MAINTAINING AND EXPANDING CALIFORNIA'S NATIONAL SECURITY MISSION

Report and Recommendations
of the Governor's Military Council

Governor Edmund G. Brown Jr.
June 2015

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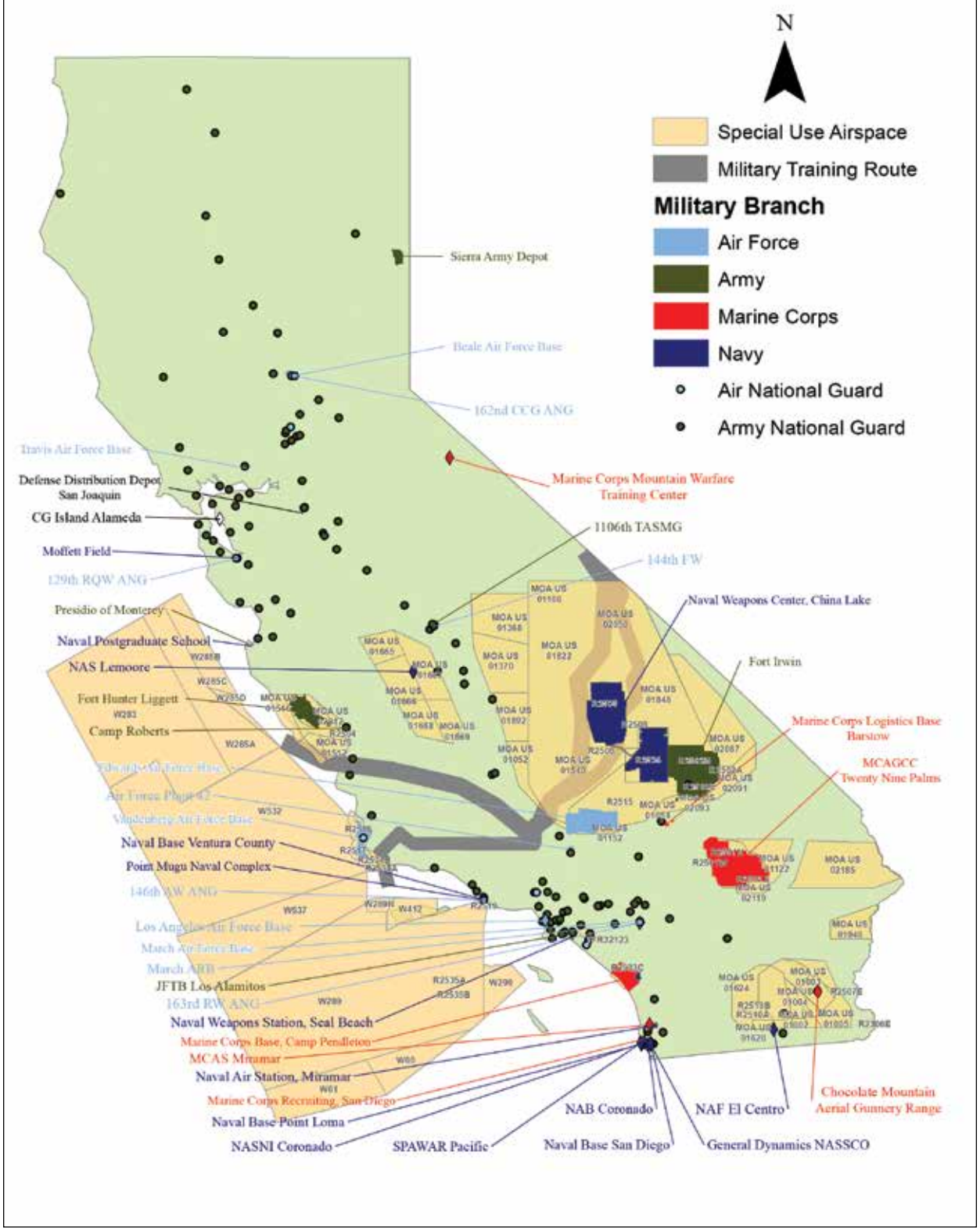
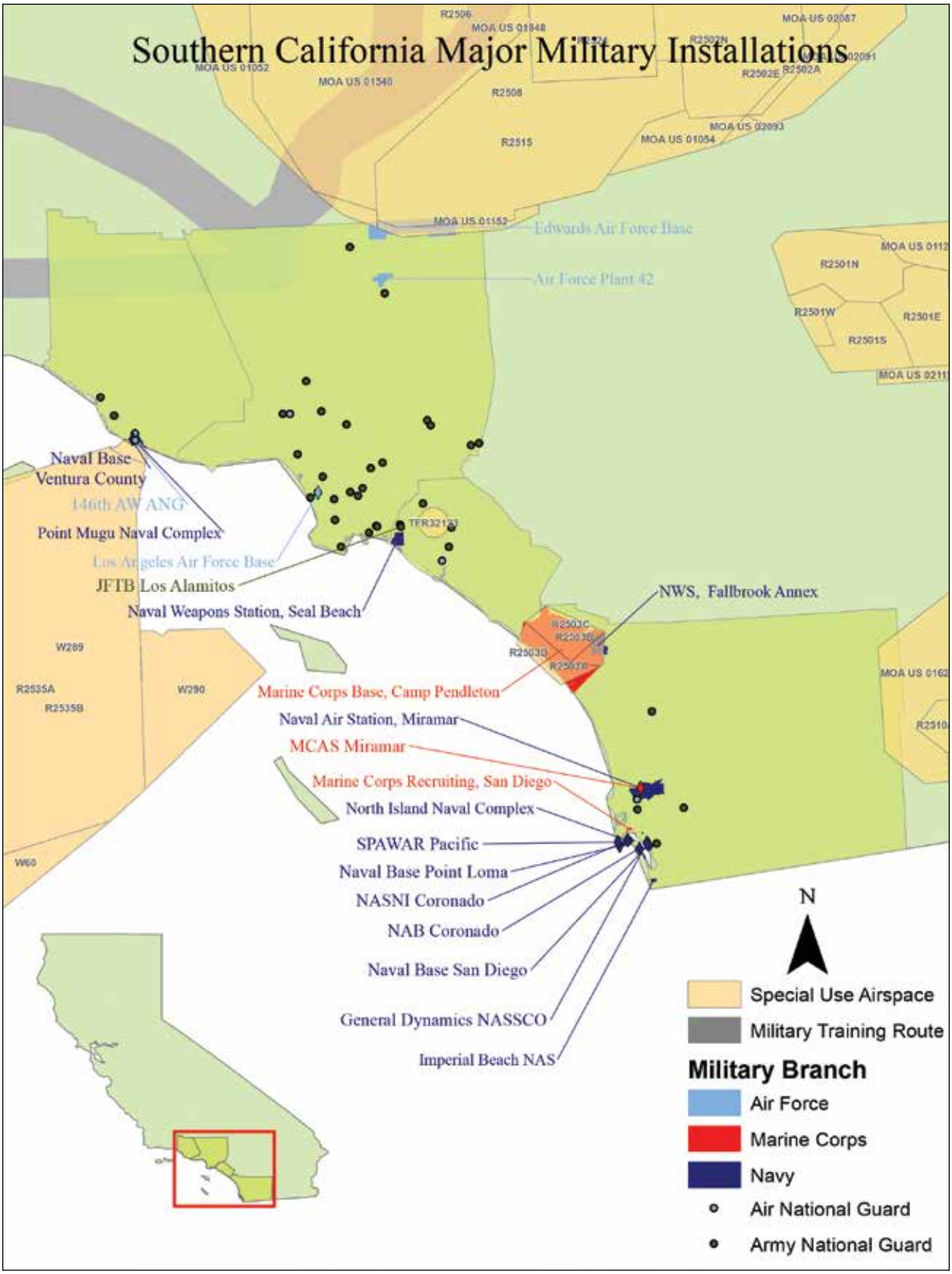
California Major Military Installations




Southern California Major Military Installations
Edwards Air Force Base
Air Force Plant 42
Naval Base Ventura County
146th AW ANG
Point Mugu Naval Complex
Los Angeles Air Force Base
JFTB Los Alamitos
Naval Weapons Station, Seal Beach
NWS, Fallbrook Annex
Marine Corps Base, Camp Pendleton
Naval Air Station, Miramar
MCAS Miramar
Marine Corps Recruiting, San Diego
North Island Naval Complex
SPAWAR Pacific
Naval Base Point Loma
NASNI Coronado
NAB Coronado
Naval Base San Diego
General Dynamics NASSCO
Imperial Beach NAS
N
Special Use Airspace
Military Training Route
Military Branch
Air Force
Marine Corps
Navy
Air National Guard
Army National Guard

Executive Summary

California is home to more than 30 major military installations, by far the most of any U.S. state. These installations are supported by a robust aerospace and technology sector, preeminent universities and national laboratories, and Homeland Security operations. The Department of Defense employs 360,000 Californians and provides tens of billions of dollars in defense contracts in our state. Communities as large as San Diego and Los Angeles and as small as Ridgecrest and Bridgeport depend on military installations and their activities economically.

The U.S. military is undergoing a major transition at the conclusion of the wars in Iraq and Afghanistan; it is reducing troop numbers across the military services. New security priorities are emerging, such as the shift in strength to the Pacific region and global cybersecurity, which guide new defense investments. A focus on conventional military strength has broadened to protecting national security amidst new, rapidly emerging threats. At the same time, federal budget pressures demand reduced defense spending and have generated proposed cuts to military missions, as well as call for a new round of Base Realignment and Closure (BRAC). This period of transition and uncertainty will almost certainly affect the military presence in California.

The Governor's Military Council spent the last 18 months exploring these changes and developing recommendations on how state government can help to strengthen national security operations in California. Abundant opportunities exist to grow national security activities that benefit California's economy and communities. Government must play a leadership role and seize this opportunity. Recognizing the importance of state government leadership to maintain and grow the defense and national security mission in our state, the Governor's Military Council makes the following recommendations:

State government should:

1. Commit to a sustained focus on growing California's defense and national security mission.
2. Focus state efforts on supporting both conventional defense installations and emerging national security institutions.
3. Maintain strong bipartisan support for the military and national security.
4. Strengthen California's reputation as a strong partner to the military.
5. Engage federal decision-makers to shape defense budget and policy proposals.
6. Work directly with installations to address operating challenges.
7. Partner with other states to strengthen the regional defense complex across the Southwest.
8. Bolster state support for local and regional military support organizations.
9. Encourage military installations to adopt operational partnerships with local governments and companies.
10. Strengthen communication with installation commanders.
11. Support quality educational opportunities for children of service members.
12. Enable military installations to generate renewable energy within their fence-lines.
13. Help military bases secure reliable water supplies amidst drought and climate change.
14. Improve California's attractiveness to discharging service members and veterans.
15. Strengthen support for California's aerospace industry.

California plays a critical role to national defense and security. Implementation of these recommendations can help to ensure that our state continues to play this important role well into the future.

Section I
Introduction

California plays an essential role in national defense. Home to the world's most valuable air, sea, and land ranges, California's military installations have prepared generations of American service members for conflicts around the world. Aerospace companies founded here provide essential technology to our military, and our world-class education and research institutions develop the leaders and ideas that guide our national defense into the future. Simply put, our country has been able to protect itself and project strength around the globe over the last century due to its institutions in California.

The purpose of this report, which is presented by the Governor's Military Council, is to articulate the ongoing importance of California to our national security and to recommend ways to strengthen our state's role in national defense.

Our national defense structure is adapting to emerging threats. A past focus on large, conventional fighting forces and nuclear deterrence during the Cold War has transitioned to protecting against global terrorism, political insurgency and cyberwarfare. This new reality demands increased vigilance around the world, at our borders, and even within our own country.

California hosts a growing presence of institutions that provide these capabilities. In addition to over 30 military installations in California, our state hosts extensive operations of the Department of Homeland Security and the US Coast Guard, which protect citizens within our country. California is also home to preeminent national laboratories, the Defense Language Institute, and the Naval Postgraduate School, all of which increase our military's knowledge base and technological superiority.

This broad network of military installations, aerospace companies, technology start-ups, homeland security activities, research universities and institutions make California uniquely suited to help the U.S. address the security threats of the coming decades. Simply put, our state's human capital and physical infrastructure play an essential role in the future safety of our country.

California benefits economically from the large military and national security presence here. The U.S. Department of Defense (DoD) spends roughly $70 billion dollars each year in California; about $30 billion in military salaries and benefits and another $40 billion for defense contracts in the state.[1] DoD employs approximately 360,000 Californians, and enables hundreds of thousands more to be employed by private sector military contractors. As an economic sector, national security is one of our state's largest and most important economic engines. Communities large and small across the state benefit from the military's presence, from San Diego and Los Angeles to Bridgeport, El Centro and Ridgecrest.

While California maintains a vital role in national defense, the military presence in our state has been reduced in recent decades. California was severely impacted by the first four rounds of the federal government's Base Realignment and Closure (BRAC) process, which took place between 1988 and 1995 to restructure America's post-Cold War military. In the first four BRAC rounds, dozens of California installations closed and fully 54 percent of overall personnel cuts occurred at California bases. The estimated economic impact of these cuts was over 93,000 jobs and nearly $9.6 billion in annual revenue. [2] Nearly thirty

1 Sources: Defense Manpower Data Center, USASpending.gov. Numbers reflect 2012 data.

2 California Institute, *California's Past Base Closure Experiences and the 2005 BRAC Round,* April 2005.

years later, communities are still working to revitalize some of the mothballed installations.

Almost thirty years after the first round of BRAC, California state leadership is more focused than ever on maintaining our military and national security institutions. During the most recent BRAC round in 2005, Governor Arnold Schwarzenegger assembled the California Council on Base Retention and Support to convey the value of California's installations as the Pentagon navigated more base closures and realignments. This Council, co-led by the Honorable Leon Panetta and Donna Tuttle, articulated to federal decision makers a clear, unified argument for keeping California installations operational. California suffered minimal losses in the 2005 BRAC round.

Today, California's national security footprint is both streamlined and robust. Our training grounds, ranges and laboratories are essential to our military and national security. As this report details, each installation in our state plays an essential purpose in our national defense.

Governor Brown convened the Governor's Military Council in 2013 to help state policymakers understand the opportunities and challenges associated with maintaining and growing national defense operations in the state. The Council, which is chaired by the Honorable Ellen Tauscher, includes retired flag officers from the Air Force, Army, Marine Corps, Navy and Coast Guard and the California Adjutant General, as well as bipartisan representation from the State Senate and State Assembly, civilian experts and retired Department of Defense executives.

