America’s Weapon Systems

“Our Safety Net”

Updated for Fall 2018
Course Outline

• Intro Comments, Objectives, Big 3, Threats
• Overview of DoD and Resources/$$$; Acquisition-Technology-Logistics Process
• Operating Forces, C4ISR/ISTAR, EW, Logistics
• Strategic Forces/Nuclear Weapons, The TRIAD, National Missile Defense
• Space Systems
• Air Systems
• Air to Surface Weapons
• Sea Systems
• Land Systems
• Conclusions
• Future Weapon Systems
  – Triad Modernization and Upgrades
  – Space Systems
  – Early Warning/Surveillance/Targeting/UAVs/Drones
  – Bombers, Strike Fighters, Helos and More Drones
  – Standoff Air to Surface Weapons
  – Sea Systems
  – Land Systems
  – Summary of New Big Programs
Threats to the U.S.

- Most Unpredictable in 40 years – General Dempsey (Previous CJCS)
- Russia our biggest existential threat – General Dunford (Present CJCS) General Milley (Army COS)
- North Korea our biggest threat for next President – John Brennan (CIA Director) and President Obama to President Trump
- Major Nation States/Organizations
  - Russia
  - China
  - North Korea
  - Iran
- Islamic State (Down but not out)
- Worldwide Terrorism (Estimate of 80 to 100K terrorists worldwide)
- Weapons of Mass Destruction and especially with terrorists
- Cyber warfare
- Worldwide Religious War inside Islamic religion (Sunni vs Shia)
- Threats to Allies (Especially Israel)
- Increasing upheaval in the Middle East
- Use of Drones and Artificial Intelligence (AI)
- Electro-Magnetic Pulse (EMP) and Hypersonic weapons
- National Debt (Now 20T + 1.5T from 2017 tax reform act)

Sources: U.S. Joint Strategic Plan – Released February 12, 2018 and National Military Strategy 2018
Organization of the Department of Defense (DoD)

Department of Defense

Secretary of Defense

Office of the Inspector General of the Department of Defense

DEPSECDEF
Patrick Shanahan
Mark T. Esper
Richard V. Spencer
Heather A. Wilson
Gen. Joe Dunford, USMC
Gen. Paul Selva, USAF

DEPARTMENT OF THE ARMY

Secretary of the Army

The Army Staff

Gen. Mark Milley
Adm. John Richardson
Gen. Robert Neller
Gen. David Goldfein

DEPARTMENT OF THE NAVY

Secretary of the Navy

Office of the Chief of Naval Operations
Headquarters Marine Corps

Department of the Air Force

Secretary of the Air Force

Office of the Secretary of the Air Force
The Air Staff

Joint Chiefs of Staff
Chairman of the Joint Chiefs of Staff

Combatant Commands (9)
Africa Command
Central Command
European Command
Northern Command
Pacific Command
Southern Command
Special Operations Command
Strategic Command
Transportation Command

Combatant Commands (9)

Defense Advanced Research Projects Agency
Defense Commissary Agency
Defense Contract Audit Agency
Defense Contract Management Agency
Defense Finance and Accounting Service
Defense Information Systems Agency
Defense Intelligence Agency
Defense Legal Services Agency
Defense Logistics Agency
Defense Security Cooperation Agency
Defense Security Service
Defense Threat Reduction Agency
Missile Defense Agency
National Geospatial-Intelligence Agency
National Reconnaissance Office
National Security Agency/Central Security Service
Pentagon Force Protection Agency

DoD Field Activities (10)
Defense Media Activity
Defense POW/Missing Personnel Office
Defense Technical Information Center
Defense Technology Security Administration
DoD Education Activity
DoD Human Resources Activity
DoD Test Resource Management Center
Office of Economic Adjustment
TRICARE Management Activity
Washington Headquarters Services

Cyber Command
Gen. Paul Nakasone

DoD Component
Military Service
Senior Leader

* Identified as a Combat Support Agency (CSA)

FY18/19 Budgets

- Total Spending - ($4.094T/$4.340T) (+$32B above FY17/+$45B above FY18)
  - *Pensions - ($1.062T/$1.146T) (Social Security, Fed Employee Retirement)(26%)
  - *Health Care - ($1.120T/$1.203T) (Medicare, Medicaid Grants to States)(27%)
  - Education - ($108B/$107B) (PrePrimary, Secondary, Student Aid, etc.)(3%)
  - *Defense - ($.886T/$.916T) (Military, Veterans, Foreign Mil/Economic Aid)(22%)
  - Welfare - ($353B/$355B) (Food and Nutrition, Unemployment, Housing, Other)(9%)
  - Protection - ($41B/$41B) (Federal Police Services, Law Courts)(1%)
  - Transportation - ($92B/$92B) (Highways, Airports, FAA, Water)(2%)
  - General Government - ($52B/$51B) (Exec and Legislative, IRS, the FED, etc.)(1%)
  - Other Spending - ($64B/$58B) (NASA, Basic Research, Classified, Forestry, etc.)(2%)
  - *Interest – ($262.8B) (Treasury Debt Securities)(8%)
  - *Sum Non-discretionary accounts including Defense – $3.331T/$(81%)
  - Sum Discretionary accounts - $763B/19%
- Estimated Year’s Deficit - ($440B/$525B)

