United States Defense Industry: Overview

© 2023 One Page Thinking, LLC www.onepagethinking.net

A Defense Sectors

The U.S. defense industry consists of companies engaged in the research, design, development, manufacture, integration, modification, sustainment, and upgrading of (a) military aircraft and rotorcraft, (b) weapons and defense systems, (c) intelligence and mission systems, (d) satellites and space systems, and (e) marine systems in support of the U.S. government's national security mission.

Aeronautics

The Aeronautics sector comprises the research, design, development, manufacture, integration, modification, sustainment, support, and upgrade of:

1. Manned and autonomous military aircraft, including (i) combat aircraft with weapons systems (e.g., fighters and bombers), (ii) unmanned air vehicles such as drones, and (iii) aircraft for mobility and surveillance;
2. Refueling tankers;
3. Transport or cargo planes and helicopters; and
4. Related technologies.

This sector may include vertical lift products (also known as rotorcraft and tilt-rotor aircraft), such as helicopters. These products may also be linked with the Marine sector.

Defense Systems

Defense Systems is a broad category that encompasses:

1. Air and missile defense systems;
2. Wheeled and tracked combat vehicles--i.e., land systems (manned and unmanned ground vehicles);
3. Ordnance, ammunition, and weapons systems (e.g., guns, bullets, bombs, military vehicles, tactical missiles, and air-to-ground precision strike weapon systems);
4. Fire control systems (e.g., several components working together, such as a gun data computer, a director, and radar designed to assist a ranged weapon system in targeting, tracking and hitting its target); and
5. Logistics, mission operations, readiness, engineering support, and integration services.

Intelligence and Mission Systems

Intelligence and Mission Systems encompass the full spectrum of integrated, secure communications systems for advanced missions, sensors, cyber and software products, and advanced training for defense and intelligence applications across multiple domains, including:

1. C4ISR or command, control, communications, computers, intelligence, surveillance, and reconnaissance systems (e.g., global positioning systems, radar, and sensors);
2. cybersecurity, cloud services and advanced software products;
3. simulation and training solutions.

Space and Satellite Systems

The Space segment covers the research, design, development, engineering, and production of satellites, space, launch, and advanced, strike and defensive missile systems. Space also provides network-enabled situational awareness and integrates complex space and ground global systems to help customers gather, analyze and securely distribute critical intelligence data.

Marine Systems

The Marine Systems segment designs and builds nuclear-powered submarines, surface combatants, auxiliary warships, guided-missile destroyers, forward-staging base and replenishment oilers, sea- and land-based missile defense systems, radar systems, helicopters, and sea- and air-based mission and combat systems. This sector also covers maintenance, lifecycle, and modernization support services for Navy ships.

B Components Supply and Services

Key Defense Components Supplies. Defense contractors rely on extensive supply chains to acquire the various components, sub-assemblies, metals and materials, electronics, and engineering and cloud services needed to assemble military products. On significant military projects, defense contractors may perform the limited role of supplier or subcontractor. Key components include steel and aluminum parts, jet and vehicle engines, avionics, power and control systems, cloud services, and semiconductors.

C Original Equipment Manufacturing

Military Systems

Defense Contractors and the Manufacture of Military and Defense Systems. U.S. defense contractors are among the leaders in the world in the manufacture of military aircraft, land combat vehicles, missile defense systems, intelligence and mission systems, spacecraft, and marine systems. There are 100+ defense contractors in the U.S., but five contractors top the list due to the significant revenue they generate from the U.S. government.

The Top Five Defense Contractors. Bethesda, Maryland-based **LOCKHEED MARTIN** (55) makes F-35 fighter jets, cargo planes, Trident hypersonic missile, the Patriot Missile Defense System, the Orion Space Capsule, and Black Hawk helicopters. Waltham, Massachusetts-based **RAYTHEON TECHNOLOGIES** (58) makes Stinger surface-to-air missiles, Tomahawk Cruise naval missiles, Sidewinder and the Joint Strike air-to-air missiles, Iron Dome and NASAMS missile defense systems, radar, drones, sensors, communication systems, cyber and software solutions, and engines for military aircraft.

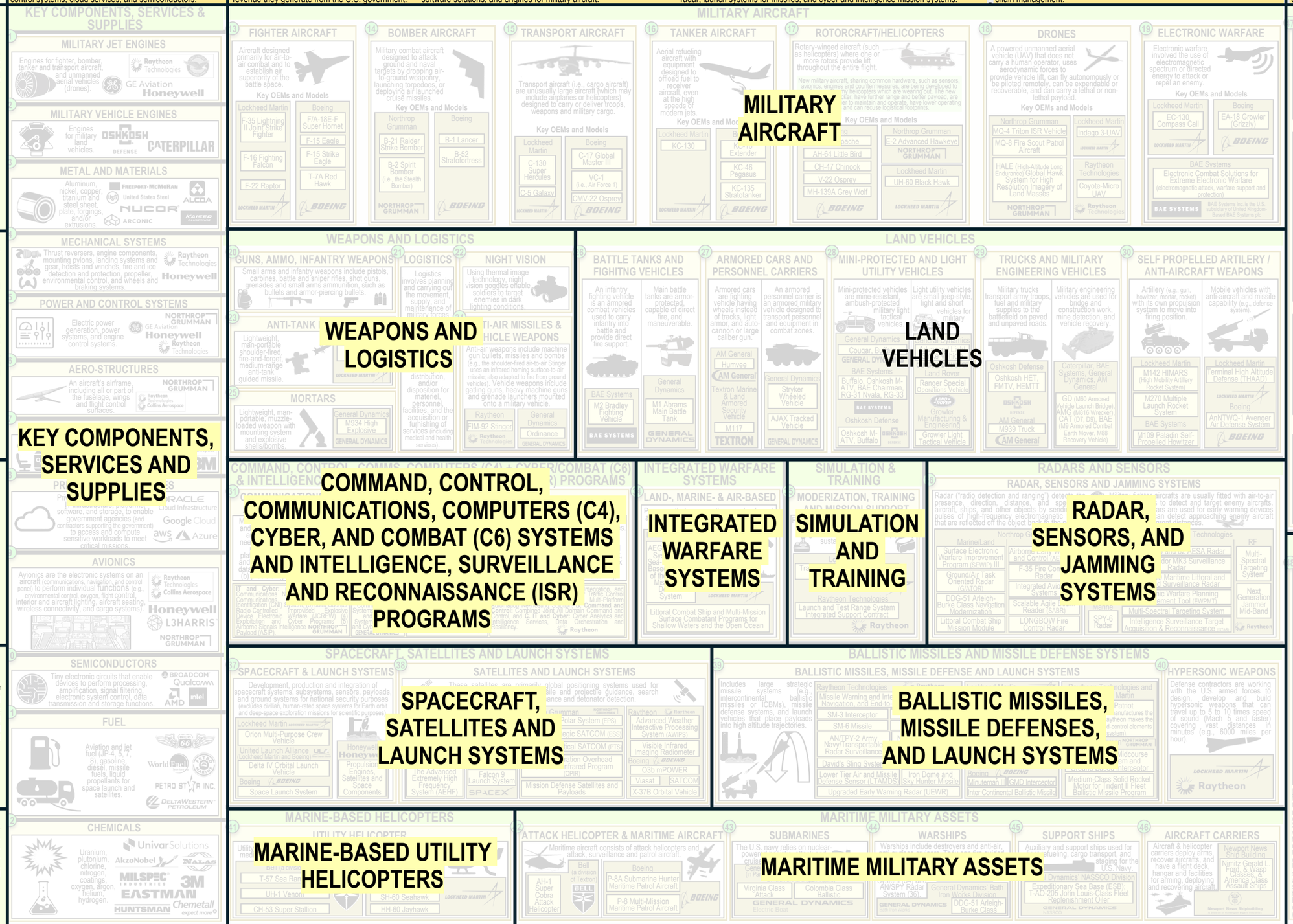
BOEING (60) makes Growler, F-15 Strike Eagle and F-18 Super Hornet fighter jets, Chinook rotorcraft, military aircraft, ViaSat and SATCOM satellites, communications systems, electronic and defense systems, launch systems, weapons, and Minuteman III ICBM missiles. Reston, Virginia-based **GENERAL DYNAMICS** (86) makes Virginia- and Columbia-class submarines, the Arleigh Burke-class destroyer, ABRAMS tanks, Stryker combat vehicles, ammunition and weapons systems, and command, control and intelligence systems. Falls Church, Virginia-based **NORTHROP GRUMMAN** (101) makes B-2 Stealth and B-21 Raider Strike bombers, missile defense systems, sensors, radar, launch systems for missiles, and cyber and intelligence mission systems.