Governor Brown personally convened the Military Council for its first meeting in Sacramento in June, 2013. The Council then travelled across the state in subsequent months to tour installations and meet with base commanders and local military support

organizations. Council meetings were held in San Diego, Los Angeles, Ventura County, Monterey, Sacramento, Riverside, Oakland and the Antelope Valley. During these fact finding missions, the Council also took positions on emerging national policy issues that affect California. The Military Council also convened a military forum in the State Capitol in February, 2014 that introduced base commanders to state legislators and regulators, and convened a business forum in May, 2014 on unmanned aerial systems with the Governor's Office of Business and Economic Development.

While the Governor's Military Council has worked to defend California installations and missions in real time amidst Congressional and Pentagon decision making, the Council has also developed longer-term recommendations for the Governor and California Legislature.

These recommendations aim to protect and grow the national security mission in our state while supporting service members and California businesses. A strengthened national security presence in California will protect our country in the future and contribute to the ongoing economic well-being of our state.

Section II
California's Military and National Security Assets

California's complex of military and national security installations is essential to a well-prepared, effective and superior military force. The strong benefits California provides to national defense is further enlarged by an unmatched defense complex stretching across the Southwestern U.S.

California provides numerous national security advantages, which can be organized into five categories: [3]

1. Sea, air, and land ranges and training sites in California are essential for preparing military units for combat.

2. California contains vast and vital installations for development and testing of new weaponry.

3. California's technological expertise and resident human capital are critical for the military's effectiveness.

4. California's strategic location ensures that it will play a vital role in the coming decades for the nation's defense through power projection, space launch, deployment support, and homeland defense.

5. California provides the bases and support facilities which the military needs

3 The 2005 California Council on Base Retention and Support articulated the interconnectedness of California's installations effectively; this section updates that explanation.

to fulfill its mission; most importantly, more educated youth join the military from California than any other state in the nation.

Each of California's unique attributes for national defense is enabled by interconnected installations, as described below:

1. Sea, air, and land ranges and training sites in California are essential for preparing military units for combat.

California's geography and climate were a major reason the military expanded dramatically in the state during World War II and the Cold War. Decades later, the state still provides installations with excellent and consistent operating conditions, which are shared with other facilities across the Southwest.

This interconnected complex provides an unparalleled region for training. Vast areas of defense- dedicated airspace over land and sea allow personnel to train in diverse terrain. Temperate, sunny weather allows training to take place year round. Other areas of the country lack the diversity of terrain, do not have the large amounts of open space, or suffer extended periods of inclement and unpredictable weather.

California's ranges are used by every branch of service to train combat units from all over the United States. For example, **Fort Irwin National Training Center** and the **Twentynine Palms Marine Corps Air Ground Combat Center** ensure combat troops and close-in air-to-ground support contingents receive effective training before mobilizing into combat. The two sites conduct joint training operations and train much of the Army and Marine Corps' combat arms units in the United States. No reasonable replacement exists for either installation. The high tempo of training at these bases

could not be maintained without the transportation and repair support of **Marine Corps Logistics Base Barstow**.

R-2508 air space and naval sea ranges

The **R-2508 airspace,** the largest contiguous volume of restricted air space in the DoD inventory, overlies **Fort Irwin** as well as **Edwards Air Force Base** and **Naval Air Weapons Station China Lake**. Activities there and at **Naval Air Facility El Centro**, the **Chocolate Mountains Aerial Gunnery Range**, the Navy's ranges on **San Clemente Island**, and nearby ranges in Fallon, Nevada, and Yuma, Arizona, are used by units from across the country and every branch of service. The airspace is the most effectively integrated multiservice Special Use Airspace in the country, providing an ideal site for a wide variety of bombing ranges, supersonic corridors, low altitude high speed maneuvers, and experimental testing. The value of this defense complex is borne out by the fact that 67% of all military restricted airspace in the continental United States is within California, Nevada, and Arizona, and they are all interconnected.

Sea ranges off the California coast also provide unmatched training opportunities. Major naval battle group training takes place regularly on these ranges, which are tied to the **Point Mugu** facility of **Naval Base Ventura County**, to **Vandenberg Air Force Base**, and to inland air ranges. Training and military exercises can be conducted electronically on these ranges from anywhere in the world. The Navy's ranges on **San Clemente Island** are the only site in the continental United States where U. S. ship-to-shore gunnery exercises can still be conducted.

This combination of assets, capabilities, and connectivity based on existing ranges is unique and cannot be reconstituted anywhere else in the U.S. Operational units in California use all these training sites at a fraction of the cost of East Coast units. A fighter jet stationed at **Marine Corps Air Station Miramar** in San Diego County can reach any of the ranges and return without costly refueling. Similarly, units and aircraft from **Naval Air Station Lemoore**, **Marine Corps Base Camp Pendleton**, **Naval Air Station North Island** and aircraft from neighboring states can easily reach these training sites. All these air bases enable Marine aviators to train closely with ground units.

Other California bases are also important for training military forces. Only the **Marine Corps Mountain Warfare Training Center** in the Sierra Nevada Mountains and **Fort Hunter Liggett** in Monterey County give the opportunity for military units to train in a multi-terrain environment and in semi-arid Mediterranean-like scrub conditions. The **Marine Corps Mountain Warfare Training Center** has provided a place for combined force training over the past decade in preparation for the high-altitude environment of Afghanistan.

Camp Roberts and **Fort Hunter Liggett,** connected by a 35-mile tank trail, with a combined total of 225,000 acres, are the only training areas offering realistic time-distance factors for Reserve Component brigade-sized training. The bases offer joint use training opportunities for all the service branches, including Special Operations Forces. They are the only mobilization training sites for Reservists

The Combined Arms Collective Training Facility (CACTF) at Camp Roberts

in California. **Camp Roberts** and **Fort Hunter Liggett** have considerable capacity for expansion and are capable of hosting a Light Brigade Unit of Action.

In addition, the **Los Alamitos Joint Forces Training Base** is a full-service joint military training center, airfield, and support area in the Los Angeles-Orange County area.

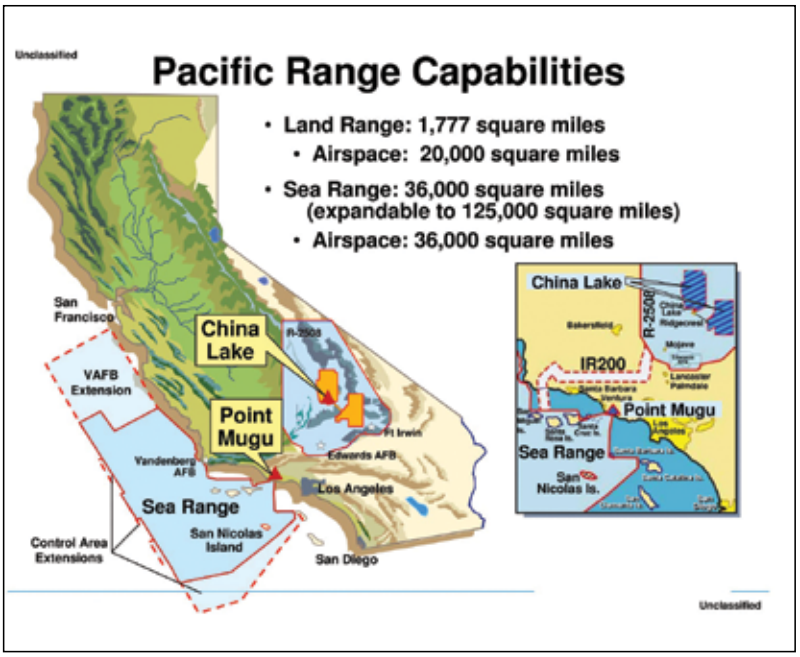
California's many training ranges on land, in the air and at sea are a national treasure that cannot be replicated. Accordingly, a large volume of training takes place in California, due to irreplaceable conditions here. The reduction or removal of any of the constituent parts of this Southwest training complex would constrict the ability of the nation to train our military.

NAF El Centro's strategic proximity to the air ranges makes it an asset imperative for US Navy and Marine training. From **El Centro**, F/A-18's can also conveniently use live fire training ranges at **Twentynine Palms**, and the ranges on the Barry M. Goldwater Range in southwestern Arizona. In addition, helicopters from **El Centro** can use areas at the Army's Yuma Proving Ground for live fire exercises. The F/A-18 training squadron at **Miramar** regularly uses the **El Centro** ranges for its more extensive team-based training needs. F/A-18 and forthcoming F-35 squadrons from **NAS Lemoore** and East Coast air stations also deploy to El Centro to train on its ranges. Additionally, the base is the winter home of the Navy's demonstration squadron, the "Blue Angels."

2. California contains vital installations for developing and testing new weaponry.

The same characteristics that allow California to excel as a training ground—vast land, air and sea ranges— also make it an excellent place to test new military technology. Over a half century, tremendous research, development, test and evaluation (RDT&E)

infrastructure has built up in the state. At **Edwards Air Force Base,** for example, the idea of arming the Predator unmanned aerial vehicle was first conceived and developed. The contiguous air space and air corridors that connect **Edwards** with



Naval Air Weapons Station China Lake and the **Point Mugu** facility of **Naval Base Ventura County** provide the nation with a completely unique cutting-edge weaponry testing ground. These bases, along with **Vandenberg Air Force Base** in Santa Barbara County and the 36,000 square-mile sea range controlled by **Point Mugu**, provide the military with the only combination of bases and air space where a cruise missile can be launched at sea and travel inland a realistic distance for impact without flying over private property. Such testing has been crucial to develop both the capability of the missiles and effective countermeasures for the nation's own use against cruise missiles.

All surface and air-launched naval weapons developed in the last 50 years were tested and evaluated at **Naval Base Ventura County**. For example, the AEGIS system was tested on the **Point Mugu** range, using the USS Norton Sound, homeported at **Port Hueneme**.

As unmanned aircraft continue to advance, this combination of ranges will provide vast development and testing sites. California is the center of this unmanned aircraft

industry and has double the number of jobs supporting the industry than the next closest state, a figure that is set to grow by a factor of four in the next several years. Additionally, the nature of unmanned aircraft for military use requires that their development and operational testing involve ground troops. The Marine Corps has used troops from Camp Pendleton as part of its development of unmanned aircraft tactics at Twentynine Palms.

3. California's technological expertise and resident human capital are critical to the military's effectiveness.

The Department of Defense research and development activities in California are as valuable to the military as our state's geography and climate.

California has long been the center of the nation's aerospace industry, built up since before World War II to serve the military. These defense and aerospace industries are fed by universities that provide cutting-edge research and new talent to aerospace and defense contractors. Academic institutions such as the **University of California, CalTech, USC, and Stanford**, as well and the **Lawrence Livermore National Laboratory** and the **Lawrence Berkeley National Laboratory** are valuable fixed assets in our state, as are companies like **Boeing**, **Lockheed Martin**, **Northrop Grumman**, **General Atomics**, **SpaceX** and **Raytheon**. The link between these institutions and technology innovation happening in Silicon Valley, San Diego and other regions of the state bolster future innovation in national defense and security.

From this network of civilian and military, private and government resources in California have come such innovations as stealth aircraft, reconnaissance satellites, and unmanned aerial vehicles. This network relies on the face-to-face relationships

among program managers, contracting officers, researchers, contractors, and support staff. The Department of Defense clearly recognized the value of this capability in 1993 when, under BRAC, the **Space and Naval Warfare Systems Command (SPAWAR)** was moved to San Diego from its previous location near Washington, D.C.

SPAWAR is responsible for research, development, test, evaluation, installation, and life cycle management of all Navy and Marine Corps command, control, communications, computers, intelligence, surveillance, and reconnaissance systems (C4ISR).

San Diego-based SPAWAR researches and acquires command, control, communications, computers, intelligence and surveillance (C4ISR) systems.

A base critical to this military-aerospace network is the **Los Angeles Air Force Base.** At the base the **Space and Missile Systems Center (SMC)** plans, develops and acquires almost all space technology for the military and national intelligence organizations. **SMC** developed and acquired the Global Positioning System, which enables U. S. forces to navigate anywhere in the world, the satellites that watch for ballistic missile launches, and the satellites that connect units with high speed, secure lines of communication. The work done at the base directly affects troops in combat, helping them to accomplish their mission with fewer casualties. This work encompasses the efforts of leading aerospace technology companies throughout the entire

state, stretching from Silicon Valley to San Diego. Scientists and engineers at the base, now with several generations of aerospace experience, are key to its success. The **Aerospace Corporation**, a federally-funded defense research corporation located adjacent to the LA Air Force Base, completes this network. Experience demonstrates that the physical location of these adjacent institutions is essential; virtual communications are no substitute for face-to-face exchanges necessary in times of crisis or fast-moving events.

An Advanced Extremely High Frequency (AEHF) satellite developed by Lockheed Martin and Space and Missle Systems Center, Los Angeles Air Force Base .

Two installations of higher learning in the Monterey area, the **Naval Postgraduate School (NPS)** and the **Defense Language Institute (DLI),** are critical to California's human capital contribution to national defense. The changing global security environment has significantly increased the relevance of both educational institutions. At **NPS**, curricula addressing new threats is developed in a matter of weeks, a process that often takes years at civilian schools. The proximity of **NPS** to Silicon Valley, top-tier universities and national laboratories allows cooperation on cutting-edge research. Nearby land, sea, and air ranges facilitate student and faculty research. All degrees earned at **NPS** have a strong military component, with direct linkage to the operating forces. Though **NPS** is a Navy institution, it educates students from all branches of the service and many foreign allied countries, tying together technical and military disciplines like no other institute.

In a world of more dispersed threats and increased risk of terrorism, the importance

to national security of multiple language proficiencies is obvious. **DLI** is the nation's premier facility for creating such proficiency. Its proximity to a multicultural population in the San Francisco Bay Area has allowed **DLI** to hire language faculty quickly as global security needs change. For example, when our security focus shifted to Afghanistan, Afghan-American faculty from the Bay Area were hired quickly to teach the languages and dialects spoken in that nation. **DLI** remains essential to address emerging security threats in the future.

4. California's strategic location as a gateway to the Pacific Rim ensures that it will play a vital role in the coming decades as our national security focus shifts to this region.

