Future Navy LCS Canberra Christened at Austal

The christening of the USS Canberra, LCS 30, at Austal USA in Mobile, Alabama, Saturday, June 5. *AUSTAL USA*

MOBILE, Ala. – Austal USA hosted the christening ceremony for the future USS Canberra (LCS 30) Independence-variant littoral combat ship on June 5, the company said in a release. Canberra is the 15th LCS designed and constructed by Austal USA and the second U.S. Navy ship to be named after the Australian capital.

"Today, just 16 years after Austal USA joined the U.S. defense industrial base, the company is hosting its 15th littoral combat ship christening – LCS 30, a ship proudly named after the capital of Australia and yet another symbol of the great ties between our two countries," stated Austal USA Interim President Rusty Murdaugh in his address to the audience at the ceremony.

The ship's sponsor, Australian Senator and Foreign Minister Marise Payne, attended the ship's keel laying ceremony in Mobile early last year, but was unable to attend today's christening ceremony.

Alison Petchell, the Australian Government's Minister Counsellor Defense Materiel, christened the future USS Canberra (LCS 30).

Canberra (LCS 30) is the 15th of 19 small surface combatants Austal USA is building for the U.S. Navy. Five are under various stages of construction and a sixth is on contract waiting to start construction. Austal USA is also constructing two Expeditionary Fast Transport ships (EPF) for the U.S. Navy with one more on contract awaiting start of construction.

The company recently broke ground on its new steel manufacturing line to expand its shipbuilding capability to service the U.S. Navy and U.S. Coast Guard’s rising demand for steel ships.

NATO Carrier Strike Groups Train Together in the Mediterranean

French carrier Charles de Gaulle and British carrier Queen Elizabeth have conducted joint training 1-4 June 2021. The naval training carried out between the two forces, dubbed Gallic Strike, involved 15 ships and 57 aircraft. *NATO*

NORTHWOOD, U.K. — French carrier Charles de Gaulle and British carrier Queen Elizabeth conducted joint training June 1-4, the Allied Maritime Command said in a June 4 release. The naval training carried out between the two forces, dubbed Gallic Strike, involved 15 ships and 57 aircraft.

Organized by France in its maritime approaches, the naval interaction was an opportunity for the French Carrier Strike Group, which is completing its thirteenth operational deployment, to work for the first time with the British carrier strike group and its aircraft, strengthening cooperation between the two navies.

Gallic Strike exercise consisted mainly of training for a dual carrier operation, that is, training between aircraft carriers to coordinate and fight together in an integrated command structure. This sequence, which included a sea-to-land strike simulation and joint tactical maneuvers between Rafale marine

and F-35B aircraft, gave them the opportunity to work together in a variety of fields, such as anti-aircraft, anti-surface warfare and power projection capabilities.

“Allied cooperation and interoperability have reached new heights with this first meeting of the French and U.K. carrier strike groups at sea. These initiatives ensure crews, aircraft and ships are interoperable and able to seamlessly support one another when the need arises. More broadly, this activity is a tremendous demonstration of the burden-sharing at the core of the NATO Alliance and is essential to our ability to generate peace in perpetuity,” said Maj. Gen. Phillip A. Stewart, deputy chief of staff, Strategic Employment, Supreme Headquarters Allied Powers Europe (SHAPE).

Gallic Strike brought together also the Allies integrated into the two naval air groups – American, Greek, Italian and Dutch. The exercise included the participation of the USS Thomas Hudner, integrated into the French CSG, while the destroyer USS The Sullivans and 10 American F-35Bs reinforced the British CSG.

Since Feb. 21, 2021, and until this summer, the French carrier strike group, formed around the aircraft carrier Charles de Gaulle, has been deployed as part of the Clemenceau 21 mission. It took part in the fight against terrorism by integrating Operation Inherent Resolve/Chammal and deployed in strategic areas of interest in the Mediterranean Sea, the Indian Ocean and the Arabian Gulf. Task Force 473 has also contributed to guaranteeing freedom of navigation and securing and defending these strategic areas. Accompanied by foreign frigates from time to time, it demonstrates the interoperability and level of trust between the French navy and its allies. The group is now on the way home.