After Market Support and Services

Aftermarket, Development and Sustainment Services. The defense contractors will provide aftermarket, development and sustainment services to customers (typically U.S. government). Aftermarket services include repair, maintenance, support, and completion services of military products. Development services focus on the modernization of the capabilities of existing military products, including upgrading existing systems, adding capabilities, and enhancing the performance of weapons systems' existing capabilities. Sustainment services include providing logistics, training, customer support, and integrated supply chain management.

D Consumption

The U.S. Government and its Foreign Allies. Most defense contractor products and services are sold to U.S. government agencies (mainly, the armed forces under the U.S. Department of Defense, which spends $450 billion/year on military products). Lockheed Martin derives 85% of its revenues from U.S. government sales (69% for General Dynamics, 29% for Boeing, 46% for Raytheon Technologies, and 84% for Northrop Grumman).



April 2023

United States Defense Industry: Simplified

© 2023 One Page Thinking, LLC www.onepagethinking.net

A Defense Sectors

The U.S. defense industry consists of companies engaged in the research, design, development, manufacture, integration, modification, sustainment, and upgrading of (a) military aircraft and rotorcraft, (b) weapons and defense systems, (c) intelligence and mission systems, (d) satellites and space systems, and (e) marine systems in support of the U.S. government's national security mission.

Aeronautics

The Aeronautics sector comprises the research, design, development, manufacture, integration, modification, sustainment, support, and upgrade of:

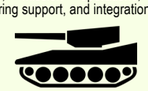
1. Manned and autonomous military aircraft, including (i) combat aircraft with weapons systems (e.g., fighters and bombers), (ii) unmanned air vehicles such as drones, and (iii) aircraft for mobility and surveillance;
2. Refueling tankers;
3. Transport or cargo planes and helicopters; and
4. Related technologies.

This sector may include vertical lift products (also known as rotorcraft and tilt-rotor aircraft), such as helicopters. These products may also be linked with the Marine sector.

Defense Systems

Defense Systems is a broad category that encompasses:

1. Air and missile defense systems;
2. Wheeled and tracked combat vehicles--i.e., land systems (manned and unmanned ground vehicles);
3. Ordnance, ammunition, and weapons systems (e.g., guns, bullets, bombs, military vehicles, tactical missiles, and air-to-ground precision strike weapon systems);
4. Fire control systems (e.g., several components working together, such as a gun data computer, a director, and radar designed to assist a ranged weapon system in targeting, tracking and hitting its target); and
5. Logistics, mission operations, readiness, engineering support, and integration services.



Intelligence and Mission Systems

Intelligence and Mission Systems encompass the full spectrum of integrated, secure communications systems for advanced missions, sensors, cyber and software products, and advanced training for defense and intelligence applications across multiple domains, including:

1. C4ISR or command, control, communications, computers, intelligence, surveillance, and reconnaissance systems (e.g., global positioning systems, radar, and sensors);
2. cybersecurity, cloud services and advanced software products;
3. simulation and training solutions.

Space and Satellite Systems

The Space segment covers the research, design, development, engineering, and production of satellites, space, launch, and advanced, strike and defensive missile systems. Space also provides network-enabled situational awareness and integrates complex space and ground global systems to help customers gather, analyze and securely distribute critical intelligence data.

Marine Systems

The Marine Systems segment designs and builds nuclear-powered submarines, surface combatants, auxiliary warships, guided-missile destroyers, forward-staging base and replenishment oilers, sea- and land-based missile defense systems, radar systems, helicopters, and sea- and air-based mission and combat systems. This sector also covers maintenance, lifecycle, and modernization support services for Navy ships.

B Components Supply and Services

Key Defense Components Supplies. Defense contractors rely on extensive supply chains to acquire the various components, sub-assemblies, metals and materials, electronics, and engineering and cloud services needed to assemble military products. On significant military projects, defense contractors may perform the limited role of supplier or subcontractor. Key components include steel and aluminum parts, jet and vehicle engines, avionics, power and control systems, cloud services, and semiconductors.

KEY COMPONENTS, SERVICES AND SUPPLIES

MILITARY JET ENGINES

MILITARY VEHICLE ENGINES

METAL AND MATERIALS

MECHANICAL SYSTEMS

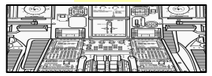
POWER AND CONTROL SYSTEMS

AERO-STRUCTURES

INTERIORS

PRIVATE CLOUD SERVICES

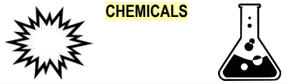
AVIONICS



SEMICONDUCTORS

FUEL

CHEMICALS



C Original Equipment Manufacturing

Military Systems

Defense Contractors and the Manufacture of Military and Defense Systems. U.S. defense contractors are among the leaders in the world in the manufacture of military aircraft, land combat vehicles, missile defense systems, intelligence and mission systems, spacecraft, and marine systems. There are 100+ defense contractors in the U.S., but five contractors top the list due to the significant revenue they generate from the U.S. government.

The Top Five Defense Contractors. Bethesda, Maryland-based **LOCKHEED MARTIN** (55) makes F-35 fighter jets, cargo planes, Trident hypersonic missile, the Patriot Missile Defense System, the Orion Space Capsule, and Black Hawk helicopters. Waltham, Massachusetts-based **RAYTHEON TECHNOLOGIES** (58) makes Stinger surface-to-air missiles, Tomahawk Cruise naval missiles, Sidewinder and the Joint Strike air-to-air missiles, Iron Dome and NASAMS missile defense systems, radar, drones, sensors, communication systems, cyber and software solutions, and engines for military aircraft. **BOEING** (60) makes Growler, F-15 Strike Eagle and F-18 Super Hornet fighter jets, Chinook rotorcraft, military aircraft, ViaSat and SATCOM satellites, communications systems, electronic and defense systems, launch systems, weapons, and Minuteman III ICBM missiles. Reston, Virginia-based **GENERAL DYNAMICS** (86) makes Virginia- and Columbia-class submarines, the Arleigh Burke-class destroyer, ABRAMS tanks, Stryker combat vehicles, ammunition and weapons systems, and command, control and intelligence systems. Falls Church, Virginia-based **NORTHROP GRUMMAN** (101) makes B-2 Stealth and B-21 Raider Strike bombers, missile defense systems, sensors, radar, launch systems for missiles, and cyber and intelligence mission systems.

