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Military Bases in Our Communities

A Report of Military Bases in Washington State

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STATE OF WASHINGTON

WASHINGTON STATE AND ITS PARTNERSHIP WITH THE UNITED STATES MILITARY INSTALLATIONS

October 2004

STATE OF WASHINGTON
OFFICE OF THE GOVERNOR

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LETTER FROM THE GOVERNOR

Washington State has a long and proud tradition serving as home to several major military installations. The brave men and women who are stationed here, and their families, are an integral part of our community. Those who remain once their duty has been completed, enrich our society and make Washington an even better place in which to live.

Military installations in Washington are a tremendous asset to our state. The benefits they provide range from supplying private sector jobs, to protecting wildlife habitat, to promoting community volunteerism within the ranks.

We are committed to working in close partnership with the Department of Defense and individual military installations in full support of Armed Forces critical operations. In an effort to further strengthen this relationship, my office has undertaken an assessment of Washington's efficacy as a platform for the defense of our country.

As evident in the enclosed report, Washington provides clear advantages in location, terrain, and climate. The military installations are well suited for a wide range of missions and are already responding to the Department of Defense's philosophy of transformation and joint operations and training. This report also documents examples of successful collaborations between the military and state or local agencies including efforts to meet military training and operational objectives, and achieve state and community policy goals. It illustrates how the state's commitment to the broader citizenry – enlarging access to quality education, ensuring an adequate supply of affordable housing, attracting and retaining secure family wage jobs, and improving infrastructure to resolve traffic congestion – directly contributes to quality of life for military personnel and their loved ones, and the overall efficiency of the military installations.

In addition, this report serves as a reminder to policy makers that the military is impacted by decisions made at all levels of state government. Washington is firmly committed to working with its military installations in the advancement of common goals, as well as identifying and addressing issues of concern through constructive, open dialogue.

I am confident that you will find this report to be informative and useful.

Sincerely,

Gary Locke
Governor

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Office of the Governor
OCTOBER 2004

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SUMMARY REPORT

INTRODUCTION

This report is intended to provide information to federal, state and local policy makers regarding the value of Washington State and the military installations located within the state to the national defense. It is also intended to show the myriad of ways in which state and local agencies work in partnership with the military installations and support, directly and indirectly – the operations of the installations.

Washington State and its military installations form an ideal platform for projecting power throughout the Pacific Rim and many other parts of the world. Washington's location places the military in close proximity to Asia and Europe, and the diversity of its geography and climate provide all branches of the military a full range of training opportunities. The military installations themselves are suited for a wide range of missions; their close proximity to each other creates opportunities for joint training and operations. The value of Washington's military installations to the national defense is reason enough for federal, state and local policy makers to work closely with the military installations in the state.

But Washington's military installations also have a tremendous economic impact on the state. The direct and indirect annual earnings within Washington State generated by the military installation operations are $7.2 billion. Approximately 188,000 jobs are created. The economic impact is not limited to the counties in which the installations are located: in fact, 21 of the state's 39 counties have companies that do business with the military bases.

Washington's policy decision in support of investment in energy, communications, transportation, environmental protection, historic preservation, utilities and public health each influence the ability of the military installations to carry out their missions, as is shown in this report. The consultative partnerships formed between agencies and installations have formed a positive working relationship that strives to meet both the operational needs of the military and the policy goals of the state.

Washington not only supports the operations of the military installations, it also supports the military personnel and their families. The excellence of Washington's education system and workforce development programs, and Washington's inherently strong economic advantages creates opportunities for the military personnel and their families to enjoy careers both in and out of the military. A strong housing market provides a viable alternative to living on base, which supports both the goal of reducing operational costs for the military and the interest families have in being able to live in the community.

The state views the military as a major sector of the economy. The Joint Committee on Veterans' and Military Affairs conducted extensive tours and hearing in 2003 to gain a "big picture" view of the role of the military in this state and the policy areas of interest to the military. The Governor's Office continued that work with an in-depth inventory of the many ways in which the state regulates or partners with the military installations, and by forming a state agency work group that meets periodically to discuss issues.

The information in this report is a reminder to policy makers at the state and local level that the military is affected by a wide range of policy decisions made the Legislature, state agencies and local governments and districts. The military is a stakeholder to be consulted and considered when state and local government are making decisions that affect its ability to carry out its mission.

WASHINGTON STATE'S GEOGRAPHIC ADVANTAGES FOR FORCE PROJECTION, MILITARY TRAINING AND OPERATIONS

As the United States military transforms to meet future challenges, hard choices must be made on where to station forces. The military will likely not fight from its home bases, but will travel to wherever they are needed. The Department of Defense needs to locate its forces where they can best be deployed by air or sea from garrison and training facilities that have adequate ground and air space to train for any contingency. Installations may be called upon to serve different or evolving missions in the future. Washington offers a unique combination of access to transportation with climate and terrain suitable for training and a growing dedication to ensure that military facilities are not compromised by encroachment. Washington is a vital nexus of air, sea, rail and road services for transportation goods throughout the

Pacific Rim. The bases currently in Washington are perfectly situated to project power throughout the Pacific Rim and to support military operations anywhere in the world.

Existing Washington Based Forces Available to Project Power

Washington is home to five missions that project the power of the United States throughout the world. One of the two ballistic missile submarine bases in the United States is located at Bangor. The Navy has two aircraft carriers and a destroyer squadron based in Puget Sound, and the center for both Navy and Air Force combat electronic warfare in located on Whidbey Island. The Army has a Ranger battalion and a Special Forces Group at Fort Lewis. Also located at Fort Lewis are two Stryker brigades, with a third brigade arriving in the near future.

The Stryker brigades are the latest addition to the Army force structure. Of the six brigades planned, two are based at Fort Lewis and another will be equipping and training there in the next federal fiscal year. The Stryker brigades are well-protected, highly mobile and deployable units able to serve anywhere in the world.

The Ohio-class submarines at Bangor are part of the nuclear deterrent force. In addition, some units are being converted to be cruise missile carriers and to possess the ability to clandestinely deploy special force units.

The aircraft carriers and destroyer squadron are one-third of the aircraft carrier strike capability in the Pacific Fleet. They represent the ability of the United States to project power both on the high seas and in the air throughout the world. The ability to base surface warships and aircraft carriers in Puget Sound gives the Navy the ability to project airpower and sea control throughout the Pacific Rim and beyond. The Naval Air Station at Whidbey Island has the surge capacity to allow carrier air wings to form up prior to deployment at sea. The Puget Sound Naval Shipyard at Bremerton provides the only nuclear-capable repair facilities on the Pacific Coast. The ability to deploy to locations around the Pacific Rim as well as other supporting features make Puget Sound an ideal location from which to project naval power.

The Rangers and Special Forces are elite units with the ability to deploy anywhere at anytime. The Special Force group based at Fort Lewis is specifically trained for operations in Asia. The Ranger battalion is one of three in the Army and is an elite light infantry unit capable of both conventional and special operations.

While Fairchild Air Force Base does not currently have units assigned that are capable of directly projecting power, it retains that capability. Through its history the base has hosted bomber squadrons under Strategic Air Command and Air Combat Command, and it retains the infrastructure needed to support bomber units if they were reassigned to Fairchild.

With these combat forces and the lift capability that is based in Washington, the United States has in a single state the ability to jointly train, deploy, and if necessary fight, with units that have had the opportunity to practice working together on a continual basis.

Support Forces that Project Power

There are military missions in Washington that play a supporting role, not only for the missions located in the state, but throughout the rest of the country. Fairchild Air Force Base is one of three dedicated aerial refueling bases in the nation and McChord Air Force Base hosts a wing of C17 Globemaster IIIs, the latest addition to the strategic airlift fleet. Also located at the Port of Tacoma are two National Reserve Fleet sealift ships capable of transporting military equipment. Aerial refueling capabilities from Fairchild extend the range of both combat and transport aircraft, allowing units in transit to travel farther before having to land. If deployed to a combat theater, the tankers continue to serve in a force multiplier role. The C17s based at McChord Air Force Base can not only deliver almost all the equipment in a Stryker brigade, they can also parachute Rangers into combat throughout the world. This ability allows the Army units in Washington to rapidly deploy worldwide. The Reserve Fleet ships and facility at the Port of Tacoma provide the ability to transport military equipment to ports the world over.

With both McChord Air Force Base and SeaTac International Airport in close proximity to Fort Lewis, Washington provides an excellent platform for transporting troops and equipment. McChord Air Force Base has the ability to receive the C5 Galaxy, the highest capacity transport aircraft in the Air Force inventory. SeaTac can easily accommodate aircraft from the Civil Reserve Air Fleet (CRAF) to assist in the movement of troops either to Asia flying the Great Circle Route or to Europe flying the Polar Route. The

aerial tankers from Fairchild enhance this capability by extending the range of military aircraft through in-flight refueling.

Fairchild Air Force Base is also an integral part of airlift operations. With the aerial refueling tankers based there, Fairchild can support the transit of military cargo planes and combat aircraft to locations around the globe. The tankers can also be deployed to support transit operations in areas that do not have aerial refueling capability or to support combat operations. The base itself has the ability to handle any aircraft in the Air Force, and possesses, in conjunction with Spokane's Geiger Airport, the surge capacity to allow large flights of planes to form up at Fairchild, or to use it as an emergency landing facility without interfering with operations.

With many deep water ports in Puget Sound, Washington can accommodate military sealift operations. Fort Lewis' Seaport of Departure is Tacoma, which is the second closest of any port of departure to its associated army base. This means that units based at Fort Lewis can be at sea much quicker than almost any other combat force in the Army. In addition to the Port of Tacoma, there are also cargo-handling ports located at Olympia, Seattle, and Everett capable of supporting military sealift operations in terms of break-bulk, roll-on/roll-off, and container cargos. The Port of Seattle and Tacoma each have a Coast Guard security unit, making the ports a more secure place from which to conduct operations. The sea transit time is shorter to locations in North Asia than from any other port in the continental United States.

Washington's Climate and Terrain

In order to maintain peak proficiency, military units must train constantly. As the military transforms and the world in which we live changes, there is less certainty about a unit being deployed to a single type of geographic environment. In order to prepare for future deployments, units need to practice their skills in a variety of conditions and in a safe manner. Although Washington has the reputation of being a wet, "evergreen" state, there is much diversity in the geography and climate that provides varied training locations that are available all year.

Eastern Washington is a sparsely populated area, largely involved in agricultural and forestry activities. It has several areas of reserved airspace for low-level flights, and a variety of terrain, from pine forests to grasslands to canyons that provide opportunities for training either in the air or on the ground. The winters tend to be cold and dry, and the summers hot and drier.

Western Washington has a highly urbanized central core surrounded by mountains, forests, and prairies. Western Washington enjoys a marine climate, but does not have continuous rain. Summers are sunny and dry, while winters are cool and wet. Much of the Cascade Range in Western Washington is state or federal forests. Some of these are used for training activities.

Washington has valuable airspace for Army, Navy, and Air Force training activities. Two dedicated helicopter training ranges are associated with Fort Lewis. Both of these allow pilots to practice maneuvers over state and federal forestlands. The training center at Yakima provides a training environment for more arid climates such as Southwest Asia. There are also multiple low-level transit routes that Air Force and Navy pilots use to train for low-level flight. A large expanse of air space is dedicated for military maneuvers over the northern part of eastern Washington. Several areas of dedicated airspace exist in western Washington and off the Pacific coast.

In addition to the volume of airspace that is available, Washington State is also uniquely situated to support training for electronic warfare. The electromagnetic spectrum in the state is remarkably clean. This allows for units such as the Prowler squadrons based at Whidbey Island to train for their mission without interfering with other uses of the electromagnetic spectrum.

Washington provides opportunities for both woodland and dryland training of ground forces and joint operations. With both Fort Lewis and the Yakima Training Center, Washington affords the military two environments to prepare troops. The Air Force maintains its survival school in Eastern Washington, using the national forests north of Spokane as a training environment for evasion and escape training. Special Forces and Rangers also use this facility, as well as practicing alpine warfare on Mount Rainier. These varied terrain features in a relatively compact space make Washington an ideal place for the Armed Forces to prepare for ground combat.

Puget Sound provides the military with an excellent series of sheltered deep-water ports to support combat, transport, and logistics missions. Everett Naval Station is only a few hundred yards from the pier

to deep water. Bremerton has the ability to accept all Navy ships for either basing or repair. Proximity to the Port of Tacoma allows for rapid sea transport of army units based at Fort Lewis. There is a range to practice the deployment of aerial mines in association with Whidbey Island. And with the development of the Littoral Combat Ship, the San Juan Islands, Strait of Juan de Fuca and Washington Coast provide ample opportunity for training in a littoral environment. Finally, in neighboring British Columbia, there is the Nanoose Torpedo Range, where new undersea warfare weapons developed at Keyport are tested in conjunction with the Canadian Navy. There are numerous water drop zones for use by Special Forces that are close to their home base, allowing for efficient training. The combination of these opportunities allows the military to conduct a wide range of maritime activities in a sheltered environment.

Washington has the climate and terrain that provide the United States Armed Forces with a well-rounded environment in which to train. With two distinct climates, access to training facilities on land, at sea, and in the air, there is ample opportunity for the services to practice working together. As the world changes and the armed forces transform to meet new challenges, Washington provides the ability to train for deployment.

Growth Management Act – Protection of Installations from Encroachment

Washington State recognizes that incompatible development of land close to military installations reduces their ability to perform their military mission or to accept new missions. Washington has been planning to accommodate growth since 1990, when the Legislature enacted the Growth Management Act. The Act requires local governments to coordinate and plan for growth, wise land use management, sustainable economic development, and promote the health, safety and quality of life of the state's residents. The Act directs cities and counties to develop comprehensive plans that designate and protect critical areas and resource lands of long-term commercial significance, thereby directing growth to appropriately zoned developable lands. This approach has ensured that there is substantial airspace in the state with minimal population.

In 2004, to prevent future encroachment near military installations, the Legislature passed Engrossed Substitute Senate Bill 6401. Local governments are instructed to prohibit inappropriate development in the vicinity of military installations that would interfere with the base's ability to perform its mission. In addition, cities or counties considering amending their comprehensive plans or development regulations regarding properties adjacent ot military installations are required to notify the base commander of the intended amendment and to allow 60 days for comment on the proposed change. This provides a means for local governments to stay informed of the needs of the military.

Even before the enactment of ESSB 6401, local governments took steps to ensure compatibility in the permitted land uses around military facilities. Island County has stringent standards to help reduce interior noise in residences around Naval Air Station Whidbey Island. There is also required notification of airport activities during property title searches on all properties within area identified on the local airport environs map. The city of Oak Harbor includes an overlay zone in their municipal codes to ensure that surrounding land uses are compatible with the operations of NASWI. Similarly, Spokane County adopted regulations that protect Fairchild Air Force Base from encroachment, including the approach routes to the air base. Lakewood has made strides to protect McChord Air Force Base from further encroachment by adopting a measure to ensure that no further incompatible development takes place in the approach airspace to McChord. The comprehensive plan for the city states that it supports the acquisition of the clear zone associated with McChord. The Department of Community, Trade and Economic Development is working with Lakewood to provide funding to study the cost and identify options for addressing the privately owned portion of the clear zone.

WASHINGTON STATE'S INFRASTRUCTURE AND OPERATIONAL SUPPORT FOR THE MILITARY INSTALLATIONS

Energy, Communications and Other Utilities

Energy

Businesses and industries located in Washington State enjoy the benefits of a reliable and competitive energy supply. The state is a leader in capitalizing on energy efficiency opportunities to extend our supplies and keep prices competitive into the future. Washington's energy infrastructure assures a ready supply of low cost power to military installations in Washington.

Washington's petroleum supply infrastructure is deep and flexible, which translates into a very reliable supply. Five refineries produce sufficient amounts to be a net exporter, including key military products like jet fuel, aviation gas, diesel and gasoline. Washington military bases can also be supplied from two pipelines entering the state from the east. A major pipeline also runs from the refiners in the Northwest region of the state to Portland. Product can be delivered from all areas of the state to military bases by pipeline, barge or truck. In general, the local refineries supply the naval bases via military barges. Jet fuel is supplied direct to McChord and Fairchild by pipelines. Fort Lewis receives diesel and gas supplies by truck from local suppliers through the Defense Energy Support Center. The deepness of the petroleum supply system in Washington (multiple crude sources, multiple refineries), the simplicity of supply (by barge or pipelines) and the flexibility of the system (multiple, interchangeable transportation alternatives during emergencies) means an unusually secure and reliable supply of petroleum products to military bases in Washington.

Washington is served by two natural gas pipeline networks that give the state ready access to natural gas basins in British Columbia and Alberta, as well as gas basins located in the Rocky Mountain region. Several pipeline upgrades are in progress or have been proposed, and development of Liquefied Natural Gas receiving terminals in the region is being examined, to give the region access to global supplies. Natural gas is primarily delivered by four regulated utilities, though many large consumers buy gas directly from the pipeline companies. The state has two natural gas storage facilities, which are primarily used to insure gas deliverability and smooth seasonal demand. A third storage facility is being developed in Kitsap County.

Washington State's economy has benefited from cost-effective and reliable electricity supplies since the beginning of major hydroelectric development in the 1930's. Hydropower provides seventy-three percent of Washington's electric power. Washington State will continue to be served by increasingly reliable and competitive electric power supplies. The military bases have an advantage of being eligible for direct supply of power from the Bonneville Power Administration, one of the lowest cost sources of electricity in the United States. All of Washington's largest bases, except Ft. Lewis and McChord Air Force Base, have taken advantage of this. Tacoma Power serves Ft. Lewis and McChord, and is also a very low cost supplier since most of its power comes from either BPA or its own low-cost hydroelectric dams.

Communications

The telecommunications industry in Washington State consists of multiple suppliers in a diversified and competitive market. Market conditions are favorable towards economically efficient and technological advanced telecommunications providers. In Washington today, 97% of all households have affordable telephone services. This penetration rate is higher than the national average of 95%. Washington also has one of the lowest monthly flat rates for local residential telephone service. Washington sponsors Washington Telephone Assistance Program, which provides basic telephone service to low income households at a rate of $8 per month.

The 1996 Federal Telecommunications Act provided a framework for the pro-competitive policies being implemented by the Washington Utilities and Transportation Commission (WUTC), which regulate telecommunication providers in Washington State. The WUTC requires local phone companies to allow competitors to serve their customers and, in turn, the WUTC has been able to reduce regulations. Competitors may construct their own facilities or lease unbundled network elements at cost-based rates or resell existing facilities. As a result, consumers have a greater choice of providers and technologies. Competition in the major metropolitan areas is intense.

The Puget Sound region has an abundance of fiber installed and available for use by the military. Most available fiber is controlled and managed by private sector telecommunications organizations, but significant capacity exists. The University of Washington is an anchor tenant on the national large capacity broadband networks.

Water, Septic and Sewer

Water and wastewater treatment facilities are the responsibility of local governments and private providers. The Department of Health and the Department of Ecology have a regulatory role in ensuring safe drinking water and appropriate disposal of waste, while the Department of Ecology oversees water rights. The Department of Community, Trade and Economic Development administers grant programs to assist local governments that invest in infrastructure. The Growth Management Act requires local governments to plan for infrastructure to accommodate growth.

While some of the military bases have their own water supply and waste water facilities, others tie into the local government facilities. According to the Department of Health, most of the larger military installations have approved water supply facilities with some capacity to expand. If expansion of these systems was desired, the Department of Health would work with facility managers on water source and engineering issues. The Department of Ecology would coordinate water rights issues.

Transportation

Washington's multi-modal transportation system links the military installations to each other and to the world. The state has several major investment programs underway to address the mobility needs of the area: including a Sound Transit agency that provides express bus and commuter rail service and is building a light rail system; a Regional Transportation Investment District that is completing plans for major investment in transportation corridors that will be put to a vote of the people; and a series of investments by the Washington State Department of Transportation from the "Nickel Gas Tax" passed in 2003 designed to address congestion points in the system.

Highway Preservation and Safety

Washington has a long-standing commitment to making sure the existing transportation system is well maintained and is safe to use. An investment program started more than fifteen years ago has resulted in 90.7% of highway lane miles being rated in good or better condition. That is a better rating than 39 other states. Highways in good condition are safer, allow more rapid travel, result in less wear and tear on vehicles, and support the heavy trucks and other vehicles that the military uses. A strong maintenance program also reduces the need for preservation investment, which reduces the frequency of lane closures for repaving. An aggressive enforcement program by the Washington State Patrol and educational programs by the Washington Traffic Safety Commission has improved highway safety. Between 1980 and 2002, vehicle miles traveled increased by 92% while the number of fatal and disabling injury crashes has fallen by almost 63%.

Highway Operations and Capacity

Washington State is reducing the causes of congestion, providing capacity improvement and making the most efficient use of the existing transportation system in order to provide mobility to the population. A multi-pronged strategy is making significant progress in this effort.

Blocking incidents on highways cause a large percentage of congestion. The Department of Transportation has incident response teams that are specially trained to respond to incidents in the major highway corridors. They clear the roads by helping drivers with disabled vehicles, restoring the normal flow of traffic as safely and quickly as possible. Roving service patrols also help to spot and report problems immediately and to help motorists who are stranded due to vehicle breakdowns.

The Department also operates an extensive High Occupancy Vehicle (HOV) system that reduces travel time for buses, vanpools and car pools. The system has 198 miles in the Central Puget Sound, with an additional 7 miles being built and 92 miles planned, for a total system (when completed) of 297 miles. The system is designed to reach from Everett to Lakewood, and across the Puget Sound into the Kitsap Peninsula via the Tacoma Narrows Bridge.

Improved driver information is also an important tool. The Department of Transportation operates a web-based information program to provide drivers with travel time estimates in eleven corridors in the Central Puget Sound. The program allows drivers to know with 95% certainty that they will arrive at their destination in the projected time. Better information means better decisions regarding travel routes and departure times.

In 2003, the Legislature passed a 5-cent gas tax increase to add to the existing capacity improvement capital investment program. The program of projects funded in the budget is designed to address the worst "chokepoints" and to make substantial investments in major corridors throughout the state. These projects include significant investment in access to and through Spokane (near Fairchild Air Force Base), improvements on I-90 in the cross Cascade corridor (used by Fort Lewis in transporting troops and equipment to the Yakima Training Center), improvements along SR 20 in Skagit County and Island County, (near Naval Air Station Whidbey Island) improvements in the Everett area (home to Naval Station Everett), projects in Kitsap County (home to Naval Base Kitsap and Puget Sound Naval Shipyard) focused on choke points along SR 16, SR 3 and SR 304, and improvements in Pierce County (home of Fort Lewis and McChord) centered on I-5 and SR 16, just north of the military installations. In addition, SR

18, which is part of the corridor between Fort Lewis and the Yakima Training Center, will continue to be widened for improved mobility and safety. Other projects include improving access from I-82 to the communities in the Yakima area, and major investments in the corridors in Snohomish, King and Pierce County in conjunction with the Regional Transportation Investment District.

Public Transportation

Washington State has a system of locally governed public transit systems. All of the communities near the major military installations are served by transit systems. Island Transit serves Whidbey Island, and provides access between the community and the main gate of Naval Air Station Whidbey Island. Everett Transit likewise provides services to the main gate of Naval Station Everett. Community Transit, with links to Everett Transit, serves Marysville (home of the Marysville Family Support Center) along with the rest of Snohomish County. Pierce Transit provides full service in Pierce County to McChord Air Force Base and Fort Lewis. Military personnel who live in Thurston County can use Intercity Transit to connect with Pierce Transit. Kitsap Transit provides service to the military housing and hospital in the area. It also has a "worker-driver" program for individuals working on the Navy base or at the Puget Sound Naval Shipyard. Mason Transit, serving Mason County near Kitsap County, also offers service to the Puget Sound Naval Shipyard for workers who live in Mason County. Spokane Transit provides full service to Fairchild Air Force Base.

Washington State Ferries

Washington is blessed with a beautiful body of water known as Puget Sound, but with that blessing comes a transportation challenge, as it divides the Central Puget Sound metropolitan area into a west and east side. To provide mobility and access across the Puget Sound, Washington operates the largest ferry system in the United States. It carried over 24.4 million passengers and 10.8 million vehicles with their drivers in FY 2004. Many of the passengers and drivers were military personnel or civilian employees of the Department of Defense. The fleet consists of 28 vessels that operate over ten routes, connecting 20 ferry terminals. The Clinton/Mukilteo route serves Whidbey Island, and provides a south access to the mainland for Naval Air Station Whidbey Island (which also has bridge access to the north). Four routes: the Edmonds/Kinston route, the Seattle/Bainbridge route, the Seattle/Bremerton route and the Fauntleroy/Vashon/Southworth route, serve the Navy installations on the Kitsap Peninsula. The Department's investment program includes new and larger vessels to replace older portions of the fleet and improve carrying capacity, as well as investment in the ferry terminals to lengthen their life and improve services.

Ports and Freight Mobility

The Puget Sound has seven deep-draft ports. The Port of Seattle and the Port of Tacoma together represent the second largest container port complex in the United States. Fort Lewis uses the Port of Tacoma facility for moving equipment overseas. Recently, the Department of Defense has been using the Port of Olympia as an embarkation point for equipment going to Iraq. The Port of Seattle is a designated sustainment port. It would be used to ship consumable supplies to troops in a major regional conflict overseas. The Port, in those circumstances, could handle a peak of up to 1,100 containers on 100 to 350 railcars a day.

Washington State is focused on improving freight mobility. Since 1996, a partnership of public and private sector organizations known as "FAST" (Freight Action Strategy for Seattle-Tacoma-Everett) has worked to streamline the movement of freight through the Central Puget Sound region. Washington also has benefited from major capital investments by Burlington Northern Santa Fe. Washington's Freight Rail Assistance Program improves the capacity and survival chances of branch lines. For example, the state awarded the Port of Olympia a $250,000 grant in 1999 to improve the tracks into the port complex in downtown Olympia. The Army has been using the rail to ship equipment to Fort Lewis. The state also provided funds to the Puget Sound and Pacific Railroad, which serves Bangor submarine base. The Department of Transportation is also working with Fairchild Air Force Base, Spokane County and other partners to design and build a new rail spur that will move the "Geiger Spur" rail line away from the entrance of Fairchild Air Force Base and provide improved freight movement capacity for companies in the area.

Aviation Systems

Washington State has an extensive network of commercial and general purpose airports that provide access to the major military installations in the state. SeaTac Airport is centrally located for the majority

of the military installations, and is expanding its capacity to provide additional service to the region. Spokane International Airport and Yakima International Airport also provide commercial services near significant military installations. Seven of the airports in the state are designated for use in training and for emergency services for national defense, including Ephrata Municipal, Snohomish County, Grant County International, Olympia, Tri-Cities, Boeing Field and Spokane International Airport.

Transportation Planning with the Military

Washington has a strong transportation planning partnership with the military installations. Fairchild Air Force Base, for example, was involved in the development of the Airways Heights Transportation Plan and the US 2 Route Development Plan. Fort Lewis and McChord Air Force Base are involved in the planning for the Cross-Base Highway and Fort Lewis was involved in the SR 507 Route Development Plan. The Navy installations on the Kitsap Peninsula were involved in the SR 303 Bremerton to Silverdale Study, the Hood Canal Bridge Closure Mitigation Study and the SR 104 Improvement Study. Naval Air Station Whidbey Island participated in the SR 20/Regatta Drive intersection project and the SR 20 Sharpes Corner to SR 536 Safety Study. The military installations also participate in the state's regional transportation planning organizations' planning efforts as appropriate.

Environment

The Department of Ecology and the Department of Fish & Wildlife are the two primary state agencies working in partnership with the military installations to protect the air, land, water and habitat resources at the military installations. This cooperative relationship is based on common environmental goals shared between the state and federal government.

Under the Model Toxics Control Act, the Department of Ecology oversees the cleanup of most Department of Defense sites in the state. Many of the installations are on the National Priorities List Superfund as a result of significant historic problems in managing waste. The cleanup work is, by and large, centralized at Ecology's headquarters to ensure uniform application of laws and coordinated approaches. The Air Quality Program coordinates with local air pollution control agencies, which have primary responsibility for air quality. The local air pollution control agencies work closely with the installations to protect air quality while allowing necessary military operations and training. Obscurant training has received special attention. The Puget Sound Clean Air Agency has amended its regulations to allow such training at Fort Lewis, and Ecology issues annual variances for the Yakima Training Center. Ecology also works with the military installations to provide technical assistance in meeting motor vehicle emissions standards. Ecology conducts annual inspections of the installations to verify proper management, treatment, storage and disposal of hazardous and dangerous waste. The regulation of solid waste is delegated to the local jurisdictional health departments, with Ecology providing oversight and technical assistance. Under state law, Ecology responds to spills at most military installations. A "Partners in Prevention" memorandum of agreement has been signed with the U.S. Navy, addressing cooperative oil spill management and giving Ecology access to Navy vessels during spill incidents. Ecology works with the regulated facilities, completing oil spill drills and working on other planning functions. Water quality issues involving the military installations and Ecology are generally limited to groundwater protection. The EPA authorizes discharge to surface water on federal lands under the Clean Water Act. Ecology is charged with protecting the beneficial uses of groundwater. Ecology permits discharge to groundwater through a state waste discharge permit to some installations, and also registers underground injection control wells.

The Department of Fish & Wildlife enjoys a close working relationship with the military installations. The installations play an important role in individual fish and wildlife projects and partnerships, and help protect habitat for wild species. For example the military installations are not required to apply for a state Hydraulic Project Approval permit. Due to the cooperative working relationship, the military installations apply for an HPA for projects that will be conducted in or near the waters in the state. This cooperation enables the Department's habitat biologists to work with resource and engineering staff at military installations providing information and technical assistance on projects, in many cases resulting in the incorporation of the advice into plans for facility development.

Numerous examples of the working relationship between the military installations and the Department could be cited, but a sample of those include:

- Naval Station Everett has allowed and participated in surveys for many wildlife species in the old-growth forest at the Jim Creek Radio Facility outside of Arlington.

- Fairchild Air Force Base sponsors an annual youth fishing day with the Department on the land around Clear Lake; and many personnel are instructors in the Department's Hunter Education Program.
- Fort Lewis and McChord Air Force Base provide the largest contiguous tracts of Oregon White Oak woodland and prairie in western Washington. Fort Lewis has engaged with the U.S. Fish and Wildlife Service and state and local agencies to develop a Candidate Conservation Agreement for protection and management of specifics at-risk in the oak woodland-prairie landscape.
- Naval Air Station Whidbey Island supports the Department's Wildlife Program activities including base access and participation in the Harlequin Duck banding and Marine Mammal education. Department staff have also been allowed on-base access to study Great Blue Heron colonies and for shoreline aerial surveys.
- Yakima Training Center is a valuable habitat for a diverse array of wildlife species that are dependent on shrub-steppe. The Department and the Center work together to study the habitat and wildlife and to make sure that they are protected while the operating and training needs of the military are accommodated.

Historic Preservation

The Department of Community, Trade and Economic Development works with all of the military installations to identify, evaluate and protect cultural and historic properties. The federal National Historic Preservation Act is the principle vehicle for this work, which includes a requirement that federal agencies consider the effect of their actions on properties listed in, or eligible for listing in, the National Register of Historic Places. Since the properties listed in the National Register are typically 50 years in age and older, and many of the buildings and structures on the military installations are of historic significance as well as meet the age threshold, the Department works closely with the military installations.

Fort Lewis oversees a rich and diverse range of cultural and historic resources, ranging from intact archaeological sites dating to thousands of years in age to archaeological sites associated with the historically significant Hudson's Bay Company and the Puget Sound Agriculture Company. Fort Lewis is also home to architecturally and historically significant buildings and structures. The installation has a well-established and capable cultural resource management staff. The Department enjoys a close working relationship with the Fort Lewis cultural resource staff, and the installation also has established a good working relationship with the Nisqually tribe.

The Air Force has episodic contact with the Department. McChord Air Force Base relies on consultants, while Fairchild Air Force Base relies on a combination of a contact person on staff, consultant expertise and a working relationship with the Spokane County historic preservation officer. Both installations have a productive working relationship with the Department.

The Navy has several installations throughout the Puget Sound, and uses a combination of Navy Region Northwest staff, consultants and on-site staff according to the amount of historic preservation work. Naval Air Station Whidbey Island, for example, uses the Naval Facilities Engineering Command in Poulsbo or consultants, and historic preservation work has been limited to the Seaplane Base at Oak Harbor and the Out Lying Field Coupeville. The Naval Undersea Warfare Center at Keyport has a very rich history, resulting in an active working relationship with the Department. The Puget Sound Naval Shipyard at Bremerton likewise has a long and proud history and historic properties to match. PSNS employs a staff person specifically detailed as the contact person on historic preservation matters. The Department enjoys a close working relationship that focuses on preserving the many buildings and structures of architectural or historic significance. The Bangor Submarine Base portion of Naval Base Kitsap and Naval Station Everett do not have significant historic sites because of the age of the bases.

Health Systems

The Washington State Department of Health has a mutually beneficial working relationship with the military installations, focused on emergency response capability. The Department works with the Puget Sound Naval Shipyard and Naval Base Kitsap to plan for and respond to onsite accidents involving nuclear material, and to receive support from the Navy in planning for and responding to radiologic incidents external to the installations. The Department of Health, the Military Department and the Department of Ecology are working with the Navy to conduct joint radiological emergency response

exercises beginning in the fall of 2004. The Department is also working with Fort Lewis and Madigan Army Medical Center to conduct environmental surveillance of biological, chemical and radiological agents. The Department's public health laboratory is involved with sampling efforts. The Department is also developing a cooperative agreement with the Fort Lewis Safety Office that would provide the Department expanded training opportunities with the military, as well as provide for mutual assistance similar to the arrangement with the Navy. The Department is working with entomologists at Fort Lewis to monitor the mosquito population during the spring and summer, which is important given the risk of West Nile Virus. The Department's food safety program assists the military with training. Finally, the Department has an informal arrangement with the Military Laboratory at Madigan Army Medical Center to provide mutual surge capacity.

WASHINGTON'S SUPPORT FOR MILITARY PERSONNEL AND THEIR FAMILIES

Education

The K-12 System

Washington State adopted the Education Reform Act in 1993, which marked a commitment by the state to increasing education standards and expectations for all public school students. Academic standards that challenge all students to solve problems, communicate and think critically are in place across all grades and content areas. The Washington Assessment of Student Learning (WASL) is a nationally recognized assessment system that gauges student, school and community progress in reaching the standards. Accountability goals for reading and mathematics have produced strong achievement gains. Washington has set its standards high, and held to that standard over the years. Washington's teaching force is among the most highly qualified in the nation. Approximately 99% of Washington's 57,900 teachers are fully certificated. Rates of teaching "out of field" are very low.

Improving math and science education is a central focus of the state's education reform efforts, relying on collaborations among school districts, state government, corporations and private partners. Math and science achievements are on the rise. Leadership and Assistance for Science Education Reform, or LASER, is an ongoing Washington effort in more than 80 school districts to improve science education. LASERS helps school systems fundamentally and comprehensively overhaul science teaching and learning.

Without a strong foundation in reading, students cannot succeed in other content areas. Literacy is a priority at every level, including high school. Washington has made a long-term commitment to improving reading through programs including Washington Reads (aimed at low-performing schools), Washington Reading Corps (a public-private partnership that identifies and trains reading tutors) and Washington State Reading Initiative (a pre-K through 16 initiative to scale up research-based reading success in every school).

All students are expected to graduate from high school with the skills and knowledge needed for opportunities and economic advancement. Washington is committed to awarding high school diplomas only to students who have met state standards in reading, writing, mathematics and science.

Washington has a record earned through objective test results. In 2002, 54% of Washington high school students took the College Board's SAT examination, putting Washington in the top tier of all 50 states. Of the states with more than 50% participation, Washington has the highest math and verbal scores. In the state's WASL examination, student performance on the 4th grade mathematics assessment has more than doubled since 1997. Washington's students perform significantly higher than the national average in reading and mathematics on the Iowa Test of Basic Skills (ITBS). More than 60% of Washington's third-graders and about 55% of sixth-graders perform higher than the national average in both reading and mathematics.

The schools districts near the military installations serve families both living on base and off base. A few are highlighted in this section just as examples of the educational programs and outreach efforts. Kitsap County school districts teach many of the children of the men and women serving at Naval Base Kitsap and the Puget Sound Naval Shipyard. The schools provide the full range of educational opportunities, including advance placement college programs, special education and gifted education programs, career and technical education and programs such as Running Start (earning college credit while in high school) and Jump Start (earning high school credit while in junior high). The schools participate in programs

involving partnerships with military installations, including Personal Excellence Through Cooperative Education (PECE), a partnership with Trident Training Facility to provide hands-on instruction for fifth graders, and Partnerships with Navy Fleet and Family Support Centers to provide counseling to military children who have a parent deployed.

The Clover Park School District teaches many of the children of the men and women serving at Fort Lewis and McChord Air Force Base. Clover Park students have an excellent academic record, with 92 of 453 students graduating in 2004 being honor graduates and 188 award and scholarship recipients. The district offers advanced placement classes. Clover Park is a member of the Military Child Coalition, and also is a signatory of the Army's Secondary Education Transition Study's Memorandum of Agreement. This program provides a common structure for information-sharing and reciprocal processes. Oak Harbor serves Naval Air Station Whidbey Island families. In fact, 56% of the students have parents at NASWI. The school district offers advanced placement classes; the high school juniors and seniors perform exceptionally well on SAT tests, and the district's WASL scores are at or above the state average. Each school has a partnership with two or more squadrons or departments at the base, and the Navy's Morale, Welfare and Recreation Department operates a before and after school daycare program at each elementary school. Communication efforts include annual training for school district administrators and counselors on issues relevant to Navy families, monthly ombudsmen meetings on the Navy base and tours of the Navy facilities for new school district staff to familiarize themselves with operations of the base and the needs of families. Medical Lake School District serves families stationed at Fairchild Air Force Base. A new elementary school was recently completed on the base. It was built with a six million dollar grant from the Department of Defense and four million eight hundred thousand matching appropriation from the state. The staff at the elementary school provides many programs and services to military families and their children, and provides an exemplary curriculum in the basics of reading, writing, mathematics, science and social studies. The school offers programs to assist students that may be struggling in reading, writing and/or mathematics. The middle school and high school likewise provide a supportive learning environment to the students from the base. Advanced placement classes are offered to improve student preparation for college.

The Community and Technical College System

Washington's community college system makes education affordable and within easy access of students, focusing on employers' needs for a highly skilled workforce. The 34 community and technical colleges offer a wide range of education programs, including job training, college transfer courses, basic skills, high school completion, and GED preparation. The colleges are conveniently located through campuses and extension sites, and courses are available via video and the Internet. Courses are offered with day, evening and weekend options. The college system offers some 1,000 vocational education programs leading to employment in hundreds of occupations. Employers work with the colleges to ensure that the skills students learn meet their needs. Students also have opportunities in many programs to attend school while working in their chosen field. Many students who attend community colleges enter transfer programs that provide the first two years of a bachelor's degree program. The students then transfer to a four-year institution to complete their undergraduate students. Military personnel and their families are eligible for in-state tuition status.

While all of the community colleges are open to members of the military and their families, several of the community colleges are in close proximity to the military installations in the state and have developed close working relationships.

Bates Technical College in Tacoma offers 44 programs leading to degrees and providing training for more than 350 careers. The college provides a carpentry program at Fort Lewis and fire fighter training at McChord Air Force Base.

Clover Park Technical College in Lakewood offers training in over 80 degree and certificate areas. The college has off-campus training sites at Fort Lewis.

Everett Community College provides on-site enrollment advice services at the Naval Education Center and works with military personnel to facilitate the tuition assistance programs provided by the military. It also maintains a Veteran's Affairs Office. The college is a member of the Servicemember's Opportunity Colleges, to ensure that credits earned by military personnel at other colleges and universities are accepted at Everett Community College, and visa versa.

Olympic College in Bremerton is a Servicemember's Opportunity College and hosts the largest Federal Apprenticeship Program in Washington State. The college has also been designated a homeport training activity, one of only a few in the nation. The college participates in the Defense Training and Education College Consortium, and is expanding its distance learning programs.

Pierce College District has two colleges, one at Lakewood and one at Puyallup. It works in partnership with both the Fort Lewis and McChord Air Force Base Education Centers to support the military personnel and their adult family members. A memorandum of understanding between the college and both military installations implements a program that supports the educational objectives of the military personnel. The program includes distance learning and on-line courses, and involves participation in eArmyU, Army University Access Online.

Skagit Valley College has a campus in Oak Harbor, and offers a variety of technical degrees and certificates. The college also offers a wide variety of classes online, including the Associate in Arts University and College Transfer Degree. The college is a Servicemember's Opportunity College.

South Puget Sound Community College in Olympia has a campus in Lacey, within driving distance of Fort Lewis and McChord Air Force Base, and the many personnel that live in the Lacey area. The Center for Continuous Learning provides training and consulting services in a number of computer-related careers, and the Washington Certified Public Manager Program is a nationally recognized certification program. The college has worked with Fort Lewis to provide computer and fire-fighting classes.

Spokane Community College is one of the largest professional/technical community colleges in Washington State, offering degree and certificate programs in over 90 fields. Spokane Falls Community College, the other community college within close proximity to Fairchild Air Force Base, emphasizes pre-major and liberal arts instruction and is among the top three community colleges in the state in number of students who transfer to four year universities.

The University System

Washington has six public universities, plus a number of distinguished private universities, providing a comprehensive program of higher education from the bachelor's level through doctorate degrees. Military personnel and their families are able to access programs on these campuses, many of which are within commuting distance to the major military installations in the state. A number of the public universities and private institutions belong to the Serviceman's Opportunity College network. All of the major public campuses and several of the private institutions provide Reserve Officer Training Corps programs. In addition to the full campus programs, two of the public universities have specialized centers located in cities near the military installations; these centers extend access to higher education for place-bound students who cannot commute to a campus that may be a 30 or 45 minute drive. For example, Central Washington University offers engineering technology and law and justice programs at Steilacoom, near Fort Lewis and McChord Air Force Base, and business, technology and organizational development programs at Lynnwood near Naval Station Everett. Western Washington University offers programs at Bremerton, Oak Harbor and at Everett. The University of Washington at Tacoma recently entered into an agreement with the United States Army Recruiting Command, Pierce College and South Sound business organizations to work together to recruit residents to service in the Army while providing them an education that will also be of use when they return to Washington's civilian work force.

Employment

Washington has a strong, diverse economy, providing many job opportunities for family members of active duty military personnel stationed in this state. Most of the military bases in Washington are located near the large urban area in the Central Puget Sound and family members of active duty military personnel at these bases can participate in the Everett-Seattle-Tacoma metropolitan area labor market. Family members stationed at Fairchild can access the largest labor market in eastern Washington in Spokane County. Long-term county-level labor market projections suggest expansion of the Central Puget Sound and Spokane labor markets, providing many opportunities for family members of military personnel stationed in Washington.

Washington's Employment Security Department tracks employment trends and projects future employment out to 2012 for the state and for individual counties. The trends for the state track the national business cycle. Employment in Washington grew by 38% from 1982 to 1992, compared to 21% for the nation. From 1992 to 2002, employment in Washington grew by 18% compared to 20% for the

nation. The recession of 2001 has ended, and Washington's major industries are growing. From 2002 to 2012, employment is projected to expand by 17% in Washington and 15% in the US as a whole.

Family members of personnel stationed in Kitsap County have access to a growing labor market in Kitsap County, as well as the larger and expanding market in King County. From 2002 to 2012, employment is expected to expand by 15% in Kitsap County and 17% in King County. Naval Station Everett families have access to a growing labor market in Snohomish County, which is expected to expand by 17% between 2002 and 2012. King County, next door, is also a viable labor market for families living in Snohomish County. The families of personnel stationed at Naval Air Station Whidbey Island have access to a relatively small labor market in Island County, but many Island County residents commute via a short ferry ride to Snohomish County to access a labor market ten times the size of the Island County market. Employment is projected to expand by 14% in Island County. Island County residents can also access the Skagit County labor market, which is just to the north and twice the size of the Island County labor market. Family members of personnel stationed at bases in Pierce County can access growing labor markets in Pierce, King and Thurston counties. From 2002 to 2012, employment is projected to expand by 17% in Pierce County and 19% in Thurston County. Family members of personnel stationed at Fairchild Air Force Base can access an expanding labor market with over 200,000 jobs. Spokane County employment is expected to expand by 17% between 2002 and 2012.

Families of military personnel and veterans seeking employment have access to the free WorkSource Center services of the Employment Security Department. The Department has 30 WorkSource Centers strategically placed throughout the state. They provide all the information, technology and services necessary to match up businesses and job seekers. The services are delivered to customers through self-directed efforts such as kiosks or via the Internet, group programs and activities such as workshops, one on one consultations, and training programs and business consultations. Job seekers have free use of computers, copiers, phones, faxes and other career resources. They also have Internet access to jobs, job referral and placement assistance, classes on how to get and keep a job, and information on the fastest growing jobs and wages. In addition, at least one Local Veterans Employment Representative and one Disabled Veterans Outreach Program Specialist staff most WorkSource Centers. The LVER representatives and Disabled Veterans Outreach Program Specialists maintain regular contact with community leaders, employers, labor unions, training programs and veterans' organizations to keep them advised of veterans and other eligible persons available for employment training and to keep veterans and eligible persons advised of opportunities for employment and training. Employment Security also hosts or assists in Veteran Job Fairs.

The Employment Security Department and the Navy are working on a Memorandum of Understanding that would have the Department assume the employment service role that was heretofore provided by the Navy on base. The Navy would provide space on base for the Local Veterans' Employment Representative and the Disabled Veterans' Outreach Program representative, who would provide all the services currently offered to the public at large at the WorkSource Centers. The services would be offered to active duty and retired members of the Navy, as well as their spouses and teenage or older children. The Department has begun offering the services in anticipation of the memorandum being signed.

Workforce Training and Credentialing

A key aspect of employment opportunities is access to workforce training and professional or occupational credentials. Washington State's Workforce Training and Education Coordinating Board examines postsecondary vocational programs to ensure they meet the requirements of federal veterans benefit programs and is responsible for veterans' course approval for private career school programs and for public community and technical colleges. The WTECB oversees Skill Panels, which engage business and industry in strategies to close the skill gaps in Washington State. Examples of Skill Panels coordinating efforts with military organizations include:

- The Pacific Mountain Health Care Skills Panel is working with partners to assess and create transition plans for military personnel, starting with Combat Medical to Practical Nurse and Registered Nurse.
- The Tacoma-Pierce Health Care Alliance includes partners from Madigan Hospital, who participated in labor-management committee meetings during the development of the Health Unit Coordinator and Computed Tomography/Magnetic Resonance Imaging registered state apprenticeships.

- The Olympic Health Care Alliance acts as facilitator for the Olympic College and the "Navy College" that serves Navy Base Kitsap to improve transitions for armed forces trained personnel, and plans to develop articulation agreements between Navy medical training and Olympic College's health care programs.

Professional licensing could be a barrier to a smooth transition from military service to civilian work, but Washington's commitment to reciprocity and national examinations allows military personnel to obtain licenses with a minimum of effort. There are a few military healthcare designations that do not directly equate to a licensed profession, such as the Army MOS 91-W, which does not directly equate to either an LPN or RN license, but may fit into a civilian nursing occupation. A workgroup that includes the Executive Director of Nursing Quality Assurance Commission is working on this issue and considering options to allow veterans to use their training and experience to qualify them for work in the health care sector.

Housing

The Department of Community, Trade and Economic Development provides state and federal funding to non-profit housing authorities and tribal governments to create and preserve affordable housing statewide. The Housing Trust Fund has made significant investments in multifamily housing developments in areas near military installations, including Pierce, Thurston, Kitsap, Jefferson, Mason, Island and Spokane counties.

Recently, the Department assessed the housing availability for military personnel to better inform state and local policy makers regarding the status of that sector of the housing market. The assessment found that substantial private housing markets exist near all of the military installations in Washington, providing units that are accessible to active duty military personnel who desire off-base housing. Four representative service ranks were chosen to capture the range of personnel and income levels of active duty personnel who may be seeking off base housing. The four ranks were:

- E-4, (Corporal, Petty Officer 3rd Class, Sr. Airman) with 4 years in the service; base pay $1,814 per month.
- E-6, enlisted (Sergeant, Petty Officer 1st Class, Technical Sergeant) with 12 years in the service; base pay $2,596 per month.
- O-3, officer (Captain, Lieutenant) with 4 years in the service; base pay $4,027 per month).
- O-4, officer (Major, Lt. Commander) with 10 years in the service; base pay $5,138 per month.

Private housing markets appear to provide an adequate supply to meet the housing needs of military families who wish to live off base, except perhaps in the case of Island County, which has nearby Skagit County as an additional housing market.

As the services move toward privatization of many services including housing, the adequacy of the local private housing markets will be increasingly important. Washington's communities are well equipped to meet these challenges, with active private markets, development capacity, and public programs to assist low-income households. All of the counties housing major military installations in Washington are subject to the Growth Management Act. County plans must provide for adequate zoned capacity to meet ten year housing demand forecasts. Counties housing military bases consider demand originating from the base personnel as well as residents in these counties not linked to the military population.

Health and Human Services

Washington's private sector health care providers work with the military installations to supplement the care provided by the military. Spokane's Sacred Heart Medical Center and Empire Health Services have provided in-patient hospital services for active duty and civilian employees at Fairchild since the base hospital evolved into a medical clinic. Everett's Providence Everett Medical Center is only blocks away from Naval Station Everett, and provides the full range of health care services to military personnel and their families. In Kitsap County, a number of health care providers support Naval Hospital Bremerton's delivery of health care services, including Harrison Hospital, a not-for-profit, acute care community hospital with three campuses serving Kitsap County, a multi-specialty group practice, a large regional health maintenance organization, and a non-profit community mental health center. Island County is served by Whidbey General Hospital, which is owned and operated by the Whidbey Island Public Hospital

District. The hospital's services include two rural health community clinics. The hospital provides in-patient, out patient, medical, surgical, pediatric and obstetrical services.

The state has a strong local public health district system that provides traditional public health services to all residents, regardless of whether they are active military or civilian. The districts also work in partnership with the military hospitals as needed for communicable disease control and in coordinating emergency response preparedness.

The Department of Health provides immunization services through private health care providers that military personnel and their families are eligible for if they don't already obtain the service on base. The Department also operates the Women, Infants and Children Services, which provides special nutritional support for the personnel and their dependents in partnership with the military medical clinics and commissaries in the state.

Washington State's Department of Social and Health Services also provides a number of "safety net" programs in the form of food and medical assistance to individuals regardless of whether they are serving in the military or are civilians.

THE ECONOMIC IMPACT OF THE MILITARY INSTALLATIONS ON WASHINGTON STATE

The Office of Financial Management conducted a study in 2004 to assess the economic impact of the major military installations on the state and the communities in the vicinity of the installations. The study included: Fort Lewis, McChord Air Force Base, Naval Base Kitsap, Undersea Warfare Center at Keyport, the Northwest Regional Maintenance Center (Puget Sound Naval Shipyard and Bangor Intermediate Maintenance Facility) Naval Station Everett, Naval Air Station Whidbey Island, Fairchild Air Force Base and Yakima Training Center. These facilities are the worksites for more than 83,000 military and civilian personnel, with a $3.7 billion annual payroll. The bases purchase a variety of goods and services from in-state vendors, and they generate significant economic impacts throughout the state, including $174 million a year in King County, which is 42% of the total procurement by the bases from within the state. Both statewide and local impacts were estimated in the study, and total more than $7.2 billion in total labor earnings when multiplier impacts are taken into account. On the order of 5% of all economic activity in Washington State is due to the impacts of the major military bases located in the state. At the county level, the proportion of all activity dependent on the military bases is much larger for three counties: 88% of Island County, 54% of Kitsap County and 30% of Pierce County.

Direct employment at the military bases varies in both size and degree of impact. Pierce County has the largest number of uniformed and civilian personnel serving on its bases, at 34,624, representing 14% of the county's labor force. Kitsap County is a close second in number of personnel, with 27,375 employed; but the impact is much greater due to the population of Kitsap County. The Navy bases in Kitsap County represent 36% of the labor force. On the other hand, even though Island County's military-related employment is much lower, at 10,066, that figure represents 68% of the island's labor force. Snohomish County and Spokane County have substantial work forces on the military bases, at 4,517 and 6,262 respectively. Yakima has a significant workforce of 500 uniformed and civilian personnel at the training center.

The study found that health care services are not only provided by the military hospitals and clinics in the area, but also through private providers who are paid under the TRICARE program. Payments to health care providers in Washington State amounted to $116 million in 2003. Pierce County providers received $31.1 million in reimbursement; Spokane County providers received $30.9 million; Kitsap County providers received $18.6 million; Snohomish County providers received $17.5 million; Island County providers received $14.1 million, and Yakima County providers received $3.8 million.

The study included retired military personnel pensions. Because there is an on-going relationship between many of the retirees and the bases, and many active duty personnel seek a last posting before retirement in a region of the county in which they want to retire – and Washington bases are a popular choice. Pension payments in this state in 2003 totaled $1.153 billion. Payments to Pierce County residents totaled $524.9 million, Kitsap County residents totaled $253.9, Spokane County residents totaled $145.1 million, Snohomish County residents totaled $138.1 million, and Island County residents totaled $91.1 million.

Washington companies conduct a substantial amount of business with the military installations in the state. In 2002, Washington companies sold $528 million worth of goods and services to the military installations located in Washington. Of that amount, ten companies conducted $288 million worth of the business. Forty-four companies received 100% of their revenue from business with the military installations, while another 66 Washington companies received between 25% and 100% of their revenue from the bases. The database examined by the Office of Financial Management revealed 424 companies doing business with bases in Washington, distributed among 21 counties.

The total impact of the military installations includes both direct and indirect earnings and employment. The Office of Financial Management determined the impact of $187,900 jobs and a total impact on labor earnings of $7.24 billion. The largest employment and payroll was in Pierce County, with $87,534 jobs and a payroll of $3.37 billion. Kitsap County has 53,835 jobs related to the military installations in the state, with a payroll of $2.01 billion. Island County had 20,141 jobs with a payroll of $775 million; Spokane County had 13,797 jobs with a payroll of $585 million; and Snohomish County had 11,877 jobs with a payroll of $474 million. Yakima County, which has the Yakima Training Center, had 709 jobs and an annual payroll of $22 million.

CONCLUSION

Washington State has policies and partnerships in place that support the missions of the military installations within the state, and provide an excellent home for military personnel and their families. The nation and state benefits from the value the military installations add to the national defense, and the state benefits both from the economic value derived from the installations and the contributions of the military personnel and their families to Washington's social fabric. The relationship between the state and the military is well developed, and will continue to be nurtured both at a statewide level and on an agency-by-agency, installation-by-installation basis.

INTRODUCTION

This report is intended to provide information to federal, state and local policy makers regarding the value of Washington State and the military installations located within the state to the national defense. It is also intended to show the myriad of ways in which state and local agencies work in partnership with the military installations and support - directly and indirectly - the operations of the installations.

Washington State and its military installations form an ideal platform for projecting power throughout the Pacific Rim and many other parts of the world. Washington's location places the military in close proximity to Asia and Europe, and the diversity of its geography and climate provide all branches of the military a full range of training opportunities. The military installations themselves are suited for a wide range of missions; their close proximity to each other creates opportunities for joint training and operations. The value of Washington's military installations to the national defense is reason enough for federal, state and local policy makers to work closely with the military installations in the state.

But Washington's military installations also have a tremendous economic impact on the state. The direct and indirect annual earnings within Washington State generated by the military installations operations are $7.2 billion. Approximately 188,000 jobs are created. The economic impact is not limited to the counties in which the installations are located: in fact, 21 of the state's 39 counties have companies that do business with the military bases.

Washington's policy decisions in support of investment in energy, communications, transportation, environmental protection, historic preservation, and public health each influence the ability of the military installations to carry out their missions, as is shown in this report. The consultative partnerships formed between agencies and installations have formed a positive working relationship that strives to meet both the operational needs of the military and the policy goals of the state.

Washington not only supports the operations of the military installations, it also supports the military personnel and their families. The excellence of Washington's education system and workforce development programs, and Washington's inherently strong economic advantages creates opportunities for the military personnel and their families to enjoy careers both in and out of the military. A strong housing market provides a viable alternative to living on base, which supports both the goal of reducing operational costs for the military and the interest families have in being able to live in the community.

The state views the military as a major sector of the economy. The Joint Committee on Veterans' and Military Affairs conducted extensive tours and hearings in 2003 to gain a "big picture" view of the role of the military in this state and the policy areas of interest to the military. The Governor's Office continued that work with an in-depth inventory of the many ways in which the state regulates or partners with the military installations, and by forming a state agency work group that meets periodically to discuss issues.

The information in this report is a reminder to policy makers at the state and local level that the military is affected by a wide range of policy decisions made by the Legislature, state agencies, and local governments and districts. The military is a stakeholder to be consulted and considered when state and local governments are making decisions that affect its ability to carry out its mission.

WASHINGTON STATE'S GEOGRAPHIC ADVANTAGES FOR FORCE PROJECTION, MILITARY TRAINING AND OPERATIONS

Washington's Ideal Location for Total Force Projection

As the United States military transforms to meet future challenges, hard choices must be made on where to station forces. Tomorrow's military will most likely not fight from its home bases, but will travel to wherever they are needed to accomplish the mission. To do this, the Department of Defense needs to locate its forces where they can best be deployed by air or sea from garrison and training facilities that have adequate ground and air space to train for any potential contingency. Current facilities may also be called upon to serve different or evolving missions in the future. Washington offers a unique combination of access to transportation with climate and terrain suitable for training, and a growing dedication to ensure that military facilities are not compromised by encroachment so that they can continue to fulfill their missions.

As seen by its position at the forefront of Asian trade, Washington is a vital nexus of air, sea, rail, and road services for transporting goods throughout the Pacific Rim. The bases currently in Washington are perfectly situated to project power throughout the Pacific Rim and to support military operations anywhere in the rest of the world.

Existing Washington Based Forces Available to Project Power

Washington is currently home to five missions that project the power of the United States throughout the world. One of the two ballistic missile submarine bases in the United States is located at Bangor. The US Navy has two aircraft carriers and a destroyer squadron based in Puget Sound, and the center for both Navy and Air Force combat electronic warfare is located on Whidbey Island. The US Army has a Ranger battalion and a Special Forces Group located at Fort Lewis. Also located at Fort Lewis are two Stryker brigades, with a third brigade arriving in the near future.

The Stryker brigades are the latest addition to the Army force structure. Of the six brigades that are planned to be in the Army, two are currently based at Fort Lewis and another will be equipping and training there in the next federal fiscal year. The Stryker brigades are well-protected, highly mobile and deployable units able to serve anywhere in the world.

The Ohio-class submarines at Bangor are part of the nuclear deterrent force. In addition, some units are being converted to be cruise missile carriers and to possess the ability to clandestinely deploy special force units.

The aircraft carriers and destroyer squadron are one-third of the aircraft carrier strike capability in the Pacific Fleet. They represent the ability of the United States to project power both on the high seas and in the air throughout the world.

The Rangers and Special Forces are elite units with ability to deploy anywhere at anytime. The Special Force group based at Fort Lewis is specifically trained for operations in Asia. The Ranger battalion is one of three in the army and is an elite light infantry unit capable of both conventional and special operations.

While Fairchild Air Force Base does not currently have units assigned that are capable of directly projecting power, it does retain that capability. Through its history the base has hosted bomber squadrons under Strategic Air Command and Air Combat Command, and it retains the infrastructure needed to support bomber units if they were reassigned to Fairchild.

With these combat forces and the lift capability that is also based in Washington, the United States has in Washington the ability to jointly train, deploy, and if necessary, fight with units that have had the opportunity to practice working together on a continual basis.

Support Forces that Project Power

There are military missions in Washington that play a supporting role not only for the missions located in the state but also throughout the rest of the country. Fairchild Air Force Base is one of three dedicated aerial refueling bases in the nation and McChord Air Force Base hosts a wing of C17 Globemaster IIIs, the latest addition to the strategic airlift fleet the US Air Force maintains. Also located at the Port of Tacoma are two National Reserve Fleet sealift ships capable of transporting military equipment throughout the world. Aerial refueling capabilities from Fairchild extend the range of both combat and transport aircraft, allowing units in transit to travel farther before having to land. If deployed to a combat theater, the tankers continue to serve in a force multiplier role. The C17s based at McChord Air Force Base can not only deliver almost all the equipment in a Stryker brigade, they can also parachute Rangers into combat throughout the world. This ability allows the Army units in Washington to rapidly deploy worldwide. The Reserve Fleet ships and facility at the Port of Tacoma provide the ability to transport military equipment to ports the world over.

Airlift

With both McChord Air Force Base and SeaTac International Airport in close proximity to Fort Lewis, Washington provides an excellent platform for transporting troops and equipment throughout the world. McChord Air Force Base has the ability to receive the C5 Galaxy, the highest capacity transport aircraft in the Air Force inventory. SeaTac can easily accommodate aircraft from the Civil Reserve Air Fleet (CRAF) to assist in the movement of troops either to Asia flying the Great Circle Route or to Europe flying the Polar Route. The aerial tankers from Fairchild enhance this capability by being able to extend the range of military aircraft through in-flight refueling.

Below is a table showing the flight times of C17s from McChord Air Force Base to locations throughout the world as compared to other points of departure for Army units.

Flight Times of C17s from McChord AFB

	Tokyo	Seoul	Taipei	Singapore	Berlin
Ft. Lewis	10.7h	11.5h	13.5h	18h	11.3h
Ft. Benning	15.4h	16.0h	18.0h	22.3h	10.7h
Ft. Bliss	13.6h	14.5h	16.4h	20.9h	12.4h
Ft. Bragg	15.5h	15.9h	17.9h	22.0h	9.9h
Ft. Campbell	14.7h	15.3h	17.3h	21.6h	10.4h
Ft. Carson	13.0h	13.8h	15.8h	20.3h	11.4h
Ft. Dix	15.1h	15.4h	17.4h	21.3h	9.0h
Ft. Drum	14.5h	14.7h	16.8h	20.7h	8.6h
Ft. Eustis	15.4h	15.7h	17.8h	21.7h	9.4h
Ft. Hood	14.5h	15.3h	17.3h	21.8h	11.9h
Ft. McCoy	13.6h	14.1h	16.2h	20.4h	9.8h
Ft. Polk	14.9h	15.7h	17.6h	22.1h	11.5h
Ft. Riley	13.7h	14.4h	16.4h	20.8h	10.8h
Ft. Sill	14.0h	14.8h	16.7h	21.2h	11.5h
Ft. Stewart	15.7h	16.2h	18.3h	22.5h	10.5h
Ft. Wainwright	7.9h	8.4h	10.5h	14.9h	9.5h
Schofield Barracks	8.6h	10.1h	11.2h	15.0h	16.3h

Source: Matt Ojennus, Military Community Assistance Coordinator, Department of Community, Trade and Economic Development

Fairchild Air Force Base is also an integral part of airlift operations. With the aerial refueling tankers currently based there, Fairchild can support the transit of military cargo planes and combat aircraft to locations around the globe. The tankers can also be deployed to support transit operations in areas that do not have aerial refueling capability or to support combat operations. The base itself has the ability to handle any aircraft in the Air Force, and possesses, in conjunction with Spokane's Geiger Airport, the surge capacity to allow large flights of planes to form up at Fairchild, or to use as an emergency land facility without interfering with the operations of the base.

Sealift

With many deep water ports in Puget Sound, Washington can ably accommodate military sealift operations.

Fort Lewis' Seaport of Departure is Tacoma, which is the second closest of any port of departure to its associated army base (see table below). This means that units based at Fort Lewis can be at sea much quicker than almost any other combat force in the Army. Below is a table showing the distances that military equipment must be transshipped between its home station and its port of departure.

Distances military equipment must be transshipped between its home station and port of departure

Base	Distance (miles)
Fort Lewis	18.94
Fort Benning	258.22
Fort Bliss	792.64
Fort Bragg	231.21
Fort Campbell	653.51
Fort Carson	1753.76
Fort Dix	58.48
Fort Drum	353.85
Fort Eustis	35.84
Fort Hood	288.04
Fort McCoy	1135.09
Fort Polk	121.88
Fort Riley	1302.31
Fort Sill	522.14
Fort Stewart	42.27
Fort Wainwright	358.66
Schofield Barracks	17.73

Source: Matt Ojennus, Military Community Assistance Coordinator, Department of Community, Trade and Economic Development

In addition to the Port of Tacoma, there are also cargo-handling ports located at Olympia, Seattle, and Everett capable of supporting military sealift operations in terms of break-bulk, roll-on/roll-off, and container cargos. The Port of Seattle and Tacoma each have a Coast Guard security unit assigned, making the ports a more secure place from which to conduct operations.

The sea transit time from the Puget Sound is shorter to locations in Asia than from any other port in the continental United States. This means that not only does it take less time for military equipment to arrive at a port, it takes less time at sea and vulnerable to submarine or air attack.

Sea Transit Times to Locations in Asia - Military Transport

	Tokyo	Pusan	Taipei	Singapore
Tacoma	12 days	13 days	15.3 days	19.7 days
Portland	12 days	13 days	15.5 days	20 days
San Francisco	12.7 days	13.7 days	16 days	20.4 days
Los Angeles	13.5 days	14.5 days	17 days	22 days

Time in days at 15 knots; calculated from charts at www.marinechain.com

Naval Surface and Air Power

The ability to base surface warships and aircraft carriers in Puget Sound gives the Navy the ability to project airpower and sea control throughout the Pacific Rim and beyond. The Naval Air Station at Whidbey Island has the surge capacity to allow carrier air wings to form up prior to deployment at sea. The Puget Sound Naval Shipyard at Bremerton provides the only nuclear-capable repair facilities on the Pacific Coast. The ability to deploy to locations around the Pacific Rim rapidly, as well as other supporting features, make Puget Sound an ideal place from which to project naval power.

