

ANNUAL

REPORT FY17 AVIATION LOGISTICS CENTER
UNITED STATES COAST GUARD



ALC COMMAND PHILOSOPHY

We will “Keep ‘Em Flying” by providing aviation support in depot-level maintenance, engineering, supply, procurement, information services, and acquisition project execution.

Our key strategic capabilities are to:

ASSURE AIRWORTHINESS AND RELIABILITY • OPTIMIZE LOGISTICS • ENSURE STEWARDSHIP EXCELLENCE

We will execute our mission and capabilities by applying the principles of:

CANDOR: Speak honestly and responsibly...and listen.

COMMITMENT: Adhere to the U.S. Coast Guard core values to do what is right.

SELFLESSNESS: Place service above self-interest. Serve the greater good.

ACCOUNTABILITY: Each of us will be accountable for our actions.

Our decisions will be based on data, reasonableness, common sense, and aligned with Commandant Policies.

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LANTAREA AVIATION STATISTICS

1,325 Lives Saved

TOP OPERATIONAL SORTIES:

6,089 Search and Rescue
12,386 Hours

1,779 Drug Interdiction
5,410 Hours

2,122 Sorties

Migrant Interdiction
6,606 Hours

1,143 Ports, Waterways, and Coastal Security
1,976 Hours

PACAREA AVIATION STATISTICS

174 Lives Saved

TOP OPERATIONAL SORTIES:

2,088 Search and Rescue
4,650 Hours

348 Drug Interdiction
1,825 Hours

48 Sorties

Migrant Interdiction
114 Hours

690 Ports, Waterways, and Coastal Security
1,223 Hours

COMMANDING OFFICER'S SUMMARY

Dear Reader,

Thank you for spending some time with Aviation Logistics Center's Fiscal Year 2017 (FY 2017) Annual Report. This was an extraordinary year with a devastating hurricane season, one our country will not soon forget. U.S. Coast Guardsmen tend to use historically significant events as mileposts of our time in service, which help to organize our memory chronologically. Known by shorthand expressions such as Valdez, Andrew, 9/11, Katrina, or Deepwater Horizon, these large operational events of national significance tend to provide “pre” and “post” context to the personal stories we remember throughout our careers. There is no question 2017 will be one such milepost year for most of us with the unprecedented devastation caused by Hurricanes Harvey, Irma, and Maria.

These major events reminded us of how tightly integrated we are with U.S. Coast Guard Operations. Consider the MH-65D aircraft CGNR 6574, freshly delivered from Programmed Depot Maintenance (PDM), deployed just five days later and participated in the historic efforts based from Air Station Houston, joining 30 other forward deployed U.S. Coast Guard helicopters in saving over 1,000 lives during Hurricane Harvey. Our purpose at ALC is to provide the “right” solution to nearly any problem facing the aviation community, but our ability to know what's “right” depends on this strong connection and understanding of U.S. Coast Guard Aviation Operations. As you read this report, I think you will find that the U.S. Coast Guard's dynamic Operational Environment is reflected by the efforts of the men and women of ALC as they create and sustain the capabilities needed for mission execution.

Our Product Lines, designed to empower a single point of accountability, have done just that this year by delivering integrated support for every asset. I hope you will clearly see how thoroughly our Product Lines know their aircraft and systems, and how they continue to learn more about them. Our Rotary Wing Product Lines have partnered with CG-9 to integrate life extension programs that will keep both H-65 and H-60 helicopter fleets in service for 20 more years. If you look closely at the variety of systems refreshed, from wiring to main structural components to new avionics architecture, you will find numerous examples of comprehensive and integrated support. I also hope you will observe some of the common traits of our Product Lines, particularly the pride and ownership they all take in their aircraft.

Our Shared Service Divisions, designed to build deep expertise in the disciplines of logistics, have expertly navigated our course to provide the “right stuff” in the right way. The “right stuff” ALC provides essentially always boils down in some manner to knowledge, and translating specialty knowledge into capabilities is what our Shared Service Divisions do best. Whether it's the latest in Supply Chain Management concepts, emerging technology in Nondestructive Inspection (NDI), or innovative contracting vehicles, ALC Shared Service Divisions are constantly asking how we can do it better. You will notice some common traits such as third-party certifications or audits, and partnerships with other organizations both within and outside the U.S. Coast Guard.

