STATE of CONNECTICUT
OFFICE of MILITARY AFFAIRS
(OMA)

Annual Report
Fiscal Year 2019-2020

Robert T. Ross
Executive Director
# Table of Contents

I. Introduction ....................................................................................................................................................... 1

II. Key Defense Issues for the Nation and State ..................................................................................................... 2

III. Connecticut Defense Industry Outlook .............................................................................................................. 7

IV. U.S. Naval Submarine Base New London and the Submarine Industrial Base .................................................. 13

V. The National Coast Guard Museum ................................................................................................................. 18

VI. Quality of Life and Military Service in Connecticut ........................................................................................... 18

VII. Conclusion ....................................................................................................................................................... 21

Appendix A: Public Act No. 15-65
Appendix B: Biography of OMA Executive Director
I. Introduction

For its legendary support in the Revolutionary War, President George Washington called Connecticut the “Provisions State.” From the beginning of America’s democracy, Connecticut has played a key role in producing the diverse and highest quality human and physical resources for our nation’s defense.

Units of the Connecticut National Guard are dispersed in armories and other facilities across the state. Throughout its long history, dating back to colonial militias, Guard units have responded to state and national emergencies and performed combat operations around the world. The Connecticut National Guard is headquartered next to the State Capitol in Hartford, in the massive State Armory and Arsenal building dedicated by President William H. Taft in 1909.

In 1794, after the Continental Congress decided to create a United States Navy, an expedition sailed from New London to retrieve live oak, the hardest wood available, to build America’s first warships at different shipyards along the East Coast. These ships were not modified merchant vessels. They were designed from the keel up to be warships. One of them, the USS Constitution, remains the oldest commissioned warship in the world.

The Navy base in Groton was originally a Naval Yard and Storage Depot, established in 1868. It was built on land donated by the people of Connecticut. The State Legislature provided $15,000 and the City of New London appropriated $75,000 for the purchase of land on the east bank of the Thames River in the New London harbor. In 1916 the base was designated the nation’s first Naval Submarine Base and home of the Submarine School.

The first land-based campus of the Coast Guard Academy was established at Fort Trumbull in 1910 and then moved to land donated by the City of New London in 1915. The Coast Guard Academy is the single officer accession source of all commissioned officers for the U.S. Coast Guard. Today, the men and women of the Coast Guard serve at stations ashore and aboard cutters deployed throughout the U.S. and in every ocean.

Since the first days of our democracy, Connecticut’s defense manufacturing industry has continued without interruption. The ships, submarines, aircraft, jet engines, helicopters, firearms and advanced weapon systems built in Connecticut reflect our state’s continuous innovation and highly skilled workforce. Connecticut’s defense industry and military bases produce billions of dollars in economic activity throughout the state, in large and small businesses in virtually every municipality.
Overview of OMA

The Office of Military Affairs (OMA) was established by Connecticut General Statute 32-58b in 2007. Accordingly, “the Office of Military Affairs shall promote and coordinate state-wide activities that enhance the quality of life of all branches of military personnel and their families and to expand the military and homeland security presence in this state.”

Mission of OMA

• Coordinate efforts to prevent the closure or downsizing of Naval Submarine Base New London in Groton (SUBASE).
• Support Connecticut’s military families and enhance their quality of life.
• Advocate for Connecticut’s defense industry, a major component of the state’s economy and an engine of innovation and quality production for the U.S. Armed Forces.
• Encourage the retention of established military and defense industry missions and the relocation of new ones to the state.
• Serve as liaison to the Connecticut congressional delegation on defense and military issues.

Structure and Organization

As directed in statute, OMA is established within the Department of Economic and Community Development (DECD) for administrative purposes only. OMA and DECD are co-located at 450 Columbus Boulevard in Hartford, Connecticut.

The office is minimally staffed with a full-time Executive Director, designated as a department head in the executive branch, reporting directly to the Office of the Governor. The Executive Director is supported by DECD staff members and interns who provide support for OMA in various functions including, but not limited to, office administration, public communications, financial management, legal counsel, information technology, economic research and legislative affairs.

The legislation setting forth duties and responsibilities of the OMA Executive Director was revised by the Connecticut General Assembly (Appendix A) and was signed into law by Governor Dannel P. Malloy on June 19, 2015.

OMA is an active member of the national Association of Defense Communities (ADC), a Washington-based organization that represents states and communities nationwide that host military installations. OMA Executive Director Bob Ross was elected to the ADC Board of Directors and serves as Vice President. His many contributions to the organization include participation in numerous thought-leading programs in national and regional forums.

II. Key Defense Issues for the Nation and State

The year 2019 was relatively stable on the national security front, with most media attention focused on four areas: On again-off again discussions with North Korea on nuclear weapons, U.S.-China negotiations on resolving an ongoing trade war, U.S. efforts to draw down the American presence in Afghanistan, and intense debate over the funding and construction of the U.S. southern border wall.

For Connecticut, the state’s defense industrial base saw a landmark year, with defense contracts to Connecticut companies or companies doing business in the state at their highest level in recent
decades. The main reason was the award in December 2019 to General Dynamics Electric Boat (EB) of the largest single shipbuilding contract ever awarded by the Navy, a staggering $22.2 billion, for nine Virginia-class nuclear submarines.

The year closed with approval by Congress of a defense appropriations bill for Fiscal Year (FY) 2020 containing tens of billions of dollars for weapons programs based in Connecticut: EB’s submarines, F-35 Lightening aircraft powered by Pratt & Whitney engines, and Sikorsky helicopter programs.

National Security/Foreign Policy Issues

Korea: President Donald Trump and North Korean leader Kim Jung-un held a two-day summit in Vietnam in February 2019; they had previously met in June 2018 for the first time. They met for a third time in June 2019 in the Korean demilitarized zone. Despite these meetings and subsequent negotiations between the countries, North Korea has shown no signs of giving up its nuclear weapons. In June 2020, North Korea halted negotiations with the United States and cut communications with South Korea.

China: The United States and China, the world’s two largest economies, imposed billions of dollars of tariffs on each other’s products throughout 2019. In January 2020 both countries signed a ‘Phase 1’ trade agreement. The United States agreed to hold off on new tariffs; in turn, China promised to allow more U.S. agricultural, energy, and other products. While both countries have been involved in further negotiations, relations deteriorated in early 2020 with President Trump strongly criticizing China for its handling of the COVID-19 global pandemic. And tense interactions at sea in the western Pacific escalated as the U.S. and China continue to dispute the international waters in the region of Taiwan.

