

The Board recommends that the Reserve components give priority attention to obtaining panographs or DNA profiles for all members of the Selected Reserve and to ensuring that an acceptable record is on file at the central repository.

Drill Pay/Direct Deposit

The average time from drill attendance to receipt of drill pay varies significantly among the Reserve components. The Army National Guard pay process ranges from 8 to 13 days; the Army Reserve, 11 to 12 days; the Naval Reserve, 14 to 18 days; the Marine Corps Reserve, 10 to 18 days; the Air National Guard and Air Force Reserve, 7 to 10 days; and the Coast Guard Reserve, 15 to 30 days.

The installation of the Joint Service Software-Reserve Component (JSS-RC) pay system was completed by the Defense Finance and Accounting Service in July 1993, replacing the Joint Uniform Military Pay System-Reserve File (JUMPS-RF). The JSS-RC pay system dramatically reduces the delays previously experienced; however, JSS-RC does not currently support the Naval Reserve or the Marine Corps Reserve, which converted from the Reserve Manpower Management and Pay System to the Total Force System in anticipation of improved pay service. The Navy is evaluating its pay system and those of other Services to determine the best system to employ for its Active and Reserve components.

Participation in the Direct Deposit Program has increased; however, continued emphasis is needed to achieve program goals. The Army National Guard direct deposit enrollment rate is 93 percent; the Army Reserve, 87 percent; the Naval Reserve, 70 percent; the Marine Corps Reserve, 69 percent; the Air National Guard, 98 percent; the Air Force Reserve, 96 percent; and the Coast Guard Reserve, 96 percent. The Direct Deposit Program greatly facilitates pay processing upon mobilization.

The importance of timely and accurate Reserve component pay is critical because most personnel transition from civilian employment to military status. The Army National Guard uses the Mobilization Recall System (MRS) to support the Army's ability to automate the pay process. Upon mobilization, MRS will transfer all pay accounts assigned to the mobilized unit to the JSS-RC pay system. The Navy system has been expanded to support the Coast Guard Reserve.

The Board recommends that Active and Reserve component pay systems be fully integrated and that the JSS-Reserve component pay system, or its equivalent, be utilized.

The Board recommends that Reserve component pay systems be modified to permit

payroll deductions for U.S. Savings Bonds from drill pay.

The Board recommends that the Department of Defense pursue legislation to allow Reserve component members a 100 percent deduction from their income tax for unreimbursed travel expenses in conjunction with performing inactive duty training or unit training assemblies when computing their adjusted gross income.

The Board recommends that Title 37, United States Code, be amended to authorize the expenditure of appropriated funds to pay actual expenses of Reservists living outside a reasonable commuting distance when occupying government housing or lodging-in-kind while performing annual active duty training or IDT, whether at or away from their drill site.

The Board encourages Reserve components to pay their members promptly and to increase the enrollment in the Direct Deposit Program.

Family Support

Department of Defense Instruction 13423.19, Family Care Plans, was published in July 1992 and applies to both the Active and Reserve components. Family care plans include all family members for whom the member is responsible, not only children. Reserve component members with responsibility for family members are required to have a plan. Commanders are required to monitor compliance. Higher headquarters conduct audits and inspections to further ensure compliance. Reserve component member's family care plans must include provisions for short-term absences, such as active duty training, and long-term absences, such as activation or mobilization. Further, the Military departments must ensure that family support resources are available within a reasonable proximity of their units.

Each of the Services has created or revised family care plan directives to conform with this instruction. Additionally, the Assistant Secretary of Defense for Reserve Affairs has initiated a Corporate Information Management system to evaluate current programs and to develop a coordinated family support infrastructure across DoD that will ensure that Reservists and their families have access to and are provided with family support programs in peacetime and during mobilization. This project should be completed by summer 1994.

In Fiscal Year 1993, the National Guard Bureau Family Support Program (FSP) established an FSP Advisory Committee, representing all regions of the country and over 500,000 National Guard members. The Committee coordinates activities, shares ideas, and provides advice and recommendations to establish policy and guidance in developing National Guard family action plans. More than 7,000 National Guard members were activated for flood relief duties during the 1993 Midwest flood. Family support was provided through newsletters, telephone trees, volunteer coordination, and community-action coordination with other state, local, and community volunteer agencies.

The Army Reserve Command initiated a standardized program for volunteers, unit liaison officers, sergeants major, and family program coordinators, known as the Family Program Academy (FPA). The FPA affects over 235,000 soldiers and their families and has 23 classes specifically designed to educate the Army family. The FPA trained approximately 1,000 family members in Fiscal Year 1993, and expects to train approximately 3,000 more in 1994. The FPA extended invitations to other Services (Active and Reserve components) to attend the training.

The Army Reserve also created a training program for volunteers and key personnel associated with the Family Program to increase

readiness and self-sufficiency. The Family Program Academy has three levels of classes to increase the Army experience level of spouses. As their knowledge and interest increases, a volunteer can become a leader and representative within the family support network. Involvement in community programs has also increased.

A Family Support Handbook will be mailed in early 1994 to all Army Reserve members to explain benefits and entitlements and to assist family members in planning for mobilization. During an Army Reserve General Officer Conference in March 1993, a seminar was provided to update the spouses of commanders and command sergeants major on the Family Support Program. In August 1993, the Army Reserve Command hosted a nationwide workshop for family coordinators. The Army Reserve Personnel Center is developing a program to meet the unique needs of Individual Mobilization Augmentees and their families.

Additionally, the United States Army Special Operations Command has a very aggressive outreach program for Army Reserve families. Practically every weekend, family program coordinators are working with Army Reserve families to assist with mobilization preparation. These ongoing Army Reserve program initiatives enhance family readiness through unit, community, and family support.

The Navy Capabilities and Mobilization Plan contains broad guidance for implementing mobilization processing sites (MPSs) for the Naval Reserve. Each MPS is co-located with a Navy family service center which advises, counsels, and assists family members on mobilization issues and concerns. The Chief of Naval Personnel is responsible for mobilization and demobilization of the Naval Reserve and is tasked with policy development, program guidance, and overall management of Navy family service centers. The goal is to help people help themselves through problem solving, information gathering, and education.

The Marine Corps Reserve instituted Family Readiness Support Program and Reserve Training Center Mobilization Teams to ensure that family members are prepared for mobilization and to formalize their family readiness/key volunteer commitment. A Key Coordinator/Key Volunteer Handbook and a listing of national resources and addresses of the nearest family service centers have been published. Twelve thousand copies of the Marine Corps "What's Next" family mobilization guide have been distributed. All commands have groups which are actively participating in family readiness. Mobilization issues of importance to families are presented during annual family days.

These efforts have dramatically increased mobilization awareness and the comfort level of Marine Corps Reserve families. Mobilization Teams provide site maintenance and family support during mobilization. Pre-assigned Individual Ready Reserve members and retired Marines will provide day-to-day family and center support upon activation of Marine personnel. Ninety percent of the force has mobilization care plans on file, and efforts are ongoing to provide full implementation.

Air National Guard family support programs are administered in conjunction with the Army National Guard through each State headquarters.

The Air Force Reserve has published and distributed "What's Next? A Guide to Family Readiness" to all Air Force Reserve families. This guide contains detailed information about what to do before and after deployments, checklists for Reservists and family members, and general information about benefits and entitlements during mobilization. Additionally, a family-readiness training program has been initiated for family service directors (full-time civilian employees), family service liaison officers (noncommissioned officers), and Air Reserve technicians with additional duties in the family services area.

The Air Force Reserve has also sponsored training classes for Reserve and Active component directors. Newly-selected first sergeants are briefed on family mobilization issues and the importance of family care plans by a family readiness program manager during their initial technical training. Ninety percent of the force has completed a mobilization family care plan; the remaining ten percent are new accessions or members who are in the process of completing/updating their family care plan.

Individual Mobilization Augmentees

The Individual Mobilization Augmentee (IMA) Program provides trained individual members of the Selected Reserve to augment Active component commands and organizations which have wartime requirements above their peacetime strength authorizations. As Active component strength is reduced, the IMA Program is a cost-effective way of retaining trained personnel with skills to meet wartime and contingency requirements. The IMA Program also has a direct, positive impact on Active component mobilization readiness.

Department of Defense (DoD) Directive 1235.11 specifies training, position, and participation requirements for the IMA Program. IMAs are required to perform 12 to 14 days of annual training in their mobilization assignment. Subject to the availability of funds, IMAs are also eligible to participate in professional development opportunities. This directive is being updated to permit the expanded use of IMAs for contingency planning and pre/post mobilization needs. The National Guard does not have an IMA program.

The Army Reserve is funded at 96 percent of its IMA requirements. Available IMA end-strength has been reallocated to support the Army's highest priority mobilization needs. IMA soldiers are being reassigned to valid positions if assignment criteria are met. As the Army Reserve completes this process, an analysis will be done to determine vacancy rates and hard-to-fill positions. The Army Reserve has established a separate professional military education account for IMA training.

All Naval Reserve IMA positions are filled and funded. In addition to the Navy Sea College Program, approximately 200 officers and 30 enlisted personnel are assigned to IMA units which are authorized 48 drills and two-weeks annual training.

The Marine Corps Reserve was funded to fill 1,487 of its 2,612 required positions (57 percent). Of the funded positions, 1,289 were filled at the end of the Fiscal Year (87 percent). The fill of IMA positions has been affected by a validation study which indicates that a number of IMA billets may be eliminated. Annual training was fully funded for Fiscal Year 1993.

The Air Force Reserve IMA Program was reduced by 1,023 positions in Fiscal Year 1993. The assigned strength at the end of the Fiscal Year was 99 percent. Vacancies were primarily in medical fields. The accession process is being accelerated to accommodate candidates, and funds are being shifted to positions where qualified applicants exist. The Air Force Reserve is also restructuring requirements to include training category D (annual training only).

The Coast Guard Reserve provides IMAs primarily to the Selective Service System and the Federal Emergency Management Agency (FEMA). A few vacancies exist because qualified individuals cannot be identified to fill positions in certain geographic areas. The Coast Guard Reserve IMA Program is funded at 77 percent of requirements. All Selective Service System and FEMA annual training costs are reimbursed.

Figure 5-12 shows the number of IMAs assigned at the end of Fiscal Year 1993 and the differences between the required and authorized levels. It should be noted that not all authorized positions are funded.

The Board recommends that the Individual Mobilization Augmentee program receive adequate funding.

Figure 5-12
INDIVIDUAL MOBILIZATION AUGMENTEES

Component[1]	Officer Required	Officer Authorized	Officer Assigned	Enlisted Required	Enlisted Authorized	Enlisted Assigned
Army Reserve	13,788	13,000	10,155	4,645	4,645	2,913
Naval Reserve[2]	190	125	216	459	459	2,278
Marine Corps Reserve	1,134	951	779	1,478	536	510
Air Force Reserve	9,795	6,628	6,660	7,958	5,130	5,008
Coast Guard Reserve	44	34	30	0	0	0

Notes:
1. Neither the Army National Guard nor the Air National Guard has an IMA Program.
2. The Naval Reserve currently has 2,248 enlisted personnel in the Navy Sea College IMA Program. As "fully trained" veterans, they fill Selected Reserve requirements but are not required to drill. Their participation consists of two weeks annual training.

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

Civilian Skills

Most Reserve component members are employed full-time in nonmilitary positions and serve part-time in one of the Reserve components. Some have civilian job skills and/or civilian education and training that are applicable to military requirements (e.g., linguists, civil affairs, etc.). Several of the Reserve components maintain a database which contains information on civilian acquired skills. Such information is particularly important during periods of mobilization.

The Board encourages the Reserve components to maintain an automated database on civilian-acquired skills that are of potential value in meeting military requirements.

Active Component Experience Levels

Congress has established a requirement that the Army National Guard increase the percentage of qualified active duty personnel to 65 percent for officers and 50 percent for enlisted personnel by September 30, 1997. Figure 5-13 shows, by Service, the percentage of Selected Reserve personnel with at least two years of experience on active duty with one of the Active components.

Figure 5-13
SELECTED RESERVE MEMBERS
WITH TWO OR MORE YEARS ACTIVE COMPONENT EXPERIENCE

	Unit		IMA	
Component	**Officer**	**Enlisted**	**Officer**	**Enlisted**
Army National Guard	58%	53%	N/A	N/A
Army Reserve	60%	43%	83%	84%
Naval Reserve	98%	58%	98%	58%
Marine Corps Reserve	88%	18%	96%	86%
Air National Guard	78%	60%	N/A	N/A
Air Force Reserve	81%	73%	89%	91%
Coast Guard Reserve [1]	Unknown	Unknown	Unknown	Unknown

Note:
1. Data not available for Coast Guard Reserve.

Source: The Reserve components.
Data as of September 30, 1993.

Tenure Programs

The Reserve components, with the exception of the Air Force Reserve, had no significant policy changes to their officer and enlisted tenure (age and length of service) programs during Fiscal Year 1993. Within the Army National Guard, all soldiers and officers with twenty qualifying years of service for retirement purposes are subject to review by Qualitative and Selective Retention Boards. The Air Force Reserve implemented reassignment actions (voluntary retirement or non-participating status) for all lieutenant colonels who met the conditions of at least 20 satisfactory years service for Reserve retirement and six or more years in grade. Although the Coast Guard Reserve had no changes for its officer and enlisted tenure programs during Fiscal Year 1993, involuntary transfers from the Selected Reserve to the Individual Ready Reserve to reduce the Selected Reserve from 10,500 to 8,000 members in Fiscal Year 1994 may be necessary.

Montgomery GI Bill

More than 175,800 Selected Reserve members are participating in the Montgomery GI Bill Educational Assistance Program. Since the inception of the program, there have been over 316,000 National Guardsmen and Reservists who have applied for educational assistance. At the end of Fiscal Year 1993, 65 percent of all members eligible for educational assistance had actually applied for benefits. This is up from 57 percent at the end of Fiscal Year 1992. The Montgomery GI Bill continues to be one of the most important recruiting and retention incentives for the Reserve components.

Participation in the Montgomery GI Bill program requires an obligated term of service in the Selected Reserve of at least six years. One measure of the value of the program is its effect on the number of six-year enlistments. Since the inception of the Montgomery GI Bill,

accessions with six-year or greater terms of service have steadily increased. The proportion of accessions without prior military service electing six-year terms has increased from 39 percent of Selected Reserve accessions in Fiscal Year 1985, to 91 percent in Fiscal Year 1993. While other factors play a role in a member's decision, there is no doubt that the Montgomery GI Bill is a significant factor in the decision to enlist for six years.

Closely related as a measure of the impact of the Montgomery GI Bill is its effect on retention. An analysis of available data indicates that the Montgomery GI Bill plays a particularly important role with respect to retention, especially for the first six years of a Reservist's military affiliation. This was confirmed by the analysis conducted by the Sixth Quadrennial Review of Military Compensation and the RAND Corporation.

In August 1993, the Assistant Secretary of Defense for Reserve Affairs initiated a comprehensive Corporate Information Management Business Improvement Project on the Montgomery GI Bill for the Selected Reserve. This major effort is intended to improve the total process of managing this administratively complex program. The project uses contract support to assist Montgomery GI Bill managers from the Office of the Assistant Secretary of Defense for Reserve Affairs and all of the Reserve components in using process analysis tools to describe the Montgomery GI Bill process as it is, capture costs by activity, describe information requirements, and identify improvement opportunities. The project will continue through April 1994.

The *National Defense Authorization Act for Fiscal Year 1994* expanded MGIB provisions to include participation in programs of instruction beyond the baccalaureate degree for members of the Selected Reserve.

Enrollment in the Montgomery GI Bill Educational Assistance Program is shown in Figure 5-14.

Figure 5-14
MONTGOMERY GI. BILL USAGE

Component	Eligible	Applicants	Percentage of Participation
Army National Guard	192,085	125,218	65%
Army Reserve	97,400	78,156	80%
Naval Reserve	39,433	31,201	79%
Marine Corps Reserve	24,608	24,326	99%
Air National Guard	72,165	34,396	48%
Air Force Reserve	57,185	20,905	37%
Coast Guard Reserve	3,741	2,579	69%
Total	486,617	316,781	65%

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993.

The Board commends the Congress for enacting the Montgomery GI Bill and for continued enhancements to the Bill, such as approval of graduate school attendance.

Military Leave

An eligible full-time Federal employee who is a member of the Reserve components accrues 15 days of military leave each year to be used to perform active duty or active duty for training. State, county, municipal, and many civilian employers typically follow this practice. The President's National Performance Review proposes significant changes to the military leave entitlement.

The Board believes that any change that could ultimately lessen the availability of leave for Federal employees who are Reserve component members would, over time, seriously degrade morale, retention and recruiting, ultimately adversely affecting Reserve component readiness. Additionally, the Board expressed concern that any change to the military leave entitlement for Federal employees would likely cause state, county and local governments, as well as private businesses, to follow the pattern established by the Federal government, thereby withdrawing their support. The result would likely be adverse to Reserve component recruiting and retention efforts.

The Board recommends that the DoD reaffirm its policy on the use of authorized military leave by Federal employees when performing their required active duty and active duty for training, and depict the serious impact any change to the military leave policy would have on recruiting, retention, and morale within the Reserve components.

Commissary Access

Currently, Sections 1063 and 1064, Title 10, USC, provide limited commissary privileges to members of the Ready Reserve and the Retired Reserve. Section 1063 affords commissary access to Ready Reserve members who are satisfactory participants. Section 1064 affords commissary access to persons who have qualified for retired pay, but have not yet reached age 60. Under these provisions of the law, members and former members of the Reserve components can use the commissary system 12 times per calendar year. During Fiscal Year 1993, Congress considered a legislative proposal to lift the restrictions on the use of the Department of Defense commissaries, allowing unlimited access for members of the Selected Reserve. The Reserve Forces Policy Board supported the proposed legislation. However, this legislation did not pass during First Session of the 103rd Congress.

The Board encourages the DoD to request and the Congress to reconsider legislation providing unlimited commissary access for members of the Reserve components.

Civilian Education Levels

The quality of Reserve component personnel continues to improve. Civilian education, along with the required levels of professional military education, has become increasingly important for all Reservists. Civilian education has a positive impact on training, retention, and readiness.

The Defense Authorization Act for Fiscal Years 1992 and 1993 contained new educational requirements for Reserve component officers: ". . . after September 30, 1995, no person may be appointed to a grade above first lieutenant or lieutenant (junior grade) unless that person has been awarded a baccalaureate degree by an accredited educational institution."

Figure 5-15 shows the percent of enlisted personnel in the Selected Reserve who have a high school diploma or General Equivalency Diploma (GED) and the percent of Selected Reserve officers in grades O-1 through O-3 who have a college degree.

Figure 5-15
CIVILIAN EDUCATION LEVELS

Component	FY92 Enlisted % with HS Diploma/GED	FY92 Officers % with BA/BS Degree	FY93 Enlisted % with HS Diploma/GED	FY93 Officers % with BA/BS Degree
Army National Guard	98%	55%	99%	59%
Army Reserve	98%	87%	91%	89%
Naval Reserve	97%	98%	99%	98%
Marine Corps Reserve	99%	99%	97%	93%
Air National Guard	99%	90%	99%	95%
Air Force Reserve	99%	96%	98%	92%
Coast Guard Reserve	97%	75%	97%	67%

Sources: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

The Board recommends that the Reserve components continue their efforts to increase the civilian education levels of officer and enlisted personnel.

Incapacitation Pay

Department of Defense Directive (DoDD) 1241.1 establishes policy, assigns responsibilities, and prescribes procedures on entitlements to incapacitation pay for injuries, illnesses, or diseases incurred or aggravated on active duty, inactive-duty training (IDT), or while traveling directly to or from IDT and for medical/dental benefits (after becoming disabled) and line-of-duty (LOD) determinations for members of the Reserve components. This directive prescribes that "members on active duty under orders specifying a period of 30 days or less or in an inactive duty training status and who become entitled to incapacitation pay shall begin receiving their pay within 30 days of the notification of the injury, illness, and disease." The appropriate approving official has the authority to issue an interim LOD so "that incapacitation pay can be started without the delay inherent in awaiting a final approved LOD determination." Although the directive is an improvement over previous DoD policy, a policy and procedure for advance payment of incapacitation pay are needed.

The Reserve components report that personnel often have difficulty in meeting basic living expenses while waiting for incapacitation pay to begin. The cause for these delays are related to a lack of or late receipt of documents needed to substantiate payments. This issue could be resolved by submitting interim LODs or by partial payment/advance pay provisions. The Air Force Reserve, the Air National Guard, and the Naval Reserve have authorized advances or partial payment of incapacitation pay when warranted. Consistency among Reserve components is needed because this issue directly affects a member's morale, well-being, and desire to remain in the Reserve components.

The Board continues to be sensitive to the needs of Reserve component members who become incapacitated as a result of their performance of military duty and have suffered a loss of income.

The Board recommends that the Department of Defense develop policies and procedures to be consistently applied among Reserve components for advance partial payment of incapacitation pay.

The Board recommends that DoD conduct a study of the implementation of DoDD 1214.1, payment of incapacitation pay, use of interim LOD determinations, and use of advance/partial payment of incapacitation pay, for the purpose of further streamlining the incapacitation pay process.

Transition Benefits

The Secretary of Defense has approved and the Department has issued policy guidance for the transition initiatives contained in the *National Defense Authorization Act for Fiscal Year 1993*. The purpose of this policy is to ensure that members of the Selected Reserve who are involuntarily separated during the force drawdown period are treated fairly and equitably for their military service. The Reserve component transition initiatives enacted by the Congress and approved by the Department of Defense include: special separation pay for those with 20 or more years of service; early qualification for retired pay at age 60 for those with 15-20 years of service; separation pay for those with 6-15 years of service; post-separation use of commissary and exchange privileges; continuation of Montgomery GI Bill educational assistance; and priority affiliation with other Selected Reserve units.

These programs help Reservists whose positions or units are inactivated as well as those who are transferred to the Retired Reserve as the result of programs designed to balance and shape the Reserve forces. In addition, the use of the active duty voluntary separation incentives (temporary early retirement authority, voluntary separation incentive, and special separation benefit) has been approved where needed to assist members of the National Guard and Reserve serving on full-time duty in support of the Reserve components. These benefits and incentives assist members of the Reserve components who are unable to continue their service. These incentives will also assist the Reserve components to adjust the grade and skill needs of their Full-Time Support programs in response to changing requirements.

The National Defense Authorization Act for Fiscal Year 1994 provides $48 million for these programs in Fiscal Year 1994 and the DoD budget review has identified additional funding to meet additional unfunded requirements. In accordance with Defense Guidance, funding for transition assistance will be included in Reserve component budget requests for Fiscal Year 1995. The National Defense Authorization Act for Fiscal Year 1994 extended the force reduction transition period covered by these Reserve component transition initiatives from September 30, 1995 through September 30, 1999.

The Board commends the Congress and Department of Defense for providing a transition assistance program for members of the Reserve components.

Reserve Officer Personnel Management Act

Since the enactment of the Defense Officer Personnel Management Act (DOPMA) for Active component officers in 1980, the need for a comprehensive upgrade of the laws affecting Reserve officer personnel management has become increasingly apparent. The Reserve Officer Personnel Management Act (ROPMA) will revise the laws that govern appointment, promotion, separation, and transfer of Army, Navy, Marine Corps, and Air Force Reserve commissioned officers. It provides the statutory framework needed to effectively manage approximately 230,000 Reserve commissioned officers who are not on an active-duty list. Additionally, it links the personnel management processes of the Active and Reserve components.

Designed to address the needs of Reserve officers, the ROPMA will provide flexibility in managing the Reserve officer force while

offering greater visibility of career opportunities. It will assist in maintaining a cost-effective Reserve component personnel structure within the Total Force and provide a framework for Reserve officer management before, during, and after periods of mobilization. The ROPMA involves over 200 changes to existing law and will provide a more uniform promotion and management system for Reserve component officers.

The Reserve Officer Personnel Management Act passed the House in September 1992. It was reintroduced into the Senate on March 24, 1993 as House Resolution 1040.

The Board recommends the immediate passage of the Reserve Officer Personnel Management Act.

Women in the Reserve Components

The Department of Defense has made significant progress in expanding the role of women in the Armed Forces. Women comprise 13 percent of the Selected Reserve strength of the Reserve components, compared to 11.6 percent for the Active components.

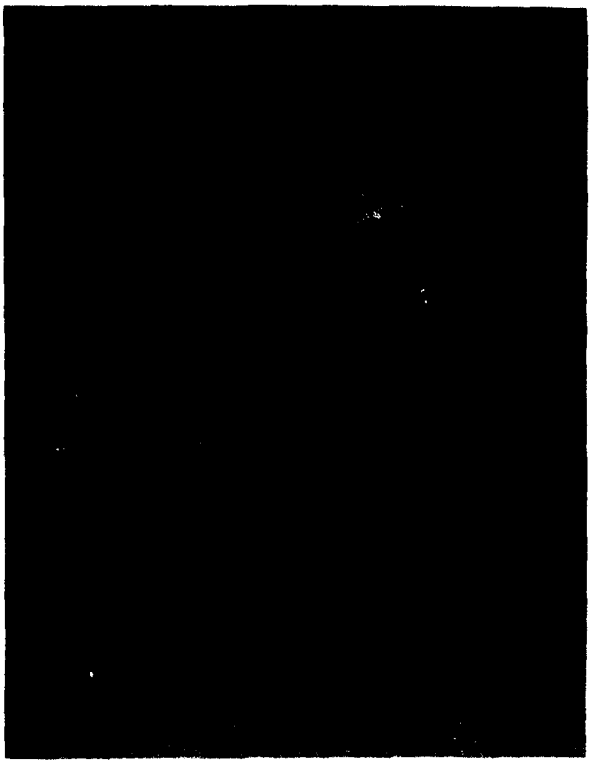
Women are now more fully integrated than ever before in all branches of the Armed Forces. Service combat exclusion policies define those combat-related career fields to which women cannot be assigned.

The opening of combat aviation units to women made available an additional 355 officer, 39 warrant officer, and 1,998 enlisted Army National Guard positions to women. However, women remain significantly underrepresented in the warrant-officer ranks. Since a large percentage of the aviation positions are in warrant-officer grades, the Army's newly-established task force to bring more women into the Warrant Officer Corps will have a significant effect on the Army National Guard's ability to attract women into attack aviation assignments.

The Army Reserve also opened combat aviation fields to officer and enlisted women during Fiscal Year 1993. The aeroscout observer occupational specialty was made available to enlisted personnel; positions such as A2-OH-58A/C Scout pilot, D1-AH-1G pilot, and D5-AH-64 pilot were newly-opened for women officers.

Navy policy provides that the Navy must draw from the most talented personnel available, regardless of gender. No gender quotas will be established. Positions aboard Naval Reserve tactical air squadrons, afloat staff units, fleet command ships, fast combat ship augmentation units, and helicopter combat support squadrons have been opened to women.

The Marine Corps Reserve expanded several career fields to women during Fiscal Year 1993, among which are embarkation officer, ground nuclear weapons assembly technician, aviation fire control repairer, aerial navigator officer, airborne radio operator/loadmaster, and remote sensor operator. All aircraft are open to women; however, assignment to forward air controller and battalion/regimental air officer positions remain closed in accordance with the Secretary of Defense direction not to assign women to units that engage in direct ground combat. All career



The Air National Guard, mirroring the Active component, opened combat crew positions to women during Fiscal Year 1993.

fields are open to women with the exception of pararescue jumpers and ground combat control technicians.

The Air Force Reserve opened virtually all flying specialties (both officer and enlisted) to women. The only specialties remaining closed are Air Force liaison officer, combat controller, pararescue, and tactical air command and control technician.

Coast Guard policy provides that women have the same career opportunities and responsibilities as male members, limited only by a unit's ability to provide separate berthing and hygiene facilities.

A listing of women assigned to each Reserve component is contained in Figure 5-16.

Minorities in the Reserve Components

Figure 5-17 provides data on minority representation in the Reserve components.

Figure 5-16
WOMEN IN THE RESERVE COMPONENTS

Component	OFFICER		ENLISTED	
	Selected Reserve	IRR/ING	Selected Reserve	IRR/ING
Army National Guard	3,694	65	27,692	657
Army Reserve	11,892	13,230	45,418	54,580
Naval Reserve	3,857	3,108	17,033	16,816
Marine Corps Reserve	191	271	1,316	3,649
Air National Guard	1,643	N/A	14,296	N/A
Air Force Reserve	3,534	4,666	11,962	18,415
Coast Guard Reserve	100	41	969	987
Total	24,911	21,381	118,673	95,058

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993.

Figure 5-17
MINORITIES IN THE RESERVE COMPONENTS

	White	Black	Asian/ Pacific Islander	Am Indian/ Alaskan Native	Unknown/ Other	Total	Hispanic[1]
Army National Guard							
Officer	42,466	2,964	467	140	619	46,656	1,661
Enlisted	285,053	61,415	3,437	2,822	10,536	363,263	23,859
Total	327,519	64,379	3,904	2,962	11,155	409,919	25,520
Army Reserve							
Officer	47,260	6,359	855	131	1,685	56,290	1,506
Enlisted	144,267	61,106	3,514	814	9,909	219,610	15,903
Total	191,527	67,465	4,369	945	11,594	275,900	17,409
Naval Reserve							
Officer	24,754	818	246	19	1,304	27,141	333
Enlisted	86,124	13,677	1,876	288	3,289	105,254	5,958
Total	110,878	14,495	2,122	307	4,593	132,395	6,291
Marine Corps Reserve							
Officer	3,409	162	10	8	57	3,646	76
Enlisted	28,250	5,445	863	138	3,396	38,092	3,744
Total	31,659	5,607	873	146	3,453	41,738	3,820
Air National Guard							
Officer	13,338	561	196	31	116	14,242	351
Enlisted	89,958	8,839	1,821	370	1,932	102,920	4,976
Total	103,296	9,400	2,017	401	2,048	117,162	5,327
Air Force Reserve							
Officer	14,711	743	9	1	378	15,842	330
Enlisted	50,207	11,355	56	23	3,079	64,720	3,312
Total	64,918	12,098	65	24	3,457	80,562	3,642
Coast Guard Reserve[2]							
Officer	1,227	36	8	2	N/A	1,273	11
Enlisted	6,980	432	145	54	N/A	7,611	388
Total	8,207	468	153	56	N/A	8,884	399
Total							
Officer	147,165	11,643	1,791	332	4,159	165,090	4,268
Enlisted	690,839	162,269	11,712	4,509	32,141	901,470	58,140
Total	838,004	173,912	13,503	4,841	36,300	1,066,560	62,408

Note: 1. Figures for Hispanics are the sum of Hispanics reported in each racial/ethnic category.
2. Coast Guard Reserve Hispanics are not included in the other racial/ethnic categories.
Source: Office of the Assistant Secretary of Defense for Reserve Affairs and the Coast Guard.
Data as of September 30, 1993.

Automated Personnel Management Information Systems

Existing Reserve component personnel management information systems were designed for peacetime management and generally do not interface with Active component systems.

The Army's Reserve Component Automation System (RCAS) is a comprehensive system designed to support the decision-making needs of commanders and their staffs. The RCAS will automate all facets of unit administration, mobilization management, planning, and execution for the Army National Guard and Army Reserve and will interface with the Total Army Data Base (TAPDB) and other external systems.

The Army National Guard system software, TAPDB-GUARD, has been delivered, and the contract for test support and conversion of SIDPERS output products calls for parallel testing with SIDPERS conversion of output products by April 1994. TAPDB-GUARD will become the ARNG headquarters system of record. The Inter-Component Data Transfer (ICDT) project will provide the software and communications to exchange personnel data through TAPDB and is scheduled to coincide with the release of SIDPERS-3 in the Active component.

The Army Reserve uses TAPDB-RESERVE as a database to support its management requirements for the nonaligned force and the Selected Reserve. The ICDT will accomplish the flow of personnel data between the TAPDB-GUARD, TAPDB-RESERVE, and the

TAPDB-ACTIVE databases. With the flexibility to share data among components, ICDT will become a single integrated Army personnel system to support the Total Army Personnel-Operations Integration effort. The ICDT is scheduled to be implemented in early 1994.

The Naval Reserve uses the Reserve Standard Training Administration and Readiness Support (RSTARS) System for personnel management. Various RSTARS software packages are used for medical, mobilization, training requirements, and readiness information. The Navy also has a task force to propose actions to achieve improved personnel data management through a single database to bring Navy Active and Reserve components into common pay and personnel systems.

The Marine Corps Reserve implemented the Marine Corps Total Force System during 1992 to combine the integrated pay and personnel systems of the Active and the Reserve components into a single system. This system will become fully operational in 1994.

The Air National Guard and Air Force Reserve Personnel Data Systems are an integrated, Total Force system that provides support to the Active component and the Air Reserve components. The major emphasis is on five categories of basic functions: maintaining accurate strength data; providing personnel data to commanders; coordinating and recording information to ensure timely and accurate movement and reception of personnel; supporting the force to maintain force levels for prolonged periods; and meeting the legal, fiscal, morale, and informational needs of members of the Active and Reserve components.

The Coast Guard Reserve Personnel Management Information System was merged with the Active component Personnel Management Information System in 1988. Resources permitting, all systems will be merged in 1994. While Reservists will continue to be assigned to contingency billets, the single system will allow rapid integration of Reservists into Coast Guard operations and allow a back-fill capability utilizing all Coast Guard personnel. This unified approach to human resource management will enhance Coast Guard readiness by having all personnel requirements and resources in a single database to facilitate flexibility in planning for a wide range of contingencies.

Flag/General Officer Requirements

The Reserve components are still operating under flag and general officer ceilings which were established by Congress in 1954. Since that time, significant new missions have been added to the Reserve components under the Total Force Policy.

These ceilings have been inadequate for many years. As a result, there is a long-standing problem of excessive delays in Reserve component general and flag officer promotions which will continue until the congressional ceiling is increased. In some Reserve components, the promotion of officers who have been selected for promotion is delayed a year or more after their assignment to a promotable position.

Reserve component flag and general officers on active duty, such as chiefs and deputy chiefs of many of the Reserve components, are currently counted against Active component grade ceilings. Since 1982, the Board has recommended that legislation be enacted to exclude these positions from Active component grade ceiling accountability.

Figure 5-18 shows the number of flag and general officers required and authorized for each of the Reserve components.

The Board recommends that appropriate increases in the statutory ceilings for Reserve

Figure 5-18
FLAG/GENERAL OFFICER AUTHORIZATIONS

Component	Required	Authorized	Over(Short)
Army National Guard [1]	113	92	(21)
Army Reserve	152	115	(37)
Naval Reserve	76	48	(28)
Marine Corps Reserve	10	10	0
Air National Guard [1]	98	82	(16)
Air Force Reserve	103	75	(28)
Coast Guard Reserve	2	2	0
Total	554	424	(130)

Note 1: Does not include State Adjutant General or Assistant Adjutant General positions.
Source: Office of the Assistant Secretary of Defense for Reserve Affairs and the Reserve components.
Data as of September 30, 1993.

component flag and general officers be adopted.

The Board recommends that legislation be enacted to exclude positions filled by Reserve component flag and general officers on active duty from Active component grade ceiling accountability.

Selective Service System/Draft Registration

On December 21, 1993, the Secretary of Defense forwarded to the President the Congressionally-mandated report entitled, "A Review of the Continued Requirement for Draft Registration." It considered all aspects of eliminating peacetime registration. The National Security Council has convened an interagency working group composed of representatives of the Cabinet Secretariat, Office of Management and Budget, Selective Service System, Department of Defense, and the National Service Corporation to develop an Administration position on the future of the Selective Service System before the Fiscal Year 1995 budget hearings.

Training and Mobilization 6

". . . trained, ready, and dedicated people provide a unique advantage to our Nation . . . as we seek to promote progress and stability as the path to peace."

Admiral Charles R. Larson, USN
Commander-in-Chief, U.S. Pacific Command

General

Training is an essential element in maintaining effective, ready Reserve components which are prepared to fight and win in combat. Training programs and budgets must be adequate to ensure that trained Reserve component units and individuals are available in time of war or national emergency. Because of the limited training time available, the Reserve components have increased their reliance on training devices and simulators to develop combat-ready forces. The Board believes that the Reserve components should make maximum use of available training technology.

Training Requirements

Department of Defense Directive 1215.6, which establishes minimum training criteria for Reserve components and provides uniform training policies and procedures. Reserve component members receive training in accordance with mobilization assignments and required readiness levels. Members of the Ready Reserve may be required to serve on active duty for training up to 30 days a year. Training programs include inactive duty training, annual training, and/or active duty for training.

Normally, Reserve component units train a minimum of 39 days a year. This usually consists of two days per month (typically, one weekend) and two weeks of annual training. Weekends drills can occasionally be supplemented by additional training periods, subject to availability of funds.

Drill Scheduling Innovations

The Secretary of Defense has authorized multiple inactive duty training periods (where practical) to maximize available training opportunities. The Reserve components have implemented various flexible training schedules to enhance training appropriate to their mission and mobilization assignments.

The Army National Guard and the Army Reserve allow commanders the authority, within budget and employer constraints, to vary inactive duty training and annual training periods by conducting more frequent training periods. Some units have combined inactive duty training periods with annual training periods. For example, an inactive duty training period (weekend) may be followed by a one-week annual training period and end with an inactive duty training period.

The Army National Guard and the Army Reserve use multiple-unit training assemblies of five drills when training requires more then the traditional four-drill period. The additional drill period comes from using another training period or by obtaining additional funding from higher headquarters.

The majority of Naval Reservists perform inactive duty training in the traditional four-drill weekend and two-week annual training format. With an increasing emphasis on fleet exercises and contributory support, a number of functional training variations were successfully implemented in 1993. The Navy's Expanded Opportunity Drill (Clinical) authorizes health care providers up to 30 additional training periods to perform contributory support at military treatment facilities.