After Market Support and Services

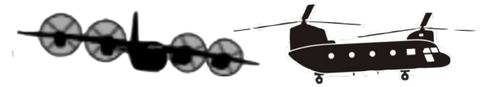
Aftermarket, Development and Sustainment Services. The defense contractors will provide aftermarket, development and sustainment services to customers (typically U.S. government). Aftermarket services include repair, maintenance, support, and completion services of military products. Development services focus on the modernization of the capabilities of existing military products, including upgrading existing systems, adding capabilities, and enhancing the performance of weapons systems' existing capabilities. Sustainment services include providing logistics, training, customer support, and integrated supply chain management.

MILITARY AIRCRAFT

FIGHTER AIRCRAFT

TRANSPORT AIRCRAFT

ROTORCRAFT/HELICOPTERS



ELECTRONIC WARFARE

BOMBER AIRCRAFT

TANKER AIRCRAFT

DRONES

WEAPONS AND LOGISTICS

GUNS, AMMO, INFANTRY WEAPONS

NIGHT VISION

ANTI-TANK MISSILES

LOGISTICS

ANTI-AIR WEAPONS

MORTARS

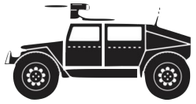
VEHICLE WEAPONS

LAND VEHICLES

MAIN BATTLE TANKS AND INFANTRY FIGHTING VEHICLES

TRUCKS

MINI-PROTECTED VEHICLES



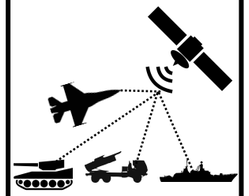
MILITARY ENGINEERING VEHICLES

ARMORED PERSONNEL CARRIERS AND CARS

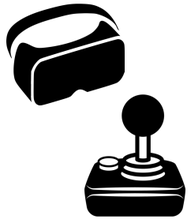
SELF-PROPELLED ANTI-AIRCRAFT WEAPONS AND ARTILLERY

COMMAND, CONTROL, COMMS, COMPUTERS (C4) + CYBER/COMBAT (C6) & INTELLIGENCE, SURVAILENCE & RECONNAISANCE (ISR) PROGRAMS

INTEGRATED WARFARE SYSTEMS



SIMULATION & TRAINING



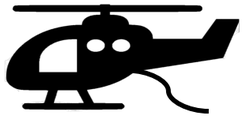
RADARS AND SENSORS

SPACECRAFT, SATELLITES AND LAUNCH SYSTEMS

BALLISTIC MISSILES AND MISSILE DEFENSES SYSTEMS

MARINE-BASED HELICOPTERS

UTILITY HELICOPTER



MARITIME MILITARY ASSETS

ATTACK HELICOPTER

MARITIME AIRCRAFT

SUBMARINES

WARSHIPS

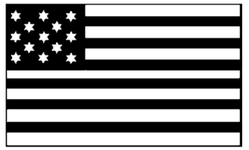
SUPPORT SHIPS

AIRCRAFT CARRIERS

D Consumption

The U.S. Government and its Foreign Allies. Most defense contractor products and services are sold to U.S. government agencies (mainly, the armed forces under the U.S. Department of Defense, which spends $450 billion/year on military products). Lockheed Martin derives 85% of its revenues from U.S. government sales (69% for General Dynamics, 29% for Boeing, 46% for Raytheon Technologies, and 84% for Northrop Grumman).

UNITED STATES GOVERNMENT

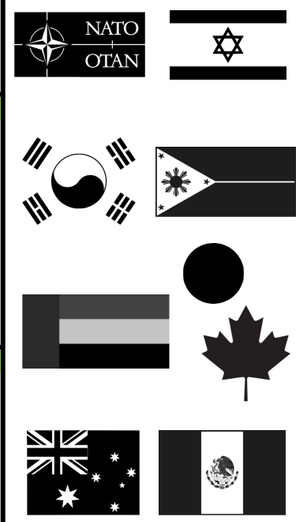


ARMED FORCES

HOMELAND SECURITY

INDEPENDENT AND INTELLIGENCE SPACE AGENCIES

KEY ALLIES AND STRATEGIC FRIENDS



April 2023

United States Defense Industry: Key Players

© 2023 One Page Thinking, LLC www.onepagethinking.net

A Defense Sectors

The U.S. defense industry consists of companies engaged in the research, design, development, manufacture, integration, modification, sustainment, and upgrading of (a) military aircraft and rotorcraft, (b) weapons and defense systems, (c) intelligence and mission systems, (d) satellites and space systems, and (e) marine systems in support of the U.S. government's national security mission.

Aeronautics

The Aeronautics sector comprises the research, design, development, manufacture, integration, modification, sustainment, support, and upgrade of:

1. Manned and autonomous military aircraft, including (i) combat aircraft with weapons systems (e.g., fighters and bombers), (ii) unmanned air vehicles such as drones, and (iii) aircraft for mobility and surveillance;
2. Refueling tankers;
3. Transport or cargo planes and helicopters; and
4. Related technologies.

This sector may include vertical lift products (also known as rotorcraft and tilt-rotor aircraft), such as helicopters. These products may also be linked with the Marine sector.

Defense Systems

Defense Systems is a broad category that encompasses:

1. Air and missile defense systems;
2. Wheeled and tracked combat vehicles--i.e., land systems (manned and unmanned ground vehicles);
3. Ordnance, ammunition, and weapons systems (e.g., guns, bullets, bombs, military vehicles, tactical missiles, and air-to-ground precision strike weapon systems);
4. Fire control systems (e.g., several components working together, such as a gun data computer, a director, and radar designed to assist a ranged weapon system in targeting, tracking and hitting its target); and
5. Logistics, mission operations, readiness, engineering support, and integration services.

Intelligence and Mission Systems

Intelligence and Mission Systems encompass the full spectrum of integrated, secure communications systems for advanced missions, sensors, cyber and software products, and advanced training for defense and intelligence applications across multiple domains, including:

1. C4ISR or command, control, communications, computers, intelligence, surveillance, and reconnaissance systems (e.g., global positioning systems, radar, and sensors);
2. cybersecurity, cloud services and advanced software products;
3. simulation and training solutions.

Space and Satellite Systems

The Space segment covers the research, design, development, engineering, and production of satellites, space, launch, and advanced, strike and defensive missile systems. Space also provides network-enabled situational awareness and integrates complex space and ground global systems to help customers gather, analyze and securely distribute critical intelligence data.

Marine Systems

The Marine Systems segment designs and builds nuclear-powered submarines, surface combatants, auxiliary warships, guided-missile destroyers, forward-staging base and replenishment oilers, sea- and land-based missile defense systems, radar systems, helicopters, and sea- and air-based mission and combat systems. This sector also covers maintenance, lifecycle, and modernization support services for Navy ships.