Russia: Russia inherited advanced nuclear powered submarine technology from the former Soviet Union. And in recent years Russia has been investing significantly in new submarines, rather than aircraft carriers, cruisers, and other surface warships as China is doing. “Submarines appear to have a high priority in Russia’s current efforts to rebuild its armed forces,” wrote respected naval analyst Norman Polmar in the October 2019 issue of Proceedings, the U.S. Naval Institute’s professional journal. The Russian focus is mainly on nuclear powered ballistic missile submarines and attack submarines – much like the United States – and a new version of diesel-electric attack subs. In his article, Polmar said it will be highly important for U.S. and other Western navies to closely monitor Russia’s submarine buildup and to determine its intentions. This warning is well put -- today we are seeing more Russian submarine operations in the Mediterranean and North Atlantic than any time since the Cold War, according to senior Navy officials.

Afghanistan: The U.S. war in Afghanistan slogged on through 2019, but in February 2020 the United States signed a peace agreement with the Taliban aimed at finally ending the 19-year-old conflict. In the six months after the deal U.S. forces in Afghanistan were reduced from 13,000 to about 8,600. However, Taliban attacks against the Afghan government have not ceased, in violation of the agreement and endangering the peace process. U.S. military leaders have said they would not recommend a full withdrawal from Afghanistan unless the Taliban fulfills its peace obligations.

U.S. Southern Border Wall: In May 2019 the U.S. government changed its policy for asylum seekers from Mexico and other Central American countries. Rather than being allowed to cross into the United States and wait for a hearing, they were made to wait in Mexico. As a result, crossings into the United States
dropped significantly. The issue has been controversial, with critics saying the new policy exposed asylum seekers to violence in Mexican border cities. And the diversion of funds from the Department of Defense (DOD) to the Department of Homeland Security (DHS) remains under review by U.S. courts as a constitutional matter.

**Connecticut Defense Funding, Issues**

December 2019 was a very good month for the state of Connecticut. In addition to the record-breaking Navy shipbuilding contract referenced above, both the FY 20 defense authorization and appropriations bills received final passage by Congress and were signed into law that month. Due in large part to support from the state’s congressional delegation, both bills resulted in significant funding for CT-based defense programs.

Following is a summary of the key items:

- $8.5B for two Virginia-class submarines in 2020.
- $3B in advance procurement for additional submarines in 2021 and 2022.
- $1.8B for advance procurement for the new Columbia-class ballistic missile submarines.
- An additional $427 million for continued research and development of Columbia-class submarines.
- $9.3B for 98 Pratt & Whitney-powered F-35 aircraft, 20 more than the DOD budget request.
- $3B for continued development of the Air Force B-21 long-range bomber; Pratt & Whitney is a partner in the program.
- $2.1B for 12 KC-46 tanker aircraft, also powered by Pratt & Whitney engines.
- $1.4B for 74 Sikorsky UH-60 Black Hawk helicopters, 16 more than the number funded in the previous year.
- $847M for six Sikorsky Marine Corps heavy-lift CH-53K helicopters; $517M for continued research and development.

Rep. Joe Courtney of Connecticut, chairman of the House Armed Services Subcommittee on Seapower and Projection Forces, was instrumental in obtaining funding for second Virginia-class submarine. Such funding was not included in the DOD budget request. “Restoration of full funding for a second Virginia-class submarine topped the Navy’s list of unfunded priorities,” he said, “which is consistent with the testimony of combatant commanders about the growing need for submarine capabilities around the world, as well as about the harm cutting a submarine would do to the workforce and supply chain, which need stability. That is why we found such strong bipartisan support to fully restore it.”

**Electric Boat Awarded Largest Navy Shipbuilding Contract**

As stated above, EB was awarded the Navy’s largest single shipbuilding contract ever, $22.2B, on Dec. 2, 2019, for nine ‘Block 5’ Virginia-class submarines. Eight of them will have an 84-foot extension of the hull – known as the Virginia Payload Module (VPM) -- that will increase the cruise missile capacity. The contract has an option for a 10th submarine that would cost $1.9B, bringing the total award to $24.1B.

Thanks in large part to the record-breaking EB contract, 2019 was the best year in recent decades for the Connecticut defense industrial base with a total of $37.1B awarded
to Connecticut companies or companies doing business in the state. It was by far the best defense contracting year for Connecticut since the CT Office of Military Affairs was established in 2007 and began tracking defense contracts that year.

“Connecticut workers have earned a reputation of being the best trained in the nation, and there is no doubt that the U.S. Navy recognizes the strength of the workers at Electric Boat and its local suppliers throughout our state,” said Connecticut Gov. Ned Lamont in a statement on the EB contract award. “This is big news for workers throughout southeastern Connecticut. For years to come, the most advanced and most capable submarines in the world will continue to be built in Connecticut.”

EB is teamed on the contract with Huntington Ingalls Industries’ Newport News Shipbuilding. Together, the companies will be building three submarines a year – two Virginia-class and one Columbia-class submarine. The first Virginia-class boat under the contract is now being built at EB. Deliveries are scheduled from 2025 through 2029.

The prior largest Navy shipbuilding contract was a $17.6B award to EB in 2014 for 10 ‘Block 4’ Virginia-class submarines. Each new VPM-equipped submarine represents about 25% more work than the regular Virginia-class boats. According to analysis by Rep. Courtney’s office, the Block 5 contract for nine boats -- eight with VPMs – represents a workload equivalent to about 11 standard Virginia-class submarines.

In a statement after the award was announced, Courtney said the increased workload is “good news that continues to support an historic surge in workload and workforce at the Groton shipyard and throughout the Connecticut and national supply chain that supports it.”

Sen. Richard Blumenthal of Connecticut said the contract “is critical for our national security and just as important for the future of highly skilled Connecticut jobs.” He added, “I am committed to fighting on behalf of current and future Connecticut workers to ensure that the Navy exercises the option to buy a tenth Connecticut-made submarine.”

Connecticut Sen. Chris Murphy issued a statement saying, in part: “The hardworking men and women at Electric Boat continue to prove their ability to build the best submarines in the world. This new contract will fuel thousands of jobs in our state and provide long-term stability to the thousands of small Connecticut companies that support our defense manufacturing sector. This is a great win for our state.”

Electric Boat Expansion

EB had a ground-breaking ceremony on Sept. 19, 2019, for the largest construction program in 45 years at its Groton shipyard – a 200,000 sq. ft. facility for construction of Columbia-class submarines. The new building is part of an $850M project that will include expansion and updating of other manufacturing space and construction of a floating drydock to launch the ballistic missile submarines.

