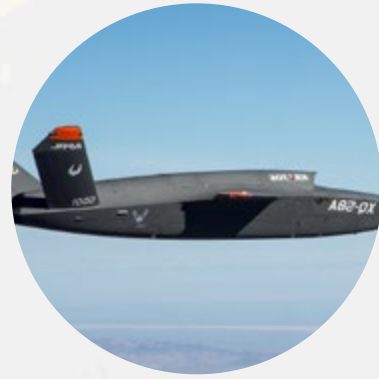


OCEAN BEACH



Naval Information Warfare Systems Command

HILLCREST



LIBERTY STATION

Information Warfare Training Command

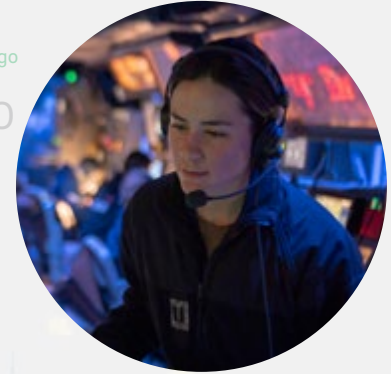
LITTLE ITALY

Naval Medical Center San Diego

SAN DIEGO

Naval Surface and Mine Warfare Development Command

Broadway Complex: Headquarters for Commander, Navy Region Southwest



Naval Air Station North Island

BARRIO LOGAN

Naval Submarine Base

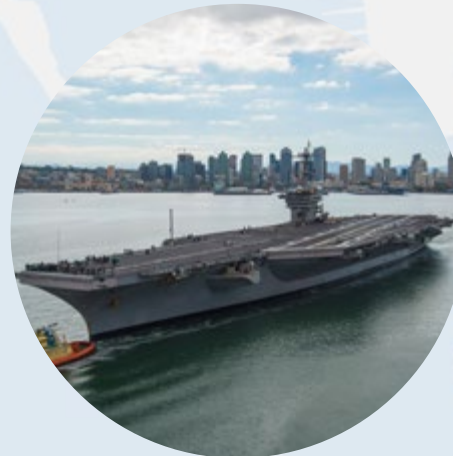
Naval Base San Diego

Naval Medical Forces Pacific

POINT LOMA

Naval Amphibious Base

NATIONAL CITY



CHULA VISTA

Defense spending in the San Diego region produces

349,000 jobs

Demonstrated resiliency during the pandemic



Silver Strand Training Complex-South

IMPERIAL BEACH

Naval Outlying Landing Field



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REPORT

About

SDMAC

The San Diego Military Advisory Council (SDMAC) is a not-for-profit 501(c)(6) organization established in 2004 to advocate on behalf of the military, Veterans, and their families living in the San Diego region. SDMAC's advocacy efforts include facilitating the partnership among our military, elected officials, civic leaders, and the business community to improve the understanding of the important contributions made by the military.

SUPPORT SDMAC and BECOME A MEMBER
www.sdmac.org

SDMAC RESEARCH COMMITTEE

Mark Wernig *Chair*
RDML (Ret) Mark Balmert
John Quigley

RADY SCHOOL

The Rady School of Management at the University of California San Diego is the region's premier business school, internationally recognized for the intellectual contributions of its faculty and quality of its academic programs. Rady School offers a full-time MBA program and two part-time MBA programs: Flex Evening MBA and Flex Weekend MBA. Additionally, Rady School offers a variety of business programs including Master of Finance, Master of Science in Business Analytics, Flex Master of Science in Business Analytics, Master of Professional Accountancy, a Ph.D. program, and undergraduate courses. To find out more about the Rady School, visit www.rady.ucsd.edu.

RADY SCHOOL STAFF

Prof. Michael W. Meyer *Rady Faculty Sponsor*
Allison Johnson *MBA Student Lead*
Jacob Davis *MBA Student*
William Miller *MBA Student*

THE MILITARY ECONOMIC IMPACT REPORT



SDMAC's annual Military Economic Impact Report highlights the positive impact of federal defense budgets, Veteran benefits, and community involvement by our local military, Veterans, and their families on our local economy. Through the partnership formed last year, the 2021 MEIR report is a product of the rigorous work of MBA students at the Rady School of Management. Leveraging insights from the frontier of academic research, the team's data analysts applied tools to calculate the impact of military dollars on the San Diego region.

The team focused on continued transparency in data collection and presentation, using clear methodology again in this year's report. In addition to the data analysis in the 2021 report, the perspectives of both military servicemembers and private sector business leaders are included to measure both the quantitative and qualitative impact of the military upon the San Diego community. A separate document that details the report methodology, and the report itself, are available on the SDMAC website, www.sdmac.org, and Rady School website, www.rady.ucsd.edu.



Sponsors

SDMAC would like to thank the following companies and organizations for their strong and generous support of the Annual SDMAC Military Impact Report (MEIR) which allows for this study to be developed and provided to the military and the San Diego region.

TITLE SPONSOR



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FROM OUR CORPORATE SPONSORS



The region's defense and financial institutions have

always been very closely linked. For over a century, Bank of America has supported our active-duty service members, Veterans and their families. Bank of America's team of San Diego-based aerospace and defense bankers are proud to serve local industries and the nation, together with SDMAC."

Clifford Cho

Senior Vice President, Commercial Banking Market Executive at Bank of America San Diego

Executive Summary

While the pandemic subjected our nation's economy to significant turmoil and uncertainty over the past two years, San Diego benefitted from the stabilizing effect of our region's large military economic contribution. Through FY 2021, the net contribution to San Diego's Gross Regional Product (GRP) from defense-related activity rose by 5.4% to \$55.2 billion. The overall impact of this has helped mitigate the region's economic decline in 2020 (-4.7% overall vs -7.7% non-defense) and boosted the region's recovery in 2021 (+4.2% overall vs +3.8% non-defense). (FN1)

While many sectors of our local economy contracted in 2021, San Diego's military presence and economic impact did not stop growing. In our local communities, the Department of Defense

the associated Department of Veteran Affairs, helps buoy our economy through hard times such as these. It has allowed our active-duty service men and women to focus on what is truly important for the broader community. It has allowed our research resources to serve the greater good, and it has allowed our teams to continue to innovate and make immeasurable strides in new technologies, all in the face of the global health crisis. The strength of our local community, supported and intertwined with the steadfast efforts and operations of local military personnel and businesses, has been crucial to San Diego's continued growth, innovative outlook, and ability to successfully weather a period of tremendous economic uncertainty.

Exhibit 1.

Defense Spending and Jobs in San Diego Grew During the Pandemic

	DIRECT SPENDING	JOBS	GROSS REGIONAL PRODUCT (GRP)
FY 2021 (%Δ from FY20)	\$35.3 Billion (+5.3%)	349,112 (+2%)	\$55.2 Billion (+5.4%)
% of SD Economy	N/A	23%	25%

(DoD) employs over 111,000 active-duty service men and women (FN2) and supports more than 230,000 civilian jobs within its \$35B of direct spending this year (FN2, FN3) (Exhibit 1). Military and defense funds are flowing into the San Diego economy through a multitude of different avenues – compensation and benefits provided to military personnel and federal civilian employees, retirement and Veteran benefits, government purchase cards used for direct spending, and defense contracts to more than 1,700 local businesses.

This continued dedication to San Diego from the Department of Defense, the Coast Guard through the Department of Homeland Security (DHS), and

FROM OUR MAYOR | TODD GLORIA



The military community is intrinsic to the fabric of San

Diego. I'd like to thank the San Diego Military Advisory Council for compiling this annual report and for their continued advocacy on behalf of San Diego's military communities. As our city continues to build back better and more equitably from the COVID-19 pandemic, this report underscores just how important the military presence is here in San Diego and the role it plays in strengthening our City.