B Components Supply and Services

Key Defense Components Supplies. Defense contractors rely on extensive supply chains to acquire the various components, sub-assemblies, metals and materials, electronics, and engineering and cloud services needed to assemble military products. On significant military projects, defense contractors may perform the limited role of supplier or subcontractor. Key components include steel and aluminum parts, jet and vehicle engines, avionics, power and control systems, cloud services, and semiconductors.

C Original Equipment Manufacturing

Military Systems

Defense Contractors and the Manufacture of Military and Defense Systems. U.S. defense contractors are among the leaders in the world in the manufacture of military aircraft, land combat vehicles, missile defense systems, intelligence and mission systems, spacecraft, and marine systems. There are 100+ defense contractors in the U.S., but five contractors top the list due to the significant revenue they generate from the U.S. government.

The Top Five Defense Contractors. Bethesda, Maryland-based **LOCKHEED MARTIN** (55) makes F-35 fighter jets, cargo planes, Trident hypersonic missile, the Patriot Missile Defense System, the Orion Space Capsule, and Black Hawk helicopters. Waltham, Massachusetts-based **RAYTHEON TECHNOLOGIES** (58) makes Stinger surface-to-air missiles, Tomahawk Cruise naval missiles, Sidewinder and the Joint Strike air-to-air missiles, Iron Dome and NASAMS missile defense systems, radar, drones, sensors, communication systems, cyber and software solutions, and engines for military aircraft. **BOEING** (60) makes Growler, F-15 Strike Eagle and F-18 Super Hornet fighter jets, Chinook rotorcraft, military aircraft, ViaSat and SATCOM satellites, communications systems, electronic and defense systems, launch systems, weapons, and Minuteman III ICBM missiles. Reston, Virginia-based **GENERAL DYNAMICS** (86) makes Virginia- and Columbia-class submarines, the Arleigh Burke-class destroyer, ABRAMS tanks, Stryker combat vehicles, ammunition and weapons systems, and command, control and intelligence systems. Falls Church, Virginia-based **NORTHROP GRUMMAN** (101) makes B-2 Stealth and B-21 Raider Strike bombers, missile defense systems, sensors, radar, launch systems for missiles, and cyber and intelligence mission systems.

After Market Support and Services

Aftermarket, Development and Sustainment Services. The defense contractors will provide aftermarket, development and sustainment services to customers (typically U.S. government). Aftermarket services include repair, maintenance, support, and completion services of military products. Development services focus on the modernization of the capabilities of existing military products, including upgrading existing systems, adding capabilities, and enhancing the performance of weapons systems' existing capabilities. Sustainment services include providing logistics, training, customer support, and integrated supply chain management.

D Consumption

The U.S. Government and its Foreign Allies. Most defense contractor products and services are sold to U.S. government agencies (mainly, the armed forces under the U.S. Department of Defense, which spends $450 billion/year on military products). Lockheed Martin derives 85% of its revenues from U.S. government sales (69% for General Dynamics, 29% for Boeing, 46% for Raytheon Technologies, and 84% for Northrop Grumman).

KEY COMPONENTS, SERVICES AND SUPPLIES

MILITARY JET ENGINES

Honeywell; Raytheon Technologies; GE Aviation

MILITARY VEHICLE ENGINES

Oshkosh Defense; Caterpillar

METAL AND MATERIALS

Freeport-McMoRan; Arconic; United States Steel; Nucor; Kaiser Aluminum; Alcoa

MECHANICAL SYSTEMS

Honeywell; Raytheon Technologies

POWER AND CONTROL SYSTEMS

Raytheon Technologies; Northrop Grumman; GE Aviation; Honeywell

AERO-STRUCTURES

Raytheon Technologies Collins Aerospace; Northrop Grumman

INTERIORS

Raytheon Technologies Collins Aerospace; 3M

PRIVATE CLOUD SERVICES

aws; Oracle Cloud Infrastructure; Azure; Google Cloud

AVIONICS

Raytheon Technologies Collins Aerospace; Northrop Grumman; Honeywell; L3Harris

SEMICONDUCTORS

AMD; intel; Broadcom; Qualcomm

FUEL

Phillips 66; World Fuel Services; Petro Marine; Delta Western Petroleum; Petro Star Inc.

CHEMICALS

Univar Solutions; Nalas; MILSPEC Industries; AkzoNobel; Eastman; Huntsman; 3M; Chemetall expect more

MILITARY AIRCRAFT

FIGHTER AIRCRAFT

Lockheed Martin; Boeing

TRANSPORT AIRCRAFT

Lockheed Martin; Boeing

ROTORCRAFT/HELICOPTERS

Bell (Textron-Owned); Lockheed Martin; Boeing

ELECTRONIC WARFARE

Raytheon Technologies; Raytheon; BAE Systems; Textron; L3Harris; Boeing

BOMBER AIRCRAFT

Northrop Grumman; Boeing

TANKER AIRCRAFT

Lockheed Martin; LMXT; Boeing

DRONES

Northrop Grumman; Lockheed Martin; Raytheon Technologies; Raytheon; BAE Systems; Boeing

WEAPONS AND LOGISTICS

GUNS, AMMO, INFANTRY WEAPONS

Olin; Winchester; Remington; General Dynamics

NIGHT VISION

L3Harris; Leonardo; BAE Systems

ANTI-TANK MISSILES

Lockheed Martin; Raytheon Technologies; Raytheon

LOGISTICS

Lockheed Martin; DynCorp International; KBR; AECOM

ANTI-AIR WEAPONS

Raytheon Technologies; Raytheon; Kongsberg

MORTARS

General Dynamics; Northrop Grumman; Elbit Systems of America

VEHICLE WEAPONS

Northrop Grumman; General Dynamics

LAND VEHICLES

MAIN BATTLE TANKS AND INFANTRY FIGHTING VEHICLES

General Dynamics; BAE Systems

TRUCKS

Oshkosh Defense; AM General

MINI-PROTECTED VEHICLES

AM General

MILITARY ENGINEERING VEHICLES

Oshkosh Defense; AM General

ARMORED PERSONNEL CARRIERS AND CARS

BAE Systems; Oshkosh Defense; General Dynamics

SELF-PROPELLED ANTI-AIRCRAFT WEAPONS AND ARTILLERY

Boeing; Lockheed Martin; General Dynamics

COMMAND, CONTROL, COMMS, COMPUTERS (C4) + CYBER/COMBAT (C6) & INTELLIGENCE, SURVAILENCE & RECONNAISANCE (ISR) PROGRAMS

Raytheon Technologies; Raytheon; Northrop Grumman; L3Harris; Lockheed Martin; General Dynamics

INTEGRATED WARFARE SYSTEMS

Lockheed Martin

SIMULATION & TRAINING

Raytheon Technologies; Raytheon; Lockheed Martin

RADARS AND SENSORS

Raytheon Technologies; Raytheon; Boeing (Airborne warning and control system (AWAC)); General Dynamics; Northrop Grumman

SPACECRAFT, SATELLITES AND LAUNCH SYSTEMS

Honeywell; Lockheed Martin; Boeing; Raytheon Technologies; Raytheon; ULA (United Launch Alliance); SpaceX; Northrop Grumman

