

GENERAL DYNAMICS CORP
Form 10-K
February 13, 2019

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 1-3671

GENERAL DYNAMICS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

13-1673581

State or other jurisdiction of incorporation or organization

IRS Employer Identification No.

2941 Fairview Park Drive, Suite 100

22042-4513

Falls Church, Virginia

Address of principal executive offices

Zip code

Registrant's telephone number, including area code:

(703) 876-3000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Name of exchange on which registered

Common stock, par value \$1 per share

New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

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Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the voting common equity held by non-affiliates of the registrant was \$48,890,306,362 as of July 1, 2018 (based on the closing price of the shares on the New York Stock Exchange).

288,235,928 shares of the registrant's common stock, \$1 par value per share, were outstanding on January 27, 2019.

DOCUMENTS INCORPORATED BY REFERENCE:

Part III incorporates by reference information from certain portions of the registrant's definitive proxy statement for the 2019 annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days after the close of the fiscal year.

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PART I

ITEM 1. BUSINESS

(Dollars in millions, except per-share amounts or unless otherwise noted)

BUSINESS OVERVIEW

General Dynamics is a global aerospace and defense company that offers a broad portfolio of products and services in business aviation; combat vehicles, weapons systems and munitions; information technology (IT) services; C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) solutions; and shipbuilding and ship repair.

General Dynamics was incorporated in Delaware in 1952. Long periods of growth, organic and inorganic, defined our early history leading up to the early 1990s, when we shed most elements of our portfolio with the exception of military vehicles and submarines. We took subsequent actions beginning in the mid-1990s that laid the foundation for modern-day General Dynamics, including acquiring Gulfstream Aerospace Corporation, combat-vehicle businesses, IT services and C4ISR solutions companies, and additional shipyards.

During 2018, we continued to position our company for future growth and superior profitability. On April 3, 2018, we completed the acquisition of CSRA Inc. (CSRA), our largest acquisition to date. Combining CSRA with our General Dynamics Information Technology (GDIT) business unit created a premier provider of IT solutions to the defense, intelligence and federal civilian markets.

Concurrent with the acquisition, for segment reporting purposes, we reorganized our Information Systems and Technology operating segment into two separate segments: Information Technology and Mission Systems. Our company now has five operating segments: Aerospace, Combat Systems, Information Technology, Mission Systems and Marine Systems. The latter four segments we collectively refer to as our defense segments. Prior-period segment information has been restated for this change.

Some of our segments consist of multiple business units. Each business unit is responsible for its strategy and operational performance, emphasizing the importance of flexibility and agility for those closest to the customer. Our corporate headquarters sets the overall strategy and governance for the company and is responsible for allocating and deploying capital. Our Ethos—based upon honesty, transparency, trust and alignment—undergirds our culture, our business model and our decision-making.

We are focused on delivering superior shareholder returns by exceeding our customers' expectations and committing to operational excellence. Our priorities are executing on backlog; managing costs; implementing continuous improvement; and maximizing earnings, cash and return on invested capital.

Following is additional information on each of our operating segments.

AEROSPACE

Our Aerospace segment is at the forefront of the business-jet industry. The segment consists of our Gulfstream and Jet Aviation business units. We offer a family of Gulfstream aircraft and provide a full range of services for business aircraft produced by Gulfstream and other original equipment manufacturers (OEMs). We have earned our reputation through:

superior aircraft design, quality, performance, safety and reliability;
technologically advanced flight deck and cabin systems; and
industry-leading customer support.

Gulfstream designs, manufactures and supports the world's most technologically advanced business-jet aircraft. Our product line encompasses aircraft across a variety of price and performance options for mid- to ultra-large-cabin business jets. The many combinations of range, speed, size and cabin customization generate aircraft best suited for each customer's unique requirements.

Our disciplined and proven approach to new product development allows us to repeatedly introduce first-to-market capabilities that set industry standards for performance, quality, speed and comfort. Our continual investment in research and development leads to new aircraft that consistently broaden customer offerings while raising the bar on safety and performance. Product enhancement and development efforts include initiatives in advanced avionics, composites, renewable fuels, flight-control systems, acoustics, cabin technologies and vision systems.

In 2018, our next-generation, clean-sheet aircraft—the G500—received certification from the U.S. Federal Aviation Administration (FAA). The first G500 customer delivery took place in the third quarter of 2018. The G600 is making progress towards its certification, and the first G600 is slated for delivery in 2019. These aircraft are the latest examples of our commitment to performance, safety, efficiency and innovation. Both aircraft exceeded original performance projections during their rigorous flight test programs, demonstrating their industry-leading capabilities. At Mach 0.85, the G500 can fly 5,200 nautical miles, and the G600 can fly 6,500 nautical miles.

The ultra-long-range, ultra-large-cabin G650 created a new market when it entered service in 2012. The fastest non-supersonic aircraft to circumnavigate the globe, the G650 has flown around the world in record-setting time. Together, the G650 and G650ER have claimed more than 85 world speed records. The G650 was the distinguished recipient of the National Aeronautic Association's Robert J. Collier Trophy, an annual award recognizing the greatest achievement in U.S. aeronautics or astronautics for performance, efficiency and safety. In 2018, the G650 demonstrated steep approach capabilities at London City Airport, unlocking even greater customer utility. Today, there are more than 325 G650 and G650ER aircraft operating in more than 40 countries. Interest in the G650 remains strong; its capabilities, reliability and installed base make it the business-jet standard around the globe.

Gulfstream continued its history of innovation in 2018, becoming the first civil aircraft manufacturer to offer electronically linked active control sidesticks that allow pilots to feel each other's input as well as those from the auto pilot, increasing situational awareness and enhancing safety. Gulfstream also followed up on its history-making certification of the enhanced vision system by becoming the first OEM to certify use of the system to touchdown and rollout.

Gulfstream designs, develops and manufactures aircraft in Savannah, Georgia, including manufacturing all large-cabin models. The mid-cabin G280 is assembled by a non-U.S. partner. All models are outfitted in Gulfstream's U.S. facilities. In support of Gulfstream's growing aircraft portfolio and customer base, we continue to invest in our facilities. At our Savannah campus, we have constructed facilities, including purpose-built G500, G600 and G650 manufacturing facilities; increased aircraft service capacity; and opened a new customer support distribution center and dedicated research and development centers.