The Naval Reserve has a pilot program called Flexible Drill Test to remove quarterly drill limitations for certain units. Naval Reservists perform two 24-day periods of inactive duty training or annual training for contributory support projects which provide mutual benefit to the Reserve and Active components. An incremental annual training test, performed in conjunction with the REFLEX medical program, allows health care professionals to schedule their annual training periods in increments to meet hospital clinical requirements.

The Marine Corps Reserve maximizes training opportunities by periodically modifying annual training and inactive duty training schedules to extend the availability of Reservists to meet

operational needs, while simultaneously reducing training downtime.

Air National Guard units use training assemblies and inactive duty, annual, special, and proficiency training periods to complete training requirements and to improve training effectiveness. Personnel may be scheduled to perform training during noncore duty hours and during alternate unit training assemblies or nonduty weekends.

Air Force Reserve units routinely schedule two or three unit training assemblies a month using unit training assemblies and one or two supplemental unit training assemblies. To ease congestion, improve training, and fulfill Active component requirements. The two-week annual training period is commonly used to fulfill annual training requirements, while supporting actual operational missions.

The Coast Guard Reserve authorizes some Selected Reservists to perform inactive duty training the week instead of on weekends. Others perform duty in nonpay status. Weekday inactive duty training periods provide excellent augmentation and training opportunities to work with their Active component counterparts.

Two DoD programs, PRIMUS and REFLEX, provide inactive duty training opportunities for Selected Reserve Medical and Nurse Corps officers and enable them to obtain retirement points and drill pay for continuing education or contributory support activities.

The Board recommends pursuing inactive duty training and annual training scheduling initiatives to improve training effectiveness and to make maximum use of available training resources.

Training Initiatives

The quality of training relates directly to the mobilization and combat readiness of Reserve units and their members. Innovative training programs ensure effective use of available training periods. All Services express concern about declining training budgets. Maintaining adequate funding levels is the only way to ensure that a well-trained force is available to augment, reinforce, or reconstitute the Active component. The following initiatives were implemented by the Reserve components in Fiscal Year 1993.

The Army National Guard has initiated two major training programs: a new tank crew training program to determine the best method of training and a Unit Leader Development Program which provides additional training for key leaders. The Unit Leader Development Program is conducted during additional weekend and annual training days, allowing leaders to remain with their troops during scheduled weekend and annual training periods.

Army Reserve initiatives include implementation of operational readiness evaluations to assess the readiness of units and to examine premobilization strengths and weaknesses. Priority Reserve Initiatives Mobilization Enhancements (PRIME) was implemented to focus management of contingency force pool-designated units. The Army Reserve has taken the lead within the Army in developing combat service support Lanes Training. Lanes Training is collective training conducted at the small unit level that is focused on key mission-essential tasks and conducted under conditions and standards prescribed in Army training doctrine.

Declining training budgets will affect the programmed increased participation of Army National Guard and Army Reserve units in BOLD SHIFT initiatives. However, the Operational Readiness Evaluation Program and Lanes Training initiatives will be funded.

The Naval Reserve's primary initiative in Fiscal Year 1993 was to establish an effective training management system. Individual training plans and the electronic transfer of those requirements to training sites have been successful. The Reserve Standard Training Administration and Readiness Support (RSTARS) is decreasing the amount of unit administrative time required. The use of this system permits limited training resources to be allocated to the most critical requirements.

New training initiatives using the RSTARS Training Management Module and implementing of RSTARS (TM) Phase I for all Surface and Air sites; the procuring of mobile firing ranges for security force; developing of an expanded C-130T pilot and flight engineer training curriculum; developing of a program to standardize occupational code training requirements for air squadron personnel; and increasing the use of civilian-contract training. Less flight-hour funding will adversely affect readiness and could affect safety. Diminished inactive duty training travel funding will mean less contributory support to gaining commands and will reduce the benefits associated with training in mobilization billets.

The Marine Corps Reserve is implementing a Model Manager Program to evaluate the time and cost effectiveness of training. Other initiatives include use of interactive video teletraining to augment military occupational specialty (MOS) training and increased emphasis on new equipment transition training. Reserve platoon sergeant and squad leader courses have been implemented to improve tactical proficiency and leadership skills in small unit leaders. A two-phase MOS-producing program for Reservists is in proposal form. When it is refined and implemented, it will permit MOS certification with a combination of intensive nonresident study followed by a short (possibly two-week) formal school.

Increased use of simulators has proven to be successful for the Marine Corps Reserve, especially in the transition from the M60 to the M1A1 tank because of a shortage of tanks. Also,

maximum use of small-arms simulators has saved time and money by eliminating travel time to remote firing ranges. Successful simulator training has prompted the Marine Corps Reserve to consider the use of additional simulation devices.

The Marine Corps Reserve considers joint Service operations and exercises emphasizing joint Service interoperability of communication equipment to be a training priority. Future training is being designed to incorporate joint doctrine into exercises.

Declining training budgets for the Marine Corps Reserve will result in a lack of funds to send Marines to MOS-producing schools and professional military education courses. Standard attrition and potential unit reorganizations and/or relocations will increase the requirement for school training funds.

The Air National Guard has moved from a three to a four-year training cycle, shifting primary focus to flying unit support. In addition, a new stay-at-home force unit type code has been developed. Additionally, the Air National Guard has expanded overseas deployment for training to include medical readiness training exercises (MEDRETEs) in SOUTHCOM and international training activities throughout the world.

Other initiatives include developing a program for local educational institutions to develop and teach the Air Force syllabus courses. Successful examples include the C-130 Aeromedical Evacuation Crewmember Qualification Course and the Aeromedical Evacuation Contingency Operations Training course.

The Air National Guard and the Air Force Reserve increased their use of interactive courseware, covering the spectrum from computer-based training to interactive videodisks. Both Air Reserve components are investigating various methods to make training available to unit personnel at home stations. Examples include "distance learning," training at local educational institutions, and computer-based instruction. The Air Force Reserve will implement T-NET, a long distance tele-audio training initiative in 1994.

The Air Force Reserve made significant changes in the training of operational, support, and security personnel. Additional safety and skill training programs have been jointly developed with the Air National Guard and gaining commands to increase aircrew interaction and thereby decrease the potential for accidents. Increased training quotas have been identified for personnel in the food service, lodging, mortuary, laundry, fitness and recreation support fields to improve access to training opportunities. A six-day Physical Fitness Assessment, Exercise/Nutrition Course was developed.

The Air Force Reserve is researching many methods to improve traditional, formal, and on-the-job-training programs, with emphasis on video telecommunications and interactive courseware. Computer-based training, interactive videodisk, and newer training devices are being developed commercially. An appropriate mix of distance learning techniques

can result in cost savings and an enhanced training capability.

Declining training budgets will cause more training to be accomplished near home station, thereby reducing the amount of time available for operational missions and exercise participation.

During 1993, the Coast Guard Reserve training goal was to improve instructional training by focusing on the following high-priority courses: the Marine Safety Hazardous Chemical Training Course, Reserve Enlisted Basic Indoctrination, the Maritime Academy Reserve Training Program, Reserve Officer Candidate Indoctrination, the Chief Petty Officer Academy Reserve Course, the Direct Commission Interview Course, the Reserve Unit Administration and Training Storekeeper Basic Course, the Yeoman Reserve Course, and the Explosive Handling Supervisor Course.

Training Delivery Systems

Training delivery systems (including computer-assisted instruction, interactive courseware, simulators, and war-gaming systems) minimize the cost of training while increasing the amount of hands-on training for unit and individual members. Training delivery systems maximize the benefits of training dollars, reduce training costs, and increase training time by enabling personnel to train at armories and Reserve centers instead of traveling to remote ranges and training areas.

The Army National Guard identified a need for video teletraining, computer-based training programs of instruction, and interactive courseware. Video teletraining devices are needed at least down through battalion level. The Army Training Staff Simulation System was acquired from the Active component. The Brigade and Battalion Battle Staff Simulation System, the Corps and Division Battle Staff Simulation Systems, and the Janus Maneuver Training System were purchased in Fiscal Year 1993 to be fielded both in the Active and Reserve components. Interactive training devices for Armor, Field Artillery, and Bradley Fighting Vehicles are among systems planned for future use. Adequate funding and Full-Time Support personnel are necessary to successfully integrate the new family of battle staff simulations.

Training delivery systems requirements for the Army Reserve parallel the Active component. Aviation trainers (AH-64, CH-47, and H-60 simulators); truck-driver trainers (devices to emulate various road conditions in different seasons); marksmanship trainers; a vessel bridge simulator; and a crane simulator are essential for training. Battle projection centers received shipments of Brigade Battle Simulation (BBS) software in Fiscal Year 1993. Systems planned for 1994 and beyond include upgrades and improvements to the Conduct of Fire Trainer. In addition, the fielding of more BBS software, Corps Battle Simulation Systems, Janus Maneuver Training Systems, and command-and-control software packages is expected.

Training delivery systems needed by the Naval Reserve include an operational flight trainer, computer-based training, a weapons system trainer, a single acoustical signal processor, a sensor station-3, inverse synthetic aperture radar, a portable aircrew trainer, a deployable acoustic readiness training system, and an aviation multi-function electronic warfare trainer. Three tactical advanced simulated warfare trainers and 12 shipboard turbine simulators were received in Fiscal Year 1993. Additional weapon systems trainers, aviation multi-function electronic warfare trainers, and tactical advanced simulated warfare trainers, as well as a cargo handler trainer and gas turbine team trainers are planned for 1994. Funds continue to be insufficient to provide life-cycle support for several interactive courseware training systems.

The Marine Corps Reserve makes extensive use of simulation devices. During Fiscal Year 1993, the Marine Corps Reserve acquired the Precision Gunnery Target System and the Mobile Conduct of Fire Trainer System. New

systems planned include moving target simulators, ground control intercept/command and control training simulators, a tactical air operations module, tactical warfare simulators, marksmanship simulators, tank crew interactive simulators, and interactive televideos.

As the Air National Guard assumes a larger portion of air refueling missions, additional simulators are required to maintain aircrew proficiency. Air National Guard air traffic control units require enhanced computer hardware/software to maintain proficiency and ground-based search radar units require simulation interfaces to replace current analog systems. The Air National Guard maintains four F-15 regional simulator sites, two F-16 flight training unit sites, one C-130E regional simulator site, and one KC-135 regional simulator site; another KC-135 regional simulator site is planned for 1994. The Air National Guard relies on a number of training delivery devices which provide training support for F-16A/B, F-4C/G, C-5, and F-5 aircrews. Wartime medical service planning systems, including a computer database used to track training, are being developed for medical units; however, no funds have been programmed for the cost of software.

The most recent training delivery system for Air National Guard security police is a firearms training simulator. Funding is needed to establish a firearms training simulator system at each Air National Guard flying unit. Sufficient funds for currently available MB-26 simulator training is available. Any additional systems will require operating funds. Funds for the C-5A simulator will be requested for 1996. Three MB-26 simulators may become available in 1994 and a C-5A simulator may become available in 1996 or 1997, if funding is provided.

The Air Force Reserve has ongoing operational requirements for mission rehearsal devices for fighters, a C-5 simulator, additional C-130 simulators and a AC-130 special operations forces aircrew training system. Only

the F-16 Multi-Task Trainer prototype was fielded for unit evaluation in Fiscal Year 1993.

The Air Force Reserve reported that sufficient funds are not available for needed simulators, training devices, and associated facilities requirements. Adoption of interactive courseware and computer-based training is proceeding slowly because of insufficient funding.

The Coast Guard Reserve has no specific requirement for training devices or simulators. Each Coast Guard training center develops its own generic computer-based training programs to meet individual training needs. A training council, comprised of representatives of Coast Guard training commands and training managers, to explore existing and emerging technologies to find opportunities for improving training delivery systems.

The Board believes that it is imperative that development and fielding of high technology training devices continue in order to provide quality simulation training for the Reserve components.

The Board recommends that the Services increase funding for Reserve component training simulators and devices.

Training with Gaining Commands

The ability of a Reserve component unit to mobilize, deploy, and perform its wartime missions is greatly enhanced by frequent training with its wartime gaining command. The Board believes that readiness is improved when units and members are able to train in the operational environments in which they are expected to fight.

Training with gaining commands includes joint training exercises, battle command training program simulation exercises, field training exercises, and command post exercises. Some of the training exercises involve actual support of overseas operations. The extent that Reserve components train with their wartime gaining command varies by component. Limitations are often dictated by funding levels.

Approximately 60 percent of Army National Guard members perform annual training with training-associated or gaining commands. Much of this training time is spent in Lanes Training, exercises, and at battle training centers. The Army National Guard reported a Full-Time Support funding shortfall of $30 million, forcing reduced annual training support. The shortage of annual training funding forced many units to shorten the overseas deployment training to less than a three-week rotation.

Coast Guard Reservists performed approximately 54 percent of their inactive duty training hours augmenting Active component Coast Guard commands in Fiscal Year 1993. This represents an increase of more than five percent over 1992. Approximately 83 percent of active duty for training time was spent augmenting Active component missions. A funding shortfall allowed the Coast Guard Reserve to fund only 68 percent of its annual training requirements.

Overseas Training

Overseas training provides some of the most effective training opportunities for Reserve components units and members. The planning necessary for a Reserve component unit to prepare and execute an overseas training mission closely parallels the planning required to mobilize and deploy in wartime. In addition to exercising mobilization, deployment, operational, and redeployment plans, overseas training strengthens command relationships and provides experience operating in various theaters.

Initial deployment of Reserve component units for overseas training began in the late seventies within the structure of planned Chairman of the Joint Chiefs of Staff (CJCS) exercises. The original intent of the Reserve component Overseas Deployment Training Program was unit deployment and employment within a theater of operations. The program was designed to improve the readiness of forces for the eventuality of war. As the program has matured and U.S. operational missions around the world have changed, the purpose and objectives have been refined to fit current needs of the CINCs and the Reserve components.

Major overseas training exercises which included significant Reserve component participation were conducted in Korea, Thailand, Norway, Iceland, Canada, Alaska, the Philippines, Central and South America, and Europe. Training is also provided through Reserve component participation in worldwide humanitarian and peacekeeping missions and counterdrug operations.

Two of the largest exercises/operations in the Overseas Deployment Training Program are Exercise FUERTES CAMINOS in U.S. Southern Command and Operation RETROEUR in Europe. In the case of Exercise FUERTES CAMINOS, over 5,000 Army National Guard and Reserve soldiers deployed to Panama and constructed over 27 kilometers of road, 24 schools, and 8 clinics. For Operation

RETROEUR, over 5,500 Reserve component soldiers deployed with their units to assist in removing military equipment from Europe and in helping the theater reach its drawdown end-state.

For more than a decade, Reserve component unit training in U.S. Southern Command has been an integral part of U.S. political and military strategy in that region. These units provide necessary humanitarian relief and civic assistance, and highly visible, nonviolent examples of military operations. Begun initially as CJCS-directed, Army National Guard/Army Reserve engineer-oriented exercises, this program has been expanded by U.S. Southern Command to include greater joint Service involvement. The U.S. Southern Command model features rotation of Reserve component units in two or three-week increments, overlapping tours, and uses Full-Time Support personnel to accomplish specific long-duration tasks identified by the CINC. Types of units typically deployed include infantry, artillery, special forces, engineers, aviation, medical, military police, psychological operations, civil affairs, public affairs, maintenance, intelligence, airlift, and tactical fighter support. These Reserve component annual deployments double the in-theater U.S. military strength. Reserve component participation in U.S. Southern Command's regional strategy fills an essential mission requirement which would be too costly to fund otherwise.

Training opportunities other mission areas such as humanitarian and nation assistance could be increased. The use of Reserve component units for peacetime humanitarian assistance increases goodwill and provides role models for emerging democracies.

The Services reported that more than 93,000 Reserve component personnel trained in over 90 foreign nations, U.S. territories overseas, and Antarctica during Fiscal Year 1993. Figure 6-1 provides a listing of the number of personnel and units which participated in overseas training in Fiscal Year 1993.

Figure 6-1
OVERSEAS TRAINING
(Units/Personnel)

	FY 92		FY 93	
Component	**Cells/Units**	**Personnel**	**Cells/Units**	**Personnel**
Army National Guard	780	25,310	1,071	26,132
Army Reserve	960	14,795	835	19,007
Naval Reserve	149	11,417	297	11,132
Marine Corps Reserve	78	7,800	71	7,006
Air National Guard	130	4,026	141	18,390
Air Force Reserve	520	18,233	398	11,507
Total	2,617	77,021	2,813	93,174

Source: The Reserve components.
Data as of September 30, 1993

The Board commends the Commander-in-Chief, U.S. Southern Command for the vision and initiatives in providing mutually supportive overseas deployment training opportunities for the Reserve components.

The Board recommends that overseas training opportunities for Reserve component units and members be expanded and adequately funded.

Joint Training

Joint training offers an opportunity for elements of more than one Service to participate together in training activities and operations. Joint training opportunities enhance readiness and mobilization planning by increasing the experience of commanders and staffs in working with other Services. Some joint training opportunities are available through joint Service schools.

Some Reserve components, reported a decrease in joint training because of the demands of ongoing operational contingencies and reductions in training budgets. The main focus of joint operational training for most Reserve components remains participation in Chairman of the Joint Chiefs of Staff (CJCS) exercises. The Reserve components participated in 125 joint/combined/multi-national exercises in Fiscal Year 1993.

Some Army National Guard units participated in CJCS exercises for the first time in Fiscal Year 1993, increasing the experience base of the force. Non-CJCS joint training deployments included medical and engineer elements in joint/combined environments such as U.S. Southern Command. Units and individuals receive pre-exercise training tailored to their mission requirements. For example, if an aviation unit is going to a CJCS exercise requiring overwater flight and coordination with Active components is required, predeployment training is provided on overwater flight operations and on the methods of operations of the Services.

The Army Reserve increased its Fiscal Year 1993 participation in joint exercises by 4,212 soldiers, a 28 percent increase. Fourteen additional units participated. The Army Reserve participated in a total of 14 CJCS exercises in Fiscal Year 1993. Pre-exercise training included Mission Essential Task List Training, specific training related to the exercise, exercise overview, and country information.

The Naval Reserve had greater unit participation in joint exercises in Fiscal Year 1993 than in previous years. A number of Naval Reserve units, such as the Naval Reserve Intelligence Program units, routinely participate in joint training operations, supporting peacetime missions and exercises. Mobile Inshore Undersea Warfare units participated in several counterdrug operations coordinated by joint commanders. Cargo Handling Battalions sought training opportunities with Air Force components located near readiness support sites. Training opportunities included familiarization with Air Force logistics/transport aircraft, aircraft loading and stowage, and actual onload/offload of cargo. An in-depth training program to improve joint training relationships between Naval Reserve Fleet Hospitals and Active component Army hospitals having a deployable medical systems (DEPMEDS) mission and serving as DEPMEDS storage sites has been established at Fort Sill, Oklahoma.

During Fiscal Year 1993, Marine Corps Reserve units participated in over 900 training deployments. Major deployments resulted from participation in joint/combined exercises. The majority of Marine Corps Reserve supporting commands are located at joint training centers. This collocation has long fostered joint planning, training, and participation in unit drills. With all joint training exercises scheduled two years in advance, the Marine Corps Reserve routinely schedules pre-exercise training to prepare Reservists for upcoming major exercises. Some examples are cold-weather training in Norway, mountain warfare training for exercises in mountainous terrain, swimming and water survival for amphibious and reconnaissance

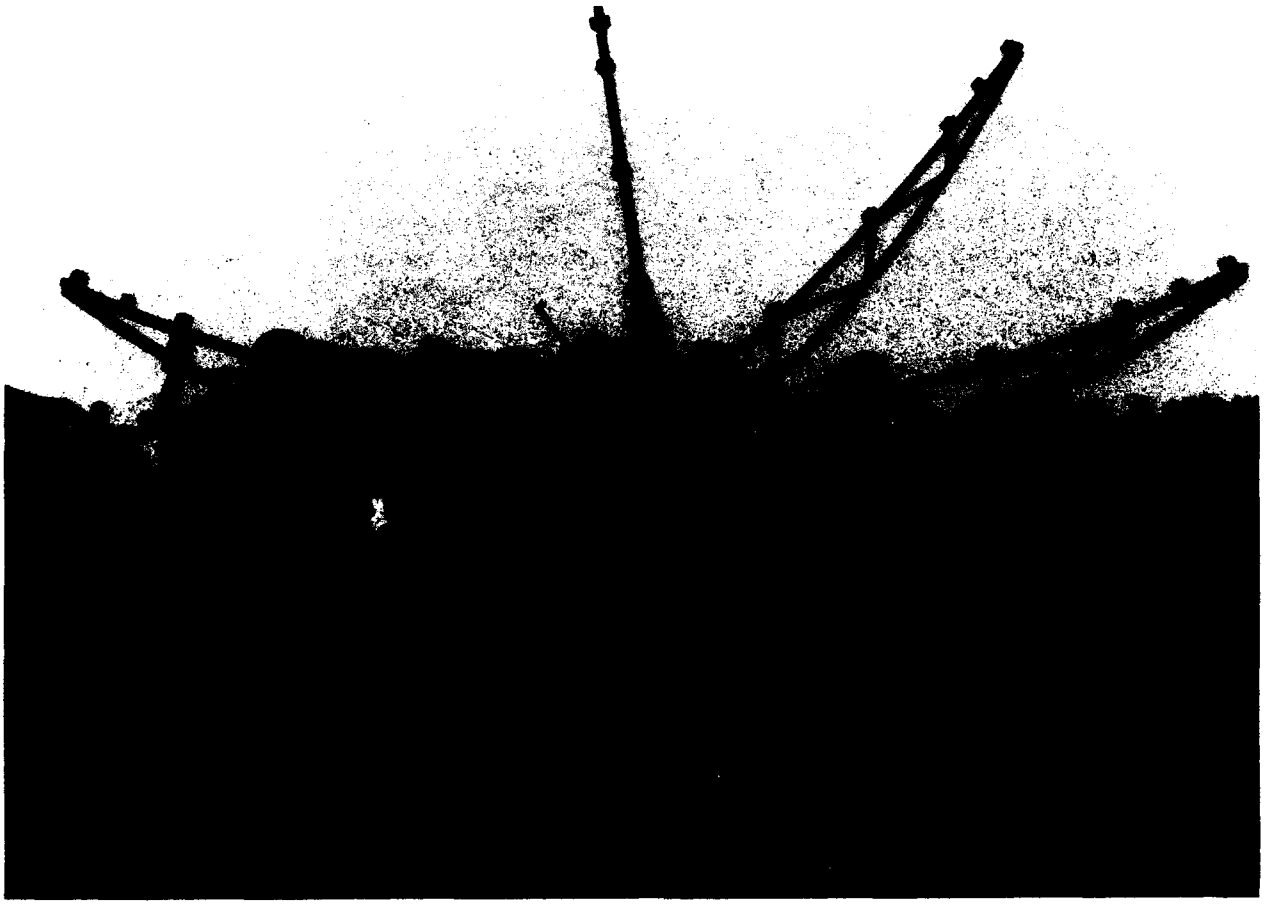
operations, and combined arms exercises in desert environments.

The Air National Guard continues to have a significant number of personnel involved in joint/combined operations overseas. Medical units participated in joint exercises in Honduras, to support Army personnel at the base and to deploy medical teams into small villages to provide immunizations, dental/physical exams, optometry needs, and veterinarian functions. In Costa Rica, medical teams supported Army/Air National Guard civil engineers during nation-assistance activities. Other teams provided medical assistance to the people of the Ukraine, while conducting joint military medical training with the Ukrainian military.

Air National Guard joint training has remained constant from previous years. Combat communications units entered into an agreement to support the Marine Corps on an exercise and contingency basis. No pre-exercise training was required for the joint training participation.

Joint exercise training for Air Force Reserve units decreased in Fiscal Year 1993; however, there was an increase in joint operational support. Humanitarian support to Panama, Honduras, Ecuador, and the Dominican Republic provided effective joint training opportunities for Air Force Reserve personnel.

Members of the Coast Guard Reserve participated in joint exercises involving the Department of Defense, Federal, state, and local law enforcement agencies, public safety agencies, and representatives of the private sector. During Fiscal Year 1993, 2,100 members of the Coast Guard Reserve, 20 percent of Coast Guard Selected Reservists, participated in 18 field training exercises as well as a number of smaller exercises. Coast Guard Reservists generally



receive pre-exercise training through a combination of inactive duty and active duty assignments at Active component commands. In addition, resident training and correspondence courses provide instruction on operations, specialty skills, and command and control issues.

The Board recommends that:

- *participation by the Reserve components units and members in joint Service training activities, operations, and schools be increased.*

- *training opportunities for Reserve component medical, dental, and veterinary personnel in joint Service medical readiness exercises be expanded.*

- *pre-exercise training be conducted, when feasible or appropriate, prior to joint operations, particularly for personnel participating in overseas deployment training exercises.*

Medical Readiness Exercises

Medical readiness exercises allow units and individuals to exercise mobilization plans from mobilization to demobilization. The Board is concerned that major reductions of the Chairman of the Joint Chiefs of Staff Exercise Program could adversely affect Reserve component medical readiness exercises. Joint exercises are the primary means for joint Service medical training.

Training benefits for medical personnel include training in the mobilization environment, overseas preparation and readiness associated with fulfilling the mission of the exercise, and functioning as part of a joint Service team with deployable medical equipment.

Approximately 1,200 Army National Guard and Army Reserve soldiers trained in U.S. Southern Command in 25 medical, dental, and veterinary readiness exercises. Units, consisting of medical teams of six to 45 personnel, participated in 25 U.S. Southern Command exercises, which provided humanitarian assistance to the local population, with host nation support. Another 100 soldiers were trained in combined exercises in Mali and the Ukraine. Over 350 Reserve component soldiers participated in medical readiness exercises in the continental U.S., in 14 joint exercises overseas, and in Army-unique exercises and mobilization exercises.

Seven Naval Reserve Fleet Hospital units augmented 11 medical readiness exercises and 11 medical deployments in support of U.S. Southern Command operational requirements in various Central and South American countries. Approximately 2,100 annual training and additional duty for training workdays were expended in medical readiness training exercises; 700 were used to support the Marine Corps Reserve during drug interdiction/law enforcement operations.

Naval Reserve medical personnel assigned to Marine Corps Reserve medical units train while providing support for both international and domestic military operations. The primary focus of training is emergency medical combat care.

Medical and dental units assigned to the Marine Corps Reserve participated in the following medical readiness exercises: joint overseas training/medical readiness evaluation training exercises, Reserve combined arms exercises, mountain training exercises, and overseas deployment training. A total of 949 medical personnel participated in medical readiness exercises in Fiscal Year 1993. Overseas deployment training provides units the opportunity to train with foreign military medical units while providing organic support for the Commander-in-Chiefs' operations.

Approximately 30 percent of Air National Guard medical units participated in medical readiness exercises in Fiscal Year 1993. Medical units participate in the continuous medical team rotation in SOUTHCOM, providing humanitarian

assistance in Honduras and Costa Rica. Combining deployments for training and humanitarian medical assistance provides training for enlisted and officer health care personnel.

Thirty-six Air Force Reserve medical units (1,106 Reservists) attended field training in Fiscal Year 1993. Approximately 35 percent (20,000 members) of Air Force Reserve medical personnel routinely participate in unit-generated readiness exercises.

The Coast Guard Reserve has no medical units.

Individual Ready Reserve Training

The Reserve components have differing philosophies and policies regarding the training of the Individual Ready Reserve (IRR). These differences result primarily from the projected mobilization requirements of the Active components. Individual Ready Reservists participate voluntarily in annual training, active duty for training, or for retirement points only. Some Reserve components provide structured IRR training programs and budgets for annual training. Lack of funding prevents the IRR from being a more effective source of qualified personnel upon mobilization.

The Army Reserve reports that members of the Individual Ready Reserve are eligible to attend the same courses as members of the Selected Reserve, but that funding is extremely limited. Training opportunities fall into six categories: professional development; exercise participation; readiness training (working with Active component units); annual training site support; mission support (instructor duty); and competitive events (marksmanship). Nearly 13,785 officers and 5,769 enlisted Army Reserve IRR members were trained in Fiscal Year 1993 at a cost of $18.7 million. This funding level is basically unchanged for 1994, providing training opportunities for less than one-half of one percent of the IRR.

Naval Reserve IRR members may participate in the voluntary training unit (VTU) program in a non-pay status. Naval Reserve VTU training funds are used primarily to support Active component operational requirements, while simultaneously providing proficiency training for individuals engaged in support activities. Otherwise, members of the non-unit IRR perform such training as correspondence courses. IRR members may be eligible for paid annual training, subject to the availibility of funds. Total annual training funding for the VTU in Fiscal Year 1993 was $2.8 million. Individual Ready Reserve training was funded at $739,000, providing training for 15,068 IRR members.

The Marine Corps Reserve counterpart training permits IRR Marines to perform training with their Active component counterparts for 13-28 days for on-the-job refresher training in their primary military occupational specialty. The Marine Corps Reserve was funded at $3,170,471 for IRR training. A total of 1,487 IRR Marines (approximately 2 percent) received Reserve counterpart training and resident and non-resident PME in Fiscal Year 1993. Funding is expected to remain at about the same level for Fiscal Year 1994.

The Air Force Reserve provided IRR training only to medical personnel. The Health Professional Training and Career Enhancement programs were funded at $400 million for Fiscal Year 1993, providing training for 1,262 medical IRR members. This represents training for less than one percent of the IRR.

The Coast Guard has no funding for IRR training; however, members of the Coast Guard IRR are eligible to perform inactive duty training for retirement points only, to receive short-term active duty orders, to compete for professional military education opportunities, and to take correspondence courses.

The Board recognizes that the Individual Ready Reserve represents a valuable resource of trained individuals and recommends that policies regarding training of the IRR be reviewed in light of force reductions and restructuring.

Additionally, the Board recommends that the Reserve components increase opportunities for participation in skill retention training for those enlisted members of the Individual Ready Reserve who have critical military skills which may be needed for early deploying units.

Professional Military Education

Professional Military Education (PME) is important for career development of Reserve component leaders. Reserve component PME programs include formal schools, structured self-study, selected professional readings, symposia, and on-the-job training. Each component sets its own PME requirements: PME is required for promotion. Each component defines and determines the importance of PME differently.

Training opportunities vary from Service to Service. The Board recognizes the benefits of joint training and encourages the Services to increase opportunities for Reserve component participation at joint Service schools.

A listing of joint Service schools and courses which provided PME to members of the Reserve components in Fiscal Year 1993 follows:

Air University
Armed Forces Staff College
Army War College
College of Naval Warfare
Defense Intelligence Analysis Center
Foreign Services Institute
Harvard University Executive Program
Industrial College of the Armed Forces
Inter-American Defense College
Joint Firepower Control Course
Joint Warfare Course
Naval War College
National War College
NATO Joint Service Introductory School
Senior Enlisted Academy
Sergeants Major Academy
Tufts University
Ohio State University Center for Strategic and International Studies
Drug Enforcement Administration

The Army continues to emphasize and expand its initiative to link Reserve component promotions to PME by requiring Reserve component soldiers to complete leadership schooling as a prerequisite for advancement to the next higher rank. As an example, the new RC Officer Education System, to be implemented in 1994, will require Reserve component officers to complete an advanced branch course, a Combined Arms and Services Staff School, and portions of a Command and General Staff College as prerequisites for progressive career development.

The Naval Reserve defines PME in terms of formal classroom education; therefore participation at local center programs, correspondence courses, or similar professional development is not recorded as PME. Reserve component members assume personal responsibility for completing required professional development courses.

The Naval Reserve manages various courses for Selected Reservists. These courses are also available for attendance by Full-Time Support personnel, if selected. Officer courses include those taught at the Naval War College, the National Defense University, the Armed Forces Staff College, and the Air Command and Staff College. The Naval Reserve also administers the DoD Foreign Exchange Program with the United Kingdom. PME for enlisted Naval Reserve Federal Republic of Germany and the United States personnel includes courses taught at the Senior Enlisted Academy, Command Master Chief Navy Leadership School, the Sergeants Major Academy, " Train the Trainer " courses, and various correspondence courses.

There are four categories of PME for Marine Corps Reserve officers: top level schools, full-length schools, intermediate-level schools, and career level schools. These schools are offered to officers in the grades warrant officer through colonel. The Marine Corps Reserve resident PME for enlisted personnel consists of continuous opportunities to attend grade-specific courses such as the Noncommissioned Officer and Senior Noncommissioned Officer Academies. Non-resident PME courses from the Marine Corps Institute are available to all Marine Corps personnel.

Air Force Reserve members are eligible to participate in all levels of resident and nonresident professional military education programs. Reserve officers and enlisted members each have three levels: primary, intermediate, and senior PME. Officers may participate in Squadron Officer School (7 weeks), Air Command and Staff College (40 weeks), and War/Defense College courses (42 weeks). Enlisted members may participate in the Airman Leadership Program (4 weeks), command Noncommissioned Officer Academies (6 weeks), and the Air Force Senior Noncommissioned Officer Academy (8 weeks). Because of constraints imposed by civilian employment, most Reserve component members complete PME through nonresident programs. In addition to Air Force PME, officers may also attend short professional development courses designed for Reserve component members; however, these courses are not considered PME by the Air Force Reserve.

The Air National Guard continues to participate in Active component resident, seminar, and correspondence PME programs. Because of the length of many resident programs, (generally ten months for intermediate and senior level programs) and civilian career commitments of participants, correspondence courses remain the most popular method by which Air National Guard personnel complete PME requirements. Air National Guard personnel must maintain the same professional standards as their Active component counterparts.

The Coast Guard Reserve convenes a panel once a year to select best qualified candidates to attend PME programs. Members of the Coast Guard Reserve are encouraged to enroll in correspondence courses for Reserve participation points. A Leadership and Management Course has been developed as a cost-effective replacement for resident training for Coast Guard Reserve senior petty officers and officers. Beginning September 1994, E-8s will be required to complete a new Chief Petty Officers Academy (Reserve Course) prior to competing for advancement to E-9.

The Board recommends that professional military education programs be expanded and funded to permit participation by an increased number of Reserve officers.

Joint Professional Military Education

The National Security Management course, a joint nonresident course taught by the National Defense University, was canceled in October 1992 with no replacement course planned. During 1990-91, enrollment in the course ranged from 1,000 to 1,500 students; 60 percent of the students were Reserve officers. Many of these students participated in locally conducted seminars. This course was considered to be a valuable joint professional military education opportunity for Reserve component members. The loss of this course severely limits the joint professional educational opportunities available to Reserve component members who are unable to participate in resident courses.

The National Defense University continues to offer a resident, two-week Reserve Component National Security Course three times per year. The course focuses on national security policy formulation and processes, and defense resource management. The course is conducted by faculty from the Industrial College of the Armed Forces and

the National War College. The approximately 850 annual quotas are apportioned among all Reserve components. Additionally, each of the Services provides intermediate and senior-level courses in residence and through correspondence. The Board recognizes these courses as a valuable source of quality education for Reserve component officers and believes that joint professional military courses covering a range of joint subjects should be available to Reserve component members.

Currently, most joint PME courses are geared for Active component personnel. As shown on the Figure 6-2, only a limited number of National Guard and Reserve members received joint professional military education. Factors contributing to the limited participation include small numbers of Reserve component training "seats," training/travel funding shortfalls, and civilian employment constraints.

The Department of Defense is conducting an on-going, zero-based review of all Reserve component education, including the need for joint professional military education. This study will analyze the Services' PME policies that affect Reserve component officers in a joint duty environment. Complete documentation of Reserve component training programs, eligibility requirements, and the feasibility of alternative approaches is expected to be completed in 1994.

The Board recommends that the nonresident National Security Management course be reinstated, or a suitable substitute course be developed, by the National Defense University to provide joint professional military training for both Active and Reserve component personnel.

Figure 6-2
JOINT PROFESSIONAL MILITARY EDUCATION
(Number of Reserve Component Participants)

Component	FY92	FY93
Army National Guard	94	95
Army Reserve	123	123
Naval Reserve	470	463
Marine Corps Reserve	165	163
Air National Guard[1]	9	9
Air Force Reserve[1]	112	112
Coast Guard Reserve	30	30
Total	1,003	995

Note 1: Resident courses only.
Source: The Reserve components.
Data as of September 30, 1993.

Simulation Policy Study

The use of computer simulation technology to increase training effectiveness and efficiency for the Active and Reserve components has received DoD-wide attention. The increased availability and access to interoperable, affordable, high technology simulation enables the Reserve components to maximize limited inactive duty training and compressed exercises.

Recognizing the need to make better use of limited resources to enhance readiness, the Defense Modeling and Simulation Office was established to promote the effective and efficient use of modeling and simulation in joint education and training, research and development, test and evaluation, and operations, and cost analysis throughout the Department of Defense.

The DoD policy on modeling and simulation is prescribed in a draft DoD directive entitled "Modeling and Simulation." The draft DoD directive establishes overarching DoD modeling and simulation policies, and assigns DoD-wide roles and responsibilities for managing and coordinating modeling and simulation.

Using advanced training technology will save money and time, and will enhance proficiency. The long-range goal is to provide relatively inexpensive simulation devices to each Reserve training center. These devices will be designed to train more than one person at a time and simulate the operation of actual equipment to be used in combat. They will also increase the effectiveness of training time during the post-mobilization period prior to combat.

The Board commends the Department of Defense for its strong support of the use of advanced technology training devices.

The Board recommends that the Department of Defense continue initiatives undertaken in recent years to provide the Reserve components with state-of-the-art training devices.

Advanced Simulation Project

The Advanced Research Projects Agency (ARPA) is pursuing the application of advanced technologies to an intensified Combined Arms Training Strategy. The ARPA Advanced Distributive Simulation Project (now called SIMITAR) is a five-year program that was initiated by Congress in 1992. Congressional language allocated funds, ". . . to apply advanced technology to the training of National Guard Roundout Brigades." The initiative resulted from lessons learned from Operations DESERT SHIELD/STORM.

This multi-year project will end with an evaluation of test units at the National Training Center. The project has the potential to help overcome many training deficiencies resulting from limited training time and training sites and offers realism, availability to users at their home stations, and flexibility to adapt to new scenarios.