Sea Transit Times to Locations in Asia - Surface Warships

	Tokyo	Pusan	Taipei	Singapore
Everett	6 days	6.4 days	7.8 days	9.8 days
San Diego	6.8 days	7.3 days	8.5 days	11 days
Pearl Harbor	4.8 days	5.5 days	6.3 days	8.2 days

Time in days at 30 knots; calculated from charts at www.marinechain.com

Source: Matt Ojennus, Military Community Assistance Coordinator, Department of Community, Trade and Economic Development

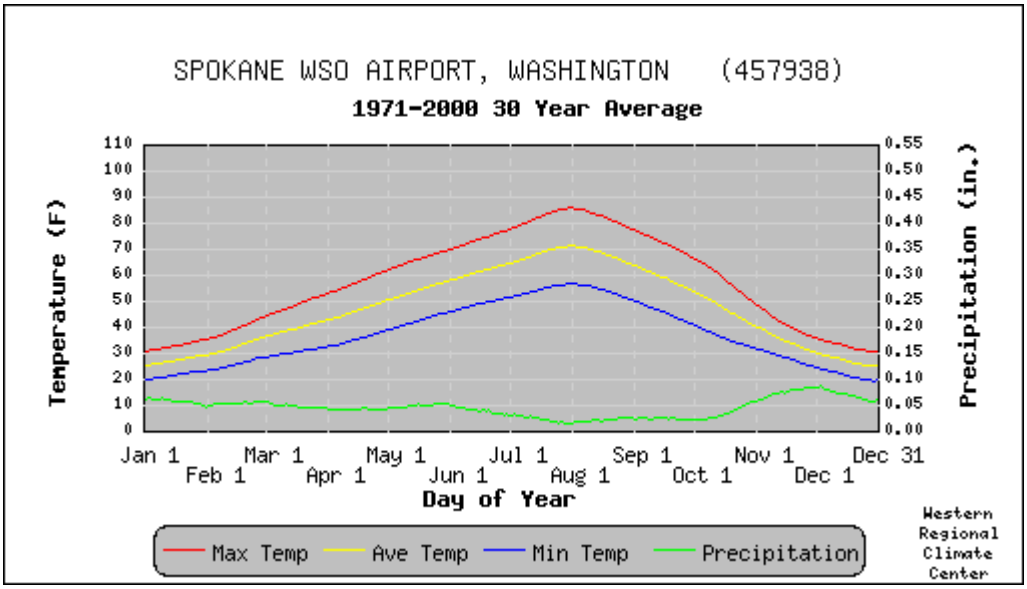
Climate and Terrain

In order to maintain peak proficiency, military units must train constantly. As the military transforms and the world in which we live changes, there is less certainty about a unit being deployed to a single type of geographic environment. In order to prepare for future deployments, units need to practice their skills in a variety of conditions and in a safe manner. Although Washington has the reputation of being a wet, "evergreen" state, there is much diversity in the geography and climate that provide varied training locations that are available all year.

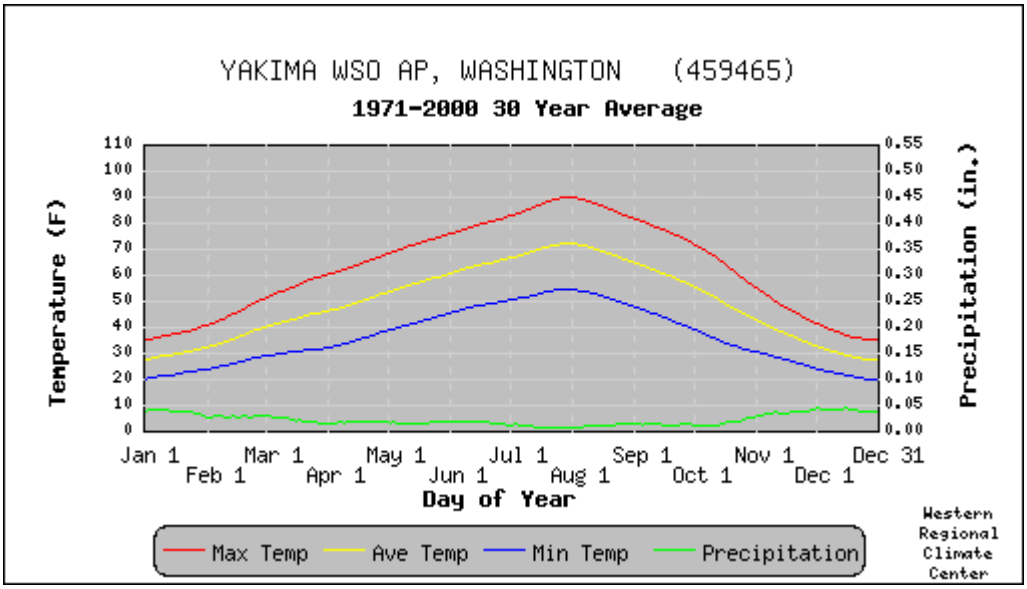
Eastern Washington

Eastern Washington is a sparsely populated area, largely involved in agricultural and forestry activities. It has several areas of reserved airspace for low-level flights, and a variety of terrain, from pine forests to grasslands to canyons that provide a wealth of opportunities for training either in the air or on the ground. The winters tend to be cold and dry, and the summers hot and drier.

Spokane



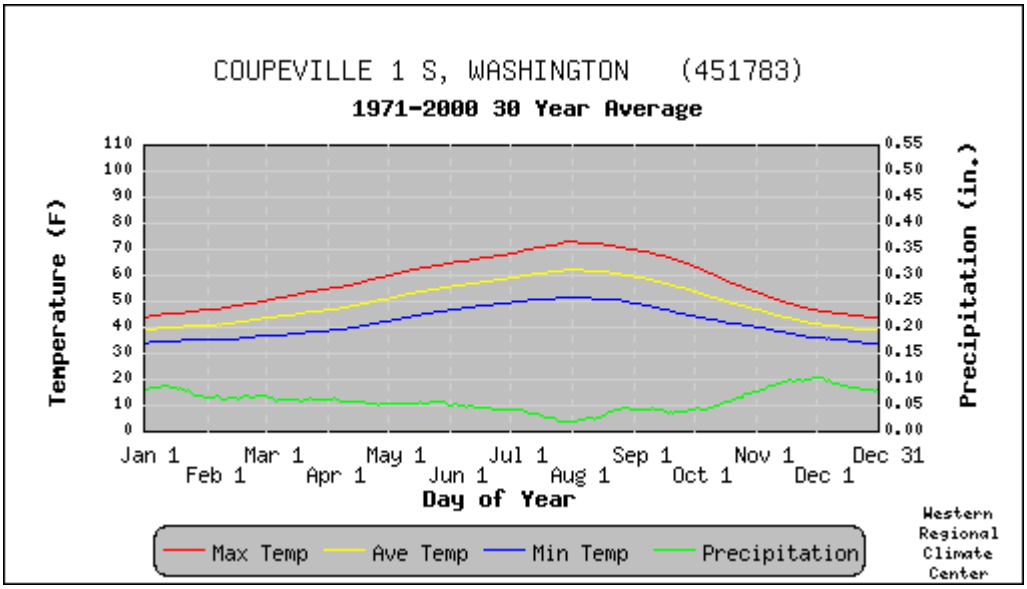
Yakima



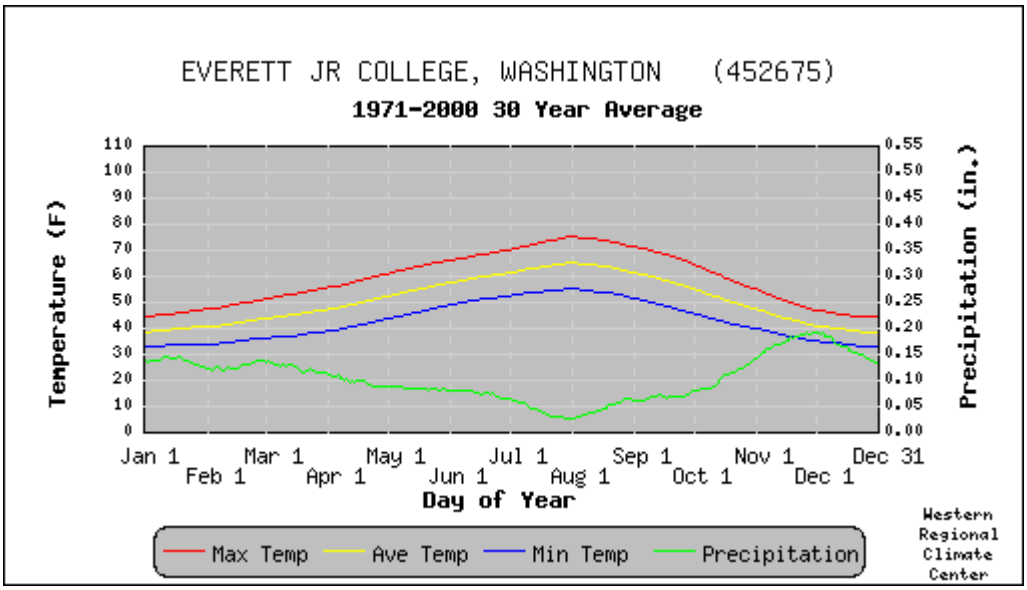
Western Washington

Western Washington has a highly urbanized central core, surrounded by mountains, forests, and prairies. Western Washington enjoys a marine climate, but does not have continuous rain. Summers are sunny and dry, while winters are cool and wet. Much of the Cascade Range in Western Washington is state or federal forests. Some of these are currently used for training activities.

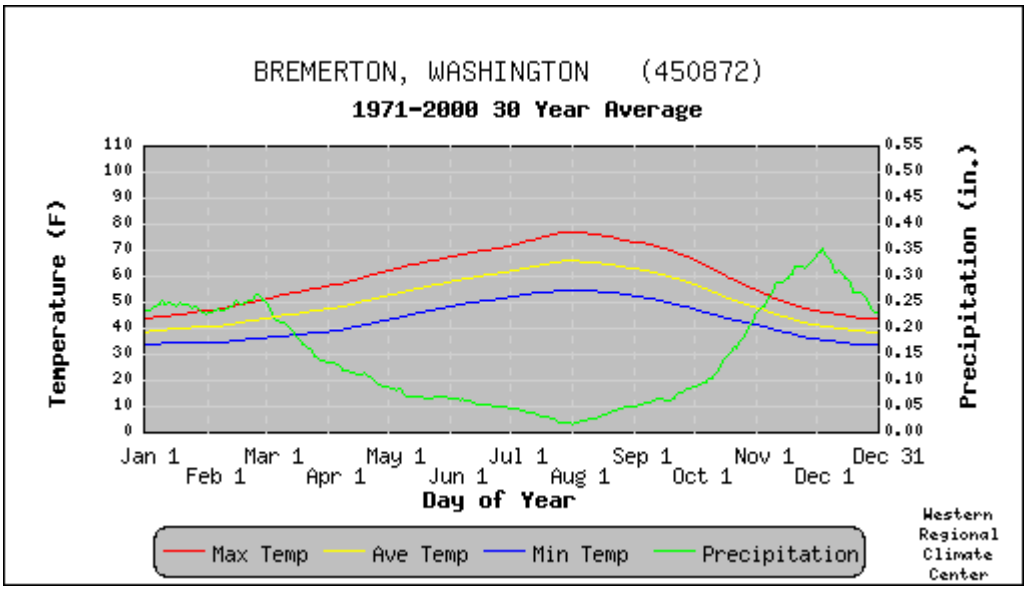
Whidbey Island



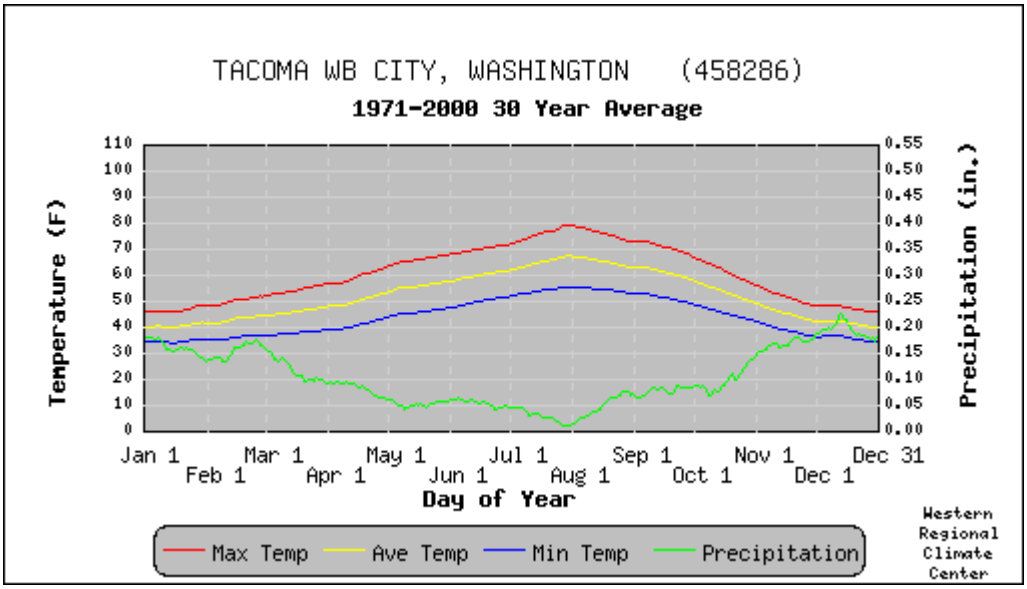
Everett



Bremerton



Fort Lewis

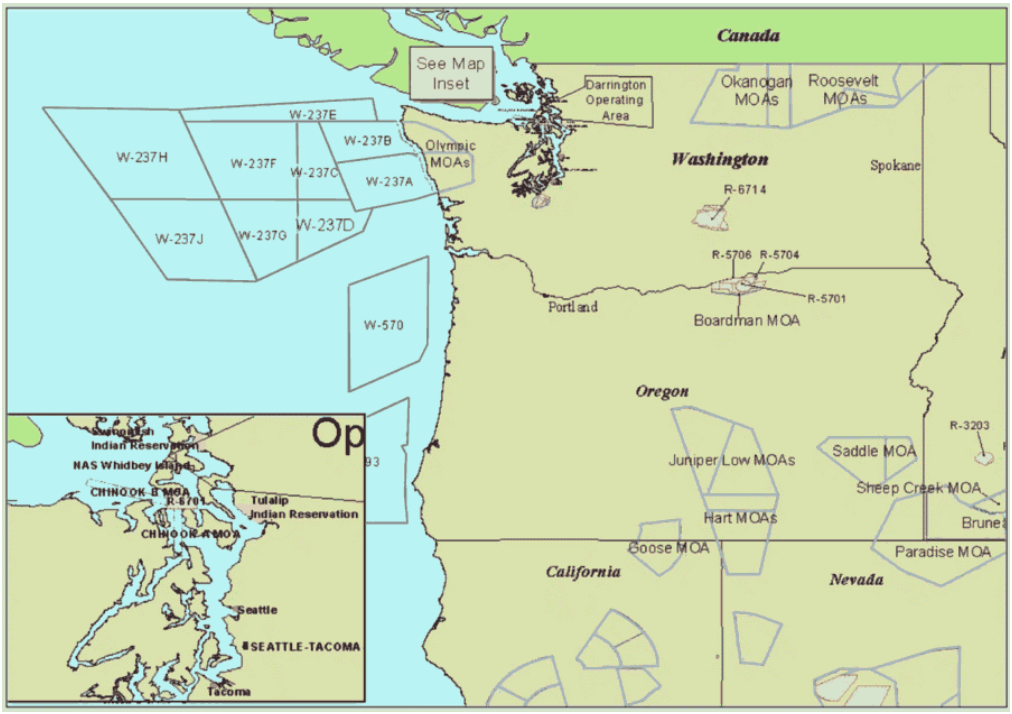


Air Space

Washington has valuable airspace for Army, Navy, and Air Force training activities. Two dedicated helicopter training ranges are associated with Fort Lewis. Both of these allow pilots to practice maneuvers over forestlands. The training center at Yakima provides a training environment for more arid climates such as Southwest Asia. There are also multiple low-level transit routes that Air Force and Navy pilots use to train for low-level flight. A large expanse of air space is dedicated for military maneuvers over the northern part of eastern Washington. Similarly, several areas of dedicated airspace exist in western Washington and off the Pacific coast.

In addition to the volume of airspace that is available, Washington State is also uniquely situated to support training for electronic warfare. The electromagnetic spectrum in the state is remarkably clean. This allows for units such as the EA-6B and EA-18G Prowler squadrons based at Whidbey Island to train for their mission outside of simulators without interfering with other uses of the electromagnetic spectrum.

Military Operating Areas



Source: Seattle Sectional Aeronautical Chart, USDOT FAA National Aeronautical Charting Office www.naco.faa.gov

Land

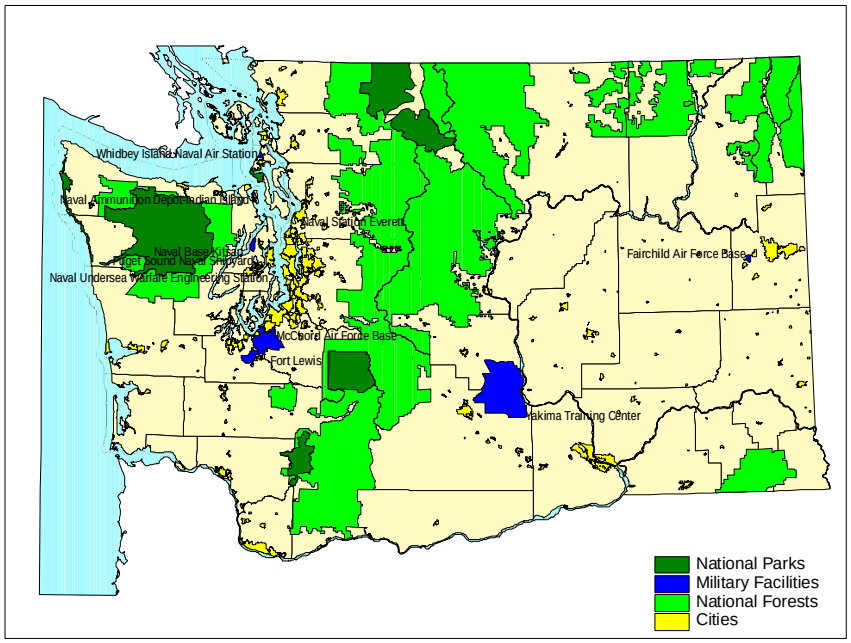
Washington provides opportunities for both woodland and dryland training of ground forces and joint operations. With both Fort Lewis and the Yakima Training Center, Washington affords the military two different environments to prepare troops to fight. The Air Force maintains its survival school in Eastern Washington, using the national forests north of Spokane as a training environment for evasion and escape training. Special Forces and Rangers also use this facility, as well as practicing alpine warfare on Mount Rainier. These varied terrain features in a relatively compact space make Washington an ideal place for the Armed Forces to prepare for ground combat.

Water

Puget Sound provides the military with an excellent series of sheltered deep-water ports to support combat, transport, and logistics missions. Everett Naval Station is only a few hundred yards from the pier to deep water. Bremerton has the ability to accept all Navy ships for either basing or repair. Proximity to the Port of Tacoma allows for rapid sea transport of army units based at Fort Lewis. There is a range to practice the deployment of aerial mines in association with Whidbey Island. And with the development of the Littoral Combat Ship, the San Juan Islands, Strait of Juan de Fuca and Washington Coast provide ample opportunity for training in a littoral environment. Finally, in neighboring British Columbia, there is the Nanoose Torpedo Range, where new undersea warfare weapons developed at Keyport are tested in conjunction with the Canadian Navy. There are numerous water drop zones for use by special forces that are close to their home base, allowing for efficient training. The combination of these opportunities allows the military to conduct a wide range of maritime activities in a sheltered environment.

Washington has the climate and terrain that provide the United States Armed Forces with a well-rounded environment in which to train. With two distinct climates, access to training facilities on land, at sea, and in the air, there is ample opportunity for the services to practice working together. As the world changes and the armed forces transform to meet new challenges, Washington provides the ability to train for deployment.

Military Installations in Relation to Rural and Urban Areas



Source: Matt Ojennus, Military Community Assistance Coordinator, Department of Community, Trade and Economic Development

Growth Management Act

Washington State recognizes that the United States military is vital to defending the nation. In addition, the military is a vital component of the state's economy. Washington State realizes that incompatible development of land close to military installations reduces their ability to perform their military missions or to accept new missions. It is essential that military installations be protected from encroachment by incompatible land uses for national security purposes, along with ensuring continuing the state of Washington's economic health and quality of life.[1]

Encroachment works two ways: first, activities on the installations may create noise or dust levels that are irritating to those people who have moved into the areas near military installations and second, the population near the military installations are exposed to a public safety risk during the occasion of an accident, such as during air operations.[2]

In 1990 the Washington State Legislature enacted the Growth management Act to better coordinate and plan for growth, wise land use management, sustainable economic development, and the health, safety, and quality of life for the state's residents.[3] The Act directs cities and counties to develop comprehensive plans that designate and protect critical areas and resource lands of long-term commercial significance, thereby directing growth to appropriately zoned developable lands.[4] This approach has ensured that there is substantial airspace in the state with minimal population. There is also a large amount of land in the state that is publicly owned that has unencumbered airspace above it.

In 2004, to limit future encroachment, the Washington State Legislature passed Engrossed Substitute Senate Bill 6401 to provide instruction and guidance to local governments through the Growth Management Act to specifically address encroachment issues. Local governments are instructed to prohibit inappropriate development in the vicinity of military installations that would interfere with the base's ability to perform its mission. In addition, cities or counties that are considering amending their comprehensive plans or development regulations regarding properties adjacent to military installations are required to notify the base commander of the intended amendment and allow 60 days for comment on the proposed change. This provides an ongoing mechanism for local governments to stay informed of the needs of the military in terms of appropriate development around military bases.

Even before the enactment of ESSB 6401, local governments took steps to ensure compatibility in the permitted land uses around military facilities. Island County has stringent standards to help reduce interior noise in residences around Naval Air Station Whidbey Island (NASWI).[5] There is also required notification of airport activities during property title searches on all properties within areas identified on the local airport environs map.[6] The City of Oak Harbor includes an overlay zone in their municipal code to ensure that surrounding land uses are compatible with the operations of NASWI.[7]

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[1] ESSB 6401, Chapter 28, Laws of 2004, State of Washington

[2] "Military Installations Pressured by Sprawl," NGA Center for Best Practices, 2002

[3] RCW 36.70A.010

[4] RCW 36.70A060

[5] Island County Code 14.01B

[6] Island County Code Chapter 9.44

[7] Oak Harbor Municipal Code, Chapter 19.50.010

Similarly, Spokane County has adopted regulations that protect Fairchild Air Force Base from encroachment. The zoning code contains language that prevents development within the approach routes to the air base in which the use would:

1. Create or cause interference with the operations of radio or electronic facilities at the airport or with radio or electronic communications between the air base and aircraft.
2. Make it difficult for pilots to distinguish between air base lights and other lights.
3. Result in glare in the eyes of pilots using the air base.
4. Impair visibility in the vicinity of the air base.
5. Endanger the landing, taking off, or maneuvering of aircraft.
6. Create a bird attractant that, in the opinion of the air base, could interfere with aircraft operations.[8]

Lakewood has made strides to protect McChord Air Force Base from further encroachment by adopting measures to ensure that no further incompatible development takes place in the approach airspace to McChord. In its comprehensive plan the city has clearly states that it supports the acquisition of the clear zone associated with McChord. The city is presently working with the state to secure funding to initiate this process.

Source: Matt Ojennus, Military Community Assistance Coordinator, Department of Community, Trade and Economic Development

[8] Spokane County Code, Chapter 14.702

WASHINGTON'S INFRASTRUCTURE AND OPERATIONAL SUPPORT FOR MILITARY INSTALLATIONS

ENERGY

Washington's Energy Infrastructure Assures a Ready Supply of Low Cost Power to Installations

- Businesses and industries located in Washington State enjoy the benefits of a reliable and competitive energy supply.
- Washington State is a leader in capitalizing on energy efficiency opportunities to extend our supplies and keep prices competitive into the future.
- Washington State is served by the largest coordinated hydroelectric system in the world.
- The Stateline Wind Project is the largest wind project in the country.
- Natural gas prices will remain competitive for years to come. Development of LNG (Liquefied Natural Gas) delivery terminals is being explored.

Petroleum

Washington's petroleum supply infrastructure is deep and flexible, which translates into a very reliable supply. While the state does not produce oil, it has five refineries that produce sufficient amounts to be a net exporter of multiple products, including key military products like jet fuel, aviation gas, diesel and gasoline. Crude can be transported to the state by pipeline from Canada, or by tanker. Washington State refineries are the first US port of call for Alaskan crude oil.

In addition to product supplies available from local refineries, Washington military bases can be supplied from two pipelines entering the state from the east: Yellowstone Pipeline serves the Spokane area from refineries in Wyoming and Montana, and Chevron Pipeline serves the Tri-Cities area from refineries in Utah. These pipelines are connected by a leg of the Chevron Pipeline (Tri-cities to Spokane) and by barge on the Columbia River to the west coast of Washington. A long, major pipeline (Olympic Pipeline) runs from the refiners in the Northwest region of the state along the coast to Portland and the Columbia River. While product generally runs from north to south and from west to east, in an emergency, product can be delivered from all areas of the state to military bases in all other areas by pipeline, barge or truck.

Generally, local refineries supply Washington's naval bases. Military barges take needed supplies directly off the refinery docks and deliver it to multiple naval bases as needed. Jet Fuel is supplied directly to two Air Force bases (McChord and Fairchild) by pipelines. In the case of McChord, through a dedicated pipeline direct from the U.S. Oil refinery in Tacoma. Fort Lewis receives diesel and gas supplies by truck from local suppliers through the Defense Energy Support Center (DESC).

The deepness of the petroleum supply system in Washington (multiple crude sources, multiple refineries), the simplicity of supply (by barge from local refineries or through multiple pipelines), and the flexibility of the system (multiple, interchangeable transportation alternatives during emergencies), means an unusually secure and reliable supply of petroleum products to military bases in Washington.

Natural Gas

Washington State is served by two major pipeline networks that give the state ready access to natural gas basins in British Columbia and Alberta, as well as gas basins located in the Rocky Mountain region. Several pipeline upgrades are in progress, or have been proposed. The Canadian and Rocky Mountain gas basins are some of the newest and most productive regions in North America. Development of LNG (Liquefied Natural Gas) receiving terminals in the Puget Sound region is being examined, which could give the region access to global natural gas supplies. Natural gas in Washington is primarily delivered by four regulated utilities; though many large consumers buy gas directly from the pipeline companies. The state has two natural gas storage facilities, which are primarily used to insure gas deliverability and smooth seasonal demand. A third storage facility is being developed in Kitsap County.

Natural Gas Commercial Price (Dollars per Thousand Cubic Feet)

Area	2001	2002	2003
U.S. Total	8.43	6.64	8.26
California	9.33	6.07	8.05
Colorado	7.71	4.85	5.83
Idaho	7.58	7.73	6.91
Montana	7.35	5.37	7.04
Oregon	7.99	7.86	7.9
Texas	6.48	5.49	7.66
Washington	8.62	8.24	7.36

Source: Energy Information Agency – http://tonto.eia.doe.gov/dnav/ng/ng_sum_top.asp

Electricity

Washington State's economy has benefited from cost-effective and reliable electricity supplies since the beginning of major hydroelectric development in the 1930's. Hydropower provides seventy-three percent of Washington's electric power.

Washington State is served by both public and private utilities. The state' fuel mix is changing as new power supplies are developed.

Washington State will continue to be served by increasingly reliable and competitive electric power supplies. Electricity prices historically have been among the lowest in the nation. During the 2000-2001 West Coast electricity crisis electricity prices spiked causing some utilities to increase their rates substantially. Utilities that raised their rates in 2001 are now gradually reducing them and we expect Washington is expected to again be among the 5 lowest states by 2007.

Military bases have the advantage of being eligible for direct supply of power from the Bonneville Power Administration, one of the lowest cost sources of electricity in the United States. All of Washington's largest bases, except Ft. Lewis and McChord Air Force base have taken advantage of this. Tacoma Power serves Ft. Lewis and McChord, and is also a very low cost supplier since most of its power comes from either BPA or from its own low-cost hydroelectric dams. BPA raised its rates substantially in 2001, from about 2.2 cents/kWh to about 3.1 cents/kWh. However, these rates are staring to come down and should be in the neighborhood of 2.7 cents/kWh in 2007.

Electric Price Comparison (cents per kilowatt hour)

Area	Commercial Rates	Industrial Rates
U.S Total	7.65	4.74
California	14.12	10.09
Colorado	5.67	4.52
Idaho	5.71	4.34
Montana	6.47	3.87
Oregon	6.59	4.72
Texas	6.95	4.66
Washington	6.11	4.18

Source: Energy Information Agency http://www.eia.doe.gov/cneaf/electricity/esr/esr_tabs.html

Energy Efficiency and Renewable Resources

Over the past two decades the Pacific Northwest has captured over 2,000 megawatts of cost-effective efficiency improvements by updating building codes, offering technical assistance and investing in efficiency measures. Washington's military bases have done an outstanding job of improving their energy efficiency. Fairchild Air Force Base in Spokane is now receiving 100% green power (mostly wind power) from the Bonneville Power Administration. McChord AFB and Ft. Lewis both have a goal to become energy self-sufficient by 2020. Although renewable energy purchases currently involve a slight price premium, because no ongoing fuel costs are involved, over time such investments may yield lower electricity costs.

Source: Tony Usibelli, Energy Policy Division, Department of Community, Trade and Economic Development

TRANSPORTATION

Washington's Multi-modal Transportation System Effectively Links the Military Installations to Each Other and to the World

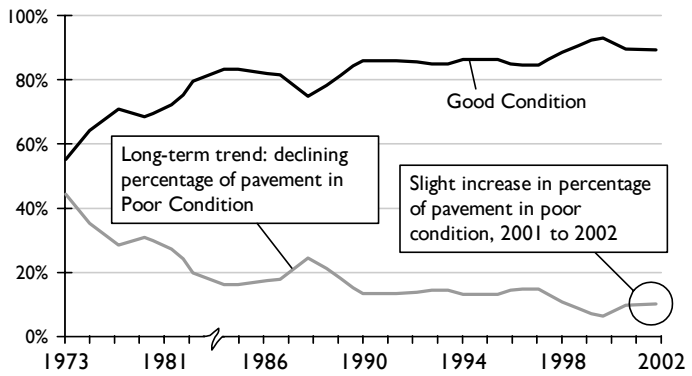
- Washington has well-preserved highways, and an investment plan to make them better.
- Washington has a network of mainline and branch rail lines that provide a viable transportation alternative.
- The state has a good system of regional airports for military training and emergency service
- The Washington State Legislature has implemented a 10-year highway investment program to improve mobility throughout the state.
- Sound Transit has built an effective express bus and commuter rail service and is constructing a light rail system to improve mobility throughout the Central Puget Sound region.
- Washington State has a network of transit systems at the city and county level that provide mobility and access within communities.
- Washington State is working closely with Amtrak and freight railroads to offer faster, more frequent passenger rail service between Portland, Seattle, and Vancouver, British Columbia. (Note: Military personnel and veterans can receive lower fares on all trains.)
- The Regional Transportation Investment District, located in Pierce, King, and Snohomish counties, is planning for significant highway and other investments to complement Sound Transit's investment in mass transit.
- Washington State has the largest ferry system in the United States, which serves to knit together the communities and military installations on the shores of Puget Sound.
- The Puget Sound has seven deepwater ports, including the 2nd largest container port complex in the United States that provides access to the world.
- SeaTac Airport is centrally located for transportation to the world and is expanding its terminal and runway space for additional carrying capacity.

Highway System

Preservation and maintenance is priority #1

The Washington State Department of Transportation preserves and maintains a highway system consisting of 7,049 centerline miles of state and interstate highways. The state made a commitment more than fifteen years ago to preserve the existing highway system with a regular investment in repaving and reconstruction. The commitment to preservation resulted in 90.7% of highway lane miles being rated "good" or better in 2002. Only 9.3% of the highways are in "poor" condition, which is better than thirty-nine other states. Highways in good conditions are safer, allow more rapid travel, result in less wear and tear on vehicles, and support the heavy trucks and other vehicles that the military uses. A strong maintenance program reduces the need for preservation investment, which also spaces out the frequency of when lanes are temporarily closed for repaving.

Pavement Condition Trends
Percent of Pavements

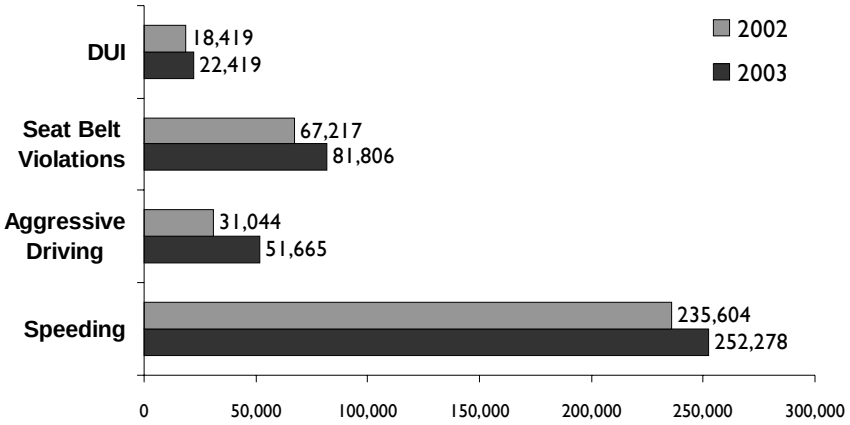


Source: WSDOT Materials Lab

Washington's highways are safe and getting safer

Safety is also a priority for Washington. Between 1980 and 2002, vehicle miles traveled have increased by 92% while the number of fatal and disabling injury crashes have fallen by almost 63% over the same period. Washington has a lower fatality rate than the national average. The Washington State Patrol has targeted programs to enforce speed limits, apprehend impaired drivers, identify and ticket aggressive drivers, and enforce seatbelt laws. These programs will make Washington's roads even safer.

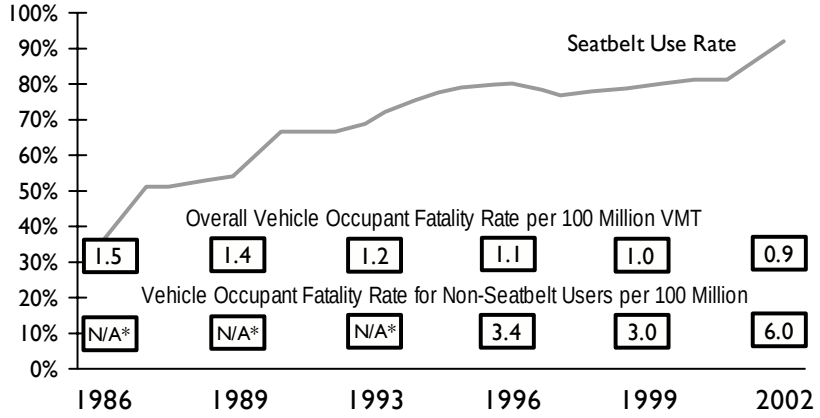
Contacts Made and Citations Issued by Washington State Patrol, 2002 and 2003



Source: Washington State Department of Transportation

The Washington Traffic Safety Commission has implemented effective educational programs including those aimed at reducing impaired driving and increasing seatbelt use.

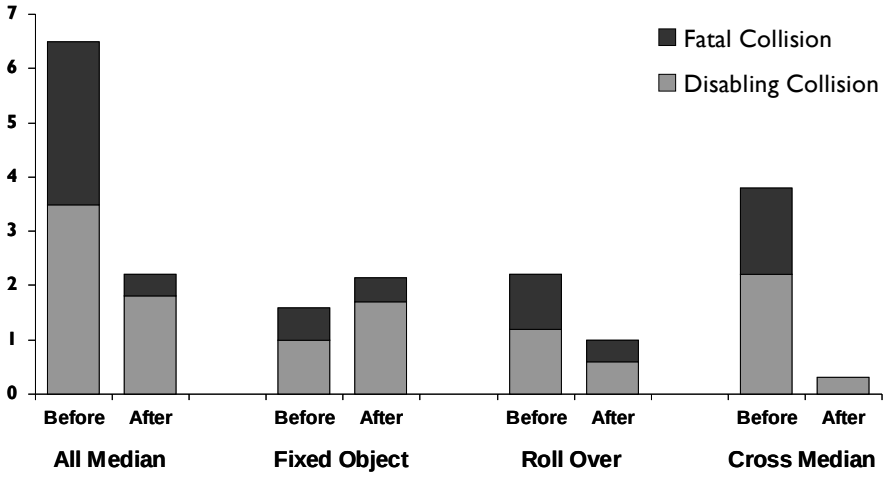
Decreasing Vehicle Occupant Fatality Rates Compared to Increasing Seat Belt Use
Per 100 Million VMT: 1986-2002



**In 1993 the calculation formula for vehicle occupant fatality rate of non-seat belt users changed. Motorcycle fatalities were removed from total occupant fatalities. Data prior to 1993 is not available and would be incompatible.*
Source: Washington State Department of Transportation

The Washington State Department of Transportation has invested in a variety roadway improvements to improve safety including median guardrail.

Severe Collisions
Before & After Cable Median Barrier Installation
Annual Fatal & Disabling Collisions
by Median Collision Type



Source: Washington State Department of Transportation

Washington is addressing congestion in the urban corridors

Washington is reducing the causes of congestion, providing capacity improvement, and making more efficient use of the existing system.

Blocking incidents on highways cause a large percentage of congestion. Every minute a lane is blocked results in 4 to 10 minutes of congestion. In critical highway corridors, Washington has put incident response teams that are specially trained to respond to blocking incidents. They clear the roads by helping drivers with disabled vehicles thereby restoring the normal flow of traffic as safely and quickly as possible. Roving service patrols help spot and report problems immediately and help motorists who are stranded due to vehicle breakdowns. The Department of Transportation and the Washington State Patrol worked in partnership to develop a goal to investigate and clear every accident within 90 minutes. The chart below describes the type of incident responder, the type of incidents, and the percent of each incident on SR 405 for 2003, as an example.

I-405: Incidents Responded by Incident Response Program, Year 2003

Responding Unit Type	Number of responses	Percent
Roving IR Unit	4,945	96.5
IR Tow Unit	175	3.4
IR Unit Called-Out	2	<0.1
WSP S/P	1	<0.1
Total	5,123	100.0
Incident Types (Reason for response)*	**Number of Incident Types**	**Percent**
Fatality Collision	2	<0.1
Haz-Mat	4	0.1
Other Contact	492	9.5
Injury Collision	140	2.7
Non-Injury Collision	476	9.2
Blocking Disabled	283	5.5
Disabled Vehicle	2,552	49.4
Abandoned Vehicle	769	14.9
Debris Blocking Traffic	404	7.8
WSDOT Property Damage	15	0.3
Fire	27	0.5
Total	5,164	100.0

**There may be multiple response reasons for each incident responded to.*

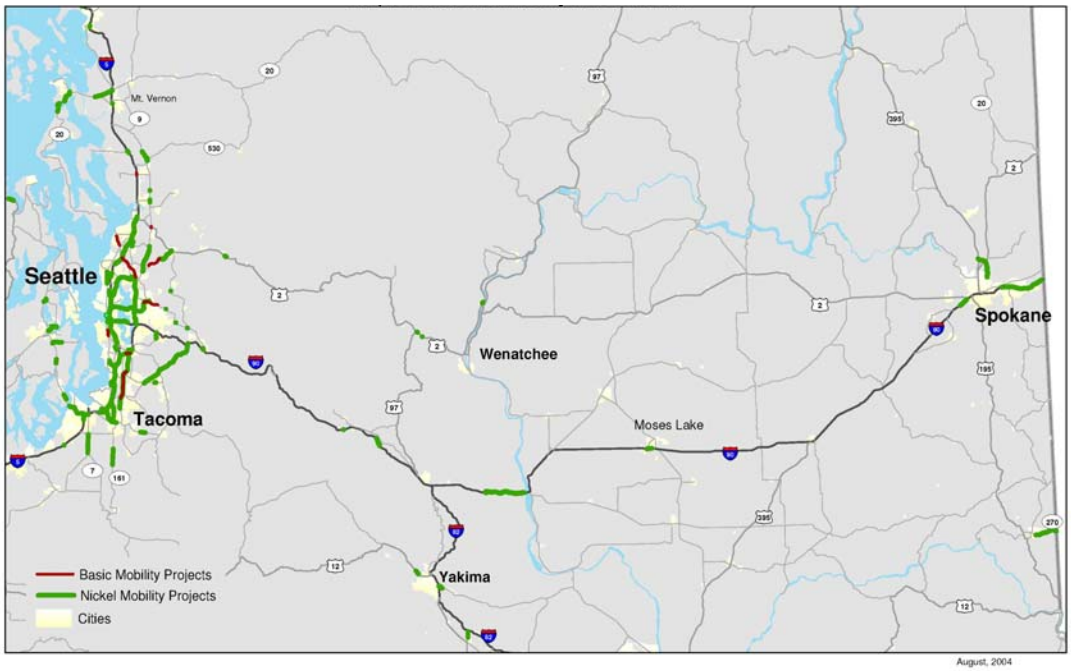
Source: Washington State Department of Transportation

Since 1990, the Department's statewide investments in highway improvements are over $1 billion. These improvements include such projects as all-weather roads and correcting height restrictions on the interstate highways.

The Washington State Legislature in 2003 passed a revenue package including a five-cent gas tax increase to pay for additional capacity improvements in key segments of the highway system. In 2003 the Legislature passed a 5-cent gas tax increase to add to the existing capacity improvement capital

investment program. The program of projects funded in the budget is designed to address the worst "chokepoints" and to make substantial investments in major corridors throughout the state. These projects include significant investment in access to and through Spokane (near Fairchild Air Force Base), improvements on I-90 in the cross Cascade corridor (used by Fort Lewis in transporting troops and equipment to the Yakima Training Center), improvements along SR 20 in Skagit County and Island County, (near Naval Air Station Whidbey Island) improvements in the Everett area (home to Naval Station Everett), projects in Kitsap County focused on choke points along SR 16, SR 3 and SR 304, and improvements in Pierce County (home of Fort Lewis and McChord) centered on I-5 and SR 16, just north of the military installations. In addition, SR 18, which is part of the corridor between Fort Lewis and the Yakima Training Center, will continue to be widened for improved mobility and safety. Other projects include improving access from I-82 to the communities in the Yakima area, and major investments in the corridors in Snohomish, King and Pierce County in conjunction with the Regional Transportation Investment District. Key corridor improvements are outlined in the table/maps below.

Improvement-Mobility Investment



Source: Washington State Department of Transportation

Making the most of current capacity is another aspect of the long-term strategy.

Increased use of the high occupancy vehicle lanes through the promotion of trasit and carpools significantly adds to the throughput capability of a freeway. Washington has been expanding its HOV system since the 1970s, and has 198 miles open to traffic, with another 7 miles completed construction since 2002 (the date of the following graphic).

Source: Washington State Department of Transportation

Improved driver information is also an important tool. The Department of Transportation has developed a program to provide web-based information to drivers on travel time along eleven corridors in the Central Puget Sound. This program uses real data to predict the "worst case" travel time scenario based on the driver's origin and destination. Drivers know with 95% certainty that they will arrive at their destination in the projected time. Better information means better decisions regarding when to leave and what routes to take, which has the effect of improving traffic flow throughout the system.

Washington involves the military installations in planning projects

Washington has a strong highway planning partnership with the military installations. Fairchild Air Force Base, for example, was involved in the development of the Airways Heights Transportation Plan and the US 2 Route Development Plan. Fort Lewis and McChord Air Force Base are actively involved in the planning for the Cross-Base Highway, and Fort Lewis was involved in the SR 507 Route Development Plan. The Navy installations on the Kitsap Peninsula were involved in the SR 303 Bremerton to Silverdale Study, the Hood Canal Bridge Closure Mitigation Study and the SR 104 Improvement Study. Naval Air Station Whidbey Island participated in the SR20/Regatta Drive intersection project and the SR 20 Sharpes Corner to SR 536 Safety Study.

Some of the military installations participate in the regional transportation planning organizations as well. The Peninsula Regional Transportation Planning Organization includes personnel from the Navy installations as issues warrant, and Naval Air Station Whidbey Island is an ex-officio member of the Island Sub-region of the Island/Skagit County RTPO.

The Puget Sound Regional Council, which is the planning organization for the Central Puget Sound, has included the need to support compatible land use planning programs adjacent to McChord Air Force Base and Gray Army Airfield at Fort Lewis in its "Destination 2030" long range plan. The Peninsula RTPO, Skagit/Island RTPO and the Yakima Valley Conference of Governments have also included aspects of the military installations explicitly in their transportation plans.

Washington's designated National Highway System includes the Department of Defense's designated Strategic Highway Network. The National Highway System in Washington consists of 3,420 centerline miles of state highways and local roads.

Washington State Ferries

Washington is blessed with a beautiful body of water known as Puget Sound, but with that blessing comes a transportation challenge, as it divides the Central Puget Sound metropolitan area into a west and east side. To provide mobility and access across the Puget Sound, Washington operates the largest ferry system in the United States. It carried over 24.4 million passengers in FY 2004 and 10.8 million vehicles with their drivers in 2001 (most recent data). Many of the passengers and drivers were military personnel or civilian employees of the Department of Defense. The fleet consists of 28 vessels that operate over ten routes, connecting 20 ferry terminals.

The Clinton/Mukilteo route serves Whidbey Island, and provides a south access to the mainland for Naval Air Station Whidbey Island. Four routes-the Edmonds/Kingston route, the Seattle/Bainbridge route, the Seattle/Bremerton Route and the Fauntleroy/Vashon/Southworth route, serve the Navy installations on the Kitsap Peninsula.

Washington State Ferries reviews and revises its schedule annually, and consults with the Navy and the Puget Sound Naval Shipyard to accommodate shift changes.

Puget Sound Port Facilities

The Puget Sound has seven deep-draft ports. The Port of Seattle and the Port of Tacoma together represent the second largest container port complex in the United States.

Fort Lewis and the Port of Tacoma

Fort Lewis is the only Power Projection Platform-for gathering, staging, and mobilizing forces and material-on the West Coast. In the event that a major regional conflict triggered mobilization activity, inbound cargo from all over the United States would move by road and rail to Fort Lewis. The Port of Tacoma is the strategic port in the Pacific Northwest designated to support Fort Lewis. Recently, the Department of Defense utilized the Port of Olympia embarkation point for equipment going to Iraq.

Port of Seattle

The Port of Seattle is a designated sustainment port. That means it would be used to ship consumable supplies to troops in a major regional conflict overseas. At peak, supplies might arrive at a peak of up to 1,100 containers (perhaps 300-600 containers on a typical day) on 100 to 350 railcars a day.

Port Hadlock Naval Ordnance Center

Ordnance is delivered by rail car to Bangor on Hood Canal and then trucked to Port Hadlock.

Freight Mobility

A specialized focus on the Department's mobility program is targeted improvements that help freight move more smoothly by highway and rail across the state and through the ports. These improvements also serve to help all vehicles and can benefit military convoys as well.

Since 1996, a partnership of public and private sector organizations known as "FAST" (Freight Action Strategy for Seattle-Tacoma-Everett) has worked to streamline the movement of freight through the Central Puget Sound region. FAST identified 15 top priority projects from Everett to Tacoma, completing seven and funding several more. A second phase of projects has also been started, which consists of 10 projects.

Washington State has a strong freight rail system, thanks to a significant investment of capital improvements by the Burlington Northern Santa Fe Railroad and the state's Freight Rail Assistance Program.

The state has invested in connecting military installations to mainline railroads. WSDOT awarded the Port of Olympia a $250,000 grant in 1999 to improve the tracks into the port complex in downtown Olympia. The Army has been using the Port recently to unload military equipment from ships. The equipment is then taken by rail to Fort Lewis. The WSDOT grant made this possible.

Indirectly, the state has partnered with the military on the Olympic Peninsula. WSDOT has provided funds to the Puget Sound and Pacific Railroad (PSAP), which serves the Bangor submarine base and one of the PSAP's biggest customers, the Port of Grays Harbor. The projects funded through the WSDOT loans and grants were located in areas where no military shipments occurred. However, the loans and grants that WSDOT made to the PSAP Railroad and the Port allowed the PSAP to grow their business to the point where they had enough revenue to make track repairs on the line leading into the submarine base.

The Department of Transportation is also working with Fairchild Air Force Base, Spokane County and other partners to design and build a new rail spur that will move the “Geiger Spur” rail line away from the entrance of Fairchild Air Force Base. This will improve the entrance to the base while providing significantly improved freight capacity into the area.

Public Transportation and Mass Transit

Washington State has created a system of locally governed public transit systems during the past 30 years. They have enjoyed strong and sustained public support at the local level. There are 26 transit systems in the state, and all of the communities near the major military installations are served by transit systems.

Island Transit serves Whidbey Island, the home of Naval Air Station Whidbey Island. The transit service goes to the outside of the main gate only. On Tuesday and Thursday, Island Transit does take retired naval personnel (seniors) to the Commissary.

Everett Transit provides services to the main gate of the Everett Naval Station. Everett Transit and Community Transit between them serve Everett and Snohomish County, where Everett Naval Station and the Marysville Family Support Center are located.

Pierce Transit provides full service in Pierce County to McChord Air Force station and Ft. Lewis. Military personnel in Thurston County that use Intercity Transit must transfer to Pierce Transit.

Kitsap Transit provides service to the military housing and military hospital. They also have a "worker-driver" program for individuals working on the military base or at the Puget Sound Naval Shipyard. These vehicles are usually larger than a vanpool, and the driver may receive a stipend.

Mason Transit also has services to the Puget Sound Naval Shipyard.

Spokane Transit provides full service to Fairchild Air Force Base.

Yakima Transit does not provide any transportation to the Yakima Training Center. This military establishment is located outside the city limits.

Air Transportation

The Federal Aviation Administration is required to maintain a list of public and private airports that are affected by agreements with the Federal Government (Order Number 5190.2R).

Civil Airports required by the Department of Defense for National Emergency Use are defined as "This listing of civil airports (formerly surplused military airfields) represents those in which the military services have a continuing interest and for which prior approval is required for the release of the National Emergency use provisions." The following airports in Washington are under agreement with the respective branches of the military for use in training and for emergency services for national defense:

- Ephrata Municipal - Army
- Snohomish County - Army
- Grant County International - Army/Air Force
- Olympia - Army
- Tri-Cities - Army
- Boeing Field - Army/Air Force
- Spokane International - Army/Air Force

Regional Transportation Investment District

The Regional Transportation Investment District (RTID), authorized by state legislation in 2002, is a joint effort by King, Pierce, and Snohomish counties to fund specific highway and transit improvement projects of regional significance in the three-county area. The legislation also allows for a joint ballot measure with Sound Transit in order to include high capacity transit improvements in the funding package. RTID has the authority to impose certain local taxes to fund the identified transportation projects. The RTID "Planning Committee" which is composed of all 25 members of the three-county councils makes the final decisions. The task of crafting a project list and recommending revenue sources to fund the projects has been assigned to the RTID Executive Board which is made up of three County Council members from King County and two each from Pierce and Snohomish counties. Ultimately, voters in the three-county area must approve the RTID package of improvements. At the present time, the Executive Board has approved a draft plan of projects but has not determined when to take the proposal to the voters.

The RTID is a funding mechanism to build transportation improvements in King, Pierce, and Snohomish counties. The investment plan will include a financial plan and identify the types and levels of taxes and fees proposed. Candidate projects selected by the Executive Board are listed in the table below by county.

Proposed King County Projects

Projects	RTID Contribution ($ millions)
I-405 Corridor	1,900
I-405/SR 167 Interchange	820
SR 520 Corridor	1,000
SR 509/I-5 Investments	900
Alaskan Way Viaduct	1,000
SR 167 Corridor	500
I-5/SR 18 Interchange	100
SR 99 North Corridor	80
SR 518	35
SR 522 Transit Investments	60
Non-HSS Projects	20
Light Rail – Downtown Seattle to the UW	875
Total	7,290

Proposed Pierce County Projects

Projects	RTID Contribution ($ millions)
I-5/SR 16 Connection	104
I-5 HOV Lanes	329
SR 167 – New Corridor	1,563
SR 167 HOV Lanes	88
Cross Base Highway (SR 704)	154
SR 162 Widening	306
SR 302 – New Alignment	143
Local Roadways	61
Total	2,748

Proposed Snohomish County Projects

Projects	RTID Cost ($ millions)
I-5 Improvements	227
SR 9 Improvements	491
US 2 Improvements	399
SR 522 Improvements	95
Other State Highways	176
Local Roadways	338
Transit Related	328
Total	2,054

Source: Elizabeth Robbins, Strategic Planning and Programming, Washington State Department of Transportation

ENVIRONMENT

Washington's environmental programs have strong partnerships with the military installations that support the long-range interests of the installations

- Washington State is well known for its natural beauty, it's clean air and water, its diverse wildlife habitat and its desirability as a place to live and work.
- Many of Washington military bases are national leaders in pollution prevention and sustainability efforts.

Ecology

The Department of Ecology works with the Department of Defense to protect the air, land, and water resources at military bases in the state of Washington. This cooperative relationship is based on common environmental goals shared between the state and the federal government.

Under the Model Toxics Control Act (MTCA), Ecology oversees the cleanup of most of the Department of Defense (DoD) sites in the state. This effort is coordinated with the federal Environmental Protection Agency (EPA). Many of the installations are on the National Priorities List (Superfund) as a result of significant historic problems in managing waste. The cleanup work is, by and large, centralized at Ecology's Headquarters office in Lacey to ensure uniform application of environmental laws and coordinated approaches in the cleanup of these installations. All facilities that have contamination are under an approved clean up plan with a schedule for specific actions.

The Ecology Air Quality Program activities at DoD installations are somewhat limited because most major installations are located within the jurisdictions of local air pollution control agencies. Several installations currently hold major air emissions permits such as Prevention of Significant Deterioration (PSD) and/or Air Operating Permits (AOP). While the Air Quality Program develops and issues the PSD permits, they are administered by the local air agencies. The local air agencies develop, issue and administer AOPs. The local air pollution control agencies work closely with the installations to protect air quality while allowing necessary military operations and training. For example, the Puget Sound Clean Air Agency recently altered its regulations to allow obscurant training at Fort Lewis. The Ecology does interact with the installations in the major urban areas to oversee and provide technical assistance with the motor vehicle fleets in association with the motor vehicle emissions inspection program. Ecology also is involved in some specific issues at installations not within local air agency jurisdiction such as obscurant training at the Yakima Training Center. Ecology is currently issuing an annual variance to state regulations to allow obscurant training at YTC.

Fort Lewis, McChord Air Force Base, Everett Naval Station and the Navy installations in Kitsap County are all regulated by the Puget Sound Clean Air Agency. The Northwest Air Pollution Authority regulates Naval Air Station Whidbey Island. Fairchild Air Force Base is regulated by the Spokane County Air Pollution Control Agency.

Ecology also conducts an annual inspection of the facilities to verify proper management, treatment, storage, and/or disposal of hazardous and dangerous waste. Inspections and permitting activities are conducted from each regional office.

In Washington State, responsibility for solid waste is delegated the local jurisdictional health departments, with Ecology providing oversight of state regulations and providing technical assistance through permitting and engineering services to the local health departments as they implement solid waste regulations.

Under state law, Ecology responds to spills at most of the DoD sites in the state. A "Partners in Prevention" memorandum of agreement has been signed with the U.S. Navy, addressing cooperative oil spill management and giving Ecology staff access to Naval vessels during spill incidents. In addition to cooperative work on oil spills, some of the bases have submitted Oil Spill Contingency Plans for review

and approval. Ecology works with the regulated facilities on a regular basis, completing oil spill drills and working on other planning functions.

Water quality issues involving DoD facilities and Ecology are generally limited to groundwater protection. The EPA authorizes discharge to surface water on federal lands under the Clean Water Act. Under state law, Ecology specifically is charged with protecting the beneficial uses of groundwater in the state. Ecology permits discharge to groundwater through a state waste discharge permit to some DoD facilities and also registers underground injection control wells that are located on DoD facilities.

Source: Tim Nord, Department of Ecology

Washington's military installations are national leaders in pollution prevention and sustainability efforts. Just a few examples of the many awards received by the military installations include:

- Chief of Naval Operation Pollution Prevention Award for 2001-2002 and 2002-2003 – Naval Air Station Whidbey Island
- Secretary of the Navy Pollution Prevention Award, 2001-2002 – Naval Air Station Whidbey Island
- Washington State Governor's Pollution Prevention Award – Puget Sound Naval Shipyard
- U.S. Coast Guard William M. Benkert Award (Marine Environmental Protection) – Puget Sound Naval Shipyard
- Secretary of the Navy Installation Restoration Award – Puget Sound Naval Shipyard
- NAVSEA FY01 Pollution Prevention Industrial Installation Award, 2002 – Undersea Warfare Center, Keyport
- Navy Environmental Preservation Award 2001 – Naval Station Bremerton
- Navy Environmental, Cultural and Stewardship Award, 2000, 2001, 2002 – Naval Station Bremerton
- Environmental Management Excellence Award, National Association of Environmental Professionals – Fort Lewis
- Secretary of the Army Award for Environmental Excellence in Weapons System Acquisition 2003 – Fort Lewis
- Air Mobility Command Pollution Prevention Award, 2001 – Fairchild Air Force Base
- General Thomas D. White Award National Resources Management Award – Fairchild Air Force Base
- CINCPACFLT Winner for the CNO and SECNBAV Natural Resources Conservation Award, 1998 -- Naval Station Everett
- Governor's Award for Commute Smart, 1998 -- Naval Station Everett

Fish & Wildlife

From surveying streams to enforcing the state's fishing hunting laws, the Washington Department of Fish and Wildlife (WDFW) performs hundreds of activities each year to fulfill its mission of providing "sound stewardship of fish and wildlife." In carrying out this mission, WDFW has enjoyed a close working relationship with the military bases located here in Washington State. In addition to the important role these military bases play through individual fish and wildlife projects and partnerships, these bases also provide a great value to the state's fish and wildlife at a landscape level.

An Example of Partnerships – Implementing the State Hydraulic Code

The state Legislature has given WDFW the responsibility of preserving, protecting, and perpetuating all fish and shellfish resources of the state. To assist in achieving that goal, the state Legislature in 1949 passed a state law now known as the "Hydraulic Code" (Chapter 77.55 RCW). Although the law has been amended occasionally since it was originally enacted, the basic authority has been retained.

> The law requires that any person, organization, or government agency wishing to conduct any construction activity that will use, divert, obstruct, or change the bed or flow of state waters must do so under the terms of a permit (called the Hydraulic Project Approval-HPA) issued by WDFW. State waters include all marine waters and fresh waters of the state.
>
> Damage or loss of fish and shellfish habitat results in direct loss of fish and shellfish production. The enactment of Chapter 77.55 RCW was recognition by the state Legislature that virtually any construction that affects the bed or flow of the waters of the state has the potential to cause habitat damage. It was also an expression of a state policy to preclude that potential from occurring. The law's purpose is to see that needed construction is done in a manner to prevent damage to the state's fish, shellfish, and their habitat. By applying for and following the provisions of the HPA issued under Chapter 77.55 RCW, most construction activities that affect the bed or flow of state waters can be allowed with little or no adverse impact on fish or shellfish.

The major types of activities in freshwater requiring an HPA include, but are not limited to: streambank protection; construction of bridges, piers, and docks; pile driving; channel change or realignment; conduit (pipeline) crossing; culvert installation; dredging; gravel removal; pond construction; placement of outfall structures; log, log jam, or debris removal; installation or maintenance of water diversions; and mineral prospecting.

Major saltwater activities requiring an HPA include, but are not limited to: construction of bulkheads, fills, boat launches, piers, dry docks, artificial reefs, dock floats, and marinas; placement of utility lines; pile driving; and dredging.

As part of the federal government, the military bases are not required to apply for a state HPA. However, due to the cooperative working relationship that has been in place for many years, the military bases generally apply for an HPA for projects that will be conducted in or near the waters of the state.

For instance, WDFW habitat biologists work with resource and engineering staff at all military facilities providing information and technical assistance to the military on their projects that are, in many cases, incorporated into their plans for facility development. One example would be the decision by the Puget Sound Naval Shipyard and other Navy facilities to curtail the use of creosote piling in most of their projects.

Overview of Installation Activities

Everett Homeport

The Everett Home Port's Jim Creek Radio Facility outside of Arlington possesses remnant stands of old-growth forest as well as maintaining a wide variety of excellent wildlife habitat. Jim Creek has permitted and participated in surveys for many wildlife species including threatened Marbled Murrelets.

Fairchild Air Force Base

Fairchild Air Force Base sponsors an annual youth fishing day with WDFW on the land they own on Clear Lake. Registration is limited to 1,000 and it always fills up quickly. It is very popular and one of the most successful youth fishing days in Washington.

Many AFB personnel participate as instructors in our Hunter Education Program. They are very supportive and helpful. Overall, WDFW does not have a lot of regulatory interaction with the Fairchild AFB but it does have several mutual partnerships and a positive relationship. They are good community partners.

The Base uses the Department's Priority Habitats and Species (PHS) database for planning processes. Additionally there are some specific PHS issues, including the upland sandpiper, which are found around Fairchild AFB specifically. There are also some identified springs on the base that are identified in PHS. WDFW will be updating the PHS data in the near future and will work with AFB staff as part of this process.

Fort Lewis and McCord Air Force Base

Pierce County's Fort Lewis and McChord Air Force Base provide the largest contiguous tracts of Oregon White Oak woodland and prairie in western Washington. Oak woodlands provide habitat to approximately 200 species of birds, mammals, reptiles, and amphibians, some of which also are state listed as Threatened or Endangered, or are candidates under consideration for state listing. Oak obligates include some species of moths, butterflies, wasps, and spiders. Many invertebrate species inhabit oak woodlands to a greater degree than other habitat types. The decline of Oregon white oak in Washington has been accelerated by a number of human activities including stand thinning and land conversion for conifer production; agriculture; fuel wood cutting; cattle grazing; and urban development. The WDFW's Priority Habitats and Species recommendation for oak woodlands states..."Oak habitat presently in good condition should receive the highest priority for protection."

A proposed state highway between McChord AFB and Fort Lewis will further fragment the unique oak woodland-prairie landscape and impact the associated rare species. The NEPA Record of Decision for the project was issued in July and WDFW and WSDOT are currently negotiating a mitigation agreement for this highway.

Fort Lewis has engaged with the U.S. Fish and Wildlife Service and other state and local agencies to develop a Candidate Conservation Agreement for protection and management of species at-risk in the oak woodland-prairie landscape. All parties recognize the tenuous status of these species, and that early effort may help prevent the loss of populations and/or species.

The south Puget Sound prairie landscape is the result of a unique combination of geological, biological and cultural events. The shallow, rocky soils that were deposited by retreating glaciers gave rise to special plants and animals that adapted to this drier condition. As the climate changed, Native Americans used fire to maintain the prairies. Only 3 percent of the prairies remain and many of the obligate species are rare and candidates for state or federal listing including the Mazama pocket gopher and several species of butterflies. McChord Air Force Base and Fort Lewis together constitute the most important contiguous tracts of the oak woodland-prairie habitat in western Washington.

WDFW recently completed a deer survey for McChord Air Force Base to look at populations and management for potential collision avoidance.

Whidbey Island Naval Air Station

Whidbey Island Naval Air Station has long supported WDFW's Wildlife Program activities including base access and participation in Harlequin Duck banding and Marine Mammal education. Current projects include identifying properties and access requirements for pheasant release sites, allowing on-base access to Department staff for Great Blue Heron colony surveys, as well as providing access into their busy controlled air space for Department shoreline aerial surveys.

Yakima Firing Center

WDFW has interacted with the Center since it was developed in the 1940s. The Department of Game once owned land in the Squaw Creek area that was taken by the Army in the early 1940s. The land was returned to the state after the war, but was again taken during the Korean Conflict. The land has since been owned by the military.

WDFW's current and past interactions has revolved around several issues including: Habitat management issues, hunter and recreational access, deer, elk, and upland bird harvest management in addition to Sage Grouse recovery, Townsends Ground Squirrel relocations, raptor surveys and coordination, and Chronic Wasting Disease testing in both deer and elk. WDFW designated the YTC as its own Game Management Unit two years ago to help better deal with deer and elk management.

Shrub-steppe is used by a diverse array of wildlife species year-round where the density of some of these populations is considered high. At least six species are considered shrub steppe obligates including the State Endangered Pygmy Rabbit, the State Threatened Ferruginous Hawk, and three state candidate species. Also significant is the fact that a large percentage of the original shrub steppe habitat in Washington has been converted for development or cultivated fields; or modified by fire, grazing, or introduction of exotic species; leaving much of what remains fragmented into small parcels in private ownership. Landscape-level conversion of shrub steppe in Washington has rendered those remaining large and contiguous tracts of shrub-steppe immensely important to Washington's wildlife. The YTC represents the largest and possibly most important of these remaining tracts.

The YTC is a major component of the Eastside Shrub Steppe Ecosystem and contains one of only two populations of sage grouse in the Washington and comprises a significant landscape in maintaining this population in Washington. WDFW staff has interacted consistently and been a major factor in maintaining sage grouse populations on the YTC. Staff currently interacts through the Washington Sage Grouse Working Group that consists of Federal and State agencies in identifying population protection and recovery for sage grouse in the state.

The YTC is also being evaluated in a proposal to reintroduce Pronghorn Antelope back into Washington. Stakeholders involved in this process include Safari Club International, WDFW, Yakama Indian Nation, USFWS, and the U.S. Army. Currently WDFW is awaiting the development of a feasibility study that will determine whether this is a doable project.

WDFW implemented and now coordinates raptor surveys with YTC staff. Included in this list are Ferruginous Hawk (State Threatened), Golden Eagle, Prairie Falcon, Burrowing Owl (All species of Concern) and wintering Bald Eagle (Federally Threatened) surveys.

WDFW contributes a significant amount of time and energy in maintaining state interests in this facility.

Source: Tom Davis, Department of Fish and Wildlife

HISTORIC PRESERVATION

Washington State and its military installations work in close partnership to preserve the rich and unique historical and archeological heritage of the Northwest

- Washington has a rich historic, archeological and cultural heritage.
- Washington's military bases contribute to the historic foundations of the state.

The Washington State Office of Archaeology and Historic Preservation (OAHP) is a unit of the Department of Community, Trade and Economic Development (CTED). The State Historic Preservation Officer (SHPO) directs OAHP staff and program activities that serve to implement the National Historic Preservation Act (NHPA). By virtue of this key federal legislation, the SHPO works with all of the armed services within the Department of Defense (DOD) to identify, evaluate, and protect cultural and historic properties under DOD jurisdiction.

Passed by Congress in 1966, the NHPA identifies historic preservation as important to public health, safety, and welfare, and makes protection of the nation's heritage a federal policy and responsibility. Among other directives, the NHPA requires federal agencies to inventory historic properties within their control. It also mandates that agencies consider the effects of their actions upon properties that are listed in, or eligible for listing in, the National Register of Historic Places.

The work of SHPO pivots on the National Register of Historic Places (NR) program. The NR is a listing of properties across the nation that meet certain criteria specified by Congress and that are deemed significant enough to merit recognition and special awareness. Properties listed in the NR are typically 50 years in age and older and are comprised of a range of property types including buildings, structures, sites, districts, and objects. At present there are approximately 1,600 properties in Washington that are listed in the National Register. It is important to recognize that a National Register listing is an honorary recognition; that is, there are no controls or management requirements for privately owned properties listed in the Register.

While establishing historic preservation as sound public policy, the NHPA also placed federal agencies in a leadership role by charging those agencies with the responsibility to consider preservation of historic properties when undertaking certain actions. Generically referred to as "Section 106" (for the specific section in the 1966 Act), a process has been crafted mandating federal agencies to consider the effect of their actions on properties listed in, or eligible for listing in, the NR. Clearly federal agencies, including the Department of Defense (DOD), own or have authority over many properties with cultural or historic significance that meet criteria for NR listing.