HMS Queen Elizabeth is the flagship for U.K. Carrier Strike Group 21, a deployment that will see the ship and her escorts sail to the Asia-Pacific and back. It leads six Royal Navy

ships, a Royal Navy submarine, a U.S. Navy destroyer and a frigate from the Netherlands in the largest concentration of maritime and air power to leave the U.K. in a generation. Its seven-month global deployment will extend through the Mediterranean and Indian Ocean and on to the Indo-Pacific, interacting with more than one-fifth of the world's nations.

The training comes after HMS Queen Elizabeth's participation in the NATO exercise Steadfast Defender, where it interacted with two of NATO's Standing Naval Groups. Both Standing NATO Maritime Group One, and Standing Maritime Group Two took part in the training, along with assets from 20 Allied and partner nations.

Several Allied aircraft carriers, under national command, are deploying into SACEUR area of responsibility during these months, demonstrating allied unity and commitment to effectively deliver multi-domain effects. The carrier strike activity demonstrates power projection over large distances with its unparalleled combat capability and are a critical element of NATO deterrence.

First Newly Appointed Senior Military Acquisition Advisors Report to ASN RDA

Capt. Stephen H. Murray, shown here in 2017 addressing the Corona, California, Chamber of Commerce, is one of two new Senior Military Acquisition Advisors. *U.S. NAVY / Greg Vojtko*
WASHINGTON – The Department of the Navy's first Senate-confirmed Senior Military Acquisition Advisors (SMAA) joined

the assistant secretary of the Navy for Research, Development and Acquisition (ASN RDA) staff this month, the Navy said in a June 2 release.

This program established in the National Defense Authorization Act of 2018 is designed for senior officers within the acquisition community to provide strategic, technical, and programmatic advice to their Service Acquisition Executive with the option of serving as adjunct professors at Defense Acquisition University.

U.S. Navy Capt. Stephen Murray and U.S. Marine Corps Col. Dave Burton were selected by a panel of flag and general officers to provide senior level acquisition expertise to ASN RDA.

“Both of these officers are very successful acquisition professionals,” said Vice Adm. Mike Moran, principal military deputy ASN RDA. “Their selection as the Department of the Navy’s first SMAAs speaks not only to their superb careers, but the tremendous value they will bring to the Department of the Navy for many more years.”

Murray will assume a key leadership role as a military deputy on the recently established Deputy ASN Sustainment staff. He will be responsible for long term surface ship/submarine maintenance planning, industrial base coordination, and shipyard improvements for fleet readiness. Murray will also assume a lead role on the new Sustainment System Working Group (SSWG), established to address systemic readiness issues across the naval enterprise. Murray has extensive fleet and acquisition experience, and just completed a very successful tour as a major program manager for Surface Ship Readiness and Maintenance.

Burton will assume a key leadership role as the military deputy on the Department of the Navy’s new Project Overmatch Organization, which supports Navy and Marine Corps Distributed

Maritime Operations and integration with the Joint All-Domain Command and Control (JADC2) program. He will be responsible for integrating current Marine Corps and Navy networks and services to enable a future common operational architecture. Burton's decades of operational and acquisition experience uniquely qualify him for this role along with his very successful tour as a major program manager for Intelligence Systems.

The assistant secretary of the Navy for research, development and acquisition serves as the Navy Service Acquisition Executive. ASN RDA has authority, responsibility and accountability for all acquisition functions and programs, and for enforcement of Under Secretary of Defense for Acquisition and Sustainment procedures. The assistant secretary represents the Department of the Navy to USD (A&S) and to Congress on all matters relating to acquisition policy and programs.