BALLISTIC MISSILES AND MISSILE DEFENSES SYSTEMS

Raytheon Technologies; Raytheon; Boeing; Lockheed Martin; Northrop Grumman

MARINE-BASED HELICOPTERS

UTILITY HELICOPTER

Bell (Textron-Owned); Lockheed Martin

MARITIME MILITARY ASSETS

ATTACK HELICOPTER

Lockheed Martin; General Dynamics

MARITIME AIRCRAFT

Lockheed Martin; Boeing; Textron

SUBMARINES

WARSHIPS

SUPPORT SHIPS

General Dynamics

AIRCRAFT CARRIERS

Newport News Shipbuilding — A Division of Huntington Ingalls Industries

UNITED STATES GOVERNMENT

ARMED FORCES

HOMELAND SECURITY

INDEPENDENT AND INTELLIGENCE SPACE AGENCIES

KEY ALLIES AND STRATEGIC FRIENDS

NATO OTAN; Germany; France; Ukraine; Turkey; Norway; Netherlands; Canada; Mexico; South Korea; Japan; Philippines; Singapore; India; Australia; Taiwan; United Arab Emirates; Israel; Saudi Arabia; Iraq; Qatar

United States Defense Industry: Detailed

thinking © 2023 One Page Thinking, LLC www.onepagethinking.net

A Defense Sectors

The U.S. defense industry consists of companies engaged in the research, design, development, manufacture, integration, modification, sustainment, and upgrading of (a) military aircraft and rotorcraft, (b) weapons and defense systems, (c) intelligence and mission systems, (d) satellites and space systems, and (e) marine systems in support of the U.S. government's national security mission.

Aeronautics

The Aeronautics sector comprises the research, design, development, manufacture, integration, modification, sustainment, support, and upgrade of:

1. Manned and autonomous military aircraft, including (i) combat aircraft with weapons systems (e.g., fighters and bombers), (ii) unmanned air vehicles such as drones, and (iii) aircraft for mobility and surveillance;
2. Refueling tankers;
3. Transport or cargo planes and helicopters; and
4. Related technologies.

This sector may include vertical lift products (also known as rotorcraft and tilt-rotor aircraft), such as helicopters. These products may also be linked with the Marine sector.

Defense Systems

Defense Systems is a broad category that encompasses:

1. Air and missile defense systems;
2. Wheeled and tracked combat vehicles--i.e., land systems (manned and unmanned ground vehicles);
3. Ordnance, ammunition, and weapons systems (e.g., guns, bullets, bombs, military vehicles, tactical missiles, and air-to-ground precision strike weapon systems);
4. Fire control systems (e.g., several components working together, such as a gun data computer, a director, and radar designed to assist a ranged weapon system in targeting, tracking and hitting its target); and
5. Logistics, mission operations, readiness, engineering support, and integration services.

Intelligence and Mission Systems

Intelligence and Mission Systems encompass the full spectrum of integrated, secure communications systems for advanced missions, sensors, cyber and software products, and advanced training for defense and intelligence applications across multiple domains, including:

1. C4ISR or command, control, communications, computers, intelligence, surveillance, and reconnaissance systems (e.g., global positioning systems, radar, and sensors);
2. cybersecurity, cloud services and advanced software products;
3. simulation and training solutions.

Space and Satellite Systems

The Space segment covers the research, design, development, engineering, and production of satellites, space, launch, and advanced, strike and defensive missile systems. Space also provides network-enabled situational awareness and integrates complex space and ground systems to help customers gather, analyze and securely distribute critical intelligence data.

Marine Systems

The Marine Systems segment designs and builds nuclear-powered submarines, surface combatants, auxiliary warships, guided-missile destroyers, forward-staging base and replenishment oilers, sea- and land-based missile defense systems, radar systems, helicopters, and sea- and air-based mission and combat systems. This sector also covers maintenance, lifecycle, and modernization support services for Navy ships.

B Components Supply & Services

Key Defense Components Supplies. Defense contractors rely on extensive supply chains to acquire the various components, sub-assemblies, metals and materials, electronics, and engineering and cloud services needed to assemble military products. On significant military projects, defense contractors may perform the limited role of supplier or subcontractor. Key components include steel and aluminum parts, jet and vehicle engines, avionics, power and control systems, cloud services, and semiconductors.

KEY COMPONENTS, SERVICES & SUPPLIES

1 MILITARY JET ENGINES
Engines for fighter, bomber, tanker and transport aircraft, and unmanned aerial vehicles (drones).
Raytheon Technologies; GE Aviation; Honeywell

2 MILITARY VEHICLE ENGINES
Engines for military land vehicles.
OSHKOSH DEFENSE; CATERPILLAR

3 METAL AND MATERIALS
Aluminum, nickel, copper, titanium and steel sheet, plate, forgings, and/or extrusions.
Freeport-McMoRan; United States Steel; ALCOA; NUCOR; ARCONIC; KAISER ALUMINUM

4 MECHANICAL SYSTEMS
Thrust reversers, engine components, mounting pylons, landing systems and gear, hoists and winches, fire and ice detection and protection, propeller, environmental control, and wheels and braking systems.
Raytheon Technologies; Honeywell

5 POWER AND CONTROL SYSTEMS
Electric power generation, power systems, and engine control systems.
NORTHROP GRUMMAN; GE Aviation; Honeywell; Raytheon Technologies

6 AERO-STRUCTURES
An aircraft's airframe, including all or part of the fuselage, wings and flight control surfaces.
NORTHROP GRUMMAN; Raytheon Technologies; Collins Aerospace

7 INTERIORS
Cabin interiors, food and beverage preparation, and systems for communications and aviation, oxygen, storage and galley, lavatory, and wastewater management.
Raytheon Technologies; Collins Aerospace; 3M

8 PRIVATE CLOUD SERVICES
Private cloud services, including IT infrastructure, platforms, software, and storage, to enable government agencies (and contractors supporting the government) to access and compute sensitive workloads to meet critical missions.
ORACLE Cloud Infrastructure; Google Cloud; aws; Azure

9 AVIONICS
Avionics are the electronic systems on an aircraft (communications, navigation, and control panel) to perform individual functions (e.g., environmental control, oxygen, flight control, interior and aircraft lighting, aircraft seating, wireless connectivity, and cargo systems).
Raytheon Technologies; Collins Aerospace; Honeywell; L3HARRIS; NORTHROP GRUMMAN

10 SEMICONDUCTORS
Tiny electronic circuits that enable devices to perform processing, amplification, signal filtering, electronic system control, data transmission and storage functions.
BROADCOM; Qualcomm; AMD; intel

11 FUEL
Aviation and jet fuel (JP-4, 5, 7, 8), gasoline, diesel, missile fuels, liquid propellants for space launch and satellites.
Phillips 66; World Fuel Services; Sunoco; PETRO STOPPING CENTERS; PETRO STAR INC.; DELTA WESTERN PETROLEUM

12 CHEMICALS
Uranium, plutonium, chlorine, nitrogen, coatings, oxygen, argon, helium, hydrogen.
Univar Solutions; AkzoNobel; NATALS; MILSPEC INDUSTRIES; 3M; EASTMAN; HUNTSMAN; Chemetall

C Original Equipment Manufacturing

Military Systems

Defense Contractors and the Manufacture of Military and Defense Systems. U.S. defense contractors are among the leaders in the world in the manufacture of military aircraft, land combat vehicles, missile defense systems, intelligence and mission systems, spacecraft, and marine systems. There are 100+ defense contractors in the U.S., but five contractors top the list due to the significant revenue they generate from the U.S. government.