Overall, EB plans to invest some $1.7B to modernize its facilities over the next decade. In addition to the Groton expansion, the company plans to spend $700M at its location at Quonset Point, RI. Earlier in September, EB announced that it had completed construction of a $28M facility at Quonset Point to support construction of payload modules that will expand the length, capability, and missile capacity of Virginia-class submarines.

Speaking at the ground-breaking, Sen. Blumenthal, a member of the Senate Armed Services Seapower Subcommittee,
said Columbia-class submarines will be the “stealthiest, strongest, most versatile boat involved in nuclear deterrence” in a world that’s grown more dangerous in recent decades,” adding “In the building that will come to this site men and women will work for the rest of this century, or most of it, building the ships that will protect America against those adversaries and deter them.”

EB has more than 17,000 employees, about 12,000 of whom are in Connecticut. It has hired some 14,000 employees in the past eight years, including 1,400 in 2019. Of those, 900 are in Connecticut and the remainder at Quonset Point. It is working with a network of suppliers in Connecticut and across the nation to prepare for the estimated 150% increase in the need for supplies and materials to build both the Virginia-class and Columbia-class of submarines at the same time.

Pratt & Whitney

Pratt & Whitney’s (P&W) most prominent defense program continues to be the F135 propulsion system for the F-35 Lightening fighter jet. By the end of 2018 the company had produced more than 500 F135 engines and modules, doubling its output over the previous two years. Its 2020 goal is to produce 200 propulsion systems.

“With a worldwide fleet of more than 500 F135 engines, Pratt & Whitney is driving towards world-class sustainment,” said Matthew Bromberg, president of P&W Military Engines in testimony before the House Armed Services Committee on Nov. 13, 2019. “As the fleet grows, we are committed to reducing sustainment costs by 50 percent. The most important factor is reliability. Fortunately, the F135 has consistently exceeded 94 percent mission capability.”

In 2019 P&W was awarded two contracts in excess of $2B each for F135 propulsion systems. The first, announced on May 31, 2019, was in the amount of $3.2B for production and delivery of 233 F135 engines for the Air Force, Navy, Marine Corps and Foreign Military Sales (FMS) customers. On Sept. 30, 2019, P&W received a contract in the amount of $2.2B for 183 F135 propulsion systems and for long-lead components and materials associated with 148 additional propulsion systems. F Y 18 and FY 19 funds in the amount of $3.5B were obligated at the time of the award.

On other matters, in November 2019 P&W donated $100,000 to establish a scholarship program for mechanical engineering students at the University of Hartford’s College of Engineering, Technology and Architecture. The program aims to foster diversity and inclusion in the field of engineering. The recipients are able to network with P&W executives and potential hiring managers and have the opportunity to apply for internships and employment.

Sikorsky

Sikorsky was awarded three contracts in 2019 totaling more than $2B:

- **May 17.** $1.1B contract for 12 CH-53K King Stallion heavy-lift helicopters for the Marine Corps. The contract is part of a program to produce 200 CH-53K helicopters. The helicopter will be able to transport armored vehicles, other equipment, and personnel deep inland from a sea-based center of operations.
- **June 10.** $542M for six VH-92A presidential helicopters, part of a program to build 23 helicopters for the Marine Corps to replace current presidential
Sikorsky will begin delivering the new helicopters in 2021.

- **Dec. 10.** $556.2M for production of Black Hawk helicopters, used widely by the U.S. military and by the armed forces of 28 other countries around the world. More than 4,000 of the workhorse Black Hawk helicopters are in service worldwide.

Interestingly, Sept. 14, 2019, marked the 80th anniversary of the first helicopter developed by famed engineer Igor Sikorsky.

Sikorsky was born in 1889 in Kiev, what is now Ukraine. Fascinated by the aviation-related inventions of Leonardo da Vinci, he built and flew model aircraft as a boy. Sikorsky studied mechanical engineering in Kiev. He went on to develop fixed-wing aircraft and emigrated to the United States after World War I in 1919, starting his own business in Connecticut.

His first practical helicopter was the VS-300, designed by Sikorsky. The craft made its first flight on Sept. 14, 1939, at the company’s plant in Stratford, CT, with Sikorsky himself at the controls. After that successful first flight, Sikorsky designed and built increasingly sophisticated helicopters, leading the way to the modern age of rotary aircraft.

Sikorsky’s vision produced versatile airframes used around the world for civilian and military search and rescue, surveillance, reconnaissance, logistics, law enforcement and combat operations. Today, Sikorsky helicopters are widely used in commercial and private transportation and have transported every U.S. President since Dwight D. Eisenhower first used them in 1959.

Sikorsky died in 1972 at age 83. Historians will remember him as one of the world’s greatest pioneers in aviation.

III. **Connecticut Defense Industry Outlook**

As stated above, calendar year 2019 was an extraordinary year for the state’s defense industrial base. This was due mainly to the $22.2B contract awarded in December 2019, the largest Navy single shipbuilding contract ever awarded. This brought the 2019 total amount of contracts to Connecticut companies or companies doing business in the state to $37.1B.

Even this sky-high amount is conservative. It is based on DOD’s daily announcements of contracts awards. However, the DOD announcements apply only to prime contracts with a value of $7M or more. Thus, the many thousands of DOD contracts under $7M awarded annually are not included.
Connecticut’s OMA has been closely tracking defense contracts since it was established in 2007. As stated above, the previous highest amount of defense contracts to Connecticut’s defense industrial base was 2014 when $27.1B in contracts was recorded.

Interestingly, even without this huge Navy contract 2019 would have been a very good year of Connecticut’s defense industrial base.

At the end of November 2019 – just prior to the award of the Navy contract – Connecticut companies had received $14.9B in defense contracts. The year-end total without the record-breaking EB contract would have been $16.3B. There were four other 2019 defense contracts to Connecticut companies with a value of $1B or more: EB got a contract in March for $2B for submarine work. P&W received F-35 engine contracts in May and September for $3.2B and $2.2B, respectively. Sikorsky was awarded a $1.1B contract in May for CH-53 Marine Corps helicopters.

Trend in Prior Year Contracting

For context, over the past decade Connecticut annual defense contracts have generally been in the $6-$14B range. In recent years, with EB building two Virginia-class submarines per year and P&W turning out significant numbers of F-35 engines, several annual DOD contract amounts have soared far beyond that range.