San Diego | Rooted in the Military

The area's relationship with the military was strong long before the region came to be known as San Diego. Juan Rodriguez Cabrillo first landed in the port of what was then called San Miguel in 1542 and immediately recognized the strategic value of the area. However, it was not until 1769 that Spanish military detachments began to port in San Diego. The next 150 years experienced increases in the military presence and, in 1908, William Kettner started widely promoting the economic benefits afforded by the U.S. Navy presence.

The 1915 Panama-California Exposition, with its inclusion of a "model encampment" by the Marines (who had utilized North Island as a forward staging base in 1911 and 1914), increased the area's appeal as a military hub. In the coming years, multiple military investments helped San Diego recover from the Great Depression. During this time, the Navy spent \$1.4 million, and the Army spent \$1.8 million on construction projects in our region (approx. \$37m and \$43m in 2021 dollars, respectively (FN4)).

Consolidated Aircraft Corporation (CAC) moved its main manufacturing facility to San Diego in September of 1935, producing many aircraft used in WWII (FN5). By the fall of 1941, CAC was the largest employer in San Diego with 25,000 employees, expanding to 45,000 employees in 1942, about 22% of the city population (FN6,7,8). Military spending contributed to San Diego's tremendous growth during the 1940s. At the time, the Navy represented more than \$2.5 million in monthly payroll and expenditures in San Diego. The military presence continued growing over time and now includes over 20 installations in the region. Today the military is a top employer in San Diego and continues to provide significant economic value to the region.

SAN DIEGO PUBLIC MILITARY EVENTS AND PLACES TO VISIT

- » Fleet Week (November, Downtown)
- » MCAS Miramar Air Show (September, MCAS Miramar)
- » Veterans Day Parade (November, Waterfront)
- » USS Midway Museum (Downtown)
- » Air and Space Museum (Balboa Park)
- » Liberty Station (Point Loma)
- » CAF Air Group One WWII Museum (El Cajon)
- » Veterans Museum and Memorial Center (Balboa Park)
- » Mt. Soledad Veterans Memorial (La Jolla)
- » Waterfront Homecoming Sculpture (Downtown)
- » Fort Rosecrans National Cemetery (Point Loma)
- » Cabrillo National Monument (Point Loma)
- » Torrey Pines State Natural Reserve (La Jolla)

Military Spending & Job Creation

MILITARY SPENDING

San Diego's economy historically flourishes thanks to several key sectors including tech, travel, tourism, and defense. But only the defense sector has demonstrated dependable resilience through historic recessions and the tumultuous ebb-and-flow of pandemic closures. The diverse components of FY 2021 defense spending in our region help strengthen other economic sectors, through small business targeted contract awards, spending by active duty and retired military families, and direct purchases of products through government charge cards. Employee compensation includes the direct wages and benefits provided to active-duty military personnel, federal civilian employees, and military reservists in the region across the U.S. Navy (USN), U.S. Marine Corps (USMC), U.S. Coast Guard (USCG), and other DoD organizations. Military branches distribute retirement funds to previous military employees across the entire San Diego County. The Veterans Affairs (VA) office distributes key resources to San Diego Veterans, including education benefits and health care. Exhibit 2 depicts the multiple different sources of spending, and the relative size of different groupings of funding within each branch's contribution. Another major contribution to the local economy is the estimated \$18.5 billion in defense contracting dollars expected across over 1,700 different companies in San Diego County during FY 2021. Exhibit 3 depicts the companies in receipt of the greatest percentages of these dollars and Exhibit 4 shows what types of programs these defense contracting dollars are funding in the area.

Exhibit 2.
Diversity of Defense Spending in San Diego (in Millions)

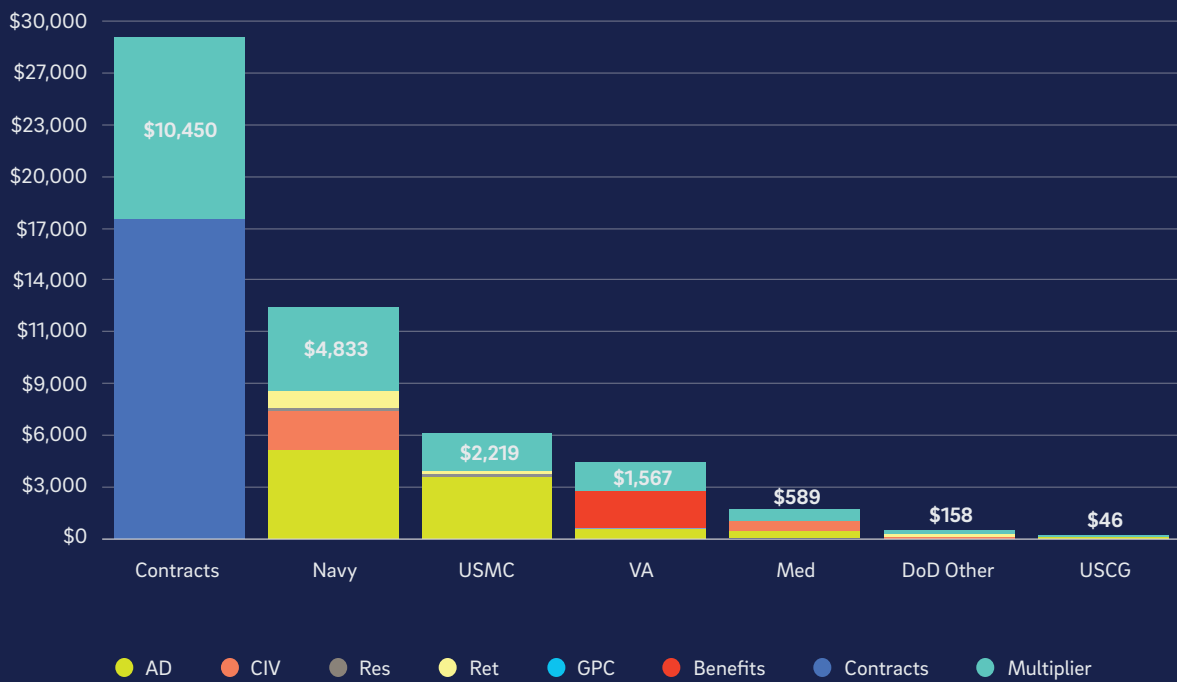
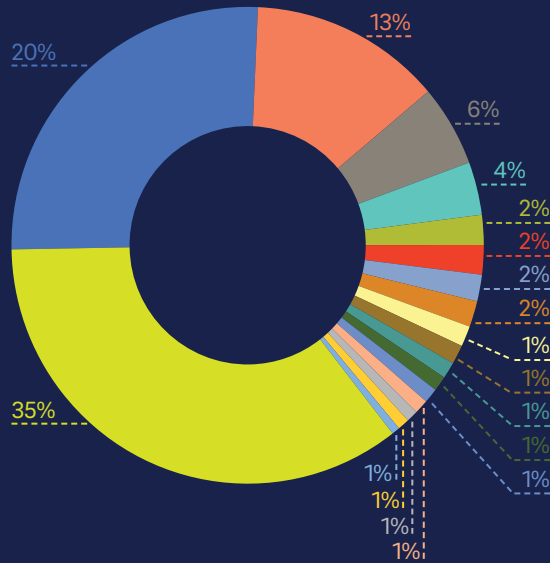
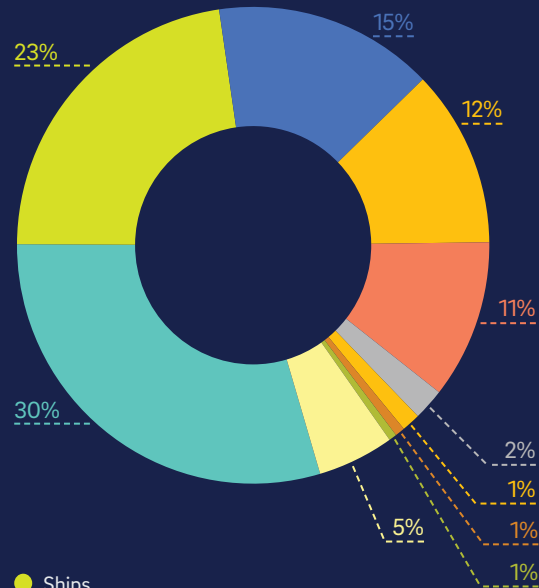


