

# June 24 2020



## 14<sup>th</sup> Annual Wisconsin Government Opportunities Business Conference (GOBC)

*In partnership with Volk Field ANG and Fort McCoy*



6/24/20



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## HOSTS





# 14<sup>th</sup> Annual Wisconsin Government Opportunities Business Conference (GOBC)



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## PARTNERS





## U.S. Navy Shipbuilding Outlook

Presented for 14<sup>th</sup> Annual Wisconsin Government Opportunities Business Conference (GOBC)



June 24, 2020



# Agenda

- > Leonardo DRS & DRS Naval Power Systems, Inc.
- > US Navy: Current Plan of Record for the future
- > Specific Interest to Wisconsin: Guided Missile Frigate: FFG(X)
- > U.S. Navy – Continually updating the Road Map



## Presenters:



- Richard Deschauer, CPCM
  - Sr. Director, Contracts & Compliance
    - DRS Naval Power Systems, Inc.

- Daryl Zahn, CFCM
  - Sr. Manager, Contracts & Compliance
    - DRS Naval Power Systems, Inc.





# Leonardo Spa, Leonardo DRS & DRS Naval Power Systems, Inc.

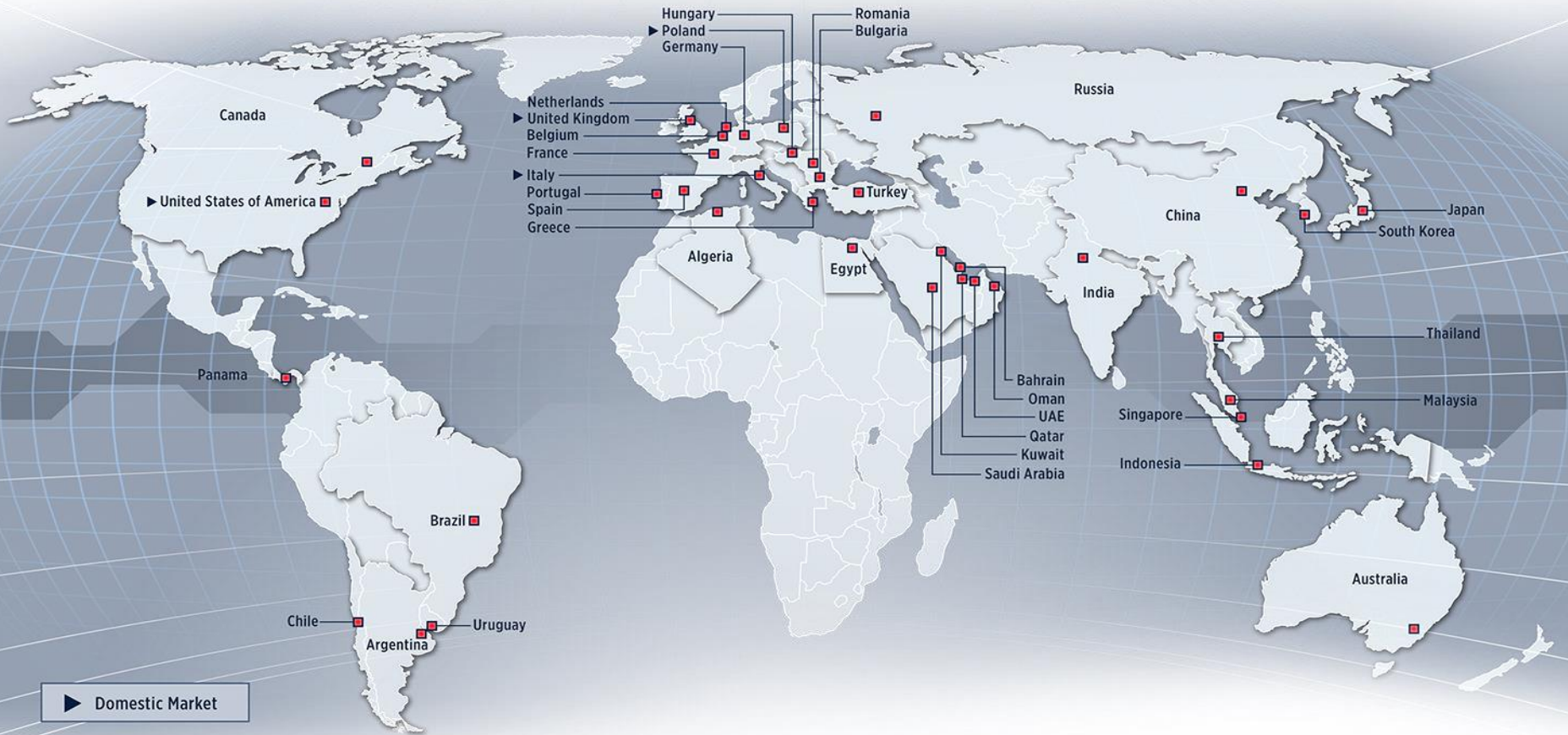
- Leonardo Spa: Global high-tech, Aerospace, Defense and Security Company
  - Headquartered in Rome, Italy
  - Air, land, sea, space and cyberspace: wherever defense and security are needed, our customers find in Leonardo effective solutions for their requirements in each of these areas through a complete and integrated offer in strategic sectors such as helicopters, aeronautics, unmanned systems, defense and security electronics, defense systems, and satellite systems and services.
- Leonardo DRS: US Subsidiary for Leonardo Spa
  - Headquartered in Arlington, Virginia
  - A leading supplier of integrated products, services and support to military forces, intelligence agencies and prime contractors worldwide. Focused on defense technology, the Company develops, manufactures and supports a broad range of systems for mission critical and military sustainment requirements, as well as homeland security.
- DRS Naval Power Systems, Inc.: Wholly owned subsidiary of Leonardo DRS
  - Headquartered in Milwaukee, Wisconsin,
    - Manufacturing facilities in Danbury, CT and Fitchburg, MA as well as Milwaukee,
  - A trusted provider of naval power and control technology delivering customer-focused products and support solutions for the U.S. Navy and our allies.