Project goals are to develop more objective and comprehensive measures of tactical performance and measures of effectiveness, to provide opportunities to practice battle staff synchronization, to evaluate collective unit performance at company/team level through squad/crew level, and to increase training performance by 200-300 percent compared to 1991. Premobilization training equal to one week of annual training will be compressed into one inactive duty training weekend; postmobilization training equal to 90 days will be compressed into 30 days. The first experimental brigade will go to the National Training Center in 1996.

The Board supports the Advanced Distributive Simulation/SIMITAR Project and recommends that similar advanced technology training initiatives be developed and funded to meet the unique training needs of the Reserve components.

Training Program Update

Army Test PME Program

In the *National Defense Authorization Act for Fiscal Year 1993*, Congress directed the Secretary of the Army to develop a test program to improve the provision of professional military education to Reserve component officers. The Army has developed a test plan to assign or attach Reserve component officers to an Army Reserve Forces School for Command and General Staff Officer College and the Combined Arms Services Staff School. For test program purposes, selected Army National Guard officers will remain assigned to their units, but be attached to their State Area Command with duty at an Army Reserve Forces School. Selected Army Reserve officers will be attached to Army Reserve Forces School for training. The officers will be exempt from unit drills and annual training to fully concentrate on professional military education.

Objectives of the two-year test include determining whether Army National Guard and the Army Reserve component troop program unit officers' professional military education can be enhanced by making attendance the principal duty for a specific period of time; if it is cost-effective for the Active component to use Reserve component courses to train Active component officers; and if participation in the PME test plan will increase the percentage of Reserve component officers attending Command and General Staff Officer College and Combined Arms Services Staff School.

The test will seek to determine the optional mechanism for accomplishing such training; the impact on readiness of making attendance at the Reserve and Active component course the primary duty for Reserve component officers; and to determine whether a difference exists in the professional competency and quality of students trained in resident and nonresident Command and General Staff officer courses.

Army Training Initiatives

The Army's BOLD SHIFT integrated training program was initiated during Fiscal Year 1992 to enhance the readiness of the Total Army. BOLD SHIFT has resulted in a closer training relationship between the Army National Guard roundup and roundout brigades and their parent divisions. BOLD SHIFT also focused on Contingency Force Pool combat support and combat service support units of the Army National Guard and Army Reserve. The expanded Active component support and assistance is paying dividends in increased premobilization combat readiness for these units. A BOLD SHIFT program is been developed to evaluate the collective readiness of Army units to deploy and perform their missions. Modeled after the Air Force Operational Readiness Inspection Program, the fully-developed Operational Readiness Evaluation Program will identify training deficiencies and resourcing shortfalls which preclude Army units from being fully mission-capable.

To enhance the readiness of early deploying Army National Guard units, the National Guard Bureau developed Project STANDARD BEARER to prioritize limited resources to ensure that high priority Army National Guard contingency force pool units and roundup and roundout brigades can attain and sustain the highest level of readiness. Project STANDARD BEARER unit goals include personnel readiness at 95 percent duty military occupational specialty qualification, enhanced recruiting and retention resources, and implementation of a documented overstrength policy. Additionally, Full-Time Support is provided for all required positions by redistributing Full-Time Support personnel from lower priority units. Equipment requirements are filled at 100 percent of the required levels by redistribution of equipment from lower priority units. Enhanced readiness has been reported for units in Project STANDARD BEARER in Fiscal Year 1993.

Naval Reserve P3 Integration Program

The Navy's Maritime Patrol (P-3) Squadrons' Active and Reserve Integration Pilot Program began in January 1993. The program joins selected Active component and Reserve component P-3 aircraft squadrons for a test period, using common employment plans and exercises and standardized training objectives. Maritime Patrol squadrons in Jacksonville, Florida have tested various methods of integration with successful results. Of greater significance beyond the pilot program itself is the Active/Reserve component integration of maintenance qualifications, aircraft swaps, and maintenance personnel support permitting full integration of squadrons while deployed.

Further expansion of the pilot program will be determined after a review of the test results in 1994. Initial responses are positive, but the Integration Program has proved to be time-intensive and weapon systems trainer-dependent, reducing the squadron's operational availability to the fleet. This reduction in peacetime contributory support to gaining commands has come at a time of increased demands by the fleet, necessitating increased fleet support missions by the remaining Reserve squadrons.

The Board commends the Navy for testing an innovative integrated training concept and looks forward to receiving a full report.

Air Force Undergraduate Pilot Training Program

The National Defense Authorization Act for Fiscal Year 1993 limited the Secretary of the Air Force in scheduling members of the Reserve components for undergraduate pilot training until the Secretary of Defense submitted a report on the program to the Congress.

The Undergraduate Pilot Training (UPT) Program has provided a much-needed source of to recruit minority and female candidates, and has served as an incentive to eligible enlisted

personnel to become pilots. The Board has gone on record opposing any curtailment of the Undergraduate Pilot Training Program for the Reserve components.

The Secretary of Defense reported to Congress in February 1993 that the pool of Active component pilots available for recruitment into the Air Reserve components would be drastically reduced in Fiscal Years 1994 through 1997. Personnel shortages, especially in less populated areas, would result in Air Force Reserve and Air National Guard units being non-combat ready. Additionally, rank structure and average age of Reserve component pilots would be adversely affected, as the average age of pilots would increase toward 40. Upon submission of the report, the Air Force was permitted to resume training of Reserve components members in the UPT program. No policy changes were needed to ensure participation of Reserve component members in the program.

The Board commends the Secretary of Defense for his strong support of the Air Force Undergraduate Pilot Training Program.

Mobilization Categories and Call-Up Authorities

Mobilization of the Armed Forces includes, but is not limited to, the following categories:

Presidential Call-Up for Operational Missions

Activation of up to 200,000 Selected Reserve members involuntarily, for not more than 90 days, without declaration of a national emergency (10 USC 673b) when the President determines it is necessary to augment Active component forces for an operational mission. The President, in cases where he determines such action necessary, may extend the original 90-day period for not more than an additional 90 days. Whenever the President exercises this authority, he must notify Congress within 24 hours and provide reasons for the action. The service of units so ordered to active duty may be terminated by order of the President or law. This authority requires Presidential declaration and notification of Congress within 24 hours.

Operations DESERT SHIELD/STORM, the largest activation of Reserve forces since the Korean War, marked the first time Presidential Selected Reserve call-up authority under 10 USC 673b was used.

Partial Mobilization

Expansion of Active component forces resulting from the order to active duty pursuant to Title 10 USC 673, of not more than one million (1,000,000) members of the Ready Reserve (Selected Reserve personnel and units and members of the Individual Ready Reserve) for a period not to exceed two years. This authority requires Presidential declaration of a national emergency, an executive order, and subsequent reports to the Congress on the employment of such forces.

Full Mobilization

Expansion of the active component forces by the order to active duty pursuant to Title 10 USC 672 (a), of all Reserve components, including those in the Standby and Retired Reserve, for the duration of a war or national emergency declared by Congress, and for a period of up to six months thereafter. This authority requires passage of a public law or joint resolution by the Congress declaring war or national emergency.

Total Mobilization

Creation of wholly new forces in addition to the existing force structure, and the marshaling of all resources required to create and sustain them (10 USC 672). This authority requires passage of a public law or joint resolution by the Congress declaring war or national emergency.

The Board recommends that:

- *to the maximum extent practicable, Reserve component units should be called to active duty as complete units to maintain their unit integrity and readiness.*
- *as much advance notification as possible be provided to Reserve component units and individuals who are called to active duty to permit adequate notice to civilian employers.*
- *action be taken to minimize the need for cross-leveling Reserve component units and personnel upon mobilization.*
- *the potential need to mobilize only parts of some types of units be identified in advance for various stages of mobilization and that the affected unit personnel be notified accordingly.*
- *whenever possible, Reserve component units with Active component affiliations be utilized as intended in support of operational missions.*

- *Services share information about each other's call-up policies and procedures to develop as much uniformity as possible.*

- *Reserve component units be called up sufficiently in advance of deployment to provide necessary training to ensure combat effectiveness and to reduce casualties.*

- *a review be conducted of existing mobilization authority legislation to identify amendments that should be enacted to ensure the effectiveness of future mobilizations and demobilizations of the Reserve components.*

Secretary of Defense Call-Up Authority

Access to members of the Reserve components would be facilitated if the Secretary of Defense had authority to involuntarily call units and individual members of the Reserve components to active duty, as necessary, for peacetime operational missions such as humanitarian, peacekeeping, disaster relief, and support missions. The Board believes that broad authority is needed to provide flexibility to meet premobilization requirements, as well as, to support immediate crisis response actions.

Proposed changes to Title 10 USC 673b, based on lessons learned from Operations DESERT SHIELD/STORM, include amending Title 10 USC 673b to extend the period of time Reservists can be ordered to active duty from 90 days plus an additional 90 days, to 180 days plus 180 days, and to enable the Secretary of Defense to order up to 25,000 members of the Selected Reserve to active duty. The proposed legislation was considered, but not passed by the first session of the 103d Congress. This legislation is expected to be reintroduced. The Board noted that similar authority was provided in Fiscal Year 1992 to the Secretary of Transportation (for access to the Coast Guard Reserve) which proved to be invaluable in responding to operational requirements for hurricane disaster relief assistance.

The Board supports the Department of Defense proposals to amend Title 10 USC. 673b to extend the period of time members of the Reservist components can be ordered to active duty from 90 days plus an additional 90 days, to 180 days plus 180 days, and to provide authority for the Secretary of Defense to order to active duty up to 25,000 members of the Selected Reserve for operational missions in peacetime.

Flexible Readiness Concept

"Flexible readiness" is defined in the *National Defense Authorization Act for Fiscal Year 1992* as the allocation of resources and the adjustment of the readiness of military units based on the military threats to the United States, the amount of warning time of potential hostilities, the likelihood that particular military units will be used in a military action, and the ability of the Military departments to transport those units to the scene of a military action.

A provision of that act directed the Secretary of Defense to submit a report containing detailed descriptions of the extent to which the concept of flexible readiness could be implemented by DoD. The Secretary of Defense has stated that certain high-priority military forces, such as strategic forces, expeditionary forces, forward-deployed forces, special operations forces and selected intelligence units, must be kept at a high state of readiness, while later deploying ground forces may be at slightly lower levels. The DoD budget reflects the philosophy that military units should be resourced to achieve an level of readiness to cope with projected threats, commensurate with each unit's deployment schedules.

The Services are still developing plans to fully implement the Flexible Readiness

Concept. The Board will continue to monitor the programs and their impact on readiness.

Readiness Exercise and Evaluation Programs

Reserve component mobilization and combat readiness are exercised and evaluated through various Service-specific programs. The Reserve components routinely conduct mobilization and combat readiness training exercises to evaluate mobilization plans and procedures.

The Status of Resources and Training System (SORTS) is currently used by the Joint Chiefs of Staff to indicate a unit's resource and training status at a particular time. It is not regarded as a complete measure of a unit's readiness. The Status of Resources and Training system has limited application and only reports those units with equipment. Lessons learned from Operations DESERT SHIELD/STORM have been studied, and changes to SORTS have been initiated.

The Operational Readiness Evaluation Program is being refined and used to test and evaluate the total Army wartime mission preparedness. The purpose of the program is to provide commanders an objective external evaluation of their units' ability to deploy and perform its wartime mission. The primary focus will be on the unit's collective training status.

The Army National Guard mobilization exercise program is designed to ensure that Army National Guard units are trained to a level of mobilization preparedness essential to support contingency plans, existing operations plans, and other national crisis situations. The State area commands ensure that units are capable of executing mobilization and deployment responsibilities. The program provides a basis to test plans and procedures for mobilizing Army National Guard units. The program focuses on all Army National Guard units with emphasis on high priority units.

The Army National Guard conducted 512 mobilization exercises in Fiscal Year 1993. Thirty-four units from 31 states participated in Exercise OPTIMAL FOCUS and were deemed capable of deploying from home station to mobilization station within 72 hours.

Army Reserve mobilization exercises are designed to test the capability of units and staffs to execute policy, guidance and procedures, movement when required, and flexibility in response to crisis situations. These exercises include the participation of units and soldiers not assigned to units. Large numbers of Army Reserve Individual Mobilization Augmentees and Individual Ready Reserve members participate annually in these exercises along with Army Reserve and Active component units. Thirty-two Army Reserve units from 21 states participated in Exercise OPTIMAL FOCUS; an additional 698 Army Reserve units participated in Exercise CALL FORWARD.

All Naval Reserve major commands are tasked to monitor subordinate commands/units to ensure that they have incorporated mobilization training into their consolidated training program. Minimum training includes at least one annual notification exercise to ensure that each member is thoroughly indoctrinated in mobilization procedures. All major commands must annually schedule, conduct monitor, and report a complete mobilization exercise. The exercises must include, as a minimum, a telephone recall, the Reserve Training Support System reporting procedural test, a simulated mobilization exercise of transportation, messing, berthing, and the reception and processing of activated personnel.

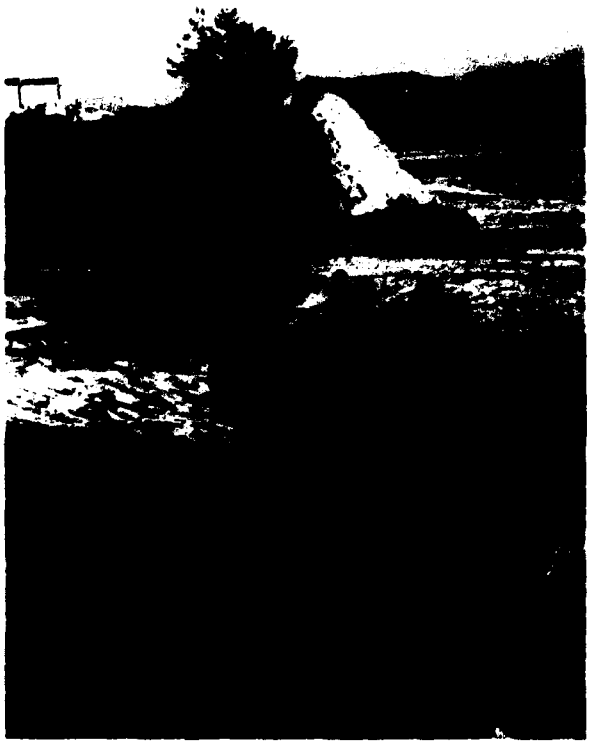
All Naval Reserve units conducted either local or regional mobilization exercises during Fiscal Year 1993. Additionally, two nationwide mobilization exercises were conducted by the Commander, Naval Reserve Force during Fiscal Year 1993. The combat readiness of Naval Reserve units is based on personnel and training readiness and

includes personnel readiness, the percent of authorized billets filled; and mobilization training readiness and the average percent of mobilization training completed. Naval Reserve commissioned units report their readiness through the Status of Resources and Training system, the same as Active component commands. These units are subject to the same readiness evaluations as their Active component counterparts.

Marine Corps Reserve standards and evaluation methodology are identical for the Active and Reserve components. The Marine Corps Reserve uses the Mobilization Operational Readiness Deployment Test (MORDT) to evaluate unit mobilization readiness. The MORDT consists of a no-notice recall of Reservists to the home training center on a Friday evening followed by administrative and logistics inspections.

There are two types of Mobilization Operational Readiness Deployment Tests. A MORDT and STAY refers to the unit remaining at the home training center and processing 100 percent of the unit personnel for mobilization. Unit equipment is loaded on organic or contract carrier transportation to ensure adequacy of logistics plans. A MORDT and GO consists of processing about 10 percent of the unit personnel to test mobilization plans and the actual movement of the unit to a major base or station. The unit trains at the base during the weekend and returns to the home training center on Sunday.

Combat readiness is evaluated using the Marine Corps Combat Readiness Evaluation System. It is an interactive system which evaluates a unit's ability to perform individual and collective tasks which have been determined to be mission-essential. The Marine Corps Combat Readiness Evaluation System includes a review system which continually modifies tasks and standards to ensure consistency with current doctrine, tactics, and equipment.



Air National Guard and Air Force Reserve units combat readiness and mobilization are regularly evaluated in accordance with the Air Force inspection system. Active and Reserve component units are evaluated against identical standards and procedures. Unit mobilization and combat readiness for Air National Guard units is evaluated during operational readiness inspections which are conducted every four years by gaining major commands. Scenarios and criteria used to measure Air National Guard units are developed by the Active component gaining major commands in coordination with the National Guard Bureau. Air Force Reserve units receive operational readiness inspections from their gaining major command with the exception of medical units, which receive health services inspections from the Air Force Inspection Agency. The operational readiness inspections specifically address ability to mobilize and deploy, as well as combat readiness.

The Coast Guard Contingency Preparedness Exercise Program is the principal means for testing and evaluating Coast Guard Reserve

readiness in defense and non-defense contingencies. This program outlines the criteria for planning, executing, and evaluating exercises. Coast Guard Reservists are evaluated as members of an Active component unit under this program. Individual performance during an exercise is measured against the skills required by the specific contingency billet to which a Coast Guard Reservist is assigned. The only exceptions are the Coast Guard's three deployable port security units. These are the only Coast Guard Reserve elements that mobilize for contingencies as units. Each port security unit is deployed, exercised, and evaluated in the context of a defense contingency scenario two out of every three years.

The Board recommends that:

- *readiness reporting systems continue to be updated to accurately reflect the impact of peacetime support missions.*
- *the Active and Reserve components enhance mobilization and combat readiness exercise and evaluation programs to improve mobilization and combat readiness.*
- *the Services integrate the demobilization phase into mobilization readiness exercise planning and increase demobilization exercise play.*

7 Equipment

"One part of our strategy for equipment readiness is to maximize Reserve component use of equipment made available from the Active Force drawdown [and to] fund unique Guard and Reserve equipment requirements ..."

Major General John R. Landry
Deputy Assistant Secretary of Defense for Reserve Affairs
(Readiness, Training, and Mobilization)

General

Department of Defense Directive 1225.6, "Equipping the Reserve Forces," contains the DoD policy of "first to deploy/employ, first to be equipped." This policy gives equipping priority to early-deploying units, regardless of component. As a result, some Reserve units have a higher equipping priority than Active component units.

Service Equipping Priorities

Equipment from Active component drawdown assets is being received in the Army National Guard and Reserve. Priority for distribution is determined using the Department of Army Master Priority List. Army National Guard and Army Reserve units designated as round-out or round-up to Active component forces are modernized in the same priority as their Active component counterparts. Units periodically report their equipment-on-hand against the requirements for type and quantity of equipment to determine modernization progress.

The Navy's policy of horizontal integration has allowed all Selected Reserve units to be equipped on an equal basis with their Active counterparts. The success of this policy was clearly demonstrated when all Naval Reserve units activated for Operations DESERT SHIELD/STORM were deployed with the required equipment. Naval Reserve units normally operate and train with the same equipment as their Active counterparts, although some Naval Reserve units are not fully compatible because they do not have the latest variant of equipment.

Marine Corps Reserve units are assigned based on augmentation and reinforcement requirements of the Active component to meet specific contingency and operation plans. The Marine Corps Reserve is equipped on a pro-rata basis in accordance with the DoD equipment policy. However, when a particular item is in short supply, the Active component is usually equipped first, since it is the first to deploy.

The Air Force priority system for resource management assigns precedence ratings to all components' programs and units. These ratings are subsequently the major determinants in the allocation and distribution of equipment. The Air Force assigns precedence ratings based on wartime tasking, not by component. This system thus implements the DoD "first-to-fight/deploy, first-to-be-equipped" policy and ensures that equipment is distributed on a wartime tasking basis rather than a component basis. Periodically, complete reviews of the precedence designators are made to ensure that these ratings remain consistent with war plan tasking.

Air Force major commands review readiness reports to ensure that all units maintain the highest degree of combat readiness. Aggressive actions are taken to fill equipment differences which significantly impact a unit's readiness posture. This is particularly true during unit conversions, where special emphasis is given to ensuring that these units reach their initial operating capability on schedule.

The Coast Guard Reserve typically trains with Active component equipment.

Service Programs for Redistribution

All Services reported that they are redistributing equipment from the Active to the Reserve components. The Reserve components are actively involved in the development of policies and procedures affecting this process.

Service Equipment Appropriations

New equipment for the Army National Guard and Army Reserve is purchased by the Army using both the Army Procurement Appropriation (P-1) and National Guard and Reserve Equipment Appropriation (NGREA). The Army programmed $807.7 million of equipment for the Army National Guard and $286.3 million of equipment for the Army Reserve in Fiscal Year 1993.

In June 1993, $249 million of National Guard and Reserve Equipment Appropriation (NGREA) funds were withdrawn to help pay for operations in Somalia.

In Fiscal Year 1993, the Naval Reserve P-1R equipment budget was increased from $28.5 million to $33.9 million. Even with this increase, select training and flight support equipment, such as radar generators, a cargo winch control system, and a tactical antisubmarine warfare trainer could not be purchased.

The Marine Corps Reserve equipment budget for Fiscal Year 1993 was $5 million.

During Fiscal Year 1993, Air National Guard medical and aeromedical units obtained funding for most equipment requirements. There are still unfunded requirements for audiometry equipment and other equipment items for the medical squadrons and aeromedical evacuation units. The lack of the auxiliary power units critically impacts the capability of KC-135E aircraft.

The Air Force Reserve benefited from a number of major equipment transfers from the Active component. Appropriations for major equipment items for the Air Force Reserve are satisfactory.

No equipment was funded for the Coast Guard Reserve.

National Guard and Reserve Equipment Appropriations

National Guard and Reserve Equipment Appropriations (NGREA) consist of funds for the purchase of Reserve component equipment. These funds are in addition to those requested by the Department of Defense in the President's budget. Some funds are designated by Congress for the purchase for specific items of equipment. The remaining funds are for the Reserve components to purchase equipment to improve readiness.

The Reserve components procured approximately $1,500 million of equipment during Fiscal Years 1991-1993 using NGREA funds. National Guard and Reserve Equipment Appropriations complement Service appropriations to improve training and readiness and have significantly reduced equipment shortages in the Reserve components.

Figure 7-1 displays National Guard and Reserve Equipment Appropriations from Fiscal Years 1989 through 1993.

Figure 7-1
NATIONAL GUARD & RESERVE EQUIPMENT APPROPRIATIONS
(Dollars in Millions)

Component	FY89	FY90	FY91	FY92	FY93	Total
Army National Guard	256	332	806	344	399	2,137
Army Reserve	30	89	71	103	32	325
Naval Reserve	145	149	659	384	164	1,501
Marine Corps Reserve	82	119	160	158	205	724
Air National Guard	400	239	648	558	414	2,259
Air Force Reserve	227	64	155	362	125	933
Total	1,140	992	2,499	1,909	1,339	7,879

Sources: P-1R and 1002 for FY89-90; DD1416 for FY91-93.
Data as of November 17, 1993.

The benefits the Reserve components receive from NGREA funds are limited somewhat by the way the funds are allocated. The original purpose of NGREA was to fund low visibility equipment required by the Reserve components to improve readiness which the Active components were not providing. In recent years, Congress has appropriated a high percentage of NGREA funds for major equipment items, which enhances the readiness of fewer units. By concentrating on high value items, Congress has tended to disregard items on Reserve component equipment priority lists which could have a greater impact on readiness. Although it has been difficult to plan for the incorporation of NGREA-funded equipment, the overall impact of NGREA on readiness has been positive.

Congress responded to Reserve component NGREA funding concerns by placing NGREA allocations in the "miscellaneous equipment" category for Fiscal Year 1994. Previously, associated spares/support equipment had to be acquired at the expense of end items, since adequate funding was not provided to cover total package fielding and new equipment training.

Figure 7-2 lists the numbers and types of equipment purchased in Fiscal Year 1993 with NGREA funds.

Current Army Reserve procurement policy requires procurement of all support equipment when buying any item of equipment, regardless of the source of funding. As a result, associated spares/support equipment have been acquired at the expense of end items, since NGREA funding was previously not provided.

For the Naval Reserve, the major limiting factor of NGREA funding is the uncertainty of not knowing what items, quantities, funding levels will be provided. However, NGREA has had a very positive impact on the readiness and capability of the Naval Reserve. In the last 11 years, over $1.8 billion has been provided for new and replacement hardware and to upgrade the capability of existing equipment. These acquisitions, along with transfers from the Active component, have, in most cases, outfitted the Naval Reserve with the same front line equipment and weapons systems used by the Active component.

The Marine Corps Reserve reports an inability to procure needed organizational equipment with NGREA funds. However, aircraft spares and support equipment have been provided.

For the Air National Guard, NGREA funding has been inadequate to procure the appropriate amount of spares and support equipment. However, funding in recent years has been provided to procure spares and support equipment for C-130 aircraft. Efforts continue to be made to procure spares support equipment for delivery concurrent with new weapon systems.

The Air Force Reserve also reports a previous lack of flexibility in the utilization of NGREA funds. As an example, $120 million was appropriated to procure four C-130H aircraft. The estimated "fly-away" cost for these aircraft was $122 million, leaving a shortfall of $2.0 million.

Equipment Purchases and Transfers

New and modern equipment continues to enhance Reserve component readiness and capability to mobilize. It reduces costs for repair and parts stockage for older, non-supportable equipment. It also allows Reserve component personnel to train with and maintain equipment they will utilize in support of the Total Force. Some items were purchased directly from NGREA, while others were transferred directly from the Active components.

Table 7-3 shows examples of recent major equipment purchases and transfers to the Reserve components.

Figure 7-2
MAJOR EQUIPMENT ITEMS PURCHASED WITH NGREA FUNDS

Type of Equipment	Quantity[1]
Army National Guard	
2 1/2 ton truck ESP	997
AH-1 MODS	(-)
CH-47D helicopters	7
Electronic tandem network	1
5 ton trucks	293
M113 Armored Pers Carrier	8,022
M9 ACE	34
M915/M916 TRAC	72
MLRS Launchers	29
Night vision equipment	5,505
Squad engagement trng sys	2
UH-60 helicopters	8
Army Reserve	
Antenna group 0E-254	142
External fuel tanks	7
5 ton trucks	21
Gnd/veh launched electronic surveillance	2
HEMTT wreckers	34
SINCGARS radio terminals	109
SINCGARS installation kits	1,152
Asphalt mixing plant	2
Night vision equipment	3,153
Paving machine	4
Plate compactors	52
Semi-trailers 22 1/2T	8
SINCGARS radio equipment	Unk
Naval Reserve	
MH-53 helicopters	12
C-130T aircraft	14
LAMPS MK-1 (SH-2G) upgrades	(-)
C-20G aircraft	1
AN/SQQ-T1 trainers/upgrades	15
MH-53E AQS-14 trainers	Unk
HH-60H upgrades	(-)
P-3C support equipment upgrades	(-)
C-130T ground support equipment	Unk
MIUW surveillance van upgrades	(-)

Type of Equipment	Quantity[1]
Naval Reserve (Cont'd)	
MIUW drug interdiction equipment	Unk
MIUW thermal/visual imaging equipmen	2
MIUW CESE equipment	20
EOD CESE equipment	23
Night vision equipment	Unk
AN/ARC-182 radios	32
Expeditionary logistics equipment	35
AMCC ABFC vans	2
SEABEE civil engineering equipment	130
SEABEE auto-building machines	16
P-3 intermediate maint. eqpt	Unk
Cargo handling equipment	8
H-14F ABFC mobile fueling units	7
Marine Corps Reserve	
KC-130T aircraft	2
AH-1W helicopters	10
Night vision equipment	Unk
Air National Guard	
F-16C/D pylon integrated dispensers	262
Night vision lab	3
F-16 ADF data link equipment	120
ALR-69 RWR upgrades	69
C-130H aircraft	12
C-130H support equipment sets	12
C-130H defensive systems suites	12
SCNS mods	(-)
Low power color radar	20
Electronic avionics	20
C-26 aircraft	6
HH-60G helicopters	2
Communications equipment systems	14
Air Force Reserve	
C-130H I aircraft	4
MH/HH-60 helicopter mods	(-)

Note:
1. (-) indicates various applicable equipment modifications/upgrades; Unk indicates various items within one category.

Source: The Reserve components.
Data as of September 30, 1993.

Figure 7-3
EQUIPMENT PURCHASES AND TRANSFERS

	Purchased	Transferred
Army National Guard		
G/VLLD	124	
HEMTT (Tanker)	129	153
M1A1/1P		240
M1/M2		4,857
M3A0		329
M9		6
M113A3	182	
M800/M900 (Series) 5T		350
M915/916 tractor	485	
M997/998 truck		5,099
M1008/9 truck		4,045
M1010 truck		181
M1020 series truck		1,436
M1030 series truck		1,526
M1062 truck	164	
Multiple launcher rocket system	27	
SINCGARS radios	1,500	
Rough terrain fork lift		43
Army Reserve		
AH64 helicopters		8
UH60A helicopters		4
M1 Tanks		2
HEMTT		2,47
CH-47D helicopters		3
AN/GVS-5		3
AN/AVS-5V1		5,24
AN/PDR-75		2,39
AN/PVS-7 Night Vision Devices		4,676
STE/ICE		77
10K Forklifts		14
M16A2		43
Fuel Tankers	200	222
Rise M113A3		72
155M Howitzers		6
SAW		18
SUSV		224
HMMWVs		132
Battlefield Control Systems	21	
AN/TAS-5		16
AN/UAS-11/12		317
AN/TRC series Radio Sets		41
AN/UGC-144		103
Chemical Agent Monitors		5
DSETS	19	2
ITV		3
Semitrailers	95	516
Aviation Ground Power Units		7
AN/PRC-126 Small Unit Radios		657
5 Ton Trucks	211	
HEMMTs	12	
Truck Tractors	418	222
SINCGARS	1,433	
MSQ-85B	36	
AN/PVS-7B (NODS)	4,123	
AN/AVS-6(V1/2)	762	
Medical Sets	38	33
TMDE Sets	88	

	Purchased	Transferred
Naval Reserve		
P-3C aircraft Update I/II		13
P-3B aircraft		2
A-6E aircraft (SWIP)/(non-SWIP)		612
F/A18A/F14A aircraft		11
SH3H/E2C aircraft		11
RH53D CH53 helicopters		12
AFC-534, ARC-187/SATCOM	15	
Nav Info Display Sys (NIDS)	56	
Radar Monitoring System (RMS)	56	
ECM AV-3 Systems	24	
New production aircraft	20	
Radar/Sonar Surveillance Ctr vans	5	
10-ton trac/trlrs	10	
TIS/VIS Thermal Imaging Systems	3	
Freon Recovery Recycling Units	23	
Marine Corps Reserve		
Refrig Recov and Recycle Stations	9	
Refrig Unit for Rigid Box	5	
Digital Voice Terminal	27	
Night Vision Goggles	300	
Crane, HSHM	1	
Tactical Air Oper Module (TAOM)	7	
UP Gun Weapons Sys (AAV)	144	
Digital Message Sys	217	
MC Motorcycle	25	
Radiac Set	297	
Lightweight Decon Systems	33	
Unit Level Circuit Switch	1025	
Switching Unit Telephone Auto	48	
Radio Terminal Set AN/MRC-142	28	
Central Office Telephone Auto	8	
Tactical Quiet Generators	73	
Air National Guard		
KC-135R		18
F-16C/D		78
F-16A/B		36
C-141B		4
C-130H	5	
Air Force Reserve		
C-130H	4	
MH-60G	6	
HH-60G	8	
AN/ALQ-131 ECM pod	44	
F-16C/D		18
C-130E		16
C-141B		16
KC-135E		10
Coast Guard		
No major end-items purchased or transferred during FY 93.		

Source: The Reserve components.

Data as of September 30, 1993.

Equipment Conversions

New and modern equipment enhances Reserve component readiness and capability to mobilize. Such equipment reduces costs for repair and parts stockage for older, non-supportable equipment, and allows Reserve component personnel to train with and maintain equipment they will utilize during mobilization. Equipment modernization programs continued in nearly every major Reserve component weapon system.

Figure 7-4 shows examples of Reserve component major equipment conversions that occurred in Fiscal Year 1993.

Figure 7-4
MAJOR EQUIPMENT CONVERSIONS

Army National Guard

3 Battalions from M1 to M1A1 tanks
6 Battalions from M60A3 to M1 tanks
4 Battalions from M60A3 to M1IP tanks
1 Battalion from M110 howitzer to Multiple Launch Rocket System
2 Battalions from M101 (105mm) howitzer to M109 self-propelled howitzers
1 Battalion from M114 (155mm) howitzer to M109 self-propelled howitzers
2 Battalions from M901A2 to M3 Bradleys
4 Battalions from M113A2 to M3 Bradleys
5 Battalions from M113A2 to M2 Bradleys

Army Reserve

117 Battalions from M113A1 to M113A3
35 Units from TACCS to TACCS-E
34 Units from DAS3 to desktop configuration

Naval Reserve

8 HSL-84 transitioned from SH-2F to SH-2G
HM-18 and HM-19 started transition from RH-53D to MH-53E.
2 HSL-94 upgraded to recent block series SH-2F
HH-60H weapons systems upgraded

Naval Reserve (Cont'd)

2 HS-85 converted to SH-3H aircraft
Modified 4 SH-3H aircraft for cargo airlift (AFC-71)
20 F-14 aircraft aircraft retrofitted with AFC-741, ARC-182 radios.
14 C-9B and DC-9 aircraft interior cabin modifications

Air National Guard

1 Squadron A-7 aircraft to KC-135 aircraft
5 Squadrons A-7 aircraft to F-16 aircraft
1 Squadron A-10 aircraft to F-16 aircraft
1 Squadron F-16A/B aircraft to F-16C/D aircraft
1 KC-135 squadron activation
12 A-10s rerole to 12 OA-10s
6 Air Control Units AN/TPS-43E radars to AN/TPS-75 radars
14 Air Control Units began conversion to modular control equipment.

Air Force Reserve

8 A-10 to 18 F-16C/D
18 C130B to 16 C-130E
8 C-130E to 8 C-130 H
8 C-130E to 10 KC-135E
19 H1/H3 to 19 HH60G

Source: The Reserve components.
Data as of September 30, 1993.

In the Army National Guard, light/medium truck companies were scheduled to become medium truck companies (corps cargo); however conversion was delayed due to the lack of 5-ton tactical tractors.

The Army Reserve converted 117 M113A1 Armored Personnel Carriers to M113A3s using kits purchased with prior-year NGREA funds and the support of the depot rebuild program. Approximately 35 units had the Tactical Army Combat Service Support Computer System upgraded to the expanded model, taking advantage of Active component reorganizations and the availability of "off-the-shelf" computer equipment. In addition, 34 units converted Decentralized Automated Service Support System (DAS3) computer equipment to desktop configurations.

No equipment modifications were completed in the Naval Surface Reserve. Several Naval Air Reserve equipment modification programs, such as radios for P-3C and various modifications to F-14 aircraft were delayed or eliminated. As a result, 20 Naval Reserve F-14 aircraft have been grounded.

The Marine Corps Reserve did not have any equipment modifications delayed or eliminated in Fiscal Year 1993.

Fourteen Air National Guard air control units began conversion to modular control equipment. Some EC-130E aircraft were modified to have world-wide color television capability. The first of six aircraft is presently being modified. The air traffic control mobile radars in Air National Guard combat communications units were upgraded to an all solid-state system. Modifications included repackaging this system to a two-van configuration.

Air Force Reserve conversions are listed in figure 7-4.

The Coast Guard Reserve utilizes Active component equipment.

Modernization Programs

To function effectively as part of the Total Force, the Reserve components should be provided equipment that is comparable and compatible with the Active components. With the current drawdown of Active component forces, there is a potential for a continuous upgrade of Reserve component equipment.

Each of the Services has continued to modernize its Reserve components through equipment conversions. The Army has ensured that Army National Guard and Army Reserve units received modern equipment through the transfer of numerous new items of equipment to include armored personnel carriers, tanks, and helicopters.

Seven Naval Reserve squadrons completed the transition to more modern aircraft. Two additional Naval Air Reserve squadrons are scheduled to make the transition to the F/A-18A aircraft in 1994, with the transfer of aircraft from the Active component. However, a full complement of support equipment is not programmed to be included in the transition since the requirement for it continues to remain in the Active component. A three-year lead time for acquisition of the required support equipment has been indicated, but this requirement has not yet been funded for Reserve squadrons.

Naval Reserve units, such as construction battalions, cargo handlers, mobile inshore underseas warfare, and fleet hospitals, use the same equipment as their Active counterparts. However, equipment to support those missions has not been fully funded. For example, 13 percent of Naval Reserve construction battalions and 33 percent of Reserve construction regiments do not have the majority of their required wartime equipment. Approximately $58 million would be required to fully equip them. Delays in equipment acquisition could significantly restrict the quality and quantity of support available to the fleet. Unless fully resourced, not all Naval Reserve units can be deployed simultaneously.

Modernization of Air National Guard and Air Force Reserve aircraft is continuing. During Fiscal Year 1993, numerous units completed the transition to newer aircraft, replacing older tactical and air defense fighters. The Air Force reduced tactical wing growth targets and made reductions in some aircraft procurement. The high cost of operating Active component combat fighter units has led to increased reliance on the Air National Guard and Air Force Reserve to perform the air combat mission. Newer model C-130 tactical airlift aircraft have been procured through the NGREA program to replace aging aircraft.

Another older weapon system of concern is the AC-130 gunship. These aircraft are programmed to remain in the Air Force Reserve until the Active component units receive the newer AC-130U model aircraft. A shortage of support equipment is expected to create an equipment shortage for the Air Force Reserve upon conversion to the AC-130H gunship.

Equipment modernization is generally not an issue in the Coast Guard Reserve. Equipment required for surge operations is provided by Active component Coast Guard commands. The deployable port security units, consisting of approximately five percent of the Coast Guard Reserve, are the only exceptions.

Modification Programs

Modifications to existing systems are necessary to increase survivability, mission capability, reliability, maintainability, and safety. Due to declining budgets, the Reserve components have experienced difficulty in obtaining funds for equipment modifications. In the Active and Reserve components, these requirements are normally funded through offsets to existing programs.