Section 106 calls for a consultative relationship between federal agencies, the SHPO, the federal Advisory Council on Historic Preservation (ACHP), and interested members of the public, including tribal entities. This process provides a framework for inventorying cultural and historic resources; evaluating them for NR eligibility; and incorporating NR eligible or listed properties into agency decision making processes. It is also important to remember that federal agencies are mandated to perform consultation activities; any effort to actually preserve or protect a NR listed or eligible property is strictly at the discretion of the responsible federal agency. In essence the process is required; implementation of preservation work is not.

Finally, in conjunction with responsibilities under Section 106 of the NHPA, federal agencies such as DOD, also comply with other federal cultural resource protection laws including the Archaeological Resources Protection Act (ARPA) and the Native American Graves Protection and Repatriation Act (NAGPRA). ARPA specifically affords protection to archaeological sites on federally and tribally owned lands while NAGPRA protects Native American burials on federal and tribal lands. NAGPRA also requires federally funded institutions to inventory their skeletal collections and repatriate them to the appropriate tribe.

Overview of Installation Activities

Fort Lewis

At Fort Lewis, the Department of the Army oversees a rich and diverse range of cultural and historic resources. Resources range from intact archaeological sites dating to thousands of years in age to archaeological sites associated with the historically significant Hudson's Bay Company Fort Nisqually and Puget Sound Agriculture Co. The Fort is also home to architecturally and historically significant buildings and structures, some now approaching one hundred years in age. Clearly, the Army is a proud steward over this rich legacy.

The pride evidenced by the Army at Fort Lewis is manifested through a well-established and capable cultural resource management staff. Itself housed in a historic building on post, cultural resource staff at Fort Lewis is familiar with the Section 106 process regulations and Secretary of the Interior's Standards for Historic Preservation. They routinely respond to issues such as archaeological sites damaged in training exercises, to rehabilitating earthquake-damaged dormitories, to ADA compliance on historic residences. OAHP enjoys a close working relationship with Fort Lewis cultural resource staff and contact is frequent and typically cordial. Fort Lewis has also established a good working relationship with the Nisqually tribe. The Nisqually people have great concern for sites of cultural significance, many of which are found on Fort Lewis property and the Army has demonstrated respect for this heritage by making efforts to avoid or minimize adverse effects to these sites.

As at Fort Lewis, the Army has put into place a program monitoring actions that may affect cultural resources at YTC. This program has been in place now since the 1980s and OAHP is in contact with the Army's cultural resource personnel at the center on an as-needed basis. In addition, OAHP has in place a data sharing agreement with the YTC. This agreement provides for electronic exchange of information between the two agencies that identifies known cultural resources.

McChord Air Force Base and Fairchild Air Force Base

The Air Force has episodic contact with OAHP based upon specific Section 106 actions. McChord Air Force Base does not maintain cultural resource staff but relies on consultants to fulfill 106 responsibilities when the need arises. Past actions reviewed by the SHPO include historic housing rehabilitation and removal work and rehabilitation of historic hanger structures following the 2001 Nisqually Earthquake. Fairchild Air Force Base maintains a contact person on cultural resource issues. Though not a historic preservation professional, this contact person employs the services of consultants to provide preservation expertise when the need arises. It is worth noting that Fairchild has developed a good relationship with the Spokane County historic preservation officer. With the County's preservation staff, communication on cultural resource matters has been productive; indeed, Fairchild AFB staff received an award from the SHPO in the early 1990s for undertaking an education program for area school children.

Navy Region Northwest

Naval Air Station Whidbey Island (NASWI) typically utilizes the services of project planning and environmental review staff at the Naval Facilities Engineering Command in Poulsbo and/or the services of historic preservation consultants for Section 106 reviews. In the past, 106 consultations at NASWI have focused on the Seaplane Base at Oak Harbor with some reviews focusing on Out Lying Field (OLF) Coupeville. Very few, if any reviews have emanated from Ault Field.

Navy actions at the Naval Undersea Warfare Center (NUWC) at Keyport have spawned frequent and substantive Section 106 consultations with the SHPO and OAHP staff. Although NUWC does not have full time professional cultural resource management staff, there is a contact person at Keyport that works with planning and environmental review personnel at the Naval Facilities Engineering Command in Poulsbo for assistance on Section 106 consultation. The NUWC has a rich history. It is also a very dynamic installation influenced by rapidly changing technology and mission. As a result, OAHP has been involved in numerous proposals for building demolitions and alterations. It is also worth noting that the Naval

Undersea Museum is located on NUWC property but outside security fencing. The museum was constructed with considerable state support in the late 1980s/early 1990s and has gradually grown in stature as a tourist destination based upon its unusual collections.

The Puget Sound Naval Shipyard (PSNS) at Bremerton has a long and proud history and a wealth of historic properties to match. Recognizing this legacy, PSNS employs a staff person specifically detailed as the contact person on historic preservation and Section 106 matters. As a result OAHP's Historic Architect enjoys frequent contact with this staff member and a cordial working relationship. The relatively compact installation, intense development, and extensive landfill results in general acknowledgement that there is a low potential for intact archaeological resources on base. Therefore, Section 106 work largely focuses on actions that affect the many buildings and structures of architectural and/or historic significance. It should be noted that PSNS is home to several historic districts that are designated as National Historic Landmarks (NHL). NHL is the highest level of historic designation bestowed by the federal government. As a result, reviews of actions with the NHL districts at PSNS are also subject to National Park Service review and comment in addition to Section 106 consultation with the SHPO.

A review of Section 106 actions at Bangor Submarine Base indicates that there has been little contact by the Navy with OAHP. This is likely attributed to the relatively recent age of the complex since it was constructed after World War II, and many of the buildings only now have met or are approaching 50 years in age, the minimum age threshold for National Register eligibility. There is no cultural resource staff at Bangor.

At Jackson Park, contact by the Navy with OAHP in recent years has focused on the presence of archaeological sites located in portions of the property. These archaeological sites are preliminarily considered by OAHP as eligible for listing in the National Register. Hazardous waste remediation activities and its effects upon these sites dominate cultural resource discussions at the complex.

As the Everett Home Port is considerably less than 50 years in age and the complex is located on fill, there is no immediate concern or issues pertaining to cultural and historic resources.

Source: Alyson Brooks, Office of Archaeology and Historic Preservation, Department of Community, Trade and Economic Development

COMMUNICATIONS

Washington military installations benefit from a highly competitive, modern telecommunications and broadband network

- The Washington Utilities and Transportation Commission aggressively protects the interests of consumers, which includes the military.
- Washington State is a leader in telecommunications and computing.

The Puget Sound region has an abundance of fiber installed and available for use by the military. In addition, from a broader network perspective, Seattle is a major telecommunications jumping off point for the Pacific Rim. Most available fiber is controlled and managed by private sector telecommunications organizations, but significant capacity exists. The University of Washington is an anchor tenant on the national large capacity broadband networks. Any military base could utilize the statewide network that DIS operates, but would probably be inclined not to for security reasons.

Similarly, the Puget Sound region has a broad inventory of technical organizations and people. Primarily drive by Microsoft and Boeing, many technical people exist to support a military infrastructure.

While Washington has been a leader in collaborative procurement between state and local entities, the federal government has not shown a strong interest in participating, probably because of the nature of its

own purchasing power. However, the Department of Information Services' procurement consortiums would be available for the military installations if they chose to take advantage of them.

Source: Mike McVicker, Department of Information Services

The telecommunications industry consists of multiple suppliers operating in a diversified and competitive market. These suppliers are the historical incumbent local exchange companies (ILECs), Competitive Local Exchange Companies (CLECs), Long Distance Companies (IXCs), Wireless Companies, and other high-speed data and Voice Over Internet Protocol (VoIP) providers. The market conditions are favorable towards economic efficient and technological advanced telecommunications providers.

The Washington Utilities and Transportation Commission (UTC) is the authorized governmental agency to oversee the regulation and competitive policy for telecommunications in the state. The constant changes in law, regulation, and technology require UTC to develop policy to ensure consumer protection, customer choice, and universal service. Washington consumers are protected by the UTC to ensure that telecommunications services are fairly priced, available, reliable and safe.

Over the years, the purpose of regulation has been to ensure sufficient investment in infrastructure to provide access to the network and at the same time keep the price for local service affordable. It worth noting that there are much pertinent telecommunications infrastructure, such as signal towers, satellite, fiber rings and underground cable being deployed by wireless carriers, cable companies, municipal and public utilities districts (PUDs), is owned by the companies and entities that are not regulated by the Commission. However, when assessing the infrastructure need, one of the most important factors to consider is who has and how many households should have access to basic telephone service at affordable price. One of the most common measures used to assess the progress in achieving the long-standing state policy of promoting affordable universal telecommunications service is the growth in the penetration rate. In Washington today, 97% of all households have affordable telephone service, this telephone penetration rate is higher that the national average of 95%. Washington state also has one of the lowest monthly flat rate for local residential telephone service. It is important to note that in Washington there is a telephone service assistance program, Washington Telephone Assistance Program (WTAP), which provides basic telephone service to low income household at an affordable rate of $8 per month.

The 1996 Federal Telecommunications Act provided framework for the pro-competitive policies. This law enabled the UTC to implement fundamental changes to the telecom industry structure in Washington. The UTC required existing local phone companies to allow competitors to serve their customers and, in turn, the UTC has been able to reduce regulation of the industry. Competitors have the ability to construct their own facilities or to lease unbundled network elements at cost-based rates or resell existing facilities pursuant to the Telecommunications Act of 1996. These changes have also enhanced the ability of the UTC to implement pro-competitive policies. As a result, consumers have greater choice of providers and technologies, though the degree of choice varies. Competition followed economies of scale, and eventually came to business centers of cities, such as Seattle, Tacoma, Spokane, and Vancouver in Washington State. For example, at least 27 companies offer telecommunications services in Seattle.

The consumers' choices for telecommunications services are demonstrated in the maps provided (See attached). One set of the maps shows by each military base the number of traditional telephone services providers, and another set shows the total number of broadband services providers (such as Cable Modem, DSL, VoIP and Satellite) in each area. It is hardly debatable that there are multiple and reliable telecommunications services providers in each of the areas where the military bases are located within the state.

Source: Jing Roth, Washington Utilities and Transportation Commission

HEALTH SYSTEMS

The Washington State Department of Health has a mutually beneficial working relationship with the military installations in the state

- Washington has a strong state and local public health system that extends service to the military installations and the families of military personnel.
- Washington has a strong emergency response capability that works in partnership with the military installations.

Coordination of Emergency Medical Services

Madigan has been designated as a Level II trauma service in Washington since March of 1999. It was instrumental in the Pierce County planning process to reestablish trauma services in the city of Tacoma. Following Madigan's lead to provide trauma services to the Pierce County community, the Tacoma hospitals designated in June of 2000. Madigan, St. Joseph's and Tacoma General continue to coordinate trauma care and system efforts in Pierce County. Madigan's trauma designation has been a mutually beneficial relationship. Madigan physicians receive excellent training and experience to help prepare them for combat duty and the Pierce County and surrounding areas receive the benefit of their distinct expertise. Both civilian and military trauma victims are triaged to Madigan. Civilians are stabilized and when safe for transfer are transferred to the Tacoma Trauma Service or Harborview Medical Center for their long term/follow up care.

Source: Janet Griffith, Health System Quality Assurance, Department of Health

Radiation Protection

For several years the Office of Radiation Protection has maintained a cooperative working relationship with the Navy's Radiological Response Organization and its environmental programs located in Bremerton and Bangor. During this time, DOH jointly developed and then initiated a radiological environmental monitoring program at Bangor and Bremerton. This work not only helped DOH to assure the public that there are no health impacts from the Naval Bases, but it has also allowed DOH to add the information collected to its statewide sampling program and its annual environmental report. In the case of an emergency or a terrorist incident, the Navy agreed to provide technical assistance, equipment, and field teams. The Navy facilities in the Puget Sound region have always had very good radiological response capabilities that DOH can now access quickly. Although detailed information regarding the Navy's Nuclear Propulsion program is classified for National Security reasons, the Navy has helped DOH financially and technically to acquire an adequate number of security clearances and have openly provided information briefings to DOH staff. State agencies (Emergency Management, Health, and Ecology) are currently working on an agreement with the Navy to conduct joint radiological emergency response exercises beginning in the fall of 2004, as well as joint training opportunities.

DOH's Radiological Emergency Preparedness Section also worked very closely with staff from the National Guard's Camp Murray. Camp Murray is ready and able to support DOH during a radiological emergency by supplying a highly trained Civil Support Team for offsite hazard identification. Camp Murray's response capabilities are similar to the Hazmat response, but much more advanced. DOH would count on Camp Murray for help during radiological, biological, and/or chemical incidents. Camp Murray is equipped to quickly identify a problem and to help DOH establish good communication, as well as helping DOH in developing protective action recommendations for the public.

The Office of Radiation Protection is also working on developing a cooperative agreement with the Fort Lewis Safety Office. This agreement would provide no-cost training opportunities by the Army. To date, staff at Fort Lewis has offered DOH several training opportunities. DOH has jointly discussed a Memorandum of Understanding (MOU) that would allow Fort Lewis to provide assistance similar to what the Navy has agreed to provide. DOH has talked about the benefit of holding joint training exercises with them and hopes to include them in the MOU.

Source: Gary Robertson, Director, Office of Radiation Protection, Environmental Health, Department of Health

Biological, Chemical and Radiological Agent Protection

DOH is just starting to participate in a military program that does environmental surveillance of biological, chemical and radiological agents. The emphasis currently is on the biological surveillance. Coordination is taking place with the local and state health departments, and the DOH public health laboratory is involved with sampling efforts. The Department's Office of Radiation Protection is currently developing a cooperative agreement with the Fort Lewis Safety Office that would provide the Department expanded training opportunities with the military.

Source: Gregg Grunenfelder, Chief Administrator, Division of Environmental Health, Department of Health

Zoonotic Disease Surveillance

As part of the Department's West Nile Virus surveillance efforts, DOH works cooperatively with entomologists at Fort Lewis on mosquito identification during the spring and summer months. The military provides much needed support to DOH on these surveillance efforts.

Source: Gregg Grunenfelder, Chief Administrator, Division of Environmental Health, Department of Health

Food Safety and Shellfish

During 2003, 19 military personnel attended food safety seminars given by the Department of Health Food Safety Program. During 2002-2003, the Department of Health Shellfish Program partnered with the US Army in the Training with Industry program. In addition, an active duty person was assigned to the Department for one year to learn about seafood safety.

Source: Jennifer Tebaldi, Director, Office of Food Safety and Shellfish, Department of Health

Epidemiology

DOH's Division of Epidemiology, Health Statistics, and Public Health Laboratories (EHSPHL) does not have any formal memorandums of understanding or agreement with Department of Defense facilities or organizations. The Division has an informal working arrangement with the Military Lab at Madigan to provide mutual surge capacity. And DOH has collaborated with the Military Lab at Madigan on several occasions, but there is no formal MOU in writing.

The Department has a formal written MOU with the Food and Drug Administration (FDA) laboratory in Bothell, which might have an indirect support function to the military bases/ports, for surge capacity and joint training and resource sharing. This is to provide the Public Health Lab (PHL) with surge capacity in the event of a bioterrorism event and to provide the FDA with surge capacity in the event of a widespread food outbreak. This MOU includes cross training in protocols and the sharing of equipment, supplies, and resources.

Source: Jim Robertson, Chief Administrator for Epidemiology, Center for Health Statistics and the Public Health Laboratory, Department of Health

Public Utilities

Water, sewer and septic facilities are the responsibility of local governments and private providers in Washington State. The Growth Management Act requires local governments to plan for necessary expansion of infrastructure to accommodate planned growth. The Department of Health and the Department of Ecology have a regulatory role in ensuring safe drinking water and appropriate disposal of waste. The Department of Ecology is also responsible for oversight of water rights. The Department of Health works closely with Fairchild Air Force Base to provide technical advice regarding its three septic systems. And regulates a number of water supply facilities serving the military installations, apart from city or county water systems. Most of the larger military installations have approved facilities with some, usually limited, capacity to expand. In most cases the limitation on expansion is due to a variety of reasons such as limited source capacity, limited water rights, and limited distribution system capacity. If expansion of these systems was desired, the Department of Health would work with facility managers on water source and engineering issues, and Department of Ecology would coordinate water rights issues.

Source: Richard Benson, Environmental Health and Safety, Department of Health

WASHINGTON'S SUPPORT FOR MILITARY PERSONNEL AND THEIR FAMILIES

EDUCATION

Washington's education system ensures that students are prepared to be successful as employees, citizens and leaders in the 21st century economy

K-20 Network

The State of Washington has sponsored a K-20 network that connects 426 public education sites throughout the state, including campuses of community and technical colleges, regional universities, research institutions, and the K-12 school districts and educational service districts. Tens of thousands of people can now conduct or have the potential to conduct research and communicate with one another without the traditional constrains of distance and cost. The K-20 Network is available to the education districts and institutions providing educational services to military personnel and their families on and off the installations.

The K-20 Network helps educators stretch limited resources and helps students gain skills for jobs in a competitive marketplace. The Network has also created new synergy among the three educational sectors - K-12, community and technical colleges and four-year universities. They are able to share information and coordinate programs like never before, allowing the state's overall education system to be more creative, more flexible and more efficient.

The Office of the Superintendent of Public Instruction (OSPI) manages the support system that keeps the network operational for K-12 schools. A key element of this system is regional institutional technical units (ITUs) at all nine Educational Service Districts (ESDs), school-level ITUs at selected districts, state level advanced technology support, and state level administration.

K-12 System

Washington is on the forefront of education reform

Washington State adopted the Education Reform Act in 1993, choosing to set consistent, rigorous education standards and high expectations for all Washington public school students. In a time of rapid technological change and increasing globalization, Washington citizens understood that curriculum and educational practices have to conform to new economic and social realities.

Since 1993, Washington educators, students and families have been focused on academic outcomes as never before. Academic standards that challenge all students to solve problems, communicate and think critically are in place across all grades and content areas. The Washington Assessment of Student Learning (WASL) is a nationally recognized assessment system that gauges student, school and community progress in reaching state learning standards. Accountability goals for reading and mathematics have produced strong achievement gains, particularly among traditionally under-served student groups.

Washington's statewide school improvement framework has three common-sense components:

1. Clear and challenging academic standards that spell out what all students are expected to know and be able to do as they advance through school. These standards help schools and communities ensure that students learn the skills and knowledge they need to pursue their future interests successfully.

2. Instructional support to help students meet the academic challenges set for them. State educational officials are working closely with local districts to increase the use of research-based tools and strategies in the classroom that have a proven ability to raise student achievement, and to provide teachers and administrators with more training on how to use those tools.

3. Accountability for what really matters: student learning. Statewide assessments that measure whether students are meeting the standards. The WASL measures student performance in reading, writing, and mathematics in grades 4, 7 and 10. A science test is given in grades 5, 8, and 10. Starting in 2006, students in grades 3, 5, 6 and 8 will take additional annual assessments in reading and mathematics. Schools are expected to continuously improve and students will be expected to meet standard in the reading, writing, mathematics and science WASL tests before graduating.

Washington continuously refines and improves its education policies and programs to meet the emerging needs of students, schools, colleges and employers. The framework of standards-instructional support-accountability is just the starting point for an intensive, statewide effort to raise student achievement, hone educator skills and improve system performance.

Unlike many states, Washington has set its sights high. Washington has emphasized quality instruction and real-world relevance. Graduates must be able to compete for top jobs in an ever-changing economic landscape. The state's standards target the skills and knowledge needed for success in this landscape.

The education standards in core curriculum areas such as reading, writing, mathematics and science, spell out what students must know and be able to do. They are clear, challenging, and focused. Washington educators, parents and business people developed these standards with help from national and international experts. Early analyses of the mathematic grade level standards indicate that these will be among the best standards in the nation. Their focus, coherence and rigor will enable Washington's students to compete internationally in mathematics achievement.

Washington was the first state, in March 2003, to receive unconditional approval from the U.S. Department of Education for its No Child Left Behind school and district accountability plan. Amendments to that plan that will increase both accountability and fairness were approved in 2004. Under this plan, schools will be expected to meet "adequate yearly progress" goals in reading and mathematics that are based on meeting the "proficient" standards on the rigorous WASL assessments. Unlike other states, Washington has kept its standards high and has not lowered them to comply with the demands of No Child Left Behind.

Washington's foundation is quality teachers

Washington's teaching force is among the most highly qualified in the nation. Approximately 99% of Washington's 57,900 teachers are fully certificated. Rates of teaching "out of field" are very low. Nearly 350 Washington teachers have earned national board certification, meaning they have met the national set of professional standards that define accomplished teaching. Another 400-plus Washington teachers are awaiting the result of their application for this rigorous certification. This credential is widely supported by state and national business leaders as an excellent way to identify and reward highly accomplished teaching against nationally agreed upon standards.

Washington is committed to math, science and reading excellence

Improving math and science outcomes are a central focus of the state's education reform efforts. Through collaborations among school districts, state government, corporations and private partners, math and science achievements are on the rise, even in our state's most struggling schools. Programs such as the Math Helping Corps, which provides extra support and resources to elementary and middle schools with low student performance in mathematics, are helping many schools throughout the state align their math curriculum with state learning standards, train teachers to use research-based methods to improve student learning, and develop family and community programs that focus on mathematics.

Science once was taught as unconnected subjects, with little integration among physics, chemistry, biology and other sciences. Today, students learn by actively doing science and studying its many interconnecting systems. Hands-on, minds-on learning allows students to see how science affects their everyday existence.

Leadership and Assistance for Science Education Reform, or LASER, is an ongoing Washington effort in more than 80 school districts to improve science education. A partnership of high-tech corporations, the Office of Superintendent of Public Instruction, Pacific Science Center and school districts across Washington State and supported with local, state, federal and private funding, LASER helps school systems fundamentally and comprehensively overhaul science teaching and learning.

Without a strong foundation in reading, students cannot succeed in the other content areas. Teaching reading used to mean only teaching book characters and themes. Today, Washington students read a wide variety of fiction and nonfiction and are asked to analyze, interpret and make connections to real-life situations. Literacy is a priority at every level, including high school. Washington has made a long-term commitment to improving reading through programs including Washington Reads (an intensive effort aimed at low-performing schools),Reading First (a K-3 reading initiative) Washington Reading Corps (a public-private partnership that identifies and trains reading tutors) and the Washington State Reading Initiative (a pre K through 16 initiative to scale up research-based reading success to every Washington school).

Students meet high standards that lead to success in work and college

The state has demonstrated its commitment to all students by creating the Certificate of Academic Achievement. All students, not just a select few, are expected to graduate from high school with the skills and knowledge needed to pursue whatever career opportunities they choose. Washington is committed to awarding high school diplomas only to students who have met state standards in reading, writing, mathematics and science. While 24 states ask students to pass high school tests as one of several graduation requirements, Washington is one of only 11 states that will require students to meet at least 10th grade standards on its statewide assessments in reading, writing and math to graduate, beginning in 2008 (meeting the science standard will become a requirement in 2010).

The state will also require students to complete "culminating projects" during their junior and senior years. These interdisciplinary research and action projects are designed by students and overseen by teachers, local business people and community members. They require students to think analytically, logically and creatively. The projects often help students understand the importance of work and how performance, effort and decisions directly affect future career and education opportunities. Students also will be required to create a "high school and beyond" plan that outlines the academic path they will take through high school and how they plan to put their skills to work - whether in college, some other sort of post-secondary training, or directly in the workforce - in their first year after high school.

K-12 and higher education policy makers are working hard to align high school and college expectations and success. The presidents of Washington's six public four-year colleges and universities recently pledged to work with the Superintendent of Public Instruction and community and technical college presidents to use the WASL as a criterion in awarding two and four year college scholarships and admissions. The University of Washington was the first to officially announce, in spring 2004, that it will begin using WASL results as one factor in awarding scholarships to incoming students.

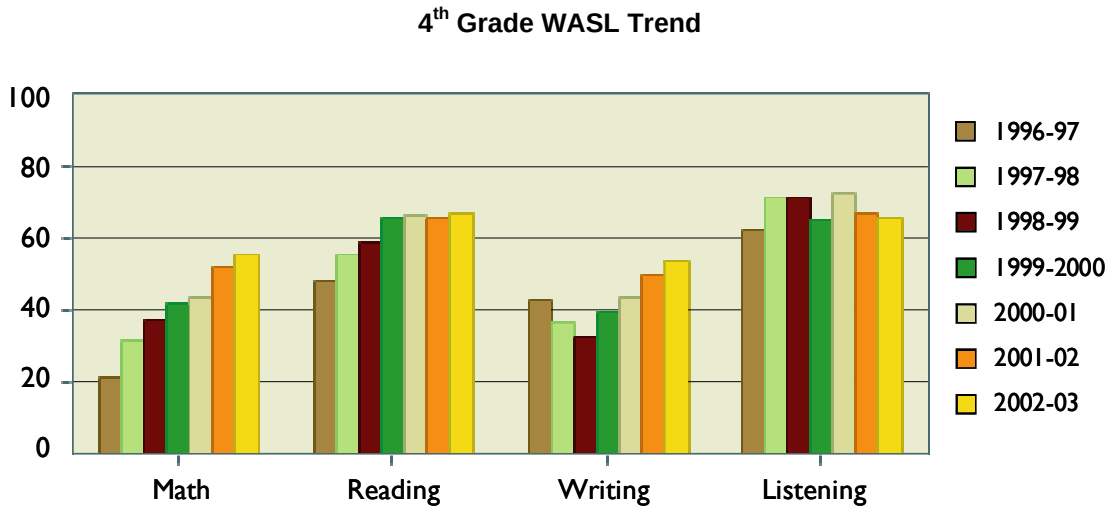
Washington has a track record demonstrated through objective test results

The College Board's Advanced Placement program is considered one of the most credible and useful indicators of American students' readiness for and success in college coursework. Washington students have made incredible gains in taking AP courses and meeting standards on AP examinations.

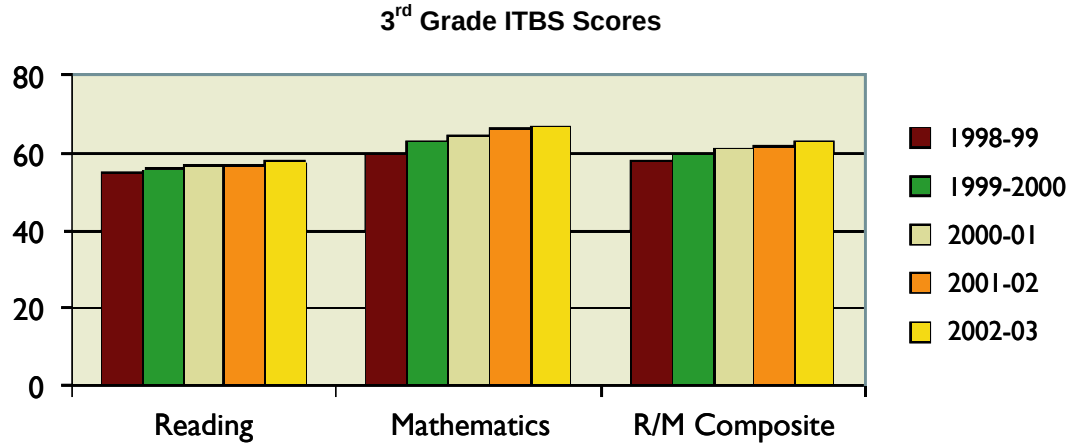
During the 2000-2001 school year, 20% more Washington students took AP exams than the previous year. This was the greatest growth in the United States. Over the past 10 years, the number of Advanced Placement exams taken by Washington students has increased by 400% -- the sixth highest growth in the nation.

The College Board's SAT is often used to see how well students are prepared for college. Of the states with more than 50% of students taking the SAT in 2004, Washington had the highest combined math and verbal scores. Washington students also were the top scorers in that subgroup in 2003. From 1993 to 2003, the average SAT score of Washington students rose 41 points, compared to a national average of 23 points: only six states have better long-term gains.

Student achievement as measured by the WASL helps families and educators understand how well students are meeting the state's rigorous academic standards. Schools statewide are making significant progress in raising student achievement. Performance on the demanding 4th grade mathematics assessment, for example, has more than doubled since 1997.



Washington's students perform significantly higher than the national average in reading and mathematics on the Iowa Test of Basic Skills (ITBS). The ITBS is often used to compare student achievement across



school districts and states. More than 60% of Washington's third-graders and about 55% of sixth-graders perform higher than the national average in both reading and mathematics. Washington fourth and eight grade students also out perform the national average - in some cases, significantly - in nearly all portions of the national Assessment of Education Progress, another nationwide test that measures reading, math and writing skills.

Washington is committed to continued improvement in K-12 education

Leading Washington employers have spurred and supported education reform in Washington. They understand the link between a quality education and a productive workforce. The Washington Roundtable, a coalition of the state's largest employers who collectively employ more than 200,000 workers, have advocated successfully for public school reform, being instrumental in the passage of the 1993 reform act and the continued commitment of state resources in working towards the goal of improving student learning. The Partnership for Learning, an independent, statewide, nonprofit coalition of business and community leaders, was founded in 1994. Funded by more than 50 small, medium and large Washington companies and foundations, the Partnership creates awareness, understanding and support for Washington's school improvement efforts. Washington's citizens are also committed to improved public education. In 2000, Washington voters approved Initiative 728 to establish the Student Achievement Fund, with an overwhelming 72% "yes" vote. To date, the Student Achievement Fund has provided about $600 million in new funding to school districts across Washington. In 2001 alone, voters approved more than $1.9 billion in local levies and bonds to improve schools in 59 school districts.

Source of K-20 Network and K-12 System: Robert Butts, Office of the Superintendent of Public Instruction

Examples of School Districts' Support for Students and Families of the Military

While many school districts serve the families of the military and civilian personnel at the various military installations in Washington State, a few are highlighted below both because they have substantial student populations from military installations and their programs are representative of the efforts made by Washington's schools to pay particular attention to the needs of the children of those serving on the installations.

Kitsap County School Districts

Kitsap County school districts teach many of the children of the men and women serving at Naval Base Kitsap and the Puget Sound Naval Shipyard. Many of the school personnel are members of the families of those serving on the installations.

The schools in Kitsap County provide the full range of educational opportunities, including advance placement college programs, special education and gifted education programs, career and technical education and programs such as Running Start and Jump Start that allow students to obtain college credit while in high school (in the case of Running Start) and high school credit while in junior high (in the case of Jump Start). They also provide support for parents who choose to home-school their children and programs for students who want or need alternative learning environments such as the Montessori program.

Because of the substantial military population in Kitsap County, the schools also participate in a number of programs involving partnerships with the military installations. The schools participate in Personal Excellence Through Cooperative Education (PECE), with over 30 command/school partnerships and volunteer contributions of over 22,000 hours. The Trident Training Facility provides hands-on instruction for five-grade students in Central and North Kitsap schools under a program known as National StarBase Atlantis. Kitsap County residents are proud of their Naval Undersea Museum, which provides a countrywide elementary science education program. The local chambers of commerce have military affairs committees that work with the installations, the schools and local businesses to support

the military families moving into the area. The schools participate in Partnerships with Navy Fleet and Family Support Centers to provide counseling to military children who have a parent deployed. The schools also work with Navy Region Northwest as part of the Military Child Education Coalition, which provides schools and military families with school transition materials to ease a child's experience in entering and leaving school.

Because of recent reductions in school enrollments and a forward-looking building program, Kitsap schools have the ability to absorb additional students.

Source: Catherine Davidson, Superintendent, Central Kitsap School District.

Clover Park School District

Clover Park School District teaches many of the children of the men and women serving at Ft. Lewis and McChord Air Force Base. Last year, 33% of the students lived on military bases and 40% were funded military dependents under Impact Aid. Many of the school districts employees are spouses or family members of active duty military personnel.

Clover Park schools provide an excellent education to the students. Over 60 of the teachers are candidates for National Board for Professional Teaching Standards certification. In 2003, the district met the AYP goal in 94 of 111 categories as measured by No Child Left Behind. Of 453 students graduating in June 2004 from Clover Park and Lakes High Schools, 92 were honor graduates and 188 were award and scholarship recipients. Clover Park and Lakes high schools offer 10 advanced placement classes, and SAT scores have continued to improve.

The Clover Park School District is a member of the Military Child Education Coalition. Clover Park School District and Fort Lewis also jointly participated in the US Army's Secondary Education Transition Study. As a result of the study, Clover Park School District is the only school district in Washington to sign the SETS Memorandum of Agreements. It provides a common structure for information-sharing and reciprocal processes. Ft Lewis and McChord Air Force Base are considered "compassionate duty" assignments due to their close proximity to Madigan Army Medical Center. As a result, the school district has a high percentage of medically fragile and special needs students. Evergreen elementary on Ft. Lewis was designed and built to specifically meet the needs of fragile children and their caretakers. Each elementary school has a full time counselor to assist students who have a parent who has been deployed. Schools on post and base has partnerships with Overwatch unites assigned to help them with special projects. The school district also actively participates in "newcomers briefings" at Ft Lewis and McChord. In addition, school principles and Ft. Lewis and McChord AFB leaders meet monthly to discuss educational and operational issues that have an impact on military families. Clover Park School District's commitment to military families included the videotaping of high school graduations and interviews with students who had family members who were deployed and unable to attend graduation. The video was transferred to a DVD, and then sent to the military family member in his/her deployment area, so they could still take part in their child's special accomplishment.

Source: Kim Prentice, Clover Park School District

Oak Harbor School District

Oak Harbor School District teaches many of the children of the men and women serving at Naval Air Station Whidbey Island. In fact, 56% of the students have parents at NASWI. Many of the school personnel also belong to the military families.

Oak Harbor School District offers a high quality education for all its students. It offers ten Advanced Placement classes enrolling over 200 students each year. High school juniors and seniors perform exceptionally well of SAT tests, and the district's WASL scores are at or above the state average.

NASWI is listed as a "compassionate care duty station" where students with medical or learning needs can be sent for high quality specialized care. In particular, the Oak Harbor school district has a worldwide reputation for a program that serves students diagnosed with autism. It has an active partnership with the Navy through a school counselor program that works with children who have a parent deployed. The Navy's Morale, Welfare and Recreation Department operates a before and after school daycare program at each elementary school. Each school has a partnership with two or more squadrons or departments at the base, with over 15,000 hours per year of volunteer time from active duty Navy personnel.

Communication between the school district and the base is continuous. Each year the Navy Base Family Service Center provides training to school district administrators and counselors in specific issues relevant to Navy families. The school district regularly attends monthly ombudsmen meetings on the Navy base. The base provides tours of the Navy facilities for new school district staff to familiarize themselves with operations of the base and the needs of families. The school district is also an active member of the Oak Harbor Council of the US Navy League.

Source: Rick Schulte, Superintendent, Oak Harbor School District

Medical Lake School District

The Medical Lake School District provides educational and support services to the children of the men and women stationed at Fairchild Air Force Base in Eastern Washington.

The principles at the elementary school, middle school and high school each make a point of meeting individually with each family, gaining information about any concerns or special needs. They tour the school with the families and introduce them to the office staff, the children's teachers and the counselors. The teachers sponsor special orientation and welcoming events for the students and families, and work closely with the counselors to make connections between school and home and help the students' transition to Fairchild Air Force Base. They also encourage parents to volunteer time in the schools. Anderson Elementary works closely with the Big Brothers and Big Sisters Program. Adults in the program meet at the school with students whose parent(s) may be deployed to provide support, encouragement, assistance with homework, etc.

A new elementary school was recently completed on Fairchild Air Force Base. It was dedicated to the memory of astronaut, Lt. Colonel Michael Anderson on January 10, 2004. It is a 75,000 square foot building and houses 631 military dependents, kindergarten through 6th grade. It was built with a 6 million dollar grant from the Department of Defense and 4.8 million dollars in state matching funds. The school boasts state of the art technology and library/media services, as well as excellent classrooms, playfields and curriculum. Anderson's current enrollment is 631 students but has capacity for 725 students, so there is room for student growth.

Anderson Elementary provides an exemplary curriculum in the basics of reading, writing, mathematics, science and social studies. In addition many enrichment activities are provided. They include web page design basics, beginning and intermediate Spanish for all grades, math and science programs and clubs, computer art, broadcast news programs and drama activities. Anderson Elementary also offers programs to assist students that may be struggling in reading, writing and/or mathematics. They include Title I, Learning Assistance and extended learning opportunities after school and during the summer. Intramural and Co-Educational activities offered at Anderson include softball, basketball, floor hockey, racquetball, volleyball and training for the annual Bloomsday Run.

The Medical Lake Middle School educated approximately 148 military dependents during the 2003-04 school year, or 43% of the total school population. The school provides an exemplary curriculum in the basics of reading, writing, mathematics, science and social studies. In addition many enrichment activities are provided. They include WEB page design basics for students; Math Olympia, Science Club,

Chess Club. Medical Lake Middle School also offers programs to assist students that may be struggling in reading, writing and/or mathematics. They include Learning Assistance and extended learning opportunities after school and during the summer. Competitive sports are offered at Medical Lake Middle School through the Washington Interscholastic Athletic Association and include softball, basketball, football, volley ball, tennis, track and wrestling.

Medical Lake High School educated 249 military dependents during the 2003-04 school year, or 35% of the total school population. The school has 699 students with capacity for 800 so there is room for student growth. The school provides an exemplary curriculum in the basics of reading, writing, mathematics, science and social studies. In addition advanced placement classes are offered in United States and European History, Calculus, and Chemistry.

Source: Pam Veltri, Superintendent of the Medical Lake School District

Everett School District

Everett School District works with students throughout the district to meet the goal of each student learning to high standards. Recently released scores on the WASL test show Everett students exceeded the state average in every subject in every grade level. SAT scores also exceed state and national averages. Community support for the schools has been consistently demonstrated through voter approval of operational levies and capital bond measures. The approach that the Everett School District takes with students from military families is the same as with all of its students: attention to each individual student to determine their needs and tailored support to meet those needs. The district's high schools offer Running Start and Advanced Placement programs for students in addition to the regular programs.

Gay Campbell, Communications Director, Everett Public Schools

HIGHER EDUCATION

Through Washington State Legislation, active duty military personnel and their family members enroll in institutions of higher education at the in-state tuition rate. The following in-state tuition eligible definitions are an excerpt from RCW 28B.15.012:

f) A student who is on active military duty stationed in the state or who is a member of the Washington National Guard;

g) A student who is the spouse or a dependent of a person who is on active military duty stationed in the state. If the person on active military duty is reassigned out of state, the student maintains the status as a resident so long as the student is continuously enrolled in a degree program;

h) A student who resides in the state of Washington and is the spouse or a dependent of a person who is a member of the Washington National Guard.

Community & Technical College System

Washington's community & technical college system makes education affordable and within easy access - and focuses on employers' needs for a highly skilled workforce

Washington's 34 community and technical colleges offer a wide range of education programs for adults, including job training, college transfer courses, basic skills, high school completion, and GED preparation. The colleges are conveniently located through campuses and extension sites. Courses are also available via video and the Internet. They offer classes with day, evening and weekend options. The colleges feature affordable tuition and financial aid for those who can't afford the cost. Because of the focus on student learning, the colleges are dedicated to teaching and provide smaller classes with more personal

attention. The colleges offer a "Running Start" program that allows high school students to take courses that provide credit towards both high school graduation and a college degree.

Community and technical colleges are the state's premier job training institutions. The college system offers some 1,000 vocational education programs leading to employment in hundreds of different occupations. Employers work with the colleges to ensure that the skills students learn meet their needs. Many vocational programs combine technical training with basic skills instruction - reading, writing and math - to provide students the tools they need to adapt to changes in the work world. Students also have opportunities in many programs to attend school while working in their chosen field. Cooperative education arrangements provide realistic experience and the opportunity to see if the vocation is the right one. Apprenticeship programs are also available, combining classroom instruction with on-the-job training and experience.

Many students who attend community colleges enter transfer programs that provide the first two years of a bachelor's degree program. These students then transfer to a four-year institution to complete their undergraduate studies. Academic classes offered at community colleges include a broad array of general education and liberal arts studies: English, math, communications, the humanities, science, social sciences, fine arts and physical education, for example. These courses provide the general college requirements needed by freshmen and sophomores who want to earn a four-year degree.

While all of the community and technical colleges are open to members of the military and their families, several of the colleges are in close proximity to the military installations in the state, and have developed close working relationships.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Bates Technical College, in Tacoma, had an enrollment of 5,764full-time equivalent students during 2002-03. In 2002-03, it awarded 185 associate degrees in workforce education, 696 certificates that involved programs lasting one year or more, 222 certificates in programs less than one year, 94 apprenticeships, 105 high school diplomas and 67 GEDs. Bates offers 44 programs leading to degrees and provides training for more than 350 careers. It also has a high school and includes a Running Start option. Bates offers a carpentry program for incarcerated solders at Ft. Lewis, and expects to expand its offerings in this area. The college also has a partnership with McChord Air Force Base's Fire Service to provide training in exchange for the use of the base's fire tower.

Source: Sally Perkins, Bates Technical College

Clover Park Technical College, in Lakewood, had an enrollment of 4,951 full-time equivalent students in 2002-03. In 2002-03, it awarded 244 associate degrees in workforce education, 252 certificates in programs lasting one year or more, 895 certificates in program less than one year, 28 apprenticeships, 31 high school diplomas, and 47 GEDs. Clover Park offers occupational-technical training in over 80 degree and certificate career areas that reflect the economic needs of Pierce County. Full-time career training is offered in business, technology, communications, manufacturing, electronics, health care, service occupations, transportation and natural resources. Through its Extended Learning Department, the college offers late afternoon, weekend and evening classes for those who wish to retrain or upgrade their current job skills. Clover Park has off-campus training sites at Ft. Lewis and a 110-acre Outdoor Laboratory and Research Park at Flett Creek. The Aviation Maintenance Technician and Professional Pilot programs are housed at Thun Field in Puyallup.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Everett Community College has a close working relationship with Naval Station Everett. The college had 6,056 full-time equivalent students (community-wide) in 2002-03. It awarded 543 associate degrees for academic transfer, 208 associate degrees in workforce education, 161 certificates in programs lasting one year or more, 46 certificates in programs lasting less than one year, 31 apprenticeships, 105 high school diplomas and 147 GEDs.

Source: Lorna Sutton, State Board for Community and Technical Colleges

An enrollment services representative from Everett Community College is available on Monday through Thursday afternoons at the Naval Education Center to assist military staff and their families with advising and enrollment services. The college works with military personnel to facilitate the tuition assistance programs that are provide through the armed services. It also maintains a Veteran's Affairs Office so that those military personnel who are qualified receive their tuition benefits. The college participates in career fairs and place advertisements in naval station publications to make military personnel and their dependents aware of the educational services available through Everett Community College. Everett Community College is a member of the Servicemembers Opportunity Colleges. This ensures that credits earned by military personnel at other colleges and universities are accepted at Everett Community College and that credits earned at Everett Community College are transferable to other SOC member schools. As a member of the American Council on Education, Everett Community College follows national guidelines for review of military credits to facilitate degree attainment.

Everett offers two degree programs and one certificate program that are fully attainable through "distance learning". It offers over 50 courses in on-line, telecourse or hybrid formats, enabling students to pursue their education on a flexible schedule.

Source: Dottie Krzyzanoski, Everett Community College

Olympic College in Bremerton had a full-time equivalent student enrollment of 5,012 in 2002-03. It awarded 556 associate degrees for academic transfer, 335 associate degrees in workforce education, 100 certificates in programs lasting for one year or more, 489 certificates in programs lasting less than one year, 14 apprenticeships, 74 high school diplomas and 105 GEDs.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Olympic College is a Servicemembers Opportunity College. Approximately 25% of the students enrolled on a quarterly basis have some service-related connection. The College hosts the largest Federal (US Navy sponsored) Apprenticeship Program in Washington State. Enrollment totals approximately 600 students. The College has also been designated a homeport training activity, one of only a few in the nation. The College is equipped and staffed to provide training to active and reserve sailors to develop their skills and proficiency in critical areas. In partnership with the Navy and other regional emergency service partners, the College has developed the Kitsap County Emergency Services Readiness Complex near Puget Sound Naval Shipyard. It serves the emergency service training needs of the Navy throughout the entire Puget Sound Region. Olympic College is a founding member and current chair of the Defense Training and Education College Consortium, which seeks to provide an expanded set of accredited certificate and degree-level learning pathways to sailors both in homeport and at sea. The College is expanding its distance learning programs. It is working to establish a new Apprenticeship and Military Education Program Coordinator Office, which will work more directly with military and community stakeholders to design and develop courses and programs of interest to the military population. This will bring together many functions previously dispersed among several offices.

Source: David Mitchell, President, Olympic College

Pierce College District has two colleges, Pierce College Fort Steilacoom in Lakewood and Pierce College Puyallup in Puyallup. Pierce Fort Steilacoom in 2002-03 had an enrollment of 6,128 full-time equivalent students. In 2002-03, it awarded 836 associate degrees for academic transfer, 185 associate degrees in workforce education, 64 certificates in programs lasting one year or more, 100 certificates in programs lasting less than one year, 73 apprenticeships, 43 high school diplomas and 56 GEDs. Pierce Puyallup in 2002-03 had 2,242 full-time equivalent students. It awarded 317 associate degrees for academic transfer, 54 associate degrees in workforce education, 39 certificates in programs lasting one year or more, 5 certificates in programs lasting less than one year and 63 high school diplomas.

Source: Lorna Sutton, State Board for Community and Technical Colleges

The Pierce College District Military Program works in partnership with both the Ft. Lewis and McChord Air Force Base Education Centers to support, improve and implement the educational, professional and personal development of military personnel and their adult family members, Department of Defense civilians, and, on a space available basis, members of the surrounding community. The Military Program carries out the objectives and responsibilities, as delineated in the Memorandum of Understanding between Pierce College and each of these military installations.

Learning is very important to military students, but because of national security obligations, their learning often cannot be accomplished in the traditional manner. The college's purpose is to foster learning in an environment where each person's unique educational needs are recognized.

The college's military initiatives are focused on enriching the academic program and providing greater opportunities for all students. Pierce College has invested substantial resources in new technologies to ensure that it is equipped to access and make full use of the information highway. Furthermore, the college has committed to establishing and maintaining science and electronic laboratories of the highest quality. Objectives of the Military Program are as follows:

- Work in partnership with the Army and Air Force, other educational institutions on the installations and Service members Opportunity College and Community College of the Air Force;
- Provide high-quality lower-division academic and technical courses that lead to academic or technical degrees or certificates;
- Strongly encourage students through publications, student financial counseling and career counseling to obtain two-year degrees and continue their educational programs;
- Maintain the academic integrity and standards of Pierce College in all courses offered on the installations;
- Understand the obligations of U.S. military personnel and provide courses, course lengths and class schedules that accommodate their needs;
- Seek continuously to improve the college's educational program through the increased use of technology and in-service training for the instructional administrative staff.

To further enhance course access and flexibility for military students, the Military Program has expanded courses offered through distance learning. Presently over 90 courses are available for enrollment. These asynchronous courses are delivered via the WebCT Course Management System and are available anytime, anywhere, throughout the world. Currently, students in Iraq, Kuwait, Korea, Afghanistan, Germany and many states within the continental US are participating. These online courses afford the military student the opportunity to continue taking courses, regardless of their military location.

In addition to the Military Program Online courses, Pierce College is an Education Partner with IBM as a participant in eArmyU, Army University Access Online.

Participation in eArmyU affords the college the opportunity to further enhance services available to Army personnel. Outcomes of participation in eArmyU include:

- Increased enrollment;
- Flexible courses which make possible more graduates;
- Enhanced marketing and visibility for the College in an international environment;
- Further development and collaboration with Army installations around the world;
- Expansion of on-line course availability;
- Continued opportunities for life long learning.

Through the Military Program Online and eArmyU, military personnel have the opportunity to achieve their educational goals, an opportunity which otherwise might not be afforded to them.

Another unique facet of service that Pierce College provides to the Ft. Lewis community is offered through a contract with the Ft. Lewis Directorate of Contracting for the Family Advocacy Program. Classes, which are free to the students, include Effective Parenting, Stress Management, Anger Management, Professional Development for Non-commissioned Officers, and Prevention of Domestic Violence. Enhancement and growth of skills in these areas is critical with the increased stress that is placed upon today's military personnel and families. These valuable skills can be applied in both the professional and personal aspects of military service.

Source: John P. Fortugno, Interim Vice President for Extended Learning, Contract Programs, Pierce College

Skagit Valley College, based in Mount Vernon, had a full-time equivalent student population of 4,622 in 2002-03. It awarded 452 associate degrees for academic transfer, 185 associate degrees for workforce education, 100 certificates lasting one year or more, 54 certificates for programs lasting less than one year, 14 apprenticeships, 45 high school diplomas and 72 GEDs.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Skagit Valley College has a fully comprehensive campus located in Oak Harbor, roughly five miles from the entrance to NAS Whidbey Island. The campus is located in an area that makes it very convenient to military personnel and their dependents. Military housing located close to the campus includes: Victor Park and Saratoga Heights, which is within walking distance to the campus; Rockhill Terrace and Maylor Point, which is one mile from the campus, and Crescent Harbor, which is 3 miles from the campus. The college offers a wide variety of general education (including GED and adult high school diploma), university transfer classes and technical degrees and certificates in office business technology, practical nursing, computer information system and marine maintenance technology. In addition, the college offers a wide variety of classes online including the Associate in Arts University and College Transfer Degree. Skagit Valley College is a SOC/NAV institution and grants an Associate in Arts General Studies SOC/NAV degree.

Source: Mick Donahue, Vice President, Whidbey Island Campus, Skagit Valley College.

Many members of the military reside in Thurston County, which is home to **South Puget Sound Community College**. SPSCC, based in Olympia, had 3,983 full-time equivalent students in 2002-03. It awarded 410 associate degrees for academic transfer, 196 associate degrees in workforce education, 124 certificates in programs lasting one or more years, 4 apprenticeships, 31 high school diplomas, and 111 GEDs.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Especially useful to service personnel at Ft. Lewis and McChord Air Force Base is the Hawks Prairie Center, which offers college transfer and adult basic education courses, and features the Center for Continuous Learning, which provides training and consulting services in a number of computer-related careers. The Washington Certified Public Manager Program is a nationally recognized certification

program offered exclusively by SPSCC at Hawks Prairie. The Thurston Fire and Rescue Training Consortium (TFRTC) hosts numerous one and two-day National Fire Academy (NFA) courses for the State Fire Marshall. Ft. Lewis has sent students to these classes. Some examples of how SPSCC has partnered with the military installations in the area:

- SPSCC provided customized 5 and 12-day training workshops in Cisco, Windows 2000 Professional, Windows 2000 Server and Windows Exchange Server for Ft. Lewis active duty military personnel at the Hawks Prairie campus in the Winter Quarter 2001 and the winter and summer quarters, 2002. Military personnel from McChord Air Force Base and Madigan Army Medical Center received training in desktop applications and database and web design during winter and spring quarters 2001, fall and winter quarters 2002, spring quarter 2003 and winter and spring quarters 2004.
- The Washington Certified Public Manager program could be very valuable to those individuals close to retiring from the military, because many subsequently seek employment in state and local government agencies in the area.
- Thurston Fire and Rescue Training Consortium hosts numerous one and two-day National Fire Academy courses for the State Fire Marshal. Ft. Lewis has sent students to these classes - in 2004, 15 students attended. In Fall 2004, SPSCC will offer the two-year Fire Officer Degree program. Ft. Lewis and McChord AFB will receive notification of this opportunity.

Source: Michael Beehler, Vice President, Instruction, South Puget Sound Community College

Spokane Community College had a full-time equivalent student enrollment of 6,742 in 2002-03. It awarded 368 associate degrees for academic transfer, 635 associate degrees for workforce education, 295 for certificates in programs lasting one year or more, 31 certificates in programs lasting less than one year, and 154 apprenticeships. Widely known for its state-of-the-art technology, SCC is one of the largest professional/technical community colleges in Washington State. It offers degree and certificate programs in over 90 fields, including electronics, hydraulic and pneumatic automation, web technologies and more than a dozen health careers. While quality career skills education leading to associate in applied science degrees remains the traditional strength of the college, a broad liberal arts program also supports SCC graduates in transferring to four-year colleges and universities. Recent figures indicate that SCC's liberal arts program ranks in the top half in the state in transfer numbers.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Spokane Falls Community College had a full-time equivalent student enrollment of 9,192 in 2002-03. It awarded 655 associate degrees for academic transfer, 227 associate degrees for workforce education, 75 certificates in programs lasting one year or more, 20 certificates in programs lasting less than one year, and 320 GEDs. The college emphasizes pre-major and liberal arts instruction, and is among the top three community colleges in the state in number of students who transfer to four-year universities. Students interested in pursuing bachelor's degrees in art, law, aviation/airway science, business, computer science and many other fields often begin their studies in one of over 30 pre-major programs at SFCC. The associate of science transfer degree is intended for students majoring in science who wish to transfer as juniors to four-year institutions in Washington. This degree allows students to concentrate on fulfilling pre-major coursework in their intended field of study.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Tacoma Community College, in Tacoma, had a full-time equivalent student count of 6,803 in 2002-03. It awarded 514 associate degrees for academic transfer, 225 associate degrees in workforce education, 99 certificates in programs lasting one or more years, 141 certificates in programs lasting less than one year, 28 high school diplomas and 173 GEDs in 2002-03. The college offers a degree or certificate in 44 professional-technical career programs, focusing on business, information technology, health careers, public service and other areas where demand for qualified personnel is on the rise.

Source: Lorna Sutton, State Board for Community and Technical Colleges

Four-Year/Baccalaureate Institutions

Washington has six public universities, plus a number of distinguished private universities, providing a comprehensive program of higher education from the bachelor's level on through doctorate degrees. Military personnel and their family members are able to access programs on these campuses, many of which are within commuting distance of the major military bases in the state.

The following table shows total fall enrollments at the public universities in 2003. Service members pursuing a higher education degree, as well as their family members, have excellent access to comprehensive university campuses. The State of Washington facilitates access in several ways. Active duty service members stationed in Washington, and their immediate family members, are granted residency for tuition purposes, which reduces the financial requirements substantially.

In addition, a number of the public campuses (along with several private institutions) belong to the Serviceman's Opportunity College network, which facilitates transfer of credits should the student in a military family be transferred to another location before the degree is earned (see table below). All of the major public campuses and several of the private institutions provide Reserve Officer Training Corps programs, an option for young people planning military careers (see table below).

Two of the public institutions (University of Washington and Washington State University) are research universities, and many of the research programs serve Department of Defense needs. For example, the Applied Physics Laboratory on the University of Washington campus supports programs at the Keyport Undersea Warfare Center.

Public Universities and Nearby Military Bases

Institution	Fall 2003 total enrollment (headcount)	Military bases within commuting range of the campus
University of Washington-Seattle	39,135	NS Everett, NS Kitsap
UW-Bothell	1,613	NS Everett
UW-Tacoma	2,008	Ft. Lewis, McChord AFB
Western Washington University	13,845	NAS Whidbey
Washington State University-Pullman	19,424	
WSU-Spokane	856	Fairchild AFB
WSU-TriCities	1,194	
WSU-Vancouver	1,905	
Eastern Washington University	10,337	Fairchild AFB
Central Washington University	9,903	Yakima Training Center
The Evergreen State College	4,380	Ft. Lewis, McChord AFB

Data sources: Integrated Postsecondary Education Data System (U.S. Department of Education) for all institutions except Washington State University campuses. WSU: Higher Education Enrollment Report, Office of Financial Management

In addition to the full campus programs, two of the public universities have specialized centers located in cities near military bases; these specialized centers extend access to higher education for place-bound students who cannot commute to a campus that may be a 30 or 45 minute drive, and they bring higher education programs into the communities where they are located.

Specialized University Centers Near Military Bases

Institution	2001-02 average headcount enrollment*	Location of Center	Programs
Central Washington University	89	Steilacoom (near Ft. Lewis and McChord AFB)	Engineering Technology, Law & Justice
Western Washington University	178	Bremerton (near NS Bremerton)	Education, Human Services
Western Washington University	261	Everett (near NS Everett)	Education, Human Services
Central Washington University	367	Lynwood (near NS Everett)	Business, Technology, Organizational Dvelopment
Western Washington University/ Skagit Valley College	57	Oak Harbor (near NASWI)	Education, Arts & Science

**Enrollment data included in total enrollments shown in prior table.*

Data Source: Higher Education Committee, Washington State House of Representatives, January 31, 2003

The state is also served by a several private colleges and universities, many of which are located in communities near the military bases, and other private institutions have developed specialized programs located on the bases as shown in the tables below.

Major Private Universities and Colleges

Institution	Fall 2003 Total Enrollment (headcount)	Military Bases within Commuting Range
University of Puget Sound	2,760	Ft. Lewis & McChord AFB
Pacific Lutheran University	3,462	Ft. Lewis & McChord AFB
St. Martins College	1,489	Ft. Lewis & McChord AFB*
City University	3,820	Ft. Lewis & McChord AFB
Seattle University	6,659	NS Everett, NS Bremerton
Seattle Pacific University	3,728	NS Everett, NS Bremerton
Gonzaga University	5,494	Fairchild AFB
Whitworth College	2,298	Fairchild AFB
Henry Cogswell College	230	NS Everett

**St. Martins enrollment includes 460 students at sites within Ft. Lewis and McChord AFB*

Data source: Integrated Postsecondary Education Data System (U.S. Department of Education)

Specialized Higher Education Programs Offered on Military Bases

Institution	Military Base
Webster University, Southern Illinois, Park University, Embry-Riddle Aeronautical	Fairchild AFB
Chapman College, Central Texas	Ft. Lewis
Chapman College, So. Illinois University	NSB Bangor
Vincennes University	NS Bremerton
Columbia College of Missouri, Chapman College, Embry-Riddle Aeronautical	NAS Whidbey

Serviceman's Opportunity Colleges in Washington

Eastern Washington University
Henry Cogswell College
Saint Martin's College
Washington State University
University of Washington - Online Degree Programs
University of Washington, Tacoma
Washington State University

Reserve Officer Training Programs in Washington

University of Washington	Air Force, Army, Navy
Washington State University	Army
Western Washington University	Army, Navy, Air Force
Pacific Lutheran University	Army
Seattle University	Air Force, Army, Navy
Seattle Pacific University	Air Force
Eastern Washington University	Army
Gonzaga University	Army

Source: Paul Sommers, Office of Financial Management

Washington residents can now enter the Army through a new pathway that leads to enrollment at the Institute of Technology at the University of Washington, Tacoma, then to businesses already interested in interviewing them for jobs upon graduation. The University of Washington, Tacoma, United States Army Recruiting Command, Pierce College and South Sound business organizations recently signed an agreement to cooperate in the statewide effort to recruit individuals who wish to serve in the Army, earn a degree at UW Tacoma and then enter the workforce in Washington State. The agreement is designed to reduce or eliminate financial need as a barrier to higher education, while ensuring talented residents who enlist in the Army return to the state after their tour of duty is complete. Through the new program, soldiers receive academic advising in taking courses that will transfer toward a bachelor's degree through the Institute of Technology at UW Tacoma while earning the first two years of their degree through Army education programs as they serve across the globe. Soldiers at Ft. Lewis can complete some or all of this work at Pierce College or other UWT partner institutions. Businesses who partner with the Army can establish relationships with high-quality future employees and take advantage of Army experience and training.

Source: Gary Brackett, Tacoma-Pierce County Chamber of Commerce

EMPLOYMENT TRENDS

Washington's employment outlook is strong, creating a long-term market for military families and veterans

Long Term Economic Trends

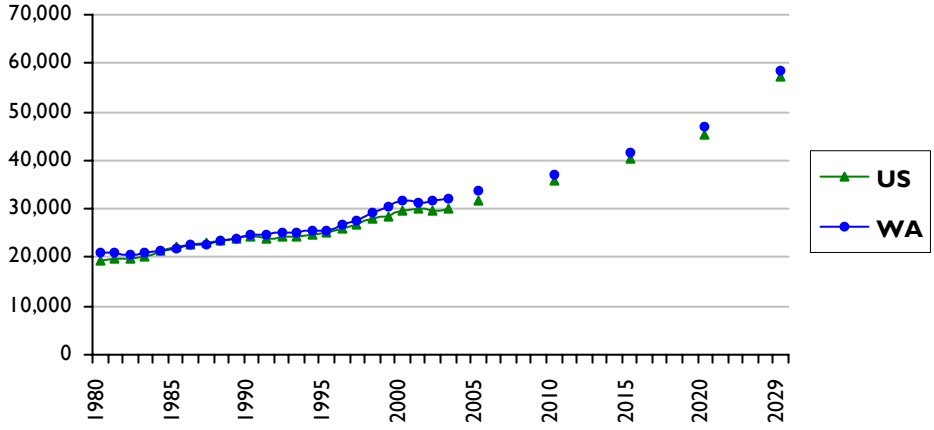
Washington has a strong a diverse economy, providing many job opportunities for family members of active duty military personnel stationed at bases in this state. Significant features of Washington's economy include:

- Per capita income slightly above the national average and projected to grow at or above the national pace of growth
- Employment has grown more relatively rapidly in the last two decades and is projected to keep growing more rapidly than the nation. Strong technology industries are a key to this pattern of growth.
- Washington was hit more severely than the nation during the most recent business cycle. However, major industries including software publishing and airplane manufacturing are currently expanding and the state economy as a whole is recovering from the recession.
- Most of the military bases in Washington are located near the large urban area in the Central Puget Sound, and family members of active duty military personnel at these bases can participate in the Everett-Seattle-Tacoma metropolitan area labor market.
- Family members stationed at Fairchild can access the largest labor market in eastern Washington in Spokane County.
- Long-term county-level labor market projections suggest expansion of the Central Puget Sound and Spokane labor markets, providing many opportunities for family members of military personnel stationed in Washington.

Washington State has a healthy and diverse economy that tends to grow at a pace slightly faster than the national average due to strong high tech (software and biotechnology) and export (aircraft, agricultural and forest products) sectors. Long-term projections suggest that these trends will continue into the next decade and beyond.

Washington's Office of Financial Management has analyzed statewide employment and personal income trends. Per capita income has tracked the national average quite closely, and OFM's long-term projections suggest that this close relationship will persevere over the next two decades. The chart also shows a projected doubling of per capita income between 2004 and 2029.

Actual and Forecasted Per Capita Income

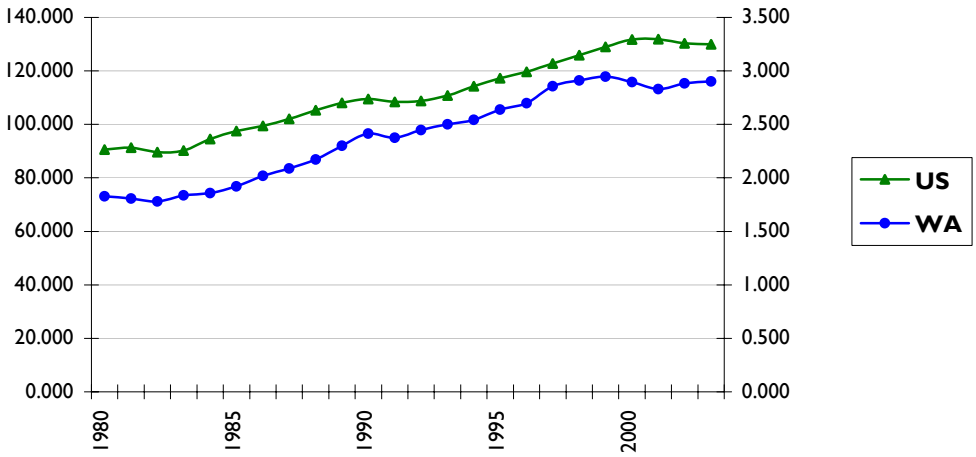


Source: Washington Office of Financial Management

During the last half of the 1990s, strong growth of income in software publishing drove Washington's per capita average above the nation, and long term projections suggest that Washington may retain a slight edge over the nation in per capita income in the next several decades. This above average performance in terms of per capita income suggests the availability of well paying jobs in the state, particularly in the advanced technology sectors. Family members of military personnel who secure jobs in these sectors have particularly attractive earnings prospects.

Washington's Employment Security Department tracks employment trends and projects future employment out to 2012 for the state and for individual counties. The following charts show trends for both the state as a whole and the counties near the major military bases where family members of military personnel may seek job opportunities.

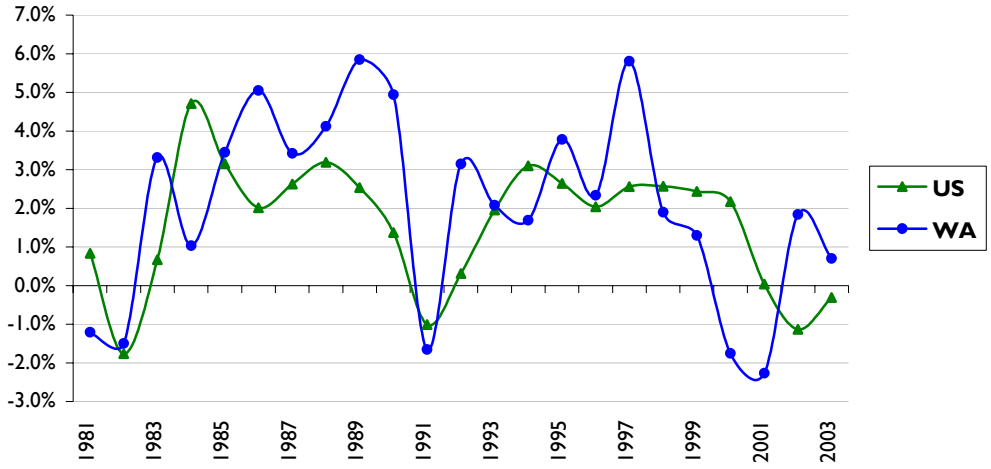
Employment in the U.S. and Washington State (millions)



Source: Washington Employment Security Department and U.S. Department of Labor

Employment in Washington tracks the national business cycle, although the most recent recession was more severe in Washington than it was nationally. Employment in Washington grew by 38% from 1982 to 1992, compared to 21% for the nation. From 1992 to 2002, employment in Washington grew by 18%, compared to 20% for the nation. The recession of 2001 has ended, and growth is returning in Washington's major industries, including software publishing and airplane manufacturing. From 2002 to 2012, employment is projected to expand by 17% in Washington and 15% in the U.S. as a whole.