# We are a Global Company

## 150 Countries Worldwide

Total Workforce	46,462
Italy	29,244
United Kingdom	6,986
USA	6,520
Poland	2,622
Rest of the World	1,090



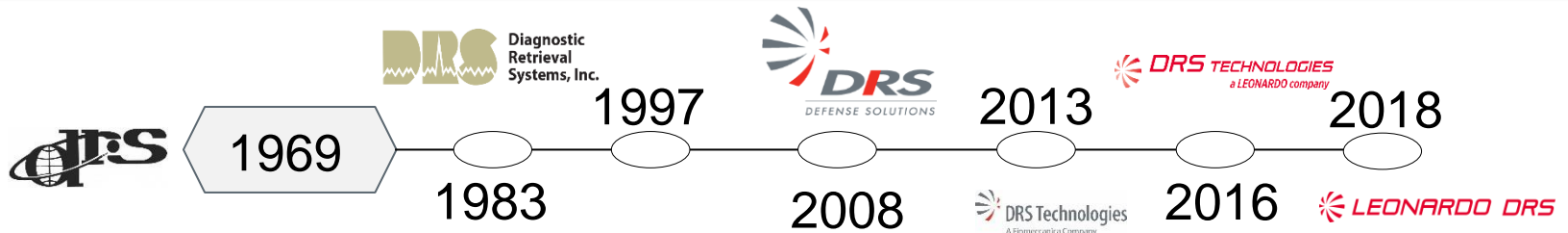
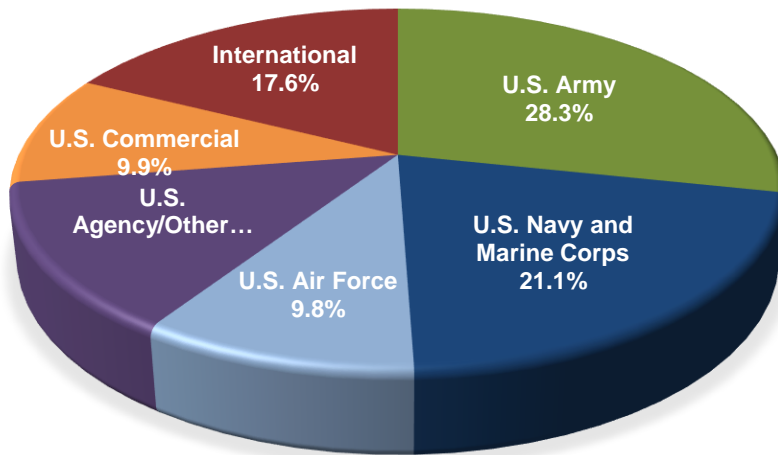
## A Leading Global Partner for Defense, Aerospace and Security Solutions

\*Industrial Legal Entities, Partnerships (JVs-Consortia), Branch and Representative Offices Shown.



# An Overview of Leonardo DRS

- \$2.3B+ Revenue
- Eight customer focused lines of business
- 5,700+ employees worldwide
- Leading technology innovator and supplier of integrated products, services, and support





# Naval Power Systems



As a trusted provider of naval power and control technology we deliver quality, customer-focused products and support solutions for the U.S. Navy and our allies. Our products meet stringent specifications and have been proven to perform in harsh marine environments.

Our power and control solutions also include power plants, oil and gas drilling, and electric vehicles.



## Power Conversion, Control and Distribution

Power storage, power distribution and modular power solutions for ship and submarine platforms



## Naval Nuclear Instrumented Control Systems

Trusted provider of critical naval instrumentation and controls for nuclear submarines and carriers



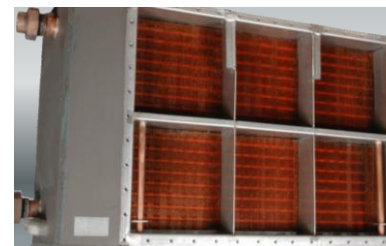
## Machines for Electric and Hybrid Electric Platforms

Motors, generators and drives for demanding applications from small pump motors to large ship propulsion motors



## Gas Turbine Packaging

A full-service equipment packager for major engine manufacturers for service in naval and ground power applications around the world



## HVAC and Refrigeration

One of the U.S. Navy's largest suppliers of shipboard heating / cooling coils, air handling units, product coolers and refrigeration plants



## NPS Milwaukee Locations



## Menomonee Falls (offices)

- Accounting & Finance
- Contracts Admin
- IT
- Naval Power
- Payroll
- Program Finance
- Purchasing - Buying