Figure 1 shows DOD prime contract awards of $7M or more for calendar years 2010 through 2019. From 2010 through 2013 the highest single-year defense contract amount was $10.4B, in 2012. Then, as reported above, the 2014 amount was a towering $27.1B due to the $17.6B Navy submarine contract.

In 2015 and 2016 the yearly amounts dropped to more modest levels of $7.0B and $8.8B, respectively. In 2017 it shot upward again to $23.0B, due mainly to an end-of-the-year $6.7B contract to P&W for F-119 engine sustainment through 2025.

The 2018 amount was a hefty $13.9B, with three contracts of more than $2B each. One went to P&W for F-35 engines; the other two were awarded to United Technologies Aerospace Systems by the Defense Logistics Agency for aviation-related spare parts to the Air Force and other military services.

And as previously noted, the 2019 amount smashed prior records with an astounding $37.1B total, propelled by the $22.2B Navy submarine contract.

With the significant contract spikes in 2014, 2017, and 2019, Figure 1 gives the impression of economic instability in the
state’s defense industrial base. This is not the case, however, for the following reason:

The Figure 1 graph is based on DOD announcements made at 5 p.m. daily of contracts awarded that day, as tracked by the state of Connecticut OMA. However, the total amount of the contracts is considerably greater than the amount actually obligated, i.e., paid to the contractor, at the time the contracts are awarded. Rather, the contract amount is spread out over many years. Examples:

- Of the $22.9B record-breaking shipbuilding contract awarded by the Navy to EB last Dec. 2, only $3.2B was paid to the contractor at the time of award. The work is expected to continue until August 2029, with payments spread over the 10-year-period.
- On May 31, 2019, DOD announced the award of a contract that day to P&W in the amount of $3.2B for 233 F-35 jet engines. The funding obligated at the time was only $793M. Work was expected to continue until January 2022; payments are being made until then.
- P&W was awarded a $6.7B contract for sustainment of F-119 engines on Dec. 14, 2017. However, payments were to be made via individual task orders issued by the Air Force between then and Dec. 21, 2025. No funds were obligated at the time of the award.
- EB was awarded the then record-breaking shipbuilding contract of $17.6B on April 28, 2014. The work – and payments – are being stretched out over a 10-year period to August of 2024. The contract announcement made no mention of funds being obligated at the time of award.

In short, the amounts from large DOD contracts are spread out over many years, providing a cushion of stability for the state’s defense industrial base. This is particularly true in years with modest contract awards and revenues.

**Suppliers to Prime Contractors**

With construction of *Columbia*-class ballistic missile submarines starting in FY 2021 and the planned continued construction of two *Virginia*-class submarines per year – the Navy is considering building three in some years – the future is extremely good for the state’s submarine industrial base. However, it will be a major challenge for suppliers in Connecticut and around the country to keep up with the demanding pace of construction.

EB and Huntington Ingalls Industries’ Newport News Shipbuilding – the only two U.S. companies that manufacture submarines – award hundreds of millions of dollars in sub-contracts to suppliers every year. While it is hard to quantify such spending, the Submarine Industrial Base Council in Washington, DC, tracks amounts spent or contracted to submarine suppliers for the major submarine programs. More than 5,000 companies across the United States make up the submarine industrial base.

In February 2020, the Council issued a state-by-state report showing contracts awarded to submarine industrial base suppliers over the last five years. The total amount nationwide was $20.8B. For Connecticut, the amount was $864.2M, for such products as air revitalization equipment, control valves, specialized command and control electronics, oxygen generators, microswitches, high speed bearings, and pipe fittings.

The $864.2M amount was slightly higher than Connecticut’s total in the Council’s 2019 survey, $861.7M. It was substantially higher than the Connecticut five-year supplier amount in the report.
issued by the Council in 2018, $605.4M. The significant increase over the past two years shows that Connecticut suppliers are being called on more and more for support of the Virginia- and Columbia-class submarine programs.

The Council’s 2020 report notes that while its data is a good representation of the beneficial economic impact that submarine programs have on communities nationwide, “it is estimated that thousands of lower tier suppliers exist across the U.S. that are not represented.” This is certainly true for Connecticut; EB has reported having some 900 suppliers across the state (see p. 17).

While Connecticut is a major submarine supplier state, it ranks 7th in supplier sub-contract amounts over the past five years. California is far and away in 1st place, at $4.8B, followed by Virginia at $2.5B and Pennsylvania, $2.2B. See Table 1 below, listing the top 10 submarine supplier states by dollar amount over the past five years.

### Top U.S. Submarine Supplier States
(By Dollar Amount, 2015-2020)

<table>
<thead>
<tr>
<th>State</th>
<th>Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>4.8B</td>
</tr>
<tr>
<td>Virginia</td>
<td>2.5B</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>2.2B</td>
</tr>
<tr>
<td>Ohio</td>
<td>1.6B</td>
</tr>
<tr>
<td>Indiana</td>
<td>1.6B</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>1.0B</td>
</tr>
<tr>
<td><strong>Connecticut</strong></td>
<td><strong>864.2M</strong></td>
</tr>
<tr>
<td>New York</td>
<td>683.8M</td>
</tr>
<tr>
<td>Washington</td>
<td>565.7M</td>
</tr>
<tr>
<td>Illinois</td>
<td>532.4M</td>
</tr>
</tbody>
</table>

[Table 1]

However, Connecticut has the highest number of sub suppliers far and away with 367, followed by Virginia (278) and Massachusetts (250). Table 2 below shows that Connecticut has far more smaller suppliers than any other state. Moreover, this does not include hundreds of CT lower tier suppliers to EB.

### Top U.S. Submarine Supplier States
(By No. of Suppliers, 2020)

<table>
<thead>
<tr>
<th>State</th>
<th>Suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>367</td>
</tr>
<tr>
<td>Virginia</td>
<td>278</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>250</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>191</td>
</tr>
<tr>
<td>California</td>
<td>175</td>
</tr>
<tr>
<td>New York</td>
<td>136</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>114</td>
</tr>
<tr>
<td>Florida</td>
<td>100</td>
</tr>
<tr>
<td>New Jersey</td>
<td>85</td>
</tr>
<tr>
<td>Ohio</td>
<td>81</td>
</tr>
<tr>
<td>Washington</td>
<td>81</td>
</tr>
</tbody>
</table>

[Table 2]

Overall, there is a vast network of more than 700 small to medium-size supply chain companies in Connecticut that provide products and services to three of DOD’s largest Original Equipment Manufacturers (OEM): Electric Boat, Pratt & Whitney, and Sikorsky.