Exhibit 3.
DoD Contract Dollars Obligated to San Diego



- General Atomics
- Northrop Grumman
- National Steel & Shipbuilding Company
- BAE Systems
- Vigor Marine
- Booz Allen
- Viasat
- Serco
- Continental Maritime of San Diego
- Marine Group Boat Works, LLC
- Whitting-Turner Contracting Company
- Cubic
- Science Applications
- Avmac LLC
- Aircraft Readiness Alliance
- Raytheon
- Leidos
- All Other (1,700+ Companies)

Exhibit 4.
DoD Funds Obligated | Program Descriptions



- Ships
- Airframes & Spares
- Electronics & Communication Equipment
- Other Aircraft Equipment
- Weapons
- Missile & Space Systems
- Aircraft Engines & Spares
- Construction & Construction Equipment
- All Others & Blank
- Services

MULTIPLIER EFFECT

In addition to direct spending, defense spending in the San Diego region also has indirect spillover effects on the gross regional product (GRP) and job creation. Defense spending supports development, which can then be leveraged for alternative revenue, creating a multiplier effect. A first of its kind study of local fiscal multipliers found that \$1 of defense spending contributes up to \$1.56 to GRP and every \$100,000 creates 1.08 jobs per year (FN8). Research also indicates the impact of defense spending is even greater during economic downturns, such as the COVID-19 pandemic, suggesting a conservative estimate with application of the Auerbach study results (FN9). As a result of the multiplier effect, the total economic impact of the military in San Diego in 2021 is \$55.2 billion (Exhibit 5), an estimated 25% of the San Diego GRP (FN3). Throughout the report, the indirect job impact and GRP multiplier are applied to determine full economic impact.

Exhibit 5. \$55.2 Billion Impact to San Diego GRP

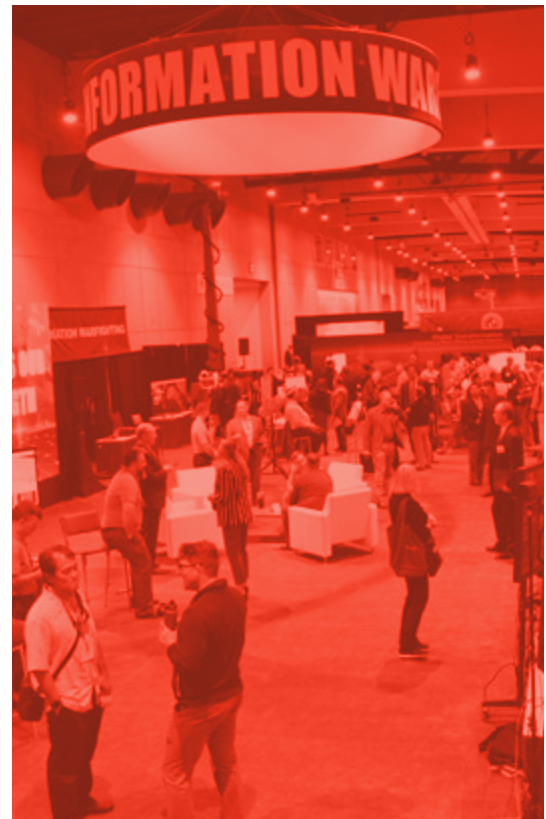
(\$ in millions)	FY2019	FY2020	FY2021	%Δ OVER FY20
Employee Compensation	\$11,929	\$12,341	\$13,094	6.1%
Retirement & VA Benefits	\$3,577	\$3,688	\$3,568	-3.3%
Contracts & Procurement	\$16,194	\$17,474	\$18,594	6.4%
Government Purchase Cards	\$65	\$67	\$85	26.9%
TOTAL DIRECT	\$31,765	\$33,570	\$35,341	5.3%
Multiplier Impact	\$17,789	\$18,799	\$19,862	5.7%
GRP IMPACT	\$49,554	\$52,369	\$55,203	5.4%

JOB CREATION

The military, through the DoD, DHS, and the VA, employed over 145,000 San Diego residents in FY 2021. Approximately 75% of those are active duty (AD) military personnel and 20% civilians (CIV) (Exhibit 6). In addition to direct employment, the \$18.5 billion in government contract and procurement dollars generate approximately 200,000 more jobs in San Diego, given estimates that \$100,000 creates 1.08 jobs per year (FN8). Together the total direct and indirect employment make up 23% of the current labor force in San Diego (FN10).

Exhibit 6. 349k Jobs Supported in San Diego

(\$ in millions)	FY2019	FY2020	FY2021
USN (AD)	51,850	57,937	59,071
USMC (AD)	46,189	48,240	46,680
USCG (AD)	927	927	916
Medical (AD)	5,391	5,513	4,806
CIV	28,498	30,430	29,699
Reserve	5,352	5,831	2,950
VA	4,175	4,193	4,177
TOTAL DIRECT	142,382	153,071	148,299
Indirect (Result of DoD contracts)	175,617	189,426	200,813
TOTAL JOBS	317,999	342,497	349,112

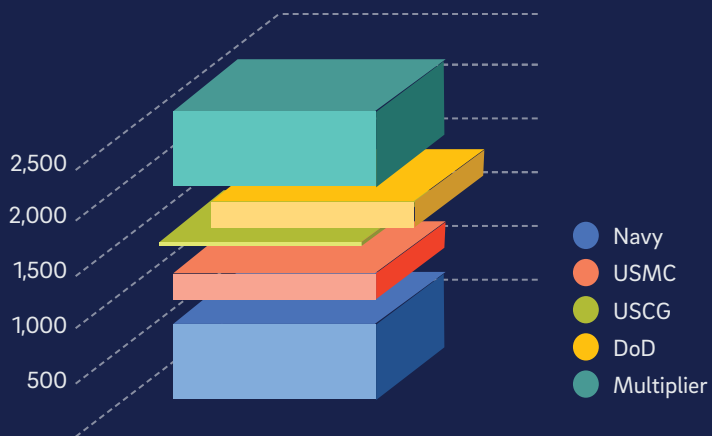




RETIREES

San Diego remains home to many long after their orders are complete. FY 2021 is seeing over 40,000 retired military personnel decide to stay for the long term (FN2). The net effect of these men and women choosing to make America's Finest City their long-term home is a bolstering \$2 billion dollar impact to San Diego's economy from retirement dollars alone (Exhibit 7).