In Fiscal Year 1994, the Army National Guard and Army Reserve will continue providing support to the depot modification program of M113A2 armored personnel carriers to M113A3. The Army National Guard was planning to modify 461 M113A2's to M113A3s beginning in Fiscal Year 1992. Previously, the Army provided funds to the Active component facility performing the work. However, this procedure stopped in Fiscal Year 1992, thereby making the Army National Guard responsible for the cost. The Army National Guard plans to modify these systems as soon as funding is available, since the M113A2 armored personnel carrier cannot operate effectively on the battlefield with the Abrams tank or the Bradley Fighting Vehicle.

Most other equipment modifications in the Army Reserve were minor product improvements to enhance performance or to eliminate safety hazards to personnel and equipment. The Army Reserve obtained approximately $500 million in equipment assets not previously programmed. Equipment gains were primarily through the deactivation of like-type Active component units and further realignment of units which increased unit priorities.

Horizontal integration of fleet assets into the Naval Reserve has proven to be the cornerstone of effective mobilization. Several Naval Reserve equipment modification programs delayed previously were accomplished in Fiscal Year 1993, including the P-3C aircraft radar and several modifications to other aircraft.

In Naval Reserve units, the F-14A Structural Maintenance and Survivability Block modification program excludes aircraft assigned to the Reserve components. This upgrade is vital to maintaining an F-14 inventory capable of supporting planned Navy force structure through the year 2010. The F/A-18As (lots 5/6/7) are not supportable on any of the 12 carrier decks. Presently, 65 percent of the A-6E aircraft are restricted during flight operations for wing modifications. With the engineering and testing problems being experienced in the A-6E composite wing development program, Naval Reserve squadrons have only 11 of 32 unrestricted aircraft available for training. Without current upgrades the Naval Air Reserve equipment becomes non-supportable when integrated with the fleet.

An engineering change proposal to the Marine Corps Full-crew Interactive Simulator Trainer (FIST) for the Marine Corps Reserve's M60A3 battle tank was conducted in Fiscal Year 1992, which will modify the existing system to function on the M1A1 Main Battle Tank in the future. Additionally, various product modifications on the HAWK missile system will continue into 1994.

If the Air National Guard and Air Force Reserve are to remain an effective force, updates of older systems must continue. Historically, most of the systems which are transferred to the Air National Guard and Air Force Reserve have passed the mid-phase in the original life cycle. Early and concerted efforts to ensure ongoing upgrade of the capabilities of the system will enhance its effectiveness and offer the most efficient use of resources. Approval and funding for the Reserve component modification programs must receive priority attention in order to gain the advantage that new technology can provide.

The Air Force has revised its procedures on approval and funding of modifications, making it imperative that gaining major commands include the requirements of the Air Reserve components in their priority ranking. However, the gaining major commands have their own priority needs and, therefore, many of the Reserve component requirements go unfunded in constrained fiscal periods. This is especially true for those weapon systems such as the older C-130s and F-16A/Bs, which are unique to the Air Reserve components. It is vitally important that upgrade programs continue to be funded and implemented to ensure that these aircraft retain their mission effectiveness and sustained supportability throughout their lifetime.

Numerous Air National Guard squadrons have been converted to modern, front-line equipment. These newer aircraft are easier to maintain and allows the Air National Guard to more easily integrate with their Active component counterparts. The F-15 Multi-Stage Improvement Program remains the number one priority for all Air National Guard F-15 aircraft. This modification program is seen as the key to improving almost all F-15 A/B combat capability deficiencies. Fleet-wide configuration control and better maintainability and supportability will also be achieved through this program. The Air Combat Command conversion priority dictates that all F-15C/D aircraft will be modified first. Funding constraints have delayed C/D conversions, causing delays in the conversion of Air National Guard F-15A/B aircraft. The Air National Guard goal is to modify all F-15 A/B aircraft going through depot maintenance. The retrofit modification, which started in Fiscal Year 1992, is expected to be completed in 1996.

The 220E retrofit is the Air National Guard's number one safety modification for F-16 aircraft. The F100-PW-220E engine is a retrofit of the F100-PW-220 engine, and is equivalent of the production F100-PW-220 engine at one-fifth the cost. The upgrade, which includes adding a Digital Electronic Engine Control, Engine Diagnostic Unit, and Fan Drive Turbine provides commonalty across the F-15/F-16 fleet. Conversion to the 220E engine configuration provides significant reliability and maintainability improvements with an average reduction of 35-40 percent in scheduled and unscheduled maintenance. Current life cycle cost figures

show that this program will amortize over four to five years. At present, sufficient funding remains to modify all F-16C/D block 25 and some F-16A/B block 15 aircraft. However, the plan to support the F-15 fleet with these engines upon retirement of the older F-16A/B aircraft requires additional engine kits to be funded.

The Air National Guard and Air Force Reserve MH-60G modification program was delayed due to cost increases. The Self-Contained Navigation System (SCNS) is the most extensive modification ever programmed for the C-130 fleet. It provides both navigational self-reliance and increased accuracy, without dependency on external emitter-type navigation aids. By not having to depend on navigation aids which are susceptible to jamming, SCNS enhances survivability in combat. Congressionally-provided funds have been used to supplement the SCNS upgrade for Air National Guard and Air Force Reserve C-130 aircraft.

There were no unit equipment modification programs conducted in the Coast Guard Reserve during Fiscal Year 1993.

The Board recommends that upgrade or modification programs be fully funded and implemented to ensure that Reserve component equipment retains mission effectiveness and interoperability throughout its service life.

Equipment On-Hand/Major Equipment Shortages

As a result of Army National Guard budget reductions for Fiscal Year 1993, a shortfall of weapons packages supporting Abrams systems was experienced during Fiscal Year 1993. Numerous Army National Guard units were affected by these shortfalls. The equipment values reported by the Army National Guard include substitute and older generation as-required items. Army National Guard units provide a third of the combat support and combat service support capability of the Army. Equipment shortages and incompatibilities detract from the Army's capability.

The Army Reserve has a large number of older model 2-1/2 ton cargo trucks nearing obsolescence. This mix of old and new equipment places an additional support burden on Army Reserve support activities. Budget reductions have forced all efforts to create a "pure fleet" for the Army Reserve units to fall behind the original program schedules. This slowing effect will cause Army Reserve deploying units to continue to experience compatibility problems with their Active component counterparts into the twenty-first century. In addition, the costs associated with supporting this older fleet continue to escalate.

Most Army Reserve units are equipped with the M-16A1 rifle. While this item is considered to be an adequate substitute for the newer M-16A2, it does not use the same ammunition as the more modern version. However, a program to convert all M-16A1s to M-16A2s has not started due to the budget constraints. The problem of planning and providing two separate types of ammunition for this weapon will continue to plague trainers and war planners until conversion is complete. With only 76 percent of their required equipment inventory value, the Army Reserve has the bare minimum of overall equipment readiness for major items. Since Army Reserve units comprise 38 percent of the Army's combat support and combat service support units, this equipment shortage has a major negative impact on the Army's ability to support its combat operations. Specific areas of vulnerability include engineering, maintenance, and communications/electronics equipment.

In the Naval Reserve, the Total Force Horizontal Integration Policy continues to provide required major equipment items such as front-line ships and aircraft. While adequate equipment was available for Operations DESERT SHIELD/STORM, some shortages continue in the Naval Reserve Construction Force, the Reserve Cargo Handling Force, Mobile Inshore Undersea Warfare, and other mission areas. Numerous equipment modification programs were delayed or eliminated, including some involving F/A-18, A-6E and F-14 aircraft. Many of these were due to lack of funding for modification kits and installation.

The M1A1 Tank was the only major equipment conversion effort for the Marine Corps Reserve during Fiscal Year 1993. Spare parts or support equipment purchases were not adversely impacted due to the few tanks involved. Fiscal Year 1993 budget reductions did not significantly impact mission readiness. The Naval Reserve executes procurement of aviation support equipment for 4th Marine Aircraft Wing squadrons. Numerous deficits exist, including $1.8 million of consumable goods and $5.3 million of high-ticket items that require Navy appropriated funds. If funding is further reduced, overall mission readiness will be degraded.

No Fiscal Year 1993 NGREA funding was earmarked for Air National Guard combat communications, air traffic control, or engineering installation units. With the current funding constraints, Air Force Reserve components are reflecting a dollar shortfall of $96 million for required mobility equipment and a $81 million shortfall in spare parts. Funding reductions DoD-wide will have a negative impact on procurement of required mobility equipment and spare parts.

Figure 7-5 shows the dollar value of major equipment items, spare parts, and other equipment on-hand versus wartime requirements for each Reserve component and compares each of these categories with values at the end of Fiscal Years 1992 and 1993.

Figure 7-5
VALUES OF MAJOR EQUIPMENT ITEMS, SPARE PARTS AND OTHER ITEMS
(Dollars in Millions)

	Fiscal Year	Army National Guard	Army Reserve	Naval Reserve[1,2]	Marine Corps Reserve [3]	Air National Guard	Air Force Reserve
Major Equipment Items							
Wartime Reqmt	FY93	42,539	7,892	16,090	5,285	29,450	15,459
Wartime Reqmt	FY92	36,183	10,879	15,805	4,195	28,088	11,557
Difference		6,356	(2,987)	285	1,090	1,362	3,902
Authorized	FY93	42,457	7,232	16,090	5,285	29,450	15,459
Authorized	FY92	36,132	9,320	15,805	4,195	28,088	11,557
Difference		6,325	(2,088)	285	1,090	1,362	3,902
On-Hand	FY93	34,680	6,025	16,135	4,673	29,450	15,459
On-Hand	FY92	27,293	7,126	15,802	3,874	28,088	11,557
Difference		7,387	(1,101)	333	799	1,362	3,902
% OH vs WT Reqmt FY1993		81.5%	76.3%	100.3%	88.4%	100.0%	100.0%
% OH vs WT Reqmt FY1992		75.4%	65.5%	100.0%	92.3%	100.0%	100.0%
Percent Change		6.1%	10.8%	0.3%	(3.9%)	0	0.0%
$$ Shortfall, OH vs WT Reqmt	FY93	(7,859)	(1,867)	45	(612)	0	0
Spare Parts							
Wartime Reqmt	FY93	482	85	396	10	882	245
Wartime Reqmt	FY92	332	42	455	12	875	158
Difference		150	*	(59)	(2)	7	87
Authorized	FY93	468	85	396	10	882	245
Authorized	FY92	332	42	455	12	875	158
Difference		136	*	(59)	(2)	7	87
On-Hand	FY93	201	81	129	10	699	184
On-Hand	FY92	198	42	177	12	684	111
Difference		3	*	(48)	(2)	15	53
% OH vs WT Reqmt FY1993		41.7%	95.3	32.6%	100.0%	79.3%	66.9%
% OH vs WT Reqmt FY1992		59.6%	*	38.9%	100.0%	78.2%	70.3%
Percent Change		(17.9%)	*	(6.3%)	0.0%	1.1%	(3.4%)
$$ Shortfall, OH vs WT Reqmt	FY93	(281)	(4)	(267)	0	183	(81)
Other Equipment Items							
Wartime Reqmt	FY93	13,389	354	1,504	42	3,345	754
Wartime Reqmt	FY92	4,535	398	1,454	153	3,397	749
Difference		8,854	(44)	50	(111)	(52)	5
Authorized	FY93	13,324	321	1,504	42	3,345	754
Authorized	FY92	4,487	361	1,430	153	3,397	748
Difference		8,837	(40)	74	(111)	(52)	6
On-Hand	FY93	8,613	305	769	42	2,569	658
On-Hand	FY92	3,255	318	828	152	2,285	627
Difference		5,358	(13)	(59)	(110)	(284)	31
% OH vs WT Reqmt FY1993		64.3%	86%	51.1%	100.0%	76.8%	87.3%
% OH vs WT Reqmt FY92		71.8%	80.0%	56.9%	99.3%	67.3%	83.7%
Percent Change		(7.5%)	6%	(5.8%)	0.7%	(9.5%)	3.6%
$$ Shortfall, OH vs WT Reqmt	FY93	(4,776)	51	(735)	0	776	(96)

Notes:
1. Major equipment item figures include value of ships. Large increases in FY 93 reflect this change.
2. Spare parts figures reflect inclusion of construction force and cargo force spares and higher costs associated with transition to new aircraft, i.e., A-6E, F/A-18A, P-3C, EA-6B, C-130T, and HH-60H.
3. The Fy 92 figures do not include the 4th Marine Aircraft Wing.

*Asterisk indicates Army Reserve spare parts data for FY92 is for one-half year due to implementation of consumer fund payment.
Source: The Reserve components.
Date as of September 30, 1993

Although the Reserve components have received large amounts of modern equipment in recent years, significant equipment shortages remain. Figure 7-6 shows major equipment shortages as of the end of Fiscal Year 1993, and compares the percent of total major equipment on-hand with wartime requirements for each of the Reserve components.

Budget reductions in Fiscal Years 1993 and 1994 did not have a significant impact on the purchase of equipment or spare parts by the Army National Guard or Army Reserve. No changes have been noted in the procurement of Bradley Fighting Vehicles, Abrams tanks, UH-60s, water craft, tactical wheeled vehicles, and power generation equipment or associated support items. Additionally, Army National Guard unit readiness reports showed a positive trend in equipment-on-hand and equipment readiness.

Overall, budget reductions in Fiscal Year 1993 and 1994 did not adversely affect the Naval Reserve's procurement of support equipment and spare parts. However, the reductions did affect the Shore Consolidated Allowance Listing (SHORECAL) spares and the aircraft transition outfitting budget. The SHORECAL spares are in support of VFC-12 and VFC-13's transition from the A-4 to the F/A-18A aircraft. This reduction has caused a minimum of three months lag time between the arrival of the F/A-18A aircraft and spares to support it. Additionally, the reduction in the budget has resulted in the deferral of $13.7 million in spare parts. The spares are in support of the A-6E, P-3B, and the F/A-18A aircraft located at the Naval Air Stations.

Equipment availability and suitability accounts for much of a Marine Corps Reserve unit's overall readiness. In terms of availability, units carry a training allowance at their home training centers. This allows them to train on each piece of deployable equipment while not exceeding storage and maintenance limitations. In terms of suitability, the horizontal integration of equipment across the Total Force is crucial in order for Marine Reserve units to effectively augment and reinforce Active component units.

Improvements have been made in major equipment shortages in Fiscal Year 1993 through the transfer of equipment to the Air Reserve components as a result of the Active component draw down. All Air National Guard aviation units can accomplish the bulk of their wartime missions despite some shortages of support equipment. Work-arounds, though often expensive and inefficient, are utilized whenever necessary to compensate for equipment shortfalls. Primary shortfall areas affected are F-16, MH-60G, C-130H, and KC-135 aircraft conversions.

Congress appropriated $413.8 million for Air National Guard equipment. Each category of newly-acquired major equipment has shortages in support equipment. The shortages consist mainly of those weapons system-unique items which involve a long lead time for delivery. Unfunded requirements are currently listed at $1.36 billion. Although both Active and Reserve components are affected, the impact is more severe on the Reserve units because they are not typically collocated with similarly equipped Active component units. Frequently, support equipment for Reserve component conversions is resourced from an Active component airwing converting to more modern aircraft. The airwing may have had two or three pieces of a particular item of support equipment to support 72 aircraft. As the aircraft are reassigned and allocated to Reserve components units in quantities of 18 or 24, there are insufficient support equipment assets to go around. The procurement of items which were originally manufactured 10 to 20 years earlier then becomes a major problem. Although workarounds are developed, units do not have either full training or deployment capability until all critical shortages have been filled.

Figure 7-6
MAJOR EQUIPMENT BACKLOG
(ON-HAND vs AUTHORIZED)
(Dollars in Millions)

Component	Year	Wartime Requirement	Authorized	On-Hand	Percent On-Hand vs Authorized
Army National Guard					
	Fiscal Year 1993	42,539	42,457	34,680	82%
	Fiscal Year 1992	36,183	36,132	27,293	76%
	Difference	6,356	6,325	7,387	
	Percent Change	18%	18%	27%	
Army Reserve					
	Fiscal Year 1993	7,892	7,232	6,025	83%
	Fiscal Year 1992	10,879	9,320	7,126	76%
	Difference	(2,987)	(2,088)	(1,101)	
	Percent Change	(27%)	(22%)	(15%)	
Naval Reserve[1,2]					
	Fiscal Year 1993	16,090	16,090	16,135	100%
	Fiscal Year 1992	15,805	15,805	15,802	100%
	Difference	285	285	333	
	Percent Change	2%	2%	2%	
Marine Corps Reserve[3]					
	Fiscal Year 1993	5,285	5,285	4,673	88%
	Fiscal Year 1992	4,195	4,195	3,874	92%
	Difference	1,090	1,090	799	
	Percent Change	26%	26%	21%	
Air National Guard					
	Fiscal Year 1993	29,450	29,450	29,450	100%
	Fiscal Year 1992	28,088	28,088	28,088	100%
	Difference	1,362	1,362	1,362	
	Percent Change	5%	5%	5%	
Air Force Reserve[4]					
	Fiscal Year 1993	15,459	15,459	15,459	100%
	Fiscal Year 1992	11,557	11,557	11,557	100%
	Difference	3,902	3,902	3,902	
	Percent Change	34%	34%	34%	
Total					
	Fiscal Year 1993	116,715	115,973	106,422	92%
	Fiscal Year 1992	106,707	105,097	93,740	89%
	Difference	10,008	10,876	12,682	
	Percent Change	9%	10%	14%	

Notes:
1. FY 92 figures changed to include value of ships.
2. Although the overall Naval Reserve equipment requirements are 95% filled, this statistic is dominated by the high cost of ships and aircraft. Significant equipment shortages exist in the Reserve Naval Construction Force, Reserve Cargo Handling Force, Mobile Inshore Undersea Warfare, and other mission areas.
3. The impact on readiness is negligible. FY92 data reflects transfer of equipment to SWA in support of the Active Forces. Also, prior year data did not include Maintenance Float statistics. The FY92 figures do not include the 4th Marine Aircraft Wing.
4. Notwithstanding the overall percentage of 98.7%, there are critical shortages in items such as individual equipment and night vision devices.

Source: The Reserve components.
Data as of September 30, 1993.

The Air National Guard also has a shortage of mobilizer transporters for combat communications units. Mobilizers are required to transport communications equipment. Without mobilizers, road and air mobility forces are degraded. A program is being coordinated with the Army to alleviate this shortage. Communications units are also short line-of-sight microwave radios, multi-capability computer equipment, single channel UHF satellite radios, and hand held, secure, digitized radios that provide Air National Guard wing commanders with base-level command and control.

Air Force Reserve units generally can accomplish their wartime missions with the equipment on-hand. Air National Guard and Air Force Reserve units that are neither activating nor converting generally have adequate support equipment available. The exception is some weapon system-dependent equipment that is presently in a state of flux due to realignment of missions and major equipment between the Active and Reserve components, and within the Air Force Reserve. Air Force regulations require that all mobility equipment must be on hand, on order, or included in a budget document. With the drawdown of Active component forces, some of these shortages are being filled from base closure assets.

In the Coast Guard, the gaining Active component command provides the necessary equipment. Major equipment shortages are in patrol crafts and vehicles. Lesser items include secure hand held communication equipment, night vision devices, protective clothing, and safety, engineering, and electronics equipment.

In Fiscal Year 1993, the Reserve components acquired many newer items of equipment through the National Guard and Reserve Equipment Appropriation, which was required for support, transportation, defensive

systems, communications, improved detection systems, and test equipment. During Fiscal Years 1989-1993, Congress appropriated approximately $7.9 billion in NGREA.

The Board recommends that the Department of Defense direct the Services to develop a policy to request full funding for the Reserve components for support equipment and spares to be delivered concurrent with each conversion to newer equipment.

Shortages vary based on unit priority. An effort is underway in the Army National Guard to fill high priority units with essential equipment through both internal redistribution and by cascading equipment from deactivating Active component units. Much of the equipment that is critically short is also short in the Active component. Some newer equipment is being provided to the Army National Guard, but it will not totally eliminate shortages.

The Army Reserve's most critical equipment shortages are included in figure 7-7. Contingency Force Pool units are still short in excess of 200 critical items in these categories of equipment: communications/electronics; test, measurement, diagnostic equipment; tactical vehicles; materiel handling equipment; and power generation equipment. The National Guard and Reserve Equipment Appropriation has provided funding to procure over 6,200 items of essential equipment.

Some Naval Reserve shortages are of concern. Funding limitations continue to restrict compatibility of Reserve aircraft with the fleet, hindering Total Force initiatives. The Naval Reserve is operating F/A-18A/B (lots 5/6/7) aircraft, whereas the fleet is operating F/A-18C/D (lots 9-16) aircraft. Many incompatibilities exist between Reserve A/B aircraft and fleet C/D aircraft. Funding shortfalls have also prevented the Reserve F-14 community from receiving the F-14 upgrade. Carrier Airborne Early Warning Squadron Eight is operating Group O E-2C aircraft, whereas all Pacific Fleet aircraft carriers are outfitted to operate Group I and II E-2C aircraft, causing equipment compatibility problems. Funding shortfalls have also precluded full modernization of Naval Reserve P-3B/C aircraft. Fleet aircraft are equipped with systems that Reserve P-3s do not have precluding their utilization by fleet commanders in certain exercises and missions. Numerous C-9B/DC-9 systems are considered obsolete and need replacement/upgrade.

The most critical equipment shortages by category for the Marine Corps Reserve are wheeled and tracked vehicles, material handling equipment, communication equipment, direct and indirect fire weapons and night vision devices. The Marine Corps Reserve does not have pre-designated early-deploying units. Initially, the impact of mobilization would be minimal provided that relatively small units are issued pre-positioned or remain-behind-equipment. If mobilization were for an extended period of time or if a large number of Marines were activated, the shortages of equipment would likely prove critical. Due to downsizing of the Active and Reserve components and base closure and relocation, some of the items listed as critical shortages may be filled from the Active component.

The Air National Guard reports equipment shortages in commercial PCs, UHF single channel satellite radio replacement, commercial multi-band satellite terminals that operate on both military and civilian satellites, and wing level command and control systems which provide the wing commander and his staff near-real time information on resource status and provide connectivity to long-haul DoD data systems.

Although the Air Force Reserve does not have major equipment shortages, there is a lack of spare parts and O&M funding. There is a related problem with physical facilities, particularly buildings destroyed by Hurricane Andrew. New buildings for Homestead AFB are programmed over the next three to four years.

Figure 7-7
MAJOR EQUIPMENT SHORTAGES

Army National Guard
- Fighting vehicles M2A2
- Fighting vehicles M3A2
- Navigational equipment
- Electronic communications security equipment
- Tanks M1A1
- Tanks M1
- Fuel tank trucks M978
- SINCGARS radios
- 600 GPH ROWPU
- Expandable van trucks 5T 6x6

Army Reserve
- Communications/electronics equipment
- Medical equipment
- Power generation
- Combat vehicles
- Combat support equipment
- C-12 Aircraft
- Tactical wheeled vehicles
- Water purification systems
- Heavy equipment transporters
- Tool sets, test sets & measurement devices
- Materiel handling equipment
- Communication systems
- SINCGARS radios
- Trucks 2 1/2 & 5 ton

Naval Reserve
- Aircraft electronic warfare equipment
- Civil engineering support equipment
- HH-60H upgrades
- MIUW van upgrades
- DC-9 fuel tanks
- Civil engineering & materiel handling equipment
- C-9B modifications
- Flight trainers/simulators
- P-3 upgrades/P-3C update III
- AN/SQQ-TI trainers
- C-20G support equipment
- C-130T aircraft and support equipment
- Bomb rack adapter hardware for F-14A
- F/A-18A electronic warfare equipment
- Support equipment for all types of aircraft
- Communication equipment
- Reserve cargo handling equipment
- Mobile inshore undersea warfare upgrade
- Construction force equipment
- Unrestricted A-6E aircraft

Marine Corps Reserve
- M1A1 tanks
- Machine guns (50 cal)
- F/A-18 support equipment
- F/A-18 spare parts
- Communication support equipment
- Shelter equipment

Air National Guard
- Aircraft towing tractors
- Communication mobilizers
- M-923 cargo trucks
- Generator sets
- R14/R22 hydrant systems
- Mobility containers
- Fire rescue trucks
- Aircraft support equipment
- Engine video boresight
- Communication support equipment

Air Force Reserve
- Airfield specialized trailers
- Generator sets
- Electrical sets
- Trucks and truck tractors
- Aircraft maintenance & repair equipment

Coast Guard Reserve
- Not Applicable

Source: The Reserve components.
Data as of September 30, 1993.

Active component Coast Guard commands provide the equipment required for surge operations.

Obsolete and Incompatible Equipment

Obsolete and incompatible equipment is still maintained within the Reserve component inventory. Modification and conversion programs within the Total Force continue to be the means of minimizing the negative effect of such equipment on readiness. The ability of the Reserve components to effectively reinforce the Active components upon mobilization will be directly proportional to the efforts made to continue to modernize weapons systems and equipment assigned to the Reserve components.

Due to recent equipment deliveries to the Army National Guard, their equipment-on-hand readiness status has greatly improved. However, there are shortages in essential systems. Examples of these shortages are secure tactical communications, multiple launch rocket systems, Bradley fighting vehicles, tactical medium and heavy trucks, test measurement and diagnostic equipment, and chemical protective clothing and equipment.

There are shortages for both the conversion and modernization programs. Many of these shortages will be filled by equipment made available from downsizing the Active Army. Additional maintenance technicians, transportation, operating tempo, storage, new/displaced equipment training and special tools/test equipment will have to be provided from existing resources.

The Army National Guard established and operated ten sites for repairing wheeled vehicles returned from Southwest Asia. Over 6,000 vehicles have been returned to service, conserving Army resources and improving the equipment-on-hand and modernization status of over 790 National Guard units. Another area of success is the Army National Guard's program to repair equipment being returned from other overseas areas. Although quantities are not final, it is anticipated that the multiyear mission will return over 11,000 pieces of equipment to acceptable standards for reissue to the Total Army.

Figure 7-8 lists obsolete and incompatible equipment in Reserve component inventories during Fiscal Year 1993.

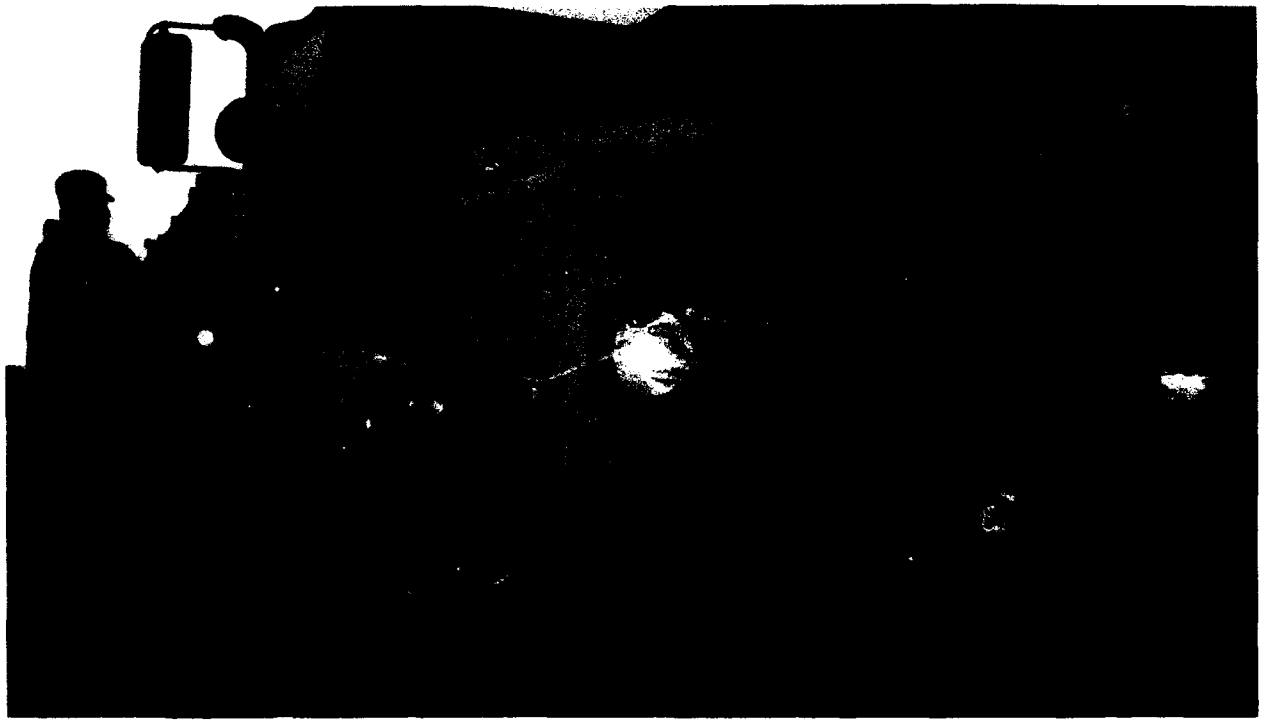


Figure 7-8
INCOMPATIBLE OR OBSOLETE EQUIPMENT

Army National Guard
- Crane wheel 20T
- Loader scoop
- Dozer tractor FT D7E
- Dozer tractor FT D-7E w/w
- Dozer tractor FT D7E RIP
- Tractor wheeled
- Fork lift (rough terrain)

Army Reserve
- Automatic switchboard
- Communications-electronic test equipment
- Tactical radio equipment

Naval Reserve
- F-14 aircraft (outdated avionics, engines and structure)
- F/A-18A outdated electronic countermeasures/radar equipment
- P-3B electronic equipment

Marine Corps Reserve
- M60 tanks
- A-4 aircraft
- M109 self propelled howitzers

Air National Guard
- Analog telephone switchboards
- Analog wideband radios
- Communication equipment
- Electronic countermeasure pods
- Medical equipment
- Satellite terminals
- VHF radios (not SINCGARS compatible)

Air Force Reserve
- Electronic countermeasures pods

Coast Guard Reserve
- Not Applicable

Source: The Reserve components.
Data as of September 30, 1993.

The Army Reserve has several critical equipment compatibility problems. The majority of equipment is at least one generation behind the Active component. Some progress was achieved during Fiscal Year 1993 through force modernization and NGREA funding, specifically in the areas of aircraft, tactical vehicles, communications equipment (SINCGARS), TMDE, medical equipment sets, and small arms.

Further improvements are programmed in the areas of construction equipment and communications equipment. Force Modernization programs are critical to equipping the Reserve components with the same equipment as the Active components. This will be accomplished through the fielding of modernized equipment to various force packages. Potential equipment funding in Fiscal Year 1994 will enable procurement of equipment to eliminate or relieve many of the following obsolescence problems within the Army Reserve, including M-911 tractors, U-21 aircraft, VRC-12 radios, and M50/800 series trucks.

All Surface Naval Reserve equipment is compatible with Active component equipment. However, some Naval Air Reserve equipment remains incompatible.

The P-3C Orion update is unfunded. VP-65 operates eight P-3C aircraft that incorporate an obsolete magnetic tape recorder. Consequently, these Reserve aircraft are specifically excluded from some Atlantic Fleet exercises due to equipment incompatibilities.

Additionally, the Naval Air Reserve currently operates 23 Systems Weapons Improvement Program (SWIP) aircraft. Mission degradation exists within Reserve squadrons utilizing non-SWIP aircraft, which are incompatible with Active component aircraft. Six A-6E SWIP aircraft have been delivered; six more are scheduled to be delivered in 1994.

The Reserve inventory is not being considered in the Naval Reserve F-14 upgrade program. Upgrade aircraft will be equipped with numerous systems that are specifically excluded from Reserve aircraft. Exclusion of Reserve aircraft will sever Naval Air Reserve F-14 squadrons from the Total Force concept and reduce them to daylight carrier operations only. Insufficient Group I and II E-2C Hawkeye aircraft are available for fleet and Reserve requirements.

The Marine Corps Reserve has two significant equipment incompatibilities, the M60 tank and the M109 self-propelled howitzer. While those items are tactically interoperable, they are no longer used by the Active component. Mechanical interoperability will be achieved when the M1A1 tank and the M198 howitzer are provided to the Reserve components. New communication equipment is being fielded.

There are two significant equipment obsolescence problems in the Marine Corps Reserve, the M60 tank and the A-4 aircraft. The most significant ground combat obsolescence problem is the conversion from the M-60 Tank to the M1A1 Tank. Forty-eight M1A1 tanks are still required to fill the Reserve component training allowance. The most significant Marine Corps aviation combat equipment obsolescence is the A-4 aircraft. It is completely incompatible with the Active component. The intermediate goal is to transition to the F/A-18A. Of the 72 F/A-18A aircraft required in the Reserve component, 48 have been delivered. Continuation of the program through 1995 should alleviate major aircraft equipment compatibility problems.

A significant long-term problem for the Air National Guard concerns KC-135E aircraft. They are not as capable as the KC-135R aircraft and will become more difficult to operate under the more stringent noise and air quality restrictions being enacted, especially in urban areas. Public pressure and environmental regulations could seriously impact the operations of E model equipped units. Congress has authorized 10 kits to reengine KC-135E to KC-135R models, but funding is not available.

The Air National Guard combat communications units currently provide deployable communications center capability using the AN/TGC-28 van. The teletypewriters and modems in this mobile shelter are outdated, technologically obsolete, and unsupportable. There is an urgent need to upgrade the teletypewriters and modems to handle the speed and volume of data and record traffic necessary for positive command and control of deployed forces.

Deployable NAVAIDS require upgrade to all band antennas as well as the ability to change channels rapidly without interruption to the flying mission. The AN/TSW-7 mobile tower also requires modification to deter obsolescence and ensure continuing air traffic control. Finally, current UHF single channel satellite radios need to be replaced to meet the mandated requirement for Demand Assigned Multiple Access by 1996. Current radios cannot be modified and must be replaced by a new Army-led acquisition effort. There are no current funded programs that will eliminate these problems.

Within the Air Force Reserve, aircraft and other equipment is generally compatible with the Active component. The Air Force Reserve's AC-130A gunships are based on A model C-130 airframes that average over 38 years old. Reserve aircraft will be replaced with nine Active component AC-130H aircraft beginning in 1994. The newer model aircraft will reduce maintainability/supportability problems, improving Air Force Reserve

mission-capable rates. However, any slip in the receipt of the H model gunships will cause problems as the present AC-130A models are not supportable beyond 1994.

The Coast Guard Reserve utilizes Active component equipment. Two exceptions are the deployable Port Security Units and certain stand-alone Reserve units that operate a limited number of non-standard boats. The Coast Guard Reserve began Fiscal Year 1993 with an inventory of 51 non-standard boats at 35 Reserve units throughout the United States. These boats vary by size, type and mission. An initiative to reduce the number of non-standard small boats in the Reserve unit inventories has begun. To date, 20 of the 51 boats have either been transferred to Active component commands or surveyed for disposal. Active component Coast Guard commands provide the equipment required for surge operations.

The Board recommends that the Department of Defense continue an aggressive equipment conversion program to reduce the need to utilize obsolete and incompatible equipment.

Aircraft Defensive Systems

Aircraft survivability equipment is still critically short. Without these upgrades, aircrews are vulnerable to enemy weapons. Survivability enhancements provide the most effective, least expensive way to expand our combat and airlift forces. To acquire and maintain adequate defensive systems, Reserve component forces must have systems which are compatible with Active component forces for the purposes of training, maintenance, and supportability of equipment while deployed.

A lack of deceptive electronic countermeasures and radar warning equipment severely limits readiness, and would limit survivability of aircraft and crews in combat. The shortage of this equipment limits the ability of aviators to develop the skills required to survive on the modern battlefield. The shortage of equipment also hampers training of aircrews and has a direct impact on readiness.

Figure 7-9 lists defensive equipment needed for Reserve component aircraft.

The requirement for adequate defensive systems for National Guard aircraft remains a high priority. Modernized aircraft systems such as the AH-64, CH-47D, UH-60, and OH-58D are being fielded with aircraft defensive equipment. The remaining procurement requirement is for older aircraft (UH-1, OH-58, and AH-1) and for the associated test equipment required to maintain these systems.

The following aircraft defensive equipment is required: Radar Jammer Sets, Radar Detecting Sets, Laser Detecting Sets, Infrared Countermeasure Sets, Infrared Exhaust Stacks, and M-130 Chaff Dispensers. The estimated cost to meet Army National Guard requirements is projected to be between $165-$220 million. The shortage of aircraft and maintenance test equipment hampers the training of aircrews and has a direct impact on readiness of aviation units and aircraft.

An estimated $19 million is needed to bring Army Reserve aviation units to authorized levels. There was no appreciable improvement in the number of aircraft with defensive systems in the past year. The lack of modern electronic defensive systems impacts unit training, readiness, and battlefield survivability.

Due to shortages in defensive electronic countermeasure equipment, much of the Naval Air Reserve Force is currently operating state-of-the-art aircraft with little, and in some cases, no defensive capabilities. While the increased number of older systems such as the ALR/ALQ-126A/B improve

Figure 7-9
AIRCRAFT DEFENSIVE EQUIPMENT SHORTAGES

Army National Guard
Deceptive and electronic countermeasure equipment
Radar warning devices

Army Reserve
Infrared countermeasure sets
Laser detecting sets
Missile-approved detectors
Radar detecting sets
Radar jammer sets
Radar warning systems

Naval Reserve
Radar detecting sets
Radar jammer and warning sets
Electronic counter measures pods

Marine Corps Reserve
Radar jammer sets
Radar warning systems

Air National Guard
Chaff & flare dispensers
Electronic countermeasure pods
Missile warning receivers
Wiring for infrared jammers

Air Force Reserve
Airlift defensive systems
Electronic countermeasure pods
Radar warning receivers

Coast Guard Reserve
Not Applicable

Source: The Reserve components.
Data as of September 30, 1993.

our capabilities, training and experience with borrowed state-of-the-art systems is only obtained in the few weeks prior to and during annual training. This leads to training deficiencies for both aircrew and maintenance personnel.