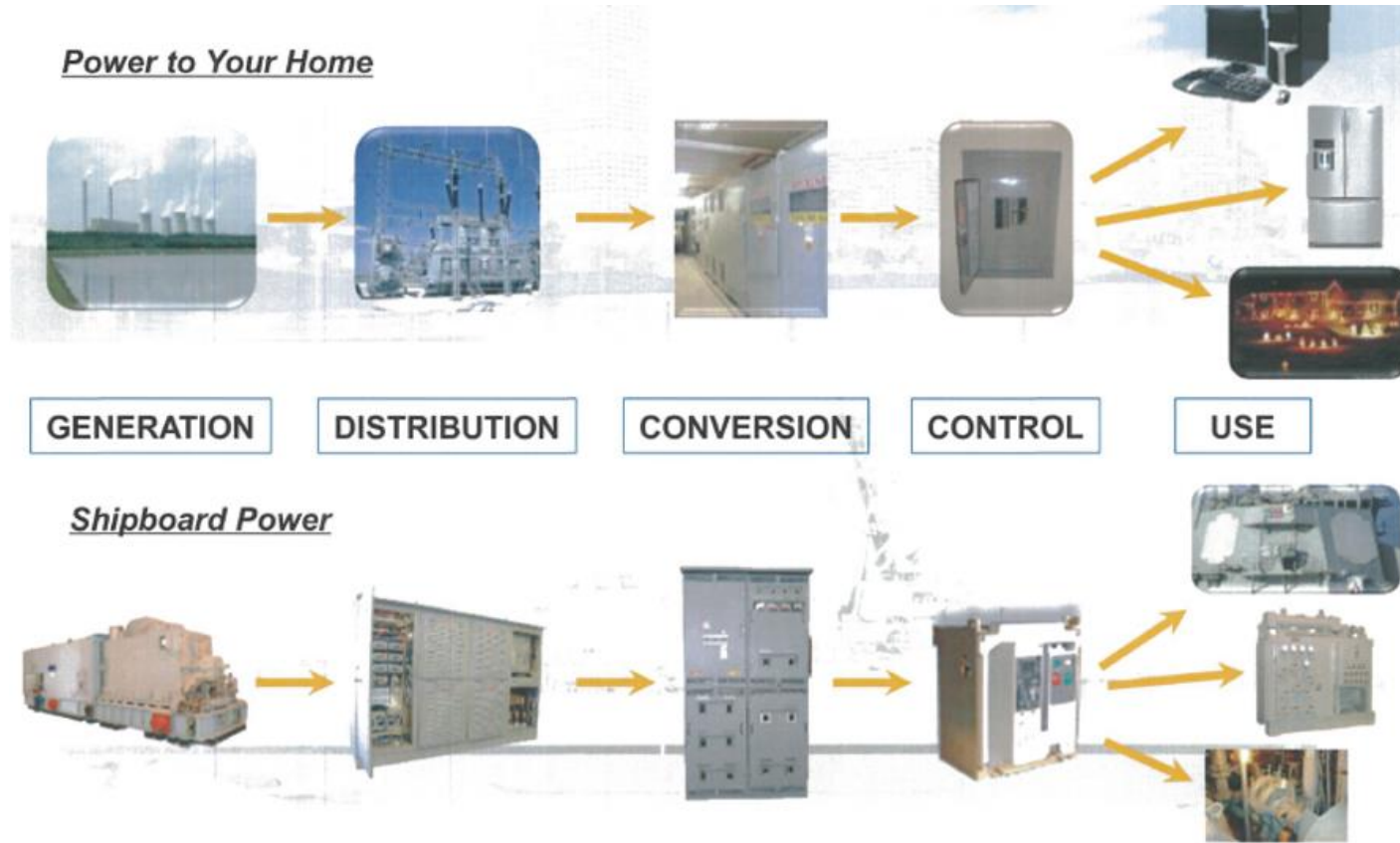
## Milwaukee

- Engineering
- HR
- IT
- Production Operations
- Program Management
- Purchasing - Planning
- Quality





# What do we do in Milwaukee?



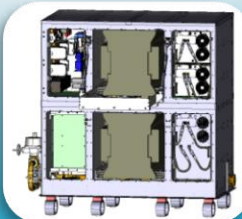
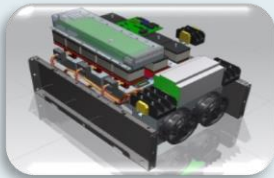
**WE PROVIDE HIGH QUALITY POWER TO THE POINT OF ITS USE**



# What we make

## Propulsion & Other Electric Drives

- Hybrid Electric
- ORP Main Propulsion Drive
- International HED
- Ship Service Rectifier
- Variable Frequency Drives



## Power Distribution

- Low (450V) switchgear
- Medium (15KV) voltage switchboards
- Load Centers



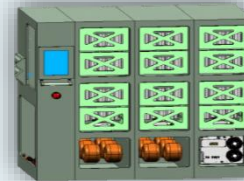
## Power Conversion

- Point of Use Controllers
- Ship Service Power Conversion
- Integrated Fight Thru Power
- Steering Gear



## Energy Storage Combat Power

- Energy Storage Magazine
- AMDR PCM
- SEWIP
- Future MVDC Architecture



## Integrated Power Management

- Motor Controllers
- LCS DAUs
- Shipboard Automation
- Power Quality
- Test & Certification
- System Engineering & Integration
- Model Based Design (Auto-code)