We offer comprehensive support for our more than 2,700 Gulfstream aircraft in service around the world and operate the largest factory-owned service network in the industry. We operate a 24-hour-per-day/365-day-per-year Customer Support Center and offer on-call Gulfstream aircraft technicians ready to deploy around the world for customer-service requirements. In 2018, we opened a state-of-the-art Sales and Design

Center in midtown Manhattan, elevating the customer experience to enhance our position in one of the world's largest business-aviation markets.

We are always evolving our Customer Support business along with our growing customer base, and 2018 was no exception. We announced the construction of new service centers in Appleton, Wisconsin; West Palm Beach, Florida; Farnborough, United Kingdom; and Savannah. We also announced the creation of a center dedicated to the resolution of customer issues by a co-located team of technical experts and multidisciplinary personnel from across the organization, providing Gulfstream operators with an unprecedented level of integrated support and ensuring faster return to service of customer aircraft. Resources include multiple field and airborne support teams (FAST) aircraft to deliver mission-critical parts, tools and technicians; more than 150 field service representatives and FAST-dedicated technicians, including over 12 mobile repair teams with specially-equipped vehicles; approximately \$2 billion in spares at over 20 locations; and a network of more than 30 company-owned and factory-authorized service centers and authorized warranty facilities.

Jet Aviation has been a global leader in business-aviation services for over 50 years, providing comprehensive services and an extensive network of locations for aircraft owners and operators. With approximately 50 airport facilities throughout North America, Europe, the Middle East and Asia Pacific, our service offerings include maintenance, fixed-base operations (FBO), government fleet services, aircraft management, charter and staffing services.

In 2018, we acquired Hawker Pacific, a leading provider of integrated aviation solutions across Asia Pacific and the Middle East. Hawker Pacific added 19 locations, including 7 FBOs and 14 maintenance, repair and overhaul (MRO) facilities to our global footprint. In separate transactions, we expanded our FBO presence in St. Louis, Missouri; and Amsterdam and Rotterdam, the Netherlands.

In addition to these capabilities, Jet Aviation offers custom completions for narrow- and wide-body aircraft. In 2018, Jet Aviation opened a new 94,000 square foot wide-body hangar in Basel, Switzerland, constructed to meet increased demand for wide-body completions and refurbishments. The new state-of-the-art hangar can accommodate several wide- and narrow-body projects simultaneously.

As a market leader in the business-aviation industry, the Aerospace segment is focused on developing innovative first-to-market technologies and products; providing exemplary service to customers globally; and driving efficiencies in aircraft production, completions and services.

Revenue for the Aerospace segment was 23% of our consolidated revenue in 2018 and 26% in 2017 and 2016.

Revenue by major products and services was as follows:

Year Ended December 31	2018	2017	2016
Aircraft manufacturing and completions	\$6,226	\$6,320	\$6,074
Aircraft services	2,096	1,743	1,625
Pre-owned aircraft	133	66	116
Total Aerospace	\$8,455	\$8,129	\$7,815

COMBAT SYSTEMS

Our Combat Systems segment offers combat vehicles, weapons systems and munitions for the U.S. government and its non-U.S. partners. We are a platform solutions provider, offering market-leading design, development, production, modernization and sustainment services. With extensive and proven product lines, we deliver tailored solutions for diverse customer mission needs. Our Combat Systems segment consists of three business units: European Land Systems, Land Systems, and Ordnance and Tactical Systems. The segment's product lines include:

- wheeled combat and tactical vehicles;
- main battle tanks and tracked combat vehicles;
- weapons systems, armament and munitions; and
- maintenance, logistics support and sustainment services.

Wheeled combat and tactical vehicles: The segment provides a full range of vehicles to our global customer base.

The Stryker is an eight-wheeled, medium-weight combat vehicle that combines mobility and survivability. There are 11 Stryker variants with 85% commonality across the fleet. We continue to innovate and demonstrate ways in which the Stryker can be modified to address the U.S. Army's urgent operational needs. In 2015, the Army identified a requirement to increase Stryker lethality, and through internal research and development (R&D) and accelerated acquisition, we developed a 30-millimeter, remotely operated cannon option. We delivered the first prototype in 2016, 15 months after the initial contract award. The first production vehicle was sent to the Germany-based 2nd Cavalry Regiment in December 2017; production and delivery is now complete. The Army is expected to make a decision in 2019 to extend this capability to the other Stryker brigades.

In 2018, the Army made the decision to upgrade all nine Stryker brigades to the Stryker A1 configuration. We are currently under contract for two of the brigades, with estimated completion in 2021. The Stryker A1 builds upon the combat-proven double-V-hull (DVH) configuration, providing significantly higher rates of survivability against mines and improvised explosive devices. In addition to the DVH survivability, the Stryker A1 provides a 450-horsepower engine, 60,000-pound suspension, 910-amp alternator and in-vehicle network. It is among the most versatile, mobile and safest personnel carriers in the entire Army inventory.

The Stryker Maneuver Short-Range Air Defense Launcher (M-SHORAD) program integrates an air defense mission package onto a reconfigured Stryker A1 vehicle. The M-SHORAD vehicle is another variation we quickly developed to address the Army's directed requirement to counter closer-in air and missile defense threats. In 2018, we received an order to integrate five Strykers into the M-SHORAD configuration for delivery in 2019. We continue to work on high-energy laser and mobile command post options. We expect the Stryker platform to continue to demonstrate its versatility well into the future.

The segment also has a market-leading position in light armored vehicles (LAVs) with more than 13,000 vehicles in service around the world. Our LAVs combine advanced technologies and combat-proven survivability. We are upgrading the Canadian Army's fleet of LAVs to increase mobility, survivability and lethality, as well as enhancing the vehicle's surveillance suite. We also provide, under a contract with the Canadian government, wheeled armored vehicles for export and associated logistics through 2024.

We deliver high-mobility, versatile Pandur and Piranha armored vehicles to non-U.S. customers. The Pandur family of vehicles serves as a common platform for various armament and equipment configurations. The Piranha is a multi-role vehicle well-suited for a variety of combat operations. We are supplying Pandur 6x6 vehicles to the Austrian Army. In 2018, we received a contract for over \$1 billion to deliver up to 227 Piranha vehicles in six variants to the Romanian Armed Forces. We are delivering more than 300 Piranha

vehicles, also in six variants, to the Danish Ministry of Defence for its armored personnel carrier program. The Spanish Army selected the Piranha as its 8x8 armored fighting vehicle, and we are now performing extensive technological trials in anticipation of a production contract. We are also producing Piranha vehicles for Ireland and Switzerland. There are over 11,000 Piranhas in service worldwide.