### Connecticut Defense Spending Ranking

The most recent comprehensive analysis of state-by-state defense spending is *Defense Spending by State, Fiscal Year 2018*, released in early 2020 by the Office of Economic Adjustment (OEA) in the Department of Defense. The report is based on research done between June and December of 2019 and is drawn from
numerous sources, mainly DOD’s Defense Manpower Data Center and USAspending.gov, operated by the Department of the Treasury.

Connecticut did very well in the rankings, especially with its small population (3.6 million) compared to other major defense spending states. It is ranked 8th overall in total defense spending, 7th in defense spending as a percentage of state gross domestic product (GDP), and 6th in defense contract spending.

The state is ranked much lower in defense personnel spending, which is dominated by states with many large military bases. It came in 37th in this category.

As shown in Figure 3 below, Connecticut moves up a notch in the ranking of defense spending as a percentage of GDP, at 5.7%. It is in 7th place, close behind Maryland and Alaska. Virginia is at the top, with Hawaii a distant second. On average for all states, defense spending comprised 2.7% of a state’s GDP, about half of the spending in Connecticut.

In the category of defense contract spending -- excluding DOD spending on personnel -- Connecticut is 6th in the nation at $15.2B, a remarkable achievement. It is behind only California, Texas, Virginia, Maryland, and Florida, all with much larger populations. See Figure 4 below.
Another way of measuring the strength of Connecticut’s defense industrial base relative to other states is by per capita defense spending. According to the OEA report, FY 2018 per capita defense spending in Connecticut – both for contracts and personnel spending – was $4,439. This is far above the per capita defense spending across the entire United States, $1,529. As shown in Figure 5 below, Connecticut ranks an impressive 4th among all states in per capita defense spending, behind Virginia with many large military installations and thus high payroll spending ($6,603) and the low population states of Hawaii ($5,050) and Alaska ($4,730).

Finally, the OEA report also lists the 10 leading defense contractors in each state, based on defense contract spending in FY 2018. Interestingly, EB and P&W are both at the top for CT, each with $5.6B, followed by Sikorsky at $2.8B. Table 3 below shows the entire list.

**Top CT Defense Contractors, FY 2018**

1. Electric Boat $5.6B  
2. Pratt & Whitney $5.6B  
3. Sikorsky $2.8B  
4. Kaman Corp. $91.1M  
5. Ensign-Bickford $71.1M  
6. Timken $40.0M  
7. Triumph Group $30.0M  
8. Colt Defense $27.8M  
9. PCX Aerostructures $27.4M  
10. Leonardo SpA $27.3M

[Table 3]
Summary

As shown above, Connecticut continues to rank among the top states nationwide for defense contracting despite its modest population. All of the foregoing data points to a vibrant defense economy providing the nation with critical weapons. In the last three years in particular – due mainly to EB’s Virginia-class and Columbia-class submarines and P&W’s F-35 jet engines – the state’s defense contracts have been soaring. Suppliers have been busier than ever, particularly for submarines.

Such high level of defense production will likely be the case for many years to come, as Connecticut continues to produce and maintain the world’s most sophisticated nuclear submarines, state-of-the-art military jet engines, and a variety of military rotary wing aircraft used worldwide. The future for the state’s defense industrial base is very bright indeed.

IV. U.S. Naval Submarine Base New London and the Submarine Industrial Base

Chief among the reasons to create OMA was the very real probability that the SUBASE in Groton would be closed. Twice it was targeted by the DOD for closure in the BRAC process. Twice, Team Connecticut, a group of public and private sector individuals, got organized and worked tirelessly to reverse the almost certain closure of the base. Today, the primary task of OMA is to do proactively what Team Connecticut had to do reactively in the BRAC rounds of 1993 and 2005. We don’t want to wage this battle again.

The predictable economic catastrophe associated with the potential closure of the SUBASE is obvious to anyone familiar with southeastern Connecticut. The loss of the positive effects we realize from the base as it generates over $6Bn annual economic impacts and over 30,000 jobs would be devastating. The ripple effect throughout the state would simply be the reverse of what we experience today. Hundreds of small businesses deriving their business and clientele from the base would go under. Without this economic anchor, the regional economy would be severely impacted, in every industry cluster.

Creating Military Value

It is clear that that DOD will continue to make adjustments to force structure and military bases. However, another formal BRAC round is not currently requested by DOD and the Congress continues to resist this politically difficult process. Subject matter experts widely believe DOD will eventually request another BRAC round. However, future BRAC rounds may be much different from previous rounds. Previous rounds focused on cost savings and strategic basing. Future rounds will likely have new criteria added, including the quality of host community public schools, state level efforts to address military spouse unemployment and licensure reciprocity, and relocations required due to the effects of climate change and sea level rise.

OMA will continue to closely monitor developments in BRAC requests and basing criteria. And OMA will continue to focus on developing and executing strategic initiatives to enhance the military value of the base in preparation for the next BRAC round whenever it comes.

In 2007, the Connecticut General Assembly authorized $40 million for future investments in military value at the SUBASE to protect it from closure. Since then, funding has been directed to several carefully selected projects. This strategy is built on the criteria used by prior BRAC commissions and aims to assess and enhance the military value of the base, thereby decreasing the likelihood it will be targeted for closure. By increasing military value...
in operations, infrastructure and efficiency, we reduce the likelihood of closure because DOD simply can’t afford to recreate that strategic capacity anywhere else. It’s not about sunk cost. It’s about current and future military value.

Today the SUBASE is undergoing a remarkable transformation as old infrastructure is demolished and replaced with modern capacity. People familiar with the SUBASE recognize its ongoing dramatic transformation into a modern campus of new buildings specifically designed for unique operations, specialized training and high-tech support functions associated with producing and maintaining our nation’s submarine force.

Working in a close partnership with Navy officials in Connecticut and at the Pentagon, OMA has established a legal framework through which the state can transfer funds directly to the Navy for carefully selected projects at the SUBASE.

In May 2019, Governor Ned Lamont participated in the formal change of command ceremony at SUBASE New London. In his remarks, he reconfirmed the state’s unwavering commitment to enhancing the military value of the SUBASE. While the state had a new Governor and the SUBASE a new commanding officer, the innovative investments and unprecedented partnership endures.