The assistant secretary establishes policies and procedures and manages the Navy's research, development and acquisition activities in accordance with DoD 5000 Series Directives. The assistant secretary serves as program (milestone) decision authority on ACAT IC programs and recommends decisions on ACAT ID programs.

U.K. Carrier Strike Group Sets Sail on 7-Month First Deployment

Queen Elizabeth II visited Royal Navy aircraft carrier HMS

Queen Elizabeth in Portsmouth on 22 May 2021, just hours before the U.K. Carrier Strike Group sailed for its first operational deployment. During the 45 minute visit, Her Majesty spoke to a selection of British and American Sailors, Aviators and Marines. *U.K. MINISTRY OF DEFENCE*

LONDON – Nine ships, 32 aircraft, and 3,700 personnel set sail May 22 on the U.K. Carrier Strike Group's first operational deployment, the U.K. Ministry of Defence said in a release.

The seven-month global deployment will extend through the Mediterranean and Indian Ocean and on to the Indo-Pacific, interacting with more than one-fifth of the world's nations.

Britain's new flagship aircraft carrier, HMS Queen Elizabeth, will lead six Royal Navy ships, a Royal Navy submarine, a U.S. Navy destroyer and a frigate from the Netherlands in the largest concentration of maritime and air power to leave the U.K. in a generation.

The Queen visited her namesake vessel – which she commissioned in 2017 – before the aircraft carrier set sail from Portsmouth, meeting crew members and wishing them luck in what will be an unforgettable life experience by being part of naval history. Among those to meet the Queen was U.S. Marine Corps Col. Simon Doran.

"It's an incredibly profound moment, getting to meet Her Majesty The Queen this morning was a personal honor," Doran said. "There's a lot of professional pride being honored among myself and all of the Americans who met her majesty. The United Kingdom has always been the most stalwart ally for the United States and demonstrating our interoperability on this deployment reassures both nations."

Prime Minister Boris Johnson was also among those to visit HMS Queen Elizabeth ahead of her departure, joined on May 21 by Defence Secretary Ben Wallace, First Sea Lord Adm. Tony Radakin and Chief of the Air Staff, Air Chief Marshal Sir Mike Wigston on the flight deck.

Truly Global Britain

“The U.K.’s Carrier Strike Group sets sail to write Britain’s name in the next chapter of history – a truly global Britain that steps forward to tackle the challenges of tomorrow, working hand-in-hand with our friends to defend our shared values and uphold the rules-based international order,” said Wallace. “This deployment shows that we are strong on our own, but even stronger with our allies. I want to join the nation in wishing the crews across the Carrier Strike Group every success as they depart on this truly historic endeavor.”

In a projection of the United Kingdom’s global reach and influence, the Carrier Strike Group will interact with over 40 nations during its 26,000-nautical-mile global tour, undertaking over 70 engagements, exercises and operations with allies and partners.

As outlined in the recently published Defence Command Paper, the Carrier Strike Group is a demonstration of the United Kingdom’s commitment to be ready to confront future threats alongside international partners and help seize new opportunities for Global Britain.

Underscoring the United Kingdom’s leading role in NATO, in the coming days the Carrier Strike Group will take part in NATO’s Exercise Steadfast Defender. The Strike Group will also provide support to the Alliance’s Operation Sea Guardian and to maritime security operations in the Black Sea during the deployment.

Working alongside another key NATO ally, the Carrier Strike Group will be joined by French aircraft carrier Charles De Gaulle for a period of dual carrier operations in the Mediterranean.

In the Indo-Pacific, the Carrier Strike Group will visit India, Japan, the Republic of Korea and Singapore to strengthen Britain’s security relationships, reinforce

political ties and support our UK exports and international trade agenda.

Elements of the Carrier Strike Group will also participate in Exercise Bersama Lima to mark the 50th anniversary of the Five Powers Defence Arrangements between Malaysia, Singapore, Australia, New Zealand and the United Kingdom.