The segment also offers a range of light tactical vehicles to global customers. The Flyer is a lightweight, modular vehicle built for speed and mobility that grants access to previously unreachable terrain in demanding environments. We are delivering this family of vehicles to the U.S. Special Operations Command and the Army. In 2018, we delivered the first Army-Ground Mobility Vehicle (A-GMV) 1.1. Outside the United States, the Duro and Eagle vehicles offer a range of options and weight classes. We are upgrading Duro tactical vehicles for the Swiss Army through 2022 and began delivering Eagle armored patrol vehicles to the Danish Army in 2018.

In 2018, we acquired FWW Fahrzeugwerk GmbH, a maintenance and service provider for the German army and other non-U.S. customers, and formed General Dynamics European Land Systems – Deutschland, enhancing our presence in the country.

Main battle tanks and tracked combat vehicles: The segment's powerful tracked vehicles provide key combat capabilities to customers around the world. The Abrams main battle tank offers a proven, decisive edge in combat. We are maximizing the effectiveness and lethality of the U.S. Army's M1A2 Abrams tank fleet with the System Enhancement Package Version 3 (SE Pv3), which provides technological advancements in communications, power generation, fuel efficiency and armor. In 2018, we received orders to upgrade 274 Abrams tanks to the SE Pv3 configuration. Additionally, the segment is upgrading Abrams tanks for several non-U.S. partners. We are currently under contract to develop further upgrades for the SE Pv4 configuration.

In 2018, we were selected to deliver 12 medium-weight, large caliber prototype vehicles for the U.S. Army's Mobile Protected Firepower program, providing a new opportunity to field vehicles in Infantry Brigade Combat Team (IBCT) formations. The vehicles are required to be highly lethal, survivable and mobile.

We are producing the British Army's AJAX armoured fighting vehicle, a next-generation medium-weight tracked combat vehicle. The segment will also provide in-service support for the AJAX vehicle fleet. With six variants, the AJAX family of vehicles offers advanced electronic architecture and proven technology for an unparalleled balance of survivability, lethality and mobility, along with high reliability for a vehicle in its weight class. In 2017 and 2018, the AJAX vehicles underwent extensive testing trials in preparation for delivery to the British Army, including successful manned live firing trials. The vehicle is scheduled to enter service in 2020.

With our large installed base of wheeled and tracked vehicles around the world and expertise gained from innovative research, engineering and production programs, we are well-positioned for modernization programs, support and sustainment services, and future development programs.

Weapons systems, armament and munitions: Complementing these military-vehicle offerings, the segment designs, develops and produces a comprehensive array of sophisticated weapons systems. For ground forces, we manufacture M2/M2-A1 heavy machine guns and MK19/MK47 grenade launchers. The segment also produces legacy and next-generation weapons systems for shipboard applications. For airborne platforms, we produce weapons for fighter aircraft, including high-speed Gatling guns for all U.S. fixed-wing military aircraft.

Our munitions portfolio covers the full breadth of naval, air and ground forces applications across all calibers and weapons platforms for the U.S. government and its allies. In North America, the segment

maintains a market-leading position in the supply of Hydra-70 rockets, large-caliber tank ammunition, medium-caliber ammunition, mortar and artillery projectiles, tactical missile aerostructures, and high-performance warheads; military propellants; and conventional bombs and bomb cases.

The Combat Systems segment emphasizes operational excellence and continuous improvement in a dynamic threat environment with ever-evolving customer needs. One of the U.S. Army's top priorities is readiness of its platform products through critical modernization efforts, including upgrades for both the Abrams main battle tank and Stryker wheeled combat-vehicle programs. We are focused on innovation, affordability and speed-to-market to deliver increased performance, survivability and mission-effective products.

Revenue for the Combat Systems segment was 17% of our consolidated revenue in 2018, 19% in 2017 and 18% in 2016. Revenue by major products and services was as follows:

Year Ended December 31	2018	2017	2016
Military vehicles	\$4,027	\$3,731	\$3,378
Weapons systems, armament and munitions	1,798	1,633	1,517
Engineering and other services	416	585	635
Total Combat Systems	\$6,241	\$5,949	\$5,530

INFORMATION TECHNOLOGY

Our Information Technology segment was formed in 2018 concurrent with our acquisition of CSRA and the reorganization of our legacy Information Systems and Technology segment into two separate segments: Information Technology and Mission Systems. The combination of GDIT and CSRA created a premier provider of technology solutions and mission services to help customers across defense, intelligence and federal civilian markets advance mission performance and transform operations. Integrating these two businesses has enhanced our ability to develop cost-effective, next-generation technology solutions, leverage our expanded and deep experience across multiple agencies and pursue large-scale enterprise solutions for our customers.

We partner with our customers to provide critical services and solutions that draw upon multiple technological capabilities, deliver value and solve our customers' complex challenges, including cloud, cyber, software development, systems engineering, IT modernization and data analytics. Additionally, we advance our customers' missions through innovative delivery models, including outcome-based contracts and a relentless focus on execution. Our portfolio includes thousands of individual contracts that predominantly align to three broad capability categories:

IT services;

IT infrastructure modernization; and

professional services.

IT services: IT services include technology consulting, solution design, system integration, operations and maintenance, cloud services, applications development, and cyber defense of enterprise systems.

The Information Technology segment manages global IT enterprise operations for its customers, including in the classified domain, providing IT support, operations and maintenance, applications development, and cloud and cyber services. For the Centers for Medicare & Medicaid Services, we provide IT hosting and operations and maintenance services in support of claims processing for more than 49 million Medicare beneficiaries. At the Pentagon, we provide cybersecurity services that include end-point security, network security and incident handling.

In 2018, we were awarded a multi-year, large-scale contract with the FAA to develop a Data Visualization, Analysis, and Reporting System. This system enables the FAA to modernize and provide updated flight reporting, visualization, modeling and analysis capabilities for FAA air traffic management analysts and engineers. Our IT services work in the intelligence and national security domain also expanded in 2018 following a large multi-year contract award from a classified customer. Under the new program, we will provide IT service operations, maintenance support and critical mission services for the customer.

IT infrastructure modernization: IT infrastructure modernization includes system development and engineering; data center consolidation; and cloud strategy, migration and operations.

The Information Technology segment provides managed data center services to the Department of Homeland Security, migrating and consolidating data center operations while introducing new technologies to improve security and mission performance. We also provide IT modernization services for our defense and national security customers, including designing, building and operating global enterprise IT infrastructures.