Exhibit 7.
Military Retirement Adds \$2 Billion to Our Local Economy



SPOTLIGHT - CONTINUING SERVICE AS CONTRACTORS

There's a saying throughout the defense contracting community: Serving Those Who Serve Us. It changes slightly between companies, but the meaning remains the same – we work to aid and protect those who are out risking everything to protect us. There are many who decide to transition into jobs at defense contracting firms after they finish their role in the military. These individuals have a unique perspective and understanding of the work being done. Gregg Blankenship, former Navy Pilot, now VP of Business Operations at DRS Daylight Solutions, says this about his transition to working as a defense contractor:



For me, for probably anyone who has been in the military, you have an appreciation of the mission and the purpose of the military, and **you can feel it more viscerally** than people who haven't been there. I've been on many different types of ships; I understand a lot of their missions. And staying in San Diego and being able to contribute after my Navy days to the success of all those guys and gals, the sailors, and marines out there, I like that, **I like knowing what we are contributing to.** We make infrared countermeasures here and back in my day all we had was a flare. It would have been really great to have a laser strapped to the side of my jet that protected us from heat seeking missiles, so I really appreciate what we're doing. And having been there, I know the risks that those guys are taking. I know that their job is to go in harm's way, and that's motivating for me; anything that I can do to make our product work better, last longer, be more reliable, I really feel that at an emotional level. **It's not just an engineering job for me.** For a long time I had a bunch of buddies out flying, they were in Desert Storm, Desert Shield, and some others, and **anything that I could do to take care of my buddies, I really wanted to do.**

Gregg spent eight years flying the F4 Phantom and the F14 Tomcat fighter jets. He was transferred from VF 151 onboard USS Midway in Yokosuka, Japan, the same Midway that now sits in our harbor, to VF 124 on NAS Miramar, stationed here in San Diego. Gregg spent his last two years of service with the Navy stationed in San Diego and has been here ever since.



United States Navy

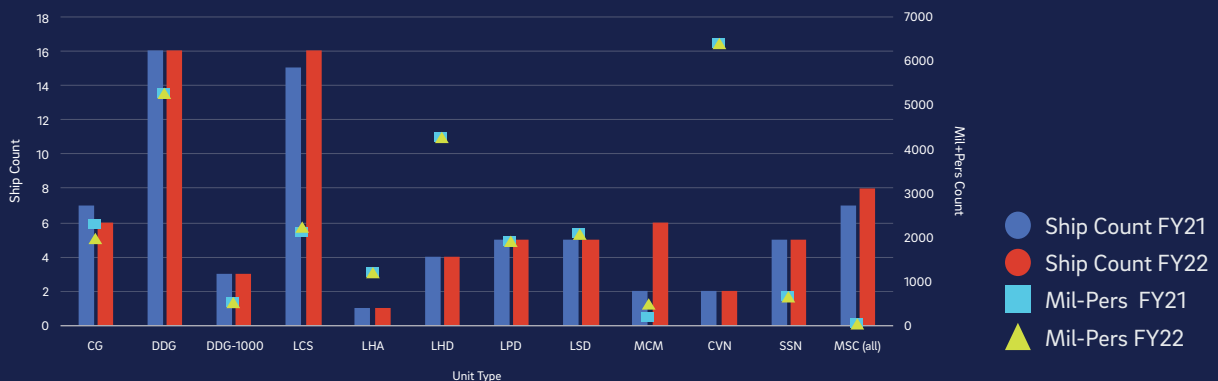
San Diego is the Navy's most strategic port and the location for numerous operational and administrative headquarters. These include: Naval Special Warfare Command (Oversight and training of SEALs), the Navy's Third Fleet (Operational control of all ships and aircraft), Naval Surface Forces (Oversight of all surface ships in the Navy), Naval Air Forces (Oversight of all aircraft and aircraft carriers in the Navy), Navy Region Southwest (Responsible for (or) Oversight of Base Operating Shore Support for 10 Naval Installations across six states), Naval Information Warfare Command (Headquarters for the design and production of all Navy command and control systems), Naval Medical Forces Pacific (Oversight of Navy Medicine's western U.S. and Pacific operational medical capability within hospitals and Navy Medicine's medical research and development laboratories), and Naval Surface and Mine Warfare Development Command (Training and doctrine headquarters). San Diego is also the operational home to Carrier Strike Group headquarters and Expeditionary Strike Group, each led by an Admiral. As the home port for about 24% of all Navy vessels and 17% of Active Duty personnel, San Diego has one of the largest naval personnel concentrations in the country (FN2, FN18).

San Diego is homeport to a wide variety of Navy ship classes, including Aircraft Carriers (CVN), Amphibious Ships (LHA, LHD, LPD, and LSD), Cruisers (CG),



Destroyers (DDG and DDG-1000), Littoral Combat Ships (LCS), Mine Countermeasure Ships (MCM), and Fast Attack Submarines (SSN). Additionally, several classes of ships owned by Military Sealift Command and manned by Civilian Mariners are home ported in San Diego. Ship information are estimates based on Strategic Laydown and Dispersal efforts and can result in an increase and decrease due to homeporting or home-basing of platforms year over year. This year we report having 72 total ships and are projecting to have 77 by the end of FY 2022. The number of Ship-based Sailors is also projected to increase in upcoming years (FN2). A breakdown of the ship count and assigned personnel for FY 2021 and the FY 2022 projection is shown in Exhibit 8.