Finally, the one constant throughout this report is the ALC Workforce. Blending the best attributes of military, civilian, and contractor employees, our ALC Workforce shares a common dedication to U.S. Coast Guard Aviation. The people of ALC are adaptive and change-ready, understanding that we have to be transparent and honest about our own performance if we are to improve. It's their daily discipline and devotion to duty that delivers the achievements within these pages.

I hope you enjoy reading about how ALC “Kept ‘em Flying” in 2017.



Semper Paratus,

R. A. Hartnett

Captain Randal A. Hartnett
Commanding Officer, ALC

COMMAND VISION AND MISSION

VISION

Be the best Aviation Logistics Center in the world, powering U.S. Coast Guard mission execution.

MISSION

We Keep 'Em Flying by Providing:
the Right Stuff,
at the Right Place,
at the Right Time,
at the Right Cost...EVERY TIME.

BUSINESS POLICY

We are fully committed to fulfilling our duty to stakeholders by focusing on Assuring Airworthiness and Reliability, Optimizing Logistics, and Ensuring Stewardship Excellence. This commitment includes continual improvement of our integrated business system, promoting a safe and healthy workplace, preserving the environment through pollution prevention, and adhering to legal requirements.



ALC

BY THE NUMBERS

FY 2017 AVIATION METRICS

69.7 % Availability
7.0 % Not Mission Capable Supply (NMCS)
22.3 % Not Mission Capable Maintenance (NMCM)
1.0 % Not Mission Capable Depot (NMCD)
88.8 % Unit Fill Rate for Allowed Inventory
89.9 % Inventory Control Point Fill Rate

IN FY 2017, ALC

43 Aircraft Overhauled
25 Air Stations Supported
159 Aircraft Operated
1,400 Personnel Employed
\$1.29B Parts Inventory Managed
6,394 Procurement Actions
(~\$321M in Obligations)

MEDIUM RANGE RECOVERY

38 MH-60 Aircraft at 9 Air Stations
10 MH-60 Aircraft Overhauled
1 H-60 Aircraft Converted from U.S. Navy H-60F to USCG MH-60T
1 U.S. Air Force JDLM Aircraft Completed

SHORT RANGE RECOVERY

87 MH-65 Aircraft at 17 Air Stations
22 MH-65 Aircraft Overhauled

LONG RANGE SURVEILLANCE

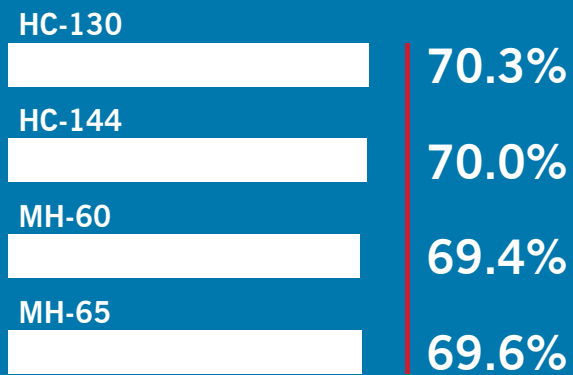
13 HC-130H Aircraft at 4 Air Stations
5 HC-130J Aircraft at 1 Air Station
14 Casper Pallets
5 HC-130H Aircraft Overhauled
1 HC-130J Aircraft Overhauled
4 U.S. Forest Service (USFS) Managed

MEDIUM RANGE SURVEILLANCE

15 HC-144 Aircraft at 4 Air Stations
17 Mission System Pallets
4 HC-144 Aircraft Overhauled

AIRCRAFT AVAILABILITY

69.7% All Asset Types



LEGEND

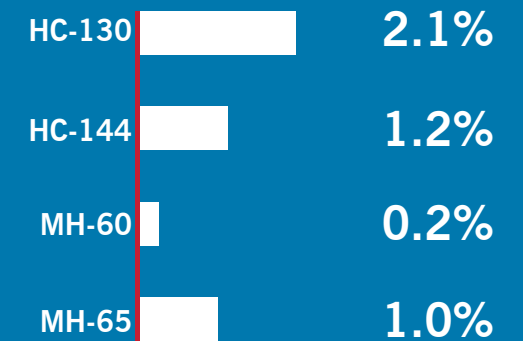
Target Goal Line

A system of Measurements of Effectiveness (MOE) indicates the performance of U.S. Coast Guard Aeronautical Engineering as related to strategic plans and goals. Multidimensional indices and individual metrics are taken collectively and considered over time to adequately reflect overall mission support system performance. The Availability Index (AI) indicates the percentage of time that aircraft assigned to air stations are available to perform U.S. Coast Guard missions. The target is 71%.