In 2018, we were awarded a multi-year contract by the U.S. Environmental Protection Agency (EPA) to develop, implement and operate an enterprise approach to the agency's local area networks at the EPA's headquarters and more than 100 offices nationwide.

Professional services: Our professional services portfolio includes logistics and supply chain management; training and simulation; and life sciences, medical research and specialized mission support services.

The Information Technology segment provides comprehensive supply chain management for the Department of State's Bureau of Diplomatic Security. We procure, warehouse, package, transport and deliver a variety of security-related products, including more than six million items to support the customer's worldwide missions. In our defense portfolio, we provide turnkey training and simulation services for the U.S. Army's Aviation Center of Excellence in Fort Rucker, Alabama, the largest helicopter flight training program in the world.

In 2018, we were also awarded a large-scale, multi-year contract to provide communication specialists and personnel for mission support, planning, logistics and security services for a classified customer.

We continue to assess and refine our key capabilities in the Information Technology segment's portfolio. Subsequent to the CSRA acquisition, we completed additional portfolio shaping, divesting non-core work operating public-facing contact centers.

As a segment that focuses exclusively on providing services, our highly skilled workforce is central to our success. Their technical expertise, deep knowledge of our customers' missions and needs, and constant drive to improve performance differentiate our services.

Revenue for the Information Technology segment was \$8.3 billion in 2018 and \$4.4 billion in 2017 and 2016, which represented 23%, 14% and 15% of our consolidated revenue in each of the respective years.

MISSION SYSTEMS

Our Mission Systems segment was formed in 2018 upon the reorganization of our legacy Information Systems and Technology segment into two separate segments: Information Technology and Mission Systems.

Our Mission Systems segment is a global provider of mission-critical C4ISR products and systems. We offer solutions across all domains, and we embrace agility to improve the speed of capability to mission. In

2018, we introduced increasingly sophisticated offerings in areas including high-end encryption, and we acquired a provider of specialized transmitters and receivers.

The Mission Systems segment has more than 100 locations worldwide and employs more than 13,000 engineering and technical professionals dedicated to solving the toughest security and technology challenges facing the United States and its partners. The segment's portfolio includes prime contract programs in which we deliver high-end defense-electronics hardware and integrated systems, as well as subcontract efforts in support of large-scale land, air, sea and space platforms. The segment is organized into three core capabilities:

• Space, intelligence and cyber systems;

• Ground systems and products; and

• Naval, air and electronic systems.

Space, intelligence and cyber systems: Our Mission Systems segment engineers space payloads for advanced missions, builds and manages spaceborne and ground-based communications systems, and provides mission-data tracking equipment and processing capabilities for our customers. Additionally, we design and develop high-performance sensors to gather intelligence data from across the land, air, sea, space and cyber domains, and provide geospatial intelligence products and services to meet the needs of our customers in the global defense, civilian and commercial markets.

We also offer a variety of cyber products and software, including our family of encryption products, to protect and defend our customers' critical information. We continually evolve our TACLANE family of network encryptors, the most widely deployed NSA-certified Type 1 in-line network encryptors, and our NSA-certified ProtecD@R family of data-at-rest encryptors. In 2018, we introduced the TACLANE-Nano compact Type 1 encryptor for mobile users, designed to protect information classified up to top secret/sensitive compartmented information (TS/SCI), pending NSA certification.

Ground systems and products: Our Mission Systems segment is a leading manufacturer and integrator of tactical, secure communications systems for a diverse customer base, both U.S. and non-U.S. We design, build, deploy and support satellite communications (SATCOM) equipment; mission command applications; assured position, navigation and timing components; and other communications equipment and networking solutions for the U.S. defense community and U.S. partners. We also provide communications equipment, sensors and software for public safety applications and to the federal government. Additionally, we provide data collection and processing products, command and control applications, and computing and communications equipment.

In 2018, we were awarded the contract for the U.S. Army's Common Hardware Systems-5 (CHS-5) program. CHS is a "one-stop shop" for tactical IT hardware solutions supporting more than 120 Army and other Department of Defense programs for the rapid acquisition and delivery of commercial off-the-shelf IT hardware and services.

We support the Army's readiness priorities through our contract for the Army Life Cycle Product Line Management (LCPM) program, awarded jointly in 2018 to our Mission Systems and Information Technology segments. The LCPM program provides soldiers a realistic live training experience and adds hardware product line management to our existing software product line management for the Army. We focus primarily on the extensive Live Training Transformation (LT2) family of training systems, including force-on-force and force-on-target systems, and training and instrumentation.

We are also the prime contractor for the Army's mobile communications backbone, which provides a secure and resilient network, on-the-move capabilities, and the ability to rapidly insert new technologies into the system. We continue to work closely with our Army customer to evolve its next-generation combat network to meet the threats of the future.

With a 50-year legacy in radio frequency communications and networks, the Mission Systems segment offers a range of radio products and systems for military, government and commercial customers, as well as long-term evolution broadband communications networks for first responders. We provide CM-300/350 V2 digital radios to the FAA, used by air traffic control centers, commercial airports, military air stations and range installations for reliable ground-to-air communications.

We also provide many capabilities to non-U.S. agencies and commercial customers. We have developed, deployed, and continue to modernize and support fully integrated, secure combat voice and data networks for Canada and the U.K. These efforts, which we have supported for over 27 years, are ongoing on the Morpheus program, which aims to modernize the U.K.'s communications and command-and-control systems across three armed services by evolving the Bowman network into a more open, agile architecture.

In Canada, our public-safety-focused communication system, the SHIELD Ecosystem, allows first responders to gather and exchange information quickly using digital applications on secure systems, providing the availability and location of in-field personnel at all times.

Naval, air and electronic systems: We provide platform integration services for maritime and aviation platforms, as well as strategic weapons systems and advanced electronic systems, including computing systems, displays and data management, for both U.S. and non-U.S. customers.

We have a 50-year legacy of providing advanced fire-control systems for all of the Navy's submarine programs, both attack and ballistic missile. We are developing and integrating commercial off-the-shelf software and hardware upgrades to improve the tactical control capabilities for several submarine classes. The segment's combat and seaframe control systems serve as the technology backbone for the Navy's Independence-variant Littoral Combat Ship (LCS) and the Expeditionary Fast Transport (EPF) ships.

We also manufacture unmanned undersea vehicles for the U.S. military and commercial customers. We offer a range of systems and configurations, including more than 70 different sensors on 80 vehicles that can operate in the open ocean and constrained waterways.