Exhibit 8.
San Diego is Homeport to More Than 70 Ships



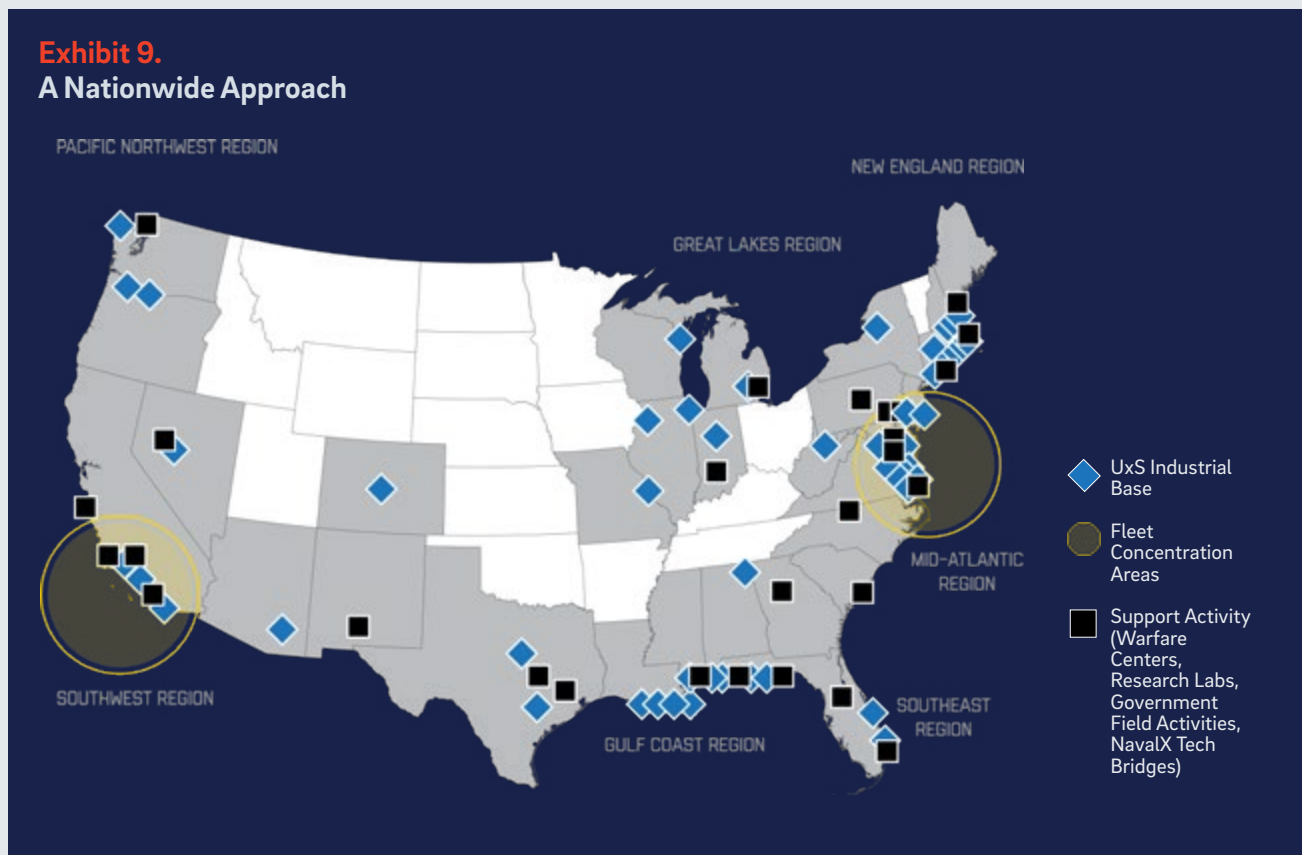
SPOTLIGHT - UNMANNED VEHICLES

Ensuring free and open seas has long been part of the mission of the Navy. How the Navy is able to accomplish this mission has changed over time as technology has advanced. The Navy is continuously looking for ways to innovate and better execute its missions. San Diego has been a key area for this innovation, thanks to the number of high-tech companies located in close proximity to the Naval Information Warfare Systems Command. In April 2021 the Navy conducted Unmanned Systems Integrated Battle Problem 21 (IBP21) out of San Diego to better understand how autonomous aircraft, surface vessels, and subsurface vehicles can be included into the fleet. "Our goal for this exercise is to evaluate these unmanned systems and how they can actually team with manned systems," said Rear Adm. Jim Aiken (FN14). Months following the success of the IBP21 the Navy released its 2021 Unmanned Campaign Plan, in



which it states it is requesting \$434.1 million in research and development funding for large, unmanned vehicles and their enabling technologies in FY 2022 (FN15). The Navy has also identified San Diego as one of two fleet concentration areas for the continued development of this operation (Exhibit 9) (FN16). The Navy plans to continue to push the envelope with new methods and tactics for keeping the seas safe, which include further innovation and development of unmanned aerial and sea-going vehicles.

Exhibit 9. A Nationwide Approach



United States Marine Corps

The San Diego region hosts the largest concentration of Marine Corps operational and support commands in the United States. Camp Pendleton is home to I Marine Expeditionary Force (I MEF), Marine Corps Installations West, School of Infantry West, and the Marine Corps Tactical System Support Activity. San Diego's active-duty Marines total nearly 75,000 service men and women (FN2).

Marine Corps Air Station Miramar, located about 14 miles north of downtown San Diego, is home to the 3rd Marine Aircraft Wing which is the aviation element of I MEF.

Marine Corps Recruit Depot (MCRD) San Diego, one of two MCRDs in the United States, is located in Point Loma and is home to the Western Recruiting Region Headquarters. Each year MCRD San Diego/Western Recruiting Region is responsible for recruiting and providing basic training for 17,000-18,000 young men and women who come from states west of the Mississippi river. In a normal year, the San Diego Tourism Authority estimates that the local economy hosts an average of four guests per graduating recruit. Due to protective measures to mitigate the effects of COVID-19 virtually no guests were allowed to participate in graduations in 2020, but with the country opening back up, visitors began to attend graduation ceremonies again during the summer of 2021. Illustrative of the Depot's enduring partnership with the city of San Diego, 1 December 2021 marks the 100th anniversary of the commissioning of a permanent Marine Corps base in San Diego.

The Marine Corps fulfills a vital role in national security as a Fleet Marine Force, capable of combat operations from air, land, or sea. The Marine Corps' training ranges and infrastructure in the San Diego area, combined with proximity to Navy installations and expeditionary units for integration and joint training, are essential to the readiness of the Marine Corps. The varied terrain and climate of the southwest make it an ideal place to prepare Marines for combat.

With San Diego as the epicenter, roughly 40% of the Marine Corps' combat power resides in the

southwest, along with 85% of its landholdings. Even more significant, 95% of Marines train in the region before deploying overseas.

The Marine Corps actively partners with the San Diego community through school volunteer programs while also training alongside and supplementing the San Diego Fire Departments during wildfire and rescue operations. Marines value their community and attest there is "no better place in the United States Marine Corps or Navy to be stationed than San Diego." Col. Charles B. Dockery, MCAS Miramar's former commanding officer notes, "This is the most supportive community that I have seen in my 26 years in the Marine Corps."



SPOTLIGHT - CAMP PENDLETON ENVIRONMENTAL TEAM

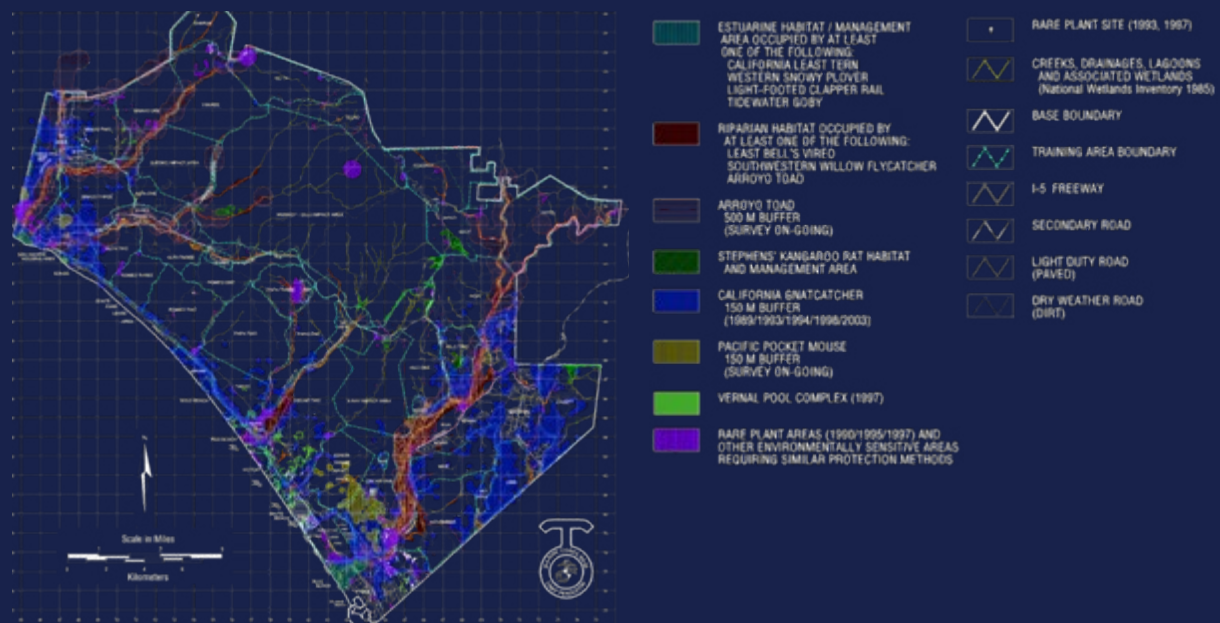
Marine Corps Base Camp Pendleton is one of the largest Marine Corps Bases in the United States, covering 125,000 acres of land and including 17 miles of coastline. Located in northern San Diego County, the base is on estuary lands at the mouth of the Santa Margarita River including salt marshes. This unique geography lends itself to a variety of plant and animal life. There are 19 threatened and endangered species on base. The Camp Pendleton Environmental Team goes to great lengths to protect each one of those



species and to ensure there are no impacts placed upon them. The base has restricted areas where people are not allowed and there are additional buffer zones to protect the animals and plants, as seen by the localized color zones in Exhibit 10. One example of these buffer zones is a standoff range between Snowy Plover breeding grounds and the base, to make sure these animals and their habitats are protected. Additionally, these compliance measures help ensure military training continues without interruption.