Previous state-funded projects have included construction of new buildings to support operations and maintenance, construction of training equipment, installation of a new high efficiency boiler for base-wide steam utilities, and purchases of land and structures for encroachment mitigation on both the northern and southern perimeters of the base and in the Navy’s area of operations within the Thames River. The state funded a complete renovation of the road leading to the main gate, making significant improvements to public safety, traffic management and physical security. Collectively, these projects represent a wholly unique partnership with the Navy in diverse and creative areas of base improvements.

In 2015, the State Bond Commission authorized OMA to provide funding to the Navy for early planning of a microgrid to be developed on the base. This microgrid will provide resilient infrastructure and energy security for base operations and potentially reduce the operating cost of the base by incorporating clean cogeneration capacity and highly efficient power controls and distribution systems. In response to the state’s proposal, the
Secretary of the Navy agreed to provide his authority and staff expertise. He sent delegations to meet with state and local officials to advance the microgrid project.

Fuel cell construction is nearly complete. The microgrid, with a high tech integrated distribution and monitoring systems, is expected to be fully operational by the end of 2021. The project was initiated with funding from OMA, then with a larger grant from the CT Department of Energy and Environmental Protection. The total value of this project is projected to be close to $100M over the life of several agreements, including an Enhanced Use Lease (EUL), Energy Savings Performance Contract (ESPC), Long-term Power Purchase Agreements (PPA) and other Public-Private Partnerships (PPP) agreements. This project reflects an impressive collection of innovative financing tools and creative partnering between public and private sector organizations, all dedicated to creating affordable resilient energy security for the SUBASE.

In response to another proposal from OMA, the Navy agreed to join in a new partnership with the State of Connecticut and a third party investor to build a Consolidated Emergency Management Center on the base. This new facility will enable the Navy to demolish two archaic buildings, repurpose two other buildings and enhance security and safety throughout the base with state of the art equipment at a much improved location. The State Bond Commission authorized OMA to invest up to $13M in the $28M project.

As important as these ongoing state-funded investments are, they represent only a small fraction of the military construction projects underway on the base. Since 2005, there have been over $500M worth of planning, demolition and construction projects on the base, with about $27M funded by the state. So, the state is an important but modest partner in a much larger effort to modernize the base.

Tech. Sgt. Bryan Dauphinais, 103rd Communications Flight cyber transport journeyman, analyzes simulated cyberattacks during exercise Cyber Yankee at the Windsor Locks Readiness Center, Windsor Locks, Connecticut, July 30, 2020. The exercise connects Guardsmen throughout New England with state and federal agencies and has them work alongside critical infrastructure utilities to combat simulated cyber attacks from threat actors. (U.S. Air National Guard photo by Staff Sgt. Steven Tucker)

OMA will continue to work closely with our congressional delegation, state and local officials, regional stakeholders and Navy leadership to identify future projects and missions as part of our ongoing strategy to enhance the military value of the base and protect it from closure in a future BRAC round.

Connecticut’s Submarine Industrial Base

Central to the argument Team Connecticut advanced in the 2005 BRAC was that the SUBASE was not given adequate credit for the unparalleled synergy created in the close proximity and
interactions among so many public and private submarine-related defense industry and military organizations.

In recent years new organizations have emerged to collaborate and leverage the region’s undersea expertise. The National Institute for Undersea Vehicle Technology (NVIUT) is a university-industry partnership that collaborates with the Navy to advance innovations in workforce, research and technology. The Naval and Maritime Consortium (NMC) is a network of companies that collectively address challenges, share solutions, and collaborate on opportunities in growing national undersea, maritime and offshore wind supply chains. The OMA Executive Director serves on the advisory boards of both organizations.

Submarines are designed and built at EB in Groton. All submarine personnel receive basic and advanced training at the Naval Submarine School on SUBASE. Fleet-wide integrated tactics are developed by the newly established Naval Undersea Warfighting Development Center. The Naval Undersea Warfare Center in nearby Newport, RI, conducts research and development activities in Rhode Island and on the SUBASE. The Naval Undersea Medical Research Labs are located on the base. And the base is home to the Naval Submarine Force Library and Museum and the Historic Ship Nautilus. This is the Submarine Capital of the World, where the nation’s submarine force history and heritage is archived and commemorated. These organizations, and many others, coalesce to create a Submarine Force Center of Excellence – the center of gravity for nation’s military undersea profession. Or, as the current Secretary of Defense Mark Esper recently characterized this cluster during a visit to EB, “the Silicon Valley of the undersea world.”

One of the greatest affirmations of this synergy is demonstrated in the Navy’s decision to establish the Naval Undersea Warfighting Development Center headquarters at Submarine Base New London. This global command impacts fleet operations and organizations all over the world from its headquarters in southeastern Connecticut.

Understanding the value of this synergy led the state also to enter into assistance agreements with EB as the nation’s premier manufacturer of undersea platforms and technologies. In 2007 the State helped EB refurbish dry docks in its Groton shipyard. The state’s $9.9M investment helped EB complete a $65M renovation project that helped keep submarines in Connecticut and brought other business to the region. Since 2008, EB has generated billions in sales and hundreds of millions in wages related to submarine work performed in these dry docks. That work includes overhaul, repair, maintenance, modernization and post shake down availability. These depot-level facilities, in such close proximity to the SUBASE, are also a positive consideration that a future BRAC...
commission will take into account when assessing the total *military value* of the SUBASE.

Subsequently, the state granted EB $15M to help purchase the former Pfizer headquarters buildings and campus in New London. This major expansion has given EB the space needed for its work in designing the new *Columbia-class* replacement for the aging *Ohio-class* strategic ballistic missile submarines (SSBN). Since 2011, EB has hired 3,206 engineers and 1,264 designers. The building also accommodates a workforce to produce ongoing technology upgrades for the *Virginia-class* submarines. This facility has already reached its capacity as new employees are being added to the industrial base in New London.

In October 2014 the state announced an agreement with EB to help finance the company’s expansion in Groton. Under the terms of this agreement, the Department of Economic and Community Development provided a $10 million grant to EB in support of this $31.5M capital expansion project to purchase and renovate a building in Groton. This new space was needed to accommodate 200 new purchasing and supply chain management jobs.

In 2019, as previously described, EB held a groundbreaking ceremony for a massive $852M shipyard expansion project to prepare for the construction of *Columbia-class* nuclear-powered SSBNs to replace the decommissioning *Ohio-class* submarines. All of the new Columbia class submarines will be assembled in the Groton shipyard.