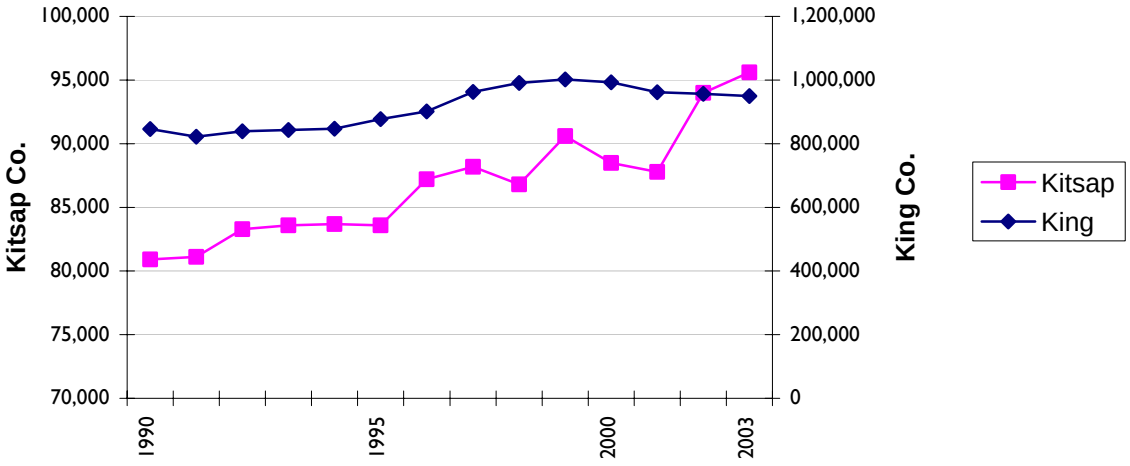
Employment Growth in the U.S. and Washington State



Source: Washington Employment Security Department

Family members of Navy personnel stationed in Kitsap County have access to a growing labor market in Kitsap County, as well as the much larger and expanding market in King County, a 30-60 minute ferry ride from Kitsap County. From 1992 to 2002, employment in Kitsap County grew 13%, while King County employment expanded by 14%. From 2002 to 2012, employment is projected to expand by 15% in Kitsap County and 17% in King County.

Employment Trends in Labor Market Near Kitsap Co. Bases



Source: Washington Employment Security Department

Family members of Navy personnel stationed at the Everett NS have access to the growing labor market in Snohomish County. Many Snohomish County residents also commute to King County, a labor market about three times the size of the Snohomish County market. From 1992 to 2002, employment in Snohomish County grew 28%, while King County employment expanded by 14%. From 2002 to 2012, employment is projected to expand by 17% in Snohomish County.

Family members of Navy personnel stationed at Whidbey NAS have access to a relatively small labor market in Island County, but many Island County residents commute via a short ferry ride to Snohomish

County to access a labor market ten times the size of the Island County market. From 1992 to 2002, employment in Island County grew 16%, while Snohomish County employment expanded by 28%. From 2002 to 2012, employment is projected to expand by 14% in Island County and 17% in Snohomish County.

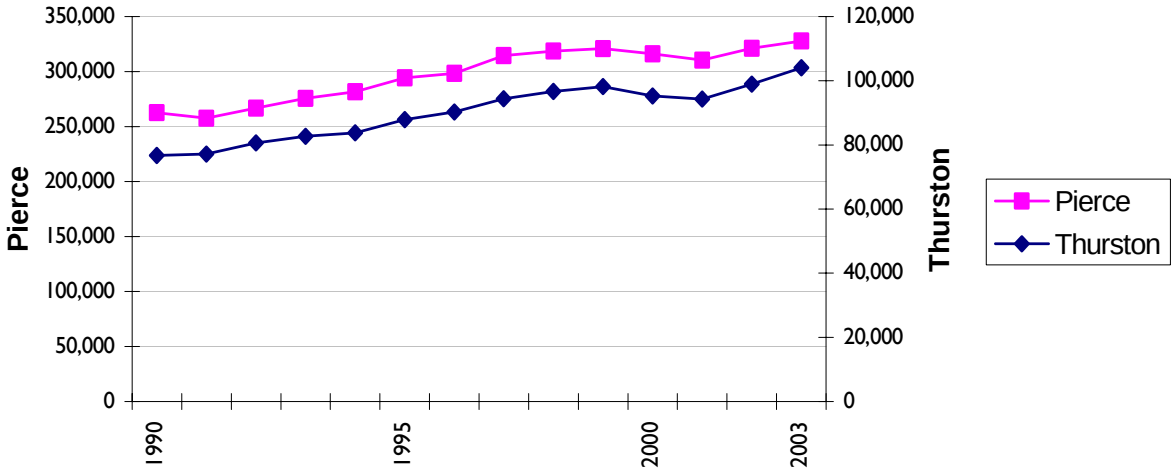
It is also feasible for these Island County residents to drive north to Anacortes or Mt. Vernon and Burlington in Skagit County for employment purposes. This labor market is about twice the size of the Island County market, and is about 30-60 minutes from NAS Whidbey by automobile.

Employment Trends in Labor Market Near Everett NS and Whidbey NAS

Source: Washington Employment Security Department

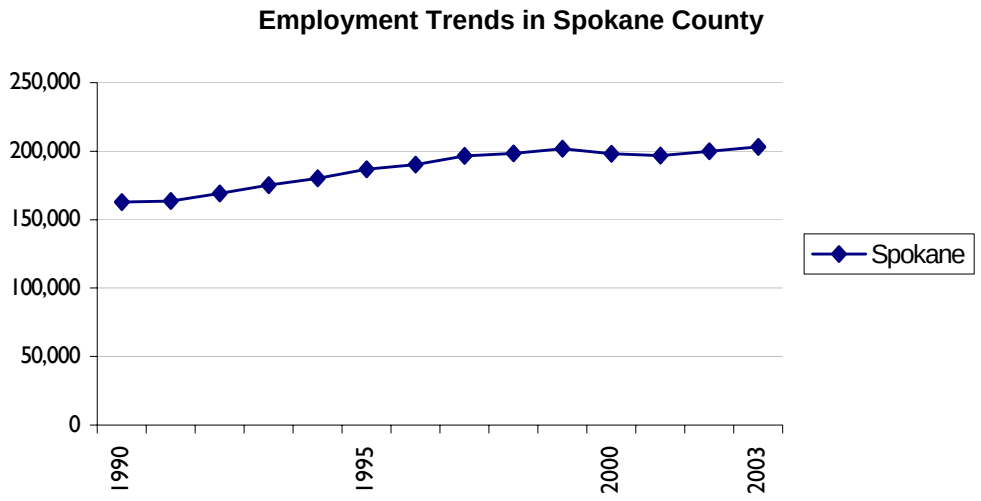
Family members of Army and Air Force personnel stationed at bases in Pierce County can access growing labor markets in Pierce and adjoining Thurston counties. From 1992 to 2002, employment in Pierce County expanded by 25%, and employment in Thurston County grew by 36%. From 2002 to 2012, employment is projected to expand by 17% in Pierce County and by 19% in Thurston County.

Employment Trends in the Labor Markets near Pierce County Bases



Source: Washington Employment Security Department

Family members of Air Force personnel stationed at Fairchild AFB can access an expanding local labor market with over 200,000 jobs. From 1992 to 2002, Spokane County employment expanded by 25%. From 2002 to 2012, employment is projected to expand by 17%.



Source: Washington Employment Security Department

Data Sources

The Washington Employment Security Department, Labor Market and Economic Analysis provided all state and county data in this section. National employment data were provided by the U.S. Department of Labor, Bureau of Labor Statistics. The Office of Financial Management, State of Washington, provided personal income data and forecasts.

EMPLOYMENT SEARCH SERVICES

The Department of Employment Security's programs for job seekers extend to military families and individuals transitioning to the civilian sector

WorkSource Center Services

While Employment Security does not have any programs specifically geared towards military spouses, it does operate more than 30 WorkSource Centers, many of which are in communities near military installations, and the services include free job search information and placement assistance. These services are available to all military personnel and their families.

Source: Gary Kamimura, Employment Security Department

WorkSource Centers provide all the information, technology and services business needs to thrive and job seekers need to achieve successful careers. They represent a unique concept in the labor market - everyone in one place. WorkSource Center Services are delivered to customers in a variety of ways, including:

- Self-directed efforts such as kiosks or via the Internet,
- Group programs and activities such as workshops,
- One-on-one consultations, and
- Training programs and business consultations.

WorkSource Affiliates serve special populations and are electronically linked to the system. All affiliates offer self-service resource rooms and job search activities.

Services for businesses include:

- Computer job matching
- Electronic job postings and resume banks
- Help with recruitment and layoffs
- Assistance arranging customize training
- Information on business, industry and economic trends
- Workplace consultations.

Services for job seekers include:

- Free use of computers, copiers, phones, faxes and other career resources
- Internet access to jobs
- Job referral and placement
- Classes on how to get and keep a job
- Information on the fastest growing jobs and wages
- Referral to training and other community services
- Access to unemployment insurance.
- Translation services.

Source: ESD WorkSource Internet Site

The Employment Security Department and the Navy are close to signing a Memorandum of Understanding that would have ESD assume the employment service role that was heretofore provided by the Navy on base. Per the agreement, the Navy would provide space on base for the LVERs and DVOPs, who would provide all the services currently offered to the public at large at ESD's WorkSource Centers. The services would be offered to active duty and retired members of the Navy, as well as their spouses and teenage or older children. The Department has begun providing services at Everett, MountVernon and in Kitsap County in anticipation of the agreement.

Source: Gary Kamimura, Washington Employment Security Department

Veterans' Services

At least one Local Veterans Employment Representative (LVER) and Disabled Veterans Outreach Program (DVOP) Specialists provide services in most WorkSource Centers. Employment Security also hosts and/or assists with Veteran Job Fairs. These events are timed to coincide with either Hiring a Veterans Month (June) or Veterans Day (November), though they are held at other times of the year as well.

The Employment Security Department currently operates a Veterans' Services Unit under Title III of the Workforce Investment Act. Veterans' programs include, but are not limited to:

- The Local Veterans' Employment Representative (LVER) Program
- The Disabled Veterans' Outreach Program (DVOP)
- The Federal Contractor Job Listing Program (FCJLP)

ESD gives veterans and eligible persons under these programs priority in the provision of employment and training services. Qualified veteran applicants are referred to job openings and training opportunities in the following order or priority:

- Special Disabled Veterans
- Veterans of the Vietnam Era
- Disabled Veterans, and
- All other veterans and eligible persons.

LVER representatives provide reports to the WorkSource management team regarding compliance with federal law and regulations. They maintain regular contact with community leaders, employers, labor unions, training programs and veterans' organizations for the purpose of keeping them advised of veterans and other eligible persons available for employment training, and for keeping veterans and eligible persons advised of opportunities for employment and training. They work with employers and labor unions to help obtain training and employment for veterans and eligible persons. They also monitor job listings and refer the veterans and eligible persons to the employers.

Disabled Veterans' Outreach Program (DVOP) specialists provide services relating to the employment needs of veterans in the following order of priority:

- Special Disabled Veterans
- Disabled Veterans, and
- Other Veterans and Eligible Persons.

DVOP representatives develop employment and training opportunities for veterans, especially in the small and medium size companies.

Source: Onesimo R. Espinoza, Employment Security Department

WORKFORCE TRAINING AND CREDENTIALING

Workforce training councils and professional licensing boards are working with schools, employers and licensing agencies to ease transition of military personnel into the workforce

Workforce Training

Washington's Employment Security Department works with the military services to provide information on job openings to individuals seeking to enter the workforce, or get back to work after a spell of unemployment. Aided by 12 regional Workforce Development Councils who assess labor market conditions and training needs in each region of the state, ESD's WorkSource centers advise individual job seekers on resume preparation, job search strategies, and training programs they may be eligible for under a number of separate programs funded by the federal or state government. Job openings that appear to meet each job seeker's skills and experience are accessible through an internet site, and specific leads may be suggested by counselors at the WorkSource centers. Nearly 70 WorkSource centers and affiliate centers operated by colleges or non-profits provide a network of resources for job seekers spanning the state.

These WorkSource centers have long recognized the job needs of veterans who have left military service. Each year a number of employment fairs and "hire a veteran" events are organized at various sites around the state, including a number of events in the counties with major military bases. For example, the Army Career and Alumni Program scheduled seven employment fairs in 2004 at Ft. Lewis. WorkSource Centers in Pierce County organized at least seven other events to meet the needs of soldiers leaving

military service, or former soldiers seeking employment. Similar events were scheduled in Everett, Bellingham, and several locations in central Washington.

Work Force Training Councils

Some military training provides a foundation for private sector careers and credentialing, but doesn't necessarily crosswalk directly. Transitional education opportunities would assist members of the military in meeting private sector job requirements.

WTECB examines postsecondary vocational programs to ensure they meet the requirements of federal veterans benefit programs, and is responsible for veterans' course approval for private career school programs licensed by WTECB and for public community and technical colleges.

WTECB oversees Skill Panels, which engage business and industry in strategies to close the skill gaps in Washington State. Skill Panels are managed locally by Workforce Development Councils. Examples of Skill Panels coordinating efforts with military organizations include:

- The Pacific Mountain Health Care Skills Panel is working with the Board of Nursing and other partners to assess and create transition plans for military personnel, starting with Combat Medic to Practical Nurse and Registered Nurse.
- The Tacoma-Pierce Health Care Alliance includes partners from Madigan Hospital, who participated in labor-management committee meetings during the development of the Health Unit Coordinator and Computed Tomography/Magnetic Resonance Imaging registered state apprenticeships.
- The Olympic Health Care Alliance acts as facilitator for the Olympic College and the "Navy College" that serves Bangor and Bremerton bases to improve transitions for armed forces trained personnel, and plans to develop articulation agreements between navy medical training and Olympic's health care programs.

Source: Pam Lund, Workforce Training and Education Coordinating Board

Professional Licensing

Most Health Professions offer a means of licensure through reciprocity from other states.

Healthcare practitioners within the military that are licensed in another state have a means of becoming licensed within Washington State. The process varies by profession, but generally any state with comparable scope of practice, examination and education requirements are recognized and granted reciprocity.

While many military healthcare designations have an obvious link to a civilian occupation (e.g., Medical Doctor, Dentist, etc), certain Military Occupational Specialties (MOS) do not. Specifically, Army MOS 91-W is an example of an MOS in the Nursing Field that does not directly equate to either an LPN or RN license, but may fit somewhere into a civilian nursing occupation.

A workgroup that includes the Executive Director of Health Professions Section Six (includes nursing professions) has been meeting to discuss this issue. Currently there are three options that are being explored:

- Nursing Quality Assurance Commission (NCQAC) review of MOS requirements and their relative equivalency within the nursing programs.
- Military personnel with an MOS 91-W or equivalent may sit for the Nursing Assistant Exam.
- Review by Assessment Technologies Institute (ATI) to determine equivalency with various educational curricula offered within the state, which may lead to qualifying as a licensed healthcare provider.

Source: Pat Collins, Health Systems Quality Assurance, Washington State Department of Health

HOUSING MARKET FOR MILITARY FAMILIES

Washington has a strong housing market to support military families seeking to live off base

Housing Market for Military Families

The Department of Community, Trade and Economic Development provides state and federal funding to non-profit, housing authorities and tribal governments to create and preserve affordable housing statewide. The Department is aware of the issues facing military families, and has specifically discussed the issues facing naval personnel and their families with representatives of the U.S. Navy. In addition, in a recent analysis of the housing market, the Department included an assessment of housing availability for military personnel to better inform state and local policy makers regarding the status of that sector of the housing market. The Housing Trust Fund has made significant investments in multi-family housing developments in areas immediately surrounding military facilities, including Pierce, Thurston, Kitsap, Jefferson, Mason, Island, and Spokane Counties.

Source: Stephen H. Buxbaum, Assistant Director for Housing, Department of Community, Trade & Economic Development

Substantial private housing markets exist near all of the military bases in Washington, providing units that are accessible to active duty military personnel who desire off-base housing because they have a family or for other reasons. For this analysis, four representative service ranks were chosen to capture the range of personnel and income levels of active duty personnel who may be seeking off base housing. The four ranks are:

- E-4, enlisted (Corporal/ Petty Officer 3rd Class/Sr. Airman) with 4 years in the service; base pay $1,814 per month
- E-6, enlisted (Sergeant/Petty Officer 1st Class/Technical Sergeant) with 12 years in the service; base pay $2,596 per month
- O-3, officer (Captain/Lieutenant) with 4 years in the service; base pay $4,027 per month
- O-4, officer (Major/Lt. Commander) with 10 years in the service; base pay $5,138 per month

For each of the counties containing one of the major military bases in Washington, the tables below show the number of apartments available for rent (vacant) at or below a monthly rent equal to the housing allowance for four grades of military personnel, two enlisted ranks and two officer ranks, for a single recent month in 2004. This is a very conservative view of the available supply, since an unknown (but significant) proportion of currently occupied units become available every year. This normal turnover is an important factor to consider, and the total number of rental units in the county should be considered as well as the number of vacant units at a point in time in judging the adequacy of the local supply of apartments.

In addition, a second table for each county shows the number of single family homes or condominiums sold in these counties during all of 2003, the most recent available data on home sales. Assuming a 6.5 percent annual mortgage rate and a low down payment loan guaranteed by the Veteran's Administration, purchase prices are converted into monthly mortgage payments to compare to the housing allowances personnel receive at various ranks. While many military personnel will undoubtedly prefer a rental unit, some active duty personnel do purchase homes for investment purposes, or if they are nearing retirement and want to stay in the area of their last posting.

Results are shown below for both military personnel with no dependents, and those with dependents. Many single personnel continue to be housed on base, whereas those personnel with families are more likely to seek off-base housing. Consequently, the tables below provide information relevant to both single service members and those with dependents. In households with more than one wage earner, additional housing units may be affordable. However, no information is available on the number of

military households with more than one wage earner, and the analysis below is based only on the housing allowances available to active duty personnel.

As the services move toward privatization of many services including housing, the adequacy of the local private housing markets will be increasingly important. Washington's communities are well equipped to meet these challenges, with active private markets, development capacity, and public programs to assist low-income households. A discussion of state housing programs for low-income families is provided below. In addition, many local communities have additional housing programs to supplement the private market for low-income residents.

Island

Island County has a total of 1,991 rental housing units. During March 2004, 68 of these units were on the market at rents less than or equal to the housing allowance for senior enlisted personnel with dependents. These same 68 units would also be affordable for the two officer ranks tracked in this analysis. Homes for purchase are also in rather short supply for lower rank enlisted personnel with dependents; 172 units sold in 2003 at prices that are within reach of lower rank enlisted sailors. However, nearly 700 units were sold at prices within the housing allowance of senior enlisted personnel and over 1,300 at prices within reach of the officer ranks. County's housing market is the smallest of those considered in this survey of housing options near the major bases. However, there is an additional housing supply accessible to sailors at Whidbey NAS in neighboring Skagit County, providing additional options to those families willing to drive a bit further.

Affordable Apartments in Island County, March 2004

Rank	Base Pay	Housing Allowance (with dependents)	No. Apartments at or below HA	Housing Allowance (no dependents)	No. Apartments at or below HA
E-4	1,814	761	68	635	45
E-6	2,596	1049	68	721	68
O-3	4,027	1309	68	1049	68
O-4	5,138	1391	68	1126	68

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Affordable Home Sales in Island County, 2003

	With Dependents	No. Affordable Units Sold	No Dependents	No. Affordable Units Sold
E-4	$120,398	172	$100,464	106
E-6	$165,963	692	$114,070	149
O-3	$207,098	1,319	$165,963	692
O-4	$220,071	1,418	$178,145	897

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Kitsap

Kitsap County has a total apartment stock of 11,671 units, providing many off-base options for military families. A total of 384 rental units were on the market in March 2004 at rents less than the housing allowances for enlisted personnel with no dependents. In addition, personnel desiring to purchase a home are likely to find units in this county at prices within reach of the housing allowances at all ranks. A total of 454 units sold in 2003 at prices a lower ranked single enlisted sailor might find affordable, and over 3,000 units sold at prices less than the housing allowance for officer ranks with dependents.

Affordable Apartments in Kitsap County, March 2004

Rank	Base Pay	Housing Allowance (with dependents)	No. Apartments at or below HA	Housing Allowance (no dependents)	No. Apartments at or below HA
E-4	1,814	813	613	677	384
E-6	2,596	1072	654	778	575
O-3	4,027	1241	654	1072	654
O-4	5,138	1320	654	1144	654

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Affordable Home Sales

	With Dependents	No. Units Sold at or Below Affordable Price	No Dependents	No. Units Sold at or Below Affordable Price
E-4	$128,625	850	$107,109	454
E-6	$169,602	2,081	$123,088	686
O-3	$196,340	2,830	$169,602	2,081
O-4	$208,838	3,055	$176,247	2,248

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Pierce

Pierce County has a large housing market with a total of 49,531 rental apartments, and another 11,366 apartment units in adjoining Thurston County. In Pierce alone, at least 3,957 vacant apartments were available in March 2003 at rents at or below the housing allowances provided for enlisted personnel with dependents, and 3,962 units at rents at or below the housing allowances for officers. In addition, for purchase homes were sold in 2003 at prices these housing allowances would cover. Nearly 6,800 units sold in 2003 at prices a junior enlisted rank soldier with dependents could afford, and roughly 21,000 units sold at prices officers with families could cover with their housing allowances.

Affordable Apartments, March 2004

Rank	Base Pay	Housing Allowance (with dependents)	No. Apartments at or below HA	Housing Allowance (no dependents)	No. Apartments at or below HA
E-4	1,814	903	3,957	674	2,817
E-6	2,596	1121	3,962	792	3,851
O-3	4,027	1376	3,962	1121	3,962
O-4	5,138	1438	3,962	1202	3,962

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Affordable Home Sales

	With Dependents	No. Affordable Units Sold	No Dependents	No. Affordable Units Sold
E-4	$142,864	6,789	$106,634	1,058
E-6	$177,354	13,470	$125,303	3,807
O-3	$217,698	20,061	$177,354	13,470
O-4	$227,507	20,987	$190,169	16,254

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Snohomish

Snohomish County has a total of 46,861 apartment units, providing a large private housing market near the Everett Naval Station. Over 3,900 units were available in March 2004 at rents at or below the housing allowance for a junior enlisted rank sailor with dependents. Nearly 4,000 units were available at rents below the housing allowance for senior enlisted and all officer ranks. In the for-purchase market, there are fewer units accessible to enlisted personnel with dependents – just 428 homes sold at prices that a junior enlisted sailor with no dependents could afford based on the housing allowance. More senior enlisted personnel with dependents may have found up to 5,054 homes within their reach, and officers with families would have found over 9,400 affordable home options.

Affordable Apartments, March 2004

Rank	Base Pay	Housing Allowance (no dependents)	No. Apartments at or below HA	Housing Allowance (with dependents)	No. Apartments at or below HA
E-4	1,814	931	3,935	$793	3,605
E-6	2,596	1238	3,983	$881	3,863
O-3	4,027	1442	3,983	$1,238	3,962
O-4	5,138	1520	3,983	$1,259	3,962

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Affordable Home Sales

	With Dependents	No. of Affordable Units Sold	No Dependents	No. of Affordable Units Sold
E-4	$147,294	1,172	$125,461	478
E-6	$195,865	5,054	$139,384	921
O-3	$228,140	8,219	$195,865	5,054
O-4	$240,480	9,432	$199,187	5,376

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Spokane

Spokane has a relatively large and very affordable housing stock. There are a total of 25,066 apartment units. These apartments are affordably priced; with 1,328 on the market in March 2004 at rents junior enlisted personnel with dependents could cover with their housing allowances. More senior enlisted personnel could choose from 1,500 vacant apartments and officers would have found over 1700 units at rents at or below their housing allowances. In the for-purchase market, an even larger set of choices was available in 2003, with over 2,000 units sold at prices a~~n~~ single enlisted person could have afforded, and over 6,700 units within reach of officers, based on their housing allowances.

Affordable Apartments, March 2004

Rank	Base Pay	Housing Allowance (with dependents)	No. Apartments at or below HA	Housing Allowance (no dependents)	No. Apartments at or below HA
E-4	1,814	$634	1,328	$494	709
E-6	2,596	$748	1,537	$598	1,212
O-3	4,027	$1,005	1,718	$748	1,537
O-4	5,138	$1,047	1,730	$836	1,608

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Affordable Home Sales

	With Dependents	Affordable Units Sold	No Dependents	Affordable Units Sold
E-4	$100,306	3,326	$78,156	2,010
E-6	$118,342	4,452	$94,610	2,970
O-3	$159,012	6,579	$118,342	4,452
O-4	$165,647	6,766	$132,264	5,192

Source: OFM analysis of data provided by Washington Center for Real Estate Research, Washington State University

Subsidized Housing

Private housing markets appear to provide an adequate supply to meet the housing needs of military families who wish to live off base, except perhaps in the case of Island County. The apparent limited supply in that county may be a limitation of the real estate survey. However, public programs exist at both the state and local level to assist low-income households who have difficulty finding suitable housing in the private market. These programs are available to households with active duty service members if they meet the income requirements. With both the housing allowances and base pay considered, military families may not be eligible for these housing programs.

Growth Management

The state also has a comprehensive growth management planning process in place that requires periodic assessments of county housing markets for urban counties. All of the counties housing major military bases in Washington are subject to the growth management planning requirement. County plans must provide for adequate zoned capacity to meet 10 year housing demand forecasts. Counties housing military bases consider demand originating from base personnel as well as residents in these counties not linked to the military population. This planning process is a mechanism to ensure adequate land supply to meet housing needs in each county.

Source for Housing: Paul Sommers, Office of Financial Management and Glenn Crellin, Director, Center for Real Estate Research, Washington State University

HEALTH SERVICES

Washington's health care system partners with the military installations to extend care for military personnel and their families into the communities

Private, Local Health Partnerships

Spokane's two tertiary hospital systems, Sacred Heart Medical Center and Empire Health Services, have provided in-patient hospital services for active duty and civilian employees at Fairchild since the Fairchild Air Force Base hospital evolved in to a medical clinic several years ago. The base hospital could be reduced to a clinic because Spokane has such a resource rich medical community. Fairchild participates on the Northeast Hospital Council to ensure close coordination among the executives overseeing regional hospitals. In addition, the Veteran's Hospital in Spokane serves about 20,000 veterans annually out of a total veteran population of 100,000, including 2,000 retires out of the existing pool of 15,000 retirees. The VA Hospital has several service sharing agreements with the Fairchild Medical Clinic, including a partnership with the Fairchild Medical Clinic in which the VA Hospital does the clinic's laundry service in exchange for active duty physicians providing specialty medical care at the VA hospital. Spokane has the capacity in its health care system to absorb additional duties for the military.

Source: Rich Hadley, Spokane Regional Chamber of Commerce

Everett, likewise, has a strong hospital and physician community that provides hospital care for the military personnel and their families, while Everett Naval Station provides a medical clinic on base.

Providence Everett Medical Center is only blocks away from Naval Station Everett and provides the following health care services to military personnel and their families: neurology, emergency and trauma services, musculoskeletal, obstetrics, newborn intensive care, gynecology, cardiac, behavioral health, oncology, surgery, respiratory, gastroenterology, and infectious diseases. When comparing the increase of military patients from January 2003 through June 2004, there has been a 26% growth in military patient volume at Providence Medical Center. While there has been significant growth in the number of military patients in most areas of healthcare services, the largest percentage of growth has been in obstetrics and newborn intensive care.

Source: Pat McClain, City of Everett

In Kitsap County, military and civilian agencies and organizations have worked together to assess and improve the health and health services for the community. Kitsap County Health District has led health assessment and improvement activities involving a wide array of participants from the civilian and military sectors of the community. A wide array of healthcare providers serves the community. Naval Hospital Bremerton has 67 licensed beds and an extensive system of health services, including three major branch medical clinics and two satellite clinics located on military installations in the region. Harrison Hospital is a not-for-profit, acute care, community hospital, with three campuses serving Kitsap County. It offers a comprehensive range of services and has a long history of working with TRICARE. A wide range of physician services is available in the community, both primary care and specialists. Many are accepting and well acquainted with serving TRICARE patients. The county is served by a multi-specialty group practice of about sixty physicians, a Physician-Hospital Organization that includes over one hundred physicians, and a large regional health maintenance organization. In addition, a non-profit community based organization provides comprehensive health care services to residents of the county and a non-profit community mental health center provides a wide array of mental health services. The collaboration between the military and civilian health care sectors include coordinated emergency and disaster response, shared education and support services, and testing, consultation and other health services to military personnel by Harrison Hospital through an arrangement with Bremerton Naval Hospital.

Source: Dave Gitch, President, Harrison Memorial Hospital

Island County is served by Whidbey General Hospital, which is owned and operated by the Whidbey Island Public Hospital District. The District also operates two rural health community clinics located in the northern part of the island and the southern part of the island. Built in 1970, the hospital has 51 licensed beds and provides a wide variety of service to over 40,000 people per year. It provides inpatient, outpatient, medical, surgical, pediatric and obstetrical services. Health care providers on the island represent many medical specialties, as well as midlevel practitioners, chiropractors, dentists and orthodontists. Island Mental Health provides most mental health services. Naval Hospital Oak Harbor, part of the Naval Air Station Whidbey Island complex, administers the TRICARE program, which covers civilian care for military active duty dependents and retirees. Naval Hospital Oak Harbor, besides offering its own facilities to military personnel, their families, and retirees, also has referral capacity to Naval Hospital Bremerton and Madigan Army Medical Center. Island County has a complete medical service capability that provides excellent service to both the civilian and military communities. The facilities are modern and capable of meeting the current and future needs of the population.

Source: Stan Stanley, ProWhidbey Associates

The state has a strong local public health district system that provides traditional public health services to all residents, regardless of whether they are active military duty or civilian. The districts also work in partnership with the military hospitals as needed for communicable disease control and in coordinating emergency response preparedness.

Washington's Department of Health Program Services

Immunization Services

Immunization services for military service members and their dependents are either available at the military treatment facility (MTF) or through private health care providers in the community. Vaccine services received at an MTF are funded by a separate federal source and do not interface with the state program. If military families outside of the MTF receive vaccine services, the Washington Universal Vaccine Program covers them. Currently, the DOH Immunization Program does not have any memorandum of understanding/agreement with any military facility as a back-up for vaccine in the event of a natural disaster or bio-terrorism event.

Source: Vicki Bouvier, Children and Family Health, Department of Health

Women, Infants and Children (WIC) Services

In calendar year 2003 the Washington State Women, Infants and Children (WIC) Program served 10,714 military personnel, including military dependents, a 9% increase from the 9,805 served in 2002. WIC services are very accessible to military families. Four WIC clinics are located on military bases in the state. There are also several sites located very close to a military base. Most military families do not live on base. However, they do go on base often to do their grocery shopping at the commissary, get medical care and to take advantage of WIC and other services provided on base. Families can participate at the WIC clinic on the base or at any of the other sites in the county, depending on what is most convenient for them. The state WIC program has contracts with seven military commissaries that allow them to accept WIC checks. The annual value of the WIC checks redeemed at commissaries statewide is over $1,695,000 per year. Many families of reservists who have been called to active duty are now eligible for WIC services because they are experiencing a significant reduction in their income. The Department does not know how many of them are aware that they are eligible for WIC. Currently the WIC program has adequate infrastructure to serve an increase in military families. However, its ability to expand will be dependent on the funding provided at the federal level.

Source: Vicki Bouvier, Children and Family Health, Department of Health

Social Services

The Department of Social and Health Services provides assistance to military families as part of serving the whole community

Some military families receive food assistance and medical assistance coordinated with their military medical benefits. The Department's inclusive approach and array of programs contributes to the state's attractiveness to military retirees.

Eligibility criteria for assistance programs do not consider military status, so the Economic Services Administration of the Department of Social and Health Services does not have reliable data on military personnel or families being served. Some military families may receive food assistance or cash benefits for families with young children based on income and family size, but the Department cannot provide an estimate of how many.

The Department surveyed Community Services Offices about local arrangements. There were no reports that the Armed Forces have liaisons or special arrangements at the regional or local office levels. Again, this does not mean that military families do not get assistance and support from the department, but that their participation is not noted or treated differently than other families.

Source: Doug Sevin, Department of Social and Health Services

THE ECONOMIC IMPACT OF THE MILITARY INSTALLATIONS ON WASHINGTON STATE

Introduction

The State of Washington hosts several major military bases, and significant installations of all branches of the military. Pierce County is the home of McChord Air Force Base and an Army base, Ft. Lewis. Kitsap County is home to the Puget Sound Naval Shipyard, Navy Base Kitsap, and the Keyport Undersea Warfare Research Station. Island County is the location of Naval Air Station Whidbey, and Snohomish County hosts the Everett Navy Base. Spokane County is the location of Fairchild Air Force Base. And Yakima County is home to a training facility that is organizationally part of Ft. Lewis. In addition to these major facilities, there are more than 100 smaller facilities including hospitals, camps, depots, signal stations, recruiting offices, and other miscellaneous facilities.

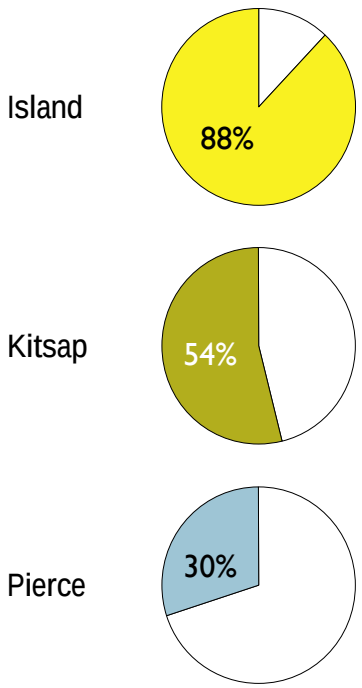
This report examines the economic impact of the following major facilities:

Base	County
Ft. Lewis	Pierce
McChord Air Force Base	Pierce
Naval Base Kitsap (Bangor and Bremerton Naval Stations)	Kitsap
Keyport Undersea Warfare Center	Kitsap
Northwest Regional Maintenance Center (Puget Sound Naval Shipyard and Bangor Intermediate Maintenance Facility)	Kitsap
Naval Station Everett	Snohomish
Naval Air Station Whidbey	Island
Fairchild Air Force Base	Spokane
Yakima Training Center	Yakima

These major facilities are the worksites for more than 83,000 military and civilian personnel, and they generate a $3.7 billion payroll. The bases purchase a variety of goods and services from in-state vendors, and they generate significant economic impacts throughout the state, including $174 million in King County, 42 percent of total procurements by the bases from within the state. Both statewide and local impacts are estimated in this report, totaling more than $7.2 billion in total labor earnings when multiplier impacts are taken into account. On the order of 5 percent of all economic activity in Washington State is due to the total impacts of the major military bases located in the state. At the county level, the proportion of all activity dependent on the military bases is much larger for three counties (see figure, right).

Direct and total impacts of the major bases are discussed in detail below, based on a methodology presented in the Appendix.

Proportion of all activity dependent on military bases



Direct Impacts

In this section, each category of direct impact is examined, with estimates provided county by county. Note that individual bases are not distinguished for several types of impacts. Pensions, on-base retail spending, and health care expenditures are available by county but not by base, whereas payroll data came from each base individually. Consequently, most of the tables in this and subsequent sections of the report are organized by county, not base.

Military related civilian and uniformed employment at the major bases in Washington totals over 83,000 as shown in the table at right. Pierce and Kitsap Counties have the largest military contingents, followed by Island, Spokane, and Snohomish Counties. The training center in Yakima County also has a small permanent staff of about 500.

Number of Uniformed and Civilian Personnel on Major Military Bases in Washington, 2003

	Military Base Employment	Percent of Employment
Island	10.066	68%
Kitsap	27.375	36%
Pierce	34.624	14%
Snohomish	4.517	2%
Spokane	6.262	3%
Yakima	500	1%
Statewide	83,344	3%

Payrolls

The payrolls of uniformed and civilian personnel working on military bases are shown by county in the table below. Pierce County, with large Army and Air Force bases, has the largest military payroll, nearly $1.9 billion. Next in size is Kitsap, with several Navy installations and a payroll just over $1 billion. Snohomish, Spokane, and Island follow with payrolls ranging from $159 million to $399 million. Yakima has a payroll just under $9 million. The military payroll total for the state originating on the major bases in the six counties listed in the table below is $3.737 billion annually.

Uniformed and Civilian Payrolls of Military Bases by County, $ millions, 2003

	Military Base Payroll ($ millions)	Countywide Wage & Salary Disbursements, 2002 ($ millions)	Military Payroll as Percent of Countywide Wage & Salary Disbursements
Island	399.1	767	52.0%
Kitsap	1,001.4	3,236	30.9%
Pierce	1,876.1	9,417	19.9%
Snohomish	159.1	8,633	1.8%
Spokane	293.0	6,440	4.5%
Yakima	8.9	2,622	0.3%
Statewide	3,737.6	111,478*	3.4%†

** Represents Countywide Wage & Salary Disbursements for the entire state*

† Military Payroll as Percent of Countywide Wage & Salary Disbursements for the entire state

Health Care Expenditures

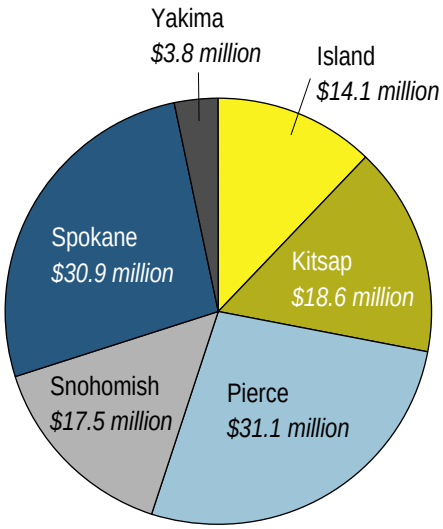
Health care is provided to active duty personnel, family members of active duty personnel including survivors, and military retirees. Health care services are provided by military health care centers such as Madigan Hospital in Pierce County, or by civilian providers who are reimbursed by TriCare. TriCare payments to health care providers in Washington are shown at top right, ranging from $31.1 million per year in Pierce County to $3.8 million in Yakima County. The statewide total is $116 million.

Pensions

Pensions of retired military personnel are administered through the bases. Since the retirees may be eligible to shop in the on-base commissaries, get health benefits through the TriCare system, and may be eligible for free travel services on military aircraft, there is an on-going relationship between many of the retirees and the bases in this state. Many active duty personnel seek a last posting before retirement in a region of the country in which they want to retire, and the bases in Washington are very popular choices. Therefore, we have included the pensions paid to military retirees by each of the major bases in the state in the direct impact category along with payrolls (bottom right). These pension payments range from $91.1 million in Island County to $524.9 million in Pierce County (no retirees are shown for Yakima since the Yakima Training Center is part of Ft. Lewis in Pierce County, and pensions for any retirees living in Yakima County are not reported separately). The statewide total is $1.153 billion.

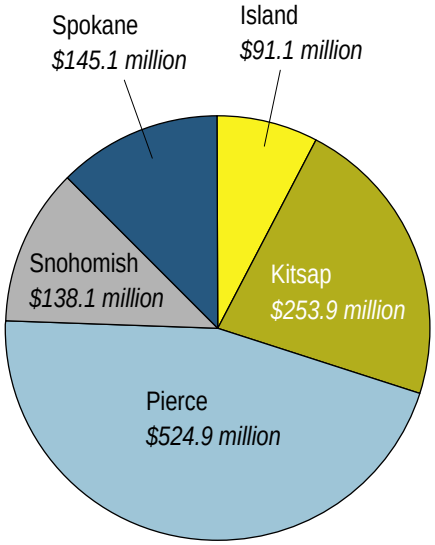
Health Care Payments by TriCare, 2003

Statewide total, *$116 million*



Pensions of Military Retirees, 2003

Statewide total, *$1.153 billion*

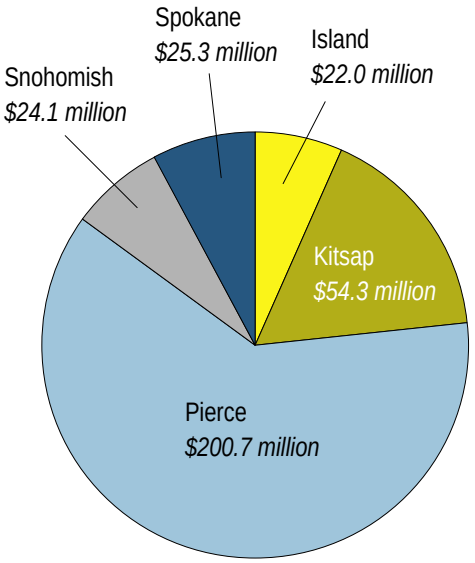


On-Base Retail Spending

The larger military bases have their own retail outlets for use by military personnel, qualified retirees, and their dependents. Commissaries are the equivalent of a supermarket style grocery store, and base exchanges are similar to a Fred Meyer or K-mart store with a wide variety of merchandise. Counting active duty personnel, retirees, and spouses and children, on the order of 322,000 individuals have shopping privileges at these on-base retail outlets (estimate by OFM staff). Sales by commissaries and base exchanges are exempt from Washington State taxes, so they have no effect on the Washington economy unless the goods offered for sale in these outlets are procured from in-state sources. Any in-state procurements should be picked up in the DIOR contracts database discussed in the Appendix. The sales reported in each county by these facilities are deducted from the payroll and pension amounts for the county since the sales are not made by Washington businesses and there is no tax impact in the state.

Commissary and Base Exchange Sales

Statewide total, *$326.4 million*

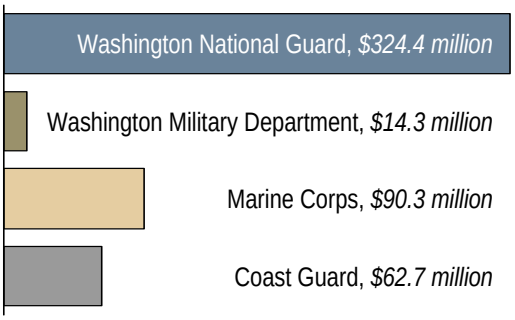


Other Military Activities in Washington Not Related to the Major Bases

Information about direct economic impacts was also gathered from the Washington National Guard, the Washington Military Department, the Marine Corps, and the Coast Guard. These branches of the military services are not associated with the major bases that are the focus of this report. For the sake of completeness, total payroll amounts associated with these military branches are reported here, but are not included in the total impact estimates below, since those estimates are restricted to impacts of the major bases. The total payroll associated with these military service branches is $491.7 million. Personnel of these services are housed in a wide variety of smaller military installations around the state.

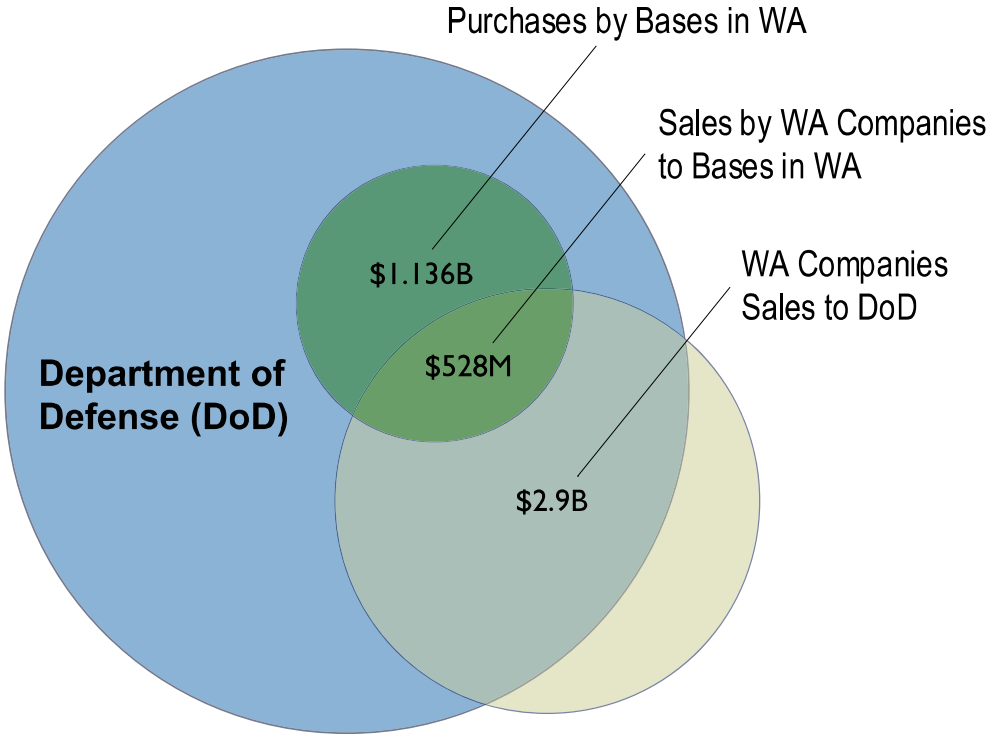
Other Military Payrolls in Washington

Total, *$491.7 million*



Contracts Let by Bases

Contracting activity of purchasing offices located on the Washington bases can impact the state economy if the vendor is also within the state. The figure below was compiled from these data to show the relative importance of Washington suppliers to Washington bases. The bases in Washington procured $1.1 billion in goods and services in 2002, and military contractors in Washington sold more than $2.9 billion to DoD buyers nationwide. The overlap of these two sets of sales is the sales by Washington companies to bases located in Washington: $528 million in 2002. Obviously, the bases located in this state have suppliers located elsewhere, and likewise, the military contractors based in this state make sales to military installations located elsewhere. The $528 million supplied within the state to in-state bases by in-state contractors is further analyzed below.



Suppliers

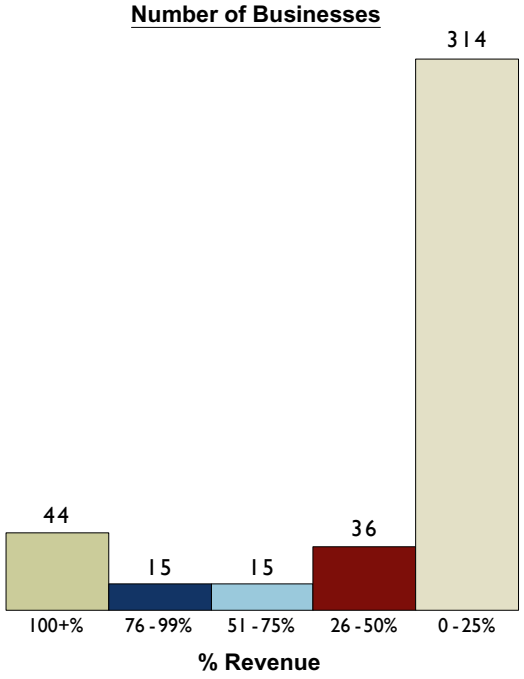
The top 10 in-state contractors to the Washington bases are shown at right. These 10 suppliers account for $288 million of the total of $528 million of goods and services supplied to Washington bases by Washington contractors in 2003.

Top 10 Washington Suppliers to Washington Military Bases, 2003

Todd Pacific Shipyards
Johnson Controls World Service
Raytheon Company
M. Kennedy Co. Inc.
Pease Construction, Inc.
Absher Construction Co.
Colville Tribal Service Corporation
Wade Perrow Construction, Inc.
Triton Marine Construction Corp.
JKT/PCL Tribal 8(A) Joint Venture

Military contractors vary in their business strategies, with some having few customers other than the military services, and others having very diversified customer bases, with a nearby base constituting just one of many customers. However, should a base be shut down or its activities significantly reduced, contractors significantly dependent on business from that base could be negatively impacted. By matching up contract volume by contractor with total revenues reported to the Washington State Department of Revenue (DOR), the vulnerability of 424 military contractors in Washington was estimated by the ratio of military contract obligations in 2002 to total revenues reported to DOR in that year. Forty-four firms appear to be completely dependent on DoD business; 100 percent (or more due to multi-year contracts) of revenue appear to be coming from DoD purchasing offices. Another 66 Washington businesses have a significant dependence on military business in that they receive between 25 and 100 percent of their business revenue from DoD. The bulk of the military contractors in the state are quite diversified and could probably survive a downturn in business from the bases; less than 25 percent of revenue is coming from DoD for these 314 firms.

Distribution of Percent of Gross Receipts from DoD Contracts for Military Contractors in Washington, 2003



Sources: DIOR database and Washington Department of Revenue

The following table (opposite page, top) breaks out the contract volume by purchasing office. The percent of the contracts let to businesses located in the same county as the military purchasing office varies greatly from a low of 32 percent for Madigan Hospital to a high of 97 percent for the Keyport Naval Undersea Warfare Center. These variations are due to some degree to the specialized nature of the goods or services required by each purchasing office; medical suppliers for Madigan are coming largely from sources outside the state and this may simply reflect the geographic distribution of pharmaceutical companies and other medical suppliers nationwide. On the other hand, Keyport and the shipbuilding and repair operations in Kitsap are buying nearly all of their supplies locally, and the requirements of these purchasing offices are also quite specialized, including exotic research and development services required by Keyport. These variations in local purchasing are intriguing and may warrant further investigation from an economic development viewpoint. A local high tech business cluster has grown up around Keyport for example, constituting an economic development success story that other regions of the state could perhaps emulate.

Department of Defense Contracts to Washington Businesses by Purchasing Office

	Millions $		
	Home County	Statewide	Percent from Home County
McChord AFB	11.2	25.3	44%
Ft. Lewis	7.2	18.1	40%
Madigan Army Medical Ctr.	1.7	5.3	32%
Fairchild AFB	14.0	26.8	52%
Navy Fleet & Ind'l. Supply Ctr.	9.4	23.9	39%
Naval Facilities Engineering	73.2	201.0	36%
Naval Undersea Warfare	25.8	26.4	97%
Supervisor—Shipbuilding/Conversion	96.6	100.6	96%

Contract Volume by County

County	Total Contract $	% of Total	Major Bases
Benton	1,525,995	0.4%	
Clallam	884,590	0.2%	
Clark	315,719	0.1%	
Cowlitz	2,046,370	0.5%	
Franklin	131,815	0.0%	
Grant	492,258	0.1%	
Grays Harbor	75,600	0.0%	
Island	12,181,297	2.9%	NAS Whidbey
Jefferson	5,994,038	1.4%	
King	174,654,208	42.1%	
Kitsap	115,318,884	27.8%	Naval Station Bremerton, Northwest Maintenance Facility, Keyport
Klickitat	210,743	0.1%	
Mason	40,800	0.0%	
Okanogan	18,233,058	4.4%	
Pierce	53,354,182	12.9%	McChord AFB; Ft. Lewis; Camp Murray; Madigan Hospital
Skagit	711,550	0.2%	
Snohomish	5,601,194	1.4%	Naval Station Everett
Spokane	18,582,478	4.5%	Fairchild AFB
Thurston	513,856	0.1%	
Whatcom	191,407	0.0%	
Yakima	3,545,684	0.9%	Yakima Training Center

The existing contracts let by Washington bases also impact more than half the counties in Washington, including many counties with no major bases, as the preceding table (facing page, bottom) shows. Benton County is home to the Hanford Reservation, where spent nuclear materials are stored; hence Benton houses some suppliers to the Navy installations in the Puget Sound that are servicing nuclear powered vessels. Okanogan County received $18 million in contracts in 2003 due to the construction company owned by the Colville Tribe. King County is the single largest supplier to the Washington bases; King County suppliers provided 42 percent of the total contract volume let by Washington bases in 2003. King County is home of Todd Shipyard, which is the single largest military contractor in the state. Many other counties likewise have existing suppliers to the state's military bases, making the military bases a significant component of the economic base of more than half of the state's counties.

Other Impacts of the Major Bases

In addition to the impacts described above, the bases impact Washington's economy in several other ways for which we do not have complete data. The major types of additional impacts are assistance provided to college and university students who are active duty personnel, payments made to school districts to compensate them for schooling dependents of military personnel (in the absence of any tax revenues from the bases), and credit card purchases by military personnel for relatively small purchases to support base operations.

Several of the universities in the state provided information on the number of students who are either active-duty military personnel whose tuition and other costs are reimbursed by the military, or students who are active-duty military who are reclassified as residents for tuition purposes. The first type of student brings income into the state, while the second type is receiving a benefit from the state. Unfortunately, neither the universities nor the community and technical colleges can accurately identify the number of students whose tuition is being paid by the DoD. The University of Washington reported 193 students known to be on active-duty status, and Western Washington University identified one student on active duty. Several of the universities, but not the community and technical colleges, can estimate the number of students reclassified as residents because of their military status (see table, top right). These students are being assisted by the state, but it is not known if they are also receiving tuition assistance or other aid from the DoD.

Number of students reclassified as residents because of their military status

Institution	
University of Washington	233
Washington State University	44
Eastern Washington University	49

Expenditures for higher education assistance provided to their personnel

Base	
McChord	$695.000
Navy – all stations	$518,000

Housing assistance payments* for personnel living off base

Base	
McChord	$1.9 million
Fairchild	$13.4 million

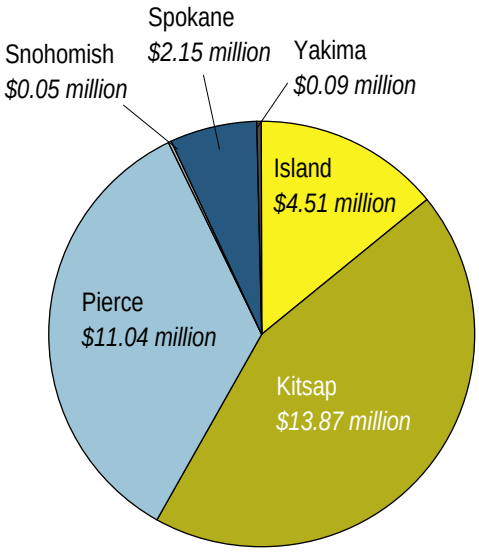
**Report from two bases*

The bases themselves report expenditures for higher education assistance provided to their personnel (center table, previous page). Unfortunately, there is no information as to how much of this assistance was used at higher education institutions in Washington. Two bases reported housing assistance payments for personnel living off base (lower table, previous page).

A number of school districts receive federal aid as compensation for schooling the dependents of military personnel. The districts report the number of such students to the Office of the Superintendent of Public Instruction (OSPI), and these reports are forwarded to a federal office, but they are not tabulated by OSPI. Consequently, no comprehensive estimates are available of the number of students who are military dependents. However, the districts report the aid they receive from the federal government as part of their budget reports, with sub-accounts noting aid for dependents of uniformed personnel and civilian employees at federal facilities. The amounts reported by all districts within the counties housing the major bases are shown at right.

Federal Employee Impact Aid to Washington School Districts

Statewide total, *$31.71 million*



Credit Card Purchases

Only one report is available on the issue of credit card purchases. These purchases on miscellaneous supplies totaled $27 million for McChord AFB (estimate supplied by Tacoma - Pierce County Chamber of Commerce).

Adding up these incomplete reports across all of these impact categories suggests that something on the order of $100 million in these miscellaneous impact categories. This is a relatively small amount compared to the direct impact totals, and suggests that the total impact estimates reported below are not seriously off the mark due to not including these miscellaneous impact categories.

Total Impacts by County and Statewide

The following tables summarize the total impact of the military bases in Washington, based on input-output model calculations of the multiplier impacts of the payrolls and purchases detailed above. Impacts on the home counties of the bases as well as statewide impacts are shown in the table at right. In terms of employment, Pierce County has the largest impact level, 74,000 jobs within the county and 87,000 statewide. Kitsap County follows, with a total workforce stemming from military activity in the county of nearly 47,000 and 53,800 statewide. The statewide total job impact is 187,900 jobs.

Total Employment Related to Military Bases

	Home County	Statewide
Island	17,494	20,141
Kitsap	46,935	53,835
Pierce	74,466	87,534
Snohomish	10,545	11,877
Spokane	12,851	13,797
Yakima	640	709
Statewide		187,893

These jobs generate substantial payrolls, the largest being the Kitsap payrolls: $2.8 billion inside Pierce County and $3.3 billion in statewide payrolls due to the bases in Kitsap County. The statewide total labor earnings impact of the military bases is estimated at $7.271 billion (see table, right).

Total Labor Earnings Related to Military Bases (millions $)

	Home County	Statewide
Island	674	775
Kitsap	1,756	2,014
Pierce	2,867	3,370
Snohomish	431	474
Spokane	570	585
Yakima	19	22
Statewide		7,240

To put the statewide total impact estimate in perspective, total personal income in Washington was $204 billion (personal income data from Bureau of Economic Analysis, U.S. Department of Commerce). While the components of personal income have not been published for 2003, the 2002 data show total personal income for the state at $198 billion, of which labor earnings were $152 billion (76.7 percent of total personal income). Based on this ratio, $204 billion of personal income in 2003 should include $156.7 billion in labor earnings. Of that total, $7.2 billion (4.6 percent of the total) was due to the total impact of the major military bases in the state. Considering the incomplete nature of the military base impact estimates, something on the order of 5 percent of all economic activity in the state of Washington is due to the presence of the military bases and the impacts their payrolls and purchases have on the state economy.

For some of the counties that host these bases, the in-county total impact is proportionately larger as shown in the table below. The proportional impact on Island, Kitsap, and Pierce Counties is clearly much larger than for the other three host counties.

Total Labor Earnings Due to Military Bases Compared to Wage and Salary Disbursements by County

	Home County Labor Earnings Total Impact, 2003 ($ millions)	Wage & Salary Disbursements, 2002 ($ millions)	Military Total Impacts as Percent of Wage & Salary Disbursements
Island	674	767	87.9%
Kitsap	1,756	3,236	54.3%
Pierce	2,867	9,417	30.4%
Snohomish	431	8,633	5.0%
Spokane	570	6,440	8.9%
Yakima	19	2,622	0.7%
Statewide	6,317	111,478*	5.7%†

** Represents Countywide Wage & Salary Disbursements for the entire state*

† Military Total Impacts as Percent of Countywide Wage & Salary Disbursements for the entire state

Appendix: Methodology

Direct Impacts

Payrolls and purchases originating on the major military bases in the state are the major sources of economic impact. Payrolls get spent by military personnel and civilian employees of the bases on a variety of consumer goods and services, as well as housing. Many active duty military personnel are housed off base and receive housing subsidies in addition to their salaries. Retirees are associated with the bases in that their pensions are administered through the accounting systems at the bases, and military retirees are eligible for certain services such as health care and goods sold at commissaries. Retiree pensions therefore contribute to the economic impact of the bases. Some of the bases have commissaries, base exchanges, or other facilities that sell retail goods to base employees and service members. These on-base stores are stocked with goods that may not be purchased inside the state, and they are exempt from Washington State taxes. Therefore, the sales at these facilities must be excluded from the impact estimates by subtracting them from the military-related payrolls. In addition, the bases contract for health care services that are provided by private sector providers in the state. These private sector health care expenditures contribute to the overall economic impact on the state economy. Finally, to support their operations, the bases also procure a wide variety of goods and services, and some proportion of these purchases come from Washington State vendors. All of these categories of economic activity are added up to form the estimate of direct impacts of the bases.

Multiplier Effects or Indirect Impacts

The direct impacts have multiplier effects for two reasons - the military payrolls generate additional activity to the extent that they are spent within the state, and the in-state purchases of the bases impact the sales and payrolls of the in-state vendors. Using an input-output model multiplier, indirect impacts are estimated. Adding together direct and indirect impacts produces an estimate of total impacts.

Other Impacts

There are other impacts of the military on the state economy that are not the focus of this report. In particular, there are several hundred Washington businesses that are contractors to the Department of Defense. These contractors, ranging from Boeing and Todd Shipyard, among the largest to independent consultants, and health care providers at the low end, may provide goods and services to in-state bases, bases in other states or countries, or directly to the Pentagon. For example, Boeing sells aircraft and other aerospace products directly to acquisitions offices at the Pentagon. Several Native American tribes have construction companies that might work on a military construction contract at a base in Washington or perhaps overseas at a U.S. military installation in another country. Aggregate estimates of the out-of-state military business revenues of in-state contractors are briefly mentioned in this report, but the total impacts of activity outside the state are not analyzed.

Statewide and County Impacts

This report also distinguishes two levels of impact: statewide and county. Statewide impacts result when goods or services are purchased anywhere in the state using funds from military payrolls, pensions, or purchases by the bases themselves. Statewide impacts are what economic impact studies usually report. In addition, using special county-specific versions of the state input-output model, impacts are estimated within the home county of each base. These county-specific estimates scale down the statewide impact estimates to the level of indirect impact on just the businesses in the home county of each base. These county-specific estimates may be of interest particularly in the more remote counties (Spokane and Yakima), whereas all of the bases in western Washington are part of the larger Puget Sound regional economy, and many of the indirect impacts are likely to "leak" across county borders. The term "leakage" refers to the possibility that a portion of the payroll originating in one county may get spent in another, e.g., a service member stationed at a Kitsap County bases may spend money on entertainment or shopping in King County.

Input-Output Model

The model used to estimate impacts is the 1997 Washington Input-Output model. This is a new model just released by the state Office of Financial Management. It produces statewide indirect and total impact estimates based on direct impact estimates in terms of employment and payroll, and purchases from various industries in the state. The military contract data discussed below were allocated to the various industries in the model for all of the bases located in a particular county. Payrolls and pensions were added to the impact of contracts. On-base retail spending was subtracted from the payrolls since commissaries and base exchanges have no impact on the state economy unless they are stocked with goods purchased within the state. In-state purchases of the commissaries should be captured in the contract data, taking care of this small element of in-state impact.

The county-level impact estimates are made using county-specific versions of the statewide model created using a procedure recommended by University of Washington Geography Professor William Beyers. Location Quotients (LQs), or measures of the relative density of an industry in a particular county compared to the state, are estimated using employment data. LQs are often used as measures of competitive strength; low LQs, those less than 1, are associated with relatively weak or possibly non-competitive industries. The direct purchase coefficient of any industry with an LQ less than 1 is reduced by multiplying the original estimate by the location quotient; purchase coefficients for industries with location quotients over 1 are left unchanged. This procedure is well known in the input-output literature.9 The effect of this procedure is to reduce the in-county purchase estimates from industries with low LQs on the rationale that military purchasing offices will be tempted to look for a larger, better known supplier elsewhere, rather than dealing with a small supplier of unknown quality who may be located nearby. The difficulties associated with becoming certified as a DoD supplier, and dealing with the paperwork requirements of government transactions, adds to the probability that small suppliers in smaller counties will not be chosen over larger suppliers in major cities.

Data Sources

Data from the Bases

All of the data presented below were provided by the bases in the state, with the exception of the contracts data as discussed in the Contracts section below. The author appreciates the cooperation of the each base as well as the Washington Military Department and its commander, Gen. Lowenberg, who facilitated contacts with the bases.

Contract or Procurement Data

The Department of Defense (DoD) Directorate for Information Operations and Reports (DIOR) provides an annual database listing all contract obligations issued by the DoD each year. The database lists each contractor, including the home address of the business, and specifies the purchasing office that created the obligation. This data source provides a very rich description of the purchasing behavior of military bases. There are two significant shortcomings of this database, however. There is no figure for the actual spending on a contract, just the dollar amount obligated. The obligation amount sets a ceiling, subject to future contract amendments, on the amount a contractor can bill the purchasing office. If a contract is completed at less than the ceiling amount, then the obligation amount is an over-estimate of actual charges. On the other hand, cost over-runs do occur and are handled by contract amendments. Lacking any information on the variation between obligations and actual payments, and recognizing that both positive and negative errors are possible, we use the obligation amount as the best available estimate of actual spending. The second shortcoming is that the industry coding provided in the database appears to be a misuse of the NAICS industry classification system, based on the product or service being provided rather than the actual industry of the contractor. However, by checking the contractor names against Washington Department of Employment Security and Department of Revenue records, correct NAICS and SIC codes were assigned to about 80 percent of the contractors. For the remaining contractors, the

DIOR code was used and converted to the most likely SIC code. Coding by SIC category was necessary because the state input-output model was created using industries coded by SIC.

The analysis of the DIOR database took several steps. First, a list of purchasing offices on Washington bases was created by comparing a list of military installations in Washington provided by the Washington Military Department to the list of purchasing offices in the DIOR database. Then, a list of contractors selling goods or services to bases located in Washington was extracted from the nationwide DIOR database.

Source: Office of Financial Management Report on the Economic Impact of Military on Washington State

CONCLUSION

Washington State has policies and partnerships in place that support the missions of the military installations within the state, and provide an excellent home for military personnel and their families. The nation and state benefits from the value the military installations add to the national defense, and the state benefits both from the economic value derived from the installations and the contributions of the military personnel and their families to Washington's social fabric. The relationship between the state and the military is well developed, and will continue to be nurtured both at a statewide level and on an agency-by-agency, installation-by-installation basis.

DCN: 3982

STATE OF WASHINGTON

WASHINGTON STATE AND ITS PARTNERSHIP WITH THE UNITED STATES MILITARY INSTALLATIONS

SUMMARY REPORT

October 2004

STATE OF WASHINGTON
OFFICE OF THE GOVERNOR

DCN: 3982

LETTER FROM THE GOVERNOR

Washington State has a long and proud tradition serving as home to several major military installations. The brave men and women who are stationed here, and their families, are an integral part of our community. Those who remain once their duty has been completed, enrich our society and make Washington an even better place in which to live.

Military installations in Washington are a tremendous asset to our state. The benefits they provide range from supplying private sector jobs, to protecting wildlife habitat, to promoting community volunteerism within the ranks.

We are committed to working in close partnership with the Department of Defense and individual military installations in full support of Armed Forces critical operations. In an effort to further strengthen this relationship, my office has undertaken an assessment of Washington's efficacy as a platform for the defense of our country.

As evident in the enclosed report, Washington provides clear advantages in location, terrain, and climate. The military installations are well suited for a wide range of missions and are already responding to the Department of Defense's philosophy of transformation and joint operations and training. This report also documents examples of successful collaborations between the military and state or local agencies including efforts to meet military training and operational objectives, and achieve state and community policy goals. It illustrates how the state's commitment to the broader citizenry – enlarging access to quality education, ensuring an adequate supply of affordable housing, attracting and retaining secure family wage jobs, and improving infrastructure to resolve traffic congestion – directly contributes to quality of life for military personnel and their loved ones, and the overall efficiency of the military installations.

In addition, this report serves as a reminder to policy makers that the military is impacted by decisions made at all levels of state government. Washington is firmly committed to working with its military installations in the advancement of common goals, as well as identifying and addressing issues of concern through constructive, open dialogue.

I am confident that you will find this report to be informative and useful.

Sincerely,

Gary Locke
Governor

DCN: 3982

WASHINGTON STATE AND ITS PARTNERSHIP WITH THE UNITED STATES MILITARY INSTALLATIONS – SUMMARY REPORT

Office of the Governor
OCTOBER 2004

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INTRODUCTION

This report is intended to provide information to federal, state and local policy makers regarding the value of Washington State and the military installations located within the state to the national defense. It is also intended to show the myriad of ways in which state and local agencies work in partnership with the military installations and support, directly and indirectly – the operations of the installations.

Washington State and its military installations form an ideal platform for projecting power throughout the Pacific Rim and many other parts of the world. Washington's location places the military in close proximity to Asia and Europe, and the diversity of its geography and climate provide all branches of the military a full range of training opportunities. The military installations themselves are suited for a wide range of missions; their close proximity to each other creates opportunities for joint training and operations. The value of Washington's military installations to the national defense is reason enough for federal, state and local policy makers to work closely with the military installations in the state.

But Washington's military installations also have a tremendous economic impact on the state. The direct and indirect annual earnings within Washington State generated by the military installation operations are $7.2 billion. Approximately 188,000 jobs are created. The economic impact is not limited to the counties in which the installations are located: in fact, 21 of the state's 39 counties have companies that do business with the military bases.

Washington's policy decision in support of investment in energy, communications, transportation, environmental protection, historic preservation, utilities and public health each influence the ability of the military installations to carry out their missions, as is shown in this report. The consultative partnerships formed between agencies and installations have formed a positive working relationship that strives to meet both the operational needs of the military and the policy goals of the state.