The Top Five Defense Contractors. Bethesda, Maryland-based **LOCKHEED MARTIN** (55) makes F-35 fighter jets, cargo planes, Trident hypersonic missile, the Patriot Missile Defense System, the Orion Space Capsule, and Black Hawk helicopters. Waltham, Massachusetts-based **RAYTHEON TECHNOLOGIES** (58) makes Stinger surface-to-air missiles, Tomahawk Cruise naval missiles, Sidewinder and the Joint Strike air-to-air missiles, Iron Dome and NASAMS missile defense systems, radar, drones, sensors, communication systems, cyber and software solutions, and engines for military aircraft.

BOEING (60) makes Growler, F-15 Strike Eagle and F-18 Super Hornet fighter jets, Chinook rotorcraft, military aircraft, ViaSat and SATCOM satellites, communications systems, electronic and defense systems, launch systems, weapons, and Minuteman III ICBM missiles. Reston, Virginia-based **GENERAL DYNAMICS** (86) makes Virginia- and Columbia-class submarines, the Arleigh Burke-class destroyer, ABRAMS tanks, Stryker combat vehicles, ammunition and weapons systems, and command, control and intelligence systems. Falls Church, Virginia-based **NORTHROP GRUMMAN** (101) makes B-2 Stealth and B-21 Raider Strike bombers, missile defense systems, sensors, radar, launch systems for missiles, and cyber and intelligence mission systems.

After Market Support and Services

Aftermarket, Development and Sustainment Services. The defense contractors will provide aftermarket, development and sustainment services to customers (typically U.S. government). Aftermarket services include repair, maintenance, support, and completion services of military products. Development services focus on the modernization of the capabilities of existing military products, including upgrading existing systems, adding capabilities, and enhancing the performance of weapons systems' existing capabilities. Sustainment services include providing logistics, training, customer support, and integrated supply chain management.

MILITARY AIRCRAFT

13 FIGHTER AIRCRAFT
Aircraft designed primarily for air-to-air combat and to establish air superiority of the battle space.
Key OEMs and Models
Lockheed Martin: F-35 Lightning II Joint Strike Fighter; F-16 Fighting Falcon; F-22 Raptor
Boeing: F/A-18E-F Super Hornet; F-15 Eagle; F-15 Strike Eagle; T-7A Red Hawk

14 BOMBER AIRCRAFT
Military combat aircraft designed to attack ground and naval targets by dropping air-to-ground weaponry, launching torpedoes, or deploying air launched cruise missiles.
Key OEMs and Models
Northrop Grumman: B-21 Raider Strike Bomber; B-2 Spirit Bomber (i.e., the Stealth Bomber)
Boeing: B-1 Lancer; B-52 Stratofortress

15 TRANSPORT AIRCRAFT
Transport aircraft (i.e., cargo aircraft) are unusually large aircraft (which may include airplanes or helicopters) designed to carry or deliver troops, weapons and military cargo.
Key OEMs and Models
Lockheed Martin: C-130 Super Hercules; C-5 Galaxy
Boeing: C-17 Global Master III; VC-1 (i.e., Air Force One); CMV-22 Osprey

16 TANKER AIRCRAFT
Aerial refueling aircraft with equipment designed to offload fuel to receiver aircraft, even at the high speeds of modern jets.
Key OEMs and Models
Lockheed Martin: KC-130
Boeing: KC-10 Extender; KC-46 Pegasus; KC-135 Stratotanker

17 ROTORCRAFT/HELICOPTERS
Rotary-winged aircraft (such as helicopters) where one or more rotors provide lift throughout the entire flight.
New military aircraft, sharing common hardware, such as sensors, avionics, engines and countermeasures, are being developed to replace most army helicopters which are wearing out. The new rotorcraft are quicker, have further range and better payload, are more reliable, easier to maintain and operate, have lower operating costs and can recuse logistical footprints.
Key OEMs and Models
Boeing: AH-64 Apache; AH-64 Little Bird; CH-47 Chinook; V-22 Osprey; MH-139A Grey Wolf
Northrop Grumman: E-2 Advanced Hawkeye
Lockheed Martin: UH-60 Black Hawk

18 DRONES
A powered unmanned aerial vehicle (UAV) that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or non-lethal payload.
Key OEMs and Models
Northrop Grumman: MQ-4 Triton ISR Vehicle; MQ-8 Fire Scout Patrol Aircraft; HALE (High-Altitude Long Endurance) Global Hawk System for High Resolution Imagery of Land Masses
Lockheed Martin: Indago 3-UAV
Raytheon Technologies: Coyote-Micro UAV
Boeing: MQ-25, MQ-28, RQ-21A Blackjack, UUV, USV

19 ELECTRONIC WARFARE
Electronic warfare involved the use of electromagnetic spectrum or directed energy to attack or repel an enemy.
Key OEMs and Models
Lockheed Martin: EC-130 Compass Call
Boeing: EA-18 Growler (Grizzly)
BAE Systems: Electronic Combat Solutions for Extreme Electronic Warfare (electromagnetic attack, warfare support and protection)
BAE Systems Inc. is the U.S. subsidiary of United Kingdom-Based BAE Systems plc.

WEAPONS AND LOGISTICS

20 GUNS, AMMO, INFANTRY WEAPONS
Small arms and infantry weapons include pistols, carbines, battle and sniper rifles, shot guns, grenades and small arms ammunition, such as bullets and armor-piercing bullets.

21 LOGISTICS
Logistics involves planning and carrying out the movement, supply, and maintenance of military forces and equipment. Generally, it includes design, development, acquisition, construction, operation, storage, distribution, and/or disposition for materiel, personnel, facilities, and the acquisition or furnishing of services (including medical and health services).

22 NIGHT VISION
Using thermal image technology, night vision goggles enable soldiers to target enemies in dark lighting conditions.

23 ANTI-TANK MISSILES
Lightweight, man-portable shoulder-fired, fire-and-forget, medium-range anti-tank guided missile.
Lockheed Martin: FGM-148 Javelin

24 ANTI-AIR MISSILES & VEHICLE WEAPONS
Anti-air weapons include machine gun bullets, missiles and bombs (e.g., the shoulder-fired Stinger uses an infrared homing surface-to-air missile; also adapted to fire from ground vehicles). Vehicle weapons include gatling guns, heavy machine guns and grenade launchers mounted onto a military vehicle.
Raytheon: FIM-92 Stinger
General Dynamics: Ordinance

25 MORTARS
Lightweight, man-portable, muzzle-loaded weapon with mounting system and explosive shells/bombs.
General Dynamics: M934 High Explosive

LAND VEHICLES

26 BATTLE TANKS AND FIGHITNG VEHICLES
An infantry fighting vehicle is an armored combat vehicles used to carry infantry into battle and provide direct fire support.
BAE Systems: M2 Bradley Fighting Vehicle
Main battle tanks are armor-protected, capable of direct fire, and maneuverable.
General Dynamics: M1 Abrams Main Battle Tank

27 ARMORED CARS AND PERSONNEL CARRIERS
Armored cars are fighting vehicle having wheels instead of tracks, light armor, and auto-cannon or large caliber gun.
AM General: Humvee
AM General
Textron Marine & Land: Armored Security Vehicle; M117
An armored personnel carrier is an armored military vehicle designed to transport personnel and equipment in combat zones.
General Dynamics: Stryker Wheeled Vehicle; AJAX Tracked Vehicle