While investments in our submarine industrial base are concentrated in southeastern Connecticut, the impacts are state-wide. For example, in the *Virginia-class* program, over 900 suppliers are dispersed in all five of the state’s congressional districts, with the largest concentration in central Connecticut’s 1st District. All together, they supply over $1B worth of goods and services over a five-year period. As we seek to maintain production of *Virginia-class* submarines at two or more per year, the positive impacts on our state economy will be pervasive. And the new *Columbia-class* submarines will further enhance this economic impact and create thousands of high-end jobs. The direct and indirect employment related to submarine construction and repair is forecast to last for decades.
V. The National Coast Guard Museum

The United States Coast Guard (USCG) is the only Armed Service that does not have a national museum. On April 5, 2013, after a decade of false starts and failed attempts, the Commandant of the Coast Guard announced the decision to build a National Coast Guard Museum (NCGM) in downtown New London. The National Coast Guard Museum Association (NCGMA), a non-profit organization chartered to build the museum, proposed a state-of-the-art building at the head of New London City Pier. It will be adjacent to the Union Station, the Greyhound bus station and Cross Sound and Fisher’s Island Ferry landings. Governor Malloy participated in the announcement and committed up to $20M in state funding to build a pedestrian bridge to connect the museum with all elements of New London’s multi-modal transportation hub.

The Governor directed all state agencies to collaborate in this undertaking and to help the USCG and City of New London advance the project. He also directed the OMA to coordinate the efforts of state agencies on his behalf.

The State Bond Commission approved $500,000 for advance engineering and design of the pedestrian bridge and authorized the DECD to enter into an assistance agreement with the NCGMA. The State of Connecticut, City of New London, USCG and NCGMA negotiated a Memorandum of Agreement to clearly define roles and responsibilities in this partnership to build the museum.

State agencies worked closely with project stakeholders to complete the Environmental Impact Evaluation (EIE) as required by the Connecticut Environmental Protection Act. The EIE authorized detailed engineering and design to proceed on the pedestrian bridge portion of the project.

Much of the financing for the $100M museum is being raised in a national fundraising campaign coordinated by the NCGMA. Contingent upon this fundraising effort and a series of prerequisite agreements with area stakeholders, site preparation is scheduled to begin in late 2021, and construction of the Museum could begin as early as 2022.

Related to the National Coast Guard Museum project is the Thames River Heritage Park (TRHP) designation for the New London Harbor. Centuries of American maritime history at sites along the shores of the Thames River is connected by a water taxi service. The TRHP Foundation obtained three surplus 40-foot USN utility boats to provide this service and become part of the maritime heritage exhibit. The OMA Executive Director serves on the TRHP Foundation Board of Directors and worked with local officials to obtain the authentic Navy boats which provide waterborne access to Thames River historic sites, to eventually include the Submarine Force Museum and future National Coast Guard Museum.

The Connecticut Port Authority granted the Town of Groton a $750,000 grant through the Small Harbor Improvement Project Program (SHIPP) to construct a floating pier at the Submarine Force Library & Museum to receive TRHP boats. This new pier should be operational for the 2021 summer season. In the years ahead these Coast Guard and Navy museums, connected by the Thames River, will become the TRHP major anchor sites and are expected to draw tens of thousands of people to southeastern Connecticut.

VI. Quality of Life and Military Service in Connecticut

Advocating for service members and their families has become one of the most important roles of OMA. Military families stationed in Connecticut for duty assignments and training enjoy supportive local communities, excellent public schools and the
unique experience of living in New England. As families in transition, they occasionally need reasonable accommodations and OMA actively engages state agencies and local organizations on their behalf.

OMA worked with regional leaders at LEARN (a regional educational service center), and the Military Superintendent’s Liaison Committee to make charter and magnet schools more available to military families. The DOD tends to transfer families in the summer months to avoid moves during the school year. However, the unintended consequence of this policy is that newly arriving military families often can’t establish residency in time to compete in the drawing/lottery for seats in charter and magnet schools. Area superintendents implemented a program to hold back a number of seats to be made available to highly mobile families when they arrive later in the summer months. This benefits military families, giving them a level playing field to compete for seats in these unique educational programs.

The State of Connecticut is an active member of the Interstate Compact on Educational Opportunity for Military Children. This national organization recognizes the unique challenges military children face as members of families in transition. Making reasonable accommodations for these children in matters such as immunizations, physicals, administrative and academic documentation reduces the stress and challenges associated with the many relocations imposed on military families.

The OMA Executive Director served on the outreach steering committee for the Military Child Education Coalition in Connecticut. This organization facilitates training and awareness of teachers, healthcare providers and other community leaders to the unique challenges faced by children in military families. Deployments, relocations, separations, and service-related disabilities all take a toll on children and through awareness and training we enable communities to better recognize and respond to these issues.

OMA contributed significant time and resources to help the Town of East Lyme and the Connecticut National Guard complete a DOD funded Joint Land Use Study (JLUS) to identify compatibility issues that arise from training operations in proximity to current and future municipal development. This study guides the Town planners in preventing encroachment and protecting the shared benefits of having two major military installations in their municipality.

A team from the Connecticut National Guard’s 250th Multi-Role Bridge Company drives their Bridge Erection Boat back toward the shore after dropping off a segment of an Improved Ribbon Bridge on the Thames River, June 10, 2020. The IRB team practiced creating a five-float raft which is designed to transport troops, equipment, and vehicles across a river. (U.S. Army photo by Tim Koster, Connecticut National Guard Joint Force Headquarters Public Affairs)
A similar DOD-funded JLUS has was completed with the municipalities surrounding the SUBASE in Groton. A JLUS Implementation Committee was formed to take actions recommended in this study. The OMA Executive Director serves as chairman of the Implementation Committee. A subsequent project related to the JLUS was a follow-on study that investigated impacts expected in the regional housing market related to significant growth at EB as civilian and military families are added to the work force in southeastern Connecticut. And a new project is underway examining parking and transportation challenges and opportunities created by the expansions of facilities and workforce at EB.

Working with the Eastern Connecticut Chamber of Commerce, annual military appreciation events have been established in southeastern Connecticut to honor service members from all branches of the military. These venues offer excellent opportunities to showcase the supportive relationships and professional partnerships established between the State and our military communities. OMA has been closely involved with these initiatives.