The Next Chapter

The deployment is primarily centered on regenerating the United Kingdom’s Carrier Strike capability, a decade-long journey which is now entering its next chapter.

It comes after the prime minister announced in November an increase in defense funding of over £24 billion across the next four years, enabling the U.K.’s armed forces to adapt to meet future threats.

The Strike Group’s cutting-edge platforms are expertly operated by 3,700 personnel from the United Kingdom, United States and Netherlands armed forces, including a company of Royal Marines Commandos.

HMS Queen Elizabeth is the largest and most powerful surface vessel in the Royal Navy’s history. In a true success story for British industry she was built by a cast of more than 10,000, including more than 800 apprentices, in six dockyards from the banks of the Clyde to the River Torridge quaysides.

Joining her are a surface fleet of Type 45 destroyers, HMS Defender and HMS Diamond, Type 23 anti-submarine frigates HMS Kent and HMS Richmond, and the Royal Fleet Auxiliary’s RFA Fort Victoria and RFA Tidespring.

U.S. Navy destroyer USS The Sullivans and the Royal Netherlands Navy’s frigate HNLMS Evertsen will be fully integrated for the duration of the deployment.

On the carrier's flight deck are 18 state-of-the-art F-35B fast jets, operated by joint RAF and Royal Navy 617 squadron, and the U.S. Marine Corps – the greatest quantity of fifth-generation Lightning jets ever put to sea.

Operating alongside the jets are four Wildcat maritime attack helicopters, seven Merlin Mk2 anti-submarine helicopters and three Merlin Mk4 commando helicopters, the largest number of helicopters assigned to a single U.K. Task Group in a decade.

"As the Carrier Strike Group heads to sea, a new phase opens in Britain's maritime renaissance. A year's worth of exercises, and more than a decade of preparation, is over. HMS Queen Elizabeth, her escorts and her aircraft, will now begin the most important peacetime deployment in a generation," said Commodore Steve Moorhouse, Commander United Kingdom Carrier Strike Group.

"It is the privilege of my career to lead 3,700 Sailors, Aviators and Marines from the United Kingdom, United States and the Netherlands for the next seven-and-a-half-months. On their behalf, I would like to thank all those in government, the armed forces and industry who have worked so hard to get us to the start line and will continue to support us when we are away. Most importantly, I would like to thank our families. I have every confidence that these young men and women will do you proud."

Construction Starts on Fleet Oiler Robert F. Kennedy

The Belgian navy Karel Doorman-class frigate Leopold I (F930),

left, and the Portuguese navy frigate NRP Francisco de Almeida (F334), right, conduct a replenishment-at-sea with the Henry J. Kaiser-class underway replenishment oiler USNS Patuxent (T-AO 201), center. Construction has now begun on the USNS Robert F. Kennedy (T-AO 208). *U.S. NAVY / Mass Communication Specialist 2nd Class Cameron Stoner*

SAN DIEGO – Construction on the USNS Robert F. Kennedy (T-AO 208) began at the General Dynamics – National Steel and Shipbuilding Company (GD-NASSCO) shipyard, May 21, the Navy's Program Executive Office – Ships said in a release.

T-AO 208 will be operated by the Navy's Military Sealift Command and is the first ship named after the Navy veteran, former U.S. Attorney General and U.S. senator from New York.

"USNS Robert F. Kennedy will provide significant contributions to the fleet, serving as the primary fuel pipeline to refuel ships at sea. The building of the John Lewis-class ships marks an important milestone in enhancing our Navy's fleet capabilities and providing critical support to our Sailors," said John Lighthammer, Support Ships, Boats and Craft acting program manager, Program Executive Office, Ships.

The ships are based on commercial design standards and will recapitalize the current T-AO 187 Class Fleet Replenishment Oilers to provide underway replenishment of fuel to U.S. Navy ships and jet fuel for aircraft assigned to aircraft carriers. These ships are part of the Navy's Combat Logistics Force and will become the backbone of the fuel delivery system.