California's location served as a stepping-off point for the Pacific theater in World War II, and the conflicts in Korea, and Vietnam. In the 1980's, the Pacific theater was overshadowed by a Cold War focus on Europe. Focus has returned to the Pacific Region as the President and Secretary of Defense have emphasized a "Rebalance to the Pacific." Analysts speak of an "arc of instability" stretching from North Korea through the western Pacific and Indian Ocean to the Middle East. Residing within this arc are such long-term challenges as radical Islamists, regimes such as North Korea and Iran, and China's growing military power. This region is also more important than ever to global trade and commerce, making stability and security of the Pacific Ocean essential to American economic security.

San Diego's Navy is Critical to National Security

Naval Station San Diego, **Naval Air Station North Island**, **Naval Amphibious Base Coronado**, **Naval Base Point Loma**, **Marine Corps Air Station Miramar**, **Marine Corps Base Camp Pendleton**, and the other Navy and Marine Corps installations in San Diego are perfectly situated for the nation's shifting westward focus. Nowhere else can such forces be stationed to deploy quickly and effectively into the Pacific. **Naval Station North Island,** for example, is the only Pacific port where the Navy can base three nuclear-powered aircraft carriers. The F/A-18 and the forthcoming F-35 fighters at **Naval Air Station Lemoore** and at **Marine Corps Air Station Miramar** are ideally located for deploying aboard West Coast carriers. Likewise, the aircraft and construction battalions at **Naval Base Ventura County** are well-positioned on the West Coast for strategic deployment, with facilities that would be difficult to reconstitute elsewhere with the same deployment abilities. In particular, the construction battalions (Seabees) at the **Port Hueneme Naval Construction Battalion Center** already deploy swiftly and efficiently in support of military objectives. The First Marine Expeditionary Force at **Camp Pendleton** could not deploy for combat without them, and it would be difficult for them to train together if the Seabees were moved from California.

Other bases fulfill important functions as a result of their West Coast location. The airlift and refueling capability of **Travis Air Force Base**, protected from encroachment, is critical to force projection across the Pacific. **Marine Corps Logistics Base Barstow** supports Marine forces across California as well as deployed forces worldwide. **Defense Distribution Depot San Joaquin** is the largest Defense Logistics Agency center west of the Mississippi River and supplies the entire Pacific region. **Naval Weapons Station Seal Beach** and its detachment at **Fallbrook** provide ordnance to Navy and Marine forces as they deploy into the Pacific. **March Air Reserve Base**, the largest Air Reserve base in the military inventory, is indispensable for Marine troop movement. Approximately 40 miles from **Camp Pendleton**, **March** has deployed, returned, and redeployed Marines

from Pendleton and **Twentynine Palms** to Iraq and Afghanistan. Without **March**, the Marines could not deploy effectively**.** In fact, with thousands of Air Force Reserve and Air National Guard personnel living close by, the Air Force's airlift capability at **March Air Reserve Base** represents the best in joint Total Force operations.

The U.S. Coast Guard and U.S. Customs and Border Protection agencies are our first line of defense for homeland security and have a significant presence in California. West Coast based Coast Guard units are responsible for half the world: from Asia to California and Antarctica to Alaska's Arctic.

A U.S. Coast Guard vessel conducts counter-terrorism training in the San Pablo Bay.

5. California provides the bases and support facilities the military needs to fulfill its mission. More educated youth from California serve in the military than any other state in the nation.

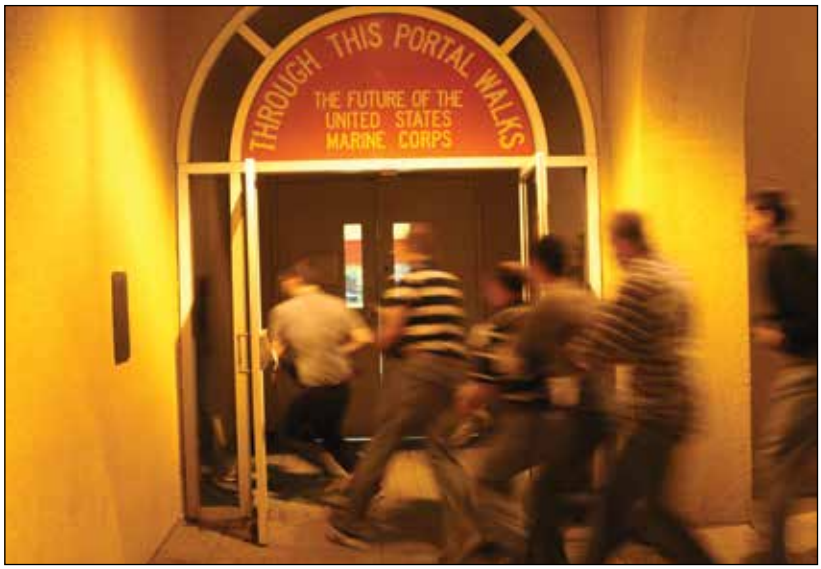
During the wars in Iraq and Afghanistan thousands of new recruits from California joined the military each month, more than one in ten recruits nationwide. At the height of the wars one in seven casualties were from California.

Military recruits in California do not simply come from advertising and recruiters; they are the direct result of the presence of critical military operations across the state, from deploying Marines and Navy units to desert and mountain warfare training. The military's best recruitment opportunities come from locations in which it actively and

visibly operates.

In addition, California is home to a huge population of drilling Reservists and members of the National Guard, who today make up significant numbers, not only of our deployed forces, but also the vital support forces that sustain them. These Reservists and guardsmen serve on nearly every base listed in this report. They make California their home, but deploy worldwide. Since 9/11 California Guardsmen have deployed more than 40,000 times, among the most of any state in the nation. The ability of Reserve component units to train, recruit, and retain their personnel on nearby active installations reduces travel, increases training time, and helps keep equipment where it is needed.

Marine Corps Recruit Depot San Diego (MCRD) trains more than 21,000 recruits each year. It is recognized by the Corps as its single most effective recruiting tool. Such a capacity would be lost if the Department of Defense consolidated recruit training at a single facility. **MCRD** has a long and hallowed history in the U. S. military. More than a quarter-million Marines who fought in World War II trained here. Its role in an Asia-facing future is no less essential.



New recruits begin their service with the U.S. Marine Corps.

The U-2 spy plane and the Global Hawk unmanned spy plane are stationed at **Beale Air**

Force Base, located north of Sacramento. Over-the-horizon radar (PAVEPAWS) used for early warning is located at **Beale.** There would be almost no benefit to relocate these functions elsewhere. The base is encroachment-free, has a modest cost of living and has the strong support of the community. Given its size and communications bandwidth, **Beale** would make an excellent receiving base for additional missions, including those involving cybersecurity.

The Sierra Army Depot in Lassen County possesses vast tracts of desert land, ideal for storage of military equipment for long periods without decay. The base provides a full spectrum of logistic support for units worldwide. Over the last decade, it has been instrumental as one of a handful of locations for producing and applying Armor Survivability Kits (ASK) to the High Mobility Multi-purpose Wheeled Vehicle (HMMWV).

On the Pacific coast near Monterey, the Navy's **Fleet Numerical Meteorology and Oceanographic Center** provides essential weather information to deployed forces worldwide. The center operates one of DoD's fastest super-computers in support of forecasting, drawing as so many other California missions do on the availability of new scientific talent and research from institutions across the state.

Section III
National Defense Policy & California

Despite the importance of current operations in California, continued vigilance by state leaders to protect this military footprint is critical amidst major shifts in national security. The Department of Defense is drawing down troops and reorganizing installations and assets after the wars in Iraq and Afghanistan. This strategic realignment translates to fewer troops and retirement of long-used aircraft, ships and other equipment. Fiscal pressures lingering from the recent recession constrain our national defense budget and require military leaders to make long-term cuts to personnel, technologies and installations. Partisan disagreements in Congress have added uncertainty to this challenging budget scenario, placing an "on-again, off-again" budget sequester straightjacket on defense budget planning.

At the same time, shifts in national security priorities and evolving global threats demand that California maintains and grows its national security presence. Perhaps most importantly, the President's announced Rebalance to the Pacific promises growing military presence in the Pacific Ocean to protect increasingly strategic trade routes and relationships with Asia. California's installations provide an important foundation for this increased force projection. National security will also benefit from California's robust aerospace and technology industries as the next generation of military technologies are developed, including unmanned aircraft systems (UAS) and cybersecurity protections.

Federal Budget Constraints

The federal government's long-term plan to reduce the Department of Defense budget

was a major impetus for forming the Military Council in 2013. In 2011, the Department of Defense initiated a ten-year plan to reduce the defense budget by $487 billion. These cuts represent an annualized 9% reduction to the Department of Defense's overall budget. The conclusion of wars in Iraq and Afghanistan also led Pentagon leaders to propose reductions in military troops beyond this ten-year budget realignment.

The much-publicized "budget sequestration" that began in 2011 has brought additional cuts to national defense beyond those planned by the Department of Defense. Sequestration, part of the 2011 Budget Control Act, requires automatic, across-the-board budget cuts to military and other non-entitlement spending if Congress cannot pass a balanced budget. This blunt tool translates to inflexible, across-the-board cuts of approximately $45 billion per year. In 2012, each member of the Joint Chiefs of Staff testified that the military will not be able to execute its national defense strategy if the military is funded at sequestration levels. Fortunately, Congress provided a partial reprieve from these cuts in FY2014 and FY2015. However, future reprieves to sequester are not guaranteed.

These budget cuts have had real impacts on California and other states. Budget cuts have required bases across the country to reduce or retire certain aircraft platforms, which has translated to personnel cuts. Reducing troop size across the military further decreases the number of personnel at California bases. Reductions in operational budgets have also severely impacted DoD and Coast Guard counterdrug missions. Cuts to operations and maintenance funding across the military services also means less training opportunities in California. Lastly, reduced spending on military technology hurts defense contractors throughout the state.

Base Realignment and Closure

The Department of Defense has advocated for the past three years for another round of Base Realignment and Closure (BRAC). BRAC is a public process developed by Congress in the 1980's to close or realign bases. The BRAC process, which is prescribed by federal law, requires a deliberative and publicly transparent process that allows states and local communities to make their cases for retaining installations. The Department of Defense is usually not allowed to completely close a military base unless it has undertaken a BRAC round, but significant legal exceptions do exist. Congress must initiate a BRAC round. Five BRAC process have occurred since formation of this law, in 1988, 1991, 1993, 1995 and 2005.

The first four BRACs disproportionately affected California. More than half of the entire nation's personnel cuts (54%) from those BRAC rounds were made in California, representing over 90,000 military personnel jobs lost in our state. Over 26 California installations were closed, and the military's presence in the San Francisco Bay Area virtually disappeared. The fifth BRAC round in 2005 was less impactful to California, although cuts did occur which resulted in a net loss of 785 military personnel, 1,200 civilian personnel, and closure of the Onizuka Air Force Station (Santa Clara County) and Riverbank Army Ammunition Plant (Stanislaus County).

The President, the Department of Defense, and each of the services have made their desire for a BRAC round clear since 2011. The Department of Defense has estimated that it maintains 20 percent excess infrastructure that it wants to cut through a new BRAC. Congress to date remains firmly opposed to initiating a new BRAC.

Changes and cuts to military bases will occur with or without a BRAC round. In the absence of a BRAC, the DoD is cutting personnel, canceling technology platforms, and

realigning missions to meet its budget requirements. This process may have the impact of "hollowing out" current military bases by greatly reducing the personnel and missions of these bases, while not entirely closing the base.

Rebalance to the Pacific

Beginning in 2010, the Department of Defense announced a strategic "Rebalance to the Pacific." Announced early in the first Obama Administration, this strategy involves an increased emphasis on Asia and the Pacific region in U.S. diplomatic, economic and military posture, and responds to the growing importance economic and commercial ties to Asian countries and the ascendance of China. This shift is expected to shift defense and national security resources West to help ensure unabated maritime trade in the rapidly growing region and assure our regional allies of our military support.

Historically, about sixty percent of military forces have been stationed on the East Coast to support operations in the European and Middle East operating theater. This policy change promises to reverse that balance, shifting approximately sixty percent of military resources to the Pacific theater. This rebalance will primarily target Navy and Air Force resources, and could mean an increase of mission and personnel to Navy and Air Force bases in California. Actions by the Department of the Navy already suggest upcoming expansion of operations at Naval Base San Diego, for example.

Global Hawk Unmanned Aerial Vehicle

Unmanned Systems

The military has pioneered the use of unmanned aerial systems (UAS), which allow aircraft to operate without a pilot. From all indications, the use of UAS will be a key component of military strategy moving forward. Fortunately, California companies have led the development of unmanned systems and California's extensive test ranges and controlled airspace provide an ideal testing ground for new military technologies.

As the commercial market for UAS expands, other states' efforts to attract this industry could undermine California's leadership in developing UAS technology. In order to maintain this leadership role, California should participate in the effort to safely integrate these technologies into civilian airspace. To this end, a multi-state consortium of universities co-led by the University of California, Berkeley has applied to the FAA to establish a Center of Excellence for UAS. This effort was developed with the Military Council's guidance, and has the formal support of the Governor, the Office of Business and Economic Development, and the Military Council.

Cybersecurity

The 2014 Quadrennial Defense Review identified cybersecurity as a critical element of both the military's operations worldwide and direct defense of our country. The increasing frequency and sophistication of internet-based attacks on companies and institutions such as Target, JPMorgan Chase, and Sony have necessitated a major expansion in the

federal government's efforts to defend against internet-based attacks. The DoD is an important institution in these efforts, and cyberspace is a growth mission area in a time of shrinking budgets. California could benefit significantly from this emerging security priority if it is able to leverage the intellectual capital of Silicon Valley. While some DoD commands in California have made limited use of Silicon Valley companies' expertise, California does not yet have a major DoD cybersecurity footprint. However, recent announcements by DoD of a CYBERCOM point of presence in Silicon Valley are beginning to change that. In addition, the Army National Guard recently announced California as the first state to receive a new cyber unit, capable of both federal and state operations.

Missile Defense

Advances in missile technology and the proliferation of these capabilities to new international actors around the world represent a growing challenge to the U.S. military's defense of the country. Accordingly, the DoD is increasing its emphasis on countering ballistic missile challenges, detecting threats and defending the U.S. homeland at longer ranges and at all altitudes. This growth may result in future expansion of this mission area, which is in part developed and tested in California. Compared to other areas of technology development within the military, experts suggest that the impact of this technology to force structure in California is likely to be minor.

The Missile Defense Agency's Flight Test 06b Ground-Based Interceptor launches from Vandenberg Air Force Base.