In partnership with the Chamber of Commerce of Eastern Connecticut, the Navy, the Coast Guard, and the National Guard, OMA orchestrated the seventh annual Military Orientation Day to expose future community leaders to all of the military branches in eastern Connecticut. The day includes an orientation at the SUBASE, a tour of a nuclear-powered submarine, a tour of the USCG Academy or USCG Station New London, and visits to several National Guard facilities throughout southeastern CT. Weather permitting, air transportation is provided by National Guard Black Hawk helicopters, ground transportation is donated by a local livery service, and waterborne transportation by the USCG. This program is designed to educate future community leaders on Connecticut based military missions, ongoing operations, economic impacts, and civic contributions to the region. These future leaders can in turn inform other people within their spheres of influence.

The OMA Executive Director was a founding board member of the Southeastern CT Cultural Coalition and now serves on its Advisory Council. This newly formed non-profit advocates for the entertainment, arts, and cultural sectors of the region’s economy. Military art, history and performance units have played an instrumental role in the region, and having the military represented in the organization’s leadership reflects an appreciation of how the military is so deeply ingrained in the social, civic and economic landscape of Connecticut.
VII. Conclusion

Connecticut’s Office of Military Affairs demonstrates an efficient model for achieving tangible strategic outcomes. Since it was established, the office produced a partnership with the Navy that was unprecedented in the United States. The SUBASE is now in a much better position to withstand another round of BRAC. The Connecticut National Guard and U.S. Coast Guard Academy are realizing and planning for expansions with new facilities to support their missions. The state and City of New London are looking forward to being the home of the National Coast Guard Museum. OMA has helped coordinate consistent and sustained support for increases in defense and military spending, and positive economic impacts within the state. Most importantly, OMA has advanced the quality of life and quality of service for service members and their families stationed here and deploying to destinations around the world.

The state’s diversified defense industries continue to thrive. Connecticut defense industrial base is thriving due to the high quality and strategic relevance of the products designed and manufactured throughout the state. Our defense industries enjoy superb reputations for their highly skilled workforces, outstanding management, and efficient business practices.

Residents should be proud of Connecticut’s long history as the Provisions State. It is a foundational part of our character, embedded in the economic fabric of our state and a legacy that should be carefully protected. The Office of Military Affairs will continue to seek opportunities to enhance the military and defense industry presence in Connecticut and advocate for the many organizations and people in our state - particularly military members and their families - who serve and support our nation’s defense.

Robert T. Ross
Executive Director

Questions or comments concerning this report should be directed to the OMA Executive Director, at (860) 500-2374 or to bob.ross@ct.gov.
Appendix A: Public Act No. 15-65

Connecticut General Assembly
House Bill No. 6833
Public Act No. 15-65

AN ACT CONCERNING THE QUALIFICATIONS AND DUTIES OF THE EXECUTIVE DIRECTOR OF THE OFFICE OF MILITARY AFFAIRS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Subsection (b) of section 32-58b of the general statutes is repealed and the following is substituted in lieu thereof (Effective October 1, 2015):

(b) The Governor, in consultation with the Commissioner of Economic and Community Development, shall appoint an executive director to manage the daily activities and duties of the Office of Military Affairs. The executive director shall have the necessary qualifications to perform the duties of said office, including, but not limited to, having prior military experience, and having attained the rank of a field grade or senior officer within a branch of the armed forces. The Governor shall give preference to any person with the necessary training and experience who has served in the Navy or who has knowledge or prior experience with the federal Base Realignment and Closure or “BRAC” process. Within available appropriations, the executive director shall: (1) Appoint, employ and remove such assistants, employees and personnel as deemed necessary for the efficient and effective administration of the activities of the office; (2) coordinate state and local efforts to prevent the closure or downsizing of Connecticut military facilities, particularly United States Naval Submarine Base-New London, located in Groton; (3) maximize the state’s input into the federal Base Realignment and Closure or “BRAC” process, including, but not limited to, (A) acting as liaison to the state’s congressional delegation on defense, military and BRAC issues, and (B) coordinating the activities of consultants hired by the state to assist in monitoring activities related to BRAC; (4) encourage the relocation of military missions to the state; (5) coordinate state and local efforts to enhance the quality of life of all branches of military personnel stationed in or deploying from Connecticut and their families living or working in Connecticut; (6) review and make recommendations for state policies that affect Connecticut’s military facilities and defense and homeland security industries; (7) coordinate state, regional and local efforts to encourage the growth of Connecticut’s defense and homeland security industry; (8) serve as an advocate for service members and their families to other state agencies; (9) initiate and sustain collaborative partnerships with local military commanders; (10) consult with the Department of Economic and Community Development on proposed financial assistance agreements with defense and homeland security firms; and (11) prepare and submit a report of activities, findings and recommendations annually to the Governor and the joint standing committees of the General Assembly having cognizance of matters relating to commerce and public safety, in accordance with the provisions of section 11-4a.

Approved June 19, 2015

Appendix B: Biography of OMA Executive Director

ROBERT T. ROSS

Bob Ross is Executive Director of the Connecticut Office of Military Affairs. He was originally appointed by Governor M. Jodi Rell in July 2009, reappointed twice by Governor Dannel P. Malloy, and reappointed to a fourth term by Governor Ned Lamont. He serves as an advisor to the Governor and legislature on defense industry issues and is the primary liaison to the Connecticut congressional delegation on military and defense matters. He is responsible for coordinating state-wide efforts to protect Connecticut military bases and facilities from closure in future Base Realignment and Closure (BRAC) rounds. He also represents the state in local efforts to enhance quality of life for service members and military families residing in or deploying from Connecticut.

He is a retired naval officer who piloted aircraft carriers and guided missile cruisers before directing public affairs for the U.S. Sixth Fleet, encompassing naval operations ashore and at sea in the Mediterranean, European and North African areas of responsibility. He also served as a spokesman at the Pentagon and was director of community and media relations for the U.S. Atlantic Fleet.

He holds an M.A. in National Security and Strategy from the U.S. Naval War College in Newport, RI, and an M.A. in Public Policy and Administration from the University of Connecticut. As a former City Administrator for the City of Cripple Creek, Colorado, and former First Selectman (Mayor) of the Town of Salem, Connecticut, he has decades of experience in federal, state, and municipal government. He was previously selected by the national Association of Defense Communities as their Member of the Year for leadership and commitment and currently serves as a member of their Board of Directors. He is a Trustee of the Chamber of Commerce of Eastern Connecticut and former Commissioner on the Connecticut Maritime Commission. He is a former Adjunct Professor of Public Policy in the UCONN Graduate School and is a recipient of the UCONN Department of Public Policy Distinguished Alumni award for continued commitment and excellence in public administration.