GD-NASSCO is also currently in production on USNS John Lewis (T-AO 205) USNS Harvey Milk (T-AO 206). USNS Lucy Stone (T-AO 209) and USNS Sojourner Truth (T-AO 210) are under contract.

Royal Navy draws from the past to name future frigates

Babcock Team 31 has been contracted by the U.K. Ministry of Defence to deliver five Type 31 frigates. *BABCOCK*

The Royal Navy's new Type 31 frigates will be an inspiration. According to First Sea Lord, Adm. Tony Radakin, who released the names of the first five ships, the frigates will be known as the Inspiration class.

"Each of the names has been chosen for evoking those values we strive for: cutting-edge technology, audacity and global operations," Radakin said. "They represent the best of Britain's world-class shipbuilding heritage and will fly the flag for decades to come."

According to the Royal Navy statement, the names, which were approved by Queen Elizabeth II herself, will be HMS Active, HMS Bulldog, HMS Campbeltown, HMS Formidable and HMS Venturer.

Each of the names were inspired by noteworthy warships and submarines in Royal Navy service.

- HMS Active: Named after the Type 21 frigate HMS Active which served the Royal Navy from the late 1970s until the mid-1990s. As well as taking part in the operation to liberate the Falklands, supporting the final battles for Port Stanley, Active spent her career deployed in support of Britain's Overseas Territories and global interests, from tackling drug traffickers to enforcing UN embargos and providing humanitarian aid in the aftermath of natural disasters.
- HMS Bulldog: Named after the destroyer which helped turn the tables in the Battle of the Atlantic thanks to the bravery of her boarding party. They searched stricken U-

boat U110 in May 1941 and recovered the Germans' "unbreakable" coding machine, Enigma, plus codebooks. It gave Britain a vital intelligence lead at a key stage in the struggle to keep its Atlantic lifelines open.

- HMS Campbeltown: Named after the wartime destroyer which led the commando raid at St. Nazaire in France. In March 1942, the ship rammed the dock gates and hidden explosives aboard blew up, wreaking havoc in the port and denying its use to major German warships for the rest of World War II. The action epitomizes the raiding ethos driving the Royal Marines' Future Commando Force.
- HMS Formidable: Named after the WW II carrier which epitomized carrier strike operations from Norway, through the Mediterranean to the Pacific. She survived kamikaze strikes and took the war to the Japanese mainland with Lt. Cmdr. Robert Hampton Gray earning the last naval VC of the war for his daring sinking of a Japanese destroyer just six days before Tokyo surrendered.
- HMS Venturer: Named after the WW II submarine which sank German U-boat U864 northwest of Bergen, Norway, on Feb. 9, 1945, while both vessels were submerged. Venturer enjoyed a technological and intelligence advantage over her foe thanks to decoded messages indicating the enemy's location and a superbly trained crew who located and destroyed the U-boat. It was the first time one submarine had deliberately sunk another while submerged.

The names also represent the Royal Navy's future vision, the statement said. "HMS Active signifies the forward deployment of Royal Navy ships to protect U.K. values and interests, whilst HMS Bulldog is focused on operational advantage in the North Atlantic. HMS Campbeltown symbolizes the 'raiding from the sea' focus of the Royal Marines' Future Commando Force, HMS Formidable recognizes the history of aircraft carrier

strike operations and HMS Venturer promotes the navy’s technology and innovation forward-look.”

Indonesia Will Patrol Vast Maritime Domain with New Tank Boat

The X-18 Tank Boat, which will soon undergo builder’s trials and acceptance testing for the Indonesian Ministry of Defense. *PT PINDAD*

It’s a tank! It’s a boat! It’s “Tank Boat!”

The Indonesian Ministry of Defense has ordered a prototype of a new kind of maritime weapons system, the X18 “Tank Boat,” from a consortium composed of Indonesian companies and a European partner.