Through the use of the Defense Department's Readiness and Environmental Protection Integration (REPI) program, MCB Camp Pendleton has partnered with Nongovernmental Organizations to help enhance the habitat of protected and endangered species off base which helps ensure training space remains available on base. Partnerships include 17 partners, which range from small localized Conservation Agencies to the County of San Diego, and National Level Agencies such as The Trust for Public Land and The Nature Conservancy. To date, MCB Camp Pendleton has partnered on 14 REPI properties totaling 3,228 acres with accrued costs for the acquisition of these conservation restrictive use easements (C/RUE) and management totaling \$27.1M.

Exhibit 10.
Camp Pendleton | Natural Resource Map



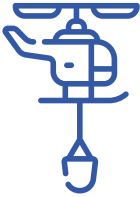















United States Coast Guard

Organized under the Department of Homeland Security, Coast Guard Sector San Diego is a key law enforcement agency, as well as a security partner to the Navy and Marine Corps, a member of the U.S. Intelligence Community, and provider of first responders for military and civilian crises. San Diego is home to the first Coast Guard Air Station and is one of the few places that integrates aviation into a Coast Guard sector. Its prime location gives these

“Guardians of the Southwest” immediate access to guard and protect the Southwest Maritime border.

In addition, the Coast Guard’s Joint Harbor Operations Center includes officers from the Department of Homeland Security, the Navy, and the Harbor Police. This unique arrangement strengthens partnerships and allows for rapid coordination that ensures effective emergency response services.

ON ANY GIVEN DAY IN THE UNITED STATES, THE COAST GUARD: (FN17)

<p>Conducts 42 search and rescue cases</p> 	<p>Conducts 133 waterborne patrols of critical maritime infrastructure</p> 	<p>Screens 313 merchant vessels for potential security threats prior to arrival in U.S. ports</p> 	<p>Completes 24 safety examinations on foreign vessels</p> 
<p>Saves 12 lives</p> 	<p>Interdicts 18 illegal migrants</p> 	<p>Conducts 19 fisheries conservation boardings</p> 	<p>Conducts 162 marine inspections of U.S. vessels and facilities</p> 
<p>Saves over \$114,000 in property</p> 	<p>Escorts 9 high-capacity passenger vessels</p> 	<p>Services 45 buoys and fixed aids to navigation</p> 	<p>Investigates 17 marine casualties involving commercial vessels</p> 
<p>Seizes 1,253 pounds of cocaine and 172 pounds of marijuana</p> 	<p>Conducts 13 security boardings in and around U.S. ports</p> 	<p>Investigates 26 pollution incidents</p> 	<p>Facilitates movement of \$15.6 B worth of goods and commodities through the Nation’s Maritime Transportation System</p> 

SPOTLIGHT - SAN DIEGO'S DESIGNATION AS A COAST GUARD CITY

The Coast Guard has an extensive and rich history as an important member of the San Diego community beginning in 1855 with the construction of the Old Point Loma Lighthouse, following California's admission to the Union. In 1934, the Coast Guard opened Air Station San Diego to prevent smuggling across the United States – Mexico border and the mission quickly expanded to include search and rescue. CDR Elmer Stone, the Coast Guard's first aviator, played a key role in commissioning the Air Station. Today, the Coast Guard footprint in San Diego includes more than 900 active duty, reserve, and auxiliary members performing 10 of 11 Coast Guard's statutory missions.



The Coast Guard City program was established by the U.S. Congress in 1998 to recognize cities where military assets of the United States Coast Guard are located, and which demonstrate support to Coast Guard personnel stationed there. To date, 29 cities have been designated by Congress as Coast Guard Cities (geographically). On Feb. 23, 2017, San Diego was designated as the largest Official Coast Guard City. City Support includes an established charter, a Coast Guard City Executive Steering Committee with Bi-Monthly meetings and facilitation of engagement with community partners.

This honor is bestowed with approval from Congress and by the Commandant of the USCG to the City of San Diego. Although San Diego is one of the Nation's top ten largest cities, elected officials and influential community leaders continue to regularly meet with Coast Guard leadership, discuss pertinent issues, and champion key Coast Guard initiatives. Recent events include commemorating the Coast Guard's 85 years of service to San Diego with a plaque on the Nimitz Bridge on Harbor Drive. A Coast Guard City Designation is active for five years, at which time it is reevaluated based on the support rendered since designation. San Diego is currently being reevaluated for 2022.



Navy Medicine

Navy medicine has an extensive presence in San Diego with its regional command, Naval Medical Forces Pacific (NMFP), located on Naval Base San Diego. NMFP oversees 10 Navy Medicine commands in the U.S. and Pacific region, in addition to eight Navy medical research and development commands across the globe. NMFP is charged with delivering operational medical capabilities to supported operational forces, while ensuring our medical professionals are ready to support them – wherever, whenever.

In 2021, authority and oversight of healthcare delivery to all eligible beneficiaries at San Diego-based military treatment facilities were transferred to the Defense Health Agency's (DHA) newly established San Diego Market Office. The San Diego Market is comprised of Naval Medical Center San Diego (NMCS) and Naval Hospital Camp Pendleton (NHCP), along with their 24-branch medical and 11 dental clinics that, when coupled with DHA's TRICARE health insurance program, are responsible for 357,000 eligible beneficiaries locally. NMFP also provides oversight to San Diego's Naval Health Research Center (NHRC), located in Point Loma. All told, military medicine employs 7,739 people in San Diego, with 4,806 of them being active duty. NMFP, NMCS, NHCP, and NHRC contribute a combined total of over \$712M in direct support of the San Diego community. (FN2)

The focus of NMCS and NHCP is to deliver optimized medical readiness tailored to operational requirements, enhance the readiness of the medical force to sustain expeditionary medical capability, and train and develop the Navy Medicine force. This is accomplished by delivering high-quality and safe patient-centered care to active duty, retirees and associated family members. Both MTFs are teaching hospitals responsible for developing the next generation of Navy medical professionals. NHCP offers a residency program in Family Medicine and a fellowship in Sports Medicine. NMCS offers physician internships, residencies, and fellowships in many specialties, and is a training site for enlisted Hospital Corpsman, nurses, dentists and allied health professionals. In 2021, both NMCS and NHCP led COVID-19 vaccination efforts for all eligible personnel with over 241,000 individual