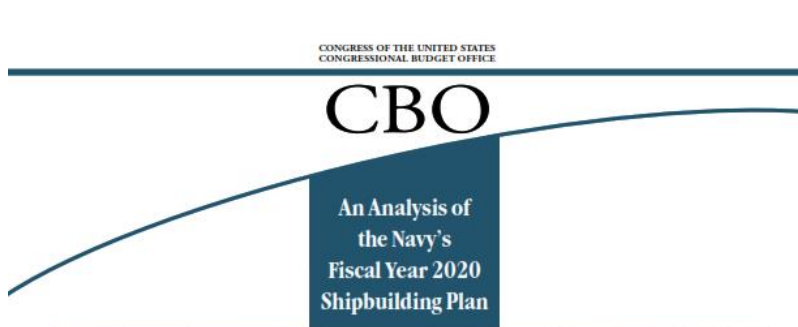


**Systems And Services To Platforms & Shipyards**





# US NAVY and Planning for the future:

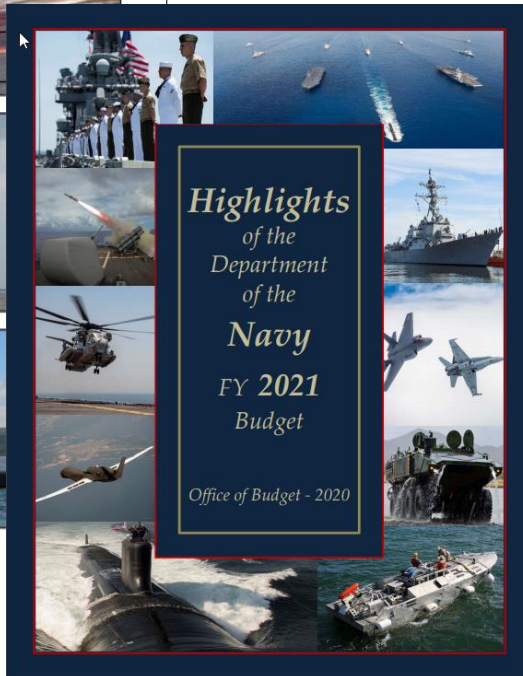


## Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress

May 22, 2020



OCTOBER 2019



Data in the remaining slides are based heavily on the shown Government reports and general internet data searches.

Congressional Research Service  
<https://crsreports.congress.gov>  
RL32665



## US NAVY: Shipbuilding Plan – A recent history

- December 2016: US Navy released a force-structure goal of a 355 ship fleet, up from the 275 active ship force at that time.
  - This force structure goal was solidified as US Policy in Section 1025 of the FY2018 National Defense Authorization Act (H.R. 2810/P.L. 115-91 of December 12, 2017).
- Navy has stated that the 355 active ship force fleet is a priority goal, while retaining other priorities of restoring eroded ship readiness and improving fleet lethality.
  - Navy officials have noted that while a 355 ship force is a priority, they do not want to create a hollow force, meaning a Navy with a noted number of ships, but unable to properly crew, arm, operate and maintain those ships.
- The Navy is required by Congress to submit an annual report with the President's Budget describing the planned inventory, purchases, deliveries, and retirements of ships in the fleet for the next 30 years. Review of the FY2020 forward looking 30 year plan:
  - To meet the proposed plan, Shipbuilding appropriations need to increase by more than 50% over the amounts in the last 5 years.
  - The Navy would need to purchase 304 new ships between 2020 and 2049
    - 247 Combat Ships and 57 Support ships
  - Adherence to the 2020 plan for purchasing as well as retiring ships would raise the Navy ship fleet from the current 290 ships to the goal of 355 ships in 2034, although the current plan would fall short of some of the specific ship types from the original force structure goal.



## 2016: Force Structure Assessment at a glance

**Table I. 355-Ship Force-Level Goal**

<b>Ship Category</b>	<b>Number of ships</b>
Ballistic missile submarines (SSBNs)	12
Attack submarines (SSNs)	66
Aircraft carriers (CVNs)	12
Large surface combatants (i.e., cruisers [CGs] and destroyers [DDGs])	104
Small surface combatants (i.e., frigates [FFGs], Littoral Combat Ships, and mine warfare ships)	52
Amphibious ships	38
Combat Logistics Force (CLF) ships (i.e., at-sea resupply ships)	32
Command and support ships	39
<b>TOTAL</b>	<b>355</b>

**Source:** U.S. Navy, *Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2020*, Table A-1 on page 10.



# FY2020 30-Year Shipbuilding plan to meet 355 ships by FY2034

**Table 3. FY2020 30-Year (FY2020-FY2049) Shipbuilding Plan**

<b>FY</b>	<b>CVNs</b>	<b>LSCs</b>	<b>SSCs</b>	<b>SSNs</b>	<b>LPSs</b>	<b>SSBNs</b>	<b>AWSs</b>	<b>CLFs</b>	<b>Supt</b>	<b>Total</b>
<b>20</b>	1	3	1	3				2	2	<b>12</b>
<b>21</b>		2	2	2		1	1	1	1	<b>10</b>
<b>22</b>		2	2	2				1	2	<b>9</b>
<b>23</b>		3	2	2			1	2	3	<b>13</b>
<b>24</b>		3	2	2		1	1	1	1	<b>11</b>
<b>25</b>		3	2	2			1	1	2	<b>11</b>
<b>26</b>		2	2	2		1	1	1	2	<b>11</b>
<b>27</b>		3	2	2		1	2	1	1	<b>12</b>
<b>28</b>	1	2	2	2		1	1	1	1	<b>11</b>
<b>29</b>		3	2	2		1	1	1	1	<b>11</b>
<b>30</b>		2	1	2		1	1	1	2	<b>10</b>
<b>31</b>		3	2	2		1	2	1	2	<b>13</b>
<b>32</b>	1	2	2	2		1	1	1	2	<b>12</b>
<b>33</b>		3	2	2		1	1	1	2	<b>12</b>
<b>34</b>		2	2	2		1	2		2	<b>11</b>
<b>35</b>		3	2	2		1			1	<b>9</b>