Patrolling and protecting the Indonesia’s maritime domain is a challenge. Indonesia is a large and populous country, but is spread out among 17,000 islands – many of them sparsely settled or uninhabited – stretching more than 3,100 miles from West Papua in the east and Aceh in the west. Many critical sea lanes pass through Indonesian waters.

The X-18 prototype has been ordered for the Indonesian Army under what is being called the Antanesa program, but more commonly referred to as Tank Boat. The consortium that built it includes the Indonesian defense and industrial equipment manufacturer PT Pindad, PT Lundin’s North Sea Boats, PT Len Industri, and engineering and electronics firm PT Hariff, as well as the European arms manufacturer maker John Cockerill,

which makes turrets for light and medium-weight armored vehicles.

The X18 Tank Boat is a catamaran design for coastal, riverine and inshore operations. Officials believe the well-armed X-18 and can meet a number of maritime patrol, search and rescue, expeditionary and special operations missions with its ability operate in shallow water and land on a beach to offload or pick up troops. Tank Boat has a range of about 600 nautical miles, which allows it to move between Indonesia's many coastal military bases.

The design isn't new – North Sea Boats has been working on it for 10 years. The Initial concept of Tank Boat features a 105mm gun, but the current prototype will be equipped with a remotely operated Cockerill Protected Weapon Station (CPWS) turret with a 30mm automatic cannon.

North Sea Boats has experience making composite vessels such as catamarans and landing craft, including an all-composite trimaran fast attack boat built for the Indonesian navy that was destroyed by fire in 2012 before it was commissioned. The company then embarked on construction of a second trimaran that was subsequently halted.

An APC 60 variant will carry up to 60 soldiers and will be armed with a CPWS equipped with a 25- or 30-mm. gun and an EO/IR sensor.

The X-18 is diesel powered and employs waterjets. It has a crew of crew of four or five and will embark a RHIB for boardings or SEAL insertion, and features multi-mission deck for unmanned aircraft, containerized cargo or modular weapons. Designed with a shallow draft, X-18 can operate in swamps, coastal and riverine environments as well in blue water, and can land on a beach to discharge personnel and supplies onto dry land.

The composite catamaran was launched last month at the North

Sea Boats facility in Banyuwangi on the eastern tip of Java. Launched on April 28, the first X-18 will undergo builder's trials and acceptance testing, as well as weapons firing evaluations.

Wave Piercing Design Being Adapted for Unmanned Vessel


An image of Zycraft's high-speed unmanned surface vessel. *ZYCRAFT*

Zycraft of Singapore is developing a high-speed unmanned surface vessel (HSUSV) capable of sustained speeds of 35 knots in Sea State 4 carrying a 1,100-pound payload (not including fuel).

The HSUSV has both civil and military applications, from rapid rescue, surveillance of marine accidents, or interdiction of hostile targets. The vessel can be launched from shore or a host platform at sea.

James Soon, Zycraft's CEO and former commander of the Singaporean navy fleet, said the HSUSV has a number of commercial applications such as responding to ship collisions, hijacking, pollution incidents, air crashes at sea, and search and rescue (SAR). "The HSUSV can provide rapid surveillance in maritime incidents such as for salvage companies that need to get early surveillance and situational awareness to better determine the subsequent response."

The HSUSV can be used as rapid rescue platform in man overboard situations or other SAR cases by carrying a life saving device or medical evacuation package. Examples of

paramilitary applications include surveillance of naval groups, and possibly attack using a weapon, he said.

The vessel is remotely controlled from Zycraft's operations center in Singapore, but could be controlled from virtually anywhere with satellite connectivity, including a host ship platform.

Sea conditions is a determining factor regarding how fast manned assets can get to the scene. "Currently available high-speed boats use planning hulls, and leap out and slam on the water and therefore cannot go really fast in high waves," said Soon.

When manually driven, the driver has to constantly adjust the throttles when meeting large waves. This slows the boat down. Controlling such a boat in an unmanned configuration is problematic because it's difficult to sense and respond to the waves autonomously.