The lack of defensive equipment and proper training impacts mobilization capabilities and may prevent fleet commanders from deploying Reserve component units to high threat areas unless in-theater assets are provided. Some improvements have been realized by the addition of ALQ-126A systems which the fleet is phasing out and limited numbers of ALE-39 and APR-139. However, to acquire and maintain adequate defensive systems, Reserve forces must have the same systems as the fleet for the purposes of training, maintenance, and supportability of equipment while deployed. Furthermore, a lack of deceptive electronic countermeasures and radar warning equipment severely limits mobilization readiness and would limit the survivability of aircraft and crews in combat.

The Fourth Marine Aircraft Wing maintained a 100 percent capability in adequate defensive systems of older generation equipment. A slight increase of 7.7 percent in defensive systems for Reserve component aircraft was experienced with the initial delivery of the AN/AAR-47 Missile Warning System for installation in the UH-1N, CH-46E and KC-130 aircraft. Although there were no increases in defensive equipment for Reserve component fixed wing tactical aircraft, a 22 percent increase in outfitting of the AGM-88 HARM weapon system for the F/A-18 aircraft was achieved.

The Air National Guard requires new/upgraded defensive systems equipment for C130 and F-16 C/D aircraft. Both aircraft require radar warning receivers, automatic countermeasures (chaff/flare) dispensers, adequate infrared/radio frequency countermeasures, and missile warning receivers. In addition, the F16C/D aircraft need electronic countermeasures (jamming pods) and integrated electronic warfare systems with centralized controls. The estimated cost for these improvements is $600,000 for C-130 aircraft and $300-450,000 for F-16C/D aircraft. Although F-16A/B and F-15A/B aircraft also require systems similar to the F-16C/D, due to their remaining service life improvements are mainly planned as software and minor hardware improvements. While some improvements have been received during the last year, funding remains a problem. The C-130 aircraft, in particular, have a severe funding shortfall for defensive systems equipment. The lack of modern defensive equipment adversely impacts the survivability of aircraft and crews in combat.

Air Force Reserve F-16s require additional integration and upgrade of their defensive equipment. The cost of the Air Force Reserve integrated electronic countermeasures initiative will vary according to which of the forecast force drawdown plans is adopted, but estimated costs to upgrade radar warning receivers through reliability and maintainability modifications, to combine defensive systems controls and functions in the cockpit, and add more chaff and flare dispensing capability are estimated at $10 million. By 1995, the Air Force Reserve F-16 and A/OA-10 fleet will have received electronic countermeasures pods. However, an additional upgrade of low band receivers will be needed for a total cost of approximately $4 million.

Two items compose the basic defensive equipment suite, and are needed for the Air Force Reserve's airlift fleet: AAR-47 missile warning systems and the ALE-40/47 chaff/flare dispenser unit. Two C-141s and one C-5A have received the basic defensive suite, leaving forty-two C-141s and thirty-one C-5s that require defensive equipment. The Air Force has programmed defensive equipment for fourteen Reserve component C-141s beginning in 1995. Beyond the basic defensive capability, the C-130 fleet should be upgraded with improved digital sequence switches for the chaff/flare dispensers and the addition of radar warning receivers.

The Air Force Reserve is working closely with the Air Force and Air National Guard to identify defensive systems needed for the KC-135 tanker fleet. The cost to install defensive equipment on the remainder of the strategic airlift fleet (except for the 3 aircraft already converted and 14 programmed), and upgrade the C-130 fleet with radar warning receivers is $57.5 million. The Air Force Reserve has installed basic defensive equipment on nearly 75 percent of its C-130 fleet. The Active Air Force has modified two Reserve C-141s and one C-5 with both MWR and chaff/flare dispensers, and plans to modify another 14 C-141s beginning in 1995.

The Coast Guard has no Reserve component aircraft.

The Board reaffirms its recommendation that Reserve component aircraft be equipped with appropriate modern defensive systems to enhance the survival of aircraft and aircrews in a high-threat electronic environment.

Automated Management Systems

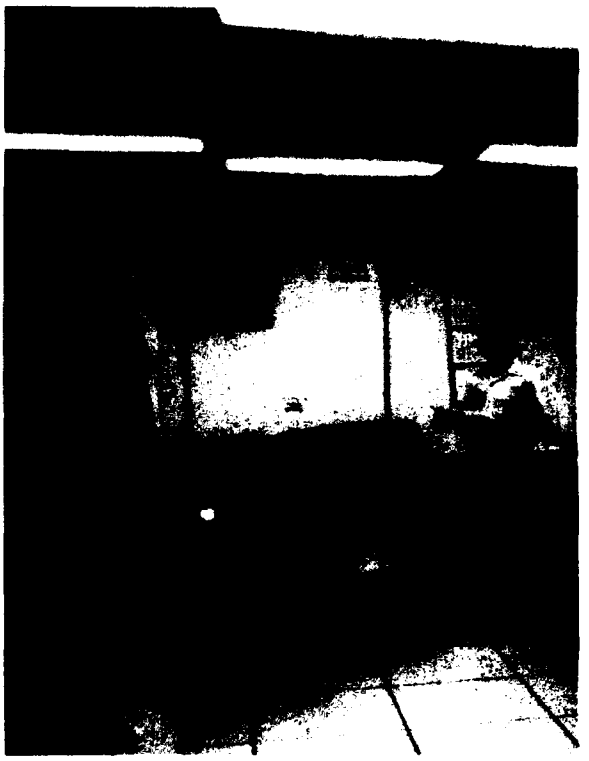
A major effort is underway to provide automated data processing support for management of Reserve component personnel, training, and logistics. The goal is to provide a capability and jointness, using microcomputers at the local level. On-line communication and interaction with larger systems is essential to reduce delays, improve efficiency of operations, and make current information available to various levels of command.

The Department of Defense continues to work with the Reserve components to ensure that all applications and data sources are not only capable of interconnectivity, but also interoperable between the Active and Reserve components.

The Direct Support Unit Standard Supply System Personal Computer (DS4-PC) has been fielded to all authorized Army National Guard units, replacing the Decentralized Automated Service Support System (DAS3). DS4 supports supply management and accountability at the unit level. The Unit Level Logistics System-Ground (ULLS-G) fielding plan calls for the Army to procure equipment for Reserve component units within the Army's Force Package I. The Army National Guard is procuring and fielding ULLS-G equipment for units within Force Package II, III, and IV from the National Guard and Reserve Appropriation.

The ULLS-G provides battalions and companies with maintenance management automation support. The Standard Property Book System-Redesign (SPBS-R) fielding plan calls for Army procurement of Non-Development Item (NDI) computer equipment to replace the aging Tactical Army Combat Service Support Computer System (TACCS) in 1994. SPBS-I/TDA fielding to the United States Property and Fiscal Office at installation/state level will be completed in 1995. The Army National Guard is fielding and testing the Objective Supply Capability (OSC) System, which provides the Army National Guard with the capability to effectively manage excess repair parts throughout the states and territories.

The Army National Guard is committed to the utilization of Standard Army Management Information System (STAMIS) to support its tactical automation requirements, and is fielding the same logistics systems used by the Active component. Stems include: DS4-PC, ULLS-G, SPBS-R, Standard Army Retail Supply System (SARSS), and Theater Army Medical Management Information Systems (TAMMIS). An example of the Army National Guard efforts to utilize STAMIS is the replacement of the Army National Guard-unique Supply Accounting Management Information System (SAMIS) with SARSS in 1994, with a planned conversion that could take four years to complete.



The Reserve Component Automation System (RCAS) is the comprehensive automation system for the Army National Guard and Army Reserve. It is designed to support the needs of commanders, staffs, and functional managers responsible for leading and managing Reserve component units. It uses commercial servers/processors and office automation software, plus secure wide-area network telecommunications, specialized application software, and a fully integrated relational data base for every unit.

The RCAS will provide the information necessary to mobilize Reserve component units either through developed software or external interface to Standard Army Management Information Systems (STAMIS). With a few exceptions, RCAS will replace most systems within the Army National Guard. A successful limited users test using commercial office automation software was completed in 1992. A second test is scheduled for October 1994 to evaluate the first block of developed functional applications software. As software is developed and tested, it will be added to fielded systems. The system is being phased in from West to East, with completion scheduled for 1998.

The Army Reserve uses the Center Level Application Software (CLAS) to do a variety of Reserve center logistics management tasks. CLAS is not interoperable with Army STAMISs. Upon fielding of the Logistics Management portion of RCAS in 1996, the Army Reserve will have an automated management system that is capable of linking all levels of the Reserve structure during peacetime. By interfacing with selected Standard Army Management Information Systems, RCAS will exchange data between the Active and Reserve component systems. With the fielding of RCAS logistics, near real-time information will be available on the daily logistics operations of all Army Reserve units. The Army is completing the E upgrade of TACCS within the Army Reserve. TACCS, as equipment, will be replaced by NDI by 1998, beginning with Contingency Force Pool Tier I units.

The Naval Reserve utilizes three microcomputer software applications to support Naval Reserve field activities. They are Fund Administration and Standardized Document Automation (FASTDATA), Controlled Equipage Inventory System, and Naval Reserve Utility Clothing System. In addition, the Naval Reserve is in the process of implementing a minicomputer application and testing FASTDATA for possible implementation. FASTDATA perpetuates accounting data between the Naval Reserve Financial Information Processing Center, field activity comptrollers, and cost centers. It also automates budget preparation, execution and reporting requirements.

The Controlled Equipage Inventory System (CEIS) has been provided to the Logistics department for review. It included year-end close-out, the capability to extract data processing equipment that will be processed and uploaded into the ARMS program, and corrected existing problems. CEIS software was released to field users in May 1993. The Naval Reserve also implemented NALCOMIS Phase II at three locations, and plans expand it to three more locations in 1994. NALCOMIS is an information management system which responds to aircraft maintenance and material management requirements for the organizational and intermediate levels of maintenance and aviation supply.

Eight communications servers were installed at eight sites to provide Naval Reserve activities with connectivity to the Naval Logistics Network (NLN) and connected applications such as the Inventory Control Point Remote Area Network. When NLN was deployed throughout the Active component, the Naval Reserve did not receive the hardware necessary to provide this connectivity. As various Navy logistics systems have come to depend on the NLN environment, this connectivity has become necessary to maintain systems compatibility.

The Reserve Standard Training, Administration and Readiness Support (RSTARS) system provides Naval Reserve Activities the capability to record, validate, report, and process field-level manpower, personnel, and training information. RSTARS is presently fielded throughout the Naval Reserve and fully supports mobilization, personnel management, pay and allowances, readiness reporting, training management, and medical/fitness for duty for all Selected Reserve personnel. RSTARS was initially fielded to all Naval Reserve Activities in 1989 and was instrumental in the mobilization of Navy Selected Reserve personnel during Operations DESERT SHIELD/STORM. Since Naval Reserve equipment/logistic functional management support is being provided by other existing systems, altering the functional requirements to incorporate equipment/logistics would not be beneficial.

The Marine Corps has implemented Reserve component subsystems for both the Supported Activities Supply/Support System and Marine Integrated Maintenance Management System. This gives supply sections the capability to submit and monitor their own jobs, providing better visibility of data. The Marine Corps Reserve is also implementing a report distribution system. This will provide the capability to retrieve sections of reports from more than just the latest cycle. When fully implemented, this capability

will be extended to training centers throughout the United States.

Fourth Marine Aircraft Wing activities are only partially interpretable with Active component logistics systems. The Rotary Wing Marine Aviation Logistics Squadron has a compatible system, but the Fixed Wing Squadron currently does not. However, a potential system has been identified.

The automated management systems used by the Air National Guard are interpretable with Active component systems. Air Force Reserve units are using the CAMS Maintenance Information System to enhance airlift operations. Air Force Reserve Maintenance Information Systems are the same as Active component systems.

No changes have been made to the Coast Guard's automated logistics management systems. However, a large development project, Systems to Automate and Integrate Logistics (SAIL), is being planned to re-engineer/automate ship logistics. This is significant to the Coast Guard Reserve because it uses Active component automated logistics management systems. The Coast Guard RIM architecture dictates the use of standard workstations, software languages, and database management systems. As such, all on-line management systems are interoperable.

Over the past decade, the Coast Guard Reserve has been working toward complete integration of Reserve and Active component automated management systems. Considerable integration has already taken place. Additionally, Coast Guard initiatives have been effective in combining requirements into a single information system.

Equipment Maintenance

The Army National Guard equipment maintenance backlog for Fiscal Year 1993 is approximately $36 million, compared to $53 million in 1992. This decrease is attributable to the completion of Operation DESERT STORM equipment reconstitution, using funding from a variety of special maintenance programs, such as the Temporary Tour of Active Duty and Delayed Desert Damage programs. Additionally, major end item unfunded requirements total $43 million for equipment redistribution to National Guard units ($38.5 million for UH-60 refurbishment, $0.85 million for HAWK requirements, and $3.9 million for Bradley Fighting Vehicle requirements). Initiatives are in place to reduce maintenance backlogs.

The Army Reserve had a maintenance backlog of $16.5 million for Fiscal Year 1993, compared to a $6.5 million backlog for Fiscal Year 1992. Maintenance backlogs are expected to increase to $52 million in Fiscal Year 1994, then decrease to $36.7 million in 1995. Increases in maintenance backlogs are occurring because of mission transfers. Beginning in 1994, the Army Reserve is scheduled to assume the costs of the fixed wing aviation Contractor Logistics Support (CLS) mission transfer.

Additionally, the Army Watercraft Drydocking mission is being transferred from the Training and Doctrine Command to the Army Materiel Command/Aviation and Troop Support Command; the Army Reserve will share in the funding of this program. The Army Reserve will incur significant costs in a Service-wide medium tactical truck upgrade initiative. To help alleviate the backlog, the Army Reserve is pursuing additional funding for mission transfers.

Due to engine rework, the Naval Air Reserve Force had a depot-level maintenance backlog of $3.2 million in Fiscal Year 1993, compared to a zero backlog in 1992. A support equipment rework shortfall is projected at $3 million for Fiscal Year 1994. Depot-level maintenance backlogs are forecast at $17.4 million for 1994 and $14 million for 1995. Reserve ship maintenance backlogs have been eliminated by decommissioning all Reserve FFTs in 1994.

The Marine Reserve Force has a maintenance backlog of $492,000 in Fiscal Year 1993, compared to a zero backlog in 1992. The Marine Reserve Force continues to minimize

maintenance backlogs by training assistance visits, inspections, and policy updates. Additionally, the priority of effort at depot maintenance activities is the restoration of the maritime prepositioned ships equipment, Active component equipment, Reserve component equipment, and the restoration of war reserve equipment. Under current and projected funding levels, the maintenance backlog is forecasted to increase as degradation in materiel readiness occurs due to equipment aging and longer periods of operational usage between scheduled and funded depot-level repairs.

The Air National Guard and Air Force Reserve did not have a maintenance backlog. The Air National Guard will have to reduce sustaining engineering support, communication equipment support, plus delay induction of 11 KC-135s, one C-130, one C-141, and one C-5 into programmed Depot Maintenance in 1994.

Equipment for Training

Training effectiveness is often determined by the equipment available. Too often, after personnel join a Reserve component unit, they find that they must train on outdated or obsolete equipment. These personnel do not have adequate opportunities to maintain proficiency in their designated skills. This jeopardizes the warfighting capability, effectiveness, and survivability of both the individual and the unit.

Training equipment shortages naturally vary by the type of unit. In some cases, they are major end items, but significant shortages also exist for regular training on such equipment as electronic countermeasures equipment, night vision equipment, chemical biological defense equipment, secure and/or compatible communications equipment, and certain items of medical equipment.

Some equipment has inbedded training capability which greatly enhances the ability to train operators. However, few units maintain all authorized equipment at their home station, due to space and maintenance limitations. The use of training simulators and devices will satisfy some unit and individual and collective training requirements. Accordingly, the development and purchase of simulators and devices should be given a high priority.

The Army National Guard is experiencing significant shortages of Remote Target System equipment. Substantial range modernization is needed for the Army National Guard; 25 percent of the military construction budget is dedicated to ranges. Army procurement funds are insufficient to purchase the target systems needed by the Army National Guard. The shortfall includes modified record fire ranges, multipurpose machine gun ranges, multipurpose range complexes, combat pistol qualification courses, multipurpose training ranges, infantry squad battle courses, and qualification training ranges.

The National Guard Bureau is attempting to obtain non-standard target mechanisms and systems for as many of the above ranges as possible. This approach has drawbacks, in that the maintenance of non-standard systems is a problem and repair parts are unavailable without cannibalizing existing systems. As training areas close in Europe, more non-standard systems should become available. Alternate courses of fire do not adequately prepare Army National Guard, Army Reserve, or Active component units for mobilization and deployment. The Army National Guard will continue its efforts to insure that the necessary ranges and target mechanisms are available.

Army Reserve hospital units have fielded over 60 Deployable Medical Systems Minimum Essential Equipment for Training (MEET) Sets. This equipment is used by Army Reserve hospital units during inactive duty training. Training on MEET is conducted at the section level. Collective training is conducted at a Regional Training Site-Medical during annual training. With the exception of some items where partial shipment has occurred or is pending, Army Reserve hospitals have

adequate levels of medical equipment for training. However, some surgical equipment is currently unavailable which adversely impacts the training programs for some surgical specialties. There has been no replacement of tents at the Regional Training Sites since they came on line, and most will become unserviceable within the next two years. These tents are in constant use and exposed to the weather.

Naval Air Reserve training equipment shortages, totaling $120 million, are listed in figure 7-10. Naval Surface Reserve training equipment requirements/shortages are also reflected. Funds remain insufficient to provide life cycle support for Interactive Courseware Training Systems, which include 1,250 Electronic Information Delivery Systems, 10 Tactical Advanced Simulated Warfare Trainers, and 12 Steamer 1,200 pound Turbine Simulators. Training equipment continues to be supported by stop-gap funding from other program areas. The shortfall totals over $900,000. Medical textbooks and training materials, and liquid crystal display projectors were procured in Fiscal Year 1993.

Figure 7-10 lists Fiscal Year 1993 Reserve component training equipment shortages.

Figure 7-10
TRAINING EQUIPMENT SHORTAGES

Army National Guard
- Armored combat earthmovers
- Conduct of fire trainers
- Electronic information delivery systems
- Medical training aids
- MILES systems
- Modernized training ranges
- NBC training equipment

Army Reserve
- Armored combat earthmovers
- Heavy expanded mobility tactical trucks
- M1A1 tanks
- M27M3 tanks
- Mobile subscriber equipment
- Radio communications nodes
- Squad engagement training sets

Naval Reserve
- Aerial targets
- Flight simulators
- Medical training equipment
- Weapon system trainers

Marine Corps Reserve
- Avionics equipment
- Communications equipment
- Cryptological equipment
- M1A1 tanks
- MK 19 grenade launchers
- Night vision sights & goggles
- Sensor management platoon equipment

Air National Guard
- Communications equipment
- Electronic equipment
- Medical equipment
- Training munitions

Air Force Reserve
- Training munitions

Coast Guard Reserve
- Not Applicable

Sources: The Reserve components.
Data as of September 30, 1993.

The Marine Corps Reserve reports shortages of training equipment. Although delayed by Operations DESERT SHIELD/STORM, the integration of modern equipment into the Marine Corps Reserve continues.

The Air National Guard is restricted by a cap of 11 percent of the aircraft fleet as the amount funded for formal training. However, the use of 15 percent of aircraft for training is needed. To remedy this problem in 1994, the Air National Guard is funding eight additional PAA at one location and is considering funding two additional PAA at other locations.

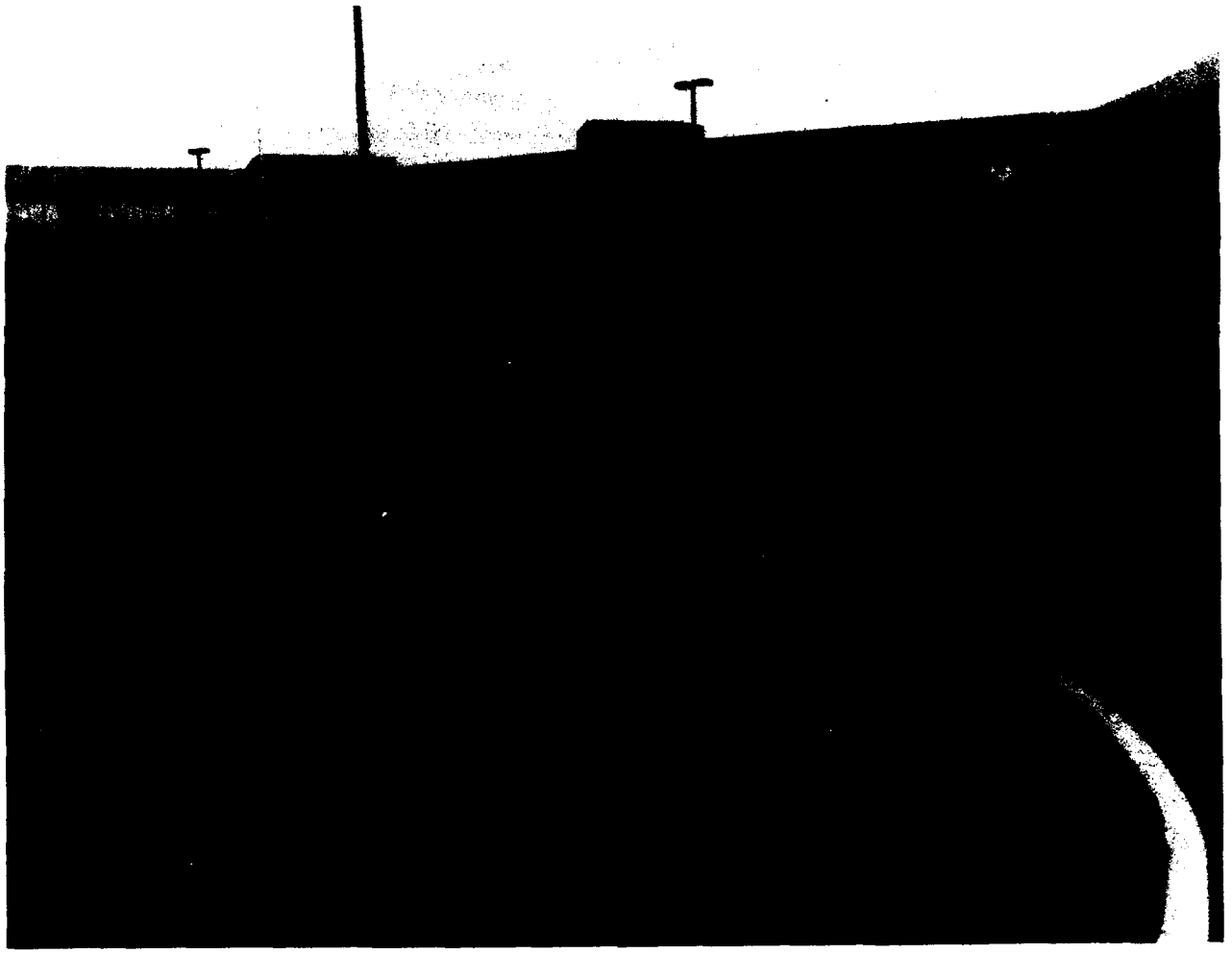
The Air National Guard obtains over 50 percent of its aircrew training quotas from the Air Force. There are no medical training equipment shortages. Combat communications units are able to use their wartime-assigned equipment for training. Engineering Installation units do have some training equipment shortfalls in the areas of digital electronic switches, fiber optics training aids, satellite control training aids, and fixed communications transceiver training aids.

Generally, the Air Force Reserve has a requirement for advanced simulator systems and mission rehearsal devices. This equipment will allow better training by simulating a wartime environment and at the same time extend aircraft life by shifting some routine training items out of the aircraft. Specifically, the Air Force Reserve has a requirement for a C-5 Weapons System Trainer and a C-130H-2 Weapons System Trainer. Low cost mission rehearsal devices are needed at all fighter locations and an Aircrew Training System is needed for AC-130 special operations. Additionally, the Air Force Reserve has a requirement for enhanced survivability and self-protection equipment for its fleet. This equipment would provide increased chaff and flare capability, and an integrated electronic warfare suite, both of critical importance to single-seat fighters.

Air Force Reserve Medical units have significant shortages of training equipment at the unit level. Aeromedical Patient Staging Squadrons do not have enough equipment for hands-on sustainment training. Examples are EKG machines, IV arms, and anatomically correct mannequins. These units also require ambuses for training. Ambuses will soon be in excess in Europe, but the Air Force Reserve cannot obtain these assets because of a moratorium on vehicle authorizations. Medical squadrons converting to Air Transportable Hospitals require temper tents and other hands-on equipment. Aeromedical evacuation units need Stryker Frames, Collins traction units, and large numbers of stretchers.

Coast Guard Reserve training is primarily accomplished at Active component commands using Active component equipment. Equipment and systems at these Active component commands are available in sufficient quantities.

8 Facilities



"The training, combat readiness, and warfighting capability of the Reserve Components are directly impacted by the quality and availability of facilities and infrastructure."

John B. Rosamond
Deputy Assistant Secretary of Defense for Reserve Affairs (Materiel and Facilities)

General

It is essential that the Reserve components have modern, appropriately-sized and configured facilities. Attempting to maintain aging and obsolete facilities requires an inordinate amount of a Reserve component's limited funding. During each of the last five years, Congress has provided add-ons to the military construction funding for the Reserve components. Notwithstanding, the military construction backlog and the percentage of inadequate facilities continues to increase, requiring even more aggressive support by both DoD and the Congress.

Reserve component facilities range from individual Reserve centers and armories to regional equipment maintenance centers, and from support facilities to large installations. The Reserve components train in more than 5,447 facilities in 4,679 communities across the Nation and overseas. Sufficient funding must be made available to repair and maintain present facilities, and where required, to build new facilities.

The adequacy of Reserve component facilities becomes increasingly important as additional missions are transferred to the Reserve components. The morale, safety, and retention of quality personnel, as well as both individual and unit readiness, are all affected by inadequate facilities.

Reserve Component Facilities

The Reserve components have responsibility for operating and maintaining an increasing number of facilities. For reasons of economy and efficiency, joint use of facilities by more than one Reserve component is being emphasized by the Department of Defense. All new construction is evaluated for potential joint-use. Approximately 1,157 facilities are shared by two or more Reserve components. Additionally, some Reserve components share facilities with Active component units. Coast Guard Reserve units routinely utilize Active component facilities. Joint facility use is not an instant panacea, since most existing facilities are sized to accommodate only a single unit. However, joint use does improve the overall affordability of the Reserve components. Reserve component facilities represent a substantial capital investment, as indicated in Figure 8-1.

The Army National Guard operates facilities in 3,306 different locations, including approximately 100 leased facilities.

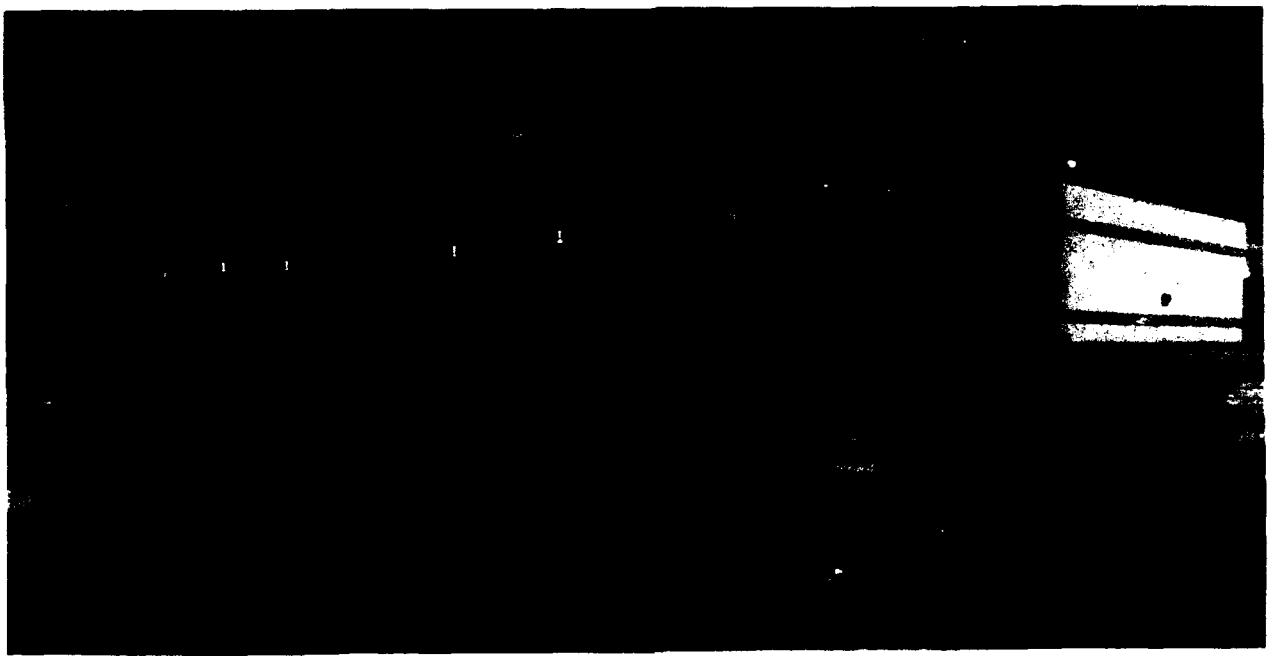


Figure 8-1
RESERVE COMPONENT FACILITIES

Component	Total Facility Locations	Number of Separate Communities	Number of Buildings & Structures	Number Jointly Used
Army National Guard	3,306	2,702	25,411	391
Army Reserve	1,448	1,305	2,144	176
Naval Reserve	259	238	1,826	167
Marine Corps Reserve	193	193	690	318
Air National Guard	170	170	5,300	40
Air Force Reserve	71	71	762	65
Coast Guard Reserve[1]	N/A	N/A	N/A	N/A
Total	5,447	4,679	36,133	1,157

Notes:
1. Coast Guard Reserve units share space with Active component commands and/or *Department of Defense* Active and Reserve component training centers.

Sources: The Reserve components.
Data as of September 30, 1993.

Approximately 147 facilities were transferred or assigned to the Army National Guard in Fiscal Year 1993. These facilities met all environmental requirements for transfer and use. However, sufficient maintenance and repair funds were not programmed to bring some of these facilities to usable standards.

The Army Reserve operates facilities in 1,448 different locations, including 1,162 Army Reserve Centers. Of these 852 are owned and 596 are leased. Forty leases were terminated in Fiscal Year 1993. Four additional leases are scheduled to terminate in 1994.

The Naval Reserve operates facilities in 259 separate locations, including 165 owned and 52 leased centers. One Naval Reserve facility was closed in Fiscal Year 1993, and forty-two more will close between 1994 and 1996. The Marine Corps Reserve manages facilities in 193 separate locations. Twenty-three armories/centers are owned and six are leased. None are scheduled to be closed.

Four facilities were transferred to the Marine Corps Reserve in Fiscal Year 1993, all of which met environmental requirements. Current requirements for construction and repair have been programmed. The major concerns are receiving construction and repair funds in a timely manner and having sufficient funds to buy collateral equipment.

The Air National Guard manages facilities at 170 locations. None are scheduled to be closed.

The Air Force Reserve manages facilities at 71 locations. One installation is scheduled to close in 1994. This closure will have minimal impact on

the ability of the Air Force Reserve to accomplish its missions. Although the Air Force Reserve received no transferred facilities during Fiscal Year 1993, three installations will be added in 1994. Funding for maintenance and repair or replacement of deteriorated facilities is inadequate. An additional concern is the inability to hire qualified civilians due to the long delay between the closure/transfer announcement, the development of manpower requirements, and the availability of personnel funds and hiring authority. Memorandums of Understanding are needed with local communities and other federal agencies and DoD components who will remain as tenants on transferred installations concerning common use functions such as airfield operations and fire protection.

The Board is concerned that environmental issues have not been resolved prior to acceptance of these facilities, and that insufficient maintenance, repair and operational resources are being provided to allow the gaining Reserve component to adequately operate and maintain these facilities.

Adequacy of Facilities

Many Reserve component facilities are considered inadequate, and the percentage of inadequate facilities is increasing for some Reserve components. Adequate facilities are essential to the administration, training, and readiness of the Reserve components. Renovation or new construction becomes necessary when a facility's functional obsolescence, physical deterioration, or overcrowding adversely affects the mission. Operating costs for Reserve component units can be reduced and unit readiness improved when units operate from modern and efficient facilities.

Each Reserve component evaluates adequacy from a slightly different perspective. The Army National Guard and the Army Reserve generally have the oldest facilities and suffer from overcrowding and a lack of storage and maintenance space. Units with more and larger equipment have outgrown existing facilities. The Naval and Marine Corps Reserve have used a strategy of consolidation to eliminate many of

their inadequate facilities, but many old, dysfunctional facilities remain. Air National Guard and Air Force Reserve aircraft conversions necessitate major changes in aircraft maintenance requirements. The facilities which supported previously assigned aircraft, while not necessarily deteriorated, are often ill-suited for newly-assigned aircraft.

The percentage of facilities considered inadequate by each Reserve component is shown in figure 8-2.

The Army National Guard has a total of 25,411 buildings located at 3,306 separate sites. Thirty-seven percent of these buildings are considered inadequate or deteriorated. Major addition or rehabilitation is required to 762 buildings; an additional 759 facilities require replacement.

Forty-five percent of the Army Reserve's 2,144 buildings are considered inadequate. The primary reasons are age (22 percent) and functional obsolescence (23 percent). Many Reserve centers continue to be in need of revitalization and upgrading. The number of facilities that are leased has an influence on the percentage of adequacy; most leased facilities do not fully meet unit requirements, because they lack arms vaults, kitchens, and other essential needs.

Twenty-seven percent of the Naval Reserve's 1,826 buildings are considered inadequate. Ten percent are inadequate due to size; eleven percent due to condition; and six percent due to both size and condition. The number of inadequate facilities is growing.

The Marine Corps Reserve maintains 690 structures. Approximately 50 percent of these buildings contain various inadequacies. Marine Corps Reserve facilities that are inadequate due to age include quonset huts, 50 year-old buildings, and obsolete buildings constructed of metal. There are others which are structurally sound, but require substantial amounts of operational and maintenance funds to maintain. Two sites are considered totally inadequate.

The majority of the Air National Guard's 5,300 buildings are considered inadequate. In

Figure 8-2
INADEQUATE FACILITIES

Component	Percent Inadequate FY92	FY93
Army National Guard	37%	37%
Army Reserve	25%	45%
Naval Reserve	28%	27%
Marine Corps Reserve	40%	49%
Air National Guard	64%	68%
Air Force Reserve	34%	34%
Coast Guard Reserve [1]	N/A	N/A

Note:
1. Not applicable to Coast Guard Reserve.
Sources: The Reserve components.
Data as of September 30, 1993.

excess of 68 percent of these facilities are below standards and approximately 50 percent of the facilities are undersized, poorly configured, or are improperly located for effective and efficient use. There are insufficient military construction funds to replace many of these antiquated buildings.

Of the Air Force Reserve's 762 buildings, 34 percent are considered inadequate. Inadequacies are primarily due to condition (21 percent) and lack of sufficient space (10 percent). The average Air Force Reserve facility is 27 years old and a significant number of World War II and Korean War vintage facilities make up the current inventory. Many of these facilities were initially constructed to support propeller-driven aircraft, but have been adapted to support turbo-prop and jet aircraft. Infrastructure needed to support operation of these aged facilities, such as pipelines and electrical power transmission systems, is quickly approaching the end of its useful life, and is in need of immediate repair, revitalization, and in some cases replacement.

The Board believes that inadequate Reserve component facilities have a negative effect on training and readiness, and hinder recruiting and retention efforts.

Military Construction Funding

The Department of Defense recognizes the need for modern, efficient facilities for all of its activities, and believes that its budget represents a balanced approach to military construction requirements for the Active and Reserve components. Congress, however, has made

major additions to Reserve component military construction budget requests over the last few years. As noted in Figure 8-3, $657 million was appropriated by the Congress, an increase of $340 million above the Department of Defense request of $317 million. Most of those additional appropriations supported improved readiness and mobilization capability for the Reserve components. Many Reserve component facilities require major construction to replace or renovate existing buildings.

Each Reserve component annually programs funds to support new and expanded missions, unit relocations, and equipment additions and conversions associated with force modernization. Military construction appropriations are also used to replace obsolete Reserve component facilities. Military construction programs are underfunded, especially in light of base realignment and closure actions. Delays in providing adequate facilities can affect unit readiness, recruiting, retention, and morale and result in additional operating costs.

Figure 8-3
MILITARY CONSTRUCTION FUNDING
(Dollars in Millions)

	FY92	FY93	FY94
Army National Guard			
Military Construction Request	50	12	51
Military Construction Appropriation	231	215	303
Army Reserve			
Military Construction Request	58	8	82
Military Construction Appropriation	110	42	82
Naval/Marine Corps Reserve			
Military Construction Request	21	10	23
Military Construction Appropriation	49	15	22
Air National Guard			
Military Construction Request	132	132	142
Military Construction Appropriation	217	306	248
Air Force Reserve			
Military Construction Request	21	24	19
Military Construction Appropriation	10	30	2
Coast Guard Reserve [1]	N/A	N/A	N/A
Total			
Military Construction Request	282	186	317
Military Construction Appropriation	617	608	657

Notes:
1. Not applicable to Coast Guard Reserve.
Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of November 25, 1993.

During Fiscal Years 1989-94, $3.9 billion was appropriated for Reserve component facilities. This includes a significant Congressional add-on of $1.9 billion. Some of this money has gone to construct facilities that support new missions; the remainder has been used to improve the facilities of existing units and to enhance maintenance and mobilization capabilities. The recent successes of the military construction program are, to a large extent, due to the additional support which Congress has been willing to provide. Yet, despite this significant funding, the Reserve components military construction backlog increased $1.9 billion over the last five-years, with more and more funds being used to maintain decaying facilities until new construction can be funded.