Our Digital Modular Radio (DMR) is the first software-defined radio to become a communications system standard for the U.S. Navy. The DMR is a four-channel radio that serves as the Navy's communications hub for surface ships, submarines and shore-site communications. As a multi-channel radio, it simultaneously communicates with a wide spectrum of tactical radios and can communicate information at different security levels. In 2018, we released an updated Mobile User Objective System (MUOS) WfV3.1.5 waveform for the Navy's DMR, improving secure voice, video and data communications across the MUOS SATCOM network. The network was approved by the U.S. Strategic Command in 2018 for expanded operational use.

For airborne platforms, we offer high-assurance mission and display systems, signal and sensor processing, and command-and-control solutions. Our mission computers provide pilots with advanced situational awareness and combat systems control. Our avionics, radomes, or encrypted communication systems are present on nearly every U.S. military aircraft in service today, including the F-35, F-16, F/A-18, F-22, P-3, P-8 and AV-8B.

Revenue for the Mission Systems segment was \$4.7 billion in 2018, \$4.5 billion in 2017 and \$4.7 billion in 2016, which represented 13% of our consolidated revenue in 2018 and 15% in 2017 and 2016.

MARINE SYSTEMS

Our Marine Systems segment is a market-leading designer and builder of nuclear-powered submarines, surface combatants, and auxiliary and combat-logistics ships for the U.S. Navy, and Jones Act ships for commercial customers. We provide repair services for nearly all classes of Navy ships. With shipyards on both U.S. coasts, our Marine Systems segment consists of three business units: Bath Iron Works, Electric Boat and NASSCO. The segment's platforms and capabilities include:

- nuclear-powered submarines;
- surface combatants;
- auxiliary and combat-logistics ships;
- commercial product carriers and containerships;
- design and engineering support services; and
- maintenance, modernization and lifecycle support services.

We have a long history as one of the Navy's primary shipbuilders, constructing the ships of today's fleet and designing and developing next-generation platforms. More than 90% of our segment's revenue is for Navy engineering, construction and lifecycle support awarded under large, multi-year contracts. We maintain the most sophisticated marine engineering center in the world, designing and testing concepts to support future capabilities. Our ability to design, build, and maintain our nation's most technologically sophisticated warships are a critical element of the U.S. defense industrial base.

The largest business unit in our Marine Systems segment is Electric Boat, the lead shipyard on all Navy nuclear-powered submarine programs, including both the Virginia-class attack submarine and the future Columbia-class ballistic missile submarine.

We are the lead contractor on the Virginia-class submarine program. Designed to meet diverse global mission requirements, these submarines operate with highly advanced capabilities and stealth in both littoral and open-ocean environments. Since delivering the lead Virginia-class submarine, we have reduced the cost and time to deliver follow-on ships from 84 months to 66 months, while also improving mission capability and ship quality. The Navy procures Virginia-class submarines in multi-boat blocks at a two submarines-per-year construction rate. We have delivered 17 Virginia-class submarines from the first three blocks in conjunction with an industry partner that shares in the construction, and the remaining 11 submarines from the third and fourth blocks are under contract and scheduled for delivery through 2023.

We are developing the Virginia Payload Module (VPM) for the fifth block of Virginia-class submarines, which is scheduled to begin construction in 2019 in support of the Navy's fleet plans. This block of submarines will provide significant upgrades in size and performance. The VPM is an 84-foot hull section that adds four additional payload tubes, more than tripling the strike capacity of these submarines and providing unique capabilities to support special missions.

We are the lead contractor for the design and construction of the Navy's Columbia-class ballistic missile submarine, a 12-boat program the Navy considers its top priority. These submarines will provide strategic deterrent capabilities for decades and are scheduled to come online when the current Ohio-class fleet reaches its end of service life beginning in 2027. We are slated to begin construction on the lead boat in 2021 and deliver it to the Navy in support of the Ohio-class retirements. In 2018, the Navy awarded us a contract modification for advance procurement, advance construction and long-lead materials. We have developed a comprehensive resource master plan to ensure that we will have a fully trained workforce in place to support the increased demand for skilled trades for the Columbia program. We continue to invest in our facilities, optimizing the timing between investments and returns, while coordinating closely with the Navy on a \$1.7 billion investment in our submarine yard to support construction.

Bath Iron Works builds the Arleigh Burke-class (DDG-51) guided-missile destroyers and manages modernization and lifecycle support. These high-utility, multi-mission ships are capable of fighting simultaneous air, surface and subsurface battles. The Navy restarted the program in 2010 after a four-year break in construction. Bath Iron Works delivered the first ship in the restart program to the Navy in 2017. In 2018, we were awarded contracts for the construction of five additional DDG-51s, for a total of 11 ships in backlog, scheduled for delivery through 2027. Bath Iron Works is one of the Navy's contractors involved in the development and construction of the Zumwalt-class (DDG-1000) platform, the Navy's next-generation guided-missile destroyer. These ships are equipped with numerous technological enhancements, including a low radar profile, an integrated power system and a software environment tying together nearly every system on the ship. The DDG-1000 provides independent forward presence and deterrence, supports special operations forces, and operates as an integral part of joint expeditionary forces. We delivered the first ship in 2016 and the second ship in 2018. We continue to build the final ship, scheduled for delivery in 2020.

NASSCO is building Expeditionary Sea Base (ESB) auxiliary support ships, a second variant of the Expeditionary Support Dock (ESD) ships. ESBs serve as floating forward staging bases, improving the Navy and Marine Corps' ability to deliver large-scale equipment and expeditionary forces to areas without adequate port access. Equipped with a 52,000-square-foot flight deck and accommodations for up to 250 personnel, they are capable of supporting diverse missions, including airborne mine countermeasure, maritime security operations and disaster relief missions. In 2018, we delivered the fourth ESB and secured long-lead materials funding for a sixth ship. We expect to deliver the fifth ESB in 2019.

NASSCO was competitively awarded an exclusive design and construction contract in 2016 for the lead ship in the Navy's new class of fleet replenishment oilers, the John Lewis class (T-AO-205), along with options for five additional ships. Designed to transfer fuel to Navy surface ships operating at sea, the oilers can carry 157,000 barrels of fuel and also offer significant dry cargo capacity and aviation capabilities. In 2018, we began construction on the first ship, the future USNS John Lewis.

Our Marine Systems segment provides comprehensive ship and submarine maintenance, modernization and lifecycle support services to extend the service life of these ships. NASSCO conducts full-service maintenance and surface-ship repair operations in Navy fleet concentration areas in San Diego, Norfolk, Mayport, and Puget Sound. Electric Boat provides submarine maintenance and modernization services in a variety of U.S. locations, and Bath Iron Works provides lifecycle support services for Navy surface ships. In support of allied navies, we offer program management, planning, engineering and design support for submarine and surface-ship construction programs.