Washington not only supports the operations of the military installations, it also supports the military personnel and their families. The excellence of Washington's education system and workforce development programs, and Washington's inherently strong economic advantages creates opportunities for the military personnel and their families to enjoy careers both in and out of the military. A strong housing market provides a viable alternative to living on base, which supports both the goal of reducing operational costs for the military and the interest families have in being able to live in the community.

The state views the military as a major sector of the economy. The Joint Committee on Veterans' and Military Affairs conducted extensive tours and hearing in 2003 to gain a "big picture" view of the role of the military in this state and the policy areas of interest to the military. The Governor's Office continued that work with an in-depth inventory of the many ways in which the state regulates or partners with the military installations, and by forming a state agency work group that meets periodically to discuss issues.

The information in this report is a reminder to policy makers at the state and local level that the military is affected by a wide range of policy decisions made the Legislature, state agencies and local governments and districts. The military is a stakeholder to be consulted and considered when state and local government are making decisions that affect its ability to carry out its mission.

WASHINGTON STATE'S ADVANTAGES FOR FORCE PROJECTION, MILITARY TRAINING AND OPERATIONS

As the United States military transforms to meet future challenges, hard choices must be made on where to station forces. The military will likely not fight from its home bases, but will travel to wherever they are needed. The Department of Defense needs to locate its forces where they can best be deployed by air or sea from garrison and training facilities that have adequate ground and air space to train for any contingency. Installations may be called upon to serve different or evolving missions in the future. Washington offers a unique combination of access to transportation with climate and terrain suitable for training and a growing dedication to ensure that military facilities are not compromised by encroachment. Washington is a vital nexus of air, sea, rail and road services for transportation goods throughout the Pacific Rim. The bases currently in Washington are perfectly situated to project power throughout the Pacific Rim and to support military operations anywhere in the world.

EXISTING WASHINGTON BASED FORCES AVAILABLE TO PROJECT POWER

Washington is home to five missions that project the power of the United States throughout the world. One of the two ballistic missile submarine bases in the United States is located at Bangor. The Navy has two aircraft carriers and a destroyer squadron based in Puget Sound, and the center for both Navy and Air Force combat electronic warfare in located on Whidbey Island. The Army has a Ranger battalion and a Special Forces Group at Fort Lewis. Also located at Fort Lewis are two Stryker brigades, with a third brigade arriving in the near future.

The Stryker brigades are the latest addition to the Army force structure. Of the six brigades planned, two are based at Fort Lewis and another will be equipping and training there in the next federal fiscal year. The Stryker brigades are well-protected, highly mobile and deployable units able to serve anywhere in the world.

The Ohio-class submarines at Bangor are part of the nuclear deterrent force. In addition, some units are being converted to be cruise missile carriers and to possess the ability to clandestinely deploy special force units.

The aircraft carriers and destroyer squadron are one-third of the aircraft carrier strike capability in the Pacific Fleet. They represent the ability of the United States to project power both on the high seas and in the air throughout the world. The ability to base surface warships and aircraft carriers in Puget Sound gives the Navy the ability to project airpower and sea control throughout the Pacific Rim and beyond. The Naval Air Station at Whidbey Island has the surge capacity to allow carrier air wings to form up prior to deployment at sea. The Puget Sound Naval Shipyard at Bremerton provides the only nuclear-capable repair facilities on the Pacific Coast. The ability to deploy to locations around the Pacific Rim as well as other supporting features make Puget Sound an ideal location from which to project naval power.

The Rangers and Special Forces are elite units with the ability to deploy anywhere at anytime. The Special Force group based at Fort Lewis is specifically trained for operations in Asia. The Ranger battalion is one of three in the Army and is an elite light infantry unit capable of both conventional and special operations.

While Fairchild Air Force Base does not currently have units assigned that are capable of directly projecting power, it retains that capability. Through its history the base has hosted bomber squadrons under Strategic Air Command and Air Combat Command, and it retains the infrastructure needed to support bomber units if they were reassigned to Fairchild.

With these combat forces and the lift capability that is based in Washington, the United States has in a single state the ability to jointly train, deploy, and if necessary fight, with units that have had the opportunity to practice working together on a continual basis.

SUPPORT FORCES THAT PROJECT POWER

There are military missions in Washington that play a supporting role, not only for the missions located in the state, but throughout the rest of the country. Fairchild Air Force Base is one of three dedicated aerial refueling bases in the nation and McChord Air Force Base hosts a wing of C17 Globemaster IIIs, the latest addition to the strategic airlift fleet. Also located at the Port of Tacoma are two National Reserve Fleet sealift ships capable of transporting military equipment. Aerial refueling capabilities from Fairchild extend the range of both combat and transport aircraft, allowing units in transit to travel farther before having to land. If deployed to a combat theater, the tankers continue to serve in a force multiplier role. The C17s based at McChord Air Force Base can not only deliver almost all the equipment in a Stryker brigade, they can also parachute Rangers into combat throughout the world. This ability allows the Army units in Washington to rapidly deploy worldwide. The Reserve Fleet ships and facility at the Port of Tacoma provide the ability to transport military equipment to ports the world over.

With both McChord Air Force Base and SeaTac International Airport in close proximity to Fort Lewis, Washington provides an excellent platform for transporting troops and equipment. McChord Air Force Base has the ability to receive the C5 Galaxy, the highest capacity transport aircraft in the Air Force inventory. SeaTac can easily accommodate aircraft from the Civil Reserve Air Fleet (CRAF) to assist in the movement of troops either to Asia flying the Great Circle Route or to Europe flying the Polar Route. The aerial tankers from Fairchild enhance this capability by extending the range of military aircraft through in-flight refueling.

Fairchild Air Force Base is also an integral part of airlift operations. With the aerial refueling tankers based there, Fairchild can support the transit of military cargo planes and combat aircraft to locations around the globe. The tankers can also be deployed to support transit operations in areas that do not have aerial refueling capability or to support combat operations. The base itself has the ability to handle any aircraft in the Air Force, and possesses, in conjunction with Spokane's Geiger Airport, the surge capacity to allow large flights of planes to form up at Fairchild, or to use it as an emergency landing facility without interfering with operations.

With many deep water ports in Puget Sound, Washington can accommodate military sealift operations. Fort Lewis' Seaport of Departure is Tacoma, which is the second closest of any port of departure to its associated army base. This means that units based at Fort Lewis can be at sea much quicker than almost any other combat force in the Army. In addition to the Port of Tacoma, there are also cargo-handling ports located at Olympia, Seattle, and Everett capable of supporting military sealift operations in terms of break-bulk, roll-on/roll-off, and container cargos. The Port of Seattle and Tacoma each have a Coast Guard security unit, making the ports a more secure place from which to conduct operations. The sea transit time is shorter to locations in North Asia than from any other port in the continental United States.

WASHINGTON'S CLIMATE AND TERRAIN

In order to maintain peak proficiency, military units must train constantly. As the military transforms and the world in which we live changes, there is less certainty about a unit being deployed to a single type of geographic environment. In order to prepare for future deployments, units need to practice their skills in a variety of conditions and in a safe manner. Although Washington has the reputation of being a wet, "evergreen" state, there is much diversity in the geography and climate that provides varied training locations that are available all year.

Eastern Washington is a sparsely populated area, largely involved in agricultural and forestry activities. It has several areas of reserved airspace for low-level flights, and a variety of terrain, from pine forests to grasslands to canyons that provide opportunities for training either in the air or on the ground. The winters tend to be cold and dry, and the summers hot and drier.

Western Washington has a highly urbanized central core surrounded by mountains, forests, and prairies. Western Washington enjoys a marine climate, but does not have continuous rain. Summers

are sunny and dry, while winters are cool and wet. Much of the Cascade Range in Western Washington is state or federal forests. Some of these are used for training activities.

Washington has valuable airspace for Army, Navy, and Air Force training activities. Two dedicated helicopter training ranges are associated with Fort Lewis. Both of these allow pilots to practice maneuvers over state and federal forestlands. The training center at Yakima provides a training environment for more arid climates such as Southwest Asia. There are also multiple low-level transit routes that Air Force and Navy pilots use to train for low-level flight. A large expanse of air space is dedicated for military maneuvers over the northern part of eastern Washington. Several areas of dedicated airspace exist in western Washington and off the Pacific coast.

In addition to the volume of airspace that is available, Washington State is also uniquely situated to support training for electronic warfare. The electromagnetic spectrum in the state is remarkably clean. This allows for units such as the Prowler squadrons based at Whidbey Island to train for their mission without interfering with other uses of the electromagnetic spectrum.

Washington provides opportunities for both woodland and dryland training of ground forces and joint operations. With both Fort Lewis and the Yakima Training Center, Washington affords the military two environments to prepare troops. The Air Force maintains its survival school in Eastern Washington, using the national forests north of Spokane as a training environment for evasion and escape training. Special Forces and Rangers also use this facility, as well as practicing alpine warfare on Mount Rainier. These varied terrain features in a relatively compact space make Washington an ideal place for the Armed Forces to prepare for ground combat.

Puget Sound provides the military with an excellent series of sheltered deep-water ports to support combat, transport, and logistics missions. Everett Naval Station is only a few hundred yards from the pier to deep water. Bremerton has the ability to accept all Navy ships for either basing or repair. Proximity to the Port of Tacoma allows for rapid sea transport of army units based at Fort Lewis. There is a range to practice the deployment of aerial mines in association with Whidbey Island. And with the development of the Littoral Combat Ship, the San Juan Islands, Strait of Juan de Fuca and Washington Coast provide ample opportunity for training in a littoral environment. Finally, in neighboring British Columbia, there is the Nanoose Torpedo Range, where new undersea warfare weapons developed at Keyport are tested in conjunction with the Canadian Navy. There are numerous water drop zones for use by Special Forces that are close to their home base, allowing for efficient training. The combination of these opportunities allows the military to conduct a wide range of maritime activities in a sheltered environment.

Washington has the climate and terrain that provide the United States Armed Forces with a well-rounded environment in which to train. With two distinct climates, access to training facilities on land, at sea, and in the air, there is ample opportunity for the services to practice working together. As the world changes and the armed forces transform to meet new challenges, Washington provides the ability to train for deployment.

GROWTH MANAGEMENT ACT – PROTECTION OF INSTALLATIONS FROM ENCROACHMENT

Washington State recognizes that incompatible development of land close to military installations reduces their ability to perform their military mission or to accept new missions. Washington has been planning to accommodate growth since 1990, when the Legislature enacted the Growth Management Act. The Act requires local governments to coordinate and plan for growth, wise land use management, sustainable economic development, and promote the health, safety and quality of life of the state's residents. The Act directs cities and counties to develop comprehensive plans that designate and protect critical areas and resource lands of long-term commercial significance, thereby directing growth to appropriately zoned developable lands. This approach has ensured that there is substantial airspace in the state with minimal population.

In 2004, to prevent future encroachment near military installations, the Legislature passed Engrossed Substitute Senate Bill 6401. Local governments are instructed to prohibit inappropriate development in the vicinity of military installations that would interfere with the base's ability to perform its mission. In addition, cities or counties considering amending their comprehensive plans or development regulations regarding properties adjacent ot military installations are required to notify the base commander of the intended amendment and to allow 60 days for comment on the proposed change. This provides a means for local governments to stay informed of the needs of the military.

Even before the enactment of ESSB 6401, local governments took steps to ensure compatibility in the permitted land uses around military facilities. Island County has stringent standards to help reduce interior noise in residences around Naval Air Station Whidbey Island. There is also required notification of airport activities during property title searches on all properties within area identified on the local airport environs map. The city of Oak Harbor includes an overlay zone in their municipal codes to ensure that surrounding land uses are compatible with the operations of NASWI. Similarly, Spokane County adopted regulations that protect Fairchild Air Force Base from encroachment, including the approach routes to the air base. Lakewood has made strides to protect McChord Air Force Base from further encroachment by adopting a measure to ensure that no further incompatible development takes place in the approach airspace to McChord. The comprehensive plan for the city states that it supports the acquisition of the clear zone associated with McChord. The Department of Community, Trade and Economic Development is working with Lakewood to provide funding to study the cost and identify options for addressing the privately owned portion of the clear zone.

WASHINGTON STATE'S INFRASTRUCTURE AND OPERATIONAL SUPPORT FOR THE MILITARY INSTALLATIONS

ENERGY, COMMUNICATIONS AND OTHER UTILITIES

Energy

Businesses and industries located in Washington State enjoy the benefits of a reliable and competitive energy supply. The state is a leader in capitalizing on energy efficiency opportunities to extend our supplies and keep prices competitive into the future. Washington's energy infrastructure assures a ready supply of low cost power to military installations in Washington.

Washington's petroleum supply infrastructure is deep and flexible, which translates into a very reliable supply. Five refineries produce sufficient amounts to be a net exporter, including key military products like jet fuel, aviation gas, diesel and gasoline. Washington military bases can also be supplied from two pipelines entering the state from the east. A major pipeline also runs from the refiners in the Northwest region of the state to Portland. Product can be delivered from all areas of the state to military bases by pipeline, barge or truck. In general, the local refineries supply the naval bases via military barges. Jet fuel is supplied direct to McChord and Fairchild by pipelines. Fort Lewis receives diesel and gas supplies by truck from local suppliers through the Defense Energy Support Center. The deepness of the petroleum supply system in Washington (multiple crude sources, multiple refineries), the simplicity of supply (by barge or pipelines) and the flexibility of the system (multiple, interchangeable transportation alternatives during emergencies) means an unusually secure and reliable supply of petroleum products to military bases in Washington.

Washington is served by two natural gas pipeline networks that give the state ready access to natural gas basins in British Columbia and Alberta, as well as gas basins located in the Rocky Mountain region. Several pipeline upgrades are in progress or have been proposed, and development of Liquefied Natural Gas receiving terminals in the region is being examined, to give the region access to global supplies. Natural gas is primarily delivered by four regulated utilities, though many large consumers buy gas directly from the pipeline companies. The state has two natural gas storage facilities, which are

primarily used to insure gas deliverability and smooth seasonal demand. A third storage facility is being developed in Kitsap County.

Washington State's economy has benefited from cost-effective and reliable electricity supplies since the beginning of major hydroelectric development in the 1930's. Hydropower provides seventy-three percent of Washington's electric power. Washington State will continue to be served by increasingly reliable and competitive electric power supplies. The military bases have an advantage of being eligible for direct supply of power from the Bonneville Power Administration, one of the lowest cost sources of electricity in the United States. All of Washington's largest bases, except Ft. Lewis and McChord Air Force Base, have taken advantage of this. Tacoma Power serves Ft. Lewis and McChord, and is also a very low cost supplier since most of its power comes from either BPA or its own low-cost hydroelectric dams.

Communications

The telecommunications industry in Washington State consists of multiple suppliers in a diversified and competitive market. Market conditions are favorable towards economically efficient and technological advanced telecommunications providers. In Washington today, 97% of all households have affordable telephone services. This penetration rate is higher than the national average of 95%. Washington also has one of the lowest monthly flat rates for local residential telephone service. Washington sponsors Washington Telephone Assistance Program, which provides basic telephone service to low-income households at a rate of $8 per month.

The 1996 Federal Telecommunications Act provided a framework for the pro-competitive policies being implemented by the Washington Utilities and Transportation Commission (WUTC), which regulate telecommunication providers in Washington State. The WUTC requires local phone companies to allow competitors to serve their customers and, in turn, the WUTC has been able to reduce regulations. Competitors may construct their own facilities or lease unbundled network elements at cost-based rates or resell existing facilities. As a result, consumers have a greater choice of providers and technologies. Competition in the major metropolitan areas is intense.

The Puget Sound region has an abundance of fiber installed and available for use by the military. Most available fiber is controlled and managed by private sector telecommunications organizations, but significant capacity exists. The University of Washington is an anchor tenant on the national large capacity broadband networks.

Water, Septic and Sewer

Water and wastewater treatment facilities are the responsibility of local governments and private providers. The Department of Health and the Department of Ecology have a regulatory role in ensuring safe drinking water and appropriate disposal of waste, while the Department of Ecology oversees water rights. The Department of Community, Trade and Economic Development administers grant programs to assist local governments that invest in infrastructure. The Growth Management Act requires local governments to plan for infrastructure to accommodate growth.

While some of the military bases have their own water supply and waste water facilities, others tie into the local government facilities. According to the Department of Health, most of the larger military installations have approved water supply facilities with some capacity to expand. If expansion of these systems was desired, the Department of Health would work with facility managers on water source and engineering issues. The Department of Ecology would coordinate water rights issues.

TRANSPORTATION

Washington's multi-modal transportation system links the military installations to each other and to the world. The state has several major investment programs underway to address the mobility needs of the area: including a Sound Transit agency that provides express bus and commuter rail service and is building a light rail system; a Regional Transportation Investment District that is completing plans for

major investment in transportation corridors that will be put to a vote of the people; and a series of investments by the Washington State Department of Transportation from the "Nickel Gas Tax" passed in 2003 designed to address congestion points in the system.

Highway Preservation and Safety

Washington has a long-standing commitment to making sure the existing transportation system is well maintained and is safe to use. An investment program started more than fifteen years ago has resulted in 90.7% of highway lane miles being rated in good or better condition. That is a better rating than 39 other states. Highways in good condition are safer, allow more rapid travel, result in less wear and tear on vehicles, and support the heavy trucks and other vehicles that the military uses. A strong maintenance program also reduces the need for preservation investment, which reduces the frequency of lane closures for repaving. An aggressive enforcement program by the Washington State Patrol and educational programs by the Washington Traffic Safety Commission has improved highway safety. Between 1980 and 2002, vehicle miles traveled increased by 92% while the number of fatal and disabling injury crashes has fallen by almost 63%.

Highway Operations and Capacity

Washington State is reducing the causes of congestion, providing capacity improvement and making the most efficient use of the existing transportation system in order to provide mobility to the population. A multi-pronged strategy is making significant progress in this effort.

Blocking incidents on highways cause a large percentage of congestion. The Department of Transportation has incident response teams that are specially trained to respond to incidents in the major highway corridors. They clear the roads by helping drivers with disabled vehicles, restoring the normal flow of traffic as safely and quickly as possible. Roving service patrols also help to spot and report problems immediately and to help motorists who are stranded due to vehicle breakdowns.

The Department also operates an extensive High Occupancy Vehicle (HOV) system that reduces travel time for buses, vanpools and car pools. The system has 198 miles in the Central Puget Sound, with an additional 7 miles being built and 92 miles planned, for a total system (when completed) of 297 miles. The system is designed to reach from Everett to Lakewood, and across the Puget Sound into the Kitsap Peninsula via the Tacoma Narrows Bridge.

Improved driver information is also an important tool. The Department of Transportation operates a web-based information program to provide drivers with travel time estimates in eleven corridors in the Central Puget Sound. The program allows drivers to know with 95% certainty that they will arrive at their destination in the projected time. Better information means better decisions regarding travel routes and departure times.

In 2003, the Legislature passed a 5-cent gas tax increase to add to the existing capacity improvement capital investment program. The program of projects funded in the budget is designed to address the worst "chokepoints" and to make substantial investments in major corridors throughout the state. These projects include significant investment in access to and through Spokane (near Fairchild Air Force Base), improvements on I-90 in the cross Cascade corridor (used by Fort Lewis in transporting troops and equipment to the Yakima Training Center), improvements along SR 20 in Skagit County and Island County, (near Naval Air Station Whidbey Island) improvements in the Everett area (home to Naval Station Everett), projects in Kitsap County (home to Naval Base Kitsap and Puget Sound Naval Shipyard) focused on choke points along SR 16, SR 3 and SR 304, and improvements in Pierce County (home of Fort Lewis and McChord) centered on I-5 and SR 16, just north of the military installations. In addition, SR 18, which is part of the corridor between Fort Lewis and the Yakima Training Center, will continue to be widened for improved mobility and safety. Other projects include improving access from I-82 to the communities in the Yakima area, and major investments in the corridors in Snohomish, King and Pierce County in conjunction with the Regional Transportation Investment District.

Public Transportation

Washington State has a system of locally governed public transit systems. All of the communities near the major military installations are served by transit systems. Island Transit serves Whidbey Island, and provides access between the community and the main gate of Naval Air Station Whidbey Island. Everett Transit likewise provides services to the main gate of Naval Station Everett. Community Transit, with links to Everett Transit, serves Marysville (home of the Marysville Family Support Center) along with the rest of Snohomish County. Pierce Transit provides full service in Pierce County to McChord Air Force Base and Fort Lewis. Military personnel who live in Thurston County can use Intercity Transit to connect with Pierce Transit. Kitsap Transit provides service to the military housing and hospital in the area. It also has a "worker-driver" program for individuals working on the Navy base or at the Puget Sound Naval Shipyard. Mason Transit, serving Mason County near Kitsap County, also offers service to the Puget Sound Naval Shipyard for workers who live in Mason County. Spokane Transit provides full service to Fairchild Air Force Base.

Washington State Ferries

Washington is blessed with a beautiful body of water known as Puget Sound, but with that blessing comes a transportation challenge, as it divides the Central Puget Sound metropolitan area into a west and east side. To provide mobility and access across the Puget Sound, Washington operates the largest ferry system in the United States. It carried over 24.4 million passengers and 10.8 million vehicles with their drivers in FY 2004. Many of the passengers and drivers were military personnel or civilian employees of the Department of Defense. The fleet consists of 28 vessels that operate over ten routes, connecting 20 ferry terminals. The Clinton/Mukilteo route serves Whidbey Island, and provides a south access to the mainland for Naval Air Station Whidbey Island (which also has bridge access to the north). Four routes: the Edmonds/Kinston route, the Seattle/Bainbridge route, the Seattle/Bremerton route and the Fauntleroy/Vashon/Southworth route, serve the Navy installations on the Kitsap Peninsula. The Department's investment program includes new and larger vessels to replace older portions of the fleet and improve carrying capacity, as well as investment in the ferry terminals to lengthen their life and improve services.

Ports and Freight Mobility

The Puget Sound has seven deep-draft ports. The Port of Seattle and the Port of Tacoma together represent the second largest container port complex in the United States. Fort Lewis uses the Port of Tacoma facility for moving equipment overseas. Recently, the Department of Defense has been using the Port of Olympia as an embarkation point for equipment going to Iraq. The Port of Seattle is a designated sustainment port. It would be used to ship consumable supplies to troops in a major regional conflict overseas. The Port, in those circumstances, could handle a peak of up to 1,100 containers on 100 to 350 railcars a day.

Washington State is focused on improving freight mobility. Since 1996, a partnership of public and private sector organizations known as "FAST" (Freight Action Strategy for Seattle-Tacoma-Everett) has worked to streamline the movement of freight through the Central Puget Sound region. Washington also has benefited from major capital investments by Burlington Northern Santa Fe. Washington's Freight Rail Assistance Program improves the capacity and survival chances of branch lines. For example, the state awarded the Port of Olympia a $250,000 grant in 1999 to improve the tracks into the port complex in downtown Olympia. The Army has been using the rail to ship equipment to Fort Lewis. The state also provided funds to the Puget Sound and Pacific Railroad, which serves Bangor submarine base. The Department of Transportation is also working with Fairchild Air Force Base, Spokane County and other partners to design and build a new rail spur that will move the "Geiger Spur" rail line away from the entrance of Fairchild Air Force Base and provide improved freight movement capacity for companies in the area.

Aviation Systems

Washington State has an extensive network of commercial and general purpose airports that provide access to the major military installations in the state. SeaTac Airport is centrally located for the majority of the military installations, and is expanding its capacity to provide additional service to the region. Spokane International Airport and Yakima International Airport also provide commercial services near significant military installations. Seven of the airports in the state are designated for use in training and for emergency services for national defense, including Ephrata Municipal, Snohomish County, Grant County International, Olympia, Tri-Cities, Boeing Field and Spokane International Airport.

Transportation Planning with the Military

Washington has a strong transportation planning partnership with the military installations. Fairchild Air Force Base, for example, was involved in the development of the Airways Heights Transportation Plan and the US 2 Route Development Plan. Fort Lewis and McChord Air Force Base are involved in the planning for the Cross-Base Highway and Fort Lewis was involved in the SR 507 Route Development Plan. The Navy installations on the Kitsap Peninsula were involved in the SR 303 Bremerton to Silverdale Study, the Hood Canal Bridge Closure Mitigation Study and the SR 104 Improvement Study. Naval Air Station Whidbey Island participated in the SR 20/Regatta Drive intersection project and the SR 20 Sharpes Corner to SR 536 Safety Study. The military installations also participate in the state's regional transportation planning organizations' planning efforts as appropriate.

ENVIRONMENT

The Department of Ecology and the Department of Fish & Wildlife are the two primary state agencies working in partnership with the military installations to protect the air, land, water and habitat resources at the military installations. This cooperative relationship is based on common environmental goals shared between the state and federal government.

Under the Model Toxics Control Act, the Department of Ecology oversees the cleanup of most Department of Defense sites in the state. Many of the installations are on the National Priorities List Superfund as a result of significant historic problems in managing waste. The cleanup work is, by and large, centralized at Ecology's headquarters to ensure uniform application of laws and coordinated approaches. The Air Quality Program coordinates with local air pollution control agencies, which have primary responsibility for air quality. The local air pollution control agencies work closely with the installations to protect air quality while allowing necessary military operations and training. Obscurant training has received special attention. The Puget Sound Clean Air Agency has amended its regulations to allow such training at Fort Lewis, and Ecology issues annual variances for the Yakima Training Center. Ecology also works with the military installations to provide technical assistance in meeting motor vehicle emissions standards. Ecology conducts annual inspections of the installations to verify proper management, treatment, storage and disposal of hazardous and dangerous waste. The regulation of solid waste is delegated to the local jurisdictional health departments, with Ecology providing oversight and technical assistance. Under state law, Ecology responds to spills at most military installations. A "Partners in Prevention" memorandum of agreement has been signed with the U.S. Navy, addressing cooperative oil spill management and giving Ecology access to Navy vessels during spill incidents. Ecology works with the regulated facilities, completing oil spill drills and working on other planning functions. Water quality issues involving the military installations and Ecology are generally limited to groundwater protection. The EPA authorizes discharge to surface water on federal lands under the Clean Water Act. Ecology is charged with protecting the beneficial uses of groundwater. Ecology permits discharge to groundwater through a state waste discharge permit to some installations, and also registers underground injection control wells.

The Department of Fish & Wildlife enjoys a close working relationship with the military installations. The installations play an important role in individual fish and wildlife projects and partnerships, and help protect habitat for wild species. For example the military installations are not required to apply for

a state Hydraulic Project Approval permit. Due to the cooperative working relationship, the military installations apply for an HPA for projects that will be conducted in or near the waters in the state. This cooperation enables the Department's habitat biologists to work with resource and engineering staff at military installations providing information and technical assistance on projects, in many cases resulting in the incorporation of the advice into plans for facility development.

Numerous examples of the working relationship between the military installations and the Department could be cited, but a sample of those include:

- Naval Station Everett has allowed and participated in surveys for many wildlife species in the old-growth forest at the Jim Creek Radio Facility outside of Arlington.
- Fairchild Air Force Base sponsors an annual youth fishing day with the Department on the land around Clear Lake; and many personnel are instructors in the Department's Hunter Education Program.
- Fort Lewis and McChord Air Force Base provide the largest contiguous tracts of Oregon White Oak woodland and prairie in western Washington. Fort Lewis has engaged with the U.S. Fish and Wildlife Service and state and local agencies to develop a Candidate Conservation Agreement for protection and management of specifics at-risk in the oak woodland-prairie landscape.
- Naval Air Station Whidbey Island supports the Department's Wildlife Program activities including base access and participation in the Harlequin Duck banding and Marine Mammal education. Department staff have also been allowed on-base access to study Great Blue Heron colonies and for shoreline aerial surveys.
- Yakima Training Center is a valuable habitat for a diverse array of wildlife species that are dependent on shrub-steppe. The Department and the Center work together to study the habitat and wildlife and to make sure that they are protected while the operating and training needs of the military are accommodated.

HISTORIC PRESERVATION

The Department of Community, Trade and Economic Development works with all of the military installations to identify, evaluate and protect cultural and historic properties. The federal National Historic Preservation Act is the principle vehicle for this work, which includes a requirement that federal agencies consider the effect of their actions on properties listed in, or eligible for listing in, the National Register of Historic Places. Since the properties listed in the National Register are typically 50 years in age and older, and many of the buildings and structures on the military installations are of historic significance as well as meet the age threshold, the Department works closely with the military installations.

Fort Lewis oversees a rich and diverse range of cultural and historic resources, ranging from intact archaeological sites dating to thousands of years in age to archaeological sites associated with the historically significant Hudson's Bay Company and the Puget Sound Agriculture Company. Fort Lewis is also home to architecturally and historically significant buildings and structures. The installation has a well-established and capable cultural resource management staff. The Department enjoys a close working relationship with the Fort Lewis cultural resource staff, and the installation also has established a good working relationship with the Nisqually tribe.

The Air Force has episodic contact with the Department. McChord Air Force Base relies on consultants, while Fairchild Air Force Base relies on a combination of a contact person on staff, consultant expertise and a working relationship with the Spokane County historic preservation officer. Both installations have a productive working relationship with the Department.

The Navy has several installations throughout the Puget Sound, and uses a combination of Navy Region Northwest staff, consultants and on-site staff according to the amount of historic preservation work. Naval Air Station Whidbey Island, for example, uses the Naval Facilities Engineering Command in Poulsbo or consultants, and historic preservation work has been limited to the Seaplane Base at Oak Harbor and the Out Lying Field Coupeville. The Naval Undersea Warfare Center at Keyport has a very rich history, resulting in an active working relationship with the Department. The Puget Sound Naval Shipyard at Bremerton likewise has a long and proud history and historic properties to match. PSNS employs a staff person specifically detailed as the contact person on historic preservation matters. The Department enjoys a close working relationship that focuses on preserving the many buildings and structures of architectural or historic significance. The Bangor Submarine Base portion of Naval Base Kitsap and Naval Station Everett do not have significant historic sites because of the age of the bases.

HEALTH SYSTEMS

The Washington State Department of Health has a mutually beneficial working relationship with the military installations, focused on emergency response capability. The Department works with the Puget Sound Naval Shipyard and Naval Base Kitsap to plan for and respond to onsite accidents involving nuclear material, and to receive support from the Navy in planning for and responding to radiologic incidents external to the installations. The Department of Health, the Military Department and the Department of Ecology are working with the Navy to conduct joint radiological emergency response exercises beginning in the fall of 2004. The Department is also working with Fort Lewis and Madigan Army Medical Center to conduct environmental surveillance of biological, chemical and radiological agents. The Department's public health laboratory is involved with sampling efforts. The Department is also developing a cooperative agreement with the Fort Lewis Safety Office that would provide the Department expanded training opportunities with the military, as well as provide for mutual assistance similar to the arrangement with the Navy. The Department is working with entomologists at Fort Lewis to monitor the mosquito population during the spring and summer, which is important given the risk of West Nile Virus. The Department's food safety program assists the military with training. Finally, the Department has an informal arrangement with the Military Laboratory at Madigan Army Medical Center to provide mutual surge capacity.

WASHINGTON'S SUPPORT FOR MILITARY PERSONNEL AND THEIR FAMILIES

EDUCATION

The K-12 System

Washington State adopted the Education Reform Act in 1993, which marked a commitment by the state to increasing education standards and expectations for all public school students. Academic standards that challenge all students to solve problems, communicate and think critically are in place across all grades and content areas. The Washington Assessment of Student Learning (WASL) is a nationally recognized assessment system that gauges student, school and community progress in reaching the standards. Accountability goals for reading and mathematics have produced strong achievement gains. Washington has set its standards high, and held to that standard over the years. Washington's teaching force is among the most highly qualified in the nation. Approximately 99% of Washington's 57,900 teachers are fully certificated. Rates of teaching "out of field" are very low.

Improving math and science education is a central focus of the state's education reform efforts, relying on collaborations among school districts, state government, corporations and private partners. Math and science achievements are on the rise. Leadership and Assistance for Science Education Reform, or LASER, is an ongoing Washington effort in more than 80 school districts to improve science education. LASERS helps school systems fundamentally and comprehensively overhaul science teaching and learning.

Without a strong foundation in reading, students cannot succeed in other content areas. Literacy is a priority at every level, including high school. Washington has made a long-term commitment to improving reading through programs including Washington Reads (aimed at low-performing schools), Washington Reading Corps (a public-private partnership that identifies and trains reading tutors) and Washington State Reading Initiative (a pre-K through 16 initiative to scale up research-based reading success in every school).

All students are expected to graduate from high school with the skills and knowledge needed for opportunities and economic advancement. Washington is committed to awarding high school diplomas only to students who have met state standards in reading, writing, mathematics and science.

Washington has a record earned through objective test results. In 2002, 54% of Washington high school students took the College Board's SAT examination, putting Washington in the top tier of all 50 states. Of the states with more than 50% participation, Washington has the highest math and verbal scores. In the state's WASL examination, student performance on the 4th grade mathematics assessment has more than doubled since 1997. Washington's students perform significantly higher than the national average in reading and mathematics on the Iowa Test of Basic Skills (ITBS). More than 60% of Washington's third-graders and about 55% of sixth-graders perform higher than the national average in both reading and mathematics.

The schools districts near the military installations serve families both living on base and off base. A few are highlighted in this section just as examples of the educational programs and outreach efforts. Kitsap County school districts teach many of the children of the men and women serving at Naval Base Kitsap and the Puget Sound Naval Shipyard. The schools provide the full range of educational opportunities, including advance placement college programs, special education and gifted education programs, career and technical education and programs such as Running Start (earning college credit while in high school) and Jump Start (earning high school credit while in junior high). The schools participate in programs involving partnerships with military installations, including Personal Excellence Through Cooperative Education (PECE), a partnership with Trident Training Facility to provide hands-on instruction for fifth graders, and Partnerships with Navy Fleet and Family Support Centers to provide counseling to military children who have a parent deployed.

The Clover Park School District teaches many of the children of the men and women serving at Fort Lewis and McChord Air Force Base. Clover Park students have an excellent academic record, with 92 of 453 students graduating in 2004 being honor graduates and 188 award and scholarship recipients. The district offers advanced placement classes. Clover Park is a member of the Military Child Coalition, and also is a signatory of the Army's Secondary Education Transition Study's Memorandum of Agreement. This program provides a common structure for information-sharing and reciprocal processes. Oak Harbor serves Naval Air Station Whidbey Island families. In fact, 56% of the students have parents at NASWI. The school district offers advanced placement classes; the high school juniors and seniors perform exceptionally well on SAT tests, and the district's WASL scores are at or above the state average. Each school has a partnership with two or more squadrons or departments at the base, and the Navy's Morale, Welfare and Recreation Department operates a before and after school daycare program at each elementary school. Communication efforts include annual training for school district administrators and counselors on issues relevant to Navy families, monthly ombudsmen meetings on the Navy base and tours of the Navy facilities for new school district staff to familiarize themselves with operations of the base and the needs of families. Medical Lake School District serves families stationed at Fairchild Air Force Base. A new elementary school was recently completed on the base. It was built with a six million dollar grant from the Department of Defense and four million eight hundred thousand matching appropriation from the state. The staff at the elementary school provides many programs and services to military families and their children, and provides an exemplary curriculum in the basics of reading, writing, mathematics, science and social studies. The school offers programs to assist students that may be struggling in reading, writing and/or mathematics. The middle school and high school likewise provide a supportive learning environment to the students from the base. Advanced placement classes are offered to improve student preparation for college.

The Community and Technical College System

Washington's community college system makes education affordable and within easy access of students, focusing on employers' needs for a highly skilled workforce. The 34 community and technical colleges offer a wide range of education programs, including job training, college transfer courses, basic skills, high school completion, and GED preparation. The colleges are conveniently located through campuses and extension sites, and courses are available via video and the Internet. Courses are offered with day, evening and weekend options. The college system offers some 1,000 vocational education programs leading to employment in hundreds of occupations. Employers work with the colleges to ensure that the skills students learn meet their needs. Students also have opportunities in many programs to attend school while working in their chosen field. Many students who attend community colleges enter transfer programs that provide the first two years of a bachelor's degree program. The students then transfer to a four-year institution to complete their undergraduate students. Military personnel and their families are eligible for in-state tuition status.

While all of the community colleges are open to members of the military and their families, several of the community colleges are in close proximity to the military installations in the state and have developed close working relationships.

Bates Technical College in Tacoma offers 44 programs leading to degrees and providing training for more than 350 careers. The college provides a carpentry program at Fort Lewis and fire fighter training at McChord Air Force Base.

Clover Park Technical College in Lakewood offers training in over 80 degree and certificate areas. The college has off-campus training sites at Fort Lewis.

Everett Community College provides on-site enrollment advice services at the Naval Education Center and works with military personnel to facilitate the tuition assistance programs provided by the military. It also maintains a Veteran's Affairs Office. The college is a member of the Servicemember's Opportunity Colleges, to ensure that credits earned by military personnel at other colleges and universities are accepted at Everett Community College, and visa versa.

Olympic College in Bremerton is a Servicemember's Opportunity College and hosts the largest Federal Apprenticeship Program in Washington State. The college has also been designated a homeport training activity, one of only a few in the nation. The college participates in the Defense Training and Education College Consortium, and is expanding its distance learning programs.

Pierce College District has two colleges, one at Lakewood and one at Puyallup. It works in partnership with both the Fort Lewis and McChord Air Force Base Education Centers to support the military personnel and their adult family members. A memorandum of understanding between the college and both military installations implements a program that supports the educational objectives of the military personnel. The program includes distance learning and on-line courses, and involves participation in eArmyU, Army University Access Online.

Skagit Valley College has a campus in Oak Harbor, and offers a variety of technical degrees and certificates. The college also offers a wide variety of classes online, including the Associate in Arts University and College Transfer Degree. The college is a Servicemember's Opportunity College.

South Puget Sound Community College in Olympia has a campus in Lacey, within driving distance of Fort Lewis and McChord Air Force Base, and the many personnel that live in the Lacey area. The Center for Continuous Learning provides training and consulting services in a number of computer-related careers, and the Washington Certified Public Manager Program is a nationally recognized certification program. The college has worked with Fort Lewis to provide computer and fire-fighting classes.

Spokane Community College is one of the largest professional/technical community colleges in Washington State, offering degree and certificate programs in over 90 fields. Spokane Falls Community

College, the other community college within close proximity to Fairchild Air Force Base, emphasizes pre-major and liberal arts instruction and is among the top three community colleges in the state in number of students who transfer to four year universities.

The University System

Washington has six public universities, plus a number of distinguished private universities, providing a comprehensive program of higher education from the bachelor's level through doctorate degrees. Military personnel and their families are able to access programs on these campuses, many of which are within commuting distance to the major military installations in the state. A number of the public universities and private institutions belong to the Serviceman's Opportunity College network. All of the major public campuses and several of the private institutions provide Reserve Officer Training Corps programs. In addition to the full campus programs, two of the public universities have specialized centers located in cities near the military installations; these centers extend access to higher education for place-bound students who cannot commute to a campus that may be a 30 or 45 minute drive. For example, Central Washington University offers engineering technology and law and justice programs at Steilacoom, near Fort Lewis and McChord Air Force Base, and business, technology and organizational development programs at Lynnwood near Naval Station Everett. Western Washington University offers programs at Bremerton, Oak Harbor and at Everett. The University of Washington at Tacoma recently entered into an agreement with the United States Army Recruiting Command, Pierce College and South Sound business organizations to work together to recruit residents to service in the Army while providing them an education that will also be of use when they return to Washington's civilian work force.

EMPLOYMENT

Washington has a strong, diverse economy, providing many job opportunities for family members of active duty military personnel stationed in this state. Most of the military bases in Washington are located near the large urban area in the Central Puget Sound and family members of active duty military personnel at these bases can participate in the Everett-Seattle-Tacoma metropolitan area labor market. Family members stationed at Fairchild can access the largest labor market in eastern Washington in Spokane County. Long-term county-level labor market projections suggest expansion of the Central Puget Sound and Spokane labor markets, providing many opportunities for family members of military personnel stationed in Washington.

Washington's Employment Security Department tracks employment trends and projects future employment out to 2012 for the state and for individual counties. The trends for the state track the national business cycle. Employment in Washington grew by 38% from 1982 to 1992, compared to 21% for the nation. From 1992 to 2002, employment in Washington grew by 18% compared to 20% for the nation. The recession of 2001 has ended, and Washington's major industries are growing. From 2002 to 2012, employment is projected to expand by 17% in Washington and 15% in the US as a whole.

Family members of personnel stationed in Kitsap County have access to a growing labor market in Kitsap County, as well as the larger and expanding market in King County. From 2002 to 2012, employment is expected to expand by 15% in Kitsap County and 17% in King County. Naval Station Everett families have access to a growing labor market in Snohomish County, which is expected to expand by 17% between 2002 and 2012. King County, next door, is also a viable labor market for families living in Snohomish County. The families of personnel stationed at Naval Air Station Whidbey Island have access to a relatively small labor market in Island County, but many Island County residents commute via a short ferry ride to Snohomish County to access a labor market ten times the size of the Island County market. Employment is projected to expand by 14% in Island County. Island County residents can also access the Skagit County labor market, which is just to the north and twice the size of the Island County labor market. Family members of personnel stationed at bases in Pierce County can access growing labor markets in Pierce, King and Thurston counties. From 2002 to 2012, employment is projected to expand by 17% in Pierce County and 19% in Thurston County. Family members of

personnel stationed at Fairchild Air Force Base can access an expanding labor market with over 200,000 jobs. Spokane County employment is expected to expand by 17% between 2002 and 2012.

Families of military personnel and veterans seeking employment have access to the free WorkSource Center services of the Employment Security Department. The Department has 30 WorkSource Centers strategically placed throughout the state. They provide all the information, technology and services necessary to match up businesses and job seekers. The services are delivered to customers through self-directed efforts such as kiosks or via the Internet, group programs and activities such as workshops, one on one consultations, and training programs and business consultations. Job seekers have free use of computers, copiers, phones, faxes and other career resources. They also have Internet access to jobs, job referral and placement assistance, classes on how to get and keep a job, and information on the fastest growing jobs and wages. In addition, at least one Local Veterans Employment Representative and one Disabled Veterans Outreach Program Specialist staff most WorkSource Centers. The LVER representatives and Disabled Veterans Outreach Program Specialists maintain regular contact with community leaders, employers, labor unions, training programs and veterans' organizations to keep them advised of veterans and other eligible persons available for employment training and to keep veterans and eligible persons advised of opportunities for employment and training. Employment Security also hosts or assists in Veteran Job Fairs.

The Employment Security Department and the Navy are working on a Memorandum of Understanding that would have the Department assume the employment service role that was heretofore provided by the Navy on base. The Navy would provide space on base for the Local Veterans' Employment Representative and the Disabled Veterans' Outreach Program representative, who would provide all the services currently offered to the public at large at the WorkSource Centers. The services would be offered to active duty and retired members of the Navy, as well as their spouses and teenage or older children. The Department has begun offering the services in anticipation of the memorandum being signed.

WORKFORCE TRAINING AND CREDENTIALING

A key aspect of employment opportunities is access to workforce training and professional or occupational credentials. Washington State's Workforce Training and Education Coordinating Board examines postsecondary vocational programs to ensure they meet the requirements of federal veterans benefit programs and is responsible for veterans' course approval for private career school programs and for public community and technical colleges. The WTECB oversees Skill Panels, which engage business and industry in strategies to close the skill gaps in Washington State. Examples of Skill Panels coordinating efforts with military organizations include:

- The Pacific Mountain Health Care Skills Panel is working with partners to assess and create transition plans for military personnel, starting with Combat Medical to Practical Nurse and Registered Nurse.
- The Tacoma-Pierce Health Care Alliance includes partners from Madigan Hospital, who participated in labor-management committee meetings during the development of the Health Unit Coordinator and Computed Tomography/Magnetic Resonance Imaging registered state apprenticeships.
- The Olympic Health Care Alliance acts as facilitator for the Olympic College and the "Navy College" that serves Navy Base Kitsap to improve transitions for armed forces trained personnel, and plans to develop articulation agreements between Navy medical training and Olympic College's health care programs.

Professional licensing could be a barrier to a smooth transition from military service to civilian work, but Washington's commitment to reciprocity and national examinations allows military personnel to obtain licenses with a minimum of effort. There are a few military healthcare designations that do not directly equate to a licensed profession, such as the Army MOS 91-W, which does not directly equate to either an LPN or RN license, but may fit into a civilian nursing occupation. A workgroup that includes

the Executive Director of Nursing Quality Assurance Commission is working on this issue and considering options to allow veterans to use their training and experience to qualify them for work in the health care sector.

HOUSING

The Department of Community, Trade and Economic Development provides state and federal funding to non-profit housing authorities and tribal governments to create and preserve affordable housing statewide. The Housing Trust Fund has made significant investments in multifamily housing developments in areas near military installations, including Pierce, Thurston, Kitsap, Jefferson, Mason, Island and Spokane counties.

Recently, the Department assessed the housing availability for military personnel to better inform state and local policy makers regarding the status of that sector of the housing market. The assessment found that substantial private housing markets exist near all of the military installations in Washington, providing units that are accessible to active duty military personnel who desire off-base housing. Four representative service ranks were chosen to capture the range of personnel and income levels of active duty personnel who may be seeking off base housing. The four ranks were:

- E-4, (Corporal, Petty Officer 3rd Class, Sr. Airman) with 4 years in the service; base pay $1,814 per month.
- E-6, enlisted (Sergeant, Petty Officer 1st Class, Technical Sergeant) with 12 years in the service; base pay $2,596 per month.
- O-3, officer (Captain, Lieutenant) with 4 years in the service; base pay $4,027 per month).
- O-4, officer (Major, Lt. Commander) with 10 years in the service; base pay $5,138 per month.

Private housing markets appear to provide an adequate supply to meet the housing needs of military families who wish to live off base, except perhaps in the case of Island County, which has nearby Skagit County as an additional housing market.

As the services move toward privatization of many services including housing, the adequacy of the local private housing markets will be increasingly important. Washington's communities are well equipped to meet these challenges, with active private markets, development capacity, and public programs to assist low-income households. All of the counties housing major military installations in Washington are subject to the Growth Management Act. County plans must provide for adequate zoned capacity to meet ten-year housing demand forecasts. Counties housing military bases consider demand originating from the base personnel as well as residents in these counties not linked to the military population.

HEALTH AND HUMAN SERVICES

Washington's private sector health care providers work with the military installations to supplement the care provided by the military. Spokane's Sacred Heart Medical Center and Empire Health Services have provided in-patient hospital services for active duty and civilian employees at Fairchild since the base hospital evolved into a medical clinic. Everett's Providence Everett Medical Center is only blocks away from Naval Station Everett, and provides the full range of health care services to military personnel and their families. In Kitsap County, a number of health care providers support Naval Hospital Bremerton's delivery of health care services, including Harrison Hospital, a not-for-profit, acute care community hospital with three campuses serving Kitsap County, a multi-specialty group practice, a large regional health maintenance organization, and a non-profit community mental health center. Island County is served by Whidbey General Hospital, which is owned and operated by the Whidbey Island Public Hospital District. The hospital's services include two rural health community clinics. The hospital provides in-patient, out patient, medical, surgical, pediatric and obstetrical services.

The state has a strong local public health district system that provides traditional public health services to all residents, regardless of whether they are active military or civilian. The districts also work in

partnership with the military hospitals as needed for communicable disease control and in coordinating emergency response preparedness.

The Department of Health provides immunization services through private health care providers that military personnel and their families are eligible for if they don't already obtain the service on base. The Department also operates the Women, Infants and Children Services, which provides special nutritional support for the personnel and their dependents in partnership with the military medical clinics and commissaries in the state.

Washington State's Department of Social and Health Services also provides a number of "safety net" programs in the form of food and medical assistance to individuals regardless of whether they are serving in the military or are civilians.

THE ECONOMIC IMPACT OF THE MILITARY INSTALLATIONS ON WASHINGTON STATE

The Office of Financial Management conducted a study in 2004 to assess the economic impact of the major military installations on the state and the communities in the vicinity of the installations. The study included: Fort Lewis, McChord Air Force Base, Naval Base Kitsap, Undersea Warfare Center at Keyport, the Northwest Regional Maintenance Center (Puget Sound Naval Shipyard and Bangor Intermediate Maintenance Facility) Naval Station Everett, Naval Air Station Whidbey Island, Fairchild Air Force Base and Yakima Training Center. These facilities are the worksites for more than 83,000 military and civilian personnel, with a $3.7 billion annual payroll. The bases purchase a variety of goods and services from in-state vendors, and they generate significant economic impacts throughout the state, including $174 million a year in King County, which is 42% of the total procurement by the bases from within the state. Both statewide and local impacts were estimated in the study, and total more than $7.2 billion in total labor earnings when multiplier impacts are taken into account. On the order of 5% of all economic activity in Washington State is due to the impacts of the major military bases located in the state. At the county level, the proportion of all activity dependent on the military bases is much larger for three counties: 88% of Island County, 54% of Kitsap County and 30% of Pierce County.

Direct employment at the military bases varies in both size and degree of impact. Pierce County has the largest number of uniformed and civilian personnel serving on its bases, at 34,624, representing 14% of the county's labor force. Kitsap County is a close second in number of personnel, with 27,375 employed; but the impact is much greater due to the population of Kitsap County. The Navy bases in Kitsap County represent 36% of the labor force. On the other hand, even though Island County's military-related employment is much lower, at 10,066, that figure represents 68% of the island's labor force. Snohomish County and Spokane County have substantial work forces on the military bases, at 4,517 and 6,262 respectively. Yakima has a significant workforce of 500 uniformed and civilian personnel at the training center.

The study found that health care services are not only provided by the military hospitals and clinics in the area, but also through private providers who are paid under the TRICARE program. Payments to health care providers in Washington State amounted to $116 million in 2003. Pierce County providers received $31.1 million in reimbursement; Spokane County providers received $30.9 million; Kitsap County providers received $18.6 million; Snohomish County providers received $17.5 million; Island County providers received $14.1 million, and Yakima County providers received $3.8 million.

The study included retired military personnel pensions. Because there is an on-going relationship between many of the retirees and the bases, and many active duty personnel seek a last posting before retirement in a region of the county in which they want to retire – and Washington bases are a popular choice. Pension payments in this state in 2003 totaled $1.153 billion. Payments to Pierce County residents totaled $524.9 million, Kitsap County residents totaled $253.9, Spokane County residents

totaled $145.1 million, Snohomish County residents totaled $138.1 million, and Island County residents totaled $91.1 million.

Washington companies conduct a substantial amount of business with the military installations in the state. In 2002, Washington companies sold $528 million worth of goods and services to the military installations located in Washington. Of that amount, ten companies conducted $288 million worth of the business. Forty-four companies received 100% of their revenue from business with the military installations, while another 66 Washington companies received between 25% and 100% of their revenue from the bases. The database examined by the Office of Financial Management revealed 424 companies doing business with bases in Washington, distributed among 21 counties.

The total impact of the military installations includes both direct and indirect earnings and employment. The Office of Financial Management determined the impact of $187,900 jobs and a total impact on labor earnings of $7.24 billion. The largest employment and payroll was in Pierce County, with $87,534 jobs and a payroll of $3.37 billion. Kitsap County has 53,835 jobs related to the military installations in the state, with a payroll of $2.01 billion. Island County had 20,141 jobs with a payroll of $775 million; Spokane County had 13,797 jobs with a payroll of $585 million; and Snohomish County had 11,877 jobs with a payroll of $474 million. Yakima County, which has the Yakima Training Center, had 709 jobs and an annual payroll of $22 million.

CONCLUSION

Washington State has policies and partnerships in place that support the missions of the military installations within the state, and provide an excellent home for military personnel and their families. The nation and state benefits from the value the military installations add to the national defense, and the state benefits both from the economic value derived from the installations and the contributions of the military personnel and their families to Washington's social fabric. The relationship between the state and the military is well developed, and will continue to be nurtured both at a statewide level and on an agency-by-agency, installation-by-installation basis.

Joint Committee on Veterans' and Military Affairs

Senator Rosa Franklin	Representative Barbara Bailey
Senator Jim Kastama	Representative Roger Bush
Senator Marilyn Rasmussen	Representative Tom Campbell
Senator Pam Roach	Representative Kathy Haigh
Senator Dave Schmidt	Representative John McCoy
Senator Paull Shin	Representative Tom Mielke
Senator Dan Swecker	Representative Dawn Morrell
Senator Shirley Winsley	Representative Beverly Woods

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INTRODUCTION

In 2002, Congress passed the National Defense Authorization Act for Fiscal Year 2002, which called for an additional round of base realignment and closure to occur in 2005.[1] The previous rounds occurred in 1988, 1991, 1993, and 1995. The act requires Defense Secretary Donald Rumsfeld (SECDEF) to compile a list of bases to be closed or realigned in 2005. In light of the new base realignment and closure (BRAC) round, Engrossed House Bill 2064 passed the legislature during the 2003 regular session and was thereafter signed into law by Governor Locke. The bill directs the Joint Committee on Veterans' and Military Affairs (JCVMA) to conduct a study of military facilities in Washington to "ensure that all military facilities in Washington retain their premier status with respect to their national defense missions." This report is the product of that study.

Joint Committee on Veterans' and Military Affairs

JCVMA is a committee charged with examining and addressing issues affecting the military and veteran populations in the state. The committee comprises 16 appointed members, four from each caucus of each legislative body. A four-member executive board, one from each caucus of each body, governs the committee. The committee only meets during the interim. While it does not actually pass legislation, the committee does hold hearings and endorse proposed legislation.

Base Realignment and Closure

The Base Realignment and Closure (BRAC) process has been around in principle since the 1960s, when President John F. Kennedy directed Secretary of Defense Robert S. McNamara to develop and implement a base closure and realignment program to reflect the reality of the times. The goal was to save money and reduce base structure that was created during WWII. The early BRAC rounds were conducted exclusively by the Department of Defense (DoD) and occurred without Congressional involvement. Due to the sensitive economic and political nature of base closures, Congress intervened in the 1970s and involved itself in the BRAC process.

In response to legislative deadlock on the BRAC process, Congress introduced a process in 1988 designed to minimize political interference. The statute established a commission to make recommendations to Congress and SECDEF on closures and required lawmakers to either accept or reject the commission's report in its entirety. The BRAC process was further refined in 1990 resulting in the process we have today (mostly). Under the current BRAC process, the SECDEF makes

[1] Defense Base and Realignment Closure Act of 1990 (Public Law 101-510), as amended by the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107).

recommendations on base closures and realignment to the BRAC commission, whose members are nominated by the President and confirmed by the Senate. The commission will review the recommendations and submit its own recommendations to the President. The President will review the recommendations and either send them back for further work, or forward them without changes to Congress. The recommendations of the commission automatically go into effect unless disapproved by a joint resolution of Congress.

Since 1988, the United States has gone through four BRAC rounds (1988, 1991, 1993, and 1995) that have closed 97 major military facilities, numerous minor military installations, and conducted 55 major realignments. Washington state's military facilities have remained relatively unchanged in the previous rounds, losing only one major facility with the 1991 closure of Naval Station Puget Sound at Sand Point. (A minor military installation, Camp Bonneville, located in Clark County, was closed in 1995).

While the final BRAC decisions are not due until 2005, much of the preliminary work has started. Congress has already established a BRAC time line with several important dates. (See appendix A). The SECDEF has completed and submitted to Congress a detailed 20 year force structure plan. SECDEF will compare that plan with the current military infrastructure inventory. The criteria by which each facility will be evaluated has been published (see Appendix B). In March 2005, the President must appoint, and the Senate must confirm, nine BRAC commissioners. By May 2005, SECDEF must compile a list of recommended base closures or realignments and transmit it to the commission. The commission must assess the recommendations and submit to the President a report containing its findings and conclusions, and a list of proposed closures and realignments by September 2005. The President has 15 days to either accept or reject the commission's entire list. If the list is approved, it is transmitted to Congress, who has 45 days to approve or reject the entire list. If the president rejects the list, the commission has 30 days to make adjustments and resubmit the list.

In an attempt to minimize political influence on the BRAC process, local DoD personnel, including base commanders, are prohibited from participating in BRAC-related discussions. DoD guidance prohibits unauthorized discussion, dissemination of information, or speculation. Further, local commanders are not in a position to answer questions requiring them to speculate or discuss BRAC issues which are subject to internal DoD deliberation. DoD personnel may not participate in their official capacity in activities of any organization that has as its purpose, directly or indirectly, insulating bases from realignment or closure.

Consequently, in conducting the base tours, the committee refrained from discussing BRAC-related issues.

Engrossed House Bill 2064

EHB 2064 directed the committee to tour Washington military bases in preparation for BRAC 2005. Specifically, the committee was charged with obtaining an understanding of the mission of each military facility and identifying obstacles that may impede the execution of that mission. The committee was directed to look at the economic impacts the facilities have on the state economy and evaluate local proposals intended to further the mission of the facilities. The committee was also directed to make recommendations regarding appropriate expenditures to ensure proper functioning and continued operation of the facilities within the state and examine state and local laws and regulations regarding military facilities.

During the 2003 interim, the committee toured the major military facilities throughout the state: Fort Lewis and Madigan Army Medical Center; McChord Air Force Base; Bangor Submarine Base; Puget Sound Naval Shipyard; Naval Station Bremerton; Keyport Underwater Warfare Center; Whidbey Island Naval Air Station; Naval Station Everett; and Fairchild Air Force Base. Members of the committee and the appropriate state and national legislators from the area were invited on the tour. Additionally, a representative from the Governor's office was present at the tours, as was legislative staff.

In addition to touring the bases, the committee held public work sessions aimed at collecting information on local impacts of the base and other information pertaining to the BRAC process. Members of local governments and chambers of commerce were invited to make presentations and engage in a dialogue with the committee about possible actions that could ensure the existence of the bases. The meetings were open to the public and the committee allowed members of the public to speak.

BASE MISSION

EHB 2064 directed the committee to gain an understanding of the mission of each military facility. To fulfill this obligation, members of the committee were briefed by base commanders and other military officers regarding the tenant commands and the types of activities performed on the base.

Fort Lewis and Madigan Army Medical Center

Fort Lewis, part of Forces Command, is the home of I Corps. It is one of 15 US power projection platforms. The Corps' primary focus is the Pacific Rim. Fort Lewis was recently selected to implement Army transformation with two Initial Brigade Combat Teams (Stryker Brigades) designed as more lethal fighting units with quicker deployment times and enhanced agility. The principal Fort Lewis maneuver units are the 1st Brigade, 25th Infantry Division and the 3d Brigade, 2nd Infantry Division. It is also home to the 593d Corps Support Group; the 555th Engineer Group; the 1st MP Brigade (Provisional); the I Corps NCO Academy, Headquarters, Fourth ROTC Region; the 1st Personnel Support Group; 1st Special Forces Group (Airborne); and 2d Battalion (Ranger), 75th Infantry. Additional training space, maneuvering areas, and live-fire ranges are available at Yakima Training Center in Eastern Washington. Ft. Lewis is also home to Madigan Army Medical Center (MAMC).

MAMC provides general medical center-type care, inpatient and outpatient, veterinary care and environmental health services for authorized members of the Armed Forces, retired personnel, and their family members.

McChord Air Force Base

McChord Air Force Base (AFB) is home to the 62nd Airlift Wing and its reserve associate wing, the 446th Airlift Wing. The 62nd Airlift Wing is the largest of two wings composed of C-17 Globemaster III cargo aircraft, which are capable of globally deploying a combat-ready force. McChord is home to the Washington Air National Guard and also shares the base with the Western Air Defense Sector and the 22nd Special Tactics Squadron.

Puget Sound Naval Shipyard (PSNS)

PSNS performs west coast naval nuclear propulsion work, including CVN overhauls and upkeep; Trident-class maintenance plan refits, refuelings and overhauls; and Trident SSGN conversions. PSNS also supports surface ships in Everett and Bremerton; performs reactor compartment disposal; recycles nuclear powered ships; and conducts fleet training.

Bangor Submarine Base[2]

Bangor is homeport to nine Ohio Class Trident Submarines (USS Ohio, USS Michigan, USS Georgia, USS Henry M. Jackson, USS Alabama, USS Alaska, USS Nevada, USS Pennsylvania, and USS Kentucky) and

[2] The Navy is considering merging its Bremerton and Bangor bases to save money and eliminate repetitive services.

the USS Parche (Sturgeon Class Fast Attack Submarine). Bangor also hosts more than 60 tenant commands, most of which directly support the Trident Submarine, including the Commander, Navy Region Northwest; Commander, Submarine Group 9; Commander, Submarine Squadron 17; Trident Training Facility; Naval Intermediate Maintenance Facility; Strategic Weapons Facility, Pacific; and the Submarine Development Squadron 5.

Naval Station Bremerton[3]

Bremerton is homeport to the USS Carl Vinson; USS Bridge; USS Rainier; USS Camden; and the USS Sacramento. Bremerton is also home to the Bremerton Naval Inactive Ships Maintenance Facility, a storage and processing center for mothballed ships.

Naval Station Everett

Everett is homeport to the USS Abraham Lincoln; USS Shoup; USS Ford; USS Rodney M. Davis; and the USS Ingraham. Everett is also homeport to the Military Sealift Command Ship USNS Shasta and the United States Coast Guard Ship USCGC Henry Blake. Major tenants at Everett include Commander, Cruiser Destroyer Group 3; Commander, Naval Surface Group PACNW; Naval Reserve Readiness Command Northwest; Commander, Destroyer Squadron 9; Navy Intermediate Maintenance Facility, PACNW, Everett Detachment; Supervisor of Shipbuilding, Conversion and Repair; Afloat Training Group Detachment; and Construction Battalion Unit 421.

Fairchild Air Force Base

Fairchild AFB is home to the 92nd Air Refueling Wing (ARW), the world's largest refueling wing. The 92nd ARW is currently flying KC-135 missions around the world, and is a potential home for new 767 air-refueling tankers. Major tenants of Fairchild AFB include the 336th Training Group (the only survival school in the Air Force), the Washington Air National Guard 141st Air Refueling Wing, and the 2d Support Squadron. The survival school has access to several large tracts of land in Washington for training purposes.

Whidbey Island Naval Air Station

Whidbey Island provides air facilities, services and products to the Naval aviation community and all organizations at NAS Whidbey Island and Navy Region Northwest. The major tenant commands at Whidbey Island include an Electronic Attack Wing, consisting of nine carrier-based EA-

[3] The roster of homeported ships is slated to change significantly in 2004.

6B squadrons, four land-based Joint USN/USAF expeditionary squadrons, one fleet replacement squadron; Patrol and Reconnaissance Wing 10, consisting of three P-3 squadrons and one EP-3 squadron; Marine Air Training Support Group 53; Naval Hospital Oak Harbor; and the Naval Air Reserve VR-61 fleet logistic squadron and VP-69 patrol squadron.

Naval Undersea Warfare Center Division Keyport (NUWC)

NUWC Keyport is one of two divisions of the Naval Undersea Warfare Center, headquartered at Newport, Rhode Island. NUWC Keyport provides testing and evaluation; in-service maintenance, service and repair; fleet readiness; and industrial-based support for undersea warfare systems, countermeasures, and sonar systems.

ROLE WITHIN NATIONAL DEFENSE STRUCTURE

SECDEF, under a military transformation philosophy aimed at developing U.S. military advantages and protecting against asymmetric threats, is in the process of creating a detailed force structure plan. How Washington fits into that plan is unknown, however, the state has historically maintained a significant role in the national defense structure due to its unique geographical location, topography and climate. The Puget Sound region has bases from each branch of the military within close proximity, providing joint service training opportunities in both improved and unimproved terrain. Puget Sound is a natural deep water port that can accommodate the largest of ships. Indeed, PSNS is the only shipyard on the West Coast capable of dry-docking a nuclear-class aircraft carrier. Arial training ranges and ample "flying days" facilitate year-round tactical aircraft training. The varied terrain of Washington provides ideal training conditions ranging from high altitude mountain environments to arid desert environments and everything in between, including 375,000 acres of land in the Colville National Forest used by the Air Force for survival school training.

BRAC Selection Criteria

SECDEF recently published the criteria for DoD to use in making recommendations regarding the closure or realignment of military installations, and military value is to be given priority consideration. (See Appendix B). Key components of military value include current and future mission capabilities and the impact on operational readiness, including joint warfighting and training; the availability and condition of land, facilities, and associated airspace; the ability to accommodate mobilization and future force requirements; and the cost of operations.

Although a closer and more thorough examination of Washington bases and the criteria may be warranted, at first glance the criteria seem favorable to the state's military installations. With Army, Air Force, and

Navy bases in the state, there is joint cooperation in both training opportunities and operational readiness. There is available land and associated airspace used as training areas throughout the state that provide a diversity of climate and terrain. Several bases in the state have the ability to accommodate new missions and future force requirements. Many of the bases are newer and have updated facilities, making the bases more cost effective and efficient.

MISSION OBSTACLES

Military bases face both internal and external pressures that may hamper the performance of base missions. The main focal points of this report are the external, or civilian-generated, obstacles that could impede the missions of each facility. Some of these obstacles are germane to military bases, but most are obstacles encountered in both the military and civilian worlds.

Transportation

Transportation is a critical part of each base mission. The military bases must be able to move people and equipment quickly and easily. Several transportation issue areas were addressed at the public hearings.

- *Congestion:* Members of the military are affected by traffic congestion just like the general public. Commute times, equipment delivery, and training exercises are all affected by traffic congestion. Sailors and soldiers in western Washington seeking to further their education at four-year institutions may be dissuaded due to the long commute times from the bases to the institutions.
- *Ferry service:* The Navy has a strong and dispersed presence in the Puget Sound region, with bases in Island, Kitsap and Snohomish counties. A regular passenger-only and/or a traditional automobile ferry between the counties would help the military transport both passengers and cargo in a more expedient manner.
- *Air travel:* Concerns were raised regarding the time required for passenger air travel from the Snohomish and Island county bases. Sailors taking personal flights must first travel from Everett or Whidbey Island to SeaTac, a difficult commute even in non-rush hour traffic. There was some discussion of possibly expanding Paine field in Everett to allow commercial aviation.
- *Cross-base Highway:* There was also discussion of the proposed cross-base highway through McChord AFB. McChord is surrounded by developed land to the north, west and east. When conducting operational readiness and training exercises, the military utilizes the unimproved areas on the southern end of the base and land in Ft. Lewis as well. Some concern was expressed that putting a cross-base highway along the southern end of the

base will make it difficult to utilize the entire base and may jeopardize the future of the base.

Employment

Employment was another frequent topic of discussion. Like transportation, employment is certainly not a "military only" issue, but military personnel do have unique problems.

- *Work-force training:* Members of the military can advance their careers through education. While some bases do have extensive on-base educational opportunities, having an institute of higher learning in the local community greatly benefits local military personnel. Four year degree programs offered by WWU in Everett do not include the business, engineering, and science programs desired by Navy personnel. Additionally, traveling to Seattle may dissuade individuals from pursuing their education during their military career. Similar concerns were expressed by individuals who have separated from the military and are seeking to re-train themselves to be productive in a civilian work force.
- *Apprenticeships and licensing:* Performance of certain military duties and the training invested in military personnel is often similar to training required of the general public in order to become credentialed or licensed in a certain trade. However, members of the military do not necessarily receive credit for their military training. While no specific trade was mentioned, further examination of granting credit for military training toward civilian credentialing and licensing may be warranted.
- *Spousal Employment:* The mobile nature of military service makes it difficult for spouses to find career-oriented employment. Employers may be discouraged from hiring military spouses and investing in the training of spouses given the temporary nature of military assignments. Programs that encourage the hiring of military spouses could be valuable in accommodating the economic needs of military personnel. Similarly, veterans' preference points in scoring examinations for state or local government employment could be extended to spouses of military personnel and national guardsmen, which would assist them in securing employment.