Major Projects Completed

The Reserve components reported a total of over 232 projects completed and accepted during the Fiscal Year. Details are shown in Figure 8-4. The military construction moratorium has delayed construction on numerous projects programmed for Fiscal Year 1993 and earlier. The increase in completed projects during Fiscal Year 1993 reflects a positive effort by both DoD and Congress to reduce the negative trend in military construction in recent years.

Fifty-two major construction projects were completed for the Army National Guard during Fiscal Year 1993. No projects were delayed or postponed due to funding. Over 130 additional projects are currently scheduled for completion during 1994 and 1995.

Sixteen major construction projects were completed for the Army Reserve in Fiscal Year 1993, including three Army Reserve centers and organizational maintenance shops, an equipment concentration site, a local training area, and two regional training sites. Eight projects were delayed due to a moratorium on construction during Fiscal Year 1993. All of these projects were Congressional add-ons.

Figure 8-4
MAJOR CONSTRUCTION PROJECTS COMPLETED

Component	FY92	FY93	Projected FY94
Army National Guard	47	52	120
Army Reserve	5	16	19
Naval Reserve	11	14	3
Marine Corps Reserve	10	0	7
Air National Guard	69	150	140
Air Force Reserve	13	27	30
Coast Guard Reserve[1]	N/A	N/A	N/A
Total	155	259	319

Note:
1. Not applicable to Coast Guard Reserve.
Sources: The Reserve components.
Data as of September 30, 1993.

The Naval Reserve completed 14 major construction projects during Fiscal Year 1993, including three Naval Reserve center additions, two avionics shops, two aircraft maintenance hangers, an aircraft parking apron, and a Reserve training building. Twelve projects are scheduled for completion in during 1994 and 1995.

No major construction projects were completed for the Marine Corps Reserve in Fiscal Year 1993. Seven projects are scheduled for completion in 1994 and 1995, including a Reserve training center, a Reserve training building, a readiness support site and two vehicle maintenance facilities.

The Air National Guard completed 150 projects during Fiscal Year 1993 and 140 projects are scheduled for completion in 1994. Examples of completed projects include modifications to maintenance hangers, runway and taxi aprons, and fire suppression systems.

Twenty-seven projects were completed for the Air Force Reserve in Fiscal Year 1993. Examples include parking and taxi aprons, a base civil engineering complex, two corrosion control facilities, and a base communications center. Budgetary constraints were responsible for the delay of five projects. Thirty additional major construction projects are scheduled for completion in 1994 and 1995.

Construction Backlog

Poor facilities and supporting infrastructure not only degrade mission readiness, but also lower morale. The Reserve components report a total construction backlog of $7.5 billion as of the end of Fiscal Year 1993. The backlog by component is shown in Figure 8-5.

Figure 8-5
MILITARY CONSTRUCTION BACKLOG
(Dollars in Billions)

Component	FY92	FY93
Army National Guard	2.8	3.0
Army Reserve	1.9	2.0
Naval and Marine Corps Reserve	1.1	0.7
Air National Guard	1.6	1.5
Air Force Reserve	0.3	0.3
Coast Guard Reserve [1]	N/A	N/A
Total	7.7	7.5

Note:
1. Not applicable to Coast Guard Reserve.
Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993.

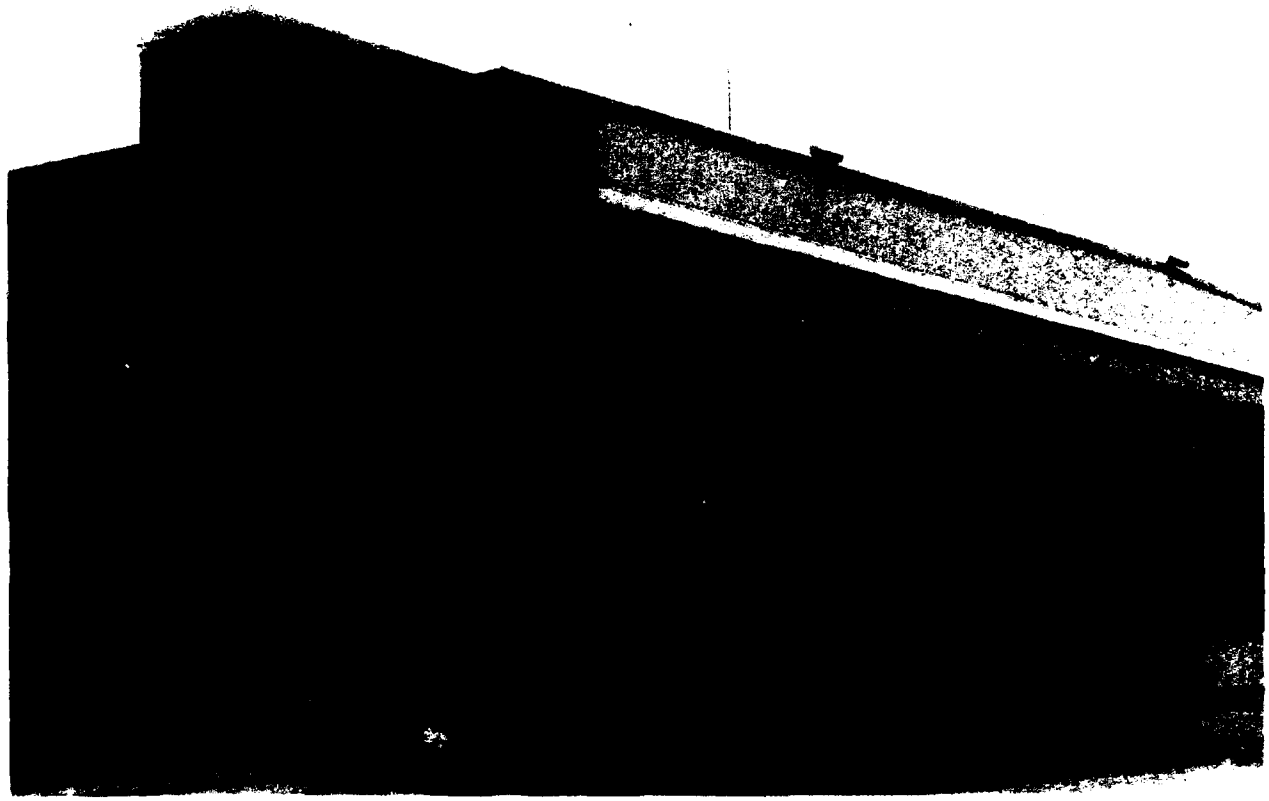
The Board recognizes there are important Reserve component facilities implications associated with pending DoD force structure, force mix, end strength, and base closure decisions. In some cases, missions transferred to the Reserve components from the Active components will require substantial new construction. In other cases, units leaving the force structure may present an opportunity to consolidate or move from leased facilities into owned facilities. Where Reserve component enclaves are established at closing Active component bases, some new construction may be required for their efficient use.

In recognition of the fact that the Army National Guard is subject to a changing force structure and missions, facility requirements need to be closely evaluated to ensure adequate facilities are available and able to support unit reorganizations and redistributions of assets. Changes in end strength and realignment of the force structure over the past 15 years severely overtaxed the existing facilities inventory, resulting in a backlog of $3.0 billion, representing approximately 2,000 construction projects.

The Army Reserve military construction backlog at the end of Fiscal Year 1993 totaled $2.0 billion. This backlog is the result of unfunded requirements over more than a decade. Training and readiness are affected by inadequate facilities. The Fiscal Year 1994 construction budget is projected at $82.2 million, of which $75.2 million is for major construction.

The Naval Reserve's backlog of military construction projects decreased to about $0.4 billion during Fiscal Year 1993. Space is a problem at some sites, particularly those being expanded or consolidated as a result of base realignment and closures. Funding has been requested for expansion of these facilities.

The Marine Corps Reserve military construction backlog at the end of Fiscal Year 1993 was approximately $0.3 billion. The majority of this backlog is associated with old



and decaying facilities that need replacement or renovation. A significant portion of the backlog continues to affect training time (e.g., lack of indoor equipment storage facilities necessitates corrosion control activities which must be performed during drills; travel to remote training ranges reduces available training time).

The current backlog of military construction in the Air National Guard is $1.5 billion. While Air National Guard units were able to accomplish their assigned missions, construction backlogs result in conditions where operations are more difficult to accomplish. For example, when hydrant fueling systems are not completed on time, the units involved require additional fuel trucks and personnel to refuel aircraft. Some units must conduct maintenance training outdoors due to delayed construction of KC-135 maintenance hangars, and delays in parking apron construction have severely impacted operations. These have been very costly and time consuming operations. Since conversion timing is primarily based on weapon system/aircraft availability, the transfer of equipment often occurs well before the facilities are in place to support them. High priority conversion backlog projects are being accomplished, but at the expense of current mission requirements. While no aircraft or other mission conversion has been canceled due to construction backlogs, extensive delays are common.

The unfunded military construction backlog for the Air Force Reserve is approximately $318 million. Of this, approximately $261 million is to correct current deficiencies; the remaining $57 million results from deficiencies resulting from environmental issues. The base closure and realignment process exacerbates these deficiencies by adding three new Reserve bases, while closing one Reserve base. Base closure funding does not provide funds to correct existing deficiencies at newly-acquired bases. Thus, military construction dollars must be stretched even further. By Fiscal Year 1996, the replacement cost for facilities at Air Force Reserve installations will exceed $2.9 billion. Funding has fallen far below the approximately $58 million annual requirement needed to renew the facility inventory on a fifty-year cycle.

Facilities Investment Strategy

The size, complexity and condition of the Reserve component physical plant infrastructure, combined with the significant force structure changes taking place, requires a balanced investment strategy. A combination of renovation, replacement, additions, and leased space is required for the Reserve components. To further enhance this investment strategy, the Department of Defense has increased emphasis on the joint use of facilities and the use of Reserve enclaves on closing active installations.

The Bottom-Up review may increase Reserve component facility requirements. Organizational changes, relocations, consolidations, delivery of new and modernized equipment, and assignment of new missions will all impact the adequacy of facilities. The total impact will require some time to evaluate, as the components analyze the facility requirements associated with these changes. Notwithstanding, funding Reserve component military construction will need to be supported at higher than current levels. Approximately 40 percent of 36,133 buildings controlled by the Reserve components are inadequate because of condition, size, configuration, location, or a combination of these factors. The support infrastructure must also be upgraded.

The Board recommends the adoption of a facilities investment strategy to reduce the backlog for space deficiencies and renewal. Figure 8-6 shows the funding required to achieve that goal.

In the past, the Department of Defense strategy for reduction of space deficiencies by four percent per year and renewal by two percent per year appeared to be appropriate. This would have allowed current space deficiencies to be eliminated in 25 years and plant renewal in 50 years. During the last five years, the Reserve component military construction portion of the President's budget

Figure 8-6
RESERVE COMPONENT FACILITIES INVESTMENT STRATEGY
(Dollars in Millions)

Component	Military Construction Backlog	Yearly Reduction	Plant Value	Yearly Renewal	Yearly Investment
Army National Guard	3,000	120	15,000	300	420
Army Reserve	1,998	80	3,670	73	153
Naval and Marine Corps Reserve	654	26	3,159	63	89
Air National Guard	1,522	61	11,900	238	299
Air Force Reserve	318	13	2,900	58	71
DoD Total	7,492	300	36,629	732	1,032

Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993.

request was $1.7 billion. The Congress added $1.5 billion, a majority of which was for the Army and Air National Guard. Despite this significant funding, the Reserve components military construction backlog increased $1.9 billion over the same five-year period. Force structure changes within the Air Force, and the resultant shift of new missions to the Air National Guard and Air Force Reserve, have exacerbated this backlog.

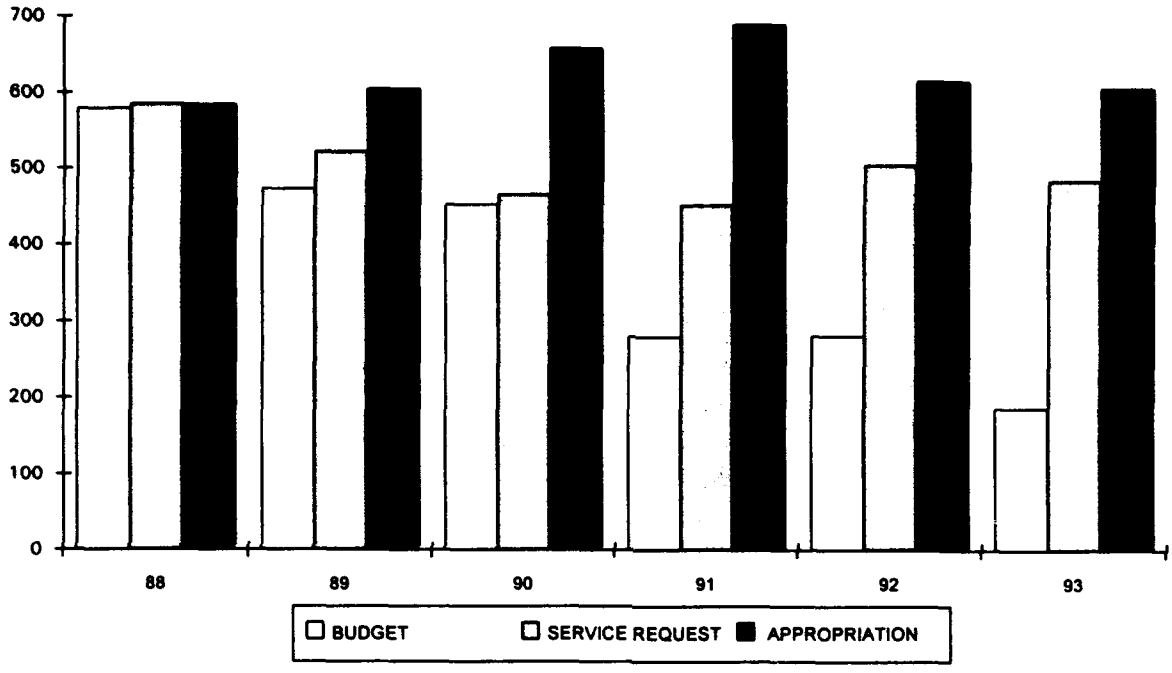
The President's budget request for Fiscal Year 1993 included approximately 19 percent of the required funding to implement DoD strategy. Congress added substantially to the request and the final appropriation amounted to 60 percent of the annual requirement. From Fiscal Years 1989 through 1993, budget requests have averaged 34 percent of this requirement and the appropriations have averaged 64 percent. Figure 8-7 is a comparison of the President's budget requests and the Congressional appropriations for Fiscal Years 1989 through 1993 with the proposed investment strategy.

Due to a failure to meet investment strategy goals, the backlog is increasing. A more aggressive strategy may be required to bring the backlog of inadequate facilities to a manageable level. Investing approximately $1 billion annually represents a major commitment of resources, especially with the current budget constraints. However, the Board believes that the overall strategy is sound and the goal should be pursued. This goal becomes even more critical as the operating tempo of the Reserve components increases to meet the new readiness initiatives identified in the Bottom-Up Review. Adapting to new requirements will require continued emphasis on new and upgraded facilities for the Reserve components.

Leased Facilities

Programming for facility construction and the leasing of temporary facilities is an integral part of the start-up costs for new units. Leased facilities can be a cost-effective, short-term solution to meet the immediate needs of newly-

Figure 8-7
INVESTMENT COMPARISON



Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993

formed units, but leasing costs must be paid from already inadequate operations and maintenance funds. The availability of secure storage space for both unit and individual equipment is a fixed requirement. However, storage for weapons at a leased facility is not always included, since it may not be economically feasible to alter a leased facility. Nevertheless, the use of leased facilities continues to be a valuable tool during the transitioning of units and facilities.

Federal funds are rarely used to lease facilities for new Army National Guard units. Normally, the host State will station the new unit in an existing armory or temporary facility until military construction can provide permanent facilities.

When Army Reserve units are activated or relocated, temporary facilities must be found or leased. Leased facilities provide a short-term solution until new construction, renovation, or expansion of existing facilities can occur. However, arms vaults and kitchen areas are not normally available at a leased facility due to alteration costs and short-term occupancy. In planning for force structure actions involving leased facilities, alternate sites at government-owned facilities are considered for weapons and

arms storage and messing, although messing is occasionally contracted. Lease costs are paid from operations and maintenance funds, thereby decreasing funds available for training.

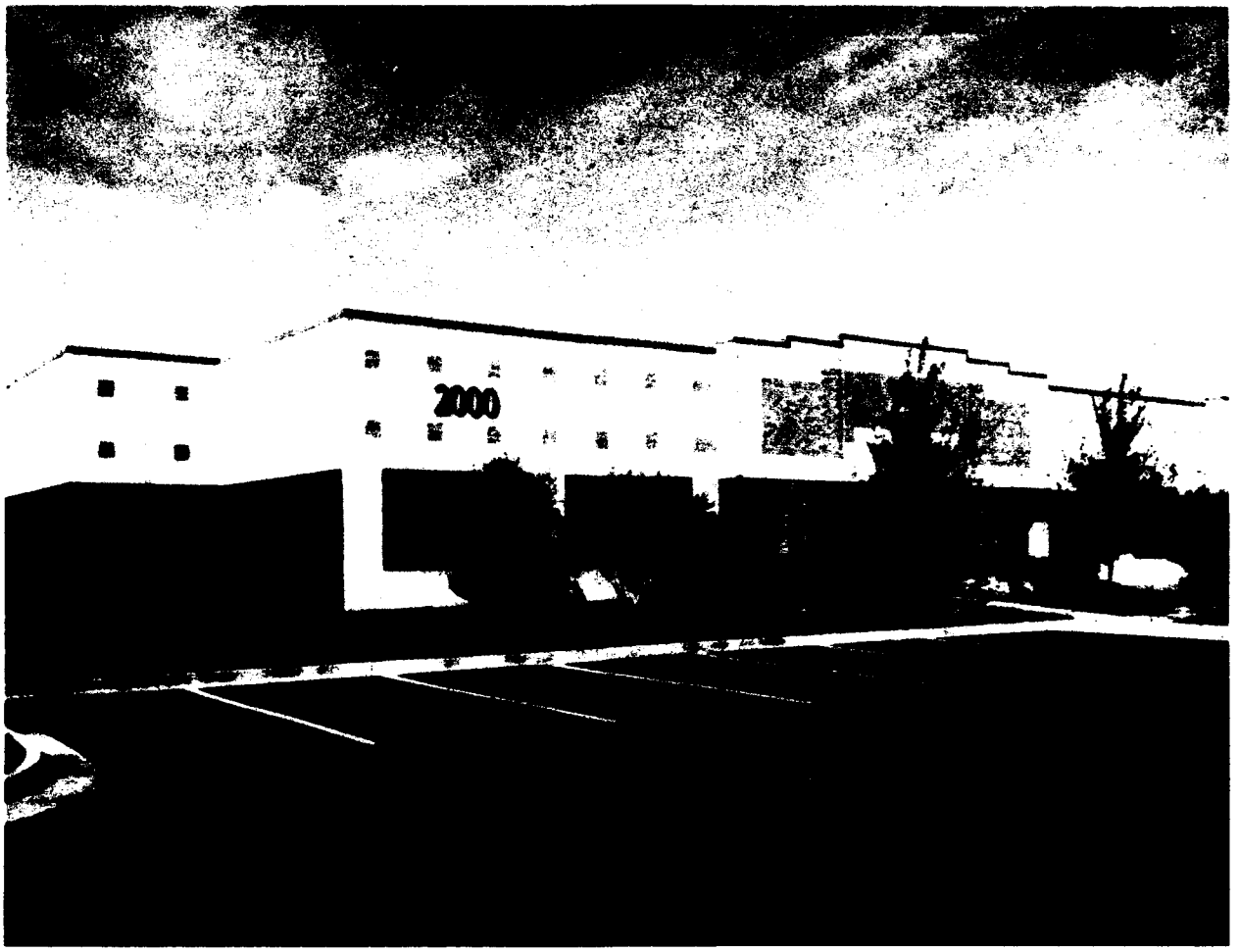
The Naval Reserve and the Marine Corps Reserve lease a small number of facilities. The Air National Guard, Air Force Reserve and Coast Guard Reserve typically do not require the use of leased facilities.

Equipment Storage Facilities

Each unit has specialized storage requirements. Lack of suitable storage space either causes equipment not to be available for training, or makes it subject to potential theft, damage, or exposure to the elements. Equipment modernization generally increases Reserve component storage requirements. Equipment which is not properly stored often deteriorates, contributing to higher operating costs, reduced training opportunities, and lower readiness levels.

The Army National Guard has an unfunded storage facility backlog of approximately $7 million. Approximately $1 million is programmed in each annual budget submission. Those units experiencing inadequate equipment storage face increased maintenance downtime of equipment. Major equipment items are stored either in permanent outdoor storage areas or in unheated covered storage facilities. Temporary facilities are often used during the construction of permanent facilities.

All current projects for new or expanded Army Reserve centers contain storage areas designed to hold specific equipment. In addition, funding is required for centralized storage areas. A majority of Army Reserve vehicles, tracked and wheeled, are stored on hardstand enclosed



with fencing. Items such as radios, tools, individual weapons and protective masks are provided secure storage in permanent buildings. Equipment not stored at the unit is stored at either an equipment concentration site or the mobilization station. If this storage location is not near the unit, storage for individual and crew training equipment is provided at a convenient location. Army Reserve units are required to be able to recover their equipment from storage in 72 hours of less. When units can recover their equipment in the required time, they report equipment readiness as on-hand, even though it is physically at a storage site.

The current backlog shows a requirement for several Naval Reserve storage facilities. Examples of currently programmed projects include; facilities for two Mobile Inshore Underwater units and a Cargo Handling Battalion. Naval Reserve equipment is generally readily available for training and mobilization. The majority of equipment is stored indoors in permanent facilities when containers are not available.

Marine Corps Reserve units store only training allowance equipment at their drill site. The unit's full equipment authorization is maintained at Marine Corps Logistics Bases. However, there are twelve drill sites which require either boat storage or an additional storage building. Marine Corps Reserve units may mobilize with their equipment, fall in on equipment left in place by a departing Active Component unit, mobilize with their equipment and be augmented with equipment from the Marine Corps Logistics Base(s), link up with Maritime Prepositioned Ships, or any combination of the above. The specific method is tailored to get personnel and equipment to the contingency site in the shortest time possible.

The Air National Guard does not have adequate space for the storage and maintenance of equipment although most units have sufficient equipment necessary to train. Materials are stored outside and vehicles are experiencing deterioration due to a lack of suitable storage space. Facility needs have been identified, but projects cannot be included in the program due to insufficient funding. Most Air National Guard major equipment is stored outdoors, although electronic and mobility equipment is stored inside. Air National Guard Medical units store their equipment in permanent buildings, although some units must store their equipment at another unit due to a lack of space. Most combat communications units have adequate storage space.

The Air Force Reserve has sufficient space to store current equipment as well as equipment programmed for delivery during the next few years. Major equipment items are generally stored outdoors, unless specific criteria require indoor storage.

The Coast Guard Reserve's deployable Port Security Units store their mobilization equipment in a commercial warehouse in Port Clinton, Ohio. While the facilities need upgrading, the space is adequate. Equipment used by other Coast Guard Reservists is generally stored at facilities maintained and provided by the Active component.

Impact of Base Closures

The Defense Base Realignment and Closure Commission was established to consider base closure recommendations from the Secretary of Defense. Reserve component training and readiness is impacted by nearly all base closures. Some base closure decisions were made without adequate consideration of the impact on adjacent or tenant Reserve component units. There is an adverse impact on individual units if replacement facilities or support mechanisms are not located or if replacement facilities are not readily available. In some cases, base closures can provide expanded opportunities for consolidation and joint use.

Reserve component units will have difficulty in attaining the required readiness levels without access to local training areas. While the Active components are able to send their trainees and

students to service schools, the Reserve components are limited to the use of training facilities in the local area for inactive duty training. Recommended closure lists, by design, did not include coordination or input from numerous affected organizations before they were announced by DoD and sent to the Base Closure and Realignment Commission.

The Army National Guard uses facilities and installations of other services through interservice agreements, usually at no cost. As these installations, bases, and facilities are closed, support must be obtained from other installations and support agencies, which often results in increased travel costs, travel time, and additional personnel costs. In the case of enclaves being turned over to the Army National Guard, the major concern is adequate funding to operate the facilities. The services are not required to transfer programmed funds to the Reserve components to support new facilities, but are allowed to retain savings as a result of the closure. The process should provide for funds, manpower allocations and resources to the Reserve components to operate these newly-transferred facilities.

The Army Reserve is currently evaluating the possible acquisition of enclaves at numerous sites. Some former Navy installations are also being considered. Acquisition of existing facilities on these installations could result in cost savings by allowing termination of high-cost leases. Furthermore, construction projects would not require funds to purchase land. If the Army Reserve has an established presence on installations affected by base closures, funds to support acquisition of replacement facilities will be provided from base closure funds. Modification of existing structures or construction of new facilities will remain the funding responsibility of the Army Reserve. The Army Reserve will also acquire a 33.5 acre site at Sacramento Army Depot for construction of a consolidated Reserve center and follow-on projects for an Area Maintenance Support Activity and a Regional Training Site for maintenance. This will allow termination of existing leases and result in cost savings of $660,000 per year. The Army Reserve will continue to actively monitor future base closure actions in an effort to achieve cost savings.

Naval Reserve use of former Active component installations requires adequate resourcing of infrastructure. In most cases, these installations have a considerable maintenance backlog. Relocating Naval Reserve units will cause a loss of trained personnel. It could take up to three years to recruit personnel and return a unit to previous readiness levels. Base closures are forcing the relocation of numerous Maritime Patrol P-3 squadrons. Many personnel will need to be replaced, and a considerable transition period will be required to rebuild the squadrons to their present level of readiness. Base closures at NAS Alameda, NAS Glenview, NAS Memphis, and NAF Detroit directly affect the training of Selected Reserve oceanographers and aerographers, causing the disestablishment of numerous Naval Oceanography Reserve activities.

Of great concern is the fate of the many dedicated Selected Reservists who are "left behind" as bases close. The Naval Reserve is working to accommodate these drilling Reservists within fleet augmentation units at each site. The Navy's announced base closures will have little impact on the Surface Reserve component's mission capabilities nor its ability to train, due to alternate training site availability. However, the closing of Newport, Rhode Island and Staten Island, New York home ports (and the subsequent change in home ports for the ships assigned to each) will strip the New England area of Reserve training ships. Naval Reservists assigned to these units will be required to travel to Norfolk, Virginia or Mayport, Florida to receive training.

Base closures are having a major impact on the Selected Marine Corps Reserve. A total of nine sites were directed to close, and an additional four sites were directed to relocate. These sites cumulatively affect 395 officers and 2,820 enlisted personnel. Approximately 50 percent of the 4th Marine Air Wing will be affected. Since five of these sites must relocate beyond a reasonable commuting distance, a potential loss of 179 officers and 1,285 enlisted personnel may result. Personnel must be recruited and trained at the new locations to restore this capability.

A total of 20 Marine Corps Reserve units, 19 of which belong to the 4th Marine Air Wing, will require total reconstitution. Recruiting and the availability of schools will dictate the amount of time necessary to fill these units. A considerable amount of time will be required before units will be capable of resuming their missions. The Marine Corps Reserve Force is currently preparing plans and milestones to begin the base closure relocation process during 1994. Base closures will result in the relocation of 49 units at 14 sites. This will impact 40 percent of the Marine Corps Reserve flying sites.

Base closure and realignment decisions had an estimated impact of $3-5 million dollars on the Air National Guard in Fiscal year 1993. Equipment maintenance previously accomplished by Active component Medical Equipment Repair Centers will now have to be contracted. Another unit will be forced to build a new medical training facility. The closure of Pease Air Force Base will necessitate military construction to house a KC-135R simulator at the base. The closure of Chanute Air Force Base, Illinois, and the impending closure of Lowry Air Force Base, Colorado, both of which were major Technical Training Centers, have had a direct impact on the ability of the Air National Guard to provide sufficient training quotas. Although these courses have been moved to other locations, a reduction in overall training capabilities will result.

The primary impact of base closures on the Air Force Reserve is a lack of adequate operations and maintenance funding for the operation of installations for which the Air Force Reserve is assuming management responsibility. Maintenance and repair of facilities at bases being transferred to the Reserve components has been sharply curtailed, resulting in a deterioration of facilities. Since adequate funds have not been provided through the base closure process to correct existing

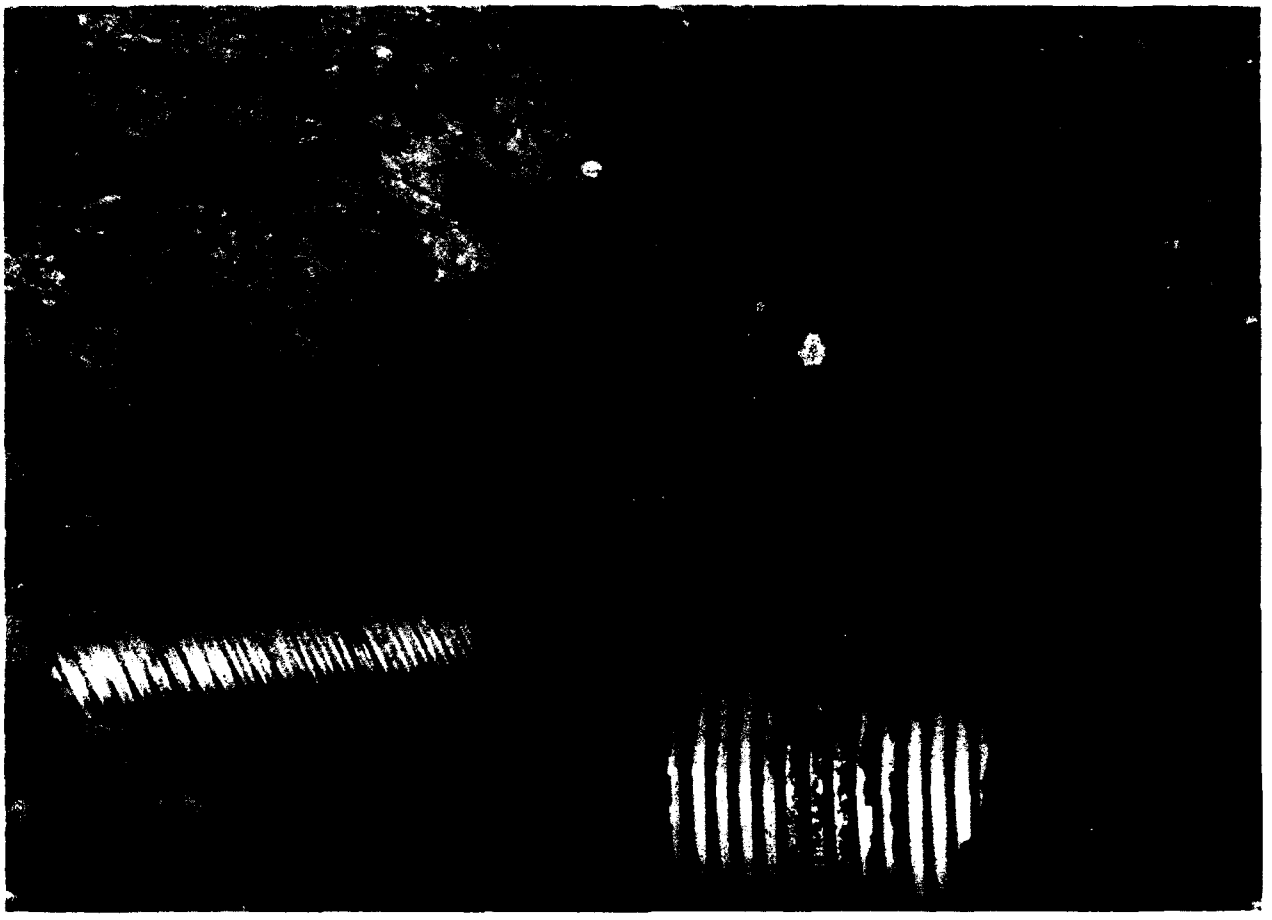
deficiencies, these must be corrected by the Air Force Reserve from funds which were programmed for other purposes. There is insufficient funding to maintain, repair, and/or replace facilities due to the reduced DoD budget. As a result, there is a significant increase in the number of inadequate facilities in the Air Force Reserve inventory.

Base closures had only a minimal impact on the Coast Guard Reserve.

The Board recommends that:

- *the Department of Defense provide adequate funding for Reserve component military construction.*
- *additional military construction funding be provided to reduce the backlog of construction and maintenance repair projects.*
- *adequate facilities be constructed and upgraded as necessary to support the training, storage, and administrative requirements of the Reserve components.*
- *increased consideration be given to the impact of base closures on the Reserve components and that alternative means of providing support be pursued prior to the implementation of base closure and realignment decisions.*

9 Environmental Programs



"The [Reserve Components] are spending nearly $300 million a year on environmental projects. . . actively pursuing innovative techniques to clean up our bases . . . participating in assessing environmental compliance programs . . . developing partnerships with State and Federal regulators . . . "

Ms. Sherri Wasserman Goodman
Deputy Under Secretary of Defense for Environmental Security

General

Environmental issues are a major priority of the Department of Defense, as expressed by the Secretary of Defense in the creation of the position of Deputy Under Secretary of Defense for Environmental Security. Legal and regulatory requirements will continue to have a growing impact on the entire defense community. Violations of Federal, state, or local environmental laws can result in both civil and criminal penalties. Commanders must know the laws, provide training for subordinates, and ensure that all environmental requirements are met.

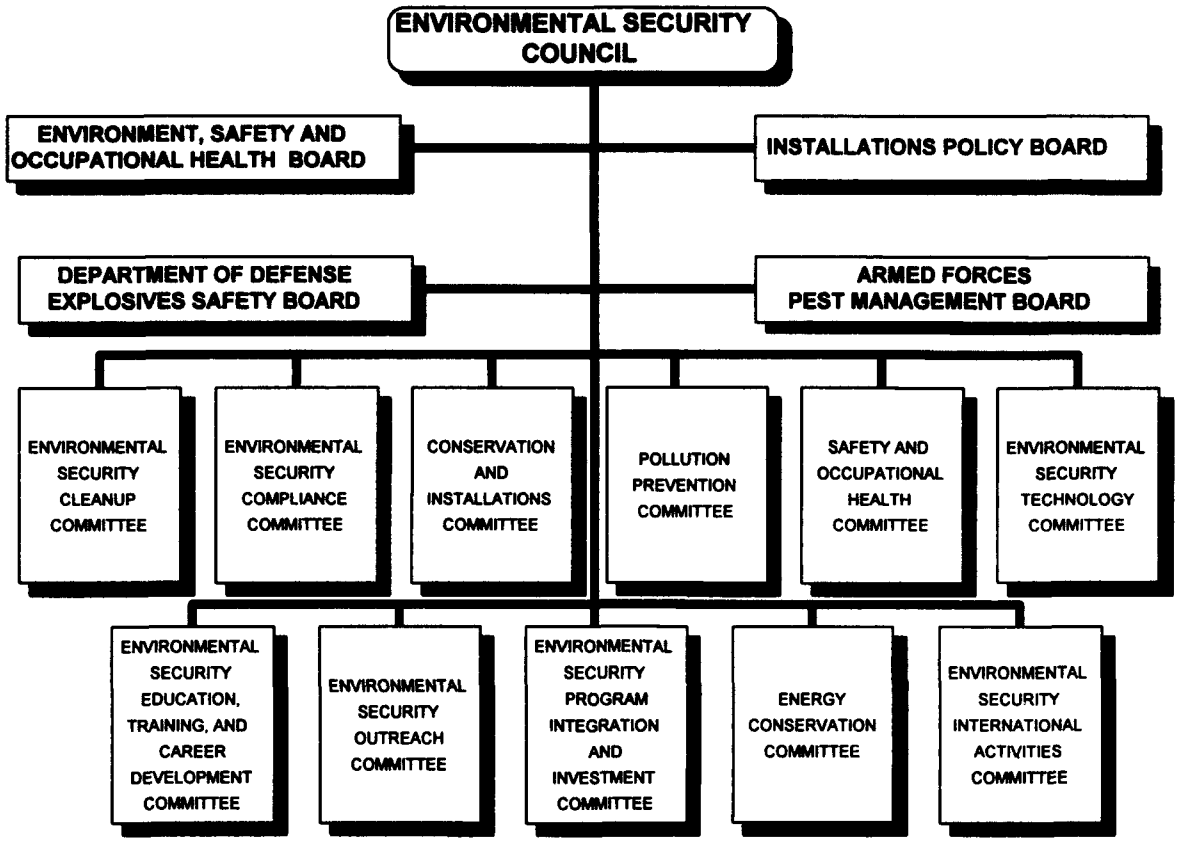
The Board has addressed environmental concerns in cooperation with the Deputy Under Secretary of Defense for Environmental Security. Board members are serving on various Department of Defense environmental committees and are attending monthly Federal Agency Environmental Roundtable sessions.

Environmental compliance is not a new goal for the Federal government. Since 1989, funding for cleanup of waste at Federal facilities has tripled; the Fiscal Year 1994 budget includes $5.2 billion for that purpose. The Military Services support this effort and have identified environmental compliance, prevention, and education as major goals. Significant progress has been made in five major areas: site identification and assessment, pollution prevention, individual and organizational environmental training, recycling, and elimination of hazards. Future challenges include the burgeoning number and the scope of environmental regulations; the ever-increasing need for trained professionals to ensure compliance with these regulations; and replacing trained personnel who leave to accept higher-paying positions in the private sector.

Department Of Defense Environmental Policy

The Department of Defense environmental security strategy is directed by the Deputy Under Secretary of Defense for Environmental Security and emphasizes programs in cleanup, compliance, conservation, and pollution prevention; safety and occupational health; fire prevention; and technology which are applicable to both the Active and Reserve components.