In addition to our work for the Navy, the Marine Systems segment has extensive experience in all phases of commercial ship construction. We have designed and built oil and product tankers and container and cargo ships for commercial customers since the 1970s. These ships satisfy our commercial customers' Jones Act requirement that ships carrying cargo between U.S. ports be built in U.S. shipyards.

We offer advanced commercial shipbuilding technology as demonstrated by NASSCO's design and delivery of the world's first liquefied natural gas (LNG)-powered containerships. Using green ship technology, we have decreased emissions dramatically while increasing fuel efficiency. From 2014 to 2017, NASSCO constructed and delivered eight LNG-conversion-ready product tankers for commercial customers. In 2018, we began construction on the second ship in a two-ship series of Kanaloa-class containerships. The two new LNG-capable containerships with roll-on, roll-off capability are scheduled for delivery in 2019 and 2020.

To promote operating efficiency, innovation and affordability for our customers, we make strategic investments in our business, often in cooperation with the Navy. We leverage our design and engineering expertise across shipyards to improve program execution and generate cost savings. This knowledge sharing enables us to use resources more efficiently and drive process improvements. Through robust and disciplined planning, we are positioned to support our customers well into the future.

Revenue for the Marine Systems segment was 24% of our consolidated revenue in 2018 and 26% in 2017 and 2016.

Revenue by major products and services was as follows:

Year Ended December 31	2018	2017	2016
Nuclear-powered submarines	\$5,712	\$5,175	\$5,264
Surface ships	1,872	1,607	1,648
Repair and other services	918	1,222	1,160
Total Marine Systems	\$8,502	\$8,004	\$8,072

CUSTOMERS

In 2018, 65% of our consolidated revenue was from the U.S. government, 14% was from U.S. commercial customers, 10% was from non-U.S. commercial customers and the remaining 11% was from non-U.S. government customers.

U.S. GOVERNMENT

Our primary customer is the U.S. Department of Defense (DoD). We also contract with other U.S. government customers, including the intelligence community, the Departments of Homeland Security and Health and Human Services, and first-responder agencies. Our revenue from the U.S. government was as follows:

Year Ended December 31	2018	2017	2016
DoD	\$17,752	\$15,441	\$15,080
Non-DoD	5,228	2,904	2,883
Foreign Military Sales (FMS)*	626	676	713
Total U.S. government	\$23,606	\$19,021	\$18,676
% of total revenue	65	% 61	% 61

* In addition to our direct non-U.S. sales, we sell to non-U.S. governments through the FMS program. Under the FMS program, we contract with and are paid by the U.S. government, and the U.S. government assumes the risk of collection from the non-U.S. government customer.

Our U.S. government revenue is derived from fixed-price, cost-reimbursement and time-and-materials contracts. Our production contracts are primarily fixed-price. Under these contracts, we agree to perform a specific scope of work for a fixed amount. Contracts for research, engineering, repair and maintenance, and other services are typically cost-reimbursement or time-and-materials. Under cost-reimbursement contracts, the customer reimburses contract costs incurred and pays a fixed, incentive or award-based fee. These fees are determined by our ability to achieve targets set in the contract, such as cost, quality, schedule and performance. Under time-and-materials contracts, the customer pays a fixed hourly rate for direct labor and generally reimburses us for the cost of materials.

Of our U.S. government revenue, fixed-price contracts accounted for 56% in 2018, 54% in 2017 and 53% in 2016; cost-reimbursement contracts accounted for 38% in 2018, 42% in 2017 and 43% in 2016; and time-and-materials contracts accounted for 6% in 2018 and 4% in 2017 and 2016.

For information on the advantages and disadvantages of each of these contract types, see Note C to the Consolidated Financial Statements in Item 8.

U.S. COMMERCIAL

Our U.S. commercial revenue was \$5 billion in 2018 and \$4.5 billion in 2017 and 2016. This represented 14% of our consolidated revenue in 2018 and 15% in 2017 and 2016. The majority of this revenue is for business-jet aircraft and related services where our customer base consists of individuals and public and privately held companies across a wide range of industries.

NON-U.S.

Our revenue from non-U.S. government and commercial customers was \$7.6 billion in 2018, \$7.5 billion in 2017 and \$7.4 billion in 2016. This represented 21% of our consolidated revenue in 2018 and 24% in 2017 and 2016.

We conduct business with customers around the world. Our non-U.S. defense subsidiaries maintain long-term relationships with their customers and have established themselves as principal regional suppliers and employers, providing a broad portfolio of products and services.

Our non-U.S. commercial revenue consists primarily of business-jet aircraft exports and worldwide aircraft services. The market for business-jet aircraft and related services outside North America has expanded significantly in recent years. While the installed base of aircraft is concentrated in North America, orders from customers outside North America represent a significant portion of our aircraft business with approximately 45% of the Aerospace segment's total backlog on December 31, 2018.

COMPETITION

Several factors determine our ability to compete successfully in the defense and business-aviation markets. While customers' evaluation criteria vary, the principal competitive elements include:

- the technical excellence, reliability, safety and cost competitiveness of our products and services;
- our ability to innovate and develop new products and technologies that improve mission performance and adapt to dynamic threats;
- successful program execution and on-time delivery of complex, integrated systems;
- our global footprint and accessibility to customers;
- the reputation and customer confidence derived from past performance; and
- the successful management of customer relationships.

DEFENSE MARKET COMPETITION

The U.S. government contracts with numerous domestic and non-U.S. companies for products and services. We compete against other large platform and system-integration contractors as well as smaller companies that specialize in a particular technology or capability. Outside the United States, we compete with global defense contractors' exports and the offerings of private and state-owned defense manufacturers. Our Combat Systems segment competes with a large number of U.S. and non-U.S. businesses. Our Information Technology and Mission Systems segments compete with many companies, from large defense companies to small niche competitors with specialized technologies or expertise. Our Marine Systems segment has one primary competitor with which it also partners on the Virginia-class submarine program. The operating cycle of many of our major platform programs can result in sustained periods of program continuity when we perform successfully.

We are involved in teaming and subcontracting relationships with some of our competitors. Competitions for major defense programs often require companies to form teams to bring together a spectrum of capabilities to meet the customer's requirements. Opportunities associated with these programs include roles as the

program's integrator, overseeing and coordinating the efforts of all participants on a team, or as a provider of a specific component or subsystem.