Section IV
Inventory of California's Military Installations

Dozens of defense and military installations operate in California, incorporating all military Services and the full range of national security operations under the Department of Homeland Security. The following inventory provides a high-level review of these installations.

ARMY

The U.S. Army's presence in California consists of approximately 11,000 active duty soldiers and 9,000 civil service personnel. Army National Guard also serve in California, which is detailed in a later section on the California National Guard. The largest concentrations of Army personnel are located at Fort Irwin (Barstow), Monterey Presidio (Monterey), and the Sierra Army Depot (Susanville). Smaller concentrations of personnel are located in small detachments or at installations managed by other services. Despite the Army's relatively small overall footprint in California, the three Army installations here offer strategic capabilities to the Army that are unique and irreplaceable.

FORT IRWIN NATIONAL TRAINING CENTER

Fort Irwin National Training Center (NTC), located in California's Mojave Desert, supports training for Army brigade-sized joint air-ground-sea, force-on-force military training in preparation for combat deployments. It is the only U.S. training facility of its type in the world suitable for force-on-force and live-fire training of heavy brigade-sized military forces. Along with the Marine Corps Air Ground Combat Center at Twentynine Palms, Fort Irwin provides joint training operations and trains much of the Army and Marine Corps'

combat arms units in the United States. Weather and climate conditions are ideal for year-round training, and mimic operational theaters overseas. Its dry lakebed is capable of supporting large aircraft.

A Paladin 155mm howitzer fires during training at Ft. Irwin.

The training ranges at Fort Irwin include 11 towns constructed to simulate a variety of urban and semi-urban warfare settings. The largest among these towns is the National Urban Warfare Center, which contains over 600 fully instrumented buildings complete with hidden tunnels, detailed tracking instrumentation, and the ability to replicate the sights, sounds, and smells of realistic urban warfare. A $200 million project to replace the 40 year-old hospital will provide a new 216,000 square foot LEED Platinum health care facility on the base. Over 5,200 soldiers and other service members are permanently assigned to the base, yet the average daily population swells to approximately 23,000 active-duty soldiers, civilian employees, and family members.

MONTEREY PRESIDIO

The Monterey Presidio is one of California's most historic military installations, dating back to 1770. Currently, the Presidio is home to the Defense Language Institute (DLI) and the Defense Manpower Data Center. DLI provides training in 24 languages to approximately 4,000 students each year from all military services. Its immersive curriculum emphasizes the importance of cultural education and understanding. DLI is regarded as one of the finest schools in the world for foreign language instruction. DLI is highly dependent on the strength of California's ethnic diversity to maintain qualified faculty. Its more than 2,000

members are primarily foreign-born and have been attracted to California's unique culture and amenities, which allow the school to rapidly support emerging requirements.

The Defense Manpower Data Center is DoD's administrative human resource hub, supporting service members and their families across the world. It is the central access point for authenticating and authorizing DoD personnel information, enabling benefits and entitlements to be provided to service members.

The Presidio has developed strong ties with local government and the surrounding community. The installation has partnered with the City of Monterey to form the Presidio Municipal Services Agency, with which the base contracts for maintenance emergency response. The Presidio's partnership with local government is the basis for the "Monterey Model" for shared services agreements. A 2012 internal audit conducted by the Presidio found that the Monterey Model saves 22 percent in base support costs. This successful model is specifically authorized by Congress and serves as a national best practice of effective community partnerships. The Defense Language Institute, the Defense Manpower Data Center and the garrison command at the Presidio account for a combined 10,360 direct jobs, and have a combined economic footprint of approximately $625 million.

SIERRA ARMY DEPOT

Sierra Army Depot (SIAD), located in Lassen County, is a logistics facility that stores and maintains equipment for the U.S. Army. SIAD is the only storage depot that the Army maintains. Its dry, high desert climate and extremely low humidity is ideal for low-cost, long-term outdoor storage. The installation includes a large dry lake bed and 10,000 foot aircraft runway. Currently only 6,000 of 30,000 available acres are utilized.

The facility receives, prepares and stores equipment and over 23,000 vehicles using its dry

lake bed, and 41 warehouses and bunkers. In addition to its storage mission, the facility also refurbishes equipment, assembles and delivers vehicle upgrade kits, provides and tracks replacement parts from stored vehicles, and supports foreign military sales of excess vehicles. The Depot's location offers excellent rail, air and shipping access. The Depot is home to 1,189 Army civil service employees, and employs 349 private contractors. The Depot generates an estimated $277 million in economic impact.

FORT HUNTER LIGGETT

Fort Hunter Liggett, located in Monterey County, provides training and readiness support to National Guard and Reserve forces from all services throughout the United States. It also supports DoD combat test and experimentation with new technologies and weapons systems. The 164,110 acre facility is linked by a 35-mile tank trail with the Camp Roberts National Guard base and employs more than 160 personnel.

Army Rangers prepare to provide suppressive fire for an assault element while conducting training at Ft. Hunter Liggett.

MARINE CORPS

The United States Marine Corps relies on California's installations to provide an optimal training environment for aerial gunnery, large scale maneuvers, mission rehearsals, and amphibious operations. Of the 190,000 active duty Marine Corps personnel in 2014, approximately 70,000 are stationed in California.

MARINE CORPS BASE CAMP PENDLETON

A Landing Craft, Air Cushion (LCAC) lands at Camp Pendleton beach.

Marine Corps Base Camp Pendleton, located in northwestern San Diego County, is the Marine's preeminent and only West Coast amphibious assault training base. The base contains 200 square miles of land, a 17-mile shoreline and 2,600 buildings. This large size allows for 95 live fire ranges, 38 training areas, five training beaches, three sea space areas, nine urban training facilities, and four separate blocks of airspace. About 45,000 active military and civilian personnel work on the base daily, and 26,000 military reservists from all services train here each year. Construction on a new Naval Hospital that will serve more than 155,000 veterans, service members and their families was recently completed.

Marine Corps Air Station Camp Pendleton, also called Munn Field, is a full service air station on the base capable of handling both fixed wing and rotary wing aircraft. It covers 488 acres and has one 6,000 foot runway that supports approximately 180 helicopters and 4,500 personnel. Marine Aircraft Group 39 is composed of UH-1N Huey light attack helicopters, AH-1W Super Cobra helicopters, and CH-46E Sea Knight medium lift helicopters.

MARINE CORPS BASE TWENTYNINE PALMS

Marine Air Ground Task Force Training Command/Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms is located northeast of Palm Springs in the Mojave Desert. It covers more than 1,000 square miles and contains 23 training areas and 45 ranges, including six Military Operations on Urban Terrain ranges designed to replicate urban areas in potential deployment locations throughout the world. The combined

mission of MAGTFTC/MCAGCC is to train Marines and other military personnel in live-fire combined arms training, urban operations, and Joint/Coalition level integration training that promotes operational forces readiness. The installation also includes the Combat Center Expeditionary Airfield for airfield environment training.

Over 15,000 Marines, Sailors and civilians are assigned to the base. Training takes place 360 days a year during which 470,000 personnel take part in more than 18,000 live and non-live events, supporting, 5,200 aircraft, and 15.9 million pieces of ordnance. In fiscal year 2015, Congress approved a significant 50% expansion of the base to accommodate three Marine battalions training simultaneously with combined-arms live fire and the accompanying special-use airspace. Twentynine Palms is the only location with sufficient land and airspace potential to meet these training requirements.

Marines fire an MK153 shoulder-launched multipurpose assault weapon (SMAW) at the Marine Corps Air Ground Combat Center Twentynine Palms.

MARINE CORPS AIR STATION MIRAMAR

Marine Corps Air Station (MCAS) Miramar is the Marine Corps' premier air station on the West Coast, accommodating both fixed and rotary wing aircraft operations. It contains 23,000 acres northeast of San Diego and has two operating runways consisting of 8,000 and 12,000 feet. Miramar accommodates 200 fighter and attack jets, helicopters, and cargo aircraft. About 10,000 military personnel and 600 civilians work at MCAS Miramar.

The Air Station's primary tenant is the Third Marine Aircraft Wing (MAW), the air combat

element of the First Marine Expeditionary Force, which is headquartered at Marine Corps Base Camp Pendleton. It is critical that Marine Air Support co-locate and train with their ground counterparts and, as such, the base is a hub of Marine air training. The F/A-18 Hornets at the base can reach 29 different training ranges and facilities and return without refueling. Marine aviation squadrons can also embark on aircraft carriers and amphibious ships, and can rapidly deploy overseas due to the accessibility of its airfield to March Air Reserve Base and the troops at nearby Camp Pendleton.

MARINE CORPS MOUNTAIN WARFARE TRAINING CENTER BRIDGEPORT

The Marine Corps Mountain Warfare Training Center is located northwest of Bridgeport, CA. It contains 346 acres of land within the Humboldt-Toiyabe National Forest and uses an additional 44,932 acres to conduct mountain warfare training. Altogether Humboldt-Toiyabe National Forest is 6.4 million acres in size. The base conducts unit and individual training courses to prepare Marine, Joint, and Allied Forces for operations in mountainous, high altitude and cold weather environments. It is one of the Marine Corps' most remote and isolated posts. Over 360 military and civilian personnel are located at the Mountain Warfare Training Center. A 2011 economic impact analysis estimates the base supports 762 full-time and part-time jobs.

Marines conduct cold weather training at the Marine Corps Mountain Warfare Training Center in Bridgeport.

MARINE CORPS LOGISTICS BASE BARSTOW

Marine Corps Logistics Base (MCLB) Barstow is a supply and maintenance installation located east of Barstow, California. High desert and low-humidity conditions make MCLBB an ideal long-term storage site with minimal adverse weather conditions. Its location is key to supporting the surrounding Marine bases and the nearby National Training Center at Fort Irwin. In addition, the base has key railheads connecting it with the Port of Los Angeles and with bases across the country.

The base directly employs 2,045 people and pays $43 million in salaries, and spends a further $240 million in procurement and contracts.

MCLB Barstow's mission is to rebuild and repair ground-combat and combat-support equipment and to support installations on the West Coast of the United States. The base is comprised of three principal sites: Nebo Annex, Yermo Annex and rifle and pistol ranges, which together function as a strategic platform for supply, storage, distribution, deployment, life-cycle management, and all levels of maintenance. Fully one half of the entire Marine Corps depot maintenance capability, repairing and recapitalizing damaged ground combat equipment is done at MCLB Barstow. For 50 years the Depot has adapted its operations to sustain the Marine Corps' operational readiness, and now employs artisans with over 70 different skill sets to maintain or rebuild 496 different lines of military equipment. The only other facility of this kind is located at MCLB Barstow's sister installation, Marine Corps Logistics Base Albany in Georgia.

MARINE CORPS RECRUIT DEPOT SAN DIEGO

Marine Corps Recruit Depot (MCRD) San Diego covers 388 useable acres and is the headquarters for the Marine Corps' Western Recruiting Region and the home of the Recruit Training Regiment.

Approximately 1,400 military personnel and 700 civilians work on the depot on a permanent basis, and at any given time there are approximately 4,500 recruits and active duty Marines undergoing training at the depot.

More than half of all Marines receive their three-month basic training at MCRD San Diego. The installation provides basic training for men who apply to the Marine Corps from the western two-thirds of the continental United States and from Alaska, Hawaii, Guam, Japan, and Korea. The excellent year-round weather and the synergies gained from nearby Camp Pendleton make it the premier facility within the Marine Corps. About 16,000 recruits graduate from MCRD San Diego each year.

Since 2007, MCRD San Diego has been updating and expanding its facilities to support 5,000 additional Marine recruits per year. The installation has added an additional standard barracks and a special training facility dedicated to the prevention, assessment and rehabilitation of injuries arising from recruit training.

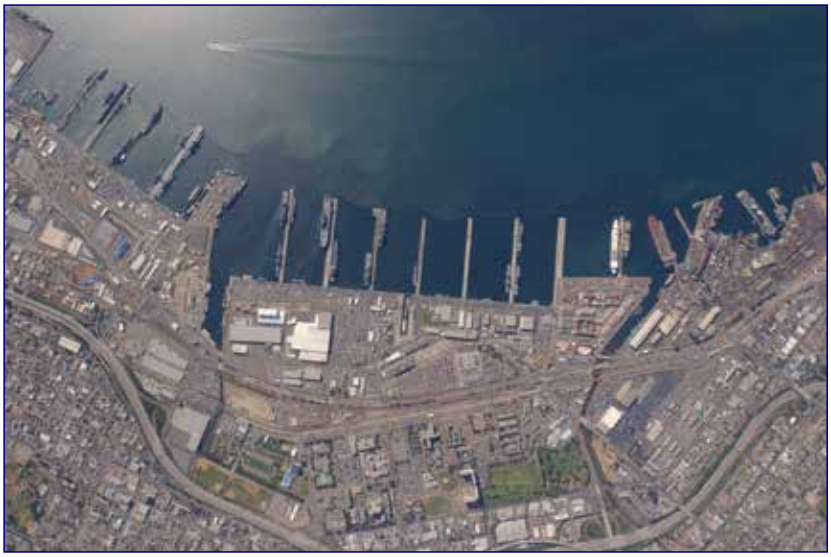
NAVY

The Navy maintains the largest footprint in California of any military service. Of the 325,000 military personnel on active duty in the Navy, approximately 60,000 are stationed in California. Additionally, over 45,000 of the Navy's civilian personnel are based in California. The largest concentration of Navy personnel is in the San Diego area, which is the home port to approximately 20 percent of the Navy's entire fleet.

NAVAL BASE SAN DIEGO

Naval Base San Diego is the principal homeport for the United States Pacific Fleet. Currently, 58 Navy ships are homeported across 12 piers at Naval Base San Diego, which

represents the largest concentration of Navy surface vessels on the West Coast. The base is also home to six ships of the Navy's Military Sealift Command and two Coast Guard cutters. As the Navy Rebalances to the Pacific, Naval Base San Diego can host increased ships docked at its piers. About 24,000 military personnel and 5,400 civilians work on Naval Base San Diego.



Naval Base San Diego

Naval Base San Diego provides logistical and quality-of-life support to the ships on the base, as well as to its shore activities and military families. Operationally, the base provides pier space, waterfront operational services such as power and water, supply services and security. A major tenant command on base is Regional Maintenance Center Southwest, which performs maintenance on ships and equipment between overhauls. This key activity bridges the gap between the simple shipboard repairs performed by the crew and "depot-level" repairs that are performed by Naval Shipyards and commercial shipyards during scheduled availabilities. It is the Navy's largest intermediate maintenance activity, employing 2,200 military and civilian personnel at 70 industrial work centers in 22 buildings covering 22 acres. Navy Medicine West is also located on Naval Base San Diego and is responsible for management and oversight of all Navy medical facilities in the western part of the United States and the Pacific. Navy Medicine West provides care to 768,000 beneficiaries.