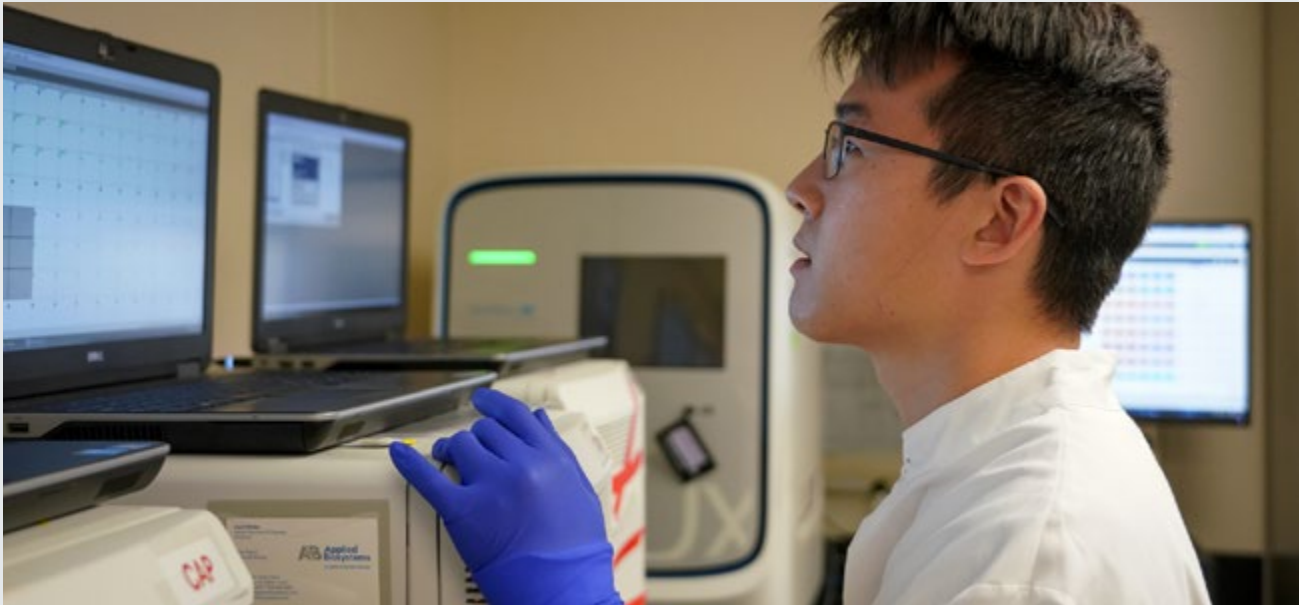
doses of COVID-19 vaccine administered (through August 2021) in coordination with U.S. Navy's Third Fleet and the U.S. Marine Corps' First Marine Expeditionary Force. In parallel, they have continued their COVID-19 testing mission and caring for those patients impacted by COVID-19.

Navy Medicine conducts extensive research and development activities in San Diego at NHRC in Point Loma. Their focus on operational readiness spans through physical readiness and medical planning, to wounded warrior recovery and behavioral health interventions (FN 12). Across NHRC there are always projects on the cutting edge of research and innovation. NHRC's primary focus is active duty military and their beneficiaries, a predominantly young, healthy population that allows NHRC to serve as an early warning system for emerging infectious diseases in the San Diego community. This past year, NHRC's Infectious Diseases Directorate (IDD) was at the forefront of COVID-19 research, working hand in hand with the Centers for Disease Control and Prevention on early testing of their assays and providing invaluable knowledge-sharing to other labs and hospitals. See 'NHRC at the Forefront of COVID-19 Research' Spotlight for more on the IDD's key hand in helping with COVID-19 research, as described by Dr. Chris Meyer, Director of Infectious Diseases at NHRC.

The hospitals and NHRC have access to a high concentration of Navy Fleet and Fleet Marine Forces, biotechnology companies, and world-class local universities, including UC San Diego and San Diego State, enhancing collaborative efforts. Meanwhile, the skills, expertise, and experience the Navy's doctors, nurses, hospital corpsmen, researchers, and other medical professionals gain in support of combat, disaster relief, and humanitarian missions abroad are brought to San Diego and shared with local colleagues through partnerships and knowledge exchanges. Navy Medicine's health care and research personnel offer a continual tide of fresh ideas that help ensure San Diego's hospitals and labs remain forward focused, bringing benefit to the whole San Diego community.

SPOTLIGHT - NHRC AT THE FOREFRONT OF COVID-19 RESEARCH

The Naval Health Research Center (NHRC), located at Naval Base Point Loma in San Diego, is a premier operational health research center that has been conducting research, development, testing and evaluation to inform Department of Defense (DoD) policy since 1959. It consists of three research directorates, Operational Readiness & Health, Military Population Health, and Operational infectious Diseases, that have been an integral part of serving, and in some cases, protecting the San Diego community.



In 2009, NHRC's Operational Infectious Diseases surveillance team identified the first two samples of H1N1 influenza in the United States. They alerted the CDC about two influenza strains that were radically different from those in circulation that season. In this case, NHRC was able to serve as an early warning system for emerging infectious diseases and other dangerous pathogens in the San Diego area by allowing public health authorities to respond to the Swine Flu outbreak in a timely manner.



Most recently in support of the COVID-19 pandemic fight, NHRC was the first DoD laboratory to get emergency use authorization to test for COVID-19 in February 2020, allowing identification and quarantine of those infected with the virus, as well as their close contacts, to start much sooner than it otherwise would have. In the beginning of the COVID-19 pandemic, NHRC was doing all the sample testing for the DoD in San Diego County, while also providing DoD testing capability across southern California and north to Vandenberg and Travis Air Force Bases. In the midst of COVID-19, when medical testing equipment and supplies were limited, NHRC's continued innovation helped many. NHRC conducted a series of studies and found that multiple samples could be combined or "pooled" to conduct surveillance testing and identify COVID-19 infection within a population to inform public health responses. Having the ability to pool samples minimized testing time and saved high-demand materials required for the SARS-CoV-2 assays needed to test large numbers of individuals.

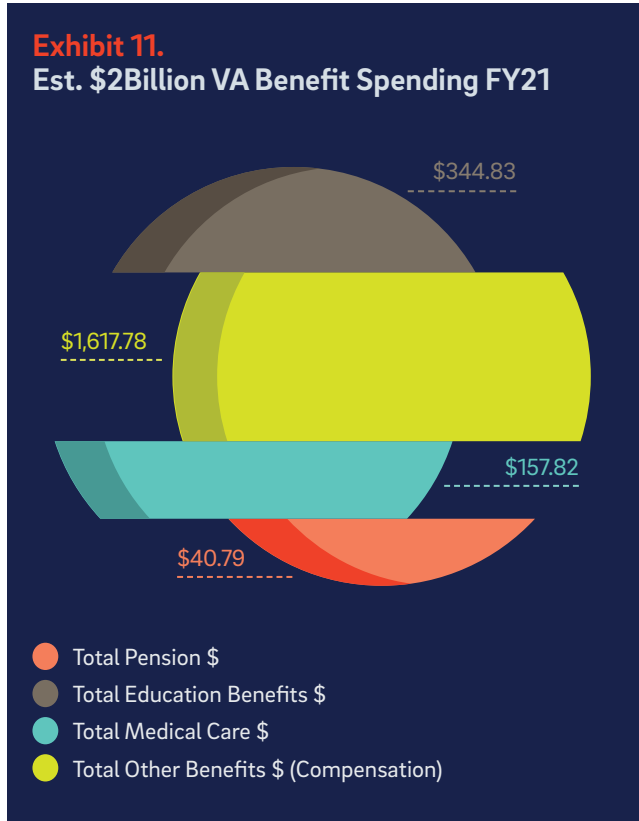
NHRC's Science, Technology, Engineering, and Math (STEM) outreach programs and other research directorates also contribute to the San Diego community by conducting studies and implementing programs that have a direct effect and positive impact on the many military families living in the San Diego community. Examples include the Wounded Warrior Recovery Project, Surf and Hike Study, to testing Warfighter equipment, and evaluating sleep and nutritional needs.