BUSINESS-JET AIRCRAFT MARKET COMPETITION

The Aerospace segment has several competitors for each of its Gulfstream products. Key competitive factors include aircraft safety, reliability and performance; comfort and in-flight productivity; service quality, global footprint and responsiveness; technological and new-product innovation; and price. We believe that Gulfstream competes effectively in all of these areas.

The Aerospace segment competes worldwide in the business-jet aircraft services market primarily on the basis of price, quality and timeliness. In our maintenance, repair and FBO businesses, the segment competes with several other large companies as well as a number of smaller companies, particularly in the maintenance business. In our completions business, the segment competes with several service providers.

BACKLOG

Our total backlog represents the estimated remaining value of work to be performed under firm contracts and includes funded and unfunded portions. For additional discussion of backlog, see Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7.

Summary backlog information for each of our segments follows:

December 31	2018			2017			2018 Total Backlog Not Expected to Be Completed in 2019
	Funded	Unfunded	Total	Funded	Unfunded	Total	
Aerospace	\$ 11,208	\$ 167	\$ 11,375	\$ 12,319	\$ 147	\$ 12,466	\$ 5,079
Combat Systems	16,174	424	16,598	17,158	458	17,616	10,822
Information Technology	4,717	3,248	7,965	2,140	1,471	3,611	1,770
Mission Systems	4,890	445	5,335	4,542	721	5,263	2,126
Marine Systems	18,837	7,761	26,598	15,872	8,347	24,219	18,844
Total backlog	\$ 55,826	\$ 12,045	\$ 67,871	\$ 52,031	\$ 11,144	\$ 63,175	\$ 38,641

RESEARCH AND DEVELOPMENT

To foster innovative product development and evolution, we conduct sustained R&D activities as part of our normal business operations. Most of our Aerospace segment's R&D activities support Gulfstream's product enhancement and development programs. In our U.S. defense operations, we conduct customer-sponsored R&D activities under government contracts and company-sponsored R&D activities, investing in technologies and capabilities that provide innovative solutions for our customers. In accordance with government regulations, we recover a portion of company-sponsored R&D expenditures through overhead charges to U.S. government contracts. For more information on our company-sponsored R&D activities, including our expenditures for the past three years, see Note A to the Consolidated Financial Statements in Item 8.

INTELLECTUAL PROPERTY

We develop technology, manufacturing processes and systems-integration practices. In addition to owning a large portfolio of proprietary intellectual property, we license some intellectual property rights to and from others. The U.S. government holds licenses to many of our patents developed in the performance of U.S. government contracts, and it may use or authorize others to use the inventions covered by these patents. Although these intellectual property rights are important to the operation of our business, no existing patent, license or other intellectual property right is of such importance that its loss or termination would have a material impact on our business.

EMPLOYEES

On December 31, 2018, our subsidiaries had 105,600 employees, approximately one-fifth of whom work under collective agreements with various labor unions and worker representatives. Agreements covering approximately 5% of total employees are due to expire in 2019. Historically, we have renegotiated these labor agreements without any significant disruption to operating activities.

RAW MATERIALS, SUPPLIERS AND SEASONALITY

We depend on suppliers and subcontractors for raw materials, components and subsystems. Our U.S. government customer is a supplier on some of our programs. These supply networks can experience price fluctuations and capacity constraints, which can put pressure on our costs. Effective management and oversight of suppliers and subcontractors is an important element of our successful performance. We sometimes rely on only one or two sources of supply that, if disrupted, could impact our ability to meet our customer commitments. We attempt to mitigate risks with our suppliers by entering into long-term agreements and leveraging company-wide agreements to achieve economies of scale, and by negotiating flexible pricing terms in our customer contracts. We have not experienced, and do not foresee, significant difficulties in obtaining the materials, components or supplies necessary for our business operations.

Our business is not seasonal in nature. The receipt of contract awards, the availability of funding from the customer, the incurrence of contract costs and unit deliveries are all factors that influence the timing of our revenue. In the United States, these factors are influenced by the federal government's budget cycle based on its October-to-September fiscal year.

REGULATORY MATTERS

U.S. GOVERNMENT CONTRACTS

U.S. government contracts are subject to procurement laws and regulations. The Federal Acquisition Regulation (FAR) and the Cost Accounting Standards (CAS) govern the majority of our contracts. The FAR mandates uniform policies and procedures for U.S. government acquisitions and purchased services. Also, individual agencies can have acquisition regulations that provide implementing language for the FAR or that supplement the FAR. For example, the DoD implements the FAR through the Defense Federal Acquisition Regulation Supplement (DFARS). For all federal government entities, the FAR regulates the phases of any product or service acquisition, including:

- acquisition planning;
- competition requirements;
- contractor qualifications;

protection of source selection and vendor information; and acquisition procedures.

In addition, the FAR addresses the allowability of our costs, while the CAS addresses the allocation of those costs to contracts. The FAR and CAS subject us to audits and other government reviews covering issues such as cost, performance, internal controls and accounting practices relating to our contracts.

NON-U.S. REGULATORY

Our non-U.S. operations are subject to the applicable government regulations and procurement policies and practices, as well as U.S. policies and regulations. We are also subject to regulations governing investments, exchange controls, repatriation of earnings and import-export control.

BUSINESS-JET AIRCRAFT

The Aerospace segment is subject to FAA regulation in the United States and other similar aviation regulatory authorities internationally, including the Civil Aviation Administration of Israel (CAAI), the European Aviation Safety Agency (EASA) and the Civil Aviation Administration of China (CAAC). For an aircraft to be manufactured and sold, the model must receive a type certificate from the appropriate aviation authority, and each aircraft must receive a certificate of airworthiness. Aircraft outfitting and completions also require approval by the appropriate aviation authority, which often is accomplished through a supplemental type certificate. Aviation authorities can require changes to a specific aircraft or model type before granting approval. Maintenance facilities and charter operations must be licensed by aviation authorities as well.

ENVIRONMENTAL

We are subject to a variety of federal, state, local and foreign environmental laws and regulations. These laws and regulations cover the discharge, treatment, storage, disposal, investigation and remediation of materials, substances and wastes identified in the laws and regulations. We are directly or indirectly involved in environmental investigations or remediation at some of our current and former facilities and at third-party sites that we do not own but where we have been designated a potentially responsible party (PRP) by the U.S. Environmental Protection Agency or a state environmental agency. As a PRP, we are potentially liable to the government or third parties for the cost of remediating contamination. In cases where we have been designated a PRP, generally we seek to mitigate these environmental liabilities through available insurance coverage and by pursuing appropriate cost-recovery actions. In the unlikely event that we are required to fully fund the remediation of a site, the current statutory framework would allow us to pursue contributions from other PRPs. We regularly assess our compliance status and management of environmental matters.