**Key:** **FY** = Fiscal Year; **CVNs** = aircraft carriers; **LSCs** = surface combatants (i.e., cruisers and destroyers); **SSCs** = small surface combatants (i.e., Littoral Combat Ships [LCSs] and frigates [FFG(X)s]); **SSNs** = attack submarines; **LPSs** = large payload submarines; **SSBNs** = ballistic missile submarines; **AWSs** = amphibious warfare ships; **CLFs** = combat logistics force (i.e., resupply) ships; **Supt** = support ships.



# Projected Force Levels Under FY2020 30-Year Shipbuilding Plan

- Goal of 355 ship fleet is shown to be reached by FY 2034

**Table 4. Projected Force Levels Resulting from FY2020 30-Year Shipbuilding Plan**

	CVNs	LSCs	SSCs	SSNs	SSGN/LPSs	SSBNs	AWSs	CLFs	Supt	Total
<b>355-ship goal</b>	<b>12</b>	<b>104</b>	<b>52</b>	<b>66</b>	<b>0</b>	<b>12</b>	<b>38</b>	<b>32</b>	<b>39</b>	<b>355</b>
<b>FY20</b>	11	94	30	52	4	14	33	29	34	<b>301</b>
<b>FY21</b>	11	92	33	53	4	14	34	30	34	<b>305</b>
<b>FY22</b>	11	93	33	52	4	14	34	31	39	<b>311</b>
<b>FY23</b>	11	95	32	51	4	14	35	31	41	<b>314</b>
<b>FY24</b>	11	94	35	47	4	14	36	32	41	<b>314</b>
<b>FY25</b>	10	95	35	44	4	14	37	32	42	<b>313</b>
<b>FY26</b>	10	96	36	44	2	14	38	31	43	<b>314</b>
<b>FY27</b>	9	100	38	42	1	13	37	32	44	<b>316</b>
<b>FY28</b>	10	102	41	42		13	38	32	44	<b>322</b>
<b>FY29</b>	10	104	43	44		12	36	32	44	<b>325</b>
<b>FY30</b>	10	107	45	46		11	36	32	44	<b>331</b>
<b>FY31</b>	10	110	47	48		11	36	32	43	<b>337</b>
<b>FY32</b>	10	112	49	49		11	36	32	44	<b>343</b>
<b>FY33</b>	10	115	50	51		11	38	32	44	<b>351</b>
<b>FY34</b>	10	117	52	53		11	36	32	44	<b>355</b>
<b>FY35</b>	10	114	55	54		11	34	32	45	<b>355</b>

**Key:** **FY** = Fiscal Year; **CVNs** = aircraft carriers; **LSCs** = surface combatants (i.e., cruisers and destroyers); **SSCs** = small surface combatants (i.e., Littoral Combat Ships [LCSs] and frigates [FFG(X)s]); **SSNs** = attack submarines; **LPSs** = large payload submarines; **SSBNs** = ballistic missile submarines; **AWSs** = amphibious warfare ships; **CLFs** = combat logistics force (i.e., resupply) ships; **Supt** = support ships.



# Summation: Navy's FY2021 Budget Request

## Key Messages

- Prioritizes a strategy-driven and balanced approach
- Resources COLUMBIA SSBN for on-track delivery
- Sustains and builds readiness to deter, fight, and win
- Increases lethality through development and modernization
- Prioritizes developing crucial emerging technologies such as hypersonics, directed energy, AI, and autonomous systems
- Matures Naval Expeditionary forces capable of imposing cost with distributed, lethal power that is sustainable
- Strengthens support of Service members, families, civilians
- Uses audit results to inform reform to free resources
- Relies upon sustainable, predictable, adequate, and timely budgets to properly resource for long-term competition

## Facts & Figures

- \$207.1B FY21 (& delta from FY20 enacted)\*
  - \$55.2B for Military Personnel (+\$3.3B/+6.4%)
  - \$70.6B for Operation & Maintenance (+\$2.6B/+3.8%)
  - \$57.2B for Procurement (-\$5.2B/-8.3%)
  - \$21.5B for Research and Development (+\$1.0B/+5.1%)
  - \$2.6B for Infrastructure (-\$1.0B/-28.0%)\*
  - 347,800 Active Navy end-strength (+7,300 ES)
  - 184,100 Active Marine Corps end-strength -2,100 (-2,300 from PB20)
  - 220,901 Civilian full-time equivalents (+1,971 FTE)
- Reform savings of -\$1.4B in FY21/- \$12.3B FYDP  
<http://www.finance.hq.navy.mil/fmb/PB/books.htm>

\*delta from FY20 excludes disaster funds of \$4.8B (\$3.5B in MCN, \$1.3B in OMN, OMMC, NWCF, RDTEN, OPN, PMC)



## FY2021 Shipbuilding Request: New Funds for New Orders

- NAVY FY2021 Request
  - one Columbia-class ballistic missile submarine (SSBN),
  - one Virginia-class attack submarine (SSN),
  - two DDG-51 destroyers,
  - **one FFG(X) frigate, and**
  - two TATS towing, salvage, and rescue ships.
- A figure of seven new ships is less than:
  - the 11 ships that the Navy requested for FY2020 (a figure that excludes CVN-81, an aircraft carrier that Congress authorized in FY2019);
  - the 13 ships that Congress procured in FY2020 (a figure that again excludes CVN-81, but includes the above-mentioned LPD-17 Flight II amphibious ship as well as an LHA amphibious assault ship that Congress also procured in FY2020);
  - the 10 ships that the Navy projected under its FY2020 budget submission that it would request for FY2021; and
  - the average ship procurement rate that would be needed over the long run, given current ship service lives, to achieve and maintain a 355-ship fleet.