U.S. Department of Veterans Affairs

The U.S. Department of Veteran’s Affairs (VA), and specifically the San Diego Veterans Affairs Regional Office (VARO), administer a wide array of benefits to Veterans living in San Diego. These Veterans have served the nation in various conflicts, dating back to World War II. The 244,541 local Veterans comprise about 17% of the total San Diego population (FN2, FN13).

The Veteran’s Benefits Administration (VBA), part of the VA, aids soldiers in their transition from battle and helps support their families through education benefits, home loans, life insurance, and much more. The VA ensures that those who serve the nation are never forgotten through Fort Rosecrans National Cemetery (est. 1934) and Miramar National Cemetery (est. 2010).

During Fiscal Year 2021, San Diego VA Regional Office administered approximately \$41 million in VA Pension benefits, \$344 million in total education benefits, \$157 million in total medical care in San Diego County alone and 1.6 billion in VA Compensation benefits (Exhibit 11). The San Diego VA Regional Office’s approximate \$2 billion spending in FY 2021 is up 12% from last year.



VA San Diego Healthcare System provides comprehensive medical inpatient and outpatient services through their facility in La Jolla and outpatient services in six different clinics across the county, through the nation’s largest integrated health care network, employing over 4,000 people in San Diego in FY 2021 (FN2).



SPOTLIGHT - INNOVATIVE VETERANS IN SAN DIEGO

JOSH SHAFFER ENTREPRENEUR, FOUNDER OF GLÖBIER AND TALENT180



Although he grew up an 'Army brat', Josh had no intentions of joining the military. During his freshman year in college, 9/11 occurred. Josh then, like many others, felt compelled to serve. Josh enlisted in the Marine Corps and spent 12 years in the service - primarily as a Recruiter and Director of Talent Acquisition after multiple combat

deployments. During this time, Josh also graduated from Savannah State University, utilizing scholarships, enabling him to save his G.I. Bill for Graduate School.

In 2013, Josh separated from the Marine Corps and after a couple of years transitioning to the civilian world, he started his M.B.A. at the Rady School of Management at UC San Diego. While at Rady School, Josh became an innovator, starting both Glöbier and Talent180. He is still an executive at both companies today.

Glöbier is the world's first glow-in-the-dark beer and is backed by two former CEOs of big beer companies - including Pabst, Beck's, and Pyramid. Glöbier has a strong intellectual property portfolio - including an international patent-pending secret formula. Glöbier is FDA approved with all-natural ingredients and is non-GMO.


Talent180 is a full-service talent acquisition and advisory firm specializing in placing Civil Engineering candidates. "We support the Civil Engineering industry by creating the talent marketplace. Since recruiting has become so transactional, we're more focused on building relationships than we are transactions. We're still data-driven, but it's applied to relationship-based recruiting in a marketplace that, before us, was not moving a lot. This is because Civil Engineers are unique people in the way they communicate - they do not have typical job seeker behaviors. So we've been able to create a marketplace and show companies that there is a way for them to acquire Civil Engineers who not only meet technical requirements of the role, but also the company's values."



“ We support the Civil Engineering industry by creating the talent marketplace. Since recruiting has become so transactional, we're more focused on building relationships than we are transactions. We're still data-driven, but it's applied to relationship-based recruiting in a marketplace that, before us, was not moving a lot.



Summary



This past year has been an important part of history; as a country we've made tremendous medical advances and rallied behind a vaccine to put COVID-19 in our rearview mirrors. While San Diego has not been immune to the negative effects of the coronavirus, the steadying hand of the military on our local economy has never been more evident. Between job security provided at a time when jobs weren't secure, to direct spend and spillover dollars when business certainty was not certain, the military community and its resources have helped to meet the needs of our communities. Across all branches, the Sailors, Marines, Coast Guard members, Reservists, Veterans, Retirees, civilian employees, aerospace and defense firms, shipbuilders, electronics and software companies, and technology companies, the benefit and contribution to the community have been apparent, and each has done their part in helping propel our economy forward.



Acknowledgments

SDMAC and the Rady School of Management at UC San Diego would like to thank our local Marine Corps, Navy, Coast Guard, and VA and San Diego community for their enormous support in making this report possible. In particular, members of the following organizations provided data used in this report: Commander Navy Region Southwest, Commander Marine Corps Installation West, Commander

Naval Medical Forces Pacific, Sector Commander Coast Guard Sector San Diego, Marine Corps Air Station Miramar, Marine Corps Recruit Depot San Diego, the San Diego Veterans Affairs Regional Office (VARO), the VA San Diego Healthcare System (VASDHS), Blue Star Families, and the San Diego Association of Governments (SANDAG).



In Memoriam

The family, friends, and colleagues of Daniel Reed greatly appreciate the opportunity the MEIR provided to showcase his analytical skills and to cement Dan's legacy within the San Diego business community. Before his recent passing, Dan leveraged his UCSD Rady School of Management education and career in the defense industry to provide key contributions to the foundational 2020 MEIR. He will always live in our hearts with his work forever on display.



Foot Notes

FN1 - https://www.sandag.org/uploads/publicationid/publicationid_4712_28193.pdf

FN2 - Data provided directly from military sources. See supplementary documentation for more detail.

FN3 – Bureau of Economic Statistics data. See supplementary document for more detail on calculations.

FN4 – inflation dollars: <https://www.in2013dollars.com/us/inflation/1915?amount=1400000>

FN5 - Linder, Bruce (2001). *San Diego's Navy*. Annapolis, Maryland: Naval Institute Press. p. 122. ISBN 1-55750-531-4.

FN6 - Herman, Arthur. *Freedom's Forge: How American Business Produced Victory in World War II*, pp. 219–34, 242–3, Random House, New York, NY. ISBN 978-1-4000-6964-4.

FN7 - Kevin Starr, "Gibraltar of the Pacific: San Diego Joins the Navy," in Starr, *The Dream Endures: California Enters the 1940s* (1997) pp 90–92, 114–15

FN8 - Auerbach, Alan J., Yuriy Gorodnichenko, and Daniel Murphy. *Local Fiscal Multipliers and Fiscal Spillovers in the USA*. *IMF Economic Review* (2020) 68:195-229.

FN9 - Chodorow-Reich, Gabriel. *Geographic CrossSectional Fiscal Spending Multipliers: What Have We Learned?* *American Economic Journal: Economic Policy* (2019), 11(2): 1-34

FN10 – Bureau of Labor Statistics; San Diego Labor Force https://www.bls.gov/regions/west/ca_sandiego_msa.htm#eag_ca_sandiego_msa1.f.p

FN11 - <https://sandiego.tricare.mil/About-Us>

FN12 - <https://www.med.navy.mil/sites/nmrc/nhrc/aboutus/Pages/home.aspx>

FN13 - SD population <https://www.census.gov/quickfacts/fact/table/sandiegocitycalifornia/PST045219>

FN14 - <https://news.usni.org/2021/04/20/fleet-exercise-includes-live-missile-shoot-as-navy-pairs-crews-with-unmanned-systems>

FN15 - Navy Large Unmanned Surface and Undersea Vehicles: Background and Issues for Congress <https://crsreports.congress.gov/product/pdf/R/R45757>

FN16 - https://www.navy.mil/Portals/1/Strategic/20210315%20Unmanned%20Campaign_Final_LowRes.pdf

FN17 - [About the U.S. Coast Guard \(uscg.mil\)](https://www.uscg.mil)

FN18 - <https://www.csis.org/analysis/us-military-forces-fy-2021-navy>



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