Operating and maintenance costs associated with environmental compliance and management of contaminated sites are a normal, recurring part of our operations. Historically, these costs have not been material. Environmental costs often are recoverable under our contracts with the U.S. government. Based on information currently available and current U.S. government policies relating to cost recovery, we do not expect continued compliance with environmental regulations to have a material impact on our results of operations, financial condition or cash flows. For additional information relating to the impact of environmental matters, see Note O to the Consolidated Financial Statements in Item 8.

AVAILABLE INFORMATION

We file reports and other information with the Securities and Exchange Commission (SEC) pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. These reports and information include an annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and

proxy statements. Free copies of these items are made available on our website (www.generaldynamics.com) as soon as practicable. The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information.

In addition to the information contained in this Form 10-K, information about the company can be found on our website and our Investor Relations website (investorrelations.gd.com). Our Investor Relations website contains a significant amount of information about the company, including financial information, our corporate governance principles and practices, and other information for investors. We encourage investors to visit our website, as we frequently update and post new information about our company on our website, and it is possible that this information could be deemed to be material information.

References to our website and the SEC's website in this Form 10-K do not constitute, and should not be viewed as, incorporation by reference of the information contained on, or available through, the websites. The information should not be considered a part of this Form 10-K, unless otherwise expressly incorporated by reference.

ITEM 1A. RISK FACTORS

An investment in our common stock or debt securities is subject to risks and uncertainties. Investors should consider the following factors, in addition to the other information contained in this Annual Report on Form 10-K, before deciding whether to purchase our securities.

Investment risks can be market-wide as well as unique to a specific industry or company. The market risks faced by an investor in our stock are similar to the uncertainties faced by investors in a broad range of industries. There are some risks that apply more specifically to our business.

Our revenue is concentrated with the U.S. government. This customer relationship involves some specific risks. In addition, our sales to non-U.S. customers expose us to different financial and legal risks. Despite the varying nature of our U.S. and non-U.S. defense and business-aviation operations and the markets they serve, each segment shares some common risks, such as the ongoing development of high-technology products and the price, availability and quality of commodities and subsystems.

The U.S. government provides a significant portion of our revenue. In 2018, approximately 65% of our consolidated revenue was from the U.S. government. Levels of U.S. defense spending are driven by threats to national security. Competing demands for federal funds can pressure various areas of spending. Decreases in U.S. government defense spending or changes in spending allocation or priorities could result in one or more of our programs being reduced, delayed or terminated, which could impact our financial performance.

The Budget Control Act of 2011 (BCA) establishes caps for defense spending over a 10-year period through 2021, including a sequester mechanism that would impose additional defense cuts. In February 2018, the Congress approved increases to the BCA spending caps through fiscal year (FY) 2019. However, the BCA's spending limits for FY 2020 and FY 2021 have not been increased or otherwise modified. The President's defense budget estimates for FY 2020 and beyond exceed the spending limits established by the BCA. As a result, continued budget uncertainty and the risk of future sequestration cuts remain unless the BCA is repealed or significantly modified.

While it is impossible to predict the exact impact on our programs or financial outlook in light of the inherent uncertainty attendant to the sequestration process, the magnitude of potential funding reductions

imposed by the sequester mechanism as written, could in the aggregate have material adverse operational and financial consequences, depending on how the cuts are allocated across the budget.

For additional information relating to the U.S. defense budget, see the Business Environment section of Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7.

U.S. government contracts are not always fully funded at inception, and any funding is subject to disruption or delay. Our U.S. government revenue is funded by agency budgets that operate on an October-to-September fiscal year. Early each calendar year, the President of the United States presents to the Congress the budget for the upcoming fiscal year. This budget proposes funding levels for every federal agency and is the result of months of policy and program reviews throughout the Executive branch. For the remainder of the year, the appropriations and authorization committees of the Congress review the President's budget proposals and establish the funding levels for the upcoming fiscal year. Once these levels are enacted into law, the Executive Office of the President administers the funds to the agencies.

There are two primary risks associated with the U.S. government budget cycle. First, the annual process may be delayed or disrupted. If the annual budget is not approved by the beginning of the government fiscal year, portions of the U.S. government can shut down or operate under a continuing resolution that maintains spending at prior-year levels, which can impact funding for our programs and timing of new awards. Second, the Congress typically appropriates funds on a fiscal-year basis, even though contract performance may extend over many years. Future revenue under existing multi-year contracts is conditioned on the continuing availability of congressional appropriations. Changes in appropriations in subsequent years may impact the funding available for these programs. Delays or changes in funding can impact the timing of available funds or lead to changes in program content.

Our U.S. government contracts are subject to termination rights by the customer. U.S. government contracts generally permit the government to terminate a contract, in whole or in part, for convenience. If a contract is terminated for convenience, a contractor usually is entitled to receive payments for its allowable costs incurred and the proportionate share of fees or earnings for the work performed. The government may also terminate a contract for default in the event of a breach by the contractor. If a contract is terminated for default, the government in most cases pays only for the work it has accepted. The termination of multiple or large programs could have a material adverse effect on our future revenue and earnings.

Government contractors operate in a highly regulated environment and are subject to audit by the U.S. government. Numerous U.S. government agencies routinely audit and review government contractors. These agencies review a contractor's performance under its contracts and compliance with applicable laws, regulations and standards. The U.S. government also reviews the adequacy of, and compliance with, internal control systems and policies, including the contractor's purchasing, property, estimating, material, earned value management and accounting systems. In some cases, audits may result in delayed payments or contractor costs not being reimbursed or subject to repayment. If an audit or investigation were to result in allegations against a contractor of improper or illegal activities, civil or criminal penalties and administrative sanctions could result, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. government. In addition, reputational harm could result if allegations of impropriety were made. In some cases, audits may result in disputes with the respective government agency that can result in negotiated settlements, arbitration or litigation. Moreover, new laws, regulations or standards, or changes to existing ones, can increase our performance and compliance costs and reduce our profitability.

Our Aerospace segment is subject to changing customer demand for business aircraft. The business-jet market is driven by the demand for business-aviation products and services by corporate,

individual and government customers in the United States and around the wo