## Aircraft Carrier Update



- Aircraft Carriers
  - CVN-78 (*Gerald R. Ford*) was procured in FY2008. The Navy's proposed FY2021 budget estimates the ship's procurement cost at \$13.3 billion. The ship was commissioned on July 22, 2017.
  - CVN-79 (*John F. Kennedy*) was procured in FY2013. The Navy's proposed FY2021 budget estimates the ship's procurement cost at \$11.4 billion. CVN-79 is scheduled for in September 2024.
  - CVN-80 (*Enterprise*) was procured in FY2018. The Navy's proposed FY2021 budget estimates the ship's procurement cost at \$12.3 billion. The ship is scheduled for delivery in March 2028.
  - CVN-81 (*Doris Miller*) was procured in FY2019. The Navy's FY2021 budget submission estimates the ship's procurement cost at \$12.5 billion. The ship is scheduled for delivery in February 2032.
  - CVN-80 and CVN-81 are being procured under a two-ship block buy contract. The use of the two-ship block buy contract reduced the combined estimated procurement cost of the two ships.



## Submarine Update

- Columbia Class submarine is noted as the Navy's highest priority
  - The FY 2021 request of \$4.0 billion will provide the first of three years of incremental full funding for the first ship.
  - Ballistic Missile Submarine to provide continuous sea-based strategic deterrence into the 2080s
  - First ship to be fully outfitted, tested and in operation by 2031
  - Second boat to be ordered in FY2024
  - Navy plan calls for 12 to be built and put into service
- Virginia Class
  - Forward procurement rate is anticipated as 1 in FY21 and 2 per year in FY22 to FY25.
  - Fast Attack Submarines provide covert force application throughout the world's oceans
  - 17 in service, 2 commissioned in April 2020, 9 currently in construction





## Other Surface Ships in construction

- DDG-51 Class Destroyer
- DDG-1000 Destroyer
- LCS Freedom Class
- LCS Independence Class
- LHA Amphibious Assault ships
- LPD Amphibious Transport Dock
- T-AO Replenishment Oiler
- T-ATS Towing salvage and rescue ship
- T-EPF Expeditionary Fast Transport



# Wisconsin Interest: The FFG(X) PROGRAM





## FFG(X)

- Assistant Secretary of the Navy for Research, Development and Acquisition James Geurts:
  - “FFG(X) represents an evolution in the Navy’s requirements and acquisition approach, which allowed the acquisition planning, requirements and technical communities along with the shipbuilders to develop requirements for the platform ahead of the release of the detailed design and construction request for proposal. By integrating the requirements, acquisition planning and design phases, we were able to reduce the span time by nearly six years as compared to traditional platforms. All this was done with an intense focus on cost, acquisition and technical rigor so we got the best value for the war fighter and the taxpayer.
  - The FFG(X) program plans to build a class of 20 guided-missile frigates (FFGs). Congress funded the procurement of the first FFG(X) in FY2020 at a cost of \$1.3 billion. The Navy’s proposed FY2021 budget requests \$1.1 billion for the procurement of the second FFG(X). The Navy estimates that subsequent ships in the class will cost roughly \$940 million each in then-year dollars.
  - February 2018: Five Shipbuilders were awarded Contracts to provide designs for the Future Frigate:
    - Austal USA:
      - Proposed design based on upgrades to their Independence Class Littoral Combat Ship Design
    - Lockheed Martin
      - Proposed design based on variant to their Freedom Class Littoral Combat Ship Design
    - General Dynamics Bath Iron Works
      - Proposed a F100 design of a ship product with partner Navantia
    - Fincantieri Marine
      - Proposed the existing design of their Fregata Europea Multi-Missione (FREMM) to be built in Wisconsin based shipyard
    - Huntington Ingalls Industries
      - At time of the award, no predecessor vehicle was described for basis of moving toward FFG(X) requirements



## Wisconsin Interest: The FFG(X) AWARD

- U.S. Navy awarded the Contract for Design and build of the first FFG(X) up to 10 ships to Fincantieri Marinette Marine Shipyard in Wisconsin.
  - The anticipated cost for the first hull is \$1.3 Billion:
    - Estimated \$795 Million to FMM
      - Includes dollars for the US Navy specified design requirements
      - Includes dollars for shipyard infrastructure to set-up the necessary production
      - Includes the ship build
    - Remaining costs are for Government procurement of Radar (Raytheon) and Combat Systems (Lockheed)
  - Anticipated costs for follow-on hulls anticipated to be ~\$940M each but if the program continues through full production, independent cost estimates show the average cost per hull could be even less.
- Timeline:
  - Design activities underway now:
  - Construction to begin no later than April 2022
  - First ship delivery to be in 2026 and operational by 2030
  - First 10 hull contract to be fulfilled by 2035
- Navy goal of 52 Small Surface Combatant “SSC” ships
  - 34 are the Littoral Combat Ships (LCS)
  - Planned 18-20 New Frigates will complete the goal