28 MINI-PROTECTED AND LIGHT UTILITY VEHICLES
Mini-protected vehicles are mine-resistant, ambush-protected military light tactical vehicles.
General Dynamics: Cougar, Buffalo
BAE Systems: Buffalo, Oshkosh M-ATV, BAE Chairman, RG-31 Nyala, RG-33
Oshkosh Defense: Oshkosh M-ATV, Buffalo
Light utility vehicles are small jeep-style, light and short vehicles for military use.
General Dynamics: Advanced Light Strike Vehicle
Land Rover: Ranger Special Operations Vehicle
Growler Manufacturing & Engineering: Growler Light Tactical Vehicle

29 TRUCKS AND MILITARY ENGINEERING VEHICLES
Military trucks transport army troops, fuel and military supplies to the battlefield on paved and unpaved roads.
Oshkosh Defense: Oshkosh HET, FMTV, HEMTT
AM General: M939 Truck
Military engineering vehicles are used for bridge and construction work, mine detection, and vehicle recovery.
Caterpillar, BAE Systems, General Dynamics, AM General
GD (M60 Armored Vehicle Launch Bridge), AMG (M816 Wrecker), CAT (D7, D9), BAE (M9 Armored Combat Earth Mover, M88 Recovery Vehicle)

30 SELF PROPELLED ARTILERY / ANTI-AIRCRAFT WEAPONS
Artillery (e.g., gun, howitzer, mortar, rocket) with its own propulsion system to move into firing position.
Lockheed Martin: M142 HIMARS (High Mobility Artillery Rocket System); M270 Multiple Launch Rocket System
BAE Systems: M109 Paladin Self-Propelled Howitzer
Mobile vehicles with anti-aircraft and missile capability (e.g., defense system).
Lockheed Martin: Terminal High Altitude Defense (THAAD)
Boeing: AnNTWQ-1 Avenger Air Defense System

COMMAND, CONTROL, COMMS, COMPUTERS (C4) + CYBER/COMBAT (C6) & INTELLIGENCE, SURVAILENCE & RECONNAISANCE (ISR) PROGRAMS

31 COMMUNICATIONS AND NAVIGATION
Military communications and navigation systems are designed to the secure transporting of the needs of land, airborne, naval, and space platforms for (a) secure and seamless voice and data communication and (b) precision guidance.

32 COMMAND AND CONTROL
Command and control systems encompass the arrangement of personnel, equipment, communication, facilities and procedures employed in planning, directing, coordinating, in controlling U.S. military operational activities.

33 IT AND CYBER
IT and cyber programs protect the most critical information systems and operations for defense and intelligence agencies. These large-scale systems support full-spectrum cybersecurity, create secure processing and IT networks, perform transformational/high-performance computing, and conduct advanced technology and application development, signals intelligence (SIGINT) mission systems, and complex digital modernization services (e.g., cloud strategy and services, network modernization, managed services, AI, and machine learning).

IT and Cyber: (1) Battlefield Airborne Communications Node (BACN), (2) F-35 Communications, Navigation and Identification (CNI) System, (3) Joint Counter Radio-Controlled Improvised Explosive Device Electronic Warfare (JCREW) (4) Exploitation and Cyber Programs (5) Airborne Signals Intelligence Payload (ASIP). NORTHROP GRUMMAN

IT and Cyber: Global Positioning Systems; Secure Communications Systems, Command and Control Systems, Sensors, and Cyber Products. GENERAL DYNAMICS

A. C4 ISR: Undersea Combat Systems Program for U.S. Navy; and **B. Command and Control / IT and Cyber:** Command, Control, Battle Management and Communications (C2BMC Program). LOCKHEED MARTIN

A. C4 ISR: Air Traffic Navigation, Integration, and Coordination System, Deployable Air Traffic Control Automation & Comms System, Multi-Platform Automation Re-Hosting Solution. **B. Command and Control:** Combined Joint All Domain Command and Control, and **C. IT and Cyber:** Cyber Analytics and Intelligence Services, Data Orchestration and Resiliency. Raytheon

INTEGRATED WARFARE SYSTEMS

34 LAND-, MARINE- & AIR-BASED
Programs that serve as the sea-, land-, and air-based elements of the U.S. missile and defense systems.
Lockheed Martin: AEGIS Combat System (the Sea- and Land-Based Element of the U.S. Air Missile and Defense System; Littoral Combat Ship and Multi-Mission Surface Combatant Programs for Shallow Waters and the Open Ocean

SIMULATION & TRAINING

35 MODERIZATION, TRAINING AND MISSION SUPPORT
Programs that provide (a) simulators and associated training to U.S. and foreign government customer and (b) sustainment services.
Lockheed Martin: Training and Logistics Solutions (TLS) Programs; Raytheon Technologies: Launch and Test Range System Integrated Support Contract

RADARS AND SENSORS

36 RADAR, SENSORS AND JAMMING SYSTEMS
Radar ("radio detection and ranging") detects the presence, direction, distance, and speed of aircraft, ships, and other objects by sending out pulses of high-frequency electromagnetic waves that are reflected off the object back to the source.
Military fighter aircrafts are usually fitted with air-to-air targeting radars to detect and target enemy aircrafts. Air defense radars are used for early warning devices because they can detect approaching enemy aircraft and missiles at great distances.
Northrop Grumman Marine/Land: Surface Electronic Warfare Improvement Program (SEWIP) III; Ground/Air Task Oriented Radar (G/ATOR); DDG-51 Arleigh-Burke Class Navigation Modernization; Littoral Combat Ship Mission Module
Northrop Grumman Air: F-35 and LONGBOW Fire Control Radar; Integrated Avionics Systems; Scalable Agile Beam Reader (SABR); Radio Frequency (RF); Radio Frequency Counter-measures (AC/MC-130J)
Boeing: Airborne Early Warning and Control Aircraft (AEW&C)
Raytheon Technologies Air: AN/APG-79 and 82 AESA Radar; MSSR Condor MK3 Surveillance Radar; AN/APY-10 Maritime Littoral and Overland Surveillance Radar; Electronic Warfare Planning Management Tool (EWPMT); Multi-Spectral Targeting System; Intelligence Surveillance Target Acquisition & Reconnaissance (ISTAR)
RF: Multi-Spectral Targeting System; Next Generation Jammer Mid-Band; Marine; SPY-6 Radar

SPACECRAFT, SATELLITES AND LAUNCH SYSTEMS

37 SPACECRAFT & LAUNCH SYSTEMS
Development, production and integration of spacecraft systems, subsystems, sensors, payloads, and ground systems for national security purposes (excludes civilian, human-rated space systems for Earth orbit and deep-space exploration missions for scientific purposes).
Lockheed Martin: Orion Multi-Purpose Crew Vehicle
United Launch Alliance (Lockheed Martin and Boeing): Delta IV Orbital Launch Vehicle
Boeing: Space Launch System
Honeywell: Propulsion Engines, Satellites and Space Components