The Zycraft HSUSV is based on proven wave-piercing racing boat design with a single engine. The hullform can use a waterjet or propeller. The Zycraft HSUSV is currently planned to have a single propeller.

A very slender wave-piercing hull can avoid slamming by cutting through waves instead of travelling over them. "A wave piercing HSUSV is expected to be able to overcome bad sea conditions and reach the scene several times faster than manned assets," he said.

"The wave piercing concept has been used by a number of manned boats for a long time, but this is the first time it is being adapted for unmanned. With manned boats, the sudden acceleration and deceleration experienced as the boat pushes through a wave and emerges won't be felt by an unmanned boat. That is why wave piercing manned boats are not popular," Soon said. "Imagine being jerked around for days."

The Zycraft HSUSV has an endurance of at least two weeks at a loitering speed of 5 knots. Soon said the HSUSV is designed to be as small as possible – 11 meters or less – to keep costs down and enable it to be carried by mothership when needed. He said it will have a single point lift for launch and recovery, and will have its own launch and recovery bay for small drones or tethered UAVs to carry cameras or other sensors.

Joint Force Command Norfolk Kicks off Part 1 of NATO's Steadfast Defender 2021

Gen. David H. Berger, commandant of the Marine Corps, visited Her Majesty's Ship Queen Elizabeth at sea off the coast of Flamborough, United Kingdom, in October, 2020. The HMS Queen Elizabeth strike group is one of 20 ships participating in the NATO maritime live exercise Steadfast Defender. *U.S. MARINE CORPS*

ATLANTIC OCEAN – A dynamic NATO maritime live exercise (LIVEX) has begun off the coast of Portugal with participation from 11 allied nations from North America and Europe as a part of Steadfast Defender 2021, May 20, Joint Force Command Norfolk said in a May 20 release.

The maritime LIVEX, led by Joint Force Command Norfolk (JFCNF), focuses on the rapid reinforcement of NATO's European allies by North American forces. Over 5,000 service members and 20 ships will be participating, including the Royal Navy's Carrier Strike Group HMS Queen Elizabeth; and 40 aircraft, including F-35B Joint Strike Fighters embarked.

“This challenging mission serves to demonstrate the unity of NATO allies and our readiness to deter conflict and aggression,” said Vice Adm. Andrew Lewis, Commander, JFCNF and U.S. 2nd Fleet. “It showcases our abilities, as an alliance, to maintain freedom of navigation, rule of law, and to effectively deter adversaries around the globe.”

The size and scope of Steadfast Defender 2021 will test NATO’s capability to secure the strategic and sea lines of communication and move large numbers of troops, equipment and supplies across the Atlantic and Europe in response to the exercise scenario. The prompt deployment of forces from North America, their movement across the European Continent, and the integration of multinational troops will strengthen the readiness and deterrence posture of Allied Command Operations.

“The 21st Century transatlantic link is complex and technologically advanced,” said Royal Navy Rear Adm. Andrew Betton, deputy commander, JFCNF. “We will deter and defeat challenges to protect our economic prosperity and strategic lines of communication by keeping the arteries of commerce open on the world’s interconnected oceans. This exercise will demonstrate alliance unity and the importance of the transatlantic bond to allied security.”

There will be a serialized program over the course of two weeks that allows allied submarines, surface ships, and aircraft, to work together in a dynamic environment to prepare for challenging, high-end operations against near-peer competitors.

U.S. 2nd Fleet is acting as the Maritime Component Commander (MCC) for part one of Steadfast Defender 2021. Staff in support of the Maritime LIVEX embarked aboard the U.S. 6th Fleet command and control ship USS Mount Whitney (LCC 20).