Sources:  [http://www.whitehouse.gov/omb](http://www.whitehouse.gov/omb),  [http://www.usgovernmentspending.com](http://www.usgovernmentspending.com)
The 2019 Budget

• Full year appropriations signed by POTUS for Defense, Labor, Education and Health and Human Services Departments
• Continuing Resolution (CR) signed by POTUS for funding through Dec 7, 2018 for the rest of government

• Revenue Enhancement Items:
  – National Economy/GDP increase for additional taxable revenue
  – Reduce budgets of all departments other than Defense and DHS
  – Border import trade taxes (tariffs)
  – Repealed ACA cost

• Spending Increase Items:
  – Major increase in Defense and VA budgets
  – Increased DHS budget
  – Program expenses to build border wall
  – Infrastructure programs

• Revenue Reduction Items:
  – Tax reduction/reform programs (Corporate and Individual)

• Major Obstacles/Enablers
  – Sequestration law (back on in FY19) Action must be taken to waiver DoD
  – Congressional fiscal conservatives
  – Repealing the ACA
  – GDP growth at 3% to 4%
Comparing U.S. Armed Forces

- **Manpower** (Second only to China)
- **Land Systems** (Russia overwhelmingly leads)
- **Air Power** (U.S. overwhelmingly leads)
- **Naval Power** (U.S. overwhelmingly leads)
- **Transports and Trainers** (U.S. overwhelmingly leads)
- 39% of World’s Military Expenditures
  - FY2018 Budgets: U.S. ($647B), China ($151B), Russia ($47B)
- 70% of NATO’s Military Expenditures

Source: Global Firepower – [www.globalfirepower.com](http://www.globalfirepower.com)
Online resources for keeping up with the U.S. Defense

Headlines and Articles:

• www.Breakingdefense.com
• www.DefenseNews.com
• www.Defense.gov
• www.realcleardefense.com
• www.nationalinterest.org
• www.defenseone.com
• www.stripes.com
• http://news.usni.org
• http://www.defensetech.org
• www.aviationweek.com/defense
• http://www.heritage.org/issues/national-security-and-defense
Online resources for keeping up with the U.S. Defense

Major Reports and Budgets that shape policy:


2019 Index of U.S. Military Strength
http://index.heritage.org/military/2017/


U.S. Budget: http://www.budget.gov

DoD Budget Request: http://comptroller.defense.gov/Budget-Materials/

The Evolution of Precision Strike –
Online resources for keeping up with the U.S. Defense

**Fact Sites:**
United States Armed Forces
https://en.wikipedia.org/wiki/United_States_Armed_Forces

Air Force – www.af.mil
   Fact sheets: http://www.af.mil/AboutUs/FactSheets.aspx

Army – www.army.mil

Navy – www.navy.mil

American Special OPS - www.americanspecialops.com

Global Firepower – www.globalfirepower.com


Equipment of the Army – http://en.wikipedia.org/wiki/Equipment_of_the_United_States_Army


List of active United States military aircraft - https://en.wikipedia.org/wiki/List_of_active_United_States_military_aircraft

List of currently active United States military land vehicles
https://en.wikipedia.org/wiki/List_of_currently_active_United_States_military_land_vehicles
Online resources for keeping up with the U.S. Defense

**Imagery/Videos:**
Defense Media Activity - [http://www.dma.mil](http://www.dma.mil)

Defense Video and Imagery Distribution System (DVIDS) – [http://www.dvidshub.net](http://www.dvidshub.net)

DoD Sites on YouTube - [https://www.youtube.com/user/DODvClips](https://www.youtube.com/user/DODvClips)

YouTube – [http://www.youtube.com](http://www.youtube.com) Search & choose many options using:
- Defense Department
- U.S. Armed Forces
- U.S. Military Power

**Defense Acquisition**

Defense Acquisition University: [https://www.dau.mil](https://www.dau.mil)

Defense Acquisition Guidebook: [https://www.dau.mil/tools/dag](https://www.dau.mil/tools/dag)

Communities of Practice: [https://www.dau.mil/community-hub#All||title_asc](https://www.dau.mil/community-hub#All||title_asc)


Tools and Resources: [https://www.dau.mil/tools/#All|All|Show%20All|recent](https://www.dau.mil/tools/#All|All|Show%20All|recent)

**Other Sites**