38 SATELLITES AND LAUNCH SYSTEMS
These satellites are primarily global positioning systems used for navigation, target tracking, missile and projectile guidance, search and rescue missions, reconnaissance and detonator detection.
Lockheed Martin: Global Positioning System (GPS) III; Joint Venture (Lockheed Martin and Northrop Grumman): The Advanced Extremely High Frequency System (AEHF)
Honeywell: Propulsion Engines, Satellites and Space Components
Honeywell SpaceX: Falcon 9 Launch System
Northrop Grumman: Enhanced Polar System (EPS); Evolved Strategic SATCOM (ESS); Protected Tactical SATCOM (PTS); Next-Generation Overhead Persistent Infrared Program (OPIR); Mission Defense Satellites and Payloads
Raytheon: Advanced Weather Interactive Processing System (AWIPS); Visible Infrared Imaging Radiometer
Boeing: O3b mPOWER; Viasat; SATCOM; X-37B Orbital Vehicle

BALLISTIC MISSILES AND MISSILE DEFENSE SYSTEMS

39 BALLISTIC MISSILES, MISSILE DEFENSE AND LAUNCH SYSTEMS
Includes large strategic missile systems (e.g., intercontinental ballistic missiles or ICBMs), missile defense systems, and launch vehicles that place payloads into high altitude trajectories.
Raytheon Technologies: Missile Warning and Intelligence --to-Weather, Navigation, and End-to-End Space Solutions; SM-3 Interceptor; SM-6 Missile; AN/TPY-2 Army, Navy/Transportable Radar Surveillance; David's Sling System and SkyCeptor Missile; Lower Tier Air and Missile Defense Sensor (LTAMDS); Upgraded Early Warning Radar (UEWR); MIM-104 Patriot; Kill Vehicles; National Advanced Surface-to-Air Missile System (NASAMS)
Lockheed Martin: Trident II D5 Fleet Ballistic Missile; The Space Based Infrared System (SBIRS); Next-Generation Overhead Persistent Infrared Program (OPIR) and Early Warning Satellites; PAC-3 Missile Segment Enhancement (Patriot)
Boeing: Minuteman III; GMD Interceptor; Inter Continental Ballistic Missile
Raytheon Technologies and Lockheed Martin: MIM-104 Patriot (Lockheed Martin manufactures the missiles, while Raytheon makes the radar and ground-control elements of the system).
Northrop Grumman: Ground-Based Midcourse Defense System and Ground-Based Interceptor; Medium-Class Solid Rocket Motor for Trident II Fleet Ballistic Missile Program

40 HYPERSONIC WEAPONS
Defense contractors are working with the U.S. armed forces to design, develop and build hypersonic weapons that can travel up to 5 to 10 times speed of sound (Mach 5 and faster) covering vast distances in minutes (e.g., 6000 miles per hour).
Lockheed Martin; Raytheon

MARINE-BASED HELICOPTERS

41 UTILITY HELICOPTER
Utility helicopters provide a vital role in search and rescue missions, medical evacuations, downed aircraft, and helicopter fight training.
Bell (a division of Textron): T-57 Sea Ranger; UH-1 Venom; CH-53 Super Stallion
Lockheed Martin: Combat Rescue Helicopter; SH-60 Seahawk; HH-60 Jayhawk

42 ATTACK HELICOPTER & MARITIME AIRCRAFT
Maritime aircraft consists of attack helicopters and attack, surveillance and patrol aircraft.
Bell (a division of Textron): AH-1 Super Cobra Attack Helicopter
Boeing: P-8A Submarine Hunter Maritime Patrol Aircraft; P-8 Multi-Mission Maritime Patrol Aircraft

MARITIME MILITARY ASSETS

43 SUBMARINES
The U.S. navy relies on nuclear-powered ballistic, attack and cruise missile submarines.
General Dynamics' Electric Boat Division (in Partnership with Newport News Ship Building Division of Huntington Ingalls)
Virginia Class Attack; Colombia Class Ballistic
General Dynamics Electric Boat

44 WARSHIPS
Warships include destroyers and anti-air, anti-surface cruisers. They can fire guided missiles, as further supported by combat capabilities of the AEGIS Combat System (34) and AN/SPY Radar System (36).
General Dynamics Bath Iron Works: DDG-51 Arleigh-Burke Class
General Dynamics' Bath Iron Works Division

45 SUPPORT SHIPS
Auxiliary and support ships used for fleet refueling, cargo transport, and staging for the U.S. Navy.
General Dynamics' NASSCO Division: Expeditionary Sea Base (ESB); T-AO-205 John Louis-Class Fleet Replenishment Oiler
General Dynamics NASSCO

46 AIRCRAFT CARRIERS
Aircraft & helicopter carriers deploy arms, recover aircrafts, and have a flight deck, hangar and facilities for arming, deploying and recovering aircraft.
Newport News Ship Building: Nimitz Gerald L. Ford, & Wasp Classes, America Class Assault Ships
Newport News Shipbuilding

D Consumption

The U.S. Government and its Foreign Allies. Most defense contractor products and services are sold to U.S. government agencies (mainly, the armed forces under the U.S. Department of Defense, which spends $450 billion/year on military products). Lockheed Martin derives 85% of its revenues from U.S. government sales (69% for General Dynamics, 29% for Boeing, 46% for Raytheon Technologies, and 84% for Northrop Grumman).

UNITED STATES GOVERNMENT

47 U.S. DEPARTMENT OF DEFENSE
U.S. Air Force; U.S. Marines; U.S. Army; U.S. Navy

NATIONAL SECURITY SPACE AGENCIES
- U.S. Space Command
- Combined Force Space Component Command
- Missile Defense Agency
- Defense Intelligence Agency
- U.S. Space Force
- Joint Task Force-Space Defense
- National Geospatial-Intelligence Agency
- National Security Agency
- Army Space and Missile Defense Command
- Defense Advanced Research Projects Agency
- National Reconnaissance Office

U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. Coast Guard; Office of Cybersecurity and Infrastructure Agency, National Protections and Programming Directorate

INDEPENDENT GOVERNMENT AGENCIES
U.S. Central Intelligence Agency; National Aeronautics and Space Agency

KEY ALLIES AND STRATEGIC FRIENDS

48 TOP FOREIGN CONSUMERS
- Saudi Arabia
- Australia
- United Arab Emirates
- South Korea
- Iraq
- Japan
- Singapore
- Turkey
- United Kingdom
- Taiwan
- India
- Israel
- NATO
- Netherlands
- Norway
- Qatar

Foreign Arms Sales. U.S.-made weapons are primarily sold to foreign governments by the U.S. government (via the U.S. Defense Security Cooperation Agency), but some defense articles may be sold directly by U.S defense contractors who obtain commercial export licenses from the U.S. Department of State. The U.S. government supplies arms to 98 nations, which are mostly allies of the U.S. or countries with which the U.S. has a strategic reason to support. The largest consumers of U.S.-made arms are Saudi Arabia, Australia, United Arab Emirates, South Korea, and Iraq. Foreign countries spend approximately $175 billion each year on U.S.-made arms such as missiles, military aircraft, submarines, surface ships, anti-submarine weaponry, tanks, armored vehicles, and electronics such as radar, sonar, sensors, and guiding systems. Lockheed Martin's F-35 fighter jet is America's leading weapon's export. The U.S. has a 37% share of the arms export market, where it competes with Russia (20%), France (8.2%), Germany (5.5%), and China (5.2%).