Figure 9-1
DEFENSE ENVIRONMENTAL SECURITY COUNCIL



Source: Department of Defense

To ensure that Reserve component concerns are appropriately addressed, Reserve component membership and involvement is critical throughout the Defense Environmental Security Council.

Department of Defense Initiatives and Funding

The Department of Defense (DoD) has established numerous initiatives for Fiscal Year 1994. Together, these initiatives are designed to assist all DoD agencies, including both Active and Reserve components, to accomplish the following objectives:

- To reduce environmental safety and occupational health risk by minimizing threats to human health and safety and reaching resolution on how to properly define risks.
- To ensure full compliance with Federal, state and local laws and regulations and with the Overseas Environmental Baseline Guidance Document.
- To ensure life cycle effectiveness for Environmental Security factors and reduce costs wherever possible.

- To target technology toward the most serious and widespread problems and where research and development will achieve the greatest payoffs.

- To improve United States involvement and awareness by conducting open, frequent, and meaningful public dialogues and information exchanges.

- To produce measurable results in performance, schedule, and costs–including reduction in environmental risk, protection of natural resources, compliance with laws, and reduced pollution.

- To have a sufficient number of properly educated, trained, and equipped personnel with the current knowledge, technologies, and adequate funding at appropriate locations.

To accomplish these objectives, DoD continues to receive support from an environmentally-conscious Congress. Funding support has significantly increased in the last few years, as shown in Figure 9-2.

The Department of Defense environmental budget includes resources in the Environmental Restoration, Defense (ERD) appropriation; the Service and Defense Agencies Operation and Maintenance, RDT&E, Procurement, and Military Construction appropriations; the Base Closure and Realignment accounts; and the Strategic Research and Development Program. ERD funds are used for cleanup of past hazardous waste disposal activities, whereas the Services budget for environmental compliance cleanup activities that result from ongoing operations (e.g., the cleanup of fuel contamination at a motor pool). The Base Realignment and Closure account budgets for environmental restoration and compliance programs for bases to be closed. The Legacy Program is funded through the Operation and Maintenance appropriation.

Figure 9-2
DoD ENVIRONMENTAL PROGRAMS
(Dollars in Millions)

Program	FY88	FY89	FY90	FY91	FY92	FY93
Restoration	404.0	502.0	601.0	1,065.0	1,129.4	1,638.4
Compliance & Protection	550.0	655.0	785.0	1,118.9	1,929.5	2,513.5
BRAC I/II	0.0	0.0	0.0	251.2	521.5	549.6
Legacy	0.0	0.0	0.0	10.0	25.0	180.0
SERDP	0.0	0.0	0.0	77.0	69.8	50.0
Total	954.0	1,157.0	1,386.0	2,512.1	3,675.2	4,931.5

Source: Office of the Deputy Under Secretary of Defense for Environmental Security.
Data as of September 30, 1993.

Reserve Component Environmental Programs

The leading cleanup expenses in the Reserve components are for contamination cleanup, asbestos removal, and underground storage/petroleum, oils, lubricant-related cleanup. To comply with the 1998 deadline for removal of all single-walled underground storage tanks from service, the Reserve components must rely more on direct fuel purchases from the private sector, where costs continue to escalate. Hazardous waste remains a significant problem, though most sites have had initial inspections and cleanup programs have begun. Additional remediation will begin as funds become available.

A summary of major environmental requirements impacting the Reserve components is shown in Figure 9-3.

The Army National Guard's primary environmental concern is hazardous waste management and disposal. Personnel are being trained in handling hazardous materials. Hazardous waste minimization programs are being expanded and resourced. The Environmental Compliance Assessment System (ECAS) for the Army National Guard is an Army-wide program designed to help commanders attain and sustain compliance with applicable environmental requirements: Federal, state, local, and Army environmental management practices. ECAS identifies areas of

Figure 9-3
RESERVE COMPONENT ENVIRONMENTAL CLEANUP REQUIREMENTS
(Dollars in Millions)

Component	Number of Sites	Estimated Cost	Dollars Funded[2] (FY93)	Dollars Planned[2] (FY94)	Most Costly Remediation	Next Most Costly Remediation
Army National Guard	324	$ 200+	$ 14.3	$ 29.0	Hazardous Waste	Underground Storage Tanks
Army Reserve	500	250.0	19.0	39.0	Water Quality Management	Hazardous Waste
Naval Reserve	387	297.0	7.5	5.2	Asbestos Removal	Clean Air Act Compliance
Marine Corps Reserve	18	9.7	0.9	0.9	Asbestos Removal	Underground Storage Tanks
Air National Guard	118	505.7	41.9	67.6	Contamination Cleanup	Underground Storage Tanks
Air Force Reserve	100	37.0	1.3	4.3	POL Facility Upgrade	Underground Storage Tanks
Coast Guard Reserve[1]	100+	160+	11.0	10.4	Hazardous Waste	Underground Storage Tanks

Notes:
1. Environmental cleanup is a Total Coast Guard responsibility.
2. FY 93 Supplemental amounts are included in FY94 dollars planned.

Source: The Reserve components.
Data as of September 30, 1993.

noncompliance, suggests alternative corrective actions, and helps identify the resources needed to implement the correction. Funding for corrective actions identified by ECAS assessments is requested and tracked. ECAS assessments are conducted by a team of environmental experts.

All Army National Guard facilities (including armories, maintenance shops, training areas, and aviation support facilities) are to be assessed by the end of 1995. Thirty-one assessments have been completed. Of the thousands of facilities evaluated, four main areas–hazardous waste; solid waste; underground storage tanks/petroleum, oil and lubricants; and the Clean Water Act–account for more than half of all findings within each state. Additionally, the Installation Restoration Program (IRP) Branch completed 21 nationwide preliminary assessments in Fiscal Year 1993, using the services of Argonne National Laboratory (ANL). The ANL team researched records, interviewed current and former employees, participated in discussions with local and state regulatory agencies, and conducted site visits. Final reports were delivered in October 1993. This effort provides the basis for future IRP work, assuring that the Army National Guard will remain in compliance with toxic and hazardous waste requirements.

The Army Reserve's top environmental issue is water quality management. The five major environmental requirements to be emphasized are oil/water separator and storm water runoff projects ($80 million); Superfund restoration projects ($68 million); air pollution abatement/ozone depleting equipment upgrade ($50 million); compliance with other laws/regulations/NEPA ($22 million); and assessments, permitting, and program management ($30 million). An Active Guard/Reserve environmental officer at Headquarters, Department of the Army has been selected to represent the Chief, Army Reserve in his capacity as appropriations director. The Army Reserve Command Environmental Branch has four environmental professionals who report to the Deputy, Chief of Staff Engineers and provide direction and support to the major Army Reserve commands, where the responsibility for environmental matters resides with the engineer or facility management officer.

The Naval Reserve has also selected five major environmental requirements for emphasis: asbestos containing material abatement ($1.25 million); hazardous waste disposal ($1.2 million); environmental program compliance ($0.85 million); hazardous waste operating supplies and analysis ($0.77 million); and oily-water separators ($0.7 million). Readiness is indirectly affected by the increased number and growing complexity of Federal, state, and local environmental regulations which cause a significant drain on Naval Reserve personnel and management resources. Asbestos removal, which must be done during whole center repair projects and may range from about $25,000 to over $1 million, delays closure of Reserve centers; such costs reduce funds needed to make appropriate modifications to improve readiness.

The cost of "must fund" environmental projects is manageable, however this situation could change quickly as local and state agencies increase their environmental compliance staffs and issue more Notices of Violation and Notices of Noncompliance. The Naval Reserve has met the 50 percent minimization goals set forth in the OPNAV Notice of May 18, 1988. The Hazardous Material Control and Management

Committee released hazard materials (HAZMAT) and hazard minimization (HAZMIN) instructions to field activities in Fiscal Year 1993 and is in the process of updating these instructions.

The Marine Reserve Force has selected five major environmental requirements for emphasis: sand/oil water separators for vehicle wash pads ($3 million); decontamination of former firing ranges converted to other uses ($2.1 million); providing a prefabricated steel petroleum-oil-lubricant storage building with built-in containment ($3.8 million); removal and remediation of underground storage tanks ($0.7 million); and contamination cleanup ($0.2 million).

Each unit commanding officer appoints a HAZMAT Environmental Coordinator to ensure that training is being planned, conducted, and documented for all deployments/exercises. Maintenance Quality Assurance personnel ensure that squadrons follow proper environmental procedures and submit results/reports to the HAZMAT Environmental Coordinator. Supply sections inform the HAZMAT Environmental Coordinator of the status of chemical orders and quantities of chemicals on-hand to ensure that adequate, but minimum, supplies are maintained. Commanding officer-appointed safety personnel monitor day-to-day use and disposal of chemicals. Each unit maintains spill contingency plan and establishes a spill contingency team for each deployment/exercise.

Air National Guard environment program funding requirements include installation restoration ($500 million); replacement of underground fuel storage tanks ($110 million); compliance studies ($26 million per year); deicing fluid management ($24 million); and pollution prevention ($6 million per year). The Air National Guard Environmental Program is managed by the Air National Guard Readiness Center, which is responsible for developing and executing the IRP Program, developing policy, and managing the environmental compliance and pollution programs. Assigned personnel work with state and Federal regulators to resolve unit problems. Each Air National Guard flying installation has an Environmental Management Office responsible for implementing compliance and pollution programs. One of the best monitoring programs for the Air National Guard is the Environmental Compliance and Management Program (ECAMP) audit, conducted on every installation in a three-year cycle to verify compliance with applicable statutes. ECAMP follows through with a plan for action on deficient items.

The Air Force Reserve has selected five major environmental requirements for emphasis: a fire-fighter training facility ($13.5 million); storm water system upgrades ($8.04 million); petroleum-oils-lubricants facilities ($4.9 million); underground storage tanks ($1.6 million); and hazardous waste/materiel facilities ($0.84 million). Its environmental management organization structure is centered around Environmental Protection Committees formed at both command and installation levels. The committee reviews, evaluates, and directs efforts to implement all environmental programs. Each major organization is represented, as well as tenant units. Technical support is provided by civil engineering specialists, bioenvironmental engineers, and judge advocates trained in environmental law.

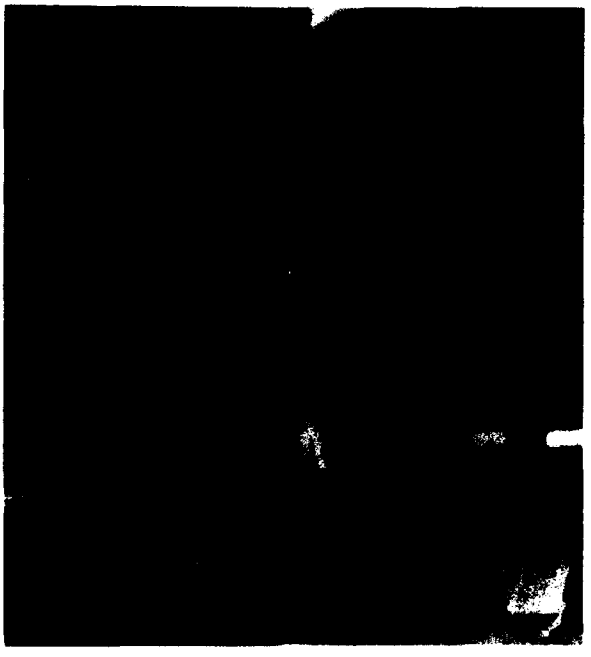
The Coast Guard's first priority is to identification and prioritization of its environmental problems. A comprehensive plan is being developed to decontaminate sites and bring facilities into compliance with environmental laws and regulations. Coast Guard commanding officers and officers-in-charge are responsible for ensuring that units comply with applicable Federal, state, and local environmental laws and regulations. Maintenance and Logistics Commands (MLCs), particularly MLC shore divisions and civil engineering units, support this effort. The Total Coast Guard is responsible for maintaining data concerning environmental cleanup. The Active component is responsible for facilities and

infrastructure issues and for any required environmental cleanup at Coast Guard facilities where Coast Guard Reserve units train. The United States Coast Guard Environmental Compliance and Restoration Appropriation is the funding source for cleanup activities.

Environmental Training

Department of Defense environmental training program requirements, including those developed by Reserve components, continue to increase. The major factors are an increased number of positions requiring specially-trained individuals, a high turnover rate as qualified people leave for higher paying environmental positions outside DoD, and the ever-increasing complexity and number of environmental laws and regulations. Some of the highlights of the environmental training programs of each of the Reserve components follows.

The Army National Guard Environmental Programs Directorate coordinates all issues concerning environmental training for the Army National Guard, including more than 300 environmental professionals. Many states have developed training programs under the general guidance of the management office and feature specialty courses developed by the government



and through the use of various contracted commercial sources. The Army National Guard is conducting personnel and training requirements studies. As a result of these studies, a comprehensive environmental training program will be developed and implemented. The National Guard Bureau sponsors training in hazardous waste and material handling, hazardous waste management, environmental reporting, and environmental communications, as well as courses for environmental coordinators, seminars on specific acts and laws, and numerous senior environmental leadership workshops.

Environmental training for Army Reserve members and full-time military and civilian staff is coordinated by major commands. Personnel attend environmental and occupational health/safety courses offered primarily by the Logistics Management College and Huntsville Division of the Corps of Engineers. Engineer and facility managers also attend a Life Cycle Management for United States Army Reserve Facilities course that includes instruction in environmental policies, procedures, and automation. All Reserve component training institutions that conduct engineer-proponent developed, exportable training courses must include instruction contained in the Risk Management and Environmental Policies/Procedures Handbook.

The Naval Reserve has not instituted its own formally structured environmental training program because of the rapidly changing environmental regulatory climate and a lack of resources. Training for activity-level personnel is tailored to meet the specific needs of each field activity and to focus on noncompliance problem areas and is accomplished by sending personnel to existing training courses conducted or sponsored by the Navy Facilities Command, Navy Energy and Environmental Support Activity (NEESA), and other Navy, as well as commercial, sources. Activity commanding officers and public works officers are offered a two-day environmental orientation course hosted by the Civil Engineer Corps Officer School

(CECOS) to sensitize managers to the importance of environmental compliance. CECOS and NEESA offer numerous environmental training courses which all Naval Air Reserve installation environmental coordinators attend.

The Marine Reserve Force (MARRESFOR) has established numerous training goals. Initial environmental training and shop environmental training is administered to all new personnel and documented by unit environmental personnel. Quarterly environmental training and Safety Standdown Environmental Training is administered and documented in an individual Reservist's shop training record. MARRESFOR maintains a large environmental reference and video library and access to other Federal data banks containing state and Federal environmental regulations. This information is used to support ongoing environmental education. All MARRESFOR environmental personnel attend the Hazardous Material and Hazardous Waste School, the Emergency Response Course, the school for Certification of the Shipment of Hazardous Material (all modes of transportation), environmental conferences, and other OSHA/ EPA and Federal environmental schools.

The requirements placed on the Air National Guard and other Department of Defense environmental training programs are increasing because of a growing number of positions requiring specialized training and the increased emphasis on the environment. The Air National Guard Readiness Center has 16 specialized training courses for the environmental specialists, adjutants generals, and commanders, approximately 95 percent of whom received this training during Fiscal Year 1993. The Air National Guard Readiness Center is planning approximately 30 courses during 1994, mainly in the hazardous waste/materials area.

The Air Force Reserve continues to offer its environmental leadership course for wing and group commanders. The course provides an overview of environmental issues, legislation, and policies affecting installations and assists commanders in addressing important environmental concerns. A Train-the-Trainer Program has been established for hazardous materials emergency response. The program provides training for five levels of response from the awareness level to the on-scene commander's responsibilities. The goal is to have all response personnel trained by the end of 1994. Environmental training is also accomplished through the Air Force Institute of Technology and civilian-sponsored training seminars. Major command and base-level environmental personnel attend courses which range from environmental impact processes and hazardous waste management to toxic release inventory reporting. Mission degradation and decreased readiness will result if personnel are not trained to perform their duties.

All Coast Guard port security rating Reservists receive marine environmental response training. Additionally, many Coast Guard Reservists have received either civilian or active component training in the handling and disposing of hazardous materials (HAZMAT). The majority of Coast Guard Reservists augment active-duty commands which are directly responsible for HAZMAT issues and for ensuring that all personnel handling HAZMAT have received the necessary level of training through, at a minimum, on-the-job training. Some HAZMAT training is required by law; e.g., the Resource Conservation and Recovery Act requires hazardous waste management training and the Occupational Health and Safety Administration requires safety training. These training, programs are administered by Active component Maintenance and Logistics Commands.

Hazardous Waste Minimization And Recycling

The Reserve components are actively pursuing programs to minimize hazardous waste material generation, to prevent pollution, and to recycle materials. Highlights of their programs and initiatives are briefly discussed in the following paragraphs. Recyclable materials and procedures are used to minimize bulk sent to landfills,

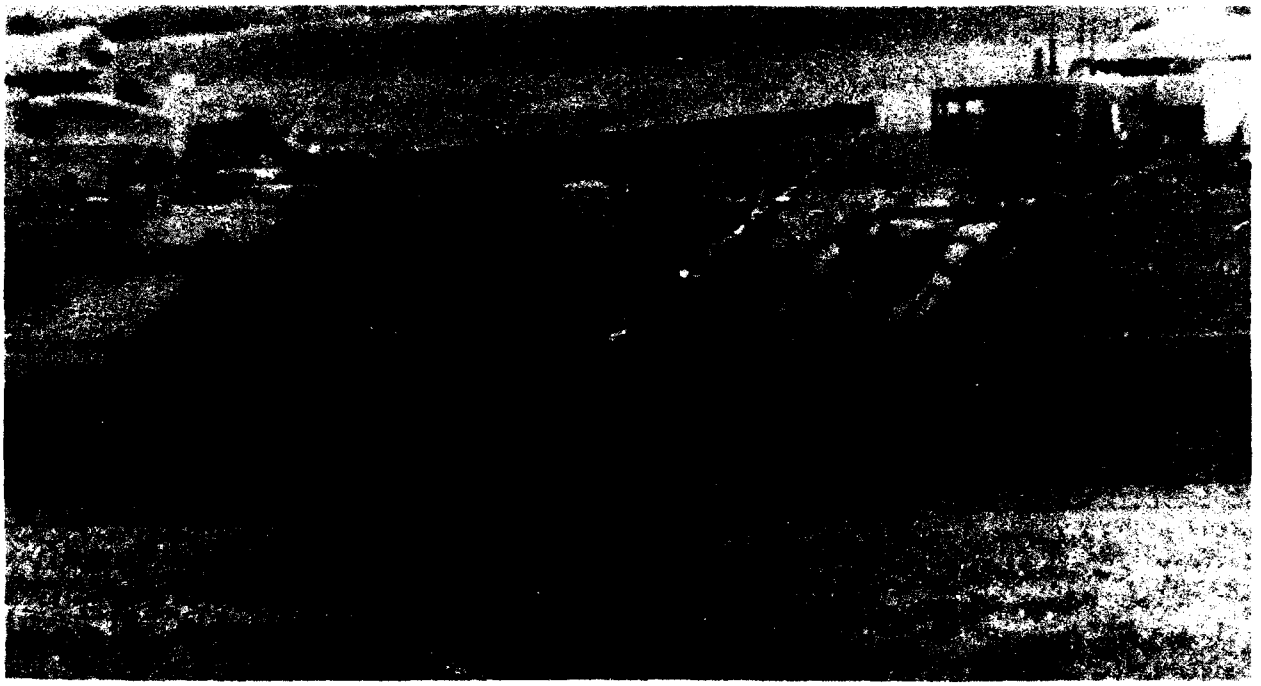
reduce manufacturing costs, and save raw materials.

Waste minimization for the Army National Guard includes an alternative to traditional solvent-based machine parts cleaning and a reduction in steam cleaning. Utah initiated this demonstration project to minimize the solvent from solvent vats and the contents of oil/water separators from steam cleaning. Jet pressure washers yielded a 42 percent reduction in hazardous waste generation through the removal of three solvent vats. The steam cleaner previously used to prewash parts prior to solvent vat cleaning is used only to prewash before painting, significantly extending the time between clean outs of the oil/water separator.

Used water is recycled to wash shop floors, used oil is reclaimed, and only a small quantity of sludge is sent for landfill disposal. Texas has initiated a demonstration project using a portable distillation unit to target solvents, thinners, and ethylene glycol (anti-freeze), resulting in a hazardous waste volume reduction of 2,990 pounds in a three-month period. Ten gallons of used solvent has been distilled to nine and three-quarters gallons of recycled solvent and one quart of sludge. Mississippi initiated a filter-system demonstration project to evaluate the effectiveness of using filter systems on solvent and thinner vats. Solvent filters resulted in a four-fold increase in solvent life, going from a change every six months to a predicted frequency of once every two years.

The Army National Guard mitigates conservation actions by locating potentially destructive operations such as tank maneuver training on overgrazed or eroded land. Revegetation of maneuver lands and modification to less intensive training in natural areas (forests, prairies, rare species refuges) are pursued where possible.

The Army National Guard completed 26 environmental assessments and funded 31 natural and cultural resources Legacy projects in 19 states. The Nature Conservancy is surveying about 70 percent of the land in 26 states for biodiversity. Integrated Training Area Management is fielded in 15 states to over 500,000 acres. Idaho's Orchard Training Area received the annual award as the top natural resources management program in the Department of Defense. The Kentucky Army National Guard won the Governor's Environmental Excellence Award.



The Lemmon Valley Riparia Habitat Area is a portion of the Stead Nevada Army National Guard Training Site. The area is on the Pacific flyway, and over 90 species of migratory water birds have been recorded at this site. A total of seven endangered species have been sighted over the past five years. A cooperative habitat management plan will assess the wildlife needs and identify walkways, interpretative signing and viewing stands for use by the public and the local school districts.

The Natural Resources Study at Camp Grafton consists of five parts: development of a resource base to be used in land-use decisions; control of Leafy Spurge with Angora goats; biological control of Leafy Spurge with insects; control of leafy spurge with herbicides, in combination with goats and insects; and water monitoring and protection plan. Leafy Spurge continues to be a serious problem in North Dakota, infecting over 1.5 million acres of land, predominantly range land. The goats did an excellent job in controlling the spread of Leafy Spurge, the density of which was reduced by 30 percent.

The Army Reserve relies on Active component support installations and major commands to identify alternatives and substitution for hazardous materials within the supply system. Environmental initiatives include providing awareness and resource materials to Reservists and Full-Time Support personnel and involving Army Reserve members in the identifying requirements. To ensure success and continuity, the Army Reserve is involved in a partnership with Active component environmental programs, but has tailored those programs to the Army Reserve's organization, structure, and relationships with the local communities where members live and train.

To maintain environmental awareness, Army Reserve conferences and workshops include presentations and breakout sessions for environmental awareness and updates. Reserve representatives participate in the Senior Environmental Leadership Conference and other Department of the Army command and

management level committees and conferences. Environmental considerations are now included when evaluating Reserve commands for awards in the Communities of Excellence Program. A memorandum detailing Reserve commanders' legal responsibilities for environmental compliance, as determined by the Judge Advocate General, was distributed to Reserve commanders, published in *Army Reserve Magazine*, and produced as a video.

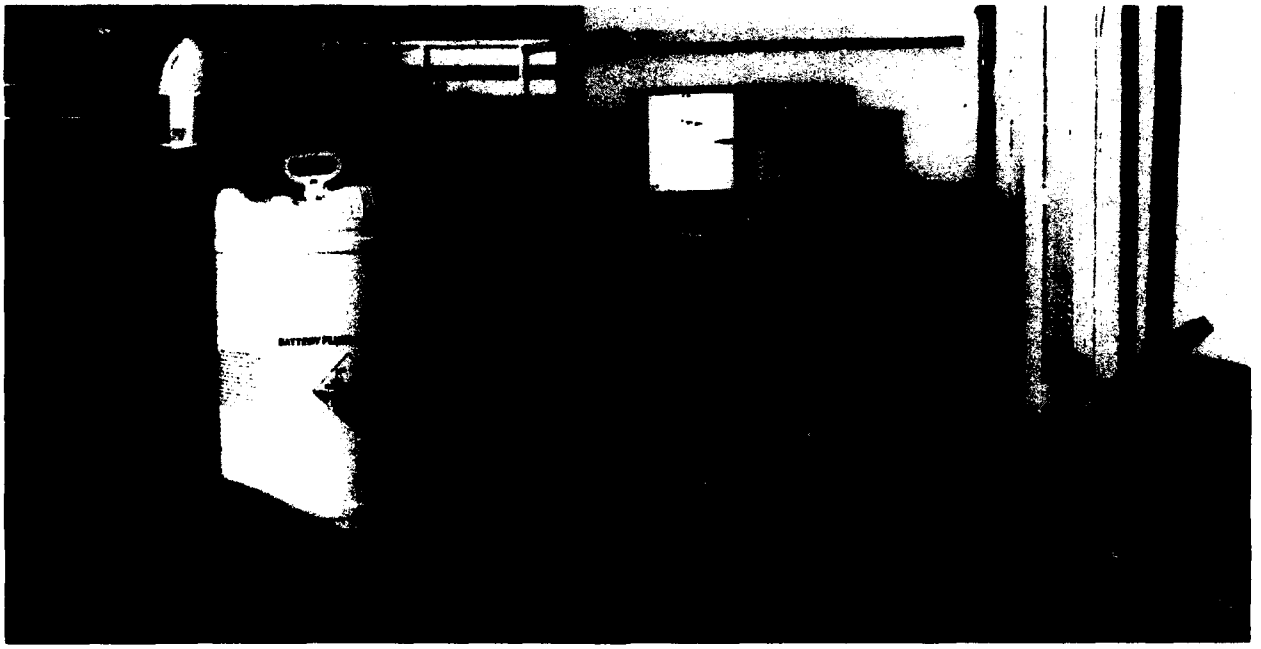
The Naval Reserve continues to seek effective waste minimization techniques. The preferred means of minimizing waste is source reduction, which includes the establishing good management practices, process modifications, material substitution, and recycling/reclamation programs. The Naval Reserve has initiated HAZMIN studies using Engineering Field Division/Engineering resources for each field activity. Architectural and engineering firms also review hazardous waste streams and recommend reductions.

The Marine Reserve Force monitors by the supply system and implements an Authorized Users List to ensure that chemical issue, use, and disposal comply with environmental regulations. Education has been instrumental in hazardous-waste minimization. Improved management techniques, tighter control

measures, and modification of maintenance procedures have successfully reduced the amount of hazardous waste generated. Identification of alternative materials continues to be an effective technique in minimization. Private contracts are being used for cleaning rags to eliminate disposal costs. Petroleum products are recycled when possible.

The Air National Guard Readiness Center is purchasing hazardous waste storage facilities to help units segregate hazardous products. The quantity of recycled material at the units should be increasing over the next few years because of emphasis on recylcing and the identification of specific recycling technology projects, such as cardboard balers and recycling bins. Additionally, the center is pursuing several projects that will help decrease hazardous materials. For example, jet spray washers with high-powered water jets and detergent are used to clean equipment rather than using solvents and antifreeze recycling units to decreased the amount of antifreeze waste to be disposed of. The center has contracted a civilian firm to survey pollution prevention at 16 National Guard bases selected by base type to represent the spectrum of aircraft support facilities. To date, 12 sites have already been visited, with final reports to be submitted when remaining bases have been visited. When these reports are completed, recommendations on waste-stream reduction methodologies will be developed for each base type and applied to all other similar base types.

The Air Force Reserve is actively participating in hazardous waste minimization and recycling efforts. A baseline of 375,000 pounds for hazardous waste generated at installations has been established. The goal is to reduce this amount by 24 percent by 1996. The primary waste minimization focus is developing and implementing centralized management of hazardous material/waste–a "pharmacy" concept. The Air Force Reserve is teaming up with other major commands and the Air Force Center for Environmental Excellence to identify and adopt approved alternatives to existing hazardous materials. Recent manpower studies justified 144 additional personnel, command-wide, to work on environmental issues. These positions are currently being funded for 1995. Other pollution prevention initiatives include purchasing 50 percent of paper products and 10 percent of nonpaper products containing recycled material, reducing municipal solid waste by 10 percent a year, and eliminating the purchase of ozone-depleting chemicals by the end of 1996.



The *United States Coast Guard Authorization Act of 1992* enables the Coast Guard to establish a recycling program that permits units to use recycling proceeds to benefit unit activities rather than to return such funds to the U.S. Treasury. Environmental management is largely the responsibility of the Active component. Coast Guard Headquarters is developing a recycling program and a policy to implement this new recycling funds authorization. In 1991, the Coast Guard chartered a Pollution Prevention Steering Committee for the sole purpose of minimizing hazardous waste Coast Guard-wide. A research and development program has been developed. The scope of the program includes the following:

- Identifying hazardous waste quantities, types, and disposal costs throughout the Coast Guard;
- Conducting site visits of facilities to assess management practices and waste generation processes and develop waste minimization plans; and
- Prioritizing specific HAZMATs which can most easily be substituted or eliminated through process or procedural changes within the Coast Guard, and publicizing these changes.

Environmental Summary And Recommendations

The Board commends Department of Defense efforts to assist the Reserve components in complying with environmental requirements. The Board is, however, concerned about adequate funding for the problems already identified and about protection from personal liability (civil and criminal) for Reserve component commanders and members who are operating reasonably and responsibly.

The Board recommends that the Department of Defense support a policy which requires that the responsibility for managing environmental cleanup and restoration for past environmental contamination remain with the Active component when Active component facilities are transferred to the Reserve components.

The Board supports the objectives and initiatives of the Department of Defense Environmental Security Program and commends the following efforts and initiatives:

- *The Department of Defense and individual Services for concerted efforts to find suitable alternatives to the hazardous materialsspecified in many military and Federal standards and specifications.*
- *The Department of Defense for developing an integrated (strategic) environmental education and training plan to improve education and training programs for military and civilian personnel.*

The Board recommends that the Department of Defense continue its efforts in environmental security and encourages DoD to do the following:

- *Continue research into training, materiel, and procedure alternatives which will avoid future environmental problems and foster supplier contracts which offer alternative environmentally sound chemicals, metals, and fuel sources.*

- *Provide environmental training for all executives, managers, supervisors, and individual Reserve component personnel.*

- *Increase the exchange of information on environmental training opportunities available among the Services, and reevaluate attendance criteria, opening up such training to others in the DoD community and allowing a percentage of each class to be filled by managers, supervisors, and executives from the civilian sector on a nonreimbursable basis, perhaps as an augmentation to its Outreach Program.*

Readiness Initiatives 10

"Much that is positive has happened . . .
More needs to be done . . . ."

Honorable Ike Skelton
House Armed Services Committee

General

The Department of Defense initiated numerous actions and studies during Fiscal Year 1993 to enhance the readiness and accessibility of the Reserve components.

The following is a brief summary of some of those initiatives.

Army Guard Combat Readiness Reform Act

The 102d Congress enacted Title XI to enhance the readiness of the Army National Guard. Entitled the "Army Guard Combat Readiness Reform Act," the various sections of Title XI are summarized below. Many of its provisions were incorporated by the Army National Guard during Fiscal Year 1993.

Section 1111 - Minimum Percentage of Active Duty Personnel

Increase the percentage of qualified active duty personnel to 65 percent for officers and 50 percent for enlisted personnel by September 30, 1997.

Section 1112 - Service in Selected Reserve in Lieu of Active Duty Service

Service academy graduates and distinguished ROTC graduates may serve in the Selected Reserve for the period of their active duty service obligation not served on active duty. Provide a program for ROTC graduates to serve two years active duty and the remainder of their period of obligated service in the Reserve components.

Section 1113 - Review of Officer Promotions by Commander of Associated Active Duty Unit

Recommendations for unit vacancy promotion above the grade of 0-2 must be reviewed by the commander of an associated Active component unit or other active duty officer.

Section 1114 - Non-Commissioned Officer Education Requirements

Makes military education requirements for noncommissioned officers previously established by the Army a mandatory requirement for promotion to the next higher grade.

Section 1115 - Initial Entry Training and Nondeployable Personnel Account

Establish a personnel account category for members who have not completed minimum training required to deploy, or who are otherwise not available to deploy. Member has 24 months to complete minimum training or be discharged. This account will be used for reporting personnel readiness; it may not be used to establish the level of force structure.

Section 1116 - Minimum Physical Deployability Standards

Transfer Reserve component personnel into a nondeployable account when they fail to meet minimum physical profile standards. Transfer from a Selected Reserve unit will be accomplished within 90 days of failure to meet deployment standards.

Section 1117 - Medical Assessments

Each member will undergo medical and dental screening annually. Each member over the age of 40 will undergo a full physical examination every two years.

Section 1118 - Dental Readiness of Members of Early Deploying Units

Develop a plan to ensure members of early deploying units are dentally ready upon deployment.

Section 1119 - Combat Unit Training

Establish program to minimize the post-mobilization training time required for combat units that emphasizes individual soldier qualification and training; collective training and qualification at the crew, section, team and squad level; and maneuver training at the platoon level.

Combat training for command and staff leadership includes annual multi-echelon training to develop battalion, brigade and division-level skills.

Section 1120 - Use of Combat Simulators

Expand the use of simulations, simulators and advanced training devices and technologies in order to increase training opportunities for the Reserve components.

Section 1121 - Deployability Rating System

Modify the personnel and equipment reporting for Reserve component units to ensure an accurate assessment of deployability.

Section 1122 - Inspections

Amends Section 105 of Title 32. Will broaden the authority to allow active duty officers to inspect units to determine whether they meet deployability standards.

Section 1131 - Active Duty Associate Unit Responsibility

An Active duty associated unit is required for each combat unit. The associated Active component commander will be responsible for approval of equipment and resource requirement programs; review of readiness reports; assessment of the manpower, equipment, and resource requirements; and validation of the compatibility with Active component forces.

Section 1132 - Training Compatibility

Active component to support Reserve component units as advisers (officers, warrant officers, and enlisted personnel) .

Section 1133 - Systems Compatibility

Develop and implement a program to ensure personnel, supply, maintenance, and finance systems are compatible across all components by the end of Fiscal Year 1997.

Section 1134 - Equipment Compatibility

Amend Title 10 by adding a statement to the National Guard and Reserve Equipment Report concerning the status of equipment compatibility between the Active and Reserve components; the effect of incompatibility on combat effectiveness; and plans to achieve full equipment compatibility.

Section 1135 - Deployment Planning Reform

Develop a system for identifying the priority for mobilization of Reserve component units. Base it on regional contingency plans and include the use of Unit Deployment Designators to specify post-mobilization training days, and tie to resourcing of units.

Section 1136 - Qualification for Prior-Service Enlistment Bonus

Title 37, United States Code, Section 308i(c) is amended to require bonus recipients to occupy a position in a specialty in which they successfully served while on active duty and attained a level of qualification commensurate with their grade and years of service.

Section 1137 - Study of Implementation for All Reserve Components

Conduct an assessment of the feasibility of implementing the provisions of this title for

all Reserve components and provide a report containing a plan for implementation not later than December 31, 1993. The Assistant Secretary of Defense for Reserve Affairs (ASD/RA) was assigned responsibility for producing the final draft.

Accessibility of the Reserve Components

The Senior Level Working Group on Accessibility of Reserve Component Forces was established by the Assistant Secretary of Defense for Reserve Affairs as a continuation of the Bottom-Up Review. Its task is to identify and develop solutions for a full range of accessibility issues, legislative and regulatory changes, mobilization policy guidance, use of volunteers, and methods to meet domestic mission needs more effectively. The working group is approaching these tasks using a five-step methodology:

- Identify Requirements for voluntary and involuntary use of Reserve component units and individuals for the full spectrum of dangers and opportunities outlined in the Defense Planning Guidance (DPG);
- Assess statutory authorities for responsiveness, flexibility, sufficiency, and equability in accessing Reserve component forces;
- Assess policy guidance for responsiveness, flexibility, sufficiency, and equability in meeting requirements;
- Determine shortfalls in legislation and policies; and,
- Provide recommendations for legislative action and policy revision to improve the Department's access to Reserve component forces.