NAVAL BASE CORONADO

Naval Base Coronado (NBC) is one of the world's central hubs for U.S. naval activity, hosting many components, including, Naval Air Station North Island, Naval Amphibious Base Coronado, Fleet Readiness Center Southwest at North Island, and the Silver Strand Training Complex the premier training facility for the military's Special Forces. NBC also has authority over Naval Outlying Landing Field Imperial Beach in Imperial Beach; Naval Auxiliary Landing Field San Clemente Island; Camp Michael Monsoor Mountain Warfare Training Center, La Posta; Camp Morena, La Posta; and the Remote Training Site, Warner Springsia. About 18,000 military personnel and 4,700 civilians work on the base.

NBC accommodates the requirements of 16 helicopter squadrons, 2 fixed wing squadrons, two aircraft carriers, four SEAL Teams, Navy Expeditionary Combat Command squadrons, and other air, surface and subsurface commands.

Naval Amphibious Base (NAB) Coronado occupies 974 acres of ideal environment for the Navy to train Sailors and Marines in amphibious and special warfare. Approximate 20,000 personnel train here each year including elite Navy Special Warfare (SEAL) teams. The base is host to about 30 tenants, and about 5,000 military personnel and 500 civilians work in 210 buildings on the base.

About 1,500 amphibious and special warfare training evolutions occur annually at NAB Coronado's beaches, and consist of a wide variety of activities including practice landings by amphibious and special forces, strategic sealift training, shallow water mine warfare, explosive ordnance disposal. The beaches at NAB Coronado are the Navy's most actively used beach training areas.

The Navy Expeditionary Combat Command, based at Joint Expeditionary Base, Little

SEAL students train at the Naval Base Coronado.

Creek-Fort Story, Virginia Beach, Virginia, also maintains a presence in several buildings on the base through its Coastal Riverine Force. This is a new command established by the Navy Expeditionary Combat Command in 2012, and is composed of three boat squadrons tasked with maritime security.

Naval Air Station (NAS) North Island covers about 2,802 acres and is the Navy's largest aviation-industrial complex , hosting a wide variety of tenant commands. It is surrounded on three sides by deep water, and has dual berths that can accommodate nuclear-powered aircraft carriers. NAS North Island is the only Pacific port that can handle three carriers, with two currently homeported there. NAS North Island is the launching point for force projection across the Pacific.

NAS North Island, which is known as the birthplace of naval aviation, is also headquarters of the Pacific Fleet's Naval Air Force and represents the Navy's largest aviation-industrial

complex. The base serves as homeport for 17 aircraft squadrons with over 200 aircraft, and hosts a wide variety of tenant commands, including Fleet Readiness Center Southwest, which occupies 360 acres, employs about 3,500 civilians, and performs major maintenance, overhaul and repair work on aircraft and equipment. The installation has two (8,000 and 7,500 foot) runways. Approximately 13,400 military and 5,100 civilians work on the base and the Fleet Readiness Center employs approximately 3,500 civilians. The base also hosts 130 personnel of the Undersea Rescue Command, who provide around-the-clock worldwide submarine rescue capability.

Naval Outlying Landing Field Imperial Beach (NOLF) is located in Imperial Beach, close to the U.S.-Mexico border. The airfield provides training for the Pacific Fleet helicopter squadrons based at North Island. It provides a venue within which the Navy helicopter squadrons can train intensely without interfering with the fixed wing and other helicopter air operations that are part of NAS North Island's daily activities. In recent years, for example, there have been more than 200,000 takeoffs and landings at Imperial Beach each year. About 900 personnel work on the base, and about 850 of them are civilians.

NAVAL BASE POINT LOMA

Naval Base Point Loma is home to Submarine Squadron Eleven and the Headquarters of the Third Fleet, one of five numbered submarine fleets in the Navy. The base provides berthing facilities and living quarters for submarine personnel, logistics, school and support activities. Submarine Squadron Eleven has one squadron of

The U.S.S. Pasadena, a Los Angeles class submarine, prepares to deploy from Naval Base Point Loma.

six Attack Submarines, 100 officers and 1,300 enlisted personnel on base.

Other activities at Point Loma include Pacific Fleet submarine, and Space and Naval Warfare Systems Command, Fleet Antisubmarine Warfare Training Center, the Mine Warfare Training Center Submarine Maintenance Division of Regional Maintenance Center Southwest, a Nuclear Repair Detachment from Puget Sound Naval Shipyard, the center of excellence for Undersea Warfare, the Defense Fuel Support Point (DFSP), and the Magnetic Silencing Facility. The DFSP is the only defense fuel facility in Southern California, providing ships and airfields with about $500 million of fuel annually. The Magnetic Silencing Facility Point Loma, is the only active ship demagnetizing range in the Pacific region, performing about 1,200 to 1,400 evaluations each year. About 4,000 military personnel and 9,000 civilians work at the various activities on the base.

NAVAL AIR STATION LEMOORE

An F/A-18E Super Hornet strike fighter flies over Naval Air Station Lemoore.

Naval Air Station Lemoore is the Navy's newest and largest Master Jet Base, encompassing 30,000 acres. Its mission is to support the Navy's Pacific Fleet fighter-attack capability. Equipped with facilities to handle the most modern aircraft and associated weapons systems, NAS Lemoore fulfills a critical role in the nation's defense. NAS Lemoore hosts fifteen aircraft squadrons and all four of the West Coast Carrier Air Wings, which embark on aircraft carriers to carry out a variety of missions, and use the Southwest's training ranges extensively. The F/A-18 Hornet is the primary aircraft supported at NASL; there are a total of 221 Hornets and Super Hornets. NAS Lemoore safely conducts over 210,000 aircraft operations annually, making it one of the busiest airfields in the Navy. Recently Lemoore was announced as a primary base for the forthcoming F-35C Joint Strike Fighter.

The Air Station has on base 6,100 military personnel, 4,100 dependents, and 1,500 Department of Defense civilians and contractors. It also provides services to over 8,100 retired military veterans and their families. The installation employs or locally generates over 13,500 jobs and contributes approximately $982 million annually to the local and regional economy.

NAVAL AIR FACILITY EL CENTRO

Naval Air Facility El Centro, located in the southwest corner of the state in Imperial County, contains over 2,600 acres of land and oversees an additional 54,000 acres of training ranges. Its year-round flying weather allows the facility to host seven to twelve squadrons (up to 1,600 personnel) each month. The installation's primary role is in fleet squadron support, providing courses for aerial combat maneuvering, air-to-air gunnery and bombing practice, Field Carrier Landing Practice, electronic warfare training, and low-level flight training for allied forces.

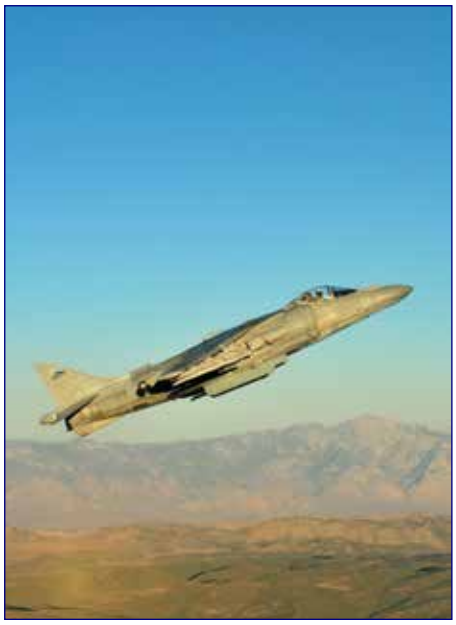
NAVAL BASE VENTURA COUNTY

Naval Base Ventura County (NBVC) is a large, diverse installation with three distinct sites at Port Hueneme, Point Mugu, and the Sea Test Range surrounding San Nicolas Island. The base also has the only military-controlled deep water harbor and port facility between San Diego and Seattle, with rail head and highway access, mobilization acreage, over 360 days of flying weather each year, and encroached land around the base. NBVC supports approximately 80 tenant commands and a daily population of more than 19,000 personnel. The base is the single largest employer in Ventura County.

The Naval Air Warfare Center Weapons Division operates a 36,000 square mile Sea Test Range, the largest instrumented sea test range in the world. The range is linked with

the inland ranges, such as China Lake to form an irreplaceable training and testing complex. NAS Point Mugu also includes growing missions in unmanned systems. The base is scheduled for approximately $61 million in new construction projects and is the only DoD airfield authorized to fly the MQ-8C Fire Scout unmanned helicopter with manned aircraft. Port Hueneme is home to Naval Construction Battalion Center Port Hueneme, the West Coast homeport of the Navy's Seabees and supports the training and mobilization of more than 2,600 personnel. It is also home to the Naval Surface Warfare Center Port Hueneme (NSWC PH), which provides engineering and logistics support for surface ship weapons and combat systems, and employs over 2,700 personnel. In addition to its military functions, the port also supports the region as a vital civilian seaport with 16 miles of dedicated freight railway used by various military, industrial, and agricultural services.

NAVAL AIR WEAPONS STATION CHINA LAKE



An AV-8B Harrier conducts a test flight of a mix of 50-50 jet fuel and biofuel at Naval Air Weapons Station China Lake.

Naval Air Weapons Station (NAWS) China Lake provides for the Navy's research, development, acquisition, testing and evaluation (RDT&E) of cutting-edge weapons systems. NAWS China Lake has developed or tested nearly every significant airborne weapon system for the Navy and Marines. The installation is the Navy's largest single landholding at 1.1 million acres, representing 85 percent of the Navy's land for RDT&E use, larger than the state of Rhode Island. Its land ranges are connected by restricted airspace to the sea test range at Naval Base Ventura County, allowing end-to-end weapons testing from ship to shore. The base is the Indian Wells Valley's largest employer, with 10,000 people passing through the gates on a normal workday. The 620 active duty military, 4,166 civilian employees and 1,734

contractors that make up China Lake's workforce are employed across multiple tenant commands.

NAVAL WEAPONS STATION SEAL BEACH

Naval Weapons Station (NWS) Seal Beach is the Navy's primary West Coast ordnance storage and loading facility, located just east of the Port of Long Beach, and is where Cruisers, destroyers, frigates, and medium-sized amphibious ships take on missiles, torpedoes, and conventional ammunition. The base has two detachments: Norco and Fallbrook. Detachment Norco houses the Naval Surface Warfare Center, which supports independent weapons assessment and vital, unique instrument calibration. Detachment Fallbrook is the primary source of ordnance for Pacific Fleet amphibious ships and the Marine Corps' First Marine Expeditionary Force. NWS Seal Beach employs 860 personnel, and covers about 5,000 acres and has 56 miles of railroad track for 130 rail cars and locomotives. The installation loads and unloads about 100 Navy ships each year.

SPACE AND NAVAL WARFARE SYSTEMS COMMAND

San Diego is home to the Navy's major center for Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) research and acquisition. The Space and Naval Warfare Systems Command (SPAWAR) is responsible for developing, acquiring, delivering, installing and maintaining C4ISR systems. Space and Naval Warfare Systems Center Pacific (SSC Pacific), located on Naval Base Point Loma, is the Navy's principal RDT&E laboratory for C4ISR technologies and systems. Together with the Program Executive Office for Command, Control, Communications, Computers and Intelligence (PEO C4I), SPAWAR and SSC Pacific constitute the core of the Navy's C4ISR enterprise to ensure "information dominance." SSC Pacific's staff is among the Nation's best inventors in a wide range of scientific disciplines and relies on its truly unique facilities and close proximity to the Navy and Marines. As a result, SSC Pacific has achieved cost

savings and efficiencies in comparison with other "mission-funded" DoD laboratories. SPAWAR and SSC employ 4,200 civilians and 300 service members, and benefits greatly from large number of regional private sector companies and the unique academic work at the San Diego universities.

NAVAL SUPPORT ACTIVITY MONTEREY

Naval Support Activity (NSA) Monterey hosts a diverse set of Navy and DoD education, training and research activities. The base is home to over 15 tenant commands including the Naval Research Lab Monterey (NRL) which conducts scientific research and weather modeling, Fleet Numerical Meteorological and Oceanographic Center (FNMOC) which provides worldwide meteorology data and support to U.S. and coalition forces, and the Naval Postgraduate School (NPS).

Researchers with the Naval Postgraduate School and NASA employ a REMUS 100 UUV to create a detailed map of the shallow environment around the Aquarius underwater research facility in Florida.

NPS is the largest producer of advanced degrees for DoD, and graduates about 1,500 students annually from all services and from 50+ countries. More than 4,000 military, civilian and international personnel work at NSA, which includes over 160 buildings enclosing nearly 19 million square feet on almost 1,000 acres.

The Naval Research Laboratory's Marine Meteorology Division is colocated with the Fleet Numerical Meteorology and Oceanography Center (FNMOC) to support development and upgrades of numerical atmospheric forecast systems and related user products. The division's mission has broadened considerably to include basic research and support to other customers, and its colocation with FNMOC gives it access to one of the Navy's largest vector supercomputer mainframes. This access provides real time and archived

global atmospheric and oceanographic databases for research at all NRL locations. Interfaces to the Defense Research and Engineering Network at FNMOC and Defense Simulation Internet at NPS have been established.

GENERAL DYNAMICS NASSCO AND COMMERCIAL SHIPYARDS

Property between the northern point of Naval Base Coronado and the Coronado Bay Bridge is occupied by three private shipbuilding and ship repair companies: National Steel and Shipbuilding Company (NASSCO, a division of General Dynamics), BAE Systems San Diego Ship Repair, Inc. and Continental Maritime of San Diego, Inc. NASSCO is the only full service shipbuilding capability on the west coast and is a vital part of the nation's industrial base, having designed and built 63 large vessels for the Navy. The shipyard is inextricably linked to operations at Naval Base San Diego. NASSCO has adopted innovative technologies and modern infrastructure, which have significantly increased the productivity and efficiency of the shipyard. As a result, NASSCO delivers high quality, cost effective, ships ahead of schedule to the Navy. NASSCO's annual economic impact to the San Diego region is estimated at $3.4 billion, and accounts for nearly 3,000 direct jobs and 460 suppliers.