Growth Management and Land Use Issues

Encroachment upon military bases by the surrounding community can adversely affect a base's ability to conduct its mission. Encroachment happens when the local community allows or permits development of areas adjacent to the base. For example, runways have FAA-designated clear zones that may extend outside the property of the military base. These clear zones extend beyond the end of the runway and are intended to keep these areas clear of development to mitigate any damage in the event of a plane crash during takeoff or landing. Areas at the end of the runway also have high noise levels. Development in the clear zones adversely affects the ability to conduct training flights and may endanger those living or working within the zones. Some communities, such as Oak Harbor in Island County and Airway Heights in Spokane County, have taken affirmative steps to mitigate encroachment through zoning ordinances which ensure that development around the base is consistent with the base activities; building codes that address and minimize noise concerns; and real estate noise disclosure requirements that inform buyers of the conditions that exist because of the base. Rail lines are also subject to encroachment concerns. PSNS and Bangor rely on rail systems to move equipment, and encroachment on those rail lines by the public can pose an obstacle to performance of the mission of the base.

Housing

Another consistent theme of the meetings was the necessity of affordable housing. The military bases do have some housing capacity, nonetheless a significant portion of military personnel live off base. There are, of course, many issues that drive up housing costs, but it is important to the military that a supply of affordable housing exist around the bases. Legislation adopted in 2003 (SSB 5044) made it easier for military personnel to terminate leases was mentioned as an example of a housing practice that assists military personnel and provides an affordable option when a member of the armed forces is reassigned.

Education

Like members of the general public, military personnel want to make sure their children receive a quality education. Many of the issues raised in the hearings regarding education echoed general concerns about education. Class size, attraction and retention of quality teachers, special education programs and fulfilling state performance requirements are important to both the military and general populations. Specific concerns raised at the meetings revolve around budgeting issues for the school year. Generally, teachers are hired based on estimates of student populations and state funding is based on a per-student formula. Shifts in the military

population affect the number of enrolled students and therefore can leave a district with both a funding and staffing shortage.

Environmental issues

Washington's military bases have developed and implemented plans to minimize environmental impacts resulting from base activities. While the diverse location of the bases requires that environmental plans be tailored to the locale of the base, there were similar concerns expressed at the public work sessions. Fish and wildlife management, underwater detonation and sonar, and illegal dumping on bases by private individuals or business are common issues.

Miscellaneous Issues

- *Public safety:* Public safety is important for members of the military. Those deployed away from home need to know that their loved ones are safe and secure. Adequate funding for police and fire protection are important to peace of mind.
- *Regulatory conflict:* While no specifics were provided, concern about conflicting regulatory burdens was brought up at the work sessions. It is unclear whether the conflict exists between state entities or state and federal entities, and further examination may be warranted.

ECONOMIC IMPACT

Attached to this report are several charts with information on Washington's military personnel. Appendix C, taken from a Department of Defense website, shows the number of DoD military and civilian personnel in the state, broken down by the military institution or city. Appendix D shows the earnings of military personnel broken down by county and as a percentage of total earnings. Appendix E has information about military construction projects in the state since 1998.

To briefly summarize, the 2001 military population in the state was 179,565 (including uniformed and civilian military personnel and their dependants) that earned a total of $4.4 billion. In 2003, a total of $278 million was appropriated for military construction in the state.

STATE SUPPORT OF BASES

The draft report made a number of recommendations to enhance the relationship with the military and protect Washington bases from BRAC closure. This past legislative session, a number of those recommendations came to fruition. Those actions, combined with actions of previous years, are discussed in this section.

Legislative Branch

The state Legislature passed several bills during the 2003 and 2004 legislative sessions that address specific concerns about the relationship between the military bases and their surrounding communities.

SB 6401: Protecting military installations from encroachment of incompatible land uses.

Concerns about current or potential encroachment upon military bases, and how that encroachment may negatively affect the evaluation of Washington bases in the BRAC process, were expressed to the JCVMA during the 2003 base tours. While state law requires local governments to develop comprehensive land use plans, there is no requirement that the land use plans protect military installations from encroachment. Consequently, local communities worked with the executive and legislative branches to draft legislation recognizing the importance of the United States military as a vital component of the Washington State economy, and identifying as a priority the protection of the land surrounding our military installations from incompatible development.

The bill provides that comprehensive plans, development regulations, and amendments thereto should not allow development in the vicinity of a military installation that is incompatible with the installation's ability to carry out its mission requirements. The legislation also creates a process whereby counties and cities with federal military installations employing 100 or more personnel must notify the commander of an affected military installation of their intent to adopt or amend comprehensive plans or development regulations to address lands adjacent to the installation in order to ensure those lands are protected from incompatible development. The commander must be provided 60 days to submit written recommendations and supporting facts related to the action being considered. Failure of a commander to respond may be presumed to mean that the proposed plan, regulation, or amendment will not have an adverse effect on the operation of the installation.

SSB 6302: Establishing additional protections for persons ordered to active military service.

While the Servicemembers Civil Relief Act (SCRA) provides a number of significant protections to federal service members or National Guard members called into federal service, aimed at postponing or suspending certain civil obligations while the service member is deployed, the SCRA does not contain any provision regarding tuition refunds. In 2004, the Legislature enacted a state law to protect such students.

A student at a postsecondary education institution who is ordered to active state service or federal active service for more than 30 days and provides the requisite notice is entitled to either: (1) withdraw from courses without negative annotation on his or her record and have tuition and fees credited to the person's account at the institution; (2) be given an incomplete and the ability to complete the course upon release from duty; or (3) continue and complete the course for full credit, with any classes missed counted as excused absences. If the student chooses to withdraw, he or she may re-enroll at the institution within one year following release from military service without penalty. The student is also entitled to receive a refund of amounts paid for room, board, and fees attributable to the time the student was serving in the military and did not use the facilities for which the amounts were paid.

The legislation also applies all of the rights and duties conveyed under the SCRA to deeds of trust under Washington law, and prohibits interest or penalties from being assessed for the period of April 30, 2003, through April 30, 2005, on delinquent 2003 or 2004 property taxes for military personnel participating in Operation Enduring Freedom.

SB 6164: Concerning residency status of military dependents.

The state of Washington has a history of recognizing the special circumstances of residency for active duty members of the miliary and their spouses or dependents. For a number of years they were included in tuition waiver statutes but when waivers became permissive and variable, the Legislature decided to include them in the definition of resident for tuition paying purposes. Currently included in that definition are (1) a student who is on active military duty stationed in Washington or who is a member of the Washington National Guard, (2) a student who is the spouse or dependent of a person who is on active military duty stationed in the state, and (3) a student who resides in Washington and is the spouse or dependent of a person who is a member of the Washington National Guard. The legislation provides continued eligibility for in-state tuition for the spouse and dependents of persons on active military duty who are reassigned outside Washington.

ESJM 8039: Requesting relief for military installations in Washington State from the latest round of closures under the Base Realignment and Closure process.

The Memorial acknowledges the strategic and economic importance of military installations in Washington State and petitions the President, Congress, and the Department of Defense to recognize the contributions of these bases and to not make them victims of the 2005 BRAC round.

SB 5049: Designates November of each year as veterans' history awareness month.

The week in which Veterans' Day occurs is designated as a time for people to celebrate the contributions of veterans to the State of Washington. Educational institutions, public entities and private organizations are encouraged to designate time for activities in commemoration of the contributions of America's veterans.

SB 5273: Extending the use of veterans' scoring criteria in employment examinations.

The legislation eliminates the restriction of 15 years that veterans may claim a scoring preference on civil service exams. Previously, veterans could claim the preference for only 15 years after release from active military service.

ESHB 2459: 2004 Supplemental Operating Budget.

The operating budget passed by the legislature includes a $500,000 appropriation to the Washington State Department of Community, Trade and Economic Development for a local government grant program. The grant program is aimed at improving the communication and relationship between military bases and their local communities.

Executive Branch

The Governor and a number of state agencies have formed a work group interested in the preservation of all Washington bases. The group meets monthly to share best practices regarding relationships with the military bases. The group also gathers information and operates as a single point of contact to resolve any obstacles for our bases.

APPENDIX A

FY 2002 NATIONAL DEFENSE AUTHORIZATION ACT

BRAC TIMELINE

(www.dod.mil/brac)

FY 2002 National Defense Authorization Act

BRAC 2005 Timeline

Now thru May 16, 05 — DoD Deliberative Process. DoD undertakes internal data gathering and analytic process necessary to formulate recommendations and meet the statutory reporting requirements outlined below.

Dec 31, 03 — Draft Selection Criteria. Not later than this date the Secretary of Defense "shall publish in the Federal Register and transmit to the congressional defense committees the criteria proposed to be used by the Secretary in making recommendations for the closure or realignment of military installations inside the United states." There is a 30 day public comment period.

Feb ~, 04 — Force Structure Plan & Infrastructure Inventory to Congress. As part of the FY 05 Budget justification documents submitted to Congress, the Secretary shall include the following:

- A "force-structure plan for the Armed Forces based on an assessment by the Secretary of the probable threats to the national security during the 20-year period beginning with fiscal year 2005, the probable end-strength levels and major military force units (including land force divisions, carrier and other major combatant vessels, air wings, and other comparable units) needed to meet these threats, and the anticipated levels of funding that will be available for national defense purposes during such period."
- A "comprehensive inventory of military installations world-wide for each military department, with specifications of the number and type of facilities in the active and reserve forces of each military department."
- A "description of infrastructure necessary to support the force structure described in the force structure plan."
- A "discussion of excess categories of excess infrastructure and infrastructure capacity."
- An "economic analysis of the effect of the closure or realignment of military installations to reduce excess infrastructure."
- A "certification regarding whether the need exists for the closure or realignment of additional military installations; and if such need exists, a certification that the additional round of closures and realignments would result in annual net savings for each of the military departments beginning not later than fiscal year 2011."

Feb 16, 04 — Final Selection Criteria. Not later than this date the Secretary of Defense shall "publish in the Federal Register and transmit to the congressional defense committees the final criteria to be used in making recommendations for the closure and realignment of military installations inside the United States."

Mar 15, 04 — Deadline for Congressional disapproval of Final Selection Criteria

Apr ~, 04	Comptroller General Evaluation. Not later than 60 days after the date on which the force-structure plan and infrastructure inventory are submitted to Congress, the Comptroller General shall prepare an evaluation of the force-structure plan, infrastructure inventory, selection criteria, and the need for the closure and realignment of additional military installations
Feb ~, 05	Revisions to Force-Structure Plan and Infrastructure Inventory. If the Secretary has made any revisions to the force-structure plan and infrastructure inventory, the Secretary shall submit those revisions to Congress as part of the FY 06 Budget justification documents
Mar 15, 05	Nomination of Commissioners. Not later than this date, the President must transmit to the Senate nominations for the appointment of new members to the Defense Base Closure and Realignment Commission.
May 16, 05	Secretary of Defense Recommendations. Not later than this date, the Secretary must publish in the Federal Register and transmit to the congressional defense committees and the Commission, a list of the military installations that the Secretary recommends for closure or realignment.
Jul 1, 05	Comptroller General Analysis. Not later than this date, the Comptroller General shall transmit to the congressional defense committees, a report containing a detailed analysis of the Secretary's recommendations and selection process.
Sep 8, 05	Commission's Recommendations. Not later than this date, the Commission must transmit to the President "a report containing its findings and conclusions based on a review and analysis of the Secretary's recommendations."
Sep 23, 05	President's Approval or Disapproval of Commission Recommendations. Not later than this date, the President shall transmit to the Commission and to the Congress, "a report containing the President's approval or disapproval of the Commission's recommendations." If the President approves the recommendations, the recommendations are binding 45 "legislative" days after Presidential transmission or adjournment sine die, unless Congress enacts joint resolution of disapproval.
Oct 20, 05	Commission's Revised Recommendations. If the President disapproves the Commission's initial recommendations, the Commission must submit revised recommendations to the President not later than this date.
Nov 7, 05	President's Approval or Disapproval of Revised Recommendations. The President must approve the revised recommendations and transmit approval to Congress by this date or the process ends. The recommendations become binding 45 "legislative" days after Presidential transmission or adjournment sine die, unless Congress enacts joint resolution of disapproval.
Apr 15, 06	Commission terminates

APPENDIX B

SELECTION CRITERIA

DCN 3982

Dated: February 5, 2004.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 04–3017 Filed 2–11–04; 8:45 am]

BILLING CODE 5001–06–M

DEPARTMENT OF DEFENSE

Office of the Secretary of Defense; Meeting of the DOD Advisory Group on Electron Devices

AGENCY: Department of Defense, Advisory Group on Electron Devices.

ACTION: Notice.

SUMMARY: The DoD Advisory Group on Electron Devices (AGED) announces a closed session meeting.

DATES: The meeting will be held at 1300, Thursday, February 26, 2004 and 0800 Friday February 27, 2004.

ADDRESSES: The meeting will be held at Palisades Institute for Research Services, 1745 Jefferson Davis Highway, Suite 500, Arlington, VA 22202.

FOR FURTHER INFORMATION CONTACT: Mr. Eric Carr, AGED Secretariat, 1745 Jefferson Davis Highway, Crystal Square Four, Suite 500, Arlington, Virginia 22202.

SUPPLEMENTARY INFORMATION: The mission of the Advisory Group is to provide advice to the Under Secretary of Defense for Acquisition, Technology and Logistics to the Director of Defense Research and Engineering (DDR&E), and through the DDR&E to the Director, Defense Advanced Research Projects Agency and the Military Departments in planning and managing an effective and economical research and development program in the area of electron devices.

The AGED meeting will be limited to review of research and development programs which the Military Departments propose to initiate with industry, universities or in their laboratories. The agenda for this meeting will include programs on microwave technology, microelectronics, electro-optics, and electronics materials.

In accordance with section 10(d) of Pub. L. 92–463, as amended, (5 U.S.C. App. 10(d)), it has been determined that this Advisory Group meeting concerns matters listed in 5 U.S.C. 552b(c)(1), and that accordingly, this meeting will be closed to the public.

Dated: February 6, 2004.

L.M. Bynum,

Alternate, OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 04–3037 Filed 2–11–04; 8:45 am]

BILLING CODE 5001–06–M

DEPARTMENT OF DEFENSE

Office of the Secretary

Notice of Meeting

AGENCY: DoD Medicare-Eligible Retiree Health Care Board of Actuaries.

ACTION: Notice of meeting.

SUMMARY: A meeting of the Board has been scheduled to execute the provisions of Chapter 56, Title 10, United States Code (10 U.S.C. 1114). The Board shall review DoD actuarial methods and assumptions to be used in the valuation of benefits under DoD retiree health care programs for Medicare-eligible beneficiaries. Persons desiring to: (1) Attend the DoD Medicare-Eligible Retiree Health Care Board of Actuaries meeting, or (2) make an oral presentation or submit a written statement for consideration at the meeting, must notify Bill Klunk at (703) 696–7404 by May 3, 2004.

Notice of this meeting is required under the Federal Advisory Committee Act.

DATES: May 26, 2004, 1:30 p.m.–5 p.m.

ADDRESSES: 4040 N. Fairfax Drive, Suite 270, Arlington, VA 22203.

FOR FURTHER INFORMATION CONTACT: Bill Klunk, DoD Office of the Actuary, 4040 N. Fairfax Drive, Suite 308, Arlington, VA 22203, (703) 696–7404.

Dated: February 6, 2004.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 04–3016 Filed 2–11–04; 8:45 am]

BILLING CODE 5001–06–M

DEPARTMENT OF DEFENSE

Office of the Secretary

Department of Defense Selection Criteria for Closing and Realigning Military Installations Inside the United States

AGENCY: Department of Defense (DoD).

ACTION: Final selection criteria.

SUMMARY: The Secretary of Defense, in accordance with section 2913(a) of the Defense Base Closure and Realignment Act of 1990, Public Law 101–510, as amended, 10 U.S.C. 2687 note, is required to publish the final selection criteria to be used by the Department of Defense in making recommendations for the closure or realignment of military installations inside the United States.

EFFECTIVE DATE: February 12, 2004.

FOR FURTHER INFORMATION CONTACT: Mr. Mike McAndrew, Base Realignment and Closure Office, ODUSD(I&E), (703) 614–5356.

SUPPLEMENTARY INFORMATION:

A. Final Selection Criteria

The final criteria to be used by the Department of Defense to make recommendations for the closure or realignment of military installations inside the United States under the Defense Base Closure and Realignment Act of 1990, Public Law 101–510, as amended, 10 U.S.C. 2687 note, are as follows:

In selecting military installations for closure or realignment, the Department of Defense, giving priority consideration to military value (the first four criteria below), will consider:

Military Value

1. The current and future mission capabilities and the impact on operational readiness of the Department of Defense's total force, including the impact on joint warfighting, training, and readiness.

2. The availability and condition of land, facilities and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.

3. The ability to accommodate contingency, mobilization, and future total force requirements at both existing and potential receiving locations to support operations and training.

4. The cost of operations and the manpower implications.

Other Considerations

5. The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.

6. The economic impact on existing communities in the vicinity of military installations.

7. The ability of both the existing and potential receiving communities' infrastructure to support forces, missions, and personnel.

8. The environmental impact, including the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities.

B. Analysis of Public Comments

The Department of Defense (DoD) received a variety of comments from the public, members of Congress, and other elected officials in response to the

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proposed DoD selection criteria for closing and realigning military installations inside the United States. The Department also received a number of letters from members of Congress regarding BRAC selection criteria before publication of the draft criteria for comment. The Department has treated those letters as comments on the draft criteria and included the points raised therein in our assessment of public comments. The comments can be grouped into three categories: general, military value, and other considerations. The following is an analysis of these comments.

(1) General Comments

(a) Numerous commentors expressed support for the draft criteria without suggesting changes and used the opportunity to provide information on their particular installations. DoD understands and greatly appreciates the high value that communities place on the installations in their area and the relationships that have emerged between the Department and local communities. Both the BRAC legislation and DoD's implementation of it ensure that all installations will be treated equally in the base realignment and closure process.

(b) Several commentors gave various reasons why a particular installation, type of installation, or installations designated by Congress as unique assets or strategic ports, should be eliminated from any closure or realignment evaluation. Public Law 101–510 directs DoD to evaluate all installations equally. The Department has issued guidance to all DoD Components instructing them to treat all installations equally.

(c) Some commentors indicated the selection criteria should reflect the statutory requirement of section 2464 of title 10, United States Code, to maintain a core logistics capability, and the statutory limitation of Section 2466 that the Department spend no more than 50% of its depot-level maintenance and repair funds to contract for the performance of such workload. Consistent with the development and application of the criteria used in all previous rounds, it is inappropriate to include any statutory constraints in the selection criteria because they are too varied and numerous and could preclude evaluation of all installations equally. The absence of these requirements in the text of the criteria, however, should not be construed as an indication that the Department will ignore these or any other statutory requirements or limitations in making its final recommendations.

(d) The Department did not receive any requests from local governments that a particular installation be closed or realigned pursuant to section 2914(b)(2) of Public Law 101–510, which states that the Secretary shall consider any notice received from a local government in the vicinity of a military installation that the local government would approve of the closure or realignment of the installation. A few private citizens, however, asked that a particular installation be closed or that operations be restricted to limit noise or other community impacts.

(e) A few commentors expressed concern over the broad nature of the criteria and requested greater detail, including in some cases requests for definitions, specificity regarding select functions, and explanations of when a closure as opposed to a realignment was appropriate. While the Department appreciates a desire for detail, the inherent mission diversity of the Military Departments and Defense Agencies makes it impossible for DoD to specify detailed criteria that could be applied to all installations and functions within the Department. Broad criteria allow flexibility of application across a wide range of functions within the Department.

(f) A few commentors recommended assigning specific weights to individual criteria and applying those criteria uniformly across the Department. It would be impossible for DoD to specify weights for each criterion that could be applied uniformly to all installations and functions because of the inherent mission diversity within the Department. Other than the requirement to give the military value criteria priority consideration, the numbering reflected in the listing of the criteria are not intended to assign an order of precedence to an individual criterion.

(g) One commentor suggested that section 2687 of title 10, United States Code, requires the Department to exclude military installations with less than 300 authorized civilian positions from consideration for closure or realignment under BRAC. While section 2687 allows the Department to close or realign such installations outside the BRAC process, it does not preclude their consideration within BRAC. In order for the Department to reconfigure its current infrastructure into one in which operational capacity maximizes both warfighting capability and efficiency, it must undertake an analysis of the totality of its infrastructure, not just those with 300 or more authorized civilian positions.

(h) Some commentors were concerned that BRAC would be used as a ''back door'' method of privatizing civilian positions. DoD's civil service employees are an integral part of successful accomplishment of defense missions. Section 2904 specifically limits the ability of the Secretary of Defense to carry out a privatization in place of a military installation recommended for closure or realignment to situations where that option is specified in the recommendations of the Commission and determined by the Commission to be the most cost-effective method of implementation of the recommendation. Therefore, if any closure or realignment recommendation includes privatization, it will be clearly stated in the recommendation.

(i) One commentor suggested that the Department needed to conduct a comprehensive study of U.S. military installations abroad and assess whether the existing U.S. base infrastructure meets the needs of current and future missions. The BRAC statute applies to military installations inside the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, American Samoa, and any other commonwealth, territory, or possession of the United States. As a parallel action, the Secretary of Defense has already undertaken a comprehensive study of global basing and presence—the Integrated Global Presence and Basing Strategy (IGPBS). BRAC will accommodate any decisions from that study that relocate forces to the U.S. DoD will incorporate our global basing strategy into a comprehensive BRAC analysis, thereby ensuring that any overseas redeployment decisions inform our recommendations to the BRAC Commission.

(j) A few commentors cautioned the Department against using the authority provided by section 2914(c) to close and retain installations in inactive status because of the negative effect such action might have on the relevant local community. The Department recognizes that job creation gained through the economic reuse of facilities is critically important to mitigate the negative impact of BRAC recommendations. As such, the Department will exercise the utmost caution and consideration when exercising its authority to retain installations in an inactive status. It should be noted that the Department has always had this authority, even though its appearance in the authorizing legislation for the 2005 round would indicate it is a new authority. As such, the Department's actions in the four previous base closure rounds demonstrate that it will be exercised judiciously.

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(k) A few commentors asked the Department to give priority to relocating activities within the same state or local community. The Department recognizes that the economic impact of BRAC reductions can be lessened by moving functions to geographically proximate locations. As specified in the BRAC legislation, however, military value must be the primary consideration when making these decisions. Specifically, those factors that are set out in criteria one through four are the most important considerations when selecting receiving locations.

(2) Military Value Comments

(a) A majority of comments received dealt with the military value criteria. In the aggregate, military value refers to the collection of attributes that determine how well an installation supports force structure, functions, and or missions.

(b) One commentor was concerned that the Department would lose sight of the value of service-unique functions when applying criteria that include reference to jointness. The Department recognizes the distinct military value provided by both service-unique functions and those functions that are performed by more than one service. Accordingly, the Secretary established a process wherein the Military Departments are responsible for analyzing their service-unique functions, while Joint Cross-Service Groups, which include representatives from each of the military services, analyze the common business-oriented support functions.

(c) A few commentors were concerned that criterion two, which captures the legislative requirements set out in Section 2913(b)(1)–(3), did not recite verbatim the language in the BRAC statute. They urged incorporation of ''Preservation of'' into the final criteria to ensure that the 2005 BRAC round preserve the infrastructure necessary to support future military requirements. Selection criteria must facilitate discriminating among various military installations, assessing the value of each and comparing them against each other to see which installations offer the greatest value to the Department. Criteria one through three compare the respective assets of different military installations against each other, valuing those with more of those assets more highly than those without those assets. By valuing the installations with more of these assets higher, the Department ''preserves'' these valuable assets set out in the criteria. If the Department were to modify the criteria to include ''preservation,'' as suggested in the comment, we would be forced to assess how an installation ''preserves'' something rather than whether an installation possesses the assets worthy of preservation, potentially undercutting the statutory factors rather than furthering those factors. While the criteria proposed by the Secretary do not recite the statutory language verbatim, they do fully reflect the nine factors set out in the statute, and as such are legally sufficient. Additionally, the Department does not agree with the assertion that the criteria must contain the word ''preservation'' in order to comply with congressional intent. The report of the Committee of Conference to accompany S. 1438, the National Defense Authorization Act for Fiscal Year 2002, refers to the preceding list of requirements as ''factors that must be evaluated and incorporated in the Secretary's final list of criteria.'' The BRAC statute does not require, as a matter of law, a verbatim recitation of the factors set out in Section 2913. On the contrary, a requirement for a verbatim recitation is inconsistent with the requirements for publication of draft criteria, an extensive public comment period, and finalization of criteria only after reviewing public comments. If the Secretary were bound to adopt the statutory language as his criteria, the detailed publication process required by Congress would be meaningless.

(d) A few commentors stressed the importance of maintaining a surge capacity. Surge requirements can arise for any number of reasons, including contingencies, mobilizations, or extended changes in force levels. Criteria one and three capture the concept of surge capacity as they are currently drafted. As was the case with the criteria used in the past three rounds of BRAC, criterion one requires the Department to consider ''current and *future*'' mission capabilities and criterion three assesses the ''ability to accommodate *contingency, mobilization and future total force requirements*''. In 1999, after three rounds of BRAC using these criteria (and similar criteria used in the first round of BRAC), the Department looked closely at its ability to accommodate increased requirements and found that even after four rounds of base realignments and closures it could accommodate the reconstitution of 1987 force structure—a significantly more robust force than exists today—which is a more demanding scenario than a short term mobilization. Further, as required by Section 2822 of the National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136), the Secretary, as part of his assessment of probable threats to national security, will determine the ''potential, prudent, surge requirements to meet those threats.''

(e) Numerous commentors stated that previous BRAC rounds failed to evaluate research, development, test and evaluation, engineering, procurement, and technical facilities accurately, because of the lack of effective criteria to consider the features essential to their performance. They noted that the criteria applied to such facilities in previous rounds were largely the same criteria that were applied to operations, training and maintenance facilities serving very different functions. DoD highly values its research, development, test and evaluation, engineering, procurement, and technical facilities. Research, development, engineering, procurement and other technical capabilities are elements of military value captured within criteria one through four. The Department will consider military value in a way that incorporates these elements.

(f) Several commentors also raised concerns that the criteria did not take into account the availability of intellectual capital, critical trade skills, a highly trained work force, allied presence, and the synergy among nearby installations and between DoD facilities and nearby industrial clusters and academic institutions. DoD appreciates the importance of having an available pool of intellectual capital and critical trade skills that make up, and allow us to recruit and retain, a highly trained and experienced work force, as well as the synergy provided by nearby facilities. To the extent that the availability of highly skilled civilian or contractor work forces and relationships with local institutions and other installations influence our ability to accomplish the mission, they are captured in criteria one, three and seven.

(g) Some commentors urged DoD to consider strategic location and irreplaceable properties and facilities as part of military value. The availability and condition of land and facilities are an integral part of military value, specifically covered under criterion two. Furthermore, the strategic location of DoD facilities informs criteria one and three.

(h) Some commentors said that an installation's demonstrated ability to transform, streamline business operations, and manage successful programs should be considered as part of military value. In some instances commentors praised the outstanding work of a particular installation or group of installations. DoD recognizes and appreciates the outstanding work done by its installations. Criteria one

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and three capture both the ability to perform a mission and the quality of that work—both of which, in turn, capture the willingness to transform and streamline.

(i) Some commentors recommended that DoD consider an installation's role in homeland defense, security, domestic preparedness, and the war on terrorism as a part of military value. Some suggested that an installation's proximity to and ability to protect vital national assets, transportation facilities, major urban centers and international borders was a key consideration, while others indicated that geographic diversity or complete isolation should be the real objective in order to enhance security. The security of our nation, whether expressed as homeland defense, domestic preparedness, or fighting the war on terrorism, is an important DoD mission. Both the BRAC legislation and DoD's implementation of it ensure that homeland defense and security are considered in the BRAC process. Specifically, criterion two requires DoD Components to consider ''[t]he availability and condition of land, facilities and associated airspace * * * as staging areas for the use of the Armed Forces in homeland defense missions.'' Additionally, as a mission of DoD, all of these issues are captured by the requirements of criteria one and three.

(j) Some commentors noted that, in some areas of the country, expanding civilian use of adjacent lands is encroaching upon military properties and has impacted critical training requirements and preparations for deployments. Some said that installations located in rural regions with access to large areas of operational airspace over land and water as well as direct ingress/egress routes from water to land will be key to future military operational and training requirements. The issue of encroachment is captured by criterion two which requires the Department to consider the availability and condition of land, facilities and associated airspace.

(k) Some commentors recommended that DoD consider the difficulty of relocating missions and functions requiring federal nuclear licenses or environmental permits, as part of military value. DoD recognizes the importance of federal licenses and permits. The ability to accommodate current and future force requirements, which includes Federal licensing and permitting requirements, is covered under criteria one, two and three. Furthermore, the impact of environmental compliance activities (*i.e.*, permits and licenses) is also specifically captured in criterion eight.

(l) A few commentors were concerned that the ''cost of operations'' language in criterion four would not be a meaningful measure of military value because it would appear to encourage the closure or realignment of an installation in a high cost of living area, despite important strategic reasons for retaining that installation. Because DoD operates in a resource constrained environment, all resources—land, facilities, personnel, and financial—have value. Monetary resources are an inextricable component of military value because all equipment, services, and military salaries are dependent on the availability of this resource. Therefore, the extent to which one installation can be operated at less cost than another is worthy of consideration, particularly for business operations, although the importance of this will vary depending on the function involved.

(3) Other Considerations

(a) Criteria five through eight deal with other considerations, such as costs and savings and economic, community, and environmental impacts.

(b) Some commentors recommended a standardized interpretation of the cost criteria. The Department agrees that costs and savings must be calculated uniformly. To that end, we are improving the Cost of Base Realignment Actions (COBRA) model used successfully in previous BRAC rounds to address issues of uniformity and will provide it to the Military Departments and the Joint Cross-Service Groups for calculation of costs, savings, and return on investment in accordance with criterion five.

(c) Several commentors stated that total mission support costs associated with reestablishing or realigning a military activity should be considered, including such things as the costs of reestablishing intellectual capital and relationships with nearby businesses and academic institutions, the costs associated with mission disruption, the costs of contractor relocations, and the availability and reliability of raw materials and supplies. DoD has improved the Cost of Base Realignment Actions (COBRA) model used in prior BRAC rounds to more accurately and appropriately reflect the variety of costs of base realignment and closure actions. DoD will provide it to the Military Departments and the Joint Cross-Service Groups for calculation of costs, savings, and return on investment in accordance with criterion five.

(d) A few commentors stated DoD should consider the total resource impact of a recommendation to the Federal Government and reflect both costs and savings. The Department understands the decision making value of comprehensive consideration of costs. In accordance with Section 2913(d), the Department's application of its cost and savings criterion will ''take into account the effect of the proposed closure or realignment on the costs of any other activity of the Department of Defense or any other Federal agency that may be required to assume responsibility for activities at the military installations.'' The Department will issue guidance to the Military Departments and the Joint Cross Service Groups that incorporates this requirement in the application of criterion five.

(e) Some commentors asked that DoD consider the impact of closing or realigning an installation on the local community and on military retirees in the area who rely on the installation's medical facilities, commissary, and other activities. While military value criteria must be the primary consideration, the impact of a closure or realignment on the local community, including military retirees residing therein, will be considered through criteria five, six, and seven. The DoD Components will calculate economic impact on existing communities by measuring the effects on direct and indirect employment for each recommended closure or realignment. These effects will be determined by using statistical information obtained from the Departments of Labor and Commerce. This is consistent with the methodology used in prior BRAC rounds to measure economic impact.

(f) Some commentors asked that DoD recognize that their state, facility or community was affected by closures and realignments in prior BRAC rounds and that it, therefore, be protected in this round. These and other commentors suggested that the Department view economic impact cumulatively or take into account the need of a community for an economic boost. Still others suggested that the current BRAC round respect decisions made in prior BRAC rounds—and not take any action inconsistent with a prior recommendation. DoD recognizes the impact that BRAC can have on local communities, and makes every effort in the implementation phase of BRAC to soften the effect of closures and realignments on local communities. The BRAC statute, however, specifically requires the Secretary to consider all military installations in the United States equally, without regard to whether that installation has previously

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been considered for closure or realignment.

(g) The United States General Accounting Office (GAO) stated that the draft criteria, if adopted, would add an element of consistency and continuity in approach with those of the past three BRAC rounds. It noted that its analysis of lessons learned from prior BRAC rounds affirmed the soundness of these basic criteria and generally endorsed their retention for the future, while recognizing the potential for improving the process by which the criteria are used in decision-making. It suggested that DoD clarify two issues: (1) The Department's intention to consider potential costs to other DoD activities or federal agencies that may be affected by a proposed closure or realignment recommendation under the criterion related to cost and savings, and (2) the extent to which the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities will be included in cost and savings analyses of individual BRAC recommendations.

As discussed above, DoD recognizes that the BRAC legislation required it to consider cost impacts to other DoD entities and Federal agencies in its BRAC decision-making and will issue implementing guidance to ensure that such costs are considered under criterion five.

On the second point raised by GAO, which was echoed by a few other commentors, DoD policy guidance has historically stipulated that environmental restoration costs were not to be factored into analyses of costs and savings when examining potential installations for realignment and closure, since DoD was obligated to restore contaminated sites on military installations regardless of whether or not they were closed. DoD concurs with GAO that determining such costs could be problematic in advance of a closure decision, since reuse plans for BRAC properties would not yet be determined and studies to identify restoration requirements would not yet be completed. As suggested, DoD will issue guidance to clarify consideration of environmental costs.

(h) A few commentors suggested that criterion seven—the ability of both the existing and potential receiving communities'' infrastructure to support forces, missions, and personnel ''be included in military value and receive priority consideration. DoD has demonstrated in previous BRAC rounds that factors falling within this criterion can be applied within the military value criteria if they directly relate to the elements of criteria one through four.

(i) A few commentors asked the Department to consider the social as well as the economic impact on existing communities. The Department recognizes that its installations can be key components of the social fabric of the communities in which they are located, in both a positive or negative sense. For instance, the BRAC statute requires that the Department consider any notice received from a local government in the vicinity of a military installation that it would approve of the closure or realignment of the installation. Additionally, because social impact is an intangible factor that would be difficult for the Department to quantify and measure fairly, issues of social impact are best addressed to the BRAC Commission during its process of receiving public input.

(j) A few commentors wanted to ensure that, as the Department considers the ability of community infrastructure to support the military, DoD view that ability as evolving, and consider the willingness and capacity of the community to make additional investments. The infrastructure provided by the communities surrounding our installations is a key component in their efficient and effective operation. As the BRAC legislation has established a stringent timetable for the Secretary to arrive at recommendations, the Department must focus on the existing, demonstrated ability of a community to support its installation, especially as potential investment actions may not translate into reality.

(k) One commentor requested clarification that criterion eight '' environmental impact ''includes consideration of the impact of the closure or realignment on historic properties. As has been the case in prior rounds of base closure, the Department will consider historic properties as a part of criterion eight.

(l) Several commentors stated that the criteria should consider the effect of closures and realignments on the quality of life and morale of military personnel and their families. The Department agrees that the quality of life provided to its military personnel and their families significantly contributes to the Department's ability to recruit and retain quality personnel. Military personnel are better able to perform their missions when they feel comfortable that their needs and those of their families are taken care of. Quality of life is captured throughout the criteria, particularly criterion seven.

C. Previous Federal Register References

1. 55 FR 49678, November 30, 1990: Draft selection criteria and request for comments.
2. 55 FR 53586, December 31, 1990: Extend comment period on draft selection criteria.
3. 56 FR 6374, February 15, 1991: Final selection criteria and analysis of comments.
4. 57 FR 59334, December 15, 1992: Final selection criteria.
5. 59 FR 63769, December 9, 1994: Final selection criteria
6. 68 FR 74221, December 23, 2003: Draft selection criteria and request for comments.
7. 69 FR 3335, January 23, 2004: Extend comment period on draft selection criteria.

Dated: February 10, 2004.

L.M. Bynum,

Alternate OSD Federal Register, Liaison Officer, Department of Defense.

[FR Doc. 04–3247 Filed 2–10–04; 2:04 pm]

BILLING CODE 5001–06–P

DEPARTMENT OF EDUCATION

Office of Elementary and Secondary Education; Overview Information; William F. Goodling Even Start Family Literacy Programs: Grants for Indian Tribes and Tribal Organizations; Notice Inviting Applications for New Awards for Fiscal Years (FY) 2003 and 2004

Catalog of Federal Domestic Assistance (CFDA) Number: 84.258.

DATES: Applications Available: February 12, 2004.

Deadline for Transmittal of Applications: April 2, 2004.

Eligible Applicants: Federally recognized Indian tribes and tribal organizations. Applicable definitions of the terms ''Indian tribe'' and ''tribal organization'' are in section 4 of the Indian Self-Determination and Education Assistance Act, 25 U.S.C. 450b.

Estimated Available Funds: $4,370,000. This is the combined estimate from both FY 2003 and FY 2004 funds. We are inviting applications at this time for new awards for both FY 2003 and for FY 2004 to make the most efficient use of competition resources. The Department may use the funding slate resulting from this competition as the basis for future years' awards.

Estimated Range of Awards: $150,000–$250,000 per year.

Estimated Average Size of Awards: $200,000 per year.

Estimated Number of Awards: 17–29.

Note: The Department is not bound by any estimates in this notice.

Project Period: Up to 48 months.

APPENDIX C

1991 AND 2001 MILITARY-RELATED POPULATION STATISTICS

(Prepared by OFM Forecasting)

POPULATION

Military Related Population: Military Uniformed* and Civilian**, Plus Dependents***	1991	2001
Washington Total	196,528	179,565
Island	17,179	18,259
Kitsap	75,906	68,240
Pierce	73,087	58,704
Snohomish	2,192	12,800
Spokane	12,919	10,125
Yakima	1,068	787

Total State Population	1991	2001
Washington Total	5,021,335	5,974,900
Island	62,107	72,400
Kitsap	197,462	233,400
Pierce	603,135	713,400
Snohomish	480,855	618,600
Spokane	372,750	422,400
Yakima	195,026	224,500

Military Related Population, as a Percent of Total Population	1991	2001
Washington Total	3.9%	3.0%
Island	27.7%	25.2%
Kitsap	38.4%	29.2%
Pierce	12.1%	8.2%
Snohomish	0.5%	2.1%
Spokane	3.5%	2.4%
Yakima	0.5%	0.4%

Notes:

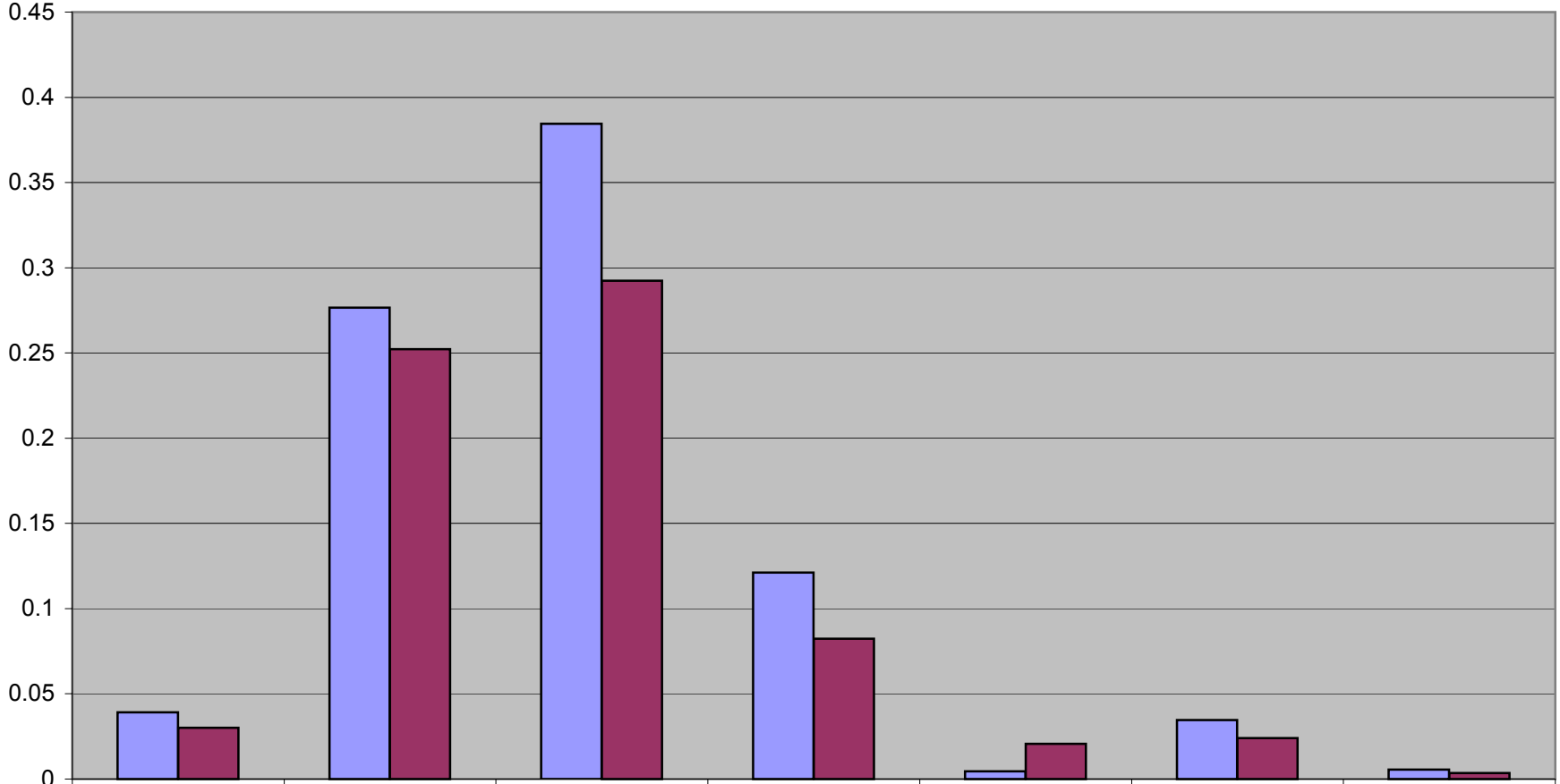
*Resident Armed Forces census counts/estimates by federal census definition of Resident Armed Forces. This series will not match other Office of Financial Management publications due to adjustments.

**Military civilian based on Employment Security Department, LMEA data. Includes military hospital personnel for Kitsap and Pierce a Puget Sound Naval Shipyard employees for Kitsap.

**Military dependent/military sponsor ratios used to estimate dependents were developed from Army and Air Force information. Civilian military employee dependents/civilian military employees ratio developed from 2000 census data for households with employed heads age 16 to 64.

PSNS:	2001
Employees	7,746
Wages	444,490
Earnings	638,083
Factor	1.76
Dep	13,633

Military Related Population as a Percent of Total Population: State and Counties



	Washington Total	Island	Kitsap	Pierce	Snohomish	Spokane	Yakima
1991	0.039138682	0.276604714	0.384409375	0.121177952	0.004559056	0.034657915	0.005475555
2001	0.030053168	0.252192675	0.292372065	0.082287937	0.020691885	0.023969627	0.003506324

APPENDIX D

1991 AND 2001 MILITARY EARNINGS STATISTICS

(Prepared by OFM Forecasting)

EARNINGS ($1000)

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Military - Uniformed*	1991	2001
Washington total	2,281,627	3,154,269
Island	320,606	446,140
Kitsap	571,052	663,524
Pierce	893,854	1,200,473
Snohomish	23,976	314,397
Spokane	187,592	204,323
Yakima	13,087	15,677

Military - Civilian**	1991	2001
Washington total	934,142	1,289,729
Island	29,260	41,512
Kitsap	680,880	1,009,971
Pierce	253,262	279,758
Snohomish	5,809	26,378
Spokane	33,371	45,017
Yakima	6,872	10,738

Total Military	1991	2001
Washington total	3,215,769	4,443,998
Island	349,866	487,652
Kitsap	1,251,932	1,673,495
Pierce	1,147,116	1,480,231
Snohomish	29,785	340,775
Spokane	220,963	249,340
Yakima	19,959	26,415

Earnings - State Total*** ($1000)	1991	2001
Washington total	74,962,322	137,199,518
Island	652,405	1,037,032
Kitsap	2,770,479	3,957,828
Pierce	6,621,456	11,383,340
Snohomish	5,562,825	10,179,283
Spokane	4,603,999	7,809,215
Yakima	2,070,497	3,133,876

Military Earnings as as Percent of Total Earnings	1991	2001
Washington total	4.3%	3.2%
Island	53.6%	47.0%
Kitsap	45.2%	42.3%
Pierce	17.3%	13.0%
Snohomish	0.5%	3.3%
Spokane	4.8%	3.2%
Yakima	1.0%	0.8%

*Source: Federal Dept. of Commerce, Bureau of Economic Analysis (BEA). Reflects military personnel assigned to bases

**Wages data from Employment Security Department, LMEA. Earnings estimated by OFM based on wages.

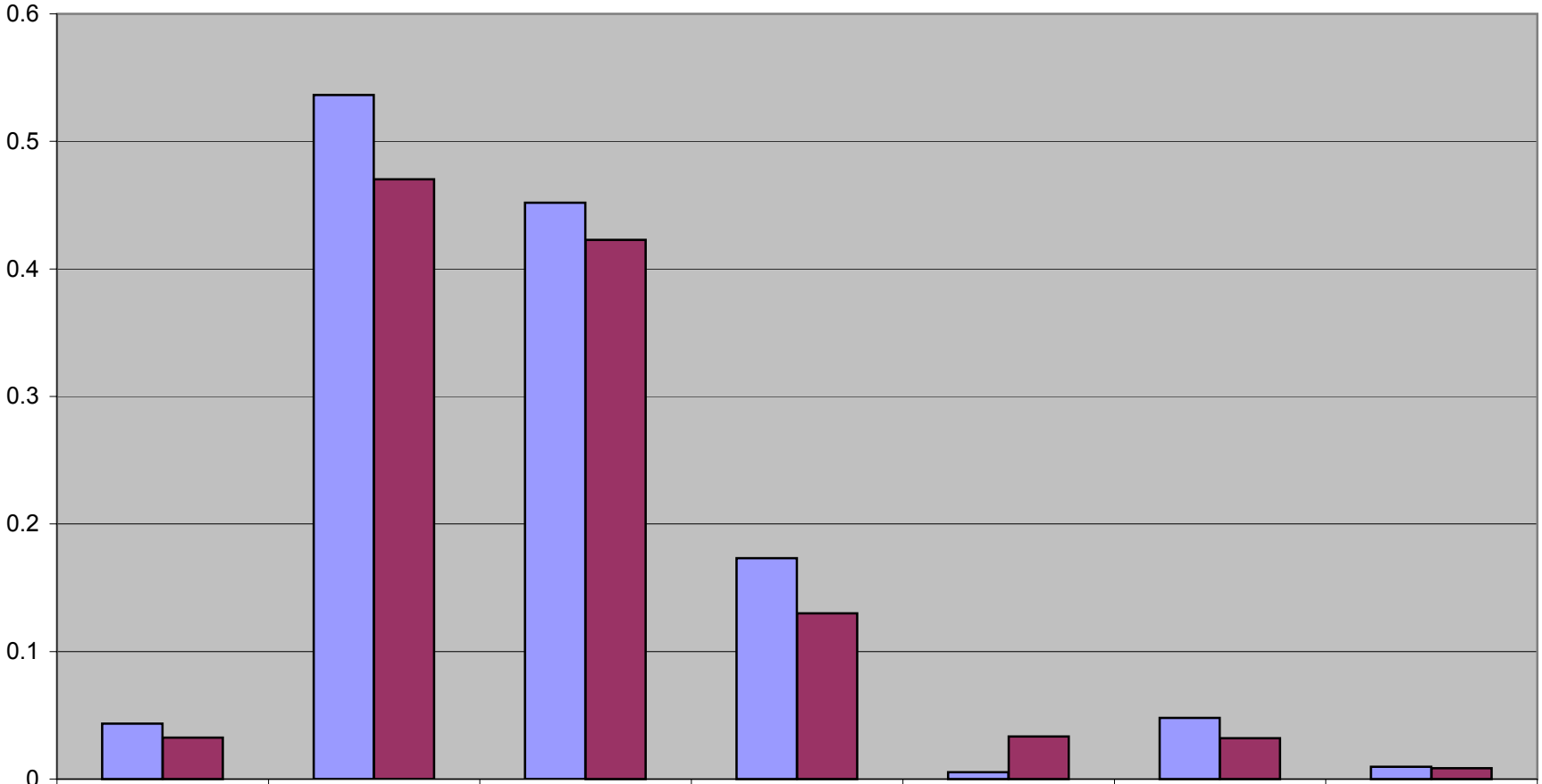
Federal civilian military earnings includes employees in military hospital and related facilities in Kitsap and Pierce Counties

Kitsap includes Puget Sound Naval Shipyard workers and earnings for 1991 and 2001

*** ESD/LMEA

PSNS:	1991	2001
Employees	**11941**	**7746**
Wages	**404,534**	**444,490**
Earnings	**562,696**	**638,083**

Military Earnings as Percent of Total Earnings: State and Counties



	Washington total	Island	Kitsap	Pierce	Snohomish	Spokane	Yakima
1991	0.043413669	0.536270571	0.451882811	0.173242324	0.005354299	0.047993752	0.009639885
2001	0.032390769	0.470238192	0.422831702	0.130034831	0.033477307	0.031928973	0.008428864

APPENDIX E

1998-2003 MILITARY CONSTRUCTION APPROPRIATIONS

FY 1998 MILITARY CONSTRUCTION APPROPRIATIONS

ARMY	
Fort Lewis/Yakima	
New Medical Clinic/replacing older facility	$ 5,000,000
Tank Trail erosion at Yakima Firing Center	$ 2,000,000
Whole barracks complex renewal	$ 31,000,000
NAVY	
Puget Sound Naval Shipyard Bremerton	
Child Development Center	$ 4,400,000
Whidbey Island Naval Air Station	
Electronic Warfare Training Center	$ 1,100,000
Family Housing - 102 units	$ 16,000,000
Naval Station Everett	
Medical/Dental Clinic	$ 7,500,000
AIR FORCE	
McChord AFB	
Conversion of C-141 hangars for C-17 aircraft	$ 6,470,000
Fairchild AFB	
Fire Station Addition/Alterations	$ 4,750,000
Education Center/Library	$ 8,200,000
KC-135 Flight Line Improvements(Air Nat. Guard)	$ 9,500,000
KC-135 Squadron Operations Facility	$ 7,366,000
TOTAL Washington State Military Construction FY 1998	**$103,286,000**

FY 1999 MILITARY CONSTRUCTION APPROPRIATIONS

ARMY

Fort Lewis	
Central Vehicle Wash Facility	$ 4,650,000
Close Combat Tactical Trainer Bldg	$ 7,600,000
Consolidated Fuel Facility	$ 3,950,000
Tank Trail Erosion Mitigation(Yakima)	$ 2,000,000
Fort Lawton, Seattle [Army Reserve]	
Phase II Army Reserve facility .	$10,713,000

NAVY

Bremerton Strategic Weapons Facility Pacific	
Security Facility Upgrade .	$ 2,750,000
Puget Sound Naval Shipyard	
Community Support Facility	$ 4,300,000
Sub Base Bangor	
Disease Vector Ecology & Control Center	$ 5,700,000
Naval Hospital Bremerton	
Addition/Alteration	$28,000,000
Whidbey Island Naval Air Station	
80 Units / Family Housing	$ 5,800.000
Naval Air Station Everett	
Acquisition of land and/or housing units in the vicinity of Naval Station Everett	$ 6,000,000

AIR FORCE

McChord AFB	
C-17 Alteration/Aircraft Maintenance Shop	$ 2,321,000
C-17Add/Alter Simulator Facility	$ 1,823,000
C-17 Add/Alter Age Maintenance Facility	$ 2,110,000
C-17 Alteration of Composite Shop	$ 1,630,000
C-17 Alteration of Maintenance Hangars	$ 6,427,000
C-17 Flightline Support Facility	$ 4,029,000
C-17 Life Support Equipment Facility	$ 4,413,000
C-17 Ramp Hydrant Fuel System	$18,025,000
C-17 Repair Base Roads	$ 2,224,000
C-17 Shortfield assault strip	$ 2,321,000
C-17 Squadron Operations-a/c maintenance unit	$ 6,524,000
Clinic Warehouse Replacement	$20,000,000
Fairchild AFB	
KC-135 Squadron Ops/Aircraft Maintenance Unit	$ 7,620,000
Replace Housing Office & Maintenance Facility	$ 1,692,000
Replace Family Housing (14 Units) .	$ 2,300,000
Survival Academic Training Support Center	$ 3,900,000
Air National Guard Composite Support Complex	$ 9,800,000

TOTAL Washington State Military Construction FY 1999 $178,622,000

FY 2000 MILITARY CONSTRUCTION APPROPRIATIONS

NAVY	
Puget Sound Naval Shipyard	
D-5 missile facility/ Strategic Weapons Facility Bremerton	$ 6,300,000
Dredging	$15,610,000
Port Hadlock Ordnance Facility Tomahawk magazines	$ 3,440,000
Whidbey Island Naval Air Station	
Aircrew Water Survival Training Facility	$ 4,700,000
Sub-Base Bangor	
Pier Replacement, NUWC Keyport	$ 6,700,000
AIR FORCE	
McChord AFB	
C-17 Squadron Ops facility	$ 7,900,000
C-17 Squadron Ops facility / RESERVES	$ 3,300,000
Fairchild AFB	
Survival Training Complex	$ 4,500,000
Flightline Support Facility	$ 9,100,000
Runway Center Lighting	$ 1,950,000
Addition to fuel hydrant system	$12,400,000
ARMY	
Fort Lewis	
Physical Fitness Training Center	$ 6,200,000
Dental Clinic Replacement	$ 5,500,000
Family Housing Addition	$ 9,000,000
Yakima Training Center	
Tank Trail Erosion Project	$ 2,000,000
Ammunition Supply Point	$ 5,200,000
Army Nat. Guard MATES project, Yakima Firing Center [Mobilization Training and Equipment Site]	$16,316,000
TOTAL Washington State Military Construction FY 2000:	**$120,116,000**

FY 2001 MILITARY CONSTRUCTION APPROPRIATIONS

NAVY	
Puget Sound Naval Shipyard	
Pier Replacement Increment 1	$38,000,000
Industrial Skills Center – consolidation	$10,000,000
Chemical Metallurgical Laboratory	$ 9,400,000
Oily Wastewater Collection Facility	$ 6,600,000
Pierside Laundry facility	$ 1,930,000
Whidbey Island Naval Air Station	
Replacement of Junior Enlisted Homes	$16,873,000
Naval Station Everett	
Aquatic Combat Training Facility	$ 5,500,000
Sub-Base Bangor	
Modification of explosives handling wharf	$ 1,400,000
Strategic Security Support Facility	$ 4,600,000
AIR FORCE	
McChord Air Force Base	
Alteration of Nose Docks for C-17 aircraft	$ 3,750,000
C-17 Squadron Operations Facility	$ 6,500,000
Fairchild Air Force Base	
Joint Personnel Recovery Training Facility	$ 5,880,000
Runway centerline lighting	$ 2,046,000
ARMY NATIONAL GUARD	
Readiness Center / Armory, Bremerton	$ 4,341,000
Readiness Center, Yakima	$ 6,713,000
ARMY RESERVE	
Army Reserve Center Maintenance Shop, Tacoma	$14,759,000
Fort Lawton site improvements	$ 3,400,000
TOTAL Washington State Military Construction FY 2001	**$141,692,000**

FY 2002 MILITARY CONSTRUCTION APPROPRIATIONS

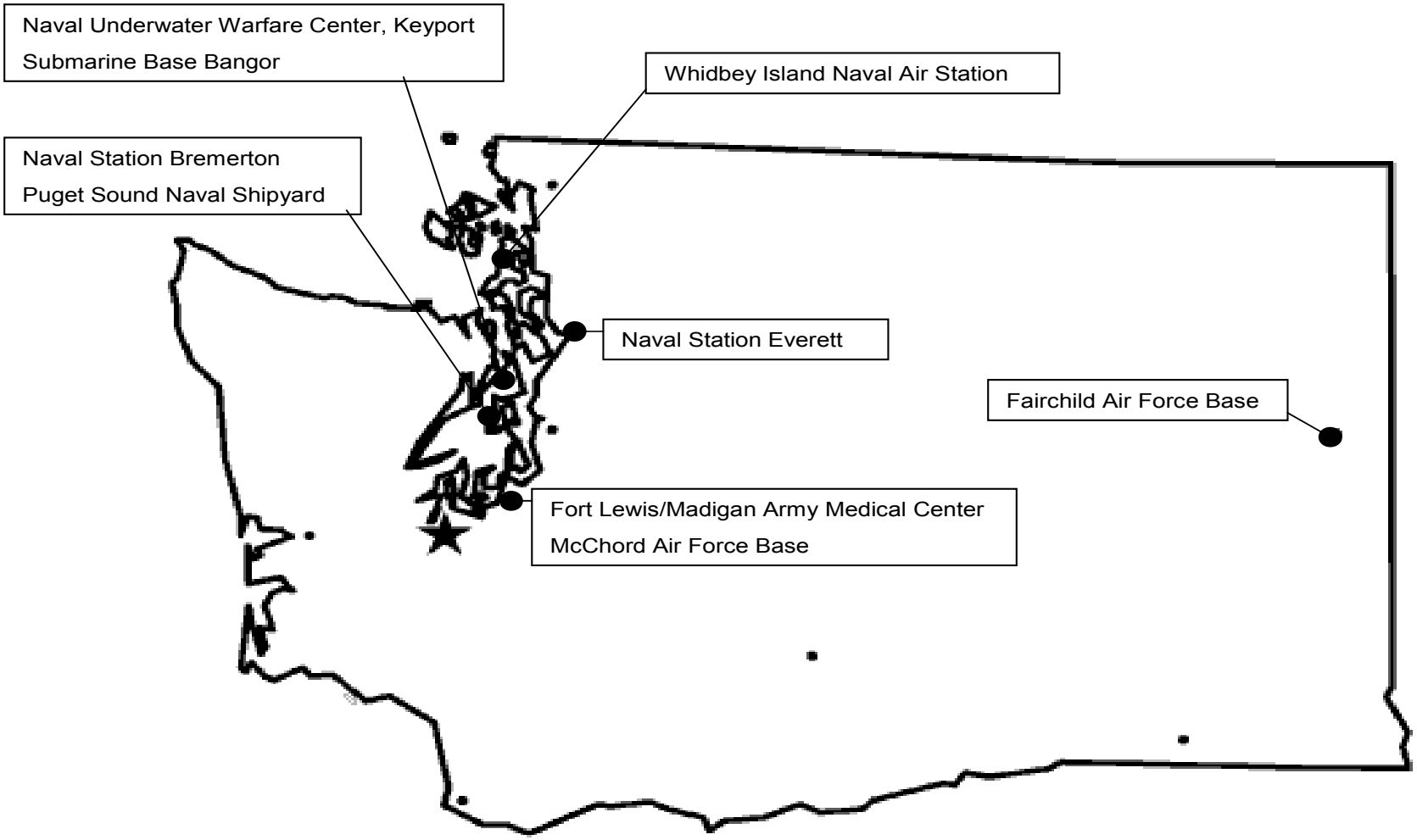
ARMY	
Fort Lewis	
Ammunition Supply Expansion	$17,000,000
Barracks Complex – 17th & B St. – First Increment	$48,000,000
Combat Vehicle Trail	$ 7,300,000
Deployment Staging Complex	$15,500,000
Deployment Staging Complex RAIL	$16,500,000
Pallet Handling Facility	$13,200,000
Vehicle Maintenance Facility	$ 9,100,000
Vehicle Maintenance Facility	$ 9,600,000
Army Reserve Center Maintenance Shop	$21,978,000
* Special Operations Command Language Facility	$ 1,100,000
* Special Operations Command Tactical Equip.Complex	$ 5,800,000
NAVY	
Puget Sound Naval Shipyard	
Industrial Skills Center Project	$14,000,000
Sub-Base Bangor	
Utilities and Site Improvements	$ 3,900,000
Naval Station Bremerton	
Carrier Pier Replacement Increment II	$24,460,000
Naval Station Everett	
Shoreside Intermediate Maintenance Facility	$ 6,820,000
Whidbey Island NAS	
P-3 Support Facility	$ 3,470,000
Aircrew Survival Training Facility	$ 6,600,000
New Control Tower	$ 3,900,000
AIR FORCE	
McChord Air Force Base	
ADAL Mission Support Center Phase One	$15,800,000
Extension of Nose Docks for C-17 aircraft	$ 4,900,000
Fairchild AFB	
Replacement of Munitions Maintenance Facility	$ 2,800,000
TOTAL Washington State Military Construction FY 2002	**$251,728,000**

FY 2003 MILITARY CONSTRUCTION APPROPRIATIONS

NAVY	
Whidbey Island NAS	
A/C Direct Refueling Facility	$ 9,180,000
Indian Island Ammo Wharf Improvements	$ 4,030,000
Ault FieldSecurity Fence	$ 8,400,000
Planning/Design, Whidbey NAS Fire Station	$ 180,000
Naval Station Bremerton	
Waterfront Revitalization	$ 8,550,000
Bachelor Enlisted Quarters and Parking	$35,120,000
Ship Movements Office/Control Tower$ 2,200,000	
Puget Sound Naval Shipyard	
Industrial Waste Treatment Facility	$11,390,000
Waterfront Support Facility	$21,072,000
Anti-terrorism/Force Protection	$21,670,000
Anti-Terrorism/Force Protection Parking [addition to prior amt]	$ 3,000,000
Sub-Base Banger	
Relocation of Waterfront Shops	$ 5,900,000
Missiles Spares Storage Bldg	$ 7,340,000
Small Arms Training Center	$16,410,000
Keyport Undersea Warfare Systems Dependability Ctr/Phase 1	$ 7,500,000
ARMY	
Fort Lewis	
Fencing/Force Protection	$ 2,395,000
Barracks Complex -17th&B Street Phase 2	$50,000,000
Battle Simulation Center	$24,000,000
Combined Arms Collective Training Facility	$29,800,000
ARMY NATIONAL GUARD	
Planning&Design-InformationOpsArmory/Camp Murray	$ 856,000
Spokane Readiness Center Phase I	$ 8,800,000
TOTAL Washington State Military Construction FY 2003	**$278,393,000**

APPENDIX F

WASHINGTON STATE MAP – LOCATION OF MILITARY BASES


Naval Underwater Warfare Center, Keyport
Submarine Base Bangor
Whidbey Island Naval Air Station
Naval Station Bremerton
Puget Sound Naval Shipyard
Naval Station Everett
Fairchild Air Force Base
Fort Lewis/Madigan Army Medical Center
McChord Air Force Base

APPENDIX G

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WASHINGTON STATE OFFICE OF FINANCIAL MANAGEMENT

ECONOMIC IMPACTS OF THE MILITARY BASES IN WASHINGTON
July 2004

Ft Lewis and McChord AFB in Pierce County

Prepared by: Dr. Paul Sommers

Pierce County is home to Fort Lewis and adjoining McChord Air Force Base. These two bases are an important component of the United States' capacity to quickly respond to military situations around the world. Their substantial employment levels, payrolls, and other economic impacts also constitute approximately 30 percent of all economic activity in Pierce County.

Direct Impacts

The direct impacts of the two bases include employment, payrolls, retiree pension, payments to private health care providers, and purchases of goods and services from local vendors. These impacts are shown in Table 1. On-base employment of over 34,600 constitutes 14% of total employment in Pierce County. The annual payroll earned by these civilian and military workers is $1.876 billion, nearly 20 percent of countywide labor earnings. The Army operates Madigan Hospital in Pierce County; this is a major medical facility and a teaching hospital affiliated with the University of Washington. However, the services offered at Madigan are supplemented with $31.1 million of health care services purchased from private providers. Military retiree pensions are administered through the bases, and many retirees live in counties near the base administering their pension so that they can take advantage of on-base services such as overseas travel or access to commissaries. Pensions administered at Ft. Lewis and McChord AFB sum to $524.9 million annually. Contracts let by these two installations for a variety of goods, services, and on-base construction total $52.1 million statewide, of which $25.2 million is supplied by vendors located in Pierce County. Active duty personnel, military retirees, and their spouses and dependents are eligible to use the on-base retail facilities provided by commissaries and base exchanges. Spending at these facilities does not impact the state economy in any way unless the goods are provided by in-state vendors (captured in the contracts data). Therefore, the payroll and pension amounts are reduced by the $200.9 million spent at the commissaries and base exchanges in Pierce County to calculate net direct impact as shown in Table 1. This net direct impact sums to $2.2312 billion.

1 – Direct Impacts of Major Military Bases in Pierce County, 2003

Employment, uniformed and civilian	34,624
Payroll	$1.876 billion
Military retiree pensions	$524.9 million
TriCare payments to private providers	$31.1 million
Contracts for goods and services	
Pierce County vendors	$25.2 million
Statewide	$52.1 million
On-base retail spending	$200.9 million
Net direct impact*	$2.2312 billion

** Reduced by on-base retail spending*

In addition, the federal government compensates school districts for schooling the dependents of federal employees including service personnel. School districts in Pierce County receive $11 million annually in impact aid for schooling of the dependents of military personnel.

Multiplier Impacts

When military related payrolls get spent within the county or state, and when the base lets contracts to businesses in the county or state, these expenditures have multiplier or indirect impacts that generate additional economic activity. These multiplier impacts are estimated using a new input-output model just released by the Office of Financial Management, resulting in total impact estimates (the sum of direct impacts and the multiplier impact). The two major bases in Pierce County directly and indirectly account for over 74,000 jobs in Pierce County and over 87,000 statewide. The total impacts in terms of labor earnings sum to nearly $2.9 billion within Pierce County (about 30 percent of wage disbursements in this county) and nearly $3.4 billion statewide.

2 – Total Impacts of the Major Bases in Pierce County

Employment in Pierce County	74,466
Statewide employment	87,534
Labor earnings in Pierce County	$2.867 billion
Statewide labor earnings	$3.370 billion

DCN: 3982

OFFICE OF FINANCIAL MANAGEMENT

ECONOMIC IMPACTS OF THE
MILITARY BASES IN WASHINGTON

PREPARED BY:
DR. PAUL SOMMERS
WITH ASSISTANCE FROM FORECASTING DIVISION STAFF

JULY 2004

DCN: 3982

ECONOMIC IMPACTS OF THE MILITARY BASES IN WASHINGTON

Office of Financial Management

JULY 2004

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Introduction

The State of Washington hosts several major military bases, and significant installations of all branches of the military. Pierce County is the home of McChord Air Force Base and an Army base, Ft. Lewis. Kitsap County is home to the Puget Sound Naval Shipyard, the Bangor submarine base, and the Keyport Undersea Warfare Research Station. Island County is the location of Naval Air Station Whidbey, and Snohomish County hosts the Everett Navy Base. Spokane County is the location of Fairchild Air Force Base. And Yakima County is home to a training facility that is organizationally part of Ft. Lewis. In addition to these major facilities, there are more than 100 smaller facilities including hospitals, camps, depots, signal stations, recruiting offices, and other miscellaneous facilities.