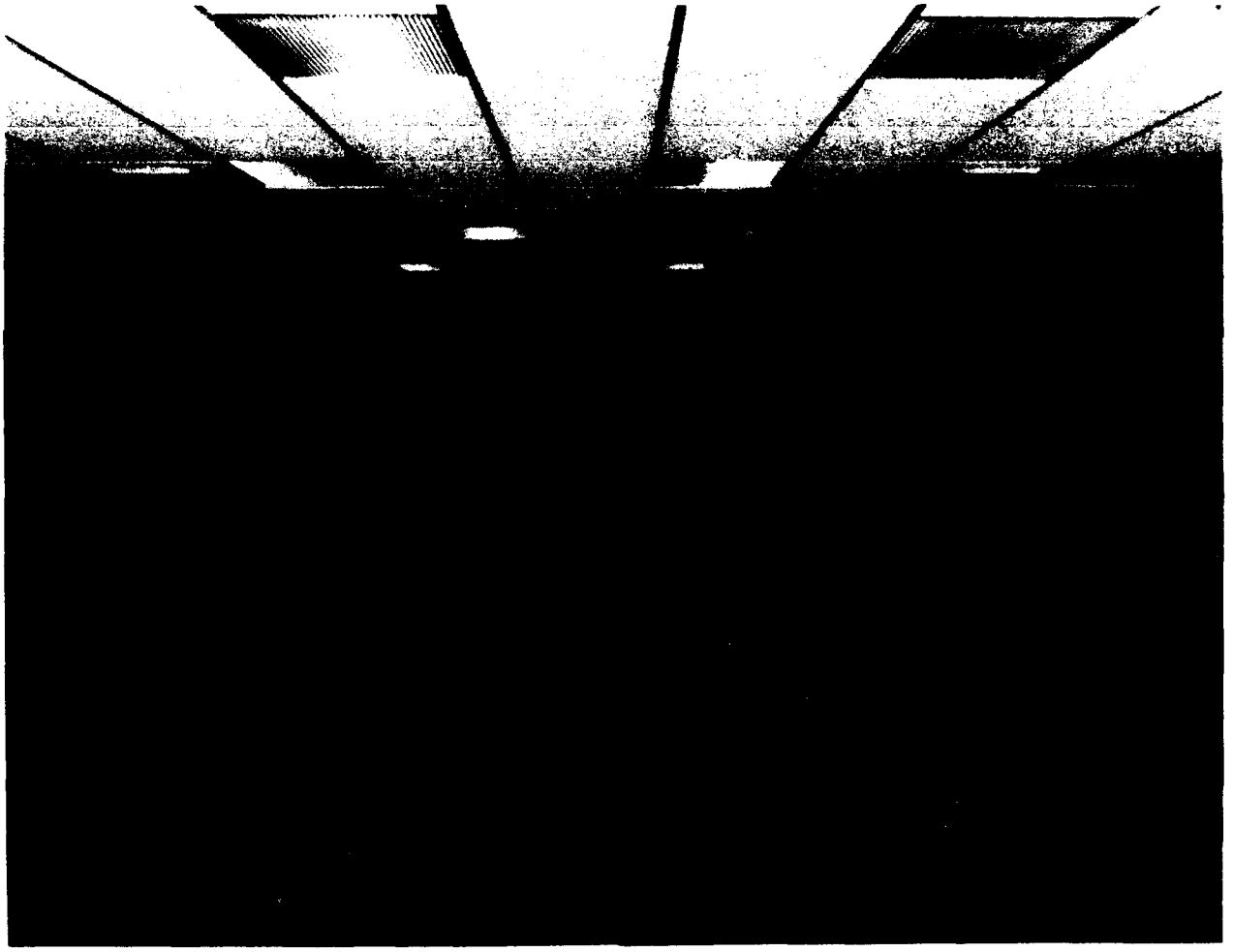
The senior level and action officer working groups are comprised of representatives of the Department of Defense and Service secretariats, the Joint Staff, the Reserve components, U.S. Transportation Command and U.S. Army Forces Command. Following the initial assessments and recommendations to be completed in early 1994, the advisory and working groups will continue to monitor and reevaluate efforts to improve the accessibility of the Reserve components.

As the Department of Defense becomes more reliant upon the contributions of the Reserve components, ensuring better access to National Guard and Reserve forces takes on increasing importance. Therefore, the concerns of the Senior Level Working Group span the entire spectrum of wartime contingencies, domestic emergencies, and peacetime operations.

The Senior Level Working Group has recommended, as has the Board, that the Secretary of Defense be provided the authority to call up to 25,000 members of the Reserve components if needed to support deployment operations during the early stages of a conflict. In addition, the Senior Level Working Group believes that accessibility for domestic missions of National Guard forces could be improved by implementing recent proposals for bilateral and multilateral agreements for cooperation among states. The goal is to ensure the availability of Reserve component forces when needed, while also ensuring that the demands placed on members of the Reserve components are realistic.

The Board commends the Secretary of Defense for establishing the Senior Level Working Group on Accessibility of the Reserve Components and welcomes the opportunity to contribute to the mission of this task force as an active participant and to consider necessary changes in law and policies which may need to be revised.

Board Activities A



General

The Board conducted numerous activities during Fiscal Year 1993 to fulfill its mission as principal policy advisor to the Secretary of Defense on matters relating to the Reserve components. These activities included quarterly board meetings; an alumni meeting; briefings; Congressional hearings; committee fact-finding trips; meetings with defense policy makers and Congressional leaders; visits to selected government agencies; and information exchanges with appointed officials, military associations, and key staff members from various executive departments and agencies. In addition, the Board contributed reports and articles for defense-related publications and participated in study groups and committees within DoD and other Federal agencies.

Board Meetings

The Board met on the following dates:

- December 7-9, 1992
- March 1-3, 1993
- June 7-9, 1993
- September 13-15, 1993

Meetings with Military and Civilian Leaders

- Atwood, Honorable Donald
  Deputy Secretary of Defense

- Aspin, Honorable Les
  Secretary of Defense

- Bell, Mr. Robert G.
  Senior Director, Arms Control and Defense Office, National Security Council

- Boomer, General Walter E., USMC
  Assistant Commandant, United States Marine Corps

- Cheney, Honorable Dick
  Secretary of Defense

- Clarke, Mr. Floyd I.
  Deputy Director, Federal Bureau of Investigation

- Clarke, Mr. Richard A.
  Special Assistant to the President and Senior Director, Office of Global Issues and Multilateral Affairs, National Security Council

- Closner, Major General John J., USAF
  Chief of Air Force Reserve

- Conaway, Lieutenant General John B., USAF
  Chief, National Guard Bureau

- Coulson, Mr. Danny O.
  Deputy Assistant Director, Federal Bureau of Investigation

- Dabrowski, Colonel Peter, USA
  Chief, Military Support Liaison Office, Federal Emergency Management Agency

- Donahue, Mr. John P.
  Chief of DoD Liaison Office, Federal Bureau of Investigation

- Duncan, Honorable Stephen M.
  Assistant Secretary of Defense for Reserve Affairs

- Edmonds, Major General Albert J.
  Acting Director for Command, Control, Communication and Computer Systems, The Joint Staff (J-6)

- Franks, Brigadier General Tommy R., ARNG
  Director, Louisiana Maneuvers Task Force

- Fulkerson, Captain Grant D., USN
  Deputy Director for Managment and Personnel, The Joint Staff (J-1)

- Gallagher, Mr. Neil J.
  Section Chief, Intelligence Division, Federal Bureau of Investigation

- Godson, Mr. Roy
  Vice President and Director, National Strategic Information Center, Inc.

- Hall, Rear Admiral Thomas F., USN
  Director of Naval Reserve

- Hooker, Mr. Richard D., Jr.
  Associate Director for Defense Policy, National Security Council

- Johnson, Mr. David W.
  Section Chief, Intelligence Section OC/Drug Branch, Federal Bureau of Investigation

- Johnston, Lieutenant General Robert B., USMC
  Deputy Chief of Staff for Manpower and Reserve Affairs, U.S. Marine Corps

- Kelso, Admiral Frank B. II, USN
  Chief of Naval Operations

- Kilmartin, Brigadier General T. J., USA
  Deputy Chief, Army Reserve

- Kramek, Rear Admiral Robert R., USCG
  Chief of Staff of the Coast Guard

- Lake, Honorable Anthony
  Assistant to the President for National Security Affairs

- Lautenbacher, Rear Admiral Conrad C., Jr., USN
  Director for Force Structure, Resources and Assessment, The Joint Staff (J-8)

- Lautenschlager, Captain Jack, USN
  Director for Crisis Management (J-2) Defense Intelligence Agency

- Lee, Honorable Deborah R.
  Assistant Secretary of Defense for Reserve Affairs

- Leland, Lt. General E.S., Jr., USA
  Director for Strategic Plans and Policy, The Joint Staff (J-5)

- Lopez, Honorable Antonio
  Associate Director, Federal Emergency Management Agency

- Macke, Vice Admiral Richard C., USN
  Director, The Joint Staff

- Mayer, Mr. Jack
  Project Director, Center for Naval Analysis

- McCaffrey, Lieutenant General Barry R., USA
  Director for Strategic Plans and Policy, The Joint Staff (J-5)

- McNight, Lieutenant General Clarence E., USA (Retired)
  U.S. Chamber of Commerce

- McPeak, General Merrill A., USAF
  Chief of Staff of the Air Force

- Mears, Lieutenant General Gary H., USAF
  Director for Logistics, The Joint Staff (J-4)

- Meehan, Mr. Patrick J., Jr.
  Principal Director, Office of the Assistant Secretary of Defense for Environment

- Musselman, Major General James A., USA
  Vice Director for Operations, The Joint Staff (J-3)

- Peay, General J. H. Binford III, USA
  Vice Chief of Staff of the Army

- Perry, Honorable William J.
  Deputy Secretary of Defense

- Peterson, Mr. Grant C.
  Associate Director, State and Local Programs and Support, Federal Emergency Management Agency

- Rogers, Major General Alan V., USAF
  Director for Operational Plans and Interoperability, The Joint Staff (J-7)

- Satterfield, Mr. David
  Director of Middle Eastern Affairs, National Security Council

- Rees, Major General Raymond F., USA
  Vice Chief, National Guard Bureau

- Rostker, Mr. Bernard D.
  Director, RAND Defense Manpower Center

- Scales, Lieutenant General John, ARNGUS
  Center for Strategic and International Studies

- Sessions, Honorable William S.
  Director, Federal Bureau of Investigation

- Sheehan, Lieutenant General John J., USMC
  Director of Operations, The Joint Staff (J-3)

- Smith, Ms. Mary H.
  Deputy Director of Defense Information for Finance, Personnel, and Health, Functional Information Management Research Center

- Stephens, Mr. Bruce
  Federal Bureau of Investigation

- Thurman, General Maxwell R., USA (Retired)

- Warner, Mr. Ted
  Assistant Secretary of Defense for Strategy, Requirements, and Resources

- White, Mr. Kenneth
  Exective Officer, National Preparedness/Information Resources, Federal Emergency Management Agency

- York, Mr. James T.
  Chief, Domestic Liaison Unit, Federal Bureau of Investigation

Briefings Received by the Board

- State of the Service: Service Chief's Perspective
- Bottom-Up Review
- Reserve Component Issues
- Midwest Floods and Reserve Component Response
- Reserve Component Assignment to Combatant Commands
- Military Support to the United Nations, Policy and Mission Implications
- Defense Corporate Information Management Systems
- Defense Intelligence Agency Briefing
- National Security Council Perspectives on Peacekeeping, Arms Control, and the Middle East
- Alternative Reserve Force Structure Options
- Board Member Report on Meeting with the Russian Army in Moscow
- Joint Staff Briefings
- Federal Bureau of Investigation Perspectives on Hostage Rescue, Terrorist Response, Counter Drug Programs, CounterIntelligence, and Linguistics
- Community Learning and Information Network
- DoD Environmental Programs and Legal Liabilities for Reserve Commanders
- The Louisiana Maneuvers
- The Federal Emergency Management Agency
- The Federal Response Plan and Military Support
- DoD/FEMA Memorandum of Understanding
- Future Role for Reserve Component Support to FEMA Missions
- Operation RESUME HOPE
- National Guard Roles, Missions and Operations
- RAND Assessment of the Structure and Mix of Future Active and Reserve Forces
- Center for Naval Analysis Assessment of the Structure and Mix of Future Active and Reserve Naval/Marine Forces

Committees

The Board has established standing committees to study and formulate recommendations on issues relating to the following areas:

- Logistics Committee

  Chairmen: Major General Donald L. Owens and Major General Charles J. Wing

- Personnel Committee

  Chairmen: Major General Warren G. Lawson and Major General James E. Sherrard, III

- Training and Mobilization Committee

  Chairmen: Rear Admiral David A. Janes and Major General Kenneth A. Bouldin

- Ad Hoc Committee on the Assignment of Forces to Combatant Commands

  Chairman: Lieutenant General John H. Tilelli, Jr.

Visits to Training Activities

Members of the Board and staff visited Headquarters, U.S. Southern Command (SOUTHCOM) in November 1992 and met with senior Embassy officials in Panama, Venezuela, Costa Rica, and Honduras. The Board reviewed utilization of Reserve component forces in SOUTHCOM and identified impediments to greater Reserve component participation in the SOUTHCOM theater. Additionally, the Board received information on the missions and capabilities of U.S. Southern Command in light of the drawdown and eventual withdrawal of U.S. bases in Panama; met with ambassadors and key embassy officials to discuss opportunities and policy implications of increased Reserve support to SOUTHCOM; and observed the training of Reserve component units in theater.

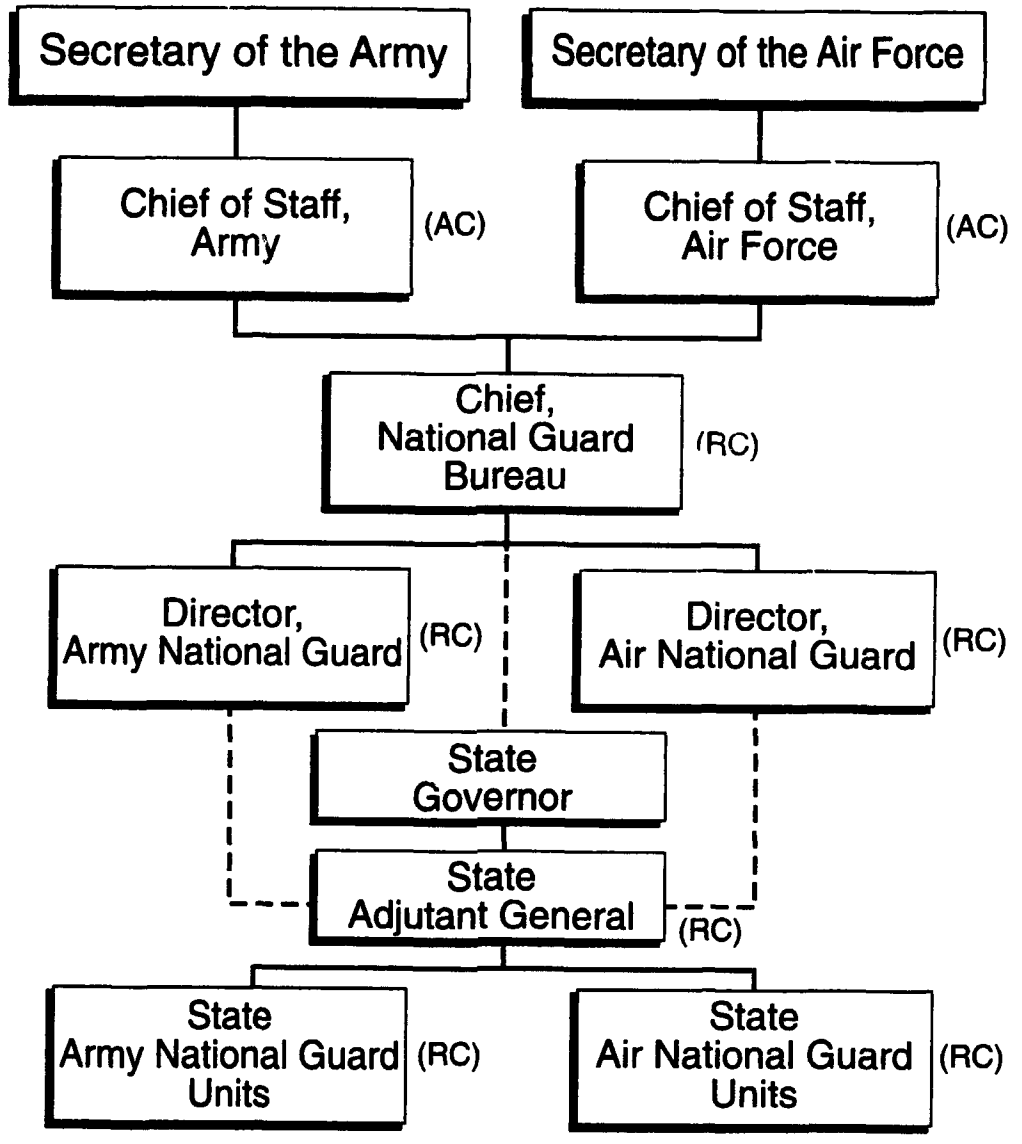
Members of the Training and Mobilization Committee visited the Marine Corps Air Ground Combat Center in Twentynine Palms, California in June 1993. The committee observed a Reserve Marine Air Ground Task Force participate in an enhanced combined arms exercise.

Members of the Logistics Committee visited Blount Island Marine Corps Command and the U.S. Coast Guard Marine Safety Office in Jacksonville, Florida in July 1993. The committee was briefed on the Marine Corps Maritime Prepositioning Force concept and observed the download of a maritime prepositioning ship. The committee also observed coordination between Coast Guard port safety personnel and a Marine Reserve cargo handling battalion during downloading operations.

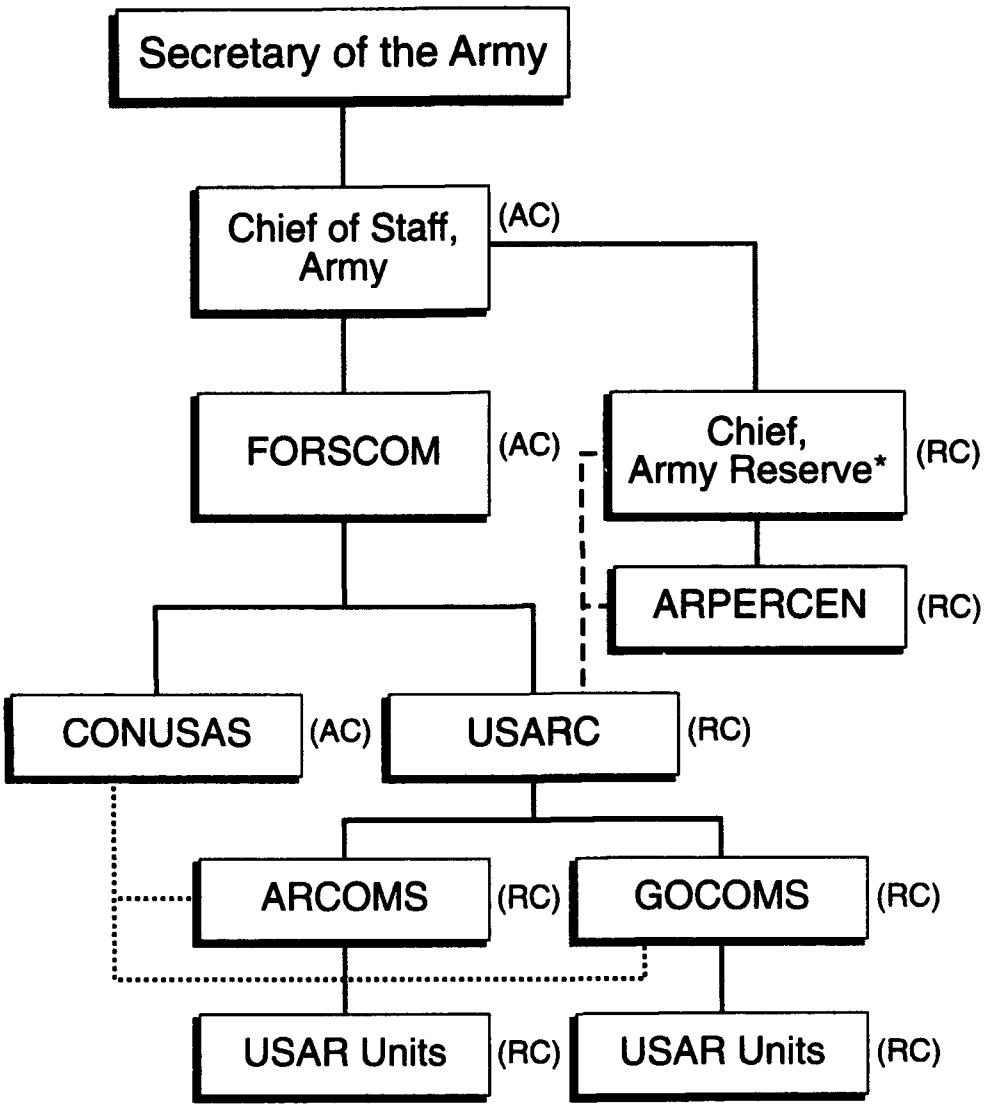
Reserve Component Command & Control Diagrams

B

Army National Guard & Air National Guard Command and Control



Army Reserve Command and Control

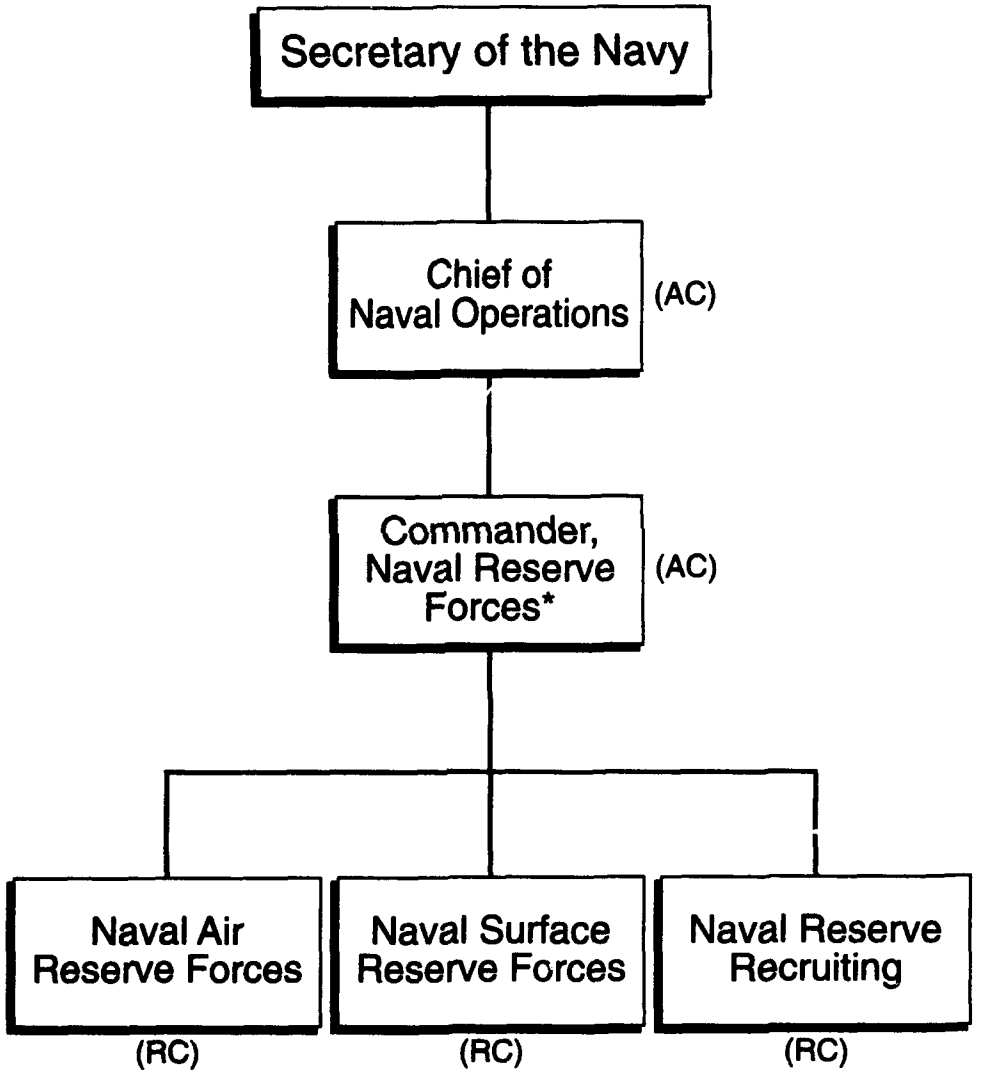


* The Chief Army Reserve also serves as DCG, FORSCOM; CDR, USARC.

- - - - - - - - Coordination Assistance

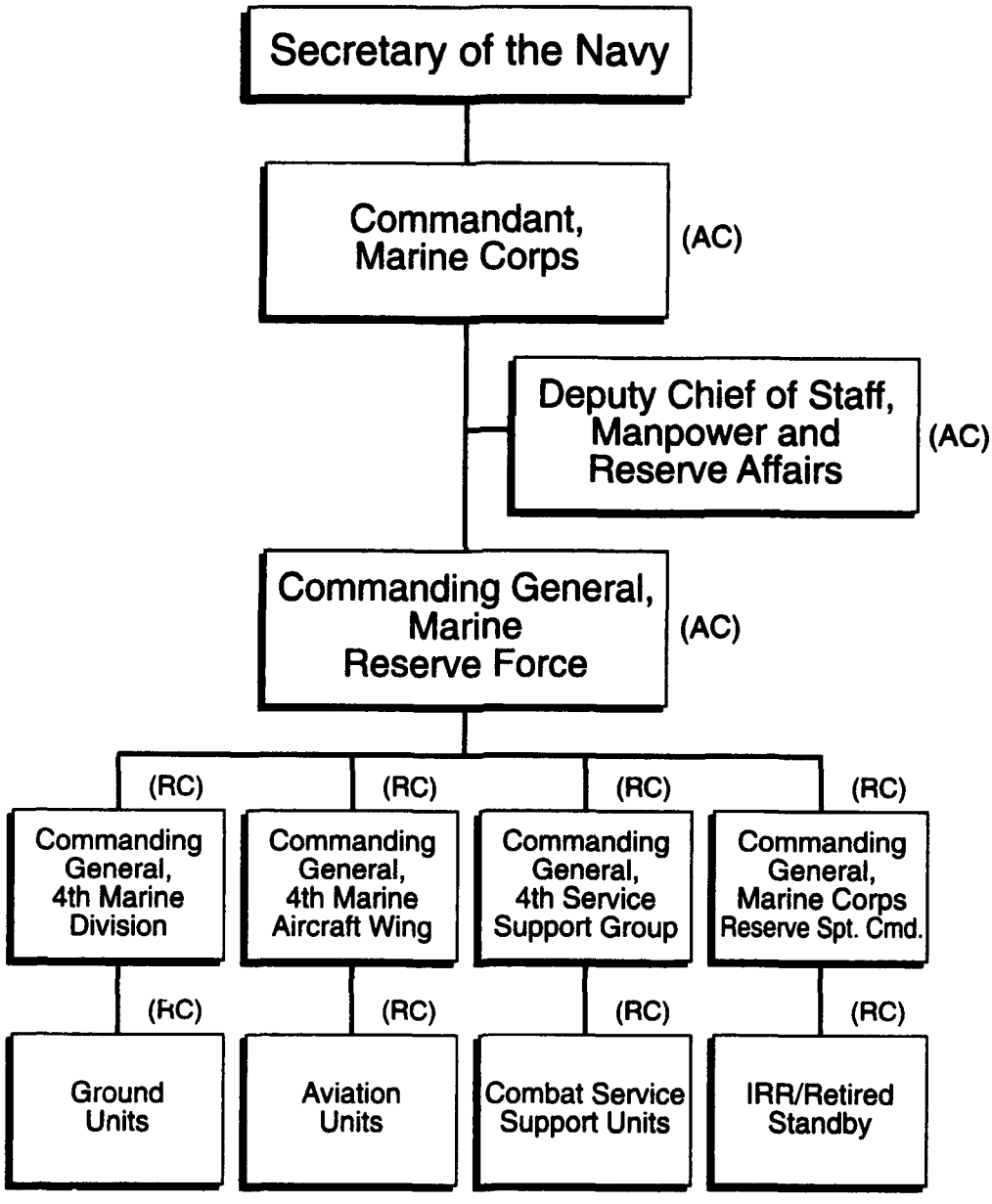
..... Direct Support

Naval Reserve Command and Control

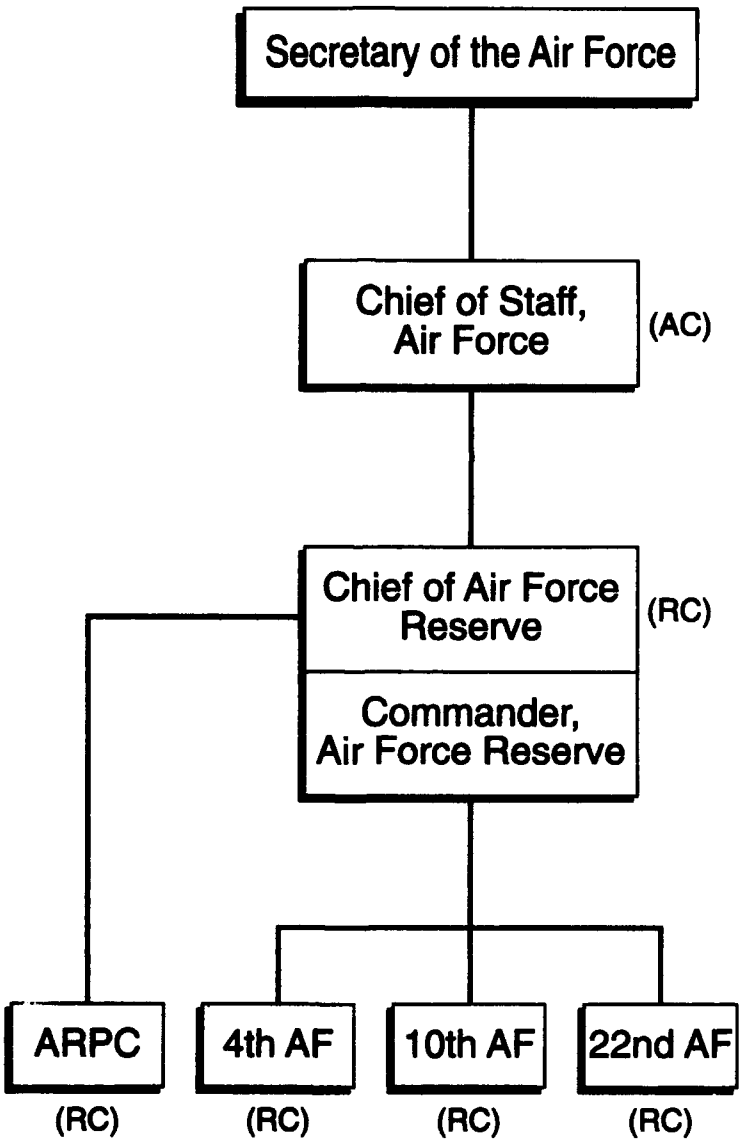


* The Commander, Naval Reserve Forces also serves as Director, Naval Reserve and as Chief of Naval Reserve.

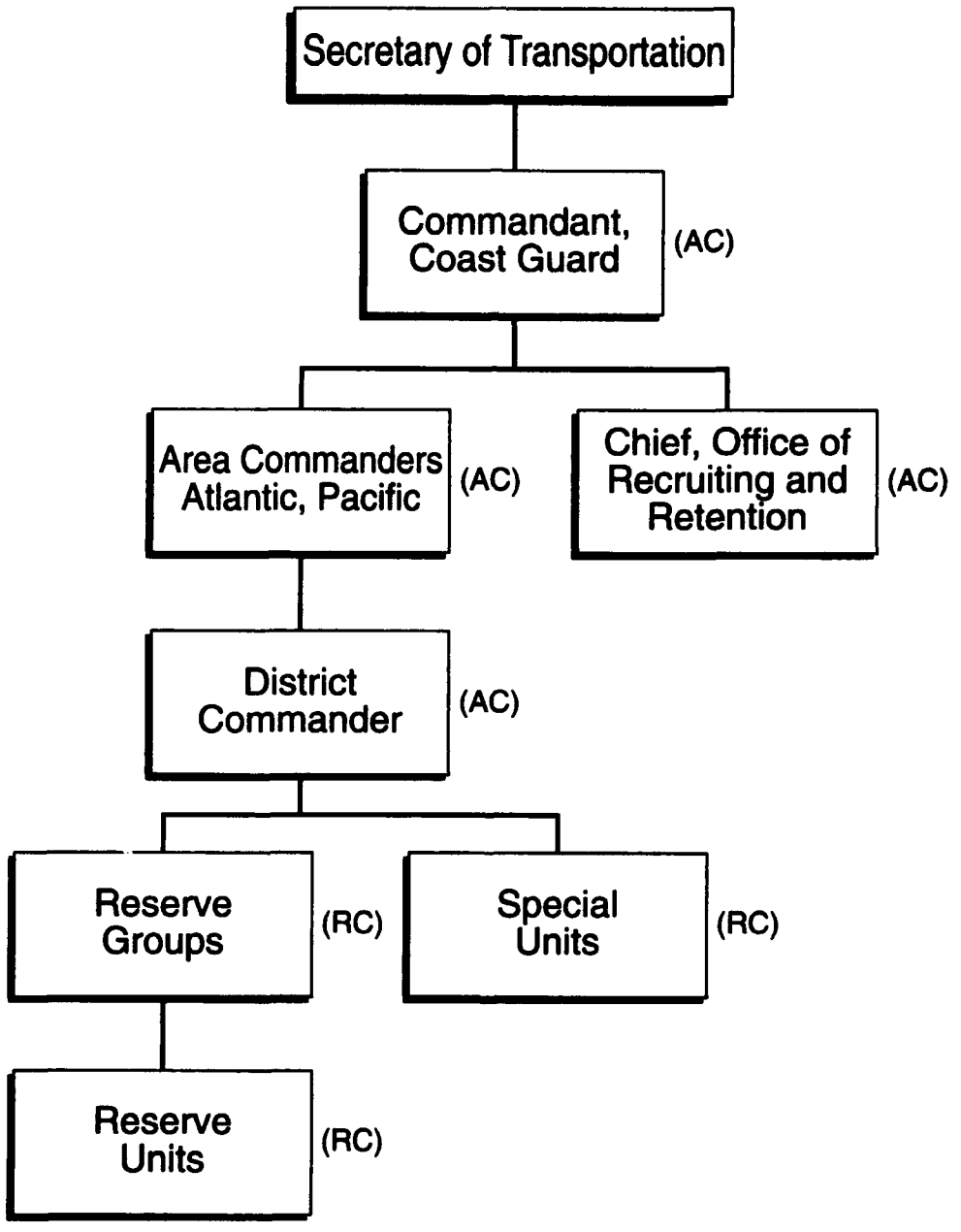
Marine Corps Reserve Command and Control



Air Force Reserve Command and Control



Coast Guard Reserve Command and Control



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Related Publications

United States Congress
- *National Defense Authorization Act*

The White House
- *National Security Strategy of the United States*

Department of Defense
- *Annual Report to the President and the Congress*
- *Base Closure and Realignment Report*
- *National Guard and Reserve Equipment Report*
- *Report on the Bottom-Up Review*

Joint Chiefs of Staff
- *National Military Strategy of the United States*

Office of the Assistant Secretary of Defense for Personnel and Readiness
- *Population Representation in the Military Services*

Office of the Assistant Secretary of Defense for Reserve Affairs
- *Official Guard and Reserve Manpower Strengths and Statistics*
- *Reserve Components of the Armed Forces: Reserve Component Categories*
- *Reserve Components of the United States Armed Forces*

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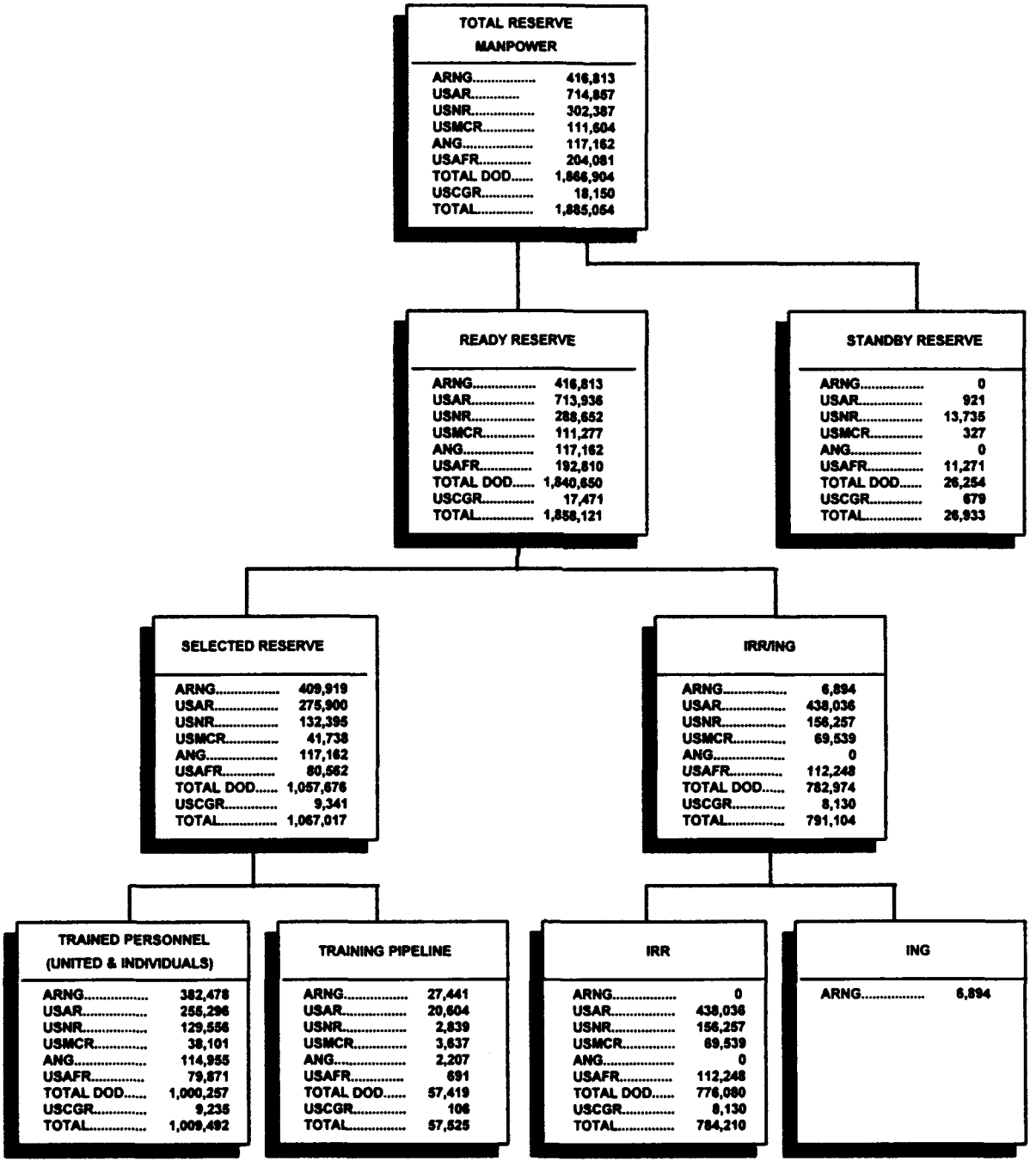
TOTAL RESERVE STRENGTH

(Offical Numbers)



Source: Office of the Assistant Secretary of Defense for Reserve Affairs.
Data as of September 30, 1993.