AIR FORCE

California is home to six major Air Force installations, four Air National Guard wings and one group that provide critical capabilities to the joint environment, directly support the "Rebalance to the Pacific" national defense strategy and provide key strategic national defense capabilities. In total, the Air Force in California is comprised of 25,100 active duty, 13,600 Guard and Reserve, and 12,300 civilian personnel (see the section on the National Guard for more information on the Air National Guard). Total annual payroll and contracts exceed $30 billion, and conservatively create more than 114,004 indirect jobs.

TRAVIS AIR FORCE BASE

C-17 Globemaster IIIs, KC-10 Extenders, C-5B Galaxies take part in a Freedom Launch at Travis Air Force Base.

Travis AFB, located in Solano County, is home to the 60th and 349th Air Mobility Wings, which together make up the largest air mobility organization in the Air Force. The only Air Force Air Mobility Command base to support three airframes (KC-10, C-5, C-17A), the base handles more cargo and passengers than any other military air terminal in the United States, earning its nickname, "Gateway to the Pacific." In 2012 its units flew more than 43,000 hours in over 7,500 sorties, delivered more than 25 million gallons of fuel to U.S. and coalition aircraft, and transported 67,000 personnel and 80,000 tons of cargo. It is uniquely located near the operations of the Defense Logistics Agency (DLA) in San Jose and Tracy, which are the largest DLA facilities west of the Mississippi and supply the entire Pacific region. Travis is also home to the David Grant Medical Center (DGMC), the Air Force's flagship medical treatment facility serving 500,000 patients annually. The facility boasts the largest hyperbaric chamber in the DoD medical system, an important capability to treat U-2 pilots from Beale AFB.

Travis AFB employs 13,409 military, civilian and contractor personnel, generates 5,186 indirect jobs and provides a $1.66 billion economic impact to California. Since 2000, Travis AFB has received a considerable amount of infrastructure investment, totaling just under $400 million.

BEALE AIR FORCE BASE

Beale AFB, located on 23,000 acres in Yuba County, specializes in high-altitude intelligence, surveillance and reconnaissance (ISR), and trains and deploys airmen and assets globally.

A U-2 lands at Beale Air Force Base.

The 9th Reconnaissance Wing at Beale is headquarters to the nation's fleet of reconnaissance U-2, RQ-4, MC-12, and T-38 aircraft. At any given moment, a Beale AFB-based aircraft is flying an operational mission somewhere in the world, with about 21 percent of all deployed Air Combat Command aircraft are based at Beale. The 9th RW also handles all processing, exploitation and dissemination of ISR information captured through its operations, which it does at its distributed Common Ground System complex on base. These colocated missions make Beale AFB the only true ISR base in the Air Force. In addition, the 9th RW provides early detection of earth-orbiting satellites and over-the-horizon ballistic missile attack through use of its Upgraded Early Warning Radar and Phased Array Warning Systems, among others. The rural, sparsely populated area surrounding Beale makes it an ideal site for additional DoD missions.

The base hosts over 6,500 military, civilian and contact personnel and 5,600 dependents. The base's total annual economic impact is estimated at $604 million, creating 2,026 indirect jobs.

LOS ANGELES AIR FORCE BASE

Los Angeles Air Force Base (LAAFB) is home to Space and Missile Systems Center, hosted by the 61st Air Base Group. SMC is the technical center of excellence for researching,

developing, acquiring, testing, and maintaining almost all space technology for the military and national intelligence organizations and also connects the military with high-speed secure communications. LA AFB and its industry partners develop the space satellites that are launched from nearby Vandenberg AFB and other sites.

The Defense Meteorological Satellite Program at LAAFB provides strategic and tactical weather information to DoD forces and the intelligence community.

Operations at LA AFB provide research support and new talent for the aerospace and defense industries. Top-flight California universities, the Naval Postgraduate School, Lawrence Livermore and Lawrence Berkeley National Laboratories, and large defense contractors are all inextricably linked to the base. LA AFB's most crucial partner is the Aerospace Corporation, a Federally Funded Research and Development Center that has interlinked contracts with SMC, the Air Force's National Reconnaissance Office, SpaceX, United Launch Alliance, NASA, and NOAA. The Aerospace Corporation has R&D capabilities across all aspects of space, communications, and cyber technology, and in 2013 generated $868 million in revenue and employed 2,953 Californians.

The base directly employs approximately 6,300 total personnel and supports 12,500 indirect jobs. Additionally, the SMC controls an $8.5 billion total budget (or 8% of the total Air Force Budget) and provides $4.6 billion supporting 76,192 jobs in California. The local economic impact of LA AFB is estimated at $1.76 billion annually.

VANDENBERG AIR FORCE BASE

Vandenberg AFB, located is Ventura County, is home to the Air Force's 30th Space Wing, 14th Numbered Air Force, Missile Defense Agency (MDA), National Reconnaissance Office, 576th Flight Test Squadron, as well as SpaceX and United Launch Alliance. The

Team Vandenberg launches a Minotaur IV rocket carrying a space-based surveillance satellite .

30th Space Wing's mission is to ensure full DoD access to and from space and is the only Air Force wing that has a launch group. The MDA operates one of two western missile defense sites with interceptor missiles on alert to intercept enemy intercontinental ballistic missiles (ICBM), and employs the Ground-based Midcourse Defense (GMD) missile defense technology. Working with the MDA, the 576th Flight Test Squadron performs testing and training of ICBM defense systems. Vandenberg's 2.84-mile runway makes it the only Air Force space base at which aircraft returning from space can land. Its west coast location with no land to the south makes Vandenberg the only launch location for satellites destined for polar orbit. Unlike most military bases, the operations of private entities Space-X and ULA constitute a significant portion of the activity and infrastructure at Vandenberg AFB. The base's space operations are quite active; more than 1,900 total launches have been performed at Vandenberg and the base conducts more than 7,000 range operations each year

The base hosts more than 6,800 military, civilian, and contract personnel in 465 base facilities, contributing approximately $1.75 billion to California's economy and creating 3,209 jobs. The federal government spends $10 billion per year on missile defense, split between sites in Alaska, California, and other related programs

EDWARDS AIR FORCE BASE

Edwards AFB is the second largest base in the Air Force and is the preeminent location for all Air Force aircraft developmental testing and evaluation, as performed by the 412th Test

Wing. The 412th Test Center has supported the development of virtually every aircraft in the Air Force's inventory and has been on the cutting edge of every major development that has transformed the field of flight and space operations. The unit is able to conduct full spectrum electronic warfare testing using the Benefield Anechoic Facility, the world's largest anechoic chamber.

The base is also home to two major tenant facilities: NASA's Armstrong Flight Research Center and Plant 42. The Armstrong facility is NASA's primary center for atmospheric flight research, development and operations, including work affiliated with the International Space Station. Plant 42 is a highly classified aerospace research, development and manufacturing facility, and hosts a variety of DoD and NASA contractors in one location where the Air Force and DoD can provide oversight. Unclassified examples from the facility include production of the F-35 Joint Strike Fighter, Global Hawk and Triton, and NASA's 747 Stratospheric Observatory for Infrared Astronomy. Lockheed Martin's legendary "Skunk works" development facility is also located here.

An X-47B Unmanned Combat Air System Demonstrator completes its first flight at Edwards Air Force Base.

Edward AFB's remote desert location east of Palmdale and Lancaster, California provides year-round flying weather and visibility, the largest restricted airspace of any military installation, and two on-base ranges that can support electronic warfare testing. The base boasts a 47.3 square mile dry lake bed, allowing test aircraft to land and takeoff almost anywhere.

Edwards employs 10,420 service members, contractors and civilians, providing $1.44 billion in annual economic benefit and supporting 12,224 indirect jobs in the local community. The total economic benefit resulting from Plant 42 is unknown, but is significant, employing 6,700 workers.

MARCH AIR RESERVE BASE

March Air Reserve Base (ARB) is home to the 4th Air Force command post and the 452nd Air Mobility Wing, the Air Force Reserve's largest air mobility wing. Located in Riverside County, the base covers 2,400 acres and hosts 372 facilities across the Air Force, Navy, Army, Marines, and National Guard.

U.S. Air Force members load a pallet onto a U.S. Air Force C-17A Globe Master III at March Air Reserve Base. The supplies are destined for Japan to assist in earthquake relief efforts.

March ARB fulfills a key joint role to the DoD. The base's close proximity to Camp Pendleton gives it a key role in Marine transportation, and it is the primary location for all California Marine embarkation and debarkation. Like Travis AFB, March ARB's geographic location allows it to rapidly execute missions across the Pacific at a moment's notice. In addition, local laws protect against base encroachment. The 4th Air Force has more than 30,000 reservists assigned, and directs 11 Reserve Air Mobility and Refueling Wings throughout the nation. The base is also a prominent recruiting center, ranking 5th in the Air Force for enlisted recruiting squadrons. Today, the base's total population is around 6,900, including 4,000 military reservists in the 452nd. The base's total annual economic impact is estimated at $428 million, which creates 2,667 indirect jobs.

CALIFORNIA MILITARY DEPARTMENT

The California Military Department (CMD) is composed of the California Army National Guard, the California Air National Guard, the California State Military Reserve, California Youth and Community Programs, Work for Warriors veterans jobs program, and several other smaller programs. The California Army National Guard and California Air National Guard constitute the majority of the California Military Department, and are collectively referred to as the California National Guard (CNG). This multi-faceted force provides unique capabilities to serve the community, state and nation. Abroad, the CNG has deployed more than 40,000 times since 9/11, and responds to domestic incidents almost continuously. The CNG fulfills its federal mission as the combat reserve to the Army and Air Force, ready for war or state emergency. The CNG numbers more than 22,000 Soldiers and Airmen who work in a variety of full- and part-time state and federal positions across the state's more than 100 armories and installations.

National Guardsmen are an incredibly efficient investment, on average, Guard personnel are one-third the cost of the Active Duty force when not mobilized, and even once mobilized are ten percent cheaper. The CNG is almost wholly federally funded, yet under the control of the Governor when not needed for war, with over 95 percent of the Guard's funding coming from the federal government. This funding provides roughly $1 billion in annual federal funds to the state.

CAMP ROBERTS

Camp Roberts, located on California's Central Coast, provides year-round training to CNG and other joint forces up to the brigade level. The installation consists of multiple live-fire ranges, maneuver areas, and offers full-spectrum training, up to multi-purpose combined arms, live-fire ranges. Camp Roberts' newest training facility is the Combined

Arms Collective Training Facility (CACTF), a real world village with state of the art technology to monitor and hone urban combat training. Units have access to 22,000 acres of restricted air space over the installation, and another 90,000 acres of restricted air space around the installation. Between 2009 and 2013, these ranges and facilities trained over 1.2 million service members from every military branch and component, as well as DoD and non-DoD civilians.

Soldiers at Camp Roberts train with a Shadow remotely piloted aircraft .

Camp Roberts provides standing support for the Navy, Marine Corps, Special Operations Command, the British 47th Royal Artillery Regiment UAVs, numerous other state National Guards. The Naval Postgraduate School performs much of their advanced UAS testing at Camp Roberts. Camp Roberts houses 479 tenant personnel and 121 full-time staff. As the primary training base for the CNG, tens of thousands of Guardsmen utilize the base each year on a part-time basis.

CAMP SAN LUIS OBISPO

Camp San Luis Obispo (CSLO) is one of the nation's largest and most versatile state-owned training areas. CSLO provides operational training and logistical support to a wide variety of military, law enforcement, and civilian agencies. Federal, State and local organizations that regularly train at the camp include the California Army and Air National Guard, United States Army Reserve, United States Coast Guard, Reserve Officer Training

Corps, Civil Air Patrol, and the California State Military Reserve. Roughly 96,000 personnel are trained at CSLO annually. Approximately 300 guardsmen are assigned to the base, with an average daily population of more than 500 personnel.

JOINT FORCES TRAINING BASE LOS ALAMITOS

Joint Forces Training Base Los Alamitos is home to the CNG's 40th Infantry Division and the United States Army Reserves 79th Sustainment Support Command headquarters. Also located at the base are the California Office of Emergency Services' Southern Region Emergency Operations Center, a California National Guard Aviation Battalion, an Army Reserve Aviation Battalion, the 9th Civil Support Team, a Defense Intelligence Agency Joint Regional Intelligence Center, a California Army National Guard Special Forces Company, the Sunburst Youth Academy and STARBASE Academy. The facility operates the last two remaining military runways in the greater Los Angeles and Orange County region. This strategic location allows for a Southern California base of disaster response. The base employs over 300 full and part-time personnel.

C-5 Galaxy aircraft lands at Joint Forces Training Base Los Alamitos in support of Patriot Hook, an annual exercise simulating a joint military and civilian force response to a natural disaster.

CHANNEL ISLANDS AIR NATIONAL GUARD STATION- 146TH AIRLIFT WING

The Channel Islands Air National Guard Station, adjacent to Naval Base Ventura County's Point Mugu installation, is base of operation for the 146th Airlift Wing. The 146th performs tactical airlift, airdrop, aero-medical evacuation, and aerial firefighting with eight C-130J cargo aircraft. The 146th is one of only four Department of Defense units in the country equipped with the Modular Airborne Firefighting System (MAFFS), which provide fixed-

wing air tanker support to wildfire fighting in the Western United States. The base is also designated as an operational staging area in the event of a large-scale disaster. The 146th employs over 1,045 full- and part-time personnel.

MOFFETT FEDERAL AIRFIELD - 129TH RESCUE WING

Moffett Federal Airfield, located in the heart of Silicon Valley, is home to the 129th Rescue Wing. The mission of the 129th is to rescue personnel from anywhere in the world and the Wing is comprised of over 945 Airmen responsible for the operations, maintenance, logistics and support of HH-60G Pave Hawk helicopters, MC-130 aircraft and Pararescue equipment.

An HH-60G Pave Hawk helicopter from the 129th Rescue Wing conducts vertical insertion training with a U.S. Coast Guard Maritime Safety and Secutiry team.

The 129th has saved more than 1,000 individuals since 1977 from hostile and permissive environments at home and overseas. Moffett's strategic location allows the unit to rapidly respond to long-range overwater rescue missions in the East Pacific, from Acapulco, Mexico to the Canadian border. Moffett has considerable open land, and there is space available to increase the long-term viability of the base by expanding the 129th's mission or bringing in additional state or federal entities.