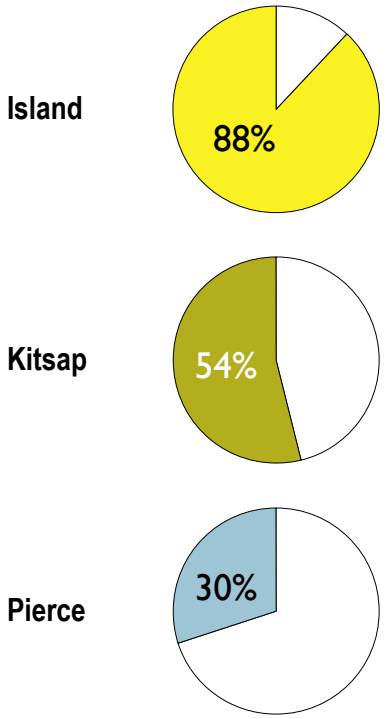
This report examines the economic impact of the following major facilities:

Base	County
Ft. Lewis	Pierce
McChord Air Force Base	Pierce
Naval Base Kitsap (Bangor and Bremerton Naval Stations)	Kitsap
Keyport Undersea Warfare Center	Kitsap
Northwest Regional Maintenance Center (Puget Sound Naval Shipyard and Bangor Intermediate Maintenance Facility)	Kitsap
Naval Station Everett	Snohomish
Naval Air Station Whidbey	Island
Fairchild Air Force Base	Spokane
Yakima Training Center	Yakima

These major facilities are the worksites for more than 83,000 military and civilian personnel, and they generate a $3.7 billion payroll. The bases purchase a variety of goods and services from in-state vendors, and they generate significant economic impacts throughout the state, including $174 million in King County, 42 percent of total procurements by the bases from within the state. Both statewide and local impacts are estimated in this report, totaling more than $7.2 billion in total labor earnings when multiplier impacts are taken into account. On the order of 5 percent of all economic activity in Washington State is due to the total impacts of the major military bases located in the state. At the county level, the proportion of all activity dependent on the military bases is much larger for three counties (see figure, right).

Direct and total impacts of the major bases are discussed in detail below, based on a methodology presented in the Appendix.

Proportion of all activity dependent on military bases



Direct Impacts

In this section, each category of direct impact is examined, with estimates provided county by county. Note that individual bases are not distinguished for several types of impacts. Pensions, on-base retail spending, and health care expenditures are available by county but not by base, whereas payroll data came from each base individually. Consequently, most of the tables in this and subsequent sections of the report are organized by county, not base.

Military related civilian and uniformed employment at the major bases in Washington totals over 83,000 as shown in table 2.1 at right. Pierce and Kitsap Counties have the largest military contingents, followed by Island, Spokane, and Snohomish Counties. The training center in Yakima County also has a small permanent staff of about 500.

2.1 – Number of Uniformed and Civilian Personnel on Major Military Bases in Washington, 2003

	Military Base Employment	Percent of Employment
Island	10,066	68%
Kitsap	27,375	36%
Pierce	34,624	14%
Snohomish	4,517	2%
Spokane	6,262	3%
Yakima	500	1%
Statewide	83,344	3%

Payrolls

The payrolls of uniformed and civilian personnel working on military bases are shown by county in table 2.2 below. Pierce County, with large Army and Air Force bases, has the largest military payroll, nearly $1.9 billion. Next in size is Kitsap, with several Navy installations and a payroll just over $1 billion. Snohomish, Spokane, and Island follow with payrolls ranging from $159 million to $399 million. Yakima has a payroll just under $9 million. The military payroll total for the state originating on the major bases in the six counties listed in the table below is $3.737 billion annually.

2.2 – Uniformed and Civilian Payrolls of Military Bases by County, $ millions, 2003

	Military Base Payroll ($ millions)	Countywide Wage & Salary Disbursements, 2002 ($ millions)	Military Payroll as Percent of Countywide Wage & Salary Disbursements
Island	399.1	767	52.0%
Kitsap	1,001.4	3,236	30.9%
Pierce	1,876.1	9,417	19.9%
Snohomish	159.1	8,633	1.8%
Spokane	293.0	6,440	4.5%
Yakima	8.9	2,622	0.3%
Statewide	3,737.6	111,478*	3.4%†

** Represents Countywide Wage & Salary Disbursements for the entire state*

† Military Payroll as Percent of Countywide Wage & Salary Disbursements for the entire state

Health Care Expenditures

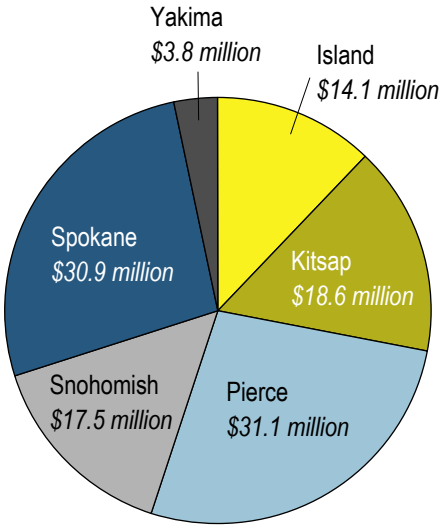
Health care is provided to active duty personnel, family members of active duty personnel including survivors, and military retirees. Health care services are provided by military health care centers such as Madigan Hospital in Pierce County, or by civilian providers who are reimbursed by TriCare. TriCare payments to health care providers in Washington are shown at top right, ranging from $31.1 million per year in Pierce County to $3.8 million in Yakima County. The statewide total is $116 million.

Pensions

Pensions of retired military personnel are administered through the bases. Since the retirees may be eligible to shop in the on-base commissaries, get health benefits through the TriCare system, and may be eligible for free travel services on military aircraft, there is an on-going relationship between many of the retirees and the bases in this state. Many active duty personnel seek a last posting before retirement in a region of the country in which they want to retire, and the bases in Washington are very popular choices. Therefore, we have included the pensions paid to military retirees by each of the major bases in the state in the direct impact category along with payrolls (bottom right). These pension payments range from $91.1 million in Island County to $524.9 million in Pierce County (no retirees are shown for Yakima since the Yakima Training Center is part of Ft. Lewis in Pierce County, and pensions for any retirees living in Yakima County are not reported separately). The statewide total is $1.153 billion.

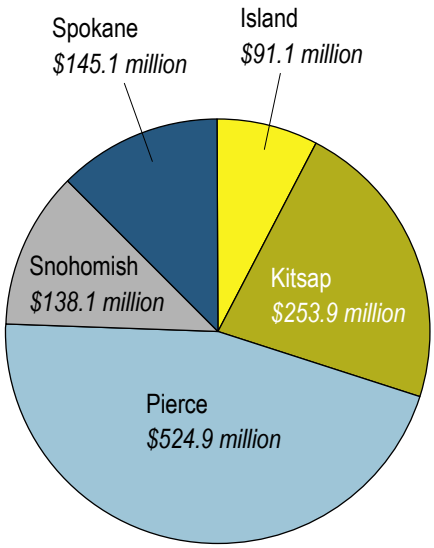
Health Care Payments by TriCare, 2003

Statewide total, *$116 million*



Pensions of Military Retirees, 2003

Statewide total, *$1.153 billion*

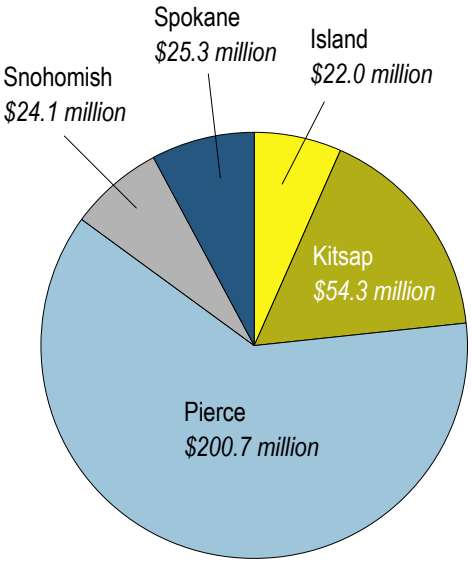


On-Base Retail Spending

The larger military bases have their own retail outlets for use by military personnel, qualified retirees, and their dependents. Commissaries are the equivalent of a supermarket style grocery store, and base exchanges are similar to a *Fred Meyer* or *K-mart* store with a wide variety of merchandise. Counting active duty personnel, retirees, and spouses and children, on the order of 322,000 individuals have shopping privileges at these on-base retail outlets (estimate by OFM staff). Sales by commissaries and base exchanges are exempt from Washington State taxes, so they have no effect on the Washington economy unless the goods offered for sale in these outlets are procured from in-state sources. Any in-state procurements should be picked up in the DIOR contracts database discussed in the Appendix. The sales reported in each county by these facilities are *deducted* from the payroll and pension amounts for the county since the sales are not made by Washington businesses and there is no tax impact in the state.

Commissary and Base Exchange Sales

Statewide total, *$326.4 million*

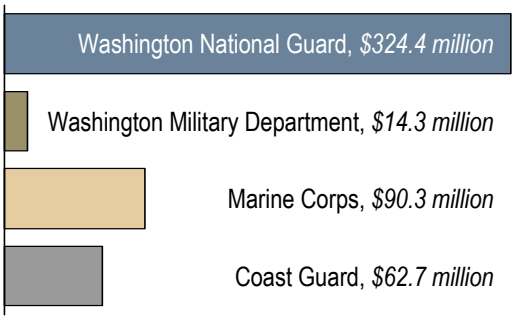


Other Military Activities in Washington Not Related to the Major Bases

Information about direct economic impacts was also gathered from the Washington National Guard, the Washington Military Department, the Marine Corps, and the Coast Guard. These branches of the military services are not associated with the major bases that are the focus of this report. For the sake of completeness, total payroll amounts associated with these military branches are reported here, but are not included in the total impact estimates below, since those estimates are restricted to impacts of the major bases. The total payroll associated with these military service branches is $491.7 million. Personnel of these services are housed in a wide variety of smaller military installations around the state.

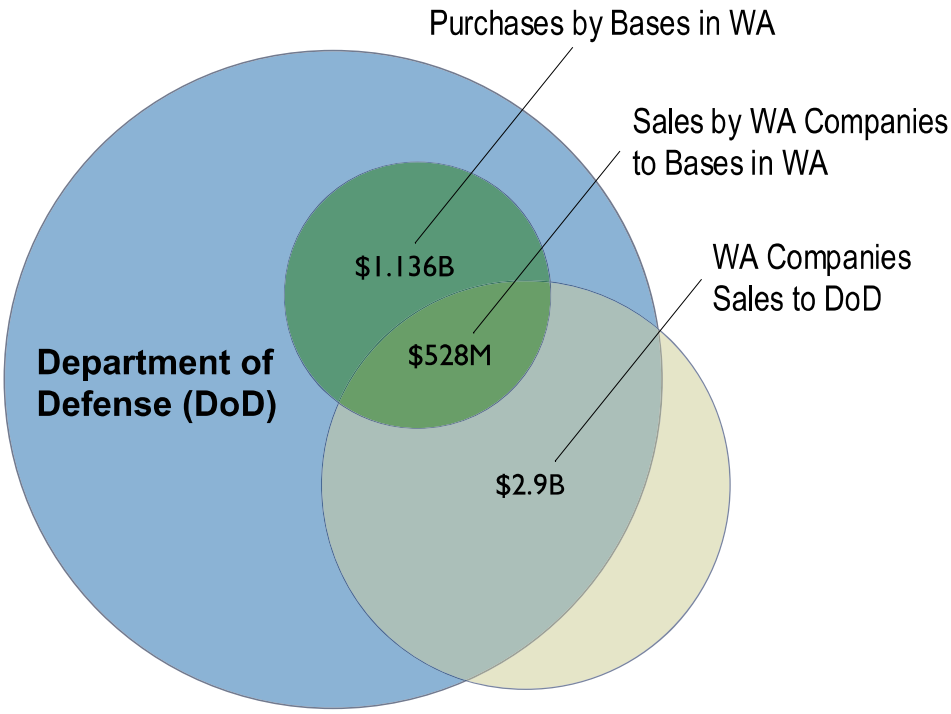
Other Military Payrolls in Washington

Total, *$491.7 million*



Contracts Let by Bases

Contracting activity of purchasing offices located on the Washington bases can impact the state economy if the vendor is also within the state. The figure below was compiled from these data to show the relative importance of Washington suppliers to Washington bases. The bases in Washington procured $1.1 billion in goods and services in 2002, and military contractors in Washington sold more than $2.9 billion to DoD buyers nationwide. The overlap of these two sets of sales is the sales by Washington companies to bases located in Washington: $528 million in 2002. Obviously, the bases located in this state have suppliers located elsewhere, and likewise, the military contractors based in this state make sales to military installations located elsewhere. The $528 million supplied within the state to in-state bases by in-state contractors is further analyzed below.



Suppliers

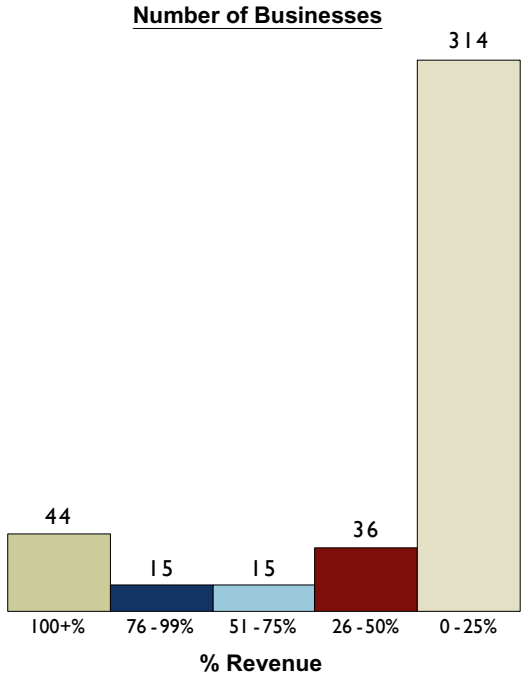
The top 10 in-state contractors to the Washington bases are shown at right. These 10 suppliers account for $288 million of the total of $528 million of goods and services supplied to Washington bases by Washington contractors in 2003.

Top 10 Washington Suppliers to Washington Military Bases, 2003

- Todd Pacific Shipyards
- Johnson Controls World Service
- Raytheon Company
- M. Kennedy Co. Inc.
- Pease Construction, Inc.
- Absher Construction Co.
- Colville Tribal Service Corporation
- Wade Perrow Construction, Inc.
- Triton Marine Construction Corp.
- JKT/PCL Tribal 8(A) Joint Venture

Military contractors vary in their business strategies, with some having few customers other than the military services, and others having very diversified customer bases, with a nearby base constituting just one of many customers. However, should a base be shut down or its activities significantly reduced, contractors significantly dependent on business from that base could be negatively impacted. By matching up contract volume by contractor with total revenues reported to the Washington State Department of Revenue (DOR), the vulnerability of 424 military contractors in Washington was estimated by the ratio of military contract obligations in 2002 to total revenues reported to DOR in that year. Forty-four firms appear to be completely dependent on DoD business; 100 percent (or more due to multi-year contracts) of revenue appear to be coming from DoD purchasing offices. Another 66 Washington businesses have a significant dependence on military business in that they receive between 25 and 100 percent of their business revenue from DoD. The bulk of the military contractors in the state are quite diversified and could probably survive a downturn in business from the bases; less than 25 percent of revenue is coming from DoD for these 314 firms.

Distribution of Percent of Gross Receipts from DoD Contracts for Military Contractors in Washington, 2003



Sources: DIOR database and Washington Department of Revenue

Table 7.1 (opposite page) breaks out the contract volume by purchasing office. The percent of the contracts let to businesses located in the same county as the military purchasing office varies greatly from a low of 32 percent for Madigan Hospital to a high of 97 percent for the Keyport Naval Undersea Warfare Center. These variations are due to some degree to the specialized nature of the goods or services required by each purchasing office; medical suppliers for Madigan are coming largely from sources outside the state and this may simply reflect the geographic distribution of pharmaceutical companies and other medical suppliers nationwide. On the other hand, Keyport and the shipbuilding and repair operations in Kitsap are buying nearly all of their supplies locally, and the requirements of these purchasing offices are also quite specialized, including exotic research and development services required by Keyport. These variations in local purchasing are intriguing and may warrant further investigation from an economic development viewpoint. A local high tech business cluster has grown up around Keyport for example, constituting an economic development success story that other regions of the state could perhaps emulate.

7.1 – Department of Defense Contracts to Washington Businesses by Purchasing Office

	Millions $		
	Home County	Statewide	Percent from Home County
McChord AFB	11.2	25.3	44%
Ft. Lewis	7.2	18.1	40%
Madigan Army Medical Ctr.	1.7	5.3	32%
Fairchild AFB	14.0	26.8	52%
Navy Fleet & Ind'l. Supply Ctr.	9.4	23.9	39%
Naval Facilities Engineering	73.2	201.0	36%
Naval Undersea Warfare	25.8	26.4	97%
Supervisor—Shipbuilding/Conversion	96.6	100.6	96%

7.2 – Contract Volume by County

County	Total Contract $	% of Total	Major Bases
Benton	1,525,995	0.4%	
Clallam	884,590	0.2%	
Clark	315,719	0.1%	
Cowlitz	2,046,370	0.5%	
Franklin	131,815	0.0%	
Grant	492,258	0.1%	
Grays Harbor	75,600	0.0%	
Island	12,181,297	2.9%	NAS Whidbey
Jefferson	5,994,038	1.4%	
King	174,654,208	42.1%	
Kitsap	115,318,884	27.8%	Naval Station Bremerton, Northwest Maintenance Facility, Keyport
Klickitat	210,743	0.1%	
Mason	40,800	0.0%	
Okanogan	18,233,058	4.4%	
Pierce	53,354,182	12.9%	McChord AFB; Ft. Lewis; Camp Murray; Madigan Hospital
Skagit	711,550	0.2%	
Snohomish	5,601,194	1.4%	Naval Station Everett
Spokane	18,582,478	4.5%	Fairchild AFB
Thurston	513,856	0.1%	
Whatcom	191,407	0.0%	
Yakima	3,545,684	0.9%	Yakima Training Center

The existing contracts let by Washington bases also impact more than half the counties in Washington, including many counties with no major bases, as table 7.2 (preceding page) shows. Benton County is home to the Hanford Reservation, where spent nuclear materials are stored; hence Benton houses some suppliers to the Navy installations in the Puget Sound that are servicing nuclear powered vessels. Okanogan County received $18 million in contracts in 2003 due to the construction company owned by the Colville Tribe. King County is the single largest supplier to the Washington bases; King County suppliers provided 42 percent of the total contract volume let by Washington bases in 2003. King County is home of Todd Shipyard, which is the single largest military contractor in the state. Many other counties likewise have existing suppliers to the state's military bases, making the military bases a significant component of the economic base of more than half of the state's counties.

Other Impacts of the Major Bases

In addition to the impacts described above, the bases impact Washington's economy in several other ways for which we do not have complete data. The major types of additional impacts are assistance provided to college and university students who are active duty personnel, payments made to school districts to compensate them for schooling dependents of military personnel (in the absence of any tax revenues from the bases), and credit card purchases by military personnel for relatively small purchases to support base operations.

Several of the universities in the state provided information on the number of students who are either active-duty military personnel whose tuition and other costs are reimbursed by the military, or students who are active-duty military who are reclassified as residents for tuition purposes. The first type of student brings income into the state, while the second type is receiving a benefit from the state. Unfortunately, neither the universities nor the community and technical colleges can accurately identify the number of students whose tuition is being paid by the DoD. The University of Washington reported 193 students known to be on active-duty status, and Western Washington University identified one student on active duty. Several of the universities, but not the community and technical colleges, can estimate the number of students reclassified as residents because of their military status (see table 8.1). These students are being assisted by the state, but it is not known if they are also receiving tuition assistance or other aid from the DoD.

8.1 – Number of students reclassified as residents because of their military status

Institution	
University of Washington	233
Washington State University	44
Eastern Washington University	49

8.2 – Expenditures for higher education assistance provided to their personnel

Base	
McChord	$695,000
Navy – all stations	$518,000

8.3 – Housing assistance payments* for personnel living off base

Base	
McChord	$1.9 million
Fairchild	$13.4 million

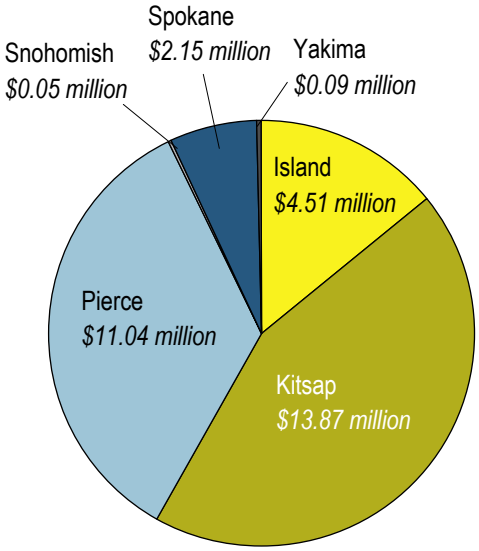
**Report from two bases*

The bases themselves report expenditures for higher education assistance provided to their personnel (table 8.2, previous page). Unfortunately, there is no information as to how much of this assistance was used at higher education institutions in Washington. Two bases reported housing assistance payments for personnel living off base (table 8.3, previous page).

A number of school districts receive federal aid as compensation for schooling the dependents of military personnel. The districts report the number of such students to the Office of the Superintendent of Public Instruction (OSPI), and these reports are forwarded to a federal office, but they are not tabulated by OSPI. Consequently, no comprehensive estimates are available of the number of students who are military dependents. However, the districts report the aid they receive from the federal government as part of their budget reports, with sub-accounts noting aid for dependents of uniformed personnel and civilian employees at federal facilities. The amounts reported by all districts within the counties housing the major bases are shown at right.

Federal Employee Impact Aid to Washington School Districts

Statewide total, *$31.71 million*



Credit Card Purchases

Only one report is available on the issue of credit card purchases. These purchases on miscellaneous supplies totaled $27 million for McChord AFB (estimate supplied by Tacoma – Pierce County Chamber of Commerce).

Adding up these incomplete reports across all of these impact categories suggests that something on the order of $100 million in these miscellaneous impact categories. This is a relatively small amount compared to the direct impact totals, and suggests that the total impact estimates reported below are not seriously off the mark due to not including these miscellaneous impact categories.

Total Impacts by County and Statewide

The following tables summarize the total impact of the military bases in Washington, based on input-output model calculations of the multiplier impacts of the payrolls and purchases detailed above. Impacts on the home counties of the bases as well as statewide impacts are shown in table 9.1 at right. In terms of employment, Pierce County has the largest impact level, 74,000 jobs within the county and 87,000 statewide. Kitsap County follows, with a total workforce stemming from military activity in the county of nearly 47,000 and 53,800 statewide. The statewide total job impact is 188,213 jobs.

9.1 – Total Employment Related to Military Bases

	Home County	Statewide
Island	17,494	20,141
Kitsap	46,935	53,835
Pierce	74,466	87,534
Snohomish	10,545	11,877
Spokane	12,851	13,797
Yakima	640	709
Statewide		187,893

These jobs generate substantial payrolls, the largest being the Kitsap payrolls: $2.8 billion inside Pierce County and $3.3 billion in statewide payrolls due to the bases in Kitsap County. The statewide total labor earnings impact of the military bases is estimated at $7.271 billion (see table 10.1).

10.1 – Total Labor Earnings Related to Military Bases (millions $)

	Home County	Statewide
Island	674	775
Kitsap	1,756	2,014
Pierce	2,867	3,370
Snohomish	431	474
Spokane	570	585
Yakima	19	22
Statewide		7,240

To put the statewide total impact estimate in perspective, total personal income in Washington was $204 billion (personal income data from Bureau of Economic Analysis, U.S. Department of Commerce). While the components of personal income have not been published for 2003, the 2002 data show total personal income for the state at $198 billion, of which labor earnings were $152 billion (76.7 percent of total personal income). Based on this ratio, $204 billion of personal income in 2003 should include $156.7 billion in labor earnings. Of that total, $7.2 billion (4.6 percent of the total) was due to the total impact of the major military bases in the state. Considering the incomplete nature of the military base impact estimates, something on the order of 5 percent of all economic activity in the state of Washington is due to the presence of the military bases and the impacts their payrolls and purchases have on the state economy.

For some of the counties that host these bases, the in-county total impact is proportionately larger as shown in table 10.2 below. This table mixes impact data from 2003 with wage and salary disbursements data from the personal income accounts for 2002 because the 2003 wage and salary data have not yet been published. Therefore, the percent of total wage and salary disbursements due to military impacts is underestimated to the degree that disbursements grew between 2002 and 2003. Even given this data problem, the proportional impact on Island, Kitsap, and Pierce Counties is clearly much larger than for the other three host counties.

10.2 – Total Labor Earnings Due to Military Bases Compared to Wage and Salary Disbursements by County

	Home County Labor Earnings Total Impact, 2003 ($ millions)	Wage & Salary Disbursements, 2002 ($ millions)	Military Total Impacts as Percent of Wage & Salary Disbursements
Island	674	767	87.9%
Kitsap	1,756	3,236	54.3%
Pierce	2,867	9,417	30.4%
Snohomish	431	8,633	5.0%
Spokane	570	6,440	8.9%
Yakima	19	2,622	0.7%
Statewide	6,317	111,478*	5.7%†

** Represents Countywide Wage & Salary Disbursements for the entire state*

† Military Total Impacts as Percent of Countywide Wage & Salary Disbursements for the entire state

Appendix: Methodology

Direct Impacts

Payrolls and purchases originating on the major military bases in the state are the major sources of economic impact. Payrolls get spent by military personnel and civilian employees of the bases on a variety of consumer goods and services, as well as housing. Many active duty military personnel are housed off base and receive housing subsidies in addition to their salaries. Retirees are associated with the bases in that their pensions are administered through the accounting systems at the bases, and military retirees are eligible for certain services such as health care and goods sold at commissaries. Retiree pensions therefore contribute to the economic impact of the bases. Some of the bases have commissaries, base exchanges, or other facilities that sell retail goods to base employees and service members. These on-base stores are stocked with goods that may not be purchased inside the state, and they are exempt from Washington State taxes. Therefore, the sales at these facilities must be excluded from the impact estimates by subtracting them from the military-related payrolls. In addition, the bases contract for health care services that are provided by private sector providers in the state. These private sector health care expenditures contribute to the overall economic impact on the state economy. Finally, to support their operations, the bases also procure a wide variety of goods and services, and some proportion of these purchases come from Washington State vendors. All of these categories of economic activity are added up to form the estimate of *direct impacts* of the bases.

Multiplier Effects or Indirect Impacts

The direct impacts have multiplier effects for two reasons – the military payrolls generate additional activity to the extent that they are spent within the state, and the in-state purchases of the bases impact the sales and payrolls of the in-state vendors. Using an input-output model multiplier, *indirect impacts* are estimated. Adding together direct and indirect impacts produces an estimate of *total impacts*.

Other Impacts

There are other impacts of the military on the state economy that are not the focus of this report. In particular, there are several hundred Washington businesses that are contractors to the Department of Defense. These contractors, ranging from Boeing and Todd Shipyard, among the largest to independent consultants, and health care providers at the low end, may provide goods and services to in-state bases, bases in other states or countries, or directly to the Pentagon. For example, Boeing sells aircraft and other aerospace products directly to acquisitions offices at the Pentagon. Several Native American tribes have construction companies that might work on a military construction contract at a base in Washington or perhaps overseas at a U.S. military installation in another country. Aggregate estimates of the out-of-state military business revenues of in-state contractors are briefly mentioned in this report, but the total impacts of activity outside the state are not analyzed.

Statewide and County Impacts

This report also distinguishes two levels of impact: statewide and county. Statewide impacts result when goods or services are purchased anywhere in the state using funds from military payrolls, pensions, or purchases by the bases themselves. Statewide impacts are what economic impact studies usually report. In addition, using special county-specific versions of the state input-output model, impacts are estimated within the home county of each base. These county-specific estimates scale down the statewide impact estimates to the level of indirect impact on just the businesses in the home

county of each base. These county-specific estimates may be of interest particularly in the more remote counties (Spokane and Yakima), whereas all of the bases in western Washington are part of the larger Puget Sound regional economy, and many of the indirect impacts are likely to "leak" across county borders. The term "leakage" refers to the possibility that a portion of the payroll originating in one county may get spent in another, e.g., a service member stationed at a Kitsap County bases may spend money on entertainment or shopping in King County.

Input-Output Model

The model used to estimate impacts is the 1997 Washington Input-Output model. This is a new model just released by the state Office of Financial Management. It produces statewide indirect and total impact estimates based on direct impact estimates in terms of employment and payroll, and purchases from various industries in the state. The military contract data discussed below were allocated to the various industries in the model for all of the bases located in a particular county. Payrolls and pensions were added to the impact of contracts. On-base retail spending was subtracted from the payrolls since commissaries and base exchanges have no impact on the state economy unless they are stocked with goods purchased within the state. In-state purchases of the commissaries should be captured in the contract data, taking care of this small element of in-state impact.

The county-level impact estimates are made using county-specific versions of the statewide model created using a procedure recommended by University of Washington Geography Professor William Beyers. Location Quotients (LQs), or measures of the relative density of an industry in a particular county compared to the state, are estimated using employment data. LQs are often used as measures of competitive strength; low LQs, those less than 1, are associated with relatively weak or possibly non-competitive industries. The direct purchase coefficient of any industry with an LQ less than 1 is reduced by multiplying the original estimate by the location quotient; purchase coefficients for industries with location quotients over 1 are left unchanged. This procedure is well known in the input-output literature.[1] The effect of this procedure is to reduce the in-county purchase estimates from industries with low LQs on the rationale that military purchasing offices will be tempted to look for a larger, better known supplier elsewhere, rather than dealing with a small supplier of unknown quality who may be located nearby. The difficulties associated with becoming certified as a DoD supplier, and dealing with the paperwork requirements of government transactions, adds to the probability that small suppliers in smaller counties will not be chosen over larger suppliers in major cities.

[1] Miller, Ronald E. *Input-output analysis: Foundations and extensions*. Englewood Cliffs, NJ: Prentice-Hall, 1985, pp. 296-7.

Data Sources

Data from the Bases

All of the data presented below were provided by the bases in the state, with the exception of the contracts data as discussed in the Contracts section below. The author appreciates the cooperation of the each base as well as the Washington Military Department and its commander, Gen. Lowenberg, who facilitated contacts with the bases.

Contract or Procurement Data

The Department of Defense (DoD) Directorate for Information Operations and Reports (DIOR) provides an annual database listing all contract obligations issued by the DoD each year. The database lists each contractor, including the home address of the business, and specifies the purchasing office that created the obligation. This data source provides a very rich description of the purchasing behavior of military bases. There are two significant shortcomings of this database, however. There is no figure for the actual spending on a contract, just the dollar amount obligated. The obligation amount sets a ceiling, subject to future contract amendments, on the amount a contractor can bill the purchasing office. If a contract is completed at less than the ceiling amount, then the obligation amount is an over-estimate of actual charges. On the other hand, cost over-runs do occur and are handled by contract amendments. Lacking any information on the variation between obligations and actual payments, and recognizing that both positive and negative errors are possible, we use the obligation amount as the best available estimate of actual spending. The second shortcoming is that the industry coding provided in the database appears to be a misuse of the NAICS industry classification system, based on the product or service being provided rather than the actual industry of the contractor. However, by checking the contractor names against Washington Department of Employment Security and Department of Revenue records, correct NAICS and SIC codes were assigned to about 80 percent of the contractors. For the remaining contractors, the DIOR code was used and converted to the most likely SIC code. Coding by SIC category was necessary because the state input-output model was created using industries coded by SIC.

The analysis of the DIOR database took several steps. First, a list of purchasing offices on Washington bases was created by comparing a list of military installations in Washington provided by the Washington Military Department to the list of purchasing offices in the DIOR database. Then, a list of contractors selling goods or services to bases located in Washington was extracted from the nationwide DIOR database.

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NATIONAL DEFENSE

Impact of Tacoma-Pierce County Installations
as of calendar year end

TOTALS		**1994**	**1996**	**1998**	**2000**	**2002**	**2004**
Active-duty Personnel		25,183	25,142	24,573	24,395	30,912	33,169
Civilian Personnel		8,541	8,734	8,413	8,803	12,109	13,865
Military Payroll*	$	759.6	816.1	830.5	837.7	928.6	1184.1
Civilian Payroll*	$	288.9	291.1	309.4	254.0	261.5	423.8
Expenditures*	$	318.2	298.4	350.2	489.2	458.1	540.2
ARMY							
Fort Lewis							
Active-duty Personnel		19,100	20,000	19,726	19,500	26,123	27,214
Civilian Personnel		5,000	5,400	4,920	5,348	7,711	9,728
Dependents		27,700	22,120	22,977	29,000	28,990	49,598
Retirees		16,100	16,500	16,500	16,500	17,912	22,237
Military Payroll*	$	532.0	566.0	600.0*	585.0	702.0	885.0
Civilian Payroll*	$	182.0	173.0	175.0	109.0	108.0	251.0
Retiree Pensions*	$	262.0	270.0	275.0	282.0	468.0	353.0
Expenditures/Subsidies/ Construction*	$	199.0	154.0	208.0	208.0**	185.0	185.0
Madigan Army Medical Center							
Active-duty Personnel		1,300**	1,300	1,340	1,162	1,038	1,100
Civilian Personnel		1,125**	1,216	1,460	1,456	1,624	1,700
Military Payroll*	$	80.0**	91.2	91.2	93.6	67.5	95.0
Civilian Payroll*	$	40.0**	55.8	72.1	72.1	80.6	117.8
Expenditures*	$	48.0**	57.0	65.2	74.8	91.9	127.0
AIR FORCE							
McChord Air Force Base							
Active-duty Personnel		4,783	3,842	3,507	3,361	3,361	4,324
Civilian Personnel		2,416	2,118	2,033	1,999	1,999	2,086
Dependents		6,303	6,224	4,764	4,547	4,547	6,016
Reservists		2,787	2,655	2,578	2,144	2,144	2,200
Retirees		n/a	14,426	16,279	n/a	n/a	n/a
Military Payroll*	$	147.6	158.9	158.4	159.1	159.1	204.1
Civilian Payroll*	$	66.9	62.3	62.3	72.9	72.9	55.0
Retiree Pensions*	$	n/a	231.4**	n/a	n/a	n/a	n/a
Expenditures*	$	71.2	87.4	77.0	131.6	131.6	111.5
NATIONAL GUARD							
Camp Murray & Pierce County							
Personnel						3,160	3455
Federal Active Duty						(390)	531
Tech Civil Service						(575)	351
Washington State						(200)	n/a
Part-time						(1,995)	2573
Pay, Goods & Services	$					47.0	114.2
CounterDrug Task Force	$					2.6	2.5

Notes: *: $ millions n/a: not available **: estimated #: 2003 Sources: Area military commands

TACOMA-PIERCE COUNTY CHAMBER OF COMMERCE **as of 12/31/04**

DCN: 3982

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DCN: 3982

Impacts of the Military Bases in Washington

Paul Sommers
Seattle University

Report prepared for:
Office of Financial Management

Why was the study done?

- State needs to be ready to fully participate in the BRAC process, including understanding the impact of the bases in this state
- Review of impacts and discussions with state agencies and community groups is leading to a thorough assessment of ways the state's activities impinge on the bases – positively or negatively
- Legislative package will be created for 2005

Direct and Indirect Impacts

- Direct: payroll of uniformed & civilian personnel; pensions of military retirees; purchases of bases from companies in Washington
- Indirect: payroll and pension spending on goods and services provided by Washington companies; purchases and from Washington companies stimulate additional impacts; statewide and local indirect impacts estimated

Data Sources

- Payroll and pensions – bases have provided data
- On-base retail purchases removed from payroll spending impact
- Contracting – DIOR* database for all DoD contract actions; obligations assumed to be correlated with actual purchases

*Directorate for Information and Operations Reports

Impact Model

- County specific input-output models developed by UW Geographer Bill Beyers, using 1987 state table and current employment data from which Location Quotients were estimated and used to modify the direct purchase estimates
- Same procedure applied with 2003 employment data and the new 1997 OFM/ESD input-output model to create 1997 base year county models

Contracts from Washington Bases by County

- Over half of Washington's counties have some impact from purchasing practices of bases in the state

County	Total Contracts	% of Total	Major Bases
Benton	1,525,995	0.4%	
Clallam	884,590	0.2%	
Clark	315,719	0.1%	
Cowlitz	2,046,370	0.5%	
Franklin	131,815	0.0%	
Grant	492,258	0.1%	
Grays Harbor	75,600	0.0%	
Island	12,181,297	2.9%	NAS Whidbey
Jefferson	5,994,038	1.4%	
King	174,654,208	42.1%	
Kitsap	115,318,884	27.8%	Bremerton NAS, PS Shipyard, Bangor
Klickitat	210,743	0.1%	
Mason	40,800	0.0%	
Okanogan	18,233,058	4.4%	
Pierce	53,354,182	12.9%	Ft. Lewis; Camp Murray;
Skagit	711,550	0.2%	
Snohomish	5,601,194	1.4%	NAS Everett
Spokane	18,582,478	4.5%	Fairchild AFB
Thurston	513,856	0.1%	
Whatcom	191,407	0.0%	
Yakima	3,545,684	0.9%	Yakima Training Center
	414,605,726		

Payrolls-2003

--Uniformed
--Civilian

	Millions $
Island	399.0
Kitsap	1,001.4
Pierce	1,885
Snohomish	159.1
Spokane	293.0
Yakima	8.891

Retiree Pensions-2003

	Millions $
Island	91.1
Kitsap	253.9
Pierce	524.9
Snohomish	138.1
Spokane	145.1

TriCare Expenditures-2003

	Millions $
Island	14.1
Kitsap	18.6
Pierce	34.9
Snohomish	17.5
Spokane	30.9
Yakima	3.8

Total Impacts
Millions $

	Home County	Statewide
Island	1546	1780
Kitsap	4149	4759
Pierce	6832	7502
Snohomish	1244	1508
Spokane	708	727
Yakima*	22	29

*Yakima Trng Ctr is part of Ft. Lewis; do not add to state totals

Direct Impacts—Employment

Island	10066
Kitsap	27375
Pierce	34624
Snohomish	4517
Spokane	13839
Yakima*	500

*Yakima Trng Ctr is part of Ft. Lewis; do not add to state totals

Total Impacts-- Employment

	Home County	Statewide
Island	27157	29249
Kitsap	73051	77776
Pierce	109620	115880
Snohomish	18809	21324
Spokane	17145	17595
Yakima*	640	709

*Yakima Trng Ctr is part of Ft. Lewis; do not add to state totals

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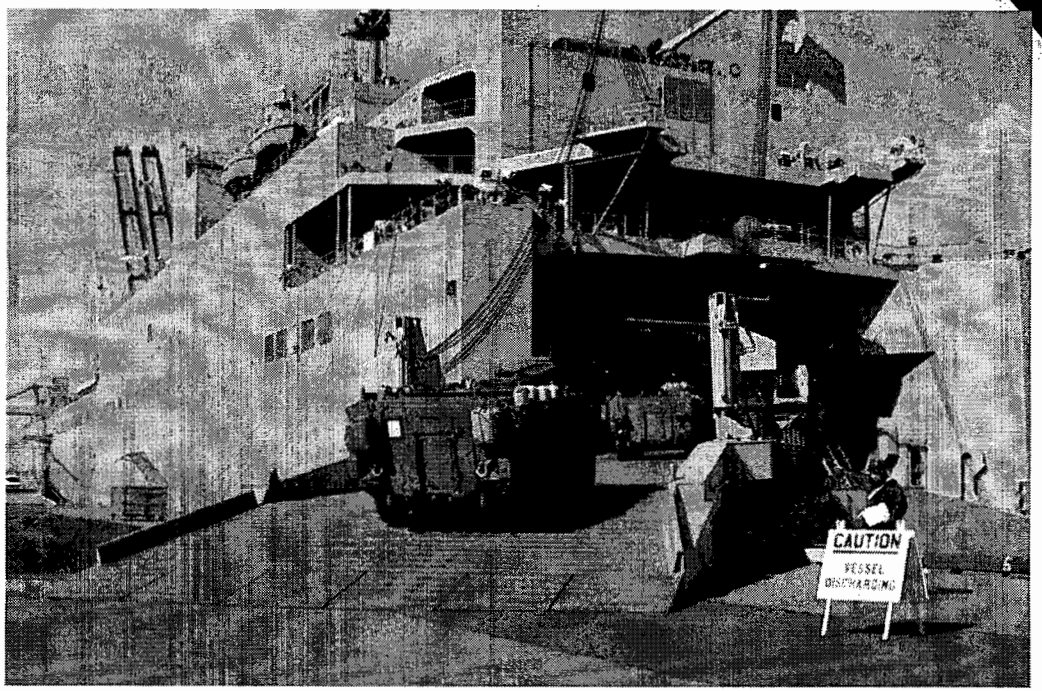
Power Projection Platform: Fort Lewis, McChord AFB, NSP Port of Tacoma

Force Projection from Mission-Critical Northwest

Changes in the world scene make it essential that the U.S. continue to field the best equipped and best prepared military possible.

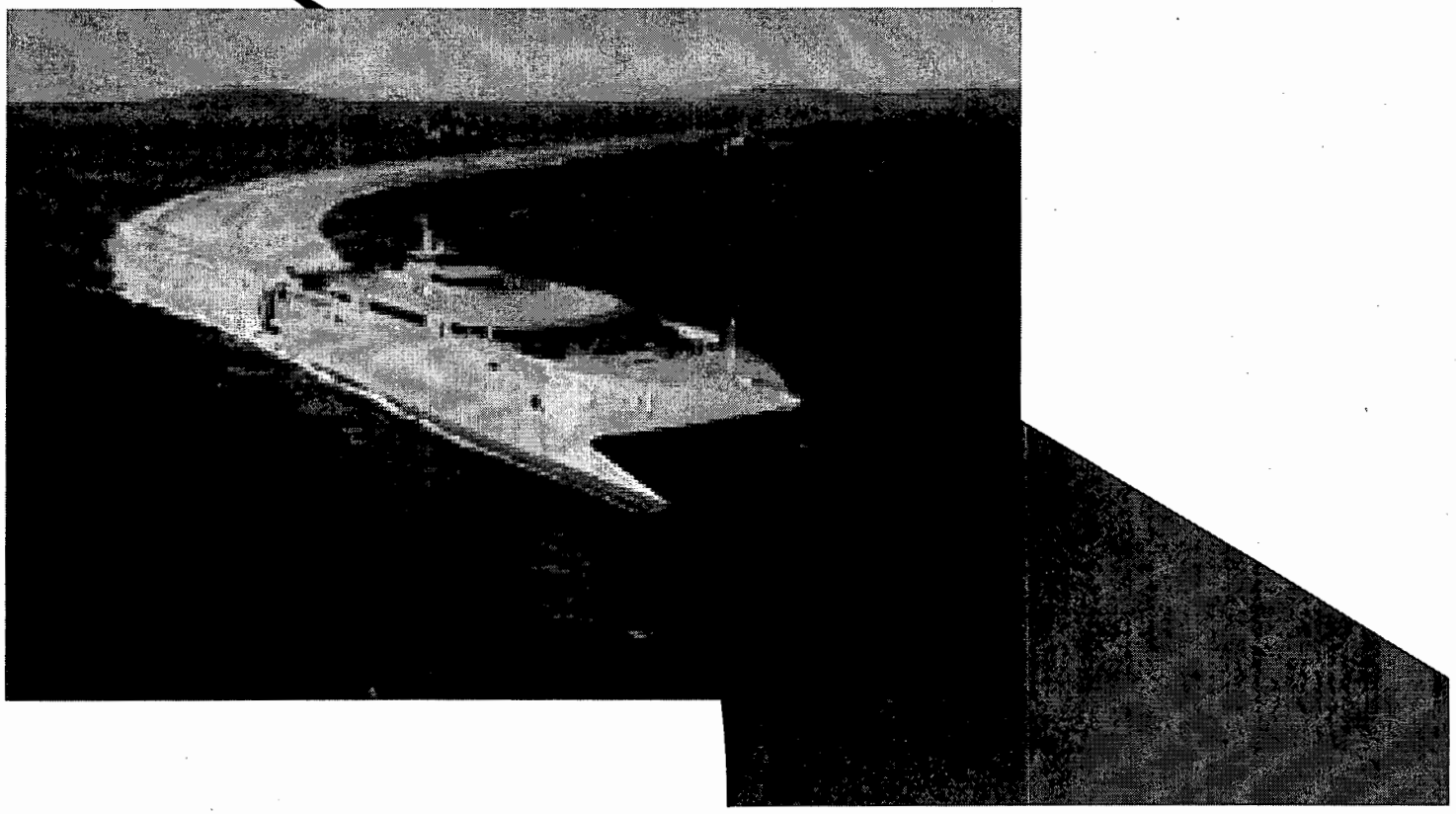


Fort Lewis & McChord Air Force Base

- Vanguard of "transformation" (ex.: Stryker Brigade Combat Teams)
- Model sites of military effectiveness and preparation
- Should be maintained and utilized for expansion/realignment
- Home for 52 C-17s

Models of success

- Pierce County military bases have the power projection platform to support Department of Defense activities



Models of success

- Our asset is in the nexus of sea, air and land transportation with the military units' training location

How well do Fort Lewis and McChord AFB match up with Base Realignment and Closure criteria?

A. Military Value

B. Special Considerations

C. Other Benefits

A. Military Value

Fort Lewis & McChord AFB are the only West Coast **Power Projection Platform**

1. McChord AFB
2. Fort Lewis
3. Nat'l Strategic P[illegible]rt of Tacoma
4. Madigan Army M[illegible]ter
5. Camp Murray –WA[illegible]l Security

Surge Capability

- **Airports**
  McChord Air Force Base
  Seattle-Tacoma International Airport

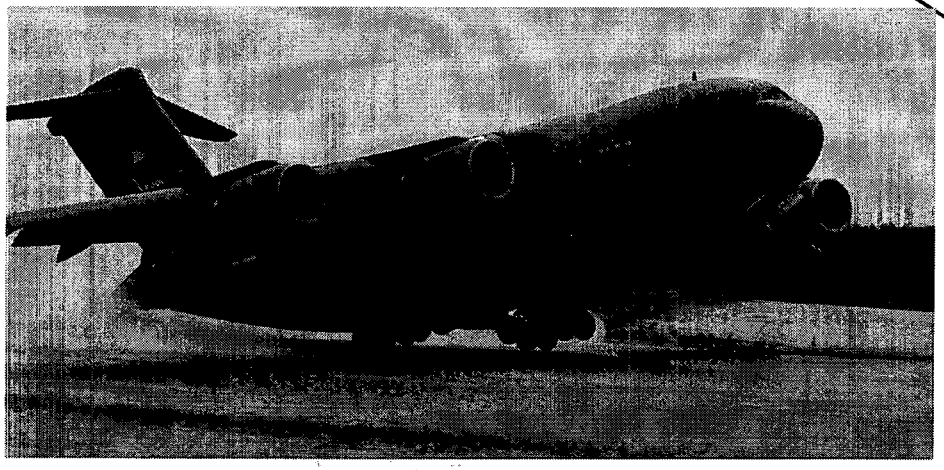
- **Sea Ports**
  Port of Tacoma
  Port of Seattle
  Port of Olympia

- **Transcontinental Railroads**
  Burlington Northern Santa Fe
  Union Pacific

"Particularly as we are transforming our entire force to deploy more rapidly, the capability represented by the co-location of Fort Lewis with McC rd's C-17 Airlifters represents a unique military asset."

Congressman Norm Dic

1. McChord Air Force Base



- Center of Excellence for C-17 Deployment
- Integrated Active & Reserve Wings
- Home of Western Air Defense Sector
- State Legislature passed bill to prevent encroachment (ESSB 6401)

McChord Air Force Base, cont.

- Home of 22nd Special Tactics Squadron
- Special Forces & Rangers deployability from Fort Lewis
- 52 awards as "Best in Major Comma
- 11 awards for "Best in Air Force"
- Site of International Rodeo Competition June 2005

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2. Fort Lewis Army Base

- Only post that's home to Special Forces *and* Rangers
- Provides ideal training sites
  - Varied training areas ensure rea
  - Fort Lewis hosts annual national A ROTC summer camp

Fort Lewis Army Base, cont.

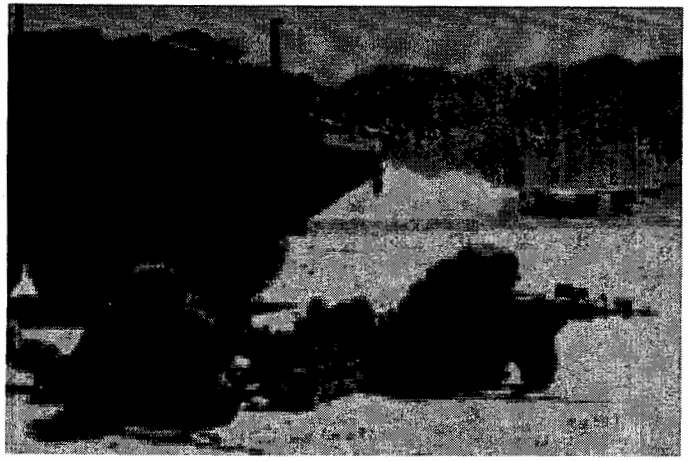
- Training sites, cont.
  - Yakima Training Center offers 500 square miles of high desert setting
  - Japanese Defense Forces use the Yakima site for maneuver training through CALFEX (Combined Armed Live Fire Exercise)

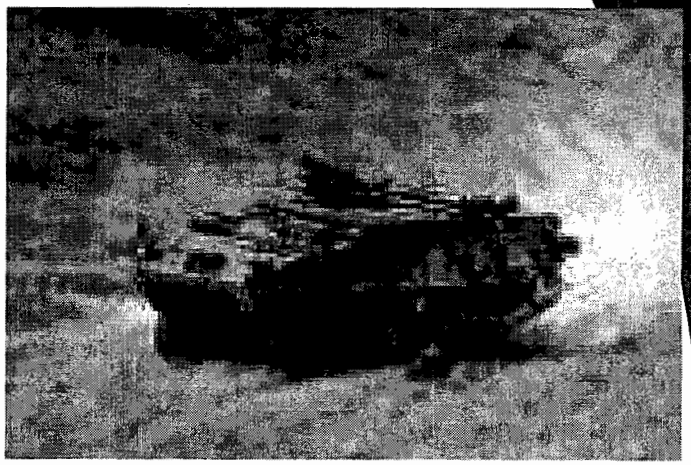
Fort Lewis Army Base, cont.

- Training sites, cont.
  - Center of Excellence for Stryker and related equipment
  - Leading bases in transformation toward lighter, more mobile forces

Fort Lewis Army Base, cont.

- Offers diverse training climates
  - Pierce County weather, geography resemble European Theater
  - Yakima Training Center high desert resembles Middle East, South Asia



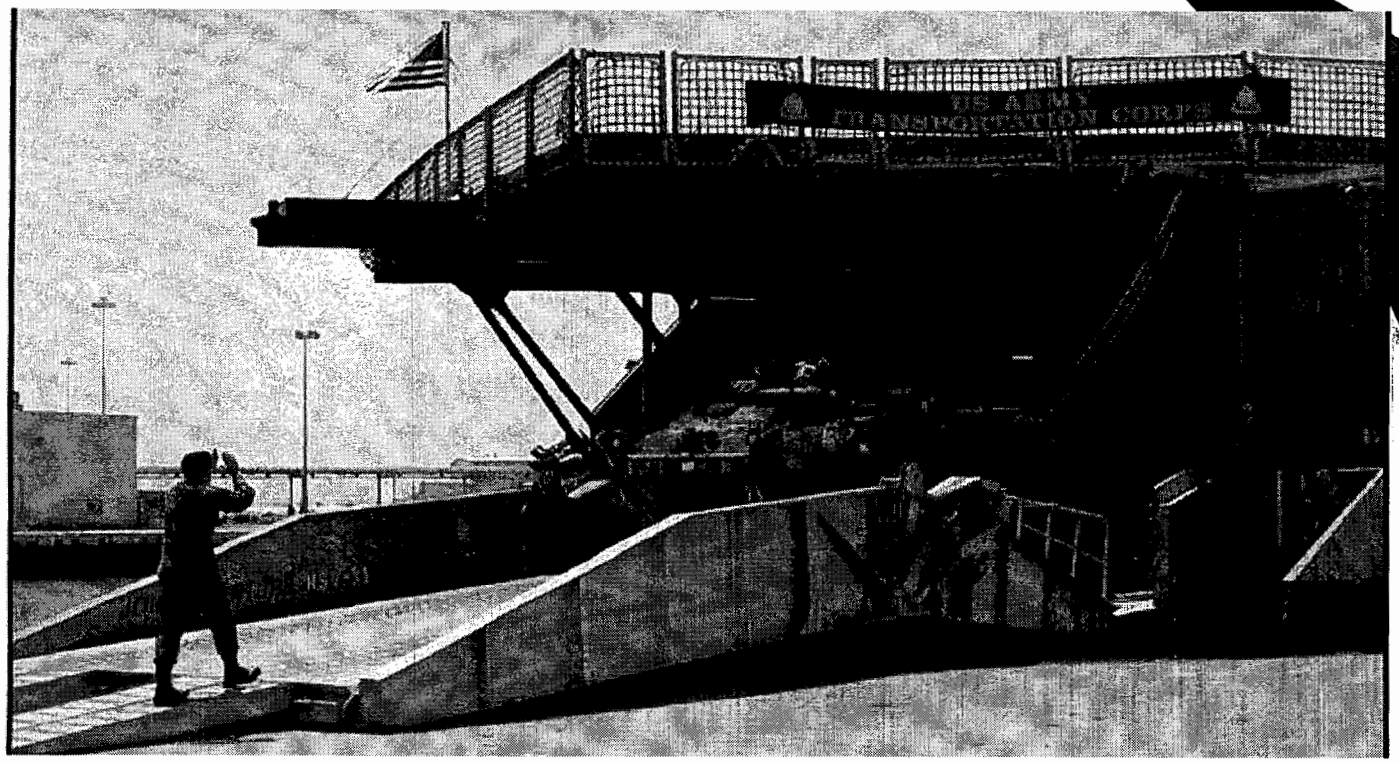


3. Fort Lewis & Port of Tacoma

- Beneficial partnership helps meet defense demands
  - Port of Tacoma is a National Strategic Port

- Partnership with Port, cont.
  - Port has ample space, 5th largest in North America
  - Rated as Top U.S. Port by reader survey of *Marine Digest & Cargo Business News, Jan. 2005*
  - On-dock & adjacent rail for quick, efficient transport of large equipment

- Partnership with Port, cont.
  - TSV "Joint Venture" downloaded 14 Strykers, 14 support vehicles & crew at Port of Tacoma in 13 minutes during Exercise Millennium Challenge, Aug. 2002



- Partnership with Port, cont.
  - Highly productive longshoremen moved 1.7 million standard containers in 20[illegible], a Port of Tacoma record, surpassing Port of S[illegible]ttle
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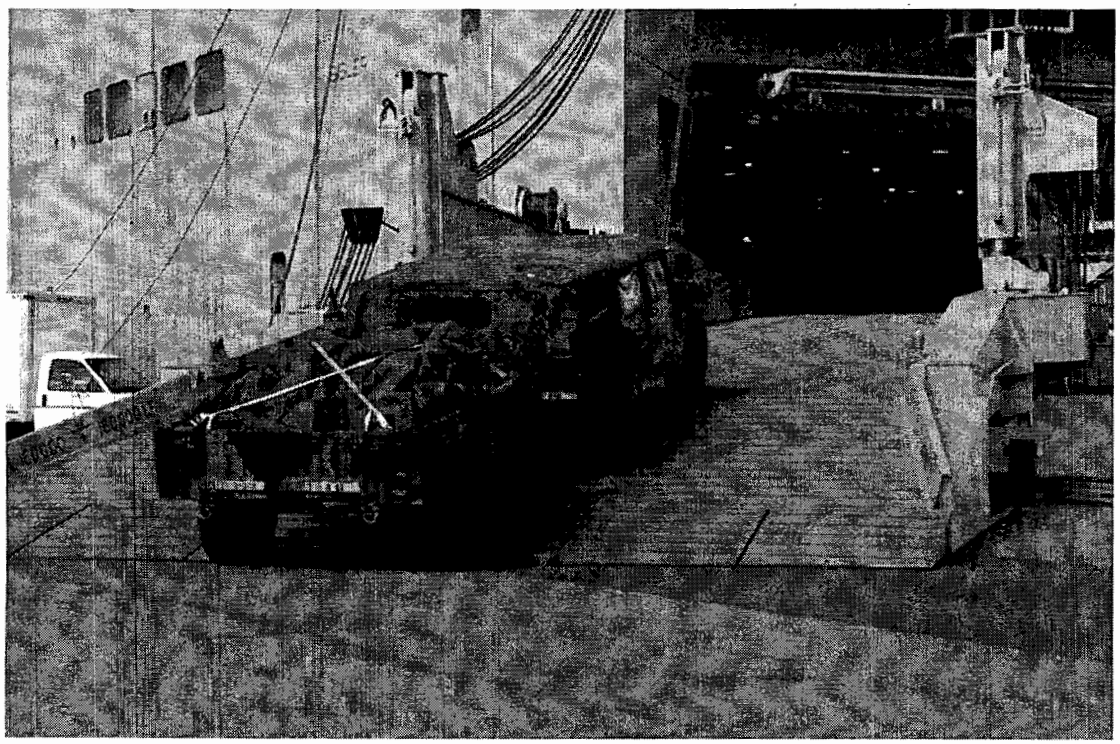

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  - Rapid deployment options
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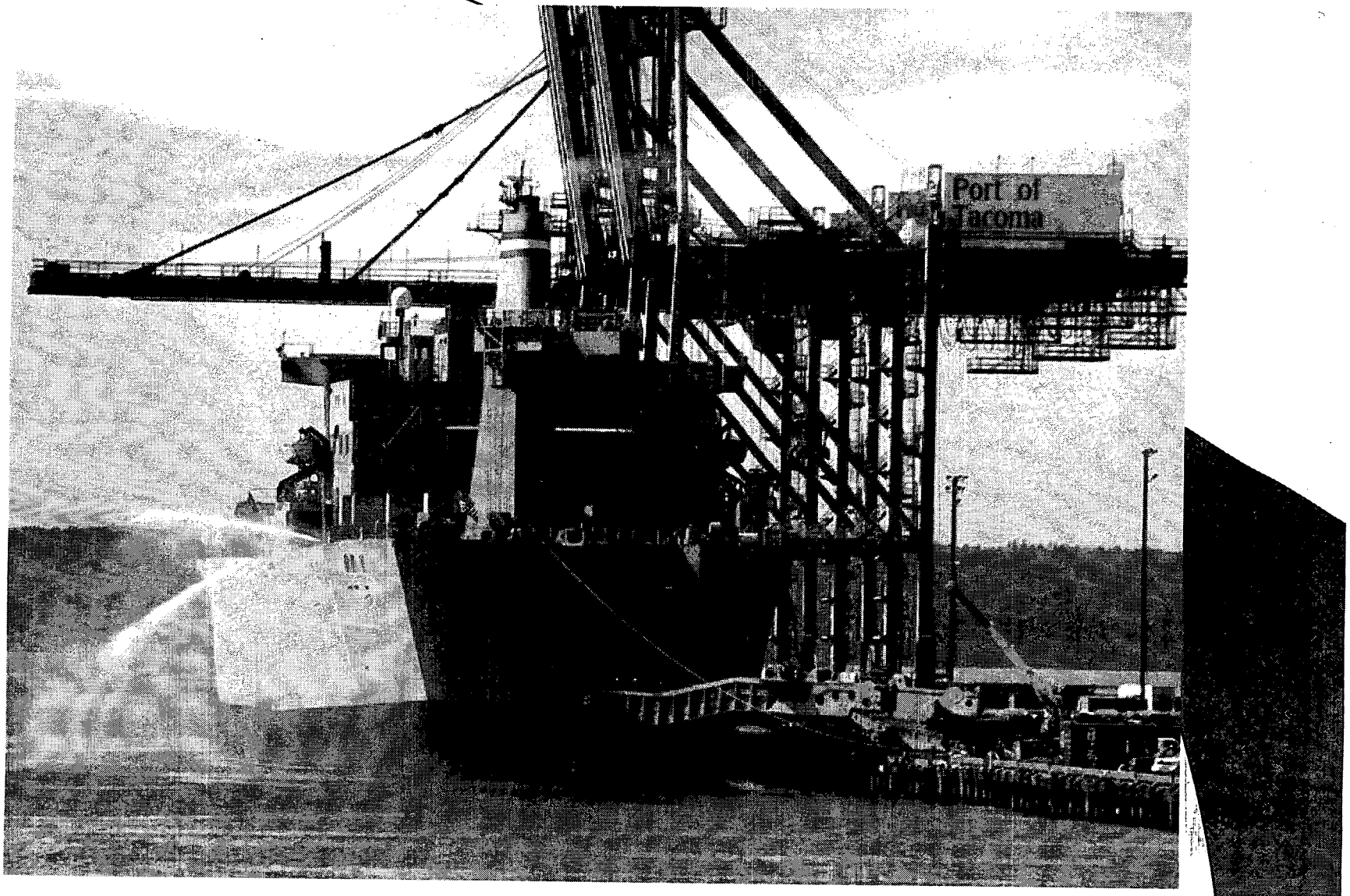

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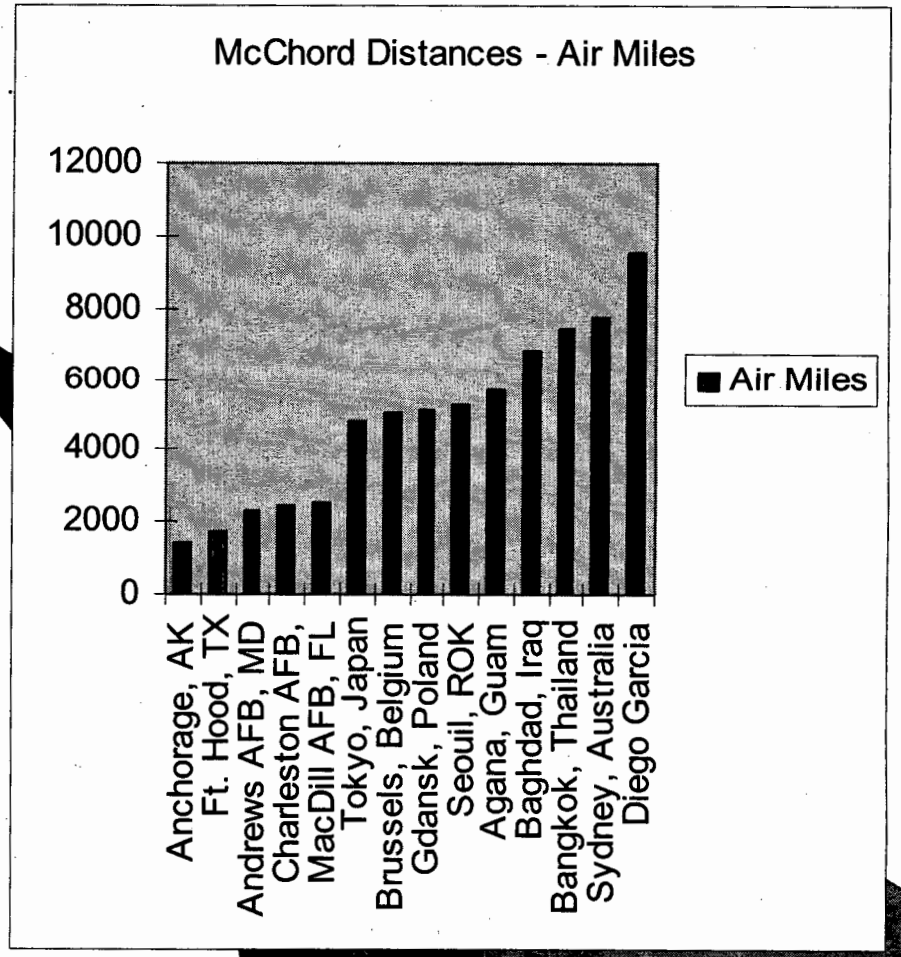
Place	Air Miles
Agana, Guam	5673
Anchorage, AK	1431
Andrews AFB, MD	2335
Baghdad, Iraq	6831
Bangkok, Thailand	7463
Brussels, Belgium	4974
Charleston AFB, SC	2426
Diego Garcia, British Indian Ocean Territory	9544
Ft. Hood, TX	1721
Gdansk, Poland	5075
MacDill AFB, FL	2526
Seoul, ROK	5192
Sydney, Australia	7721
Tokyo, Japan	4800



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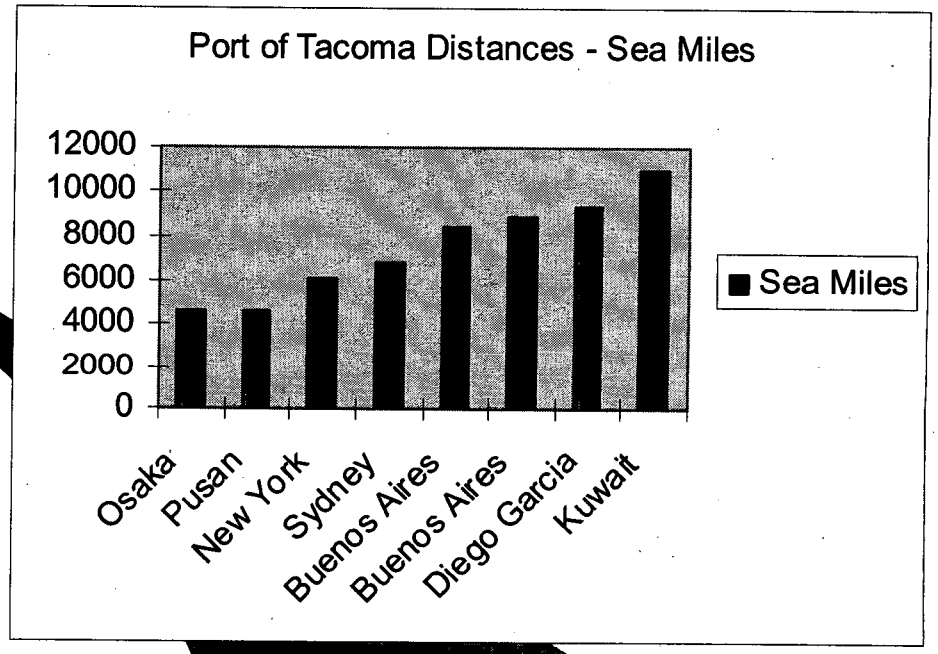