## FFG(X): U.S. Content Requirements for Components

- As part of its action on the Navy's FY2020 budget, Congress passed two provisions relating to U.S. content requirements for certain components of each FFG(X).
  - Section 856 of the FY2020 National Defense Authorization Act (S. 1790/P.L. 116-92 of December 20, 2019) states
    - Notwithstanding any other provision of law, amounts authorized to carry out the FFG–Frigate Program may be used to award a new contract that provides for the acquisition of the following components regardless of whether those components are manufactured in the United States:
      - (1) Auxiliary equipment (including pumps) for shipboard services.
      - (2) Propulsion equipment (including engines, reduction gears, and propellers).
      - (3) Shipboard cranes.
      - (4) Spreaders for shipboard cranes.
  - Section 8113(b) of the FY2020 DOD Appropriations Act (Division A of H.R. 1158/P.L. 116-93 of December 20, 2019) states SEC. 8113....
    - (b) None of the funds provided in this Act for the FFG(X) Frigate program shall be used to award a new contract that provides for the acquisition of the following components unless those components are manufactured in the United States: Air circuit breakers; gyrocompasses; electronic navigation chart systems; steering controls; pumps; propulsion and machinery control systems; totally enclosed lifeboats; auxiliary equipment pumps; shipboard cranes; auxiliary chill water systems; and propulsion propellers: Provided, That the Secretary of the Navy shall incorporate United States manufactured propulsion engines and propulsion reduction gears into the FFG(X) Frigate program beginning not later than with the eleventh ship of the program.



## FFG(X)

- FRIGATES in General:
  - As opposed to Cruisers and Destroyers, Frigates are designed to operate in lower-threat regions, but will perform many of the same peacetime and wartime missions.
  - FFG(X) Program Designation:
    - FF means frigate,
    - G means guided-missile ship (indicating a ship equipped with an area-defense anti-air warfare [AAW] system),
    - (X) indicates that the specific design of the ship has not yet been determined.
- Multi-mission guided-missile frigate
  - Planned number of Frigates of class to be built: 20
  - Anticipated to be able to carry both an MH-60R Seahawk helicopter and an MQ-8C Firescout helicopter
  - Also, 2x Rigid-Hull Inflatable Boat
  - Length: 496 feet
  - Displacement: 7,400 short tons
  - Speed: In excess of 26kn



## FFG(X) - Guaranty vs. Warranty

The Navy plans to use a fixed-price incentive contract for FFG(X) detail design and construction. This is a notable departure from prior Navy surface combatant programs that used higher-risk cost-reimbursement contracts for lead ship construction.

The Navy also plans to require that each ship has a minimum guaranty of \$5 million to correct shipbuilder-responsible defects identified in the 18 months following ship delivery.

Including a warranty generally shifts to the contractor the risk of having to pay for fixing problems with earlier work. Although that in itself could be deemed desirable from the government's standpoint, a contractor negotiating a contract that will have a warranty will incorporate that risk into its price, and depending on how much the contractor might charge for doing that, it is possible that the government could wind up paying more in total for acquiring the item (including fixing problems with earlier work on that item) than it would have under a contract without a warranty.

As a part of the FFG(X) detail design and construction RFP, the Navy asked contractors to include a limit of liability of at least \$5 million per ship and a guaranty period of 18 months beyond preliminary acceptance of each ship.

FAR 46.7 states that "the use of warranties is not mandatory." However, if the benefits to be derived from the warranty are commensurate with the cost of the warranty, the CO should consider placing it in the contract. In determining whether a warranty is appropriate for a specific acquisition, FAR Subpart 46.703 requires the CO to consider the nature and use of the supplies and services, the cost, the administration and enforcement, trade practices, and reduced requirements. The rationale for using a warranty should be documented in the contract file....



## Potential Industrial Base Impacts

Two teams that competed for the FFG(X) program involved shipyards (F/MM and Austal USA) that are currently building LCSs, procurement of which ended in FY2019. With the FFG(X) contract having been awarded to F/MM, Austal USA and its associated supplier firms could face a downturn in workloads and employment levels as they work off their backlog of LCS-related work if this work is not replaced by work associated with building other Navy or Coast Guard ships.

The two other teams that competed for the FFG(X) program involved shipyards (GD/BIW and HII/Ingalls) that currently build DDG-51 destroyers and (in the case of HII/Ingalls) Navy amphibious ships.

The Navy's FY2021 budget submission shows a programmed reduction in the DDG-51 procurement rate starting in FY2023, perhaps as a reflection of a potential change in the surface combatant force architecture. A potential change in the Navy's amphibious ship force architecture might impact the types and quantities of amphibious ships being procured for the Navy. Other things held equal, these two shipyards and their associated supplier firms could face a downturn in workloads and employment levels if the level of DDG-51-related work and (for HII/Ingalls) amphibious-ship-related work is reduced and not replaced by work associated with building other Navy or Coast Guard ships.