FRESNO INTERNATIONAL AIRPORT/MARCH ARB - 144TH FIGHTER WING

The 144th Fighter Wing of the Air National Guard, based at the Fresno International Airport, provides Aerospace Control Alert (ACA) for the Southwest United States. The Wing is composed of 1,085 airmen, 22 F-15 aircraft and one RC-26 Intelligence, Surveillance and Reconnaissance aircraft. The ACA mission requires the Wing to maintain a number of aircraft ready for immediate launch around the clock in order to intercept air threats to

the United States. Aircraft on alert are positioned at Fresno and March Air Reserve Base.

MARCH ARB - 163RD RECONNAISSANCE WING

The 163rd Reconnaissance Wing of the Air National Guard operates remotely piloted aircraft (RPA) for reconnaissance and air support missions. The unit is located at March ARB, while the MQ-9 Reapers that it operates are located at the Southern California Logistics Airport (SCLA) in Victorville. The 163rd employs 850 full and part-time personnel.

BEALE AFB – 162ND COMBAT COMMUNICATIONS GROUP

The 162nd Combat Communications Group is headquartered at Beale AFB and has units and installations throughout the state that conduct cutting edge missions in cybersecurity, space operations, Global Hawk maintenance, support and intelligence, and Eagle Vision satellite imagery. The 162nd Combat Communications Group employs nearly 800 full and part-time personnel. The 162nd is likely to be upgraded to a full wing by the Air Force in 2015, called the 195th Wing.

ADDITIONAL MAJOR UNITS OF THE CALIFORNIA NATION GUARD

Based in Fresno, the Theater Area Support Maintenance Group (TASMG) is responsible for all intermediate and depot level maintenance for all Army National Guard helicopters across thirteen western states. The TASMG has 350 full-time contract, federal technicians, State Active Duty and Active Guard Reserve employees, in addition to 325 traditional Guard members.

The 79th Infantry Brigade Combat Team (IBCT) is a combat and logistics force of more than 5,000 soldiers headquartered in San Diego and operates armories as far north as Richmond, in the San Francisco Bay Area.

Additional Public Installations Critical to National Security

Federal Funded Research and Development Centers

Federal Funded Research and Development Centers (FFRDCs) are independent entities that assist the U.S. government with scientific research, analysis, and development. These centers address a wide variety of issue areas, working to solve critical, complex long-term problems, provide short-term research on high-priority issues, objectively analyze technical questions, and provide creative and cost-effective solutions to government problems. Although many federal agencies operate FFRDCs in California, this report addresses primarily Department of Defense-sponsored FFRDCs.

Lawrence Livermore National Laboratory

Since its inception in 1952, Lawrence Livermore National Laboratory (LLNL) has been one of the chief engines behind the U.S. nuclear weapons program, conducting scientific research that allowed our nation to continually improve these weapons amidst an evolving Cold War threat. Today, LLNL plays a critical role in the safety of the United States nuclear weapons stockpile, using statistical modeling and physical experimentation to help assess the reliability and safety of warheads without the need for actual weapons testing. The Laboratory's research also addresses bio-security, counterterrorism, energy, intelligence, nonproliferation, and a variety of data-related defense efforts. LLNL employs approximately 5,900 employees at its site in Livermore, California.

The Laboratory has several key partnerships with Sandia National Laboratories, including a clean transportation-focused innovation center established through the Governor's Office of Business and Economic Development (GO-Biz).

Sandia National Laboratories is operated and managed by the Sandia Corporation, a wholly owned subsidiary of Lockheed Martin, and consists of two main facilities – in Livermore, California and Albuquerque, New Mexico – and several distributed test sites. Sandia's mission involves insuring the safety, security and reliability of the nation's nuclear weapons stockpiles. It also operates programs researching energy and climate, weapons of mass destruction and nonproliferation, and other defense systems such as information systems, robotics, and directed energy. Sandia National Laboratories Livermore (SNLL) is home to approximately 900 staff members and 250 contractors, post-doctoral fellows, and students.

The Deep Space Network Control Room and Mars Science Laboratory at JPL in Pasadena.

California Institute of Technology's Jet Propulsion Laboratory (JPL), based in Pasadena, is NASA's only FFRDC and primarily conducts space-related research. In addition to its main site in Pasadena and three Deep Space Network complexes around the world, JPL installations include an astronomical observatory at Table Mountain, California, and a launch operations site at Cape Canaveral, Florida. Although JPL is not a Defense Department FFRDC, it has an integral and important connection to the aerospace industry in the Southern California region and many of the technologies it pioneers and uses are also useful to defense space programs. JPL has approximately 5,200 employees and on-site contractors, primarily at its

Pasadena campus, and spends $313 million on direct expenditures in California.

The Aerospace Corporation is a private, nonprofit corporation that has operated an FFRDC for the Air Force since 1960, supporting space programs that serve the national interest. Aerospace Corporation is a critical partner to the Space and Missile Center (SMC) at nearby Los Angeles Air Force Base, for whom it conducts a wide array of research and engineering tasks to support SMC's key activities. Aerospace Corporation's close physical and working relationship with the SMC results in significant cost savings for the Air Force. Aerospace Corporation maintains contracts with SMC, the Air Force's National Reconnaissance Office, Space X, United Launch Alliance, NASA, and NOAA, as well as several local contracts with localized entities, such as the City of San Jose. The Aerospace Corporation's FY2013 operations brought in $868 million in revenue and employed 2,953 Californians.

The Santa Monica-based RAND Corporation conducts policy research in a variety of areas, including military topics. It operates several FFRDCs related to national defense, including Project Air Force, the Arroyo Army Research Center, and the National Defense Research Institute. While headquartered in Santa Monica, these FFRDCs are spread across multiple locations and leverage a workforce in multiple states. RAND estimates that approximately $55 million annually can be attributed to the California portion of these combined FFRDCs.

DEPARTMENT OF HOMELAND SECURITY

Any discussion about national security would be remiss without including the Department of Homeland Security (DHS), which includes several key functions: the U.S. Coast Guard, Customs and Border Protection, Secret Service, Immigration and Customs Enforcement, Transportation Security Administration and the Federal Emergency Management

Agency. In FY2014, DHS spent over $1.1 billion in California, the fourth most of any state in the nation. This report focuses on the U.S. Coast Guard and U.S. Customs and Border Protection agencies.

U.S. Customs and Border Protection (CBP) protects 931 miles of coastal border from the border with Mexico to Oregon. It is organized into the San Diego Sector and El Centro Sector, which include 14 stations with a staffing level of over 3,600 agents. The U.S. Customs and Border Protection Office of Air and Marine (OAM) employs advanced aeronautical and maritime capabilities in support of CBP missions as well as to federal, state, local and tribal agencies. The Air and Marine Operations Center (AMOC) located at March Air Reserve Base in Riverside, is the nation's only federal law enforcement center tasked to coordinate interdiction operations in the Western Hemisphere. The AMOC provides detection, monitoring, sorting, tracking and coordination of law enforcement response to suspect airborne and maritime activity at, beyond and internal to the nation's borders. The Domain Awareness system combines Federal Aviation Administration and U.S. Department of Defense radars, OAM airborne systems and other sensors into a single facility, capable of the real-time tracking of more than 24,000 individual targets.

The U.S. Customs and Border Protection Air and Marine Operations Center located at March Reserve Air Base.

The San Diego Sector has furthered the joint operations concept with the creation of the Regional Coordinating Mechanism to address the maritime threat. This model integrates intelligence sharing among federal, state and local entities, which has allowed law enforcement to significantly improve effectiveness with little to no additional resources.

Coast Guard Cutter Tern enforces a security zone on San Francisco Bay for Fleet Week 2010 festivities,

The U.S. Coast Guard is charged with maritime safety, security, and environmental stewardship in U.S. ports and inland waterways, along the coasts, and on the high seas. In today's environment, the Coast Guard faces many emerging challenges: drug interdiction, human trafficking, illegal migrant control, fisheries monitoring and oil spill prevention, and maritime traffic control. In addition to these diverse missions, the Coast Guard maintains its core mission of lifesaving and protecting property. Although the Coast Guard is one of the five armed forces of the United States, it is not part of the Department of Defense. The Coast Guard is relatively small when compared to the military services within the Department of Defense. In the last budget year of FY14, the Coast Guard had a budget of $10.4 billion and 51,000 personnel.

California is home to the Coast Guard's Eleventh District headquarters, located on Coast

Guard Island in Alameda and employs 2100 active duty personnel, 427 reservists, 120 civilians and 3,450 members of the volunteer auxiliary. The Eleventh District is segmented into four sectors: Sector San Diego, Sector Los Angeles/Long Beach, Sector San Francisco, and Sector Humboldt Bay. In all, the Eleventh District area of responsibility comprises the entire coast of California, over 3 million square miles of Pacific Ocean (from the California-Oregon border to Ecuador) and 386 navigable waterways in 4 states. Also based on Coast Guard Island is the Coast Guard's Pacific Area Command, which oversees operations from the Western United States to Asia and from the Arctic to Antarctica.

The Eleventh District is also responsible for protecting the ports of Long Beach, Los Angeles and Oakland. In addition, the District coordinates security for five strategic military cargo ports and two nuclear power plants with ocean access in the Eleventh District's area of responsibility. This responsibility extends to providing cybersecurity protections for U.S. ports.

Section V
Recommended State Actions

California defense installations are in a strong position regarding future realignment of the military and national security. Installation closures and realignments from previous BRAC rounds closed the state's most outmoded bases, leaving installations that serve clear, necessary purposes to national defense. Furthermore, California benefits from several unique characteristics:

Training and testing ranges

Expansive air and sea ranges located in California provide an irreplaceable training and testing ground for the U.S. military. These ranges stretch from several hundred miles off the Southern California coast to the Nevada border, and connect with ranges across the entire southwest region. The size and interconnectedness of these ranges, in addition to their widely varying terrain and consistent climate for flying and testing, are totally unique to California and essential to the U.S. military and international allies.

Strategic geographic location

California is positioned as a "gateway" to the Pacific theatre and provides high strategic value as the military shifts strength toward the Pacific region. California's bases, particularly the San Diego Naval Complex, are well positioned to increase assets and activities needed by the military to shift strength to this region.

Resident intellectual capital

California has a well-established, highly trained labor force that is employed by defense contractors, federally funded research laboratories and military installations. Past

surveys and conventional wisdom indicate that large proportions of these scientists and engineers, who primarily hold advanced degrees, would choose not to relocate if their defense-related jobs left California. Furthermore, the abundance of leading universities and technology companies in California greatly enhances the intellectual activities at California bases, including the Naval Postgraduate School in Monterey and the Space and Naval Warfare Systems Command in San Diego. California's environment of intellectual inquiry and technology innovation is impossible to replicate in other states.

Highly integrated regional clusters

Certain geographic clusters of military operations within California provide operational synergies to multiple national defense missions. These clusters include but are not limited to (1) naval installations in the San Diego area, (2) education and training programs in Monterey, and (3) training operations in Southern California. In each of these clusters, installations benefit from nearby proximity of other installations with complementary missions. These clusters strengthen the function of installations and attract a critical mass of specialized personnel to the installations that cannot be moved.

Strong aerospace industry

The aerospace industry remains a significant presence in California. This critical mass of aerospace companies in Southern California—clustered around the South Bay—provides a robust supplier base to the military and makes it attractive for aerospace firms to remain here due to reduced logistics costs and close working relationships with their suppliers. Small technology start-ups to large multinational companies form the network of military suppliers. Los Angeles Air Force Base is a particularly important anchor for aerospace companies and this supplier network.

Energy resources and innovation

California's abundant sunshine, wind and underground geothermal heat provide important energy sources for the military as it works to diversify its energy generation. These energy sources are actually most abundant in California where large military bases are located. The Department of Defense has set ambitious targets to expand renewable energy, energy efficiency and energy storage in the interest of national security, and these priorities align closely with California's own energy priorities. California's policy framework that promotes energy innovation and diversification advances these energy-related national security efforts.

Dependable local support for bases

Communities across California have organized themselves to provide strong and consistent support for local military installations. This effort is organized uniquely in each community: some municipal governments, such as the City of Monterey, coordinate support for their local installations, while other communities have formed non-governmental bodies such as the San Diego Military Advisory Council, the Travis Community Consortium and the China Lake Alliance to support local bases. In the past, the State has not maintained a consistent working relationship with these local organizations, thereby missing an opportunity to strengthen state support for the military. State support for these entities is paramount to a successful partnership with the military in California.

While California provides an excellent operating environment for the military and maintains these strong characteristics, in the past the state has been perceived by some to be unfriendly or indifferent to military operations. It is therefore very important for state leaders to maintain vocal and consistent support of the military to correct this historic perception. The Governor's Military Council has made significant strides to enhance these relationships over the past two years.

California has also historically been perceived by some to have restrictive environmental regulations that complicate operations. While California has stronger standards to protect air, water and the environment than many other states, clear evidence demonstrates that the military has a good working relationship with state environmental agencies and have learned how to comply with environmental regulations without interfering with the military mission.

To further strengthen California's support for the military, state leaders can develop incentives to retain men and women as they depart from military service, ensure quality public education for children of military personnel, and find creative ways to help control costs of operating and living in California.

Recommendations

Despite the importance of California's installations and institutions to national security and defense, an uncertain future demands that state government play an active role maintaining and growing this network in our state. The following recommendations are made to advance this objective.

1. **Commit to a sustained focus on growing California's defense and national security mission.**

   Maintaining and growing military operations in our state depends on *sustained* engagement with defense installations and local communities in the coming years, as well as ongoing vigilance to policy and budgetary proposals coming from the federal government. In this era of ongoing changes to our national defense structure, the state's effort on this topic cannot be "on-again, off-again."

Constant vigilance is particularly important outside of a public BRAC process, when decisions can be made without public scrutiny that can leave an installation underutilized and in disrepair, and thus at high risk for future closure under a new BRAC round.

Support for California-based military missions cannot be automatic or "knee-jerk" in nature, but must be based on clearly stated military or fiscal values. Fighting to preserve an outdated mission or system beyond its useful life at a California base can dissuade future investment at that base, and potentially prevent or delay bringing a new system to the base. Virtually all of California installations play an important strategic role to the future of the U.S. military, so taking positions that benefit both national security and California is typically straight-forward.

2. **Focus state efforts on supporting both conventional defense installations and emerging national security institutions.**

The Governor's Military Council was established with the intent of developing a strategy to protect military installations in our state. These 30-plus installations represent the foundation of our defense footprint. However, California benefits from a broad array of national security activities and facilities beyond military installations, including two federal laboratories, US Coast Guard operations, Department of Homeland Security activities and the aerospace industry and military contractors. In many cases, these entities interact closely with military installations, providing synergies to our national defense.