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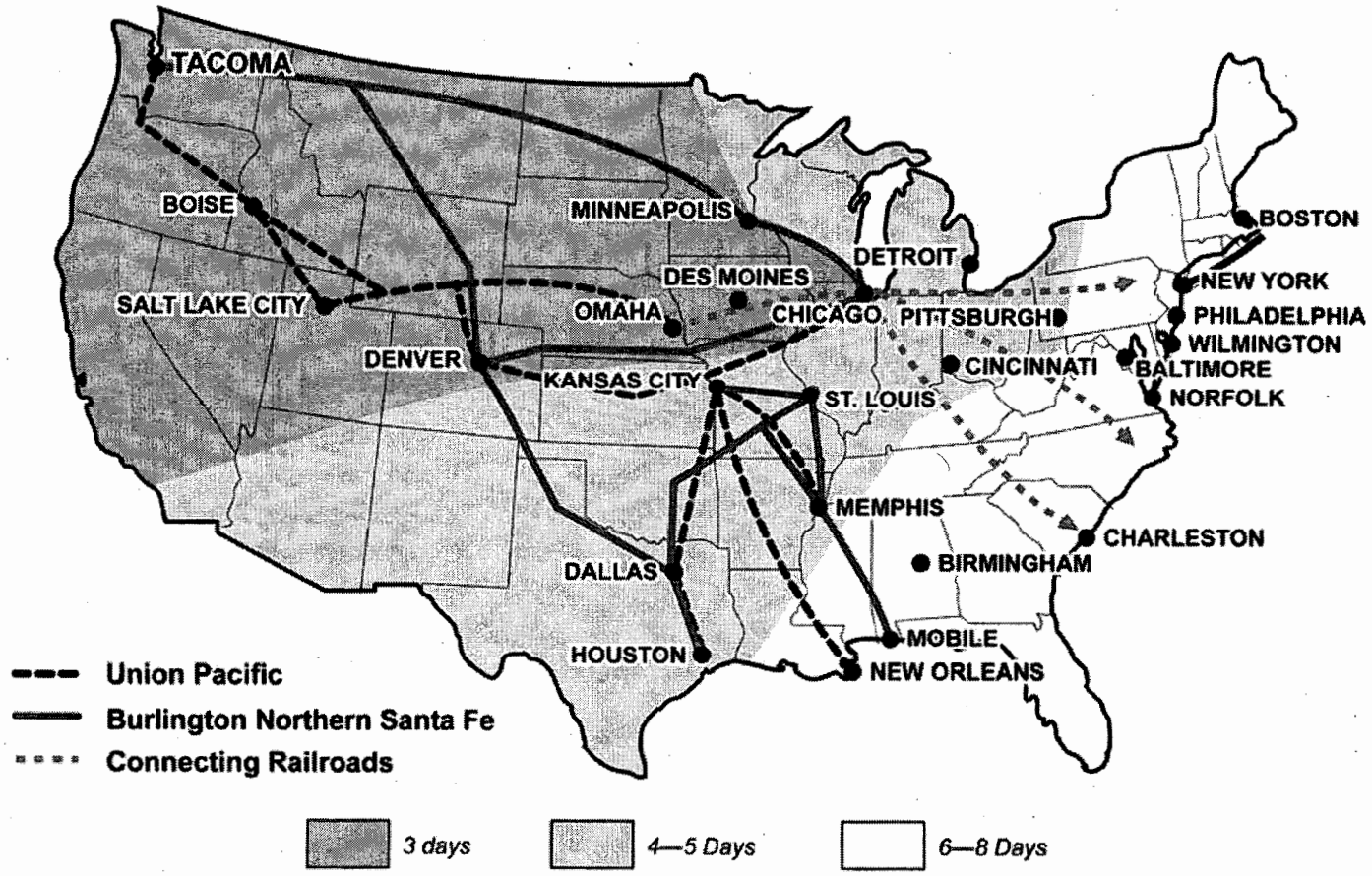

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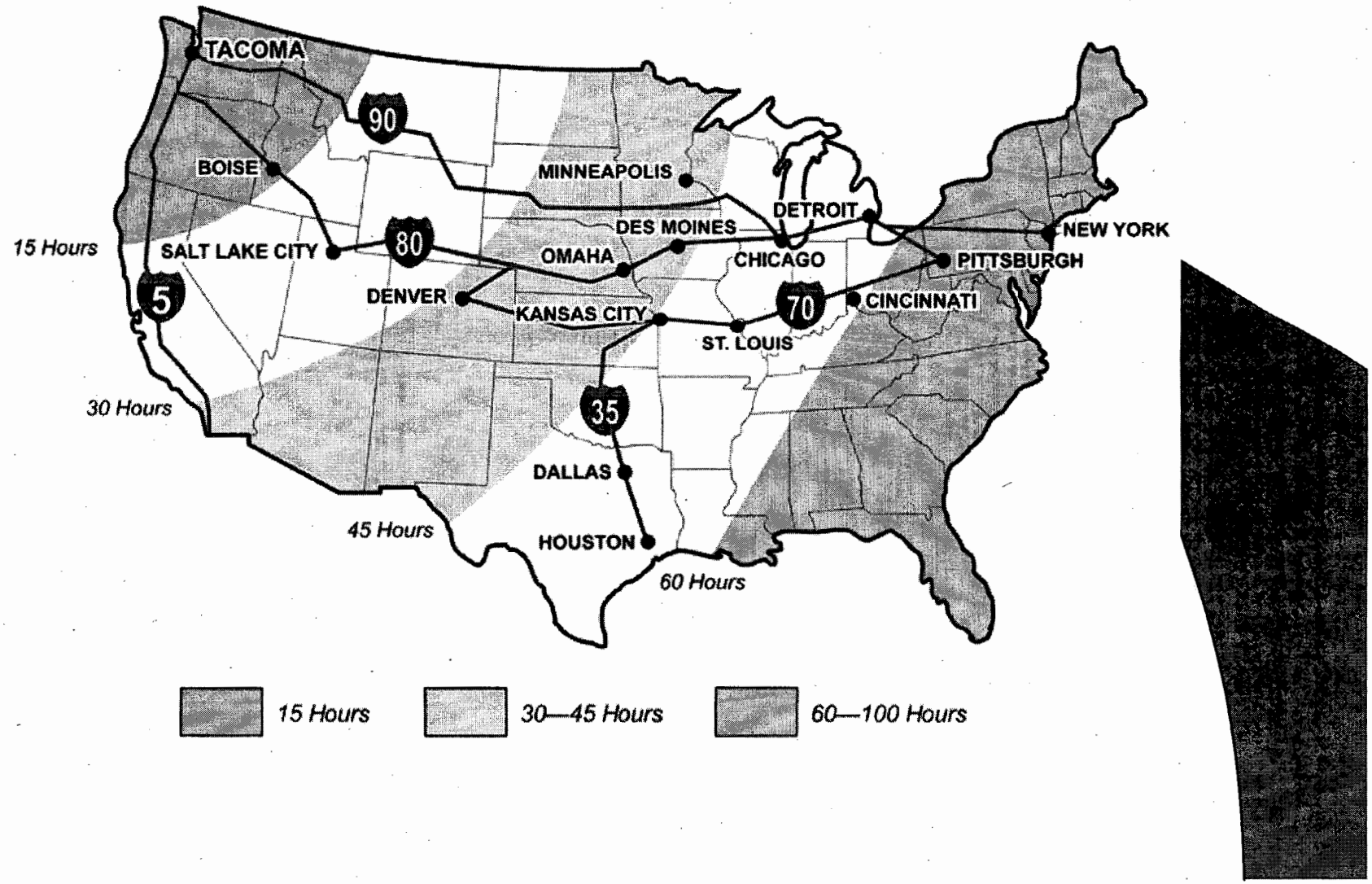

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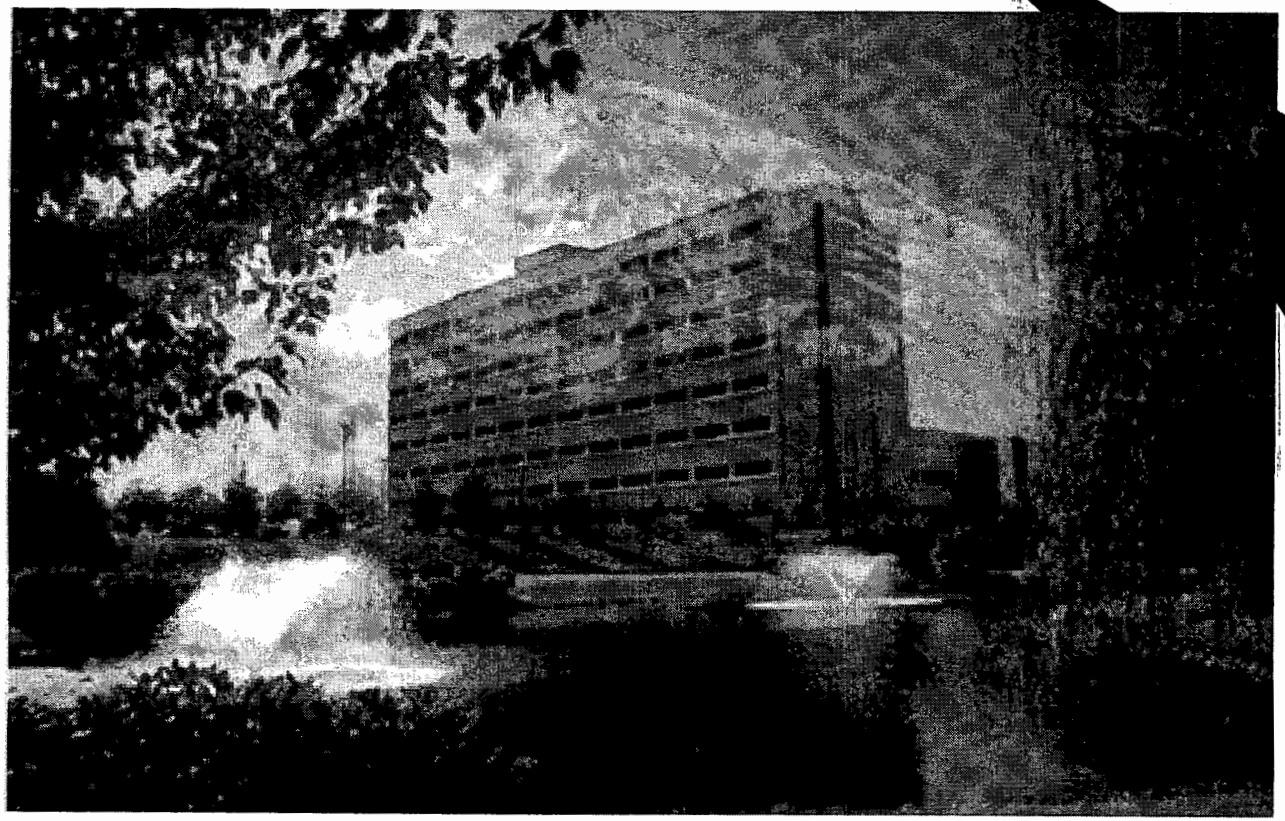
Fort Lewis



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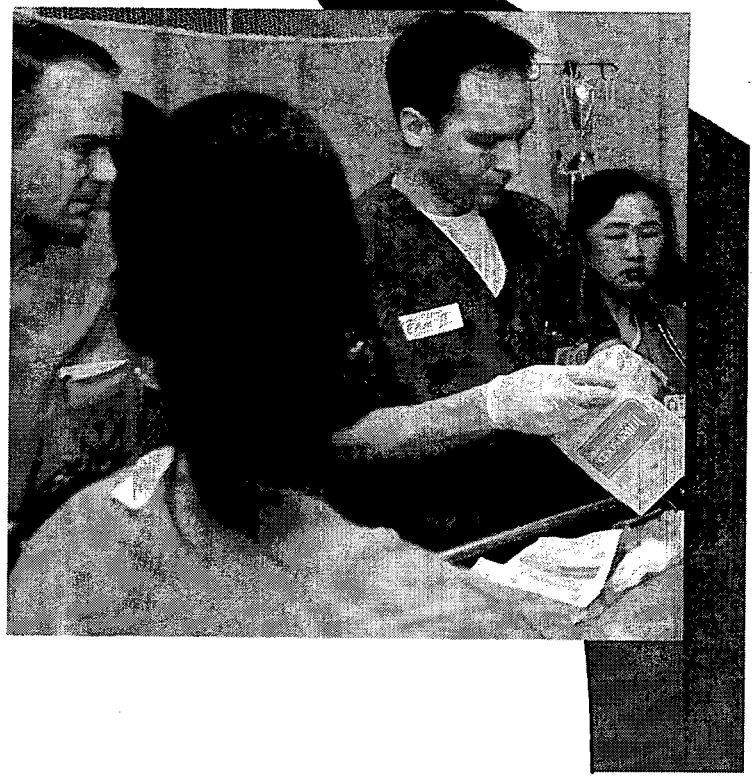

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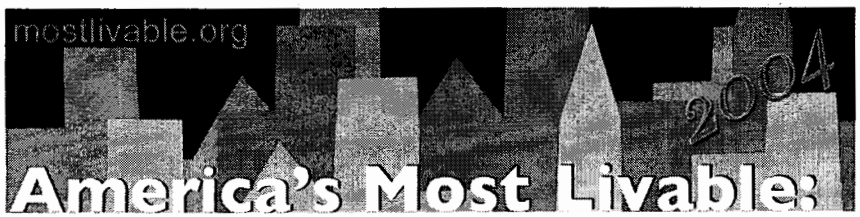

Tacoma-Pierce County, WA

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TACOMA-PIERCE COUNTY CHAMBER

POWER THROUGH CONNECTIONS

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Gary Brackett
253-627-2175
gary.brackett@tacomachamber.org

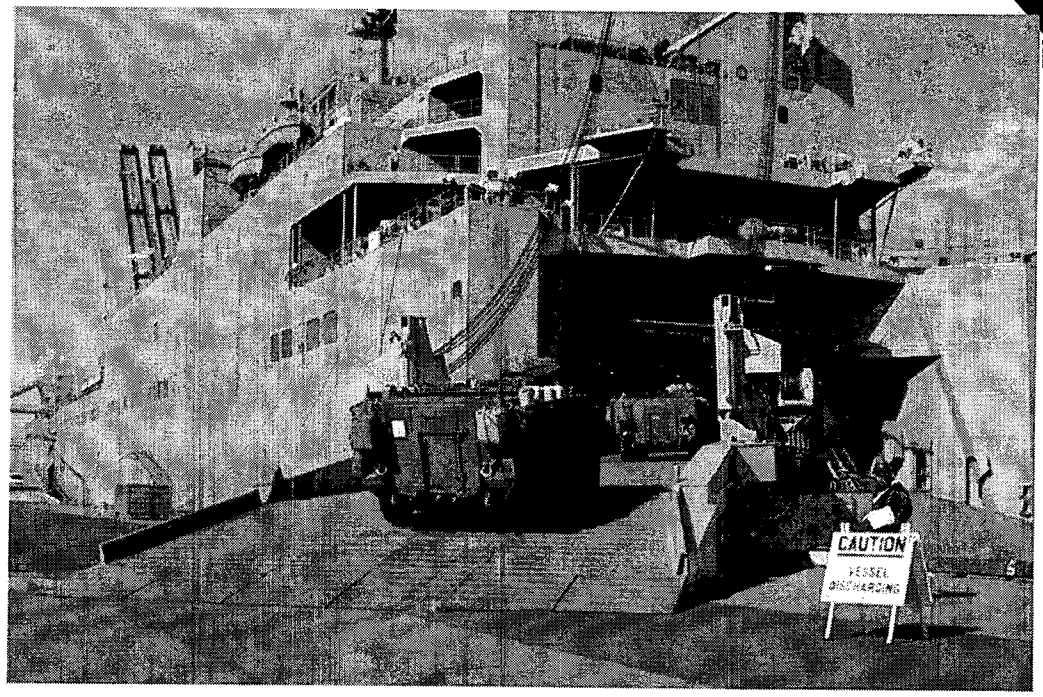
Updated: April 25, 2005

DCN: 3982

Power Projection Platform: Fort Lewis, McChord AFB, NSP Port of Tacoma

Force Projection from Mission-Critical Northwest

Changes in the world scene make it essential that the U.S. continue to field the best equipped and best prepared military possible.

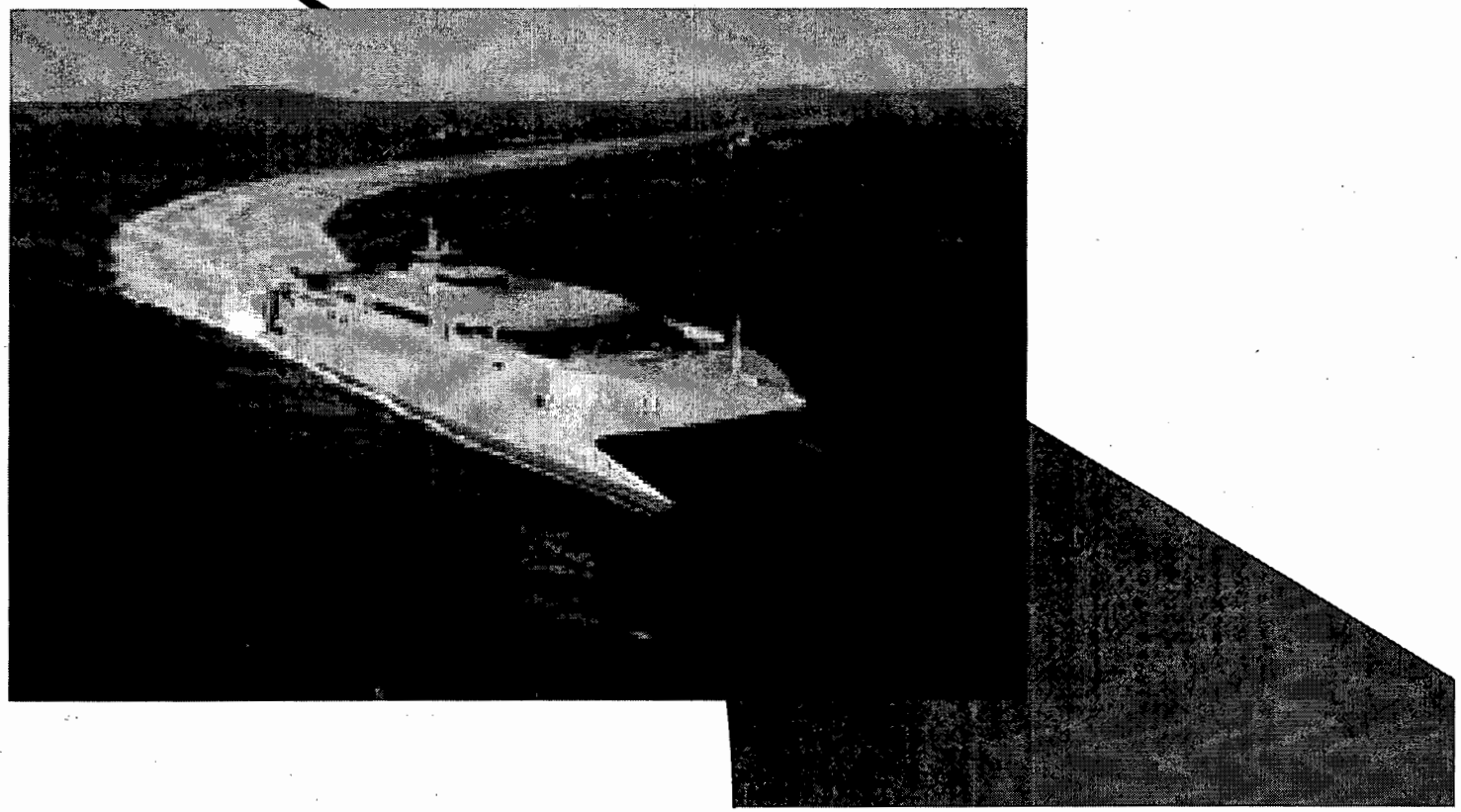


Fort Lewis & McChord Air Force Base

- Vanguard of "transformation" (ex.: Stryker Brigade Combat Teams)
- Model sites of military effectiveness and preparation
- Should be maintained and utilized for expansion/realignment
- Home for 52 C-17s

Models of success

- Pierce County military bases have the power projection platform to support Department of Defense activities



Models of success

- Our asset is in the nexus of sea, air and land transportation with the military units' training location

How well do Fort Lewis and McChord AFB match up with Base Realignment and Closure criteria?

A. Military Value

B. Special Considerations

C. Other Benefits

A. Military Value

Fort Lewis & McChord AFB are the only West Coast **Power Projection Platform**

1. McChord AFB
2. Fort Lewis
3. Nat'l Strategic P[illegible]rt of Tacoma
4. Madigan Army M[illegible]ter
5. Camp Murray –WA [illegible]d Security

Surge Capability

- **Airports**
  McChord Air Force Base
  Seattle-Tacoma International Airport

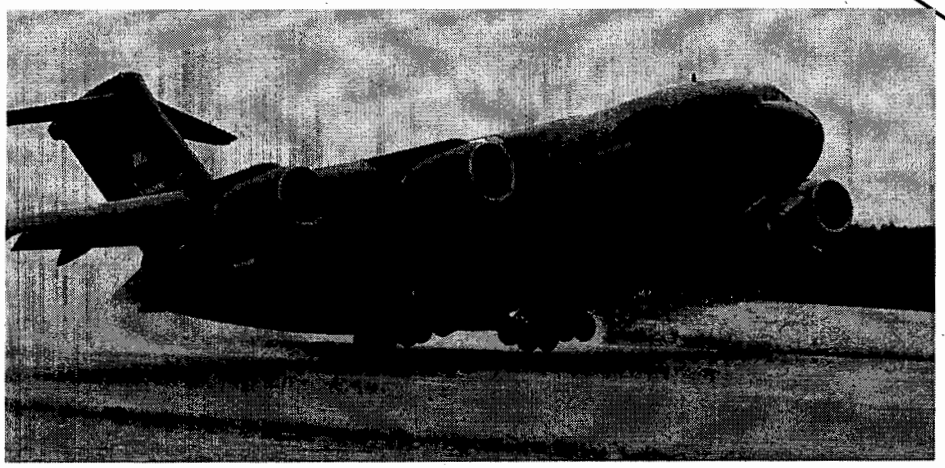
- **Sea Ports**
  Port of Tacoma
  Port of Seattle
  Port of Olympia

- **Transcontinental Railroads**
  Burlington Northern Santa Fe
  Union Pacific

"Particularly as we are transforming our entire force to deploy more rapidly, the capability represented by the co-location of Fort Lewis with McCord's C-17 Airlifters represents a unique military asset."

Congressman Norm Dicks

1. McChord Air Force Base



- Center of Excellence for C-17 Deployment
- Integrated Active & Reserve Wings
- Home of Western Air Defense Sector
- State Legislature passed bill to prevent encroachment (ESSB 6401)

McChord Air Force Base, cont.

- Home of 22nd Special Tactics Squadron
- Special Forces & Rangers deployability from Fort Lewis
- 52 awards as "Best in Major Command"
- 11 awards for "Best in Air Force"
- Site of International Rodeo Competition, June 2005

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2. Fort Lewis Army Base

- Only post that's home to Special Forces *and* Rangers
- Provides ideal training sites
  - Varied training areas ensure rea
  - Fort Lewis hosts annual national A ROTC summer camp

Fort Lewis Army Base, cont.

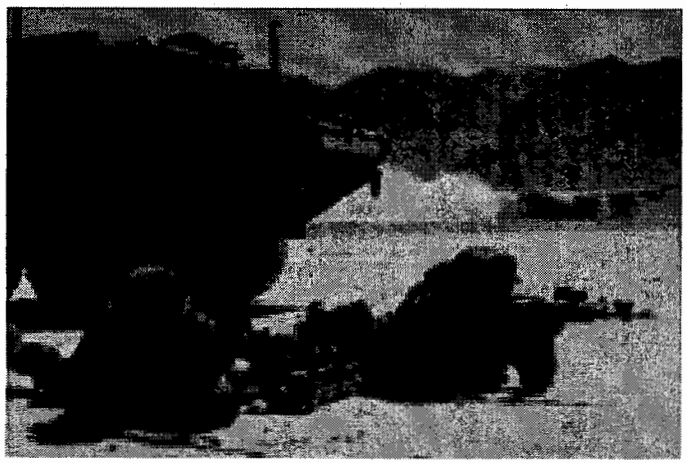
- Training sites, cont.
  - Yakima Training Center offers 500 square miles of high desert setting
  - Japanese Defense Forces use the Yakima site for maneuver training through CALFEX (Combined Armed Live Fire Exercise)

Fort Lewis Army Base, cont.

- Training sites, cont.
  - Center of Excellence for Stryker and related equipment
  - Leading bases in transformation toward lighter, more mobile forces

Fort Lewis Army Base, cont.

- Offers diverse training climates
  - Pierce County weather, geography resemble European Theater
  - Yakima Training Center high desert resembles Middle East, South Asia

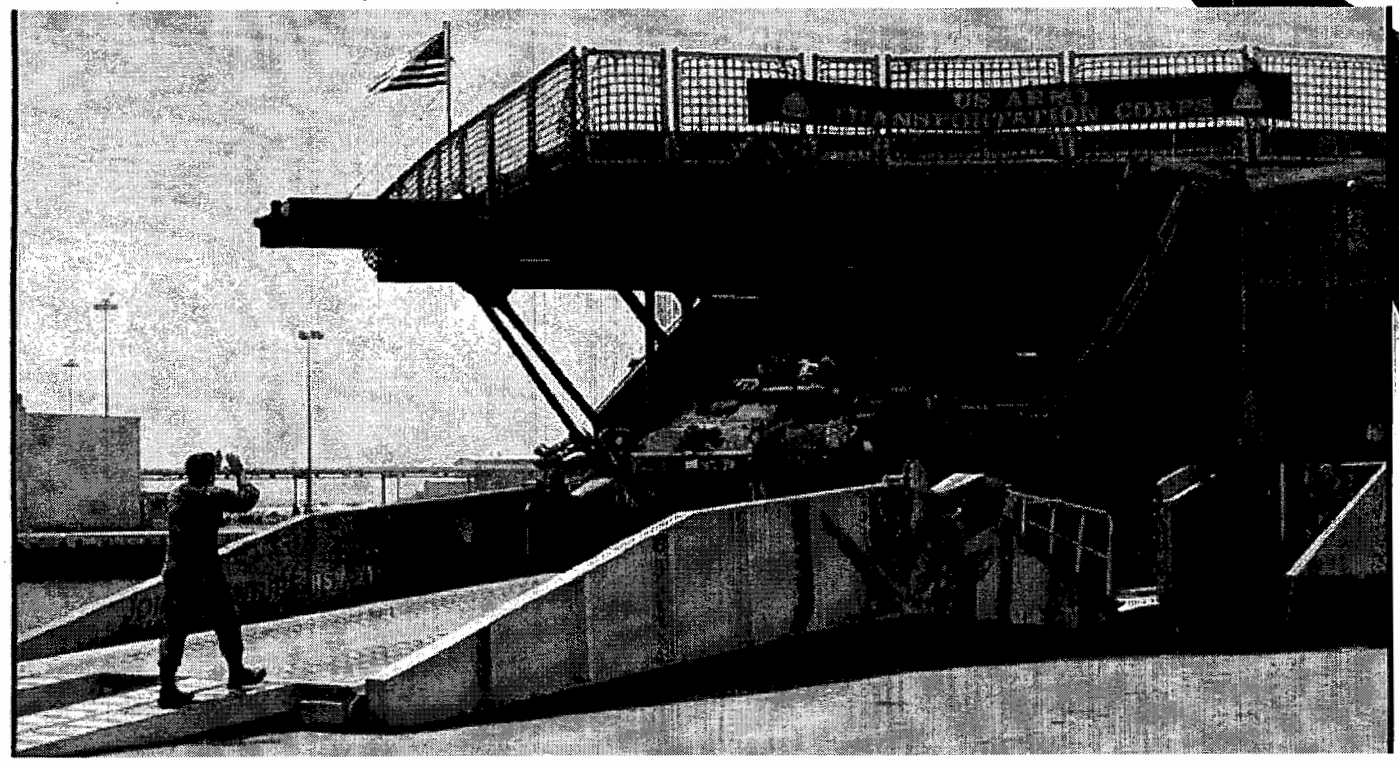


3. Fort Lewis & Port of Tacoma

- Beneficial partnership helps meet defense demands
  - Port of Tacoma is a National Strategic Port

- Partnership with Port, cont.
  - Port has ample space, 5th largest in North America
  - Rated as Top U.S. Port by reader survey of *Marine Digest & Cargo Business News, Jan. 2005*
  - On-dock & adjacent rail for quick, efficient transport of large equipment

- Partnership with Port, cont.
  - TSV "Joint Venture" downloaded 14 Strykers, 14 support vehicles & crew at Port of Tacoma in 13 minutes during Exercise Millennium Challenge, Aug. 2002



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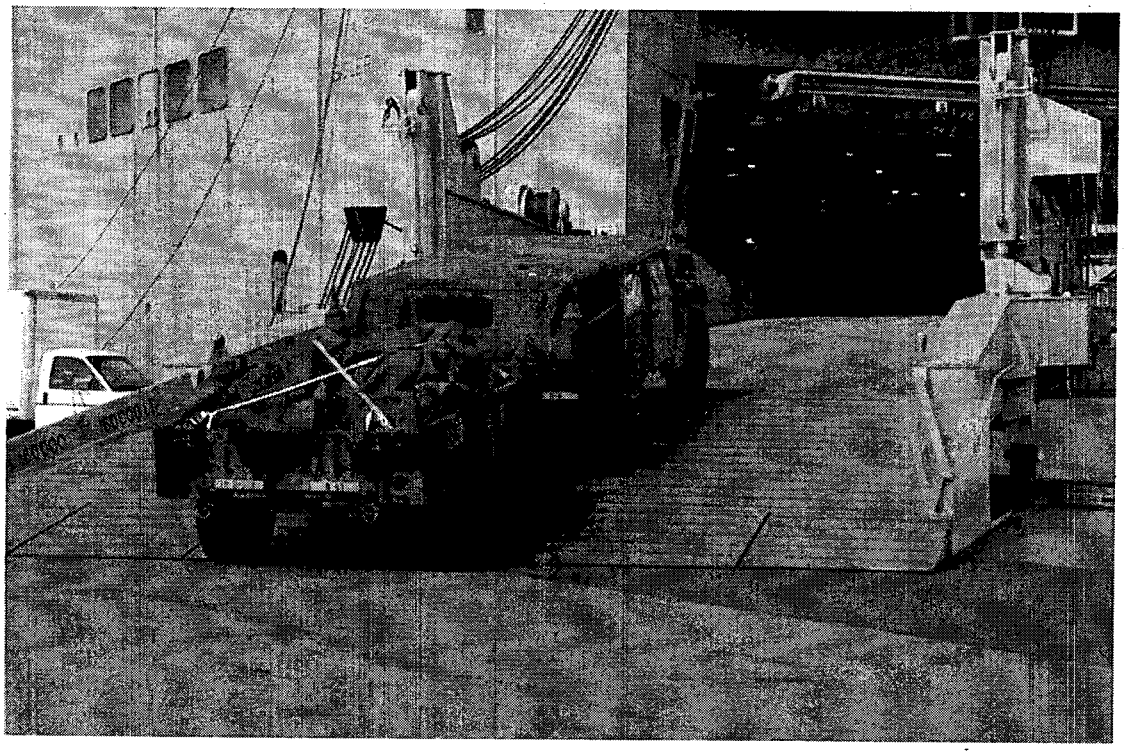

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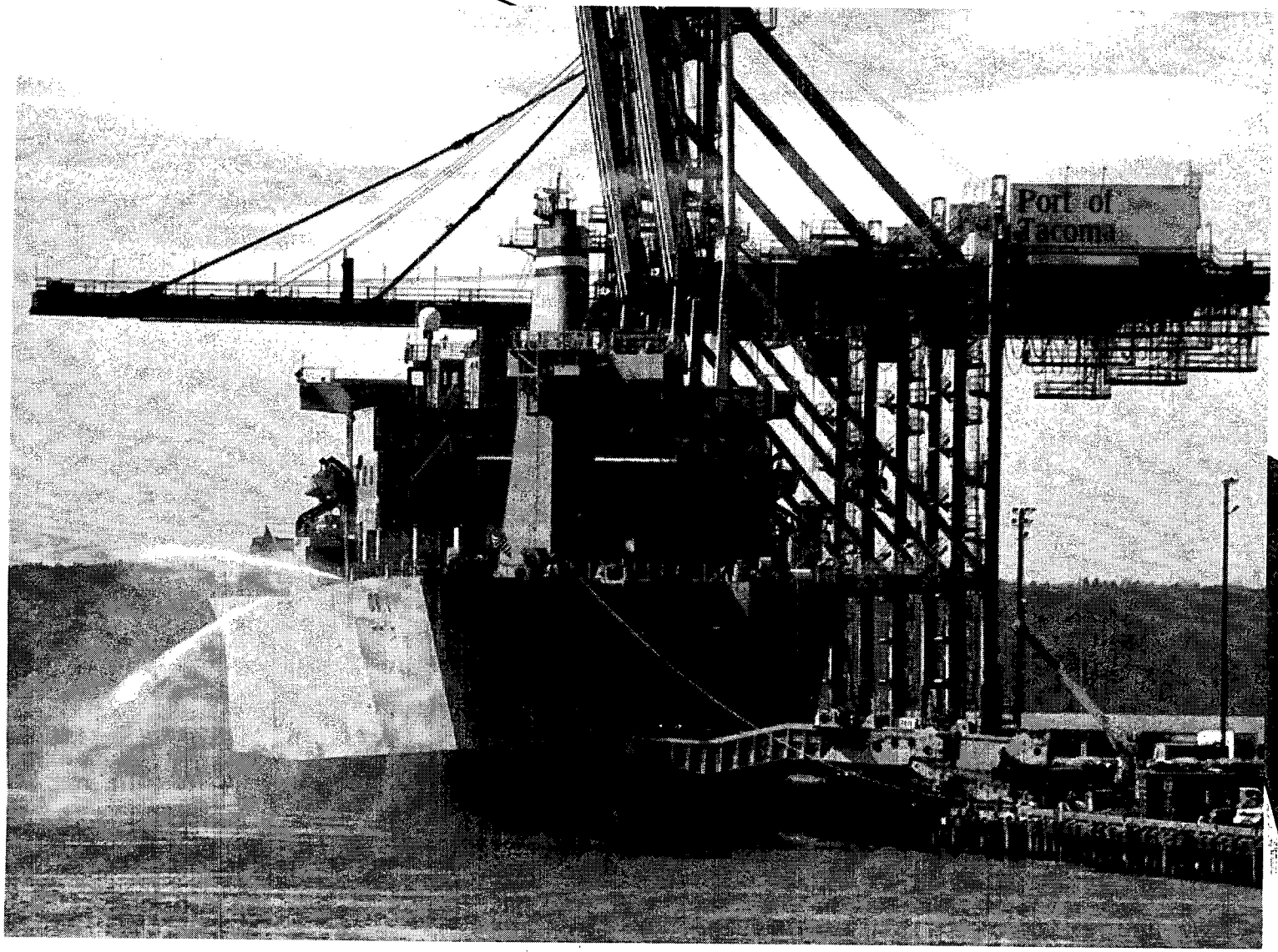

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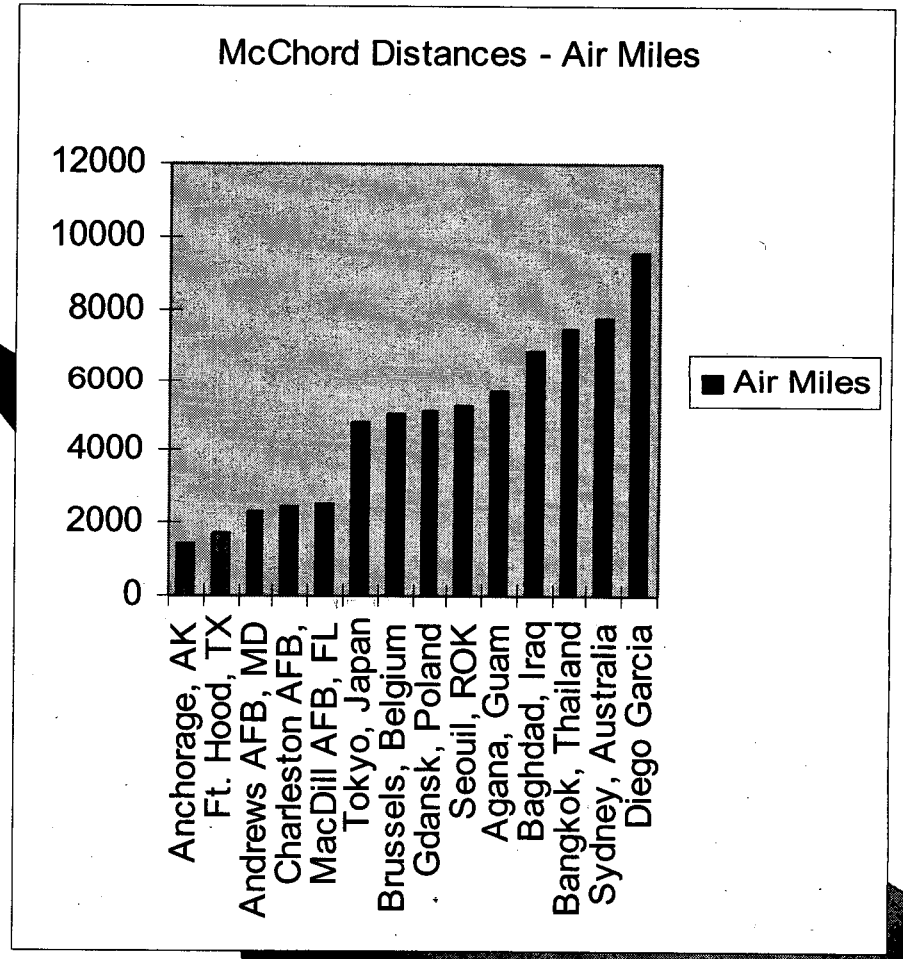

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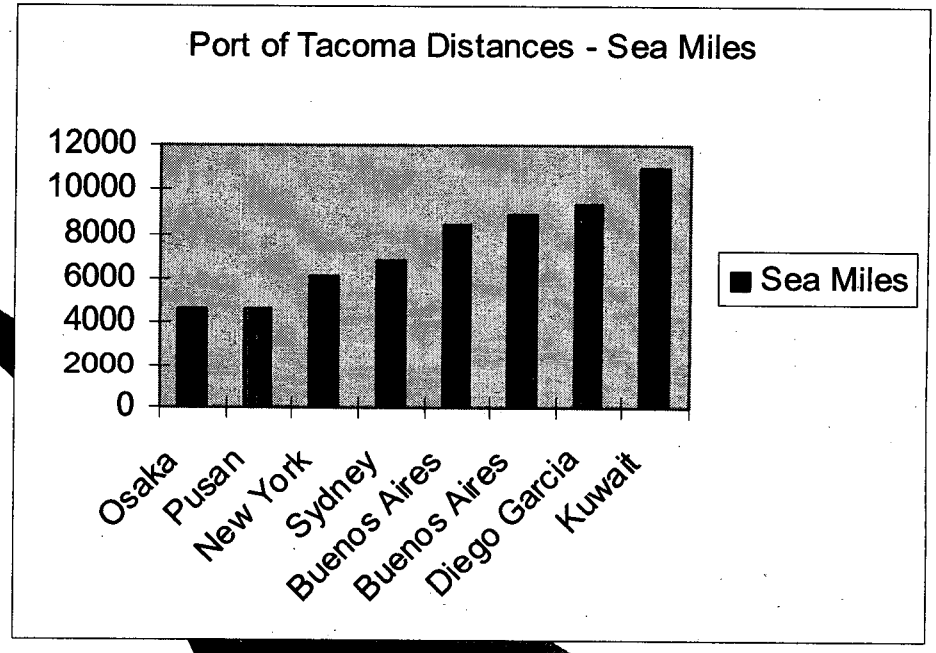

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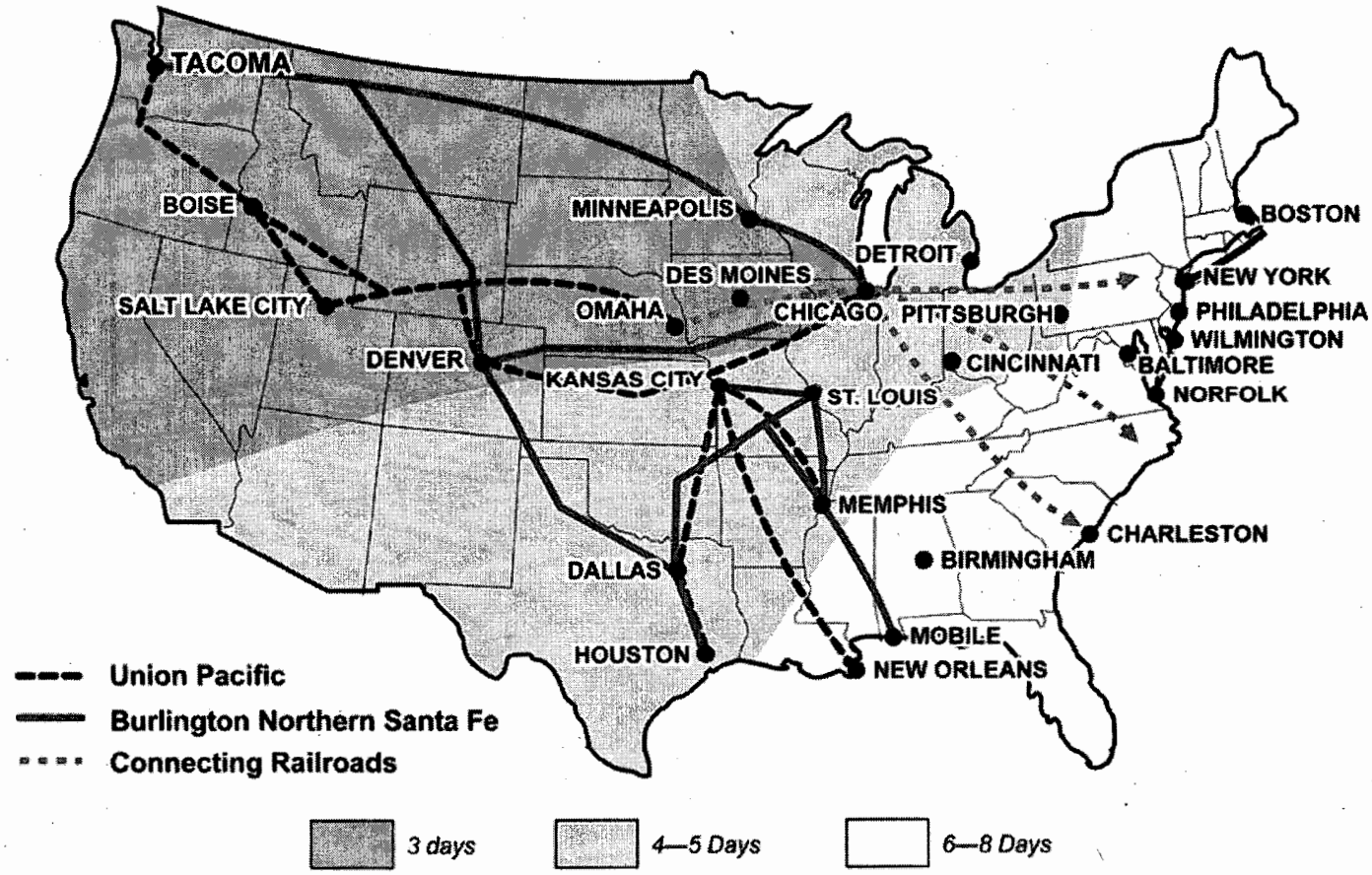

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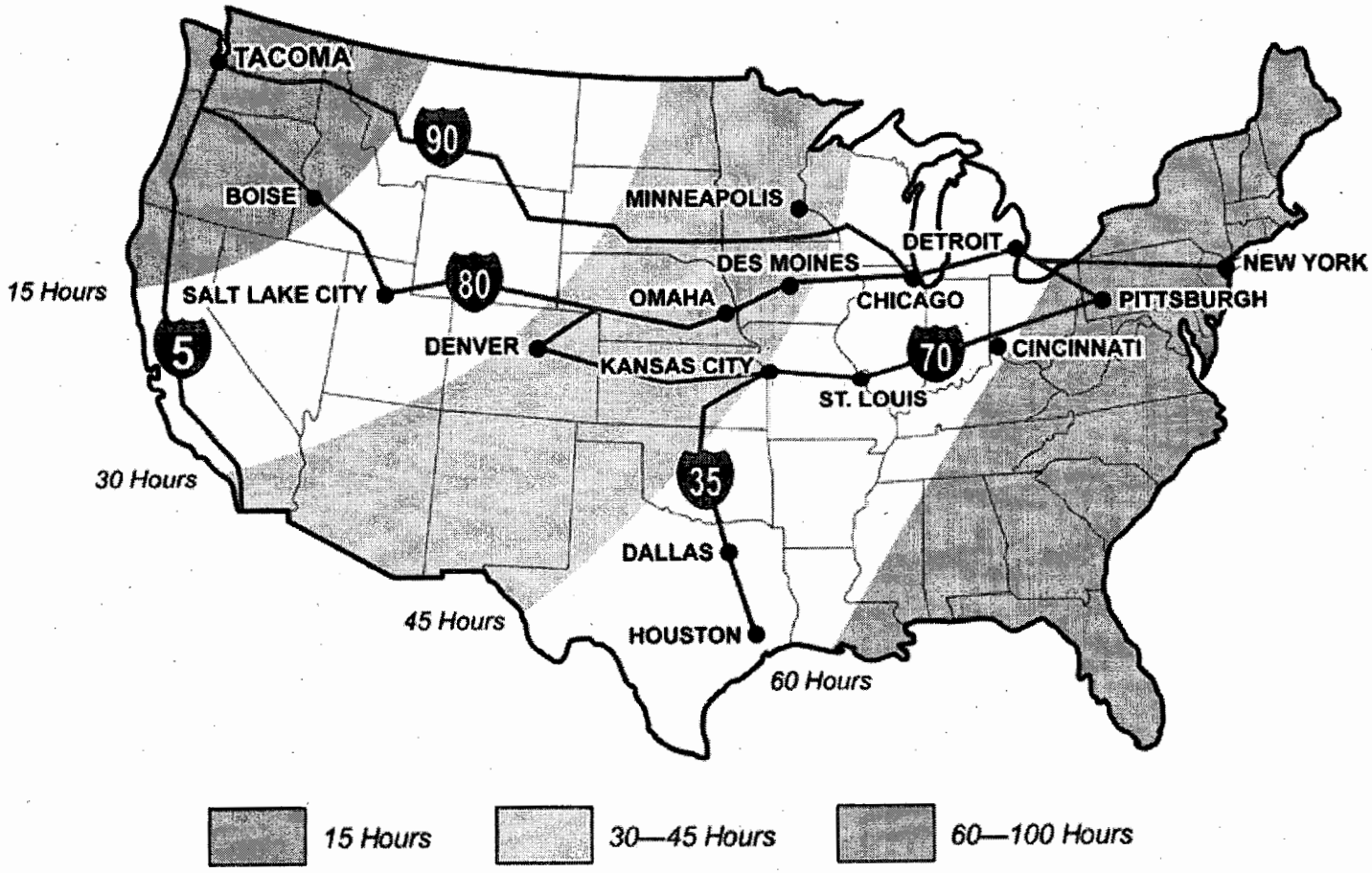

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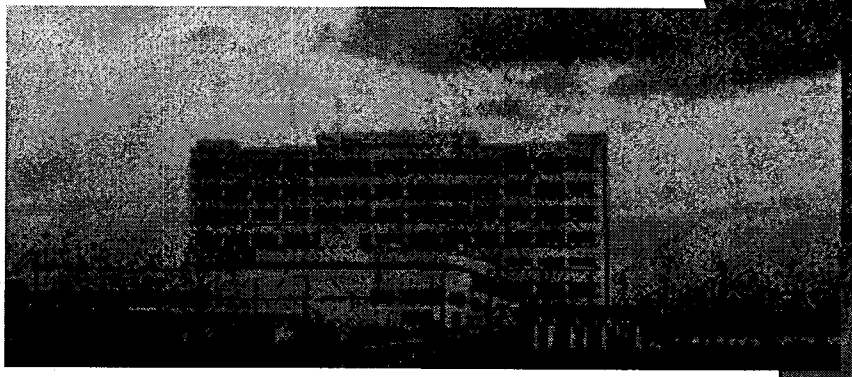

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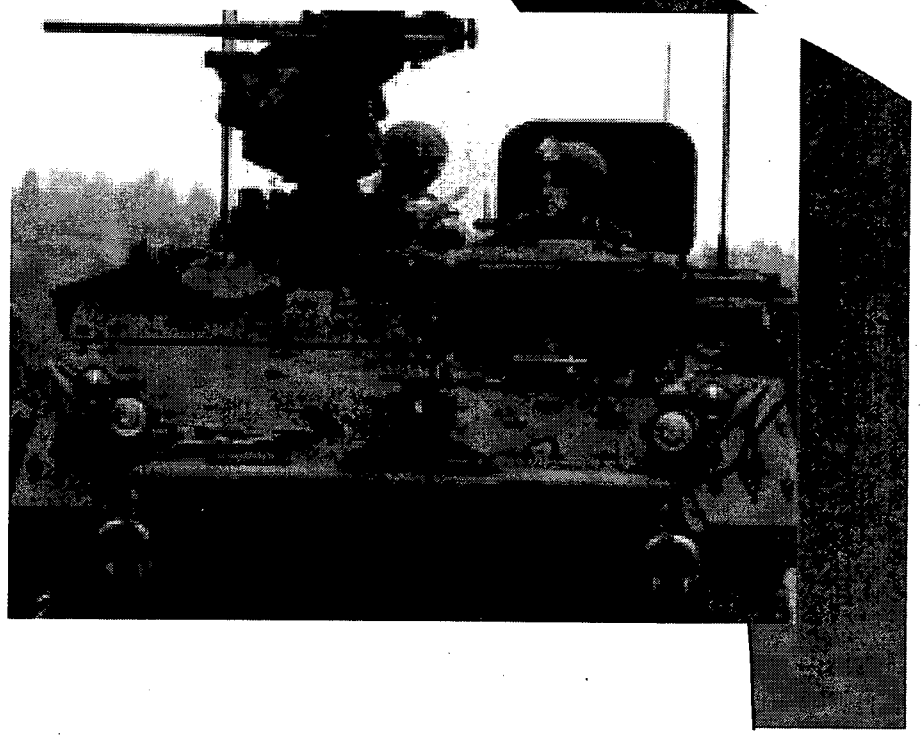

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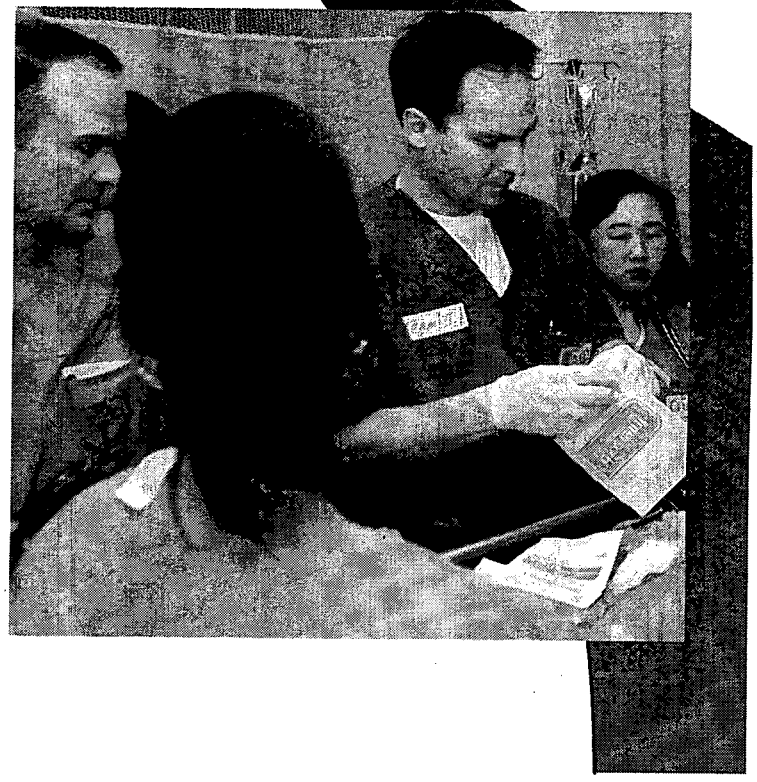

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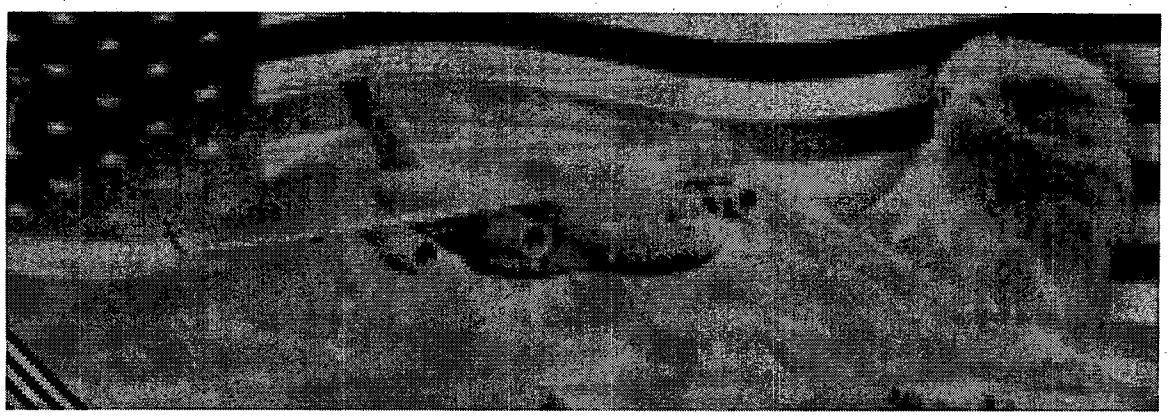
BRAC 2005



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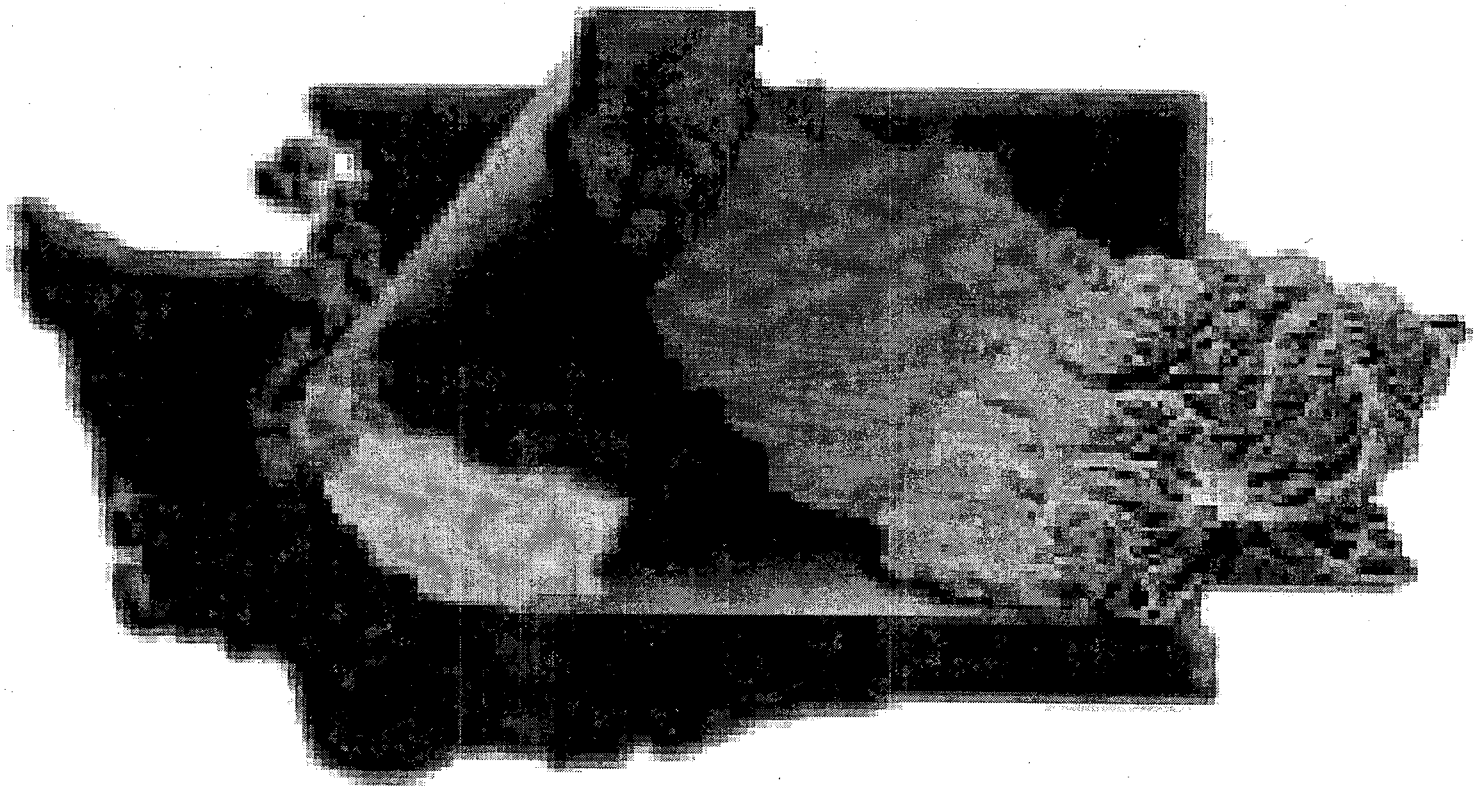


Pierce County

- Central Location In Puget Sound Important
- Population of over 744,000
- 24 Cities and Towns
- Highly Skilled & Technical Workforce
- Significant industries: Aeronautics, Chemical Mfg., Food Processing, Health Care, Metals, Technology, Wood Products
- 11 Colleges/ Universities

A Community Focused

- Economic Development Focused on Job Creation.
- Fifth Fastest Growing Labor Market in USA
- $1.93 Billion annual wages and expenditures by Military.
- Over 100,000 Jobs Linked to Military Presence.
- Substantial Infrastructure Investments: Electricity, Roads, Sewer, Telecommunications, Water
- Diverse Cultural Arts & Entertainment
- Well developed Parks & Recreation

What affects the mission of our Military Bases?

- **Encroachment**

  Joint Land Use Decisions
  Planning and Zoning

- **Infrastructure**

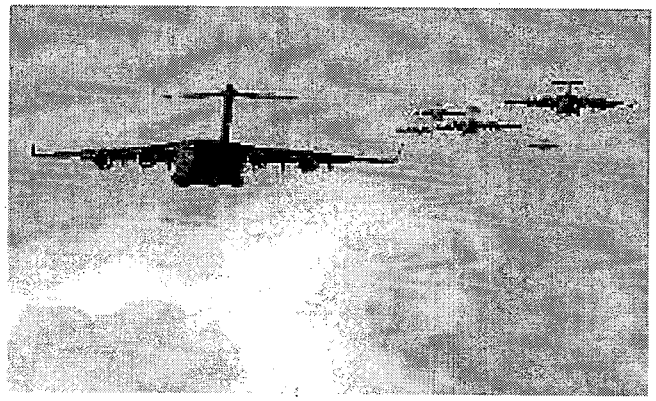
  Traffic Control Improvements
  Airspace Concerns

- **Advocacy Groups**

  Address community issues and challenges relating to Base activities.

- **Studies**

  Document the importance of the military to Pierce County's economy



PREVIOUS BRAC PROCESSES

- 1988, 1991, 1993 and 1995
- Services Recommended closure/ realignments
- 97 Excess bases were closed/realigned
- Low hanging fruit is gone

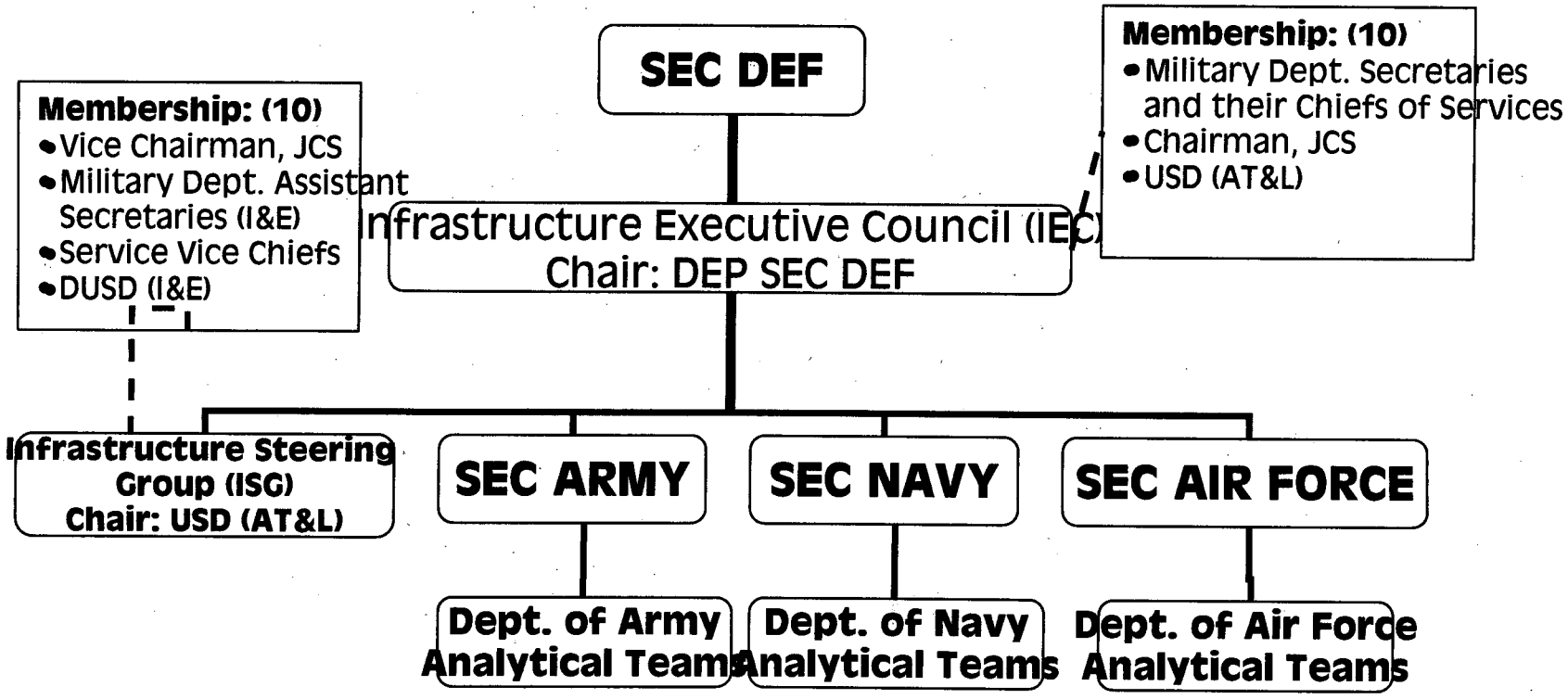
BRAC 2005 GOAL

- Cut 20 – 25% of Military bases/posts
- Save $6.5 billion per year
- Every domestic base is a target

BRAC 2005 PROCESS

Department of Defense (DOD) top down identification

BRAC 2005 Leadership



2005 BRAC LAW

1. 24 year force structure plan
2. Worldwide infrastructure inventory
3. Infrastructure to support force structure plan
4. Economic analysis of infrastructure reduction
5. Certify annual savings and net savings by 2011

Schedule of BRAC 2005 Events

- **December 31, 2003**

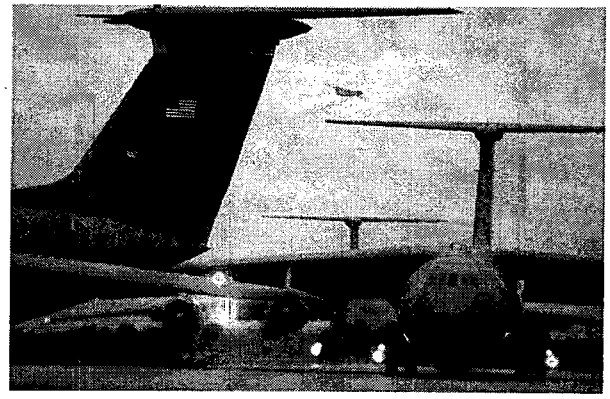
  - DOD 5 categories for base closures

- **February 2004**

  - Submit the 5 items to Congress

- **March 15, 2004**

  - Nomination of Commissioners



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Schedule of Events - continued

- May 16, 2005
  - BRAC recommendations to Congress
- March – September - BRAC
- Commission Hearings
- September 8, 2005
  - BRAC recommendations to President
- November 7, 2005
  - President certifies final list
  - Congress has 45 days to pass motion of disapproval

BRAC MEMBERS (9)

3 Appointed by President

2 Appointed by Senate Majority Leader

2 Appointed by Speaker of the House

1 Appointed by Senate Minority Leader

1 Appointed by House Minority Leader

BRAC 2005 BROAD CRITERIA

- Military value
- Operational necessity
- Maximize war fighting capability with efficiency

Important Issues for Local Bases

- Joint use missions
- Consolidation of missions
- No encroachment
- Partnerships with industry

What Communities Should Do

- Get Congressional delegation involved
- State supported legislation
- Form an advocacy group
- Meet BRAC staff personnel
- Testify before BRAC at hearing

DOD BRAC Implementation Budget

Fiscal Year 2006

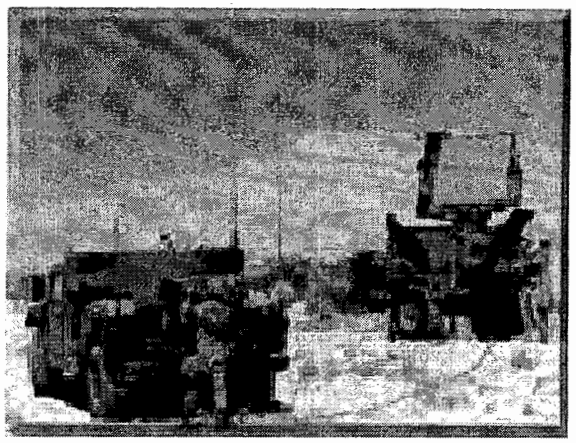
$2.97 billion

Fiscal Year 2007

$4.26 billion

Fiscal Year 2008

$2.25 billion



BRAC 2005

- Base closure and realignments will be severe
- Economies of communities at previously closed bases have struggled
- Be prudent and plan ahead

Questions and Answers

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