“The USS Mount Whitney plays a pivotal role with its

communications capability," said Rear Adm. Steve Waddell, Royal Canadian Navy and vice commander of U.S. 2nd Fleet, embarked aboard Mount Whitney as the leader of the MCC. "Second Fleet's role as the MCC for the exercise demonstrates the United States' ironclad commitment to NATO, and the U.S.'s dedication to further revitalize its relationship with the alliance."

For added high-end complexity, the Iwo Jima Amphibious Ready Group will integrate into the exercise as a testament to the seamlessness of our integration. USS Iwo Jima (LHD 7) and its ready group are providing reach to the MCC for the sea lines of communication protection mission.

This exercise is also part of the maiden deployment of the United Kingdom's newest aircraft carrier, HMS Queen Elizabeth. U.K. and U.S. F-35B Strike Fighters embarked, making it the world's largest air group of fifth generation jets. It will also be the largest deployment of Fleet Air Arm helicopters in a decade.

Steadfast Defender 2021, NATO's flagship exercise for 2021, is the first in a new series of long-planned NATO exercises to ensure that forces are trained, able to operate together and ready to respond to threats from any direction. This exercise will display the value of North America and Europe's interoperability and national security during challenging environments working together to keep nations safe in a more challenging security environment.

Steadfast Defender is comprised of three parts, made up of a series of linked exercises, taking place across the Atlantic and Europe. Part one is the maritime LIVEX focused on Transatlantic Reinforcement. Part two focuses on the enablement of Supreme Allied Commander Europe Area of Responsibility, Military Mobility and the Deployment of the NATO Response Force; and part three is when allies and partner nations will participate in various national exercises,

including redeployment operations back to their home stations.

JFCNF is the only operational-level NATO command in North America and its establishment and location in Norfolk, Virginia, embodies the enduring trans-Atlantic commitment to collective security and defense of our allies and partners.

Participating units in the Maritime Live Exercise include: USS Mount Whitney (LCC 20) as the command and control platform, with the embarked U.S. 2nd Fleet Staff; the Royal Navy's HMS Queen Elizabeth carrier strike group with embarked U.S. Marine Fighter Attack Squadron (VMFA) 211, and cooperative deployers, the Dutch HNLMS Evertsen (F805), USS The Sullivans (DDG 68); the Iwo Jima Amphibious Ready Group; Standing NATO Marine Groups 1 and 2; as well as surface ships and aircraft from Portugal, Spain, France, Canada, Turkey, Germany and Italy.

Collins Aerospace Begins Shipping Components for Navy's E-2D NP2000 Propellers

Collins Aerospace has begun shipping parts under a contract to supply Northrop Grumman with NP2000 propeller systems for 39 E-2D Advanced Hawkeye aircraft. *COLLINS AEROSPACE*

WINDSOR LOCKS, Conn. – Collins Aerospace, a unit of Raytheon Technologies, has begun shipping parts under a second multi-year contract received in November to supply Northrop Grumman with NP2000 propeller systems for 39 E-2D aircraft, Collins said in a May 19 release.

With its advanced NP2000 propeller and digital Electronic Propeller Control System, Collins Aerospace continues to provide E-2D Advanced Hawkeye operators with reduced maintenance time and cost, and enhanced crew comfort and safety.

NP2000 offers operators the ability to replace individual blades on-wing for reduced maintenance time and increased aircraft availability. By improving speed holding and blade synchronization, NP2000's digital Electronic Propeller Control System also enhances crew comfort and safety by reducing vibration and noise inside the cockpit.

"The E-2D plays a critical part in battle management command and control," said Quinlan Lyte, senior director, Propeller Systems for Collins Aerospace. "Through the multiple benefits it provides, our intelligent, innovative NP2000 helps support the E-2D mission by increasing operational efficiency, maximizing performance and boosting readiness."

NP2000 has been in service with the U.S. Navy and international customers on the Northrop Grumman E-2 and C-2 since 2004, and with the U.S. Navy and U.S. Air Force on Lockheed Martin C-130 variants since 2008. Over that time, the NP2000 has accumulated more than 1 million flight hours.