Considering the importance of these broad array of national security activities, state efforts should be focused on strengthening both traditional defense and national security activities. Defining our efforts to "support national security and

defense" captures this broader strategic approach.

3. **Maintain strong bipartisan support for the military and national security.**

   Strong support for the military is a position of bipartisan consensus in California. Bipartisan leadership on the Governor's Military Council from State Senators and Assemblymembers demonstrates this constructive collaboration "across the aisle" to maintain and grow the national security mission in California. This bipartisan cooperation should continue on this important topic in decades to come.

4. **Continue to strengthen California's reputation as a strong partner to the military and industry.**

   With its immense military footprint, California provides more support for military operations than any other state. However, there is a historically outdated perception that the state does not do enough to support the military, aerospace and related business communities. While the state has taken decisive action to support California's defense and aerospace industry, such as enacting the California Competes Tax Credit, the Air Force's long-range strike bomber tax credit and the Governor's creation of the Office of Business and Economic Development, much still needs to be done. The Governor's Military Council and state leaders should take every opportunity to continue to combat this misperception and build our reputation as a state that champions the military and national security presence here. The Council should regularly engage with military installation commanders, academia, defense contractors, businesses and local leaders to listen to their concerns and find solutions. The state should also draw upon, and highlight, existing instances of strong community support of local military facilities. Only through continuous communication with all defense and aerospace stakeholders will California shake off negative perceptions, build a better business climate and

become a better partner with the military.

5. **Engage federal decision-makers to shape defense budget and policy proposals.**

   The future of California's military footprint depends almost entirely on decisions made in the White House, at the Pentagon and on Capitol Hill. While a new BRAC round would clearly introduce a threat to national security activities in the state, in the absence of a BRAC current budgetary decisions, force realignments and technology acquisitions impact California installations and communities. California can either benefit or suffer from these changes. California must make its own opportunities in order to benefit from the annual federal budget process.

   Since the inception of the Governor's Military Council in March 2013, the Council has taken several public positions on decisions affecting California bases and has worked with our Congressional delegation to effectuate several successful outcomes. This effort should continue and remain consistent in the coming years as the Department of Defense realigns our military structure around the world

6. **Work directly with installations to address operating challenges they face.**

   Each U.S. military installation faces unique challenges to performing its mission wherever it is located in the world. Common challenges faced by domestic military installations include: land use encroachment; state regulatory requirements; availability of qualified civilian workforce, and energy and water availability. In past BRAC rounds, realignment and closure decisions have sometimes been made based on challenges presented to an installation outside its fence line.

   State government must help address external challenges to installations in order to ensure an effective operating environment for the military. The Governor's

Military Council has visited every major military and national security installation in California and communicated with installation commanders to understand current challenges and opportunities faced by each installation. State agencies now need to build upon current efforts to address challenges where they exist and help bases seize opportunities to improve the operating environment.

7. **Strengthen communication with installation commanders.**

It is important that state government leaders and staff develop continue to develop direct relationships with installation commanders in order to support military bases. These working relationships enable the state to proactively address challenges that installations face, including broad regulatory issues that installations sometime encounter. Ongoing relationships also allow the state to quickly address problems at bases as they arise.

One way to ensure interaction with base commanders and keep open these lines of communications is to establish an annual convening of these installation commanders in Sacramento.

8. **Partner with other states to strengthen the regional defense complex across the Southwest.**

The air, land and sea ranges in California are part of a testing and training complex that stretches across multiple states in the Southwest, including Arizona, Nevada, Utah, Texas and New Mexico. Without California, none of these other states' ranges or airspace connect to the Pacific. Likewise, California installations use airspace in these other states. The value of each installation in the region, for operations, training, or testing, depends on the integration among all of the installations and

associated ranges. California state government should work with other state governments in the Southwest to emphasize the importance and uniqueness of the regional defense complex.

9. **Strengthen state support for local and regional military support organizations.**

   Well-organized community support is instrumental to helping military installations thrive. Local base support groups in California represent the primary non-military experts on the opportunities and threats faced at each base. These groups and support networks are strong in both urban areas with a major defense presence such as San Diego and Los Angeles and in more rural regions such as Ridgecrest and Lancaster-Palmdale. Local support groups have effectively mobilized grassroots support for installations when necessary and can elevate major policy or regulatory issues to state government when appropriate. For this reason, maintaining open lines of communications between the state and local community groups is critical to maintaining and growing the national security footprint in our state. State government should coordinate and organize local groups across the state, supporting each local effort and building a strong, unified message about the collective value of all of California's military installations.

10. **Encourage military installations to adopt operational partnerships with local governments and companies.**

    Given federal budget constraints, military leaders are eager to embrace creative ways to reduce costs while retaining critical military capabilities. Public-public partnerships and public-private partnerships, which are collectively referred to as P4[4], can reduce operational costs of an installation and strengthen that

4 While the term P4 is more commonly used for Air Force related partnerships, it is meant here to mean any partnership between a military service and a private and/or public partner. Section 331 of the FY13 National Defense Authorization Act authorizes the services to enter into P4 agreements with states and local governments.

installation's connection with its community. Such partnerships introduce new models for an installation to provide municipal and health services, operate and maintain facilities, provide workforce and educational opportunities, expand research and development, plan future land use and prevent encroachment, and enhance efficient energy and water use.

The City of Monterey pioneered the use of these partnerships, obtaining specific Congressional authority to develop shared services agreements for maintenance, firefighting and other services between its installations and municipal agencies. This effort became known nationally as the "Monterey Model," and in 2013, these partnerships were authorized across all Department of Defense installations in what is referred to as "Section 331 Authorization." The Governor's Military Council should identify where such partnerships can be expanded in California between local communities and installations.

11. Support quality educational opportunities for children of service members.

Tens of thousands of children of active duty service members attend California public schools. The vast majority of these children travel off-base to attend school, while a smaller portion of these military children attend schools located on California bases. The quality of schools is a major issue for military families. The Governor's Military Council and state agencies should identify ways to strengthen educational opportunities for children of military families, including supporting the renovation of those on-base schools that are in poor condition.

12. Enable military installations to more easily generate renewable energy within their fence-lines.

The Department of Defense has set ambitious targets to expand energy efficiency

and renewable energy generation on military installations in order to reduce operational costs and increase energy security for its bases. Pentagon leaders suggest that energy security and reliability at military bases is an important criterion to be considered in future base realignment decisions. In response, each military service has developed robust programs to meet these targets and expand use of clean energy within the fence-line.

These military efforts align closely with energy priorities of state government to expand renewable energy generation, increase energy efficiency and ensure electrical grids are safe and dependable. State agencies should increase efforts to help installations expand renewable energy and other shared energy priorities.

13. Help military bases secure reliable water supplies amidst drought and climate change.

Achieving "water security" at military installations, which means sustaining a consistent and reliable supply of potable water, is an increasing concern of the Department of Defense. In fact, the importance of water security has been highlighted by Pentagon leaders amidst the ongoing drought in California. Considering that future basing decisions and force structure changes will include consideration of water availability, state government should help bases maintain reliable water supplies.

Installations in California receive their water supplies in different ways, depending on the hydrology of the area. Many urban bases are customers of municipal water agencies, which typically have very secure water supplies. Bases outside of metropolitan areas can draw water from surface supplies (rivers and streams) based on existing water rights or groundwater supplies (underground aquifers),

which have not been regulated historically. Some remote bases are entirely reliant on groundwater supplies and may share an underground aquifer with local communities and farms.

California's recent Sustainable Groundwater Management Act is a state law that requires monitoring, regulations, and management of groundwater supplies for a sustainable yield, to ensure that water users have stable and adequate access to groundwater. This is a landmark change in California that will help to ensure sustainable use of this resource over time. The law requires formation of agencies to develop and implement plans to manage groundwater. Military installations are not required to participate in local groundwater planning as federal entities, but would be well-advised to participate in order to assure sustainable supplies moving forward. Effective groundwater management will help to achieve water security for bases across the state.

It should be noted that military installations have achieved ambitious water conservation targets in recent years and are among the most efficient water users in the state. As local groundwater management agencies set future targets for water use and conservation, these early conservation actions by the military should be recognized. California's law was drafted to specifically include options for Federal partners to engage with the groundwater management agencies, if they choose to do so. The law also explicitly exempts the military from the law, so that the DoD has maximum flexibility for engagement on this important issue, and protection from liability.

14. Improve California's attractiveness to discharging service members and veterans.

California is home to 1.8 million military veterans, representing 8% of the total

population of American veterans. Each year, thousands of service men and women discharging from activity duty military service choose to stay in California. In fact, due to the large military presence in the state, it is expected to receive an additional 30,000 discharged service members each year for the next several years, more than any other states.

At the same time, many veterans and discharging service members choose to move to other states. While some portion of these individuals are simply returning to their home state, others leave California based on concerns about our state's cost of living or because they are attracted to incentives provided by other states for veterans. State leaders should explore appropriate ways to incentivize veterans to stay in California.

15. Bolster support for California's aerospace industry.

The aerospace industry represents an important part of California's economy, providing tens of thousands of skilled, high paying jobs in Southern California. Recent studies indicate that aerospace spending exceeds $61 billion each year in our state, representing 21% of the US aerospace market and 9% of the global aerospace market. California currently hosts a robust base of both demand and supply for aerospace technologies. Critical national security installations demand aerospace technologies that are developed here, including the Los Angeles Air Force Base and the Space and Naval Warfare Systems Command (SPAWAR). On the supply side, our state is home to the world's largest aerospace companies, as well as thousands of smaller companies that fill out supply chains for new aerospace technologies.

State government is working to support aerospace companies amidst these

challenges, for example recently passing Senate Bill 718 that increases the limits on allowable incentives that a local government may offer a manufacturing project and making available $420 million in tax credits for production of the next generation stealth bomber. Local business organizations, such as the Los Angeles Economic Development Corporation, are increasingly focused on supporting aerospace and willing to collaborate with the state as we strengthen support for this industry.

APPENDIX A: Governor's Military Council

Honorable Ellen O. Tauscher
Chair, Governor's Military Council

Major General Alice Astafan
U.S. Air Force (Ret.)

Thomas R. Berard
Senior Executive Service
Department of the Air Force (Ret.)

Rocky Chavez
Assemblymember, 76th District
Colonel, U.S. Marine Corps (Ret.)

Joseph A Czyzyk
Chairman and CEO, Mercury Air Group

Charles A. Giacchi
Senior Executive Service
Department of the Navy (Ret.)

Jacqui Irwin
Assemblymember, 44th District

Rear Admiral James Johnson
U.S. Navy (Ret.)

Dr. Mary Lyons
President, University of San Diego

Vice Admiral Daniel Oliver
U.S. Navy (Ret.)

Major General David S. Baldwin
The Adjutant General
California Military Department

Vice Admiral Jody Breckenridge
U.S. Coast Guard (Ret.)

Honorable Philip E. Coyle III

Jean Fuller
Senator, 16th District

Lieutenant General Edward Hanlon
U.S. Marine Corps (Ret.)

Major General Anthony L. Jackson
U.S. Marine Corps (Ret.)

Major General Dennis Kenneally
U.S. Army (Ret.)

Rear Admiral Benjamin Montoya
U.S. Navy (Ret.)

Richard Roth
Senator, 31st District
Major General, U.S. Air Force (Ret.)

Lieutenant General Eugene Tattini
U.S. Air Force (Ret.)

Council Staff:

Wade Crowfoot
Deputy Cabinet Secretary/Senior Advisor
Office of Governor Edmund G. Brown Jr.

Rito Guerra
Governor's Military Council
Office of Governor Edmund G. Brown Jr.

Andreas Mueller
Chief of Federal Policy
California Military Department

Jeff Mankey
Governor's Military Council
Office of Governor Edmund G. Brown

APPENDIX B: List of presentations given to the Council

Between June 2013 and April 2015, the Council held nine meetings in Sacramento, San Diego, Los Angeles, Ventura County, Sacramento, Monterey, Riverside, the Antelope Valley and Oakland. At each of these meetings, Council members received tours and presentations from local defense stakeholders that explained the importance of the region's DoD activities and identified key strengths and weaknesses. These stakeholders included commanders of area military bases and units, defense industry leaders, community representatives, and local organizations engaged in supporting the military. Formal presentations the Council received are listed here.

a. Beale AFB (June 2013)
b. Travis AFB (June 2013)
c. Navy Region Southwest (September 2013)
d. Marine Corps Installations West (September 2013)
e. Naval Base San Diego (September 2013)
f. Naval Base Point Loma (September 2013)
g. Naval Base Coronado (September 2013)
h. Navy Medical Center San Diego (September 2013)
i. Space and Naval Warfare Center (September 2013)
j. Marine Corps Recruit Depot (September 2013)
k. Marine Corps Base Camp Pendleton (September 2013)
l. Marine Corps Air Station Miramar (September 2013)
m. Marine Corps Air Ground Combat Center Twentynine Palms (September 2013)
n. Los Angeles Air Force Base & Space and Missile Center (December 2013)
o. Edwards Air Force Base (December 2013)
p. Vandenberg Air Force Base (December 2013)
q. Naval Base Ventura County (December 2013)
r. Aerospace Corporation (December 2013)
s. Defense Industry Panel – large businesses (December 2013)
t. Local and Regional Military Support Organizations (December 2013)
u. Defense Industry Panel – small and medium businesses (January 2014)
v. Naval Base Ventura County (January 2014)
w. Air National Guard Station Channel Islands (January 2014)
x. Fort Irwin/National Training Center (March 2014)
y. Navy Region Southwest (March 2014)
z. Marine Corps Installations West (March 2014)
aa. Coast Guard Eleventh District (March 2014)
bb. Monterey Presidio/Defense Language Institute (June 2014)
cc. Naval Postgraduate School (June 2014)
dd. Defense Manpower Data Center (June 2014)
ee. Coast Guard Station Monterey (June 2014)
ff. Honorable Leon Panetta (June 2014)
gg. March Air Reserve Base (September 2014)
hh. Naval Surface Warfare Center Corona (September 2014)
ii. Naval Air Weapons Station China Lake (December 2014)
jj. Air Force Test Center, Edwards Air Force Base (December 2014)
kk. U.S. Coast Guard Eleventh District (March 2015)
ll. Navy Region Southwest (March 2015)

Report and Recommendations of the Governor's Military Council

Governor Edmund G. Brown Jr.
June 2015