## FFG(X) – Italian FREMM Design



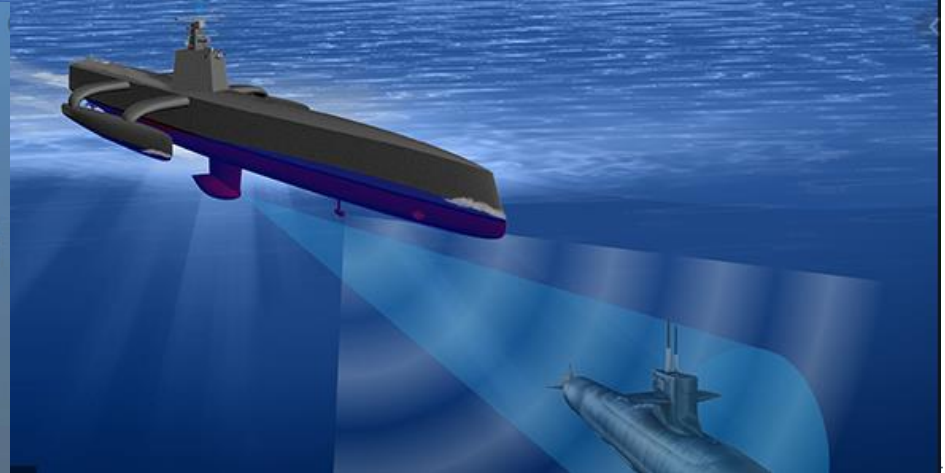
## Navy – Continuing to update roadmap:





## What does the future hold: UNMANNED VEHICLES:

- The Navy is developing and adding a large number of unmanned vehicles to its planned inventory.
- These vehicles are not currently included in the numbers of the Shipbuilding Plan.





## Navy Large Unmanned Surface and Undersea Vehicles

The Navy wants to develop and procure three types of large unmanned vehicles (UVs):

- Large Unmanned Surface Vehicles (LUSVs)
- Medium Unmanned Surface Vehicles (MUSVs)
- Extra-large Unmanned Undersea Vehicles (XLUUVs)

The Navy wants to acquire these large UVs as part of an effort to shift the Navy to a more distributed fleet architecture. Compared to the current fleet architecture, this more distributed architecture is to include proportionately fewer large surface combatants (i.e., cruisers and destroyers), proportionately more small surface combatants (i.e., frigates and Littoral Combat Ships), and the addition of significant numbers of large UVs.

The Navy wants to employ accelerated acquisition strategies for procuring these large UVs, so as to get them into service more quickly.

UVs can be particularly suitable for long-duration missions that might tax the physical endurance of onboard human operators, or missions that pose a high risk of injury, death, or capture. Consequently UVs are sometimes said to be particularly suitable for so-called “three D” missions, meaning missions that are “dull, dirty, or dangerous.”



## Sea Hunter Prototype Medium Displacement USV



The Navy wants MUSVs to be low-cost, high-endurance, reconfigurable ships that can accommodate various payloads: intelligence, surveillance and reconnaissance (ISR) and EW systems. Navy pursuing rapid prototyping effort under Section 804 middle tier acquisition authority.



## The Future - What else is the Navy looking at...

- CVL, or aircraft carrier, light, to fill gaps in naval aviation capability. The CVL is based on the America-class amphibious assault ship hull and would support Marine Corps amphibious landings
- CV-LX carrier, basically an amphibious assault ship meant to carry strike fighters, freeing up deck space on the big Nimitz and Ford-class supercarriers to carry specialized aircraft
- Navy wants an aviation destroyer that has the front end of an Arleigh Burke-class guided missile destroyer but a back end devoted to two helicopters and four unmanned systems
- "Magazine Ship" MGX would carry up to 4 railguns, 1,000 missile silos, or 96 Pershing-III intermediate range ballistic whose armament can be controlled by other ships, vastly increasing a fleet's firepower
- Large Surface Combatant (LSC) program
  - Navy wants larger vertical launch system tubes to accommodate bigger, faster missiles with longer range. The service also wants to create enough excess power and cooling to give the ships "360-degree coverage with directed Energy weapons"
- Shift to a more distributed architecture; i.e., USVs and UUVs
  - Complicate an adversary's targeting challenge w/ added units to detect, identify, and track
  - Reduce loss in Navy capability that would result from destruction of an individual Navy ship
  - Deploy USVs and UUVs to sea locations that would be too risky for manned ships
  - Increase the modularity and reconfigurability for changing mission needs

THANK YOU  
FOR YOUR ATTENTION

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## HOSTS





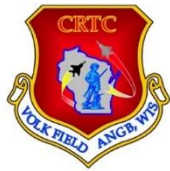
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## AGENDA

8:00 am	Briefings from Volk Field ANG, Ft. McCoy, and Wisconsin National Guard
9:30 am	Legal Update for Federal Contractors and Subcontractors
11:00 am	Where is the Money – Priorities, Opportunities and Strategy
11:40 am	Update for Federal Contractors from the US Small Business Administration
Noon	Lunch
12:30 pm	U.S. Navy Shipbuilding Outlook presented by Leonardo DRS & Update from Fincantieri Marinette Marine
1:30 pm	Briefing from Fort McCoy, the 88th Readiness Division (29 states), and the 84th Training Division
2:30 pm	<b>DOD Contract Management Update</b>
3:30 pm	Business Development, The New Normal
4:00 pm	Emergency and Disaster Contracting

## UP NEXT...

### **DOD Contract Management Update presented by DCMA and DIBCAC**

Presented by...

Jason Rathsack, Dana C. Mason and Carley E. Salmon;  
Defense Contract Management Agency

**- SAVE THE DATE -**



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**October 15, 2020**

**In-person at Volk Field in Camp Douglas, WI**