AIRCRAFT AVAILABILITY

NOT MISSION CAPABLE DUE TO DEPOT (NMCD)

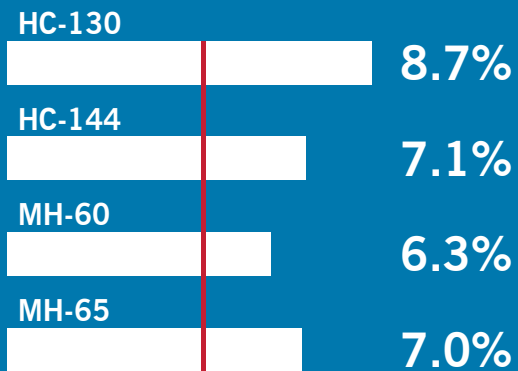
1.0% All Asset Types



NMCD reflects the percentage of time that aircraft of each type are unavailable to air stations for operational use due to depot level maintenance or testing. The target is 0%.

NOT MISSION CAPABLE DUE TO SUPPLY (NMCS)

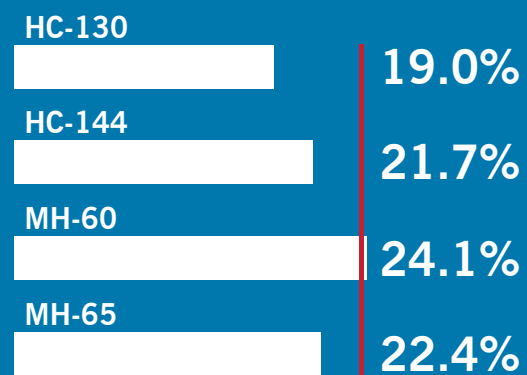
7.0% All Asset Types



NMCS is the status of an aircraft which is Not Mission Capable (NMC) due to the lack of available parts or supplies. A target of 5% is a planning goal for NMCS rates. This target also serves as a justification for supply chain resources required to meet availability of 71%. However, the U.S. Coast Guard must strive to meet these targets at minimum total system costs. The greatest efficiencies can be realized through minimizing inventory investment at ALC and in unit allowances consistent with this goal.

NOT MISSION CAPABLE DUE TO MAINTENANCE (NMCM)

22.3% All Asset Types



NMCM is the status of an aircraft which is Not Mission Capable (NMC) because unit-level scheduled or unscheduled maintenance work is in progress. NMCM time also includes the time the aircraft is grounded awaiting maintenance action and/or the satisfactory completion of a test flight. The target is 24%.

LOGISTICS RESULTS

INVENTORY CONTROL POINT (ICP) FILL RATE

ICP FILL RATE (priority orders) is the percentage of time ALC was able to fill unit or depot maintenance orders made for a specific tail number. A target of 90% is a planning goal for this metric.

89.9% All Asset Types

HC-130	93.1%
HC-144	91.4%
MH-60	85.1%
MH-65	91.3%

UNIT FILL RATE

UNIT FILL RATE is the percentage of time the air station had allowed inventory on the shelf when it was needed. A target of 90% is a planning goal for this measure.

88.8% All Asset Types

HC-130	86.4%
HC-144	88.8%
MH-60	85.7%
MH-65	89.7%



MAINTENANCE EFFORT

UNIT-LEVEL MAINTENANCE EFFORT INDEX (UMEI)

UMEI is the maintenance labor hours divided by the flight hours flown in the fleet. This trend data helps determine whether or not the air station maintenance effort is increasing as our fleet ages.

HC-130	20.6
HC-144	15.7
MH-60	23.9
MH-65	18.7

LEGEND

Target Goal Line |

Trending Direction ▼

PROGRAMMED DEPOT MAINTENANCE RESULTS

FY 2017
PROGRAMMED DEPOT MAINTENANCE (PDM)
AIRCRAFT COMPLETED

22

MH-65s

6

HC-130s

4

HC-144s

10

MH-60s

1

AF-60*

1

NC-60**

44

TOTAL

TYPE	GOAL	INDUCTION RATE	IN-FLOW
MH-65	170 days	17 days	10
HC-130	220 days	73 days	3
HC-144	183 days	92 days	2
MH-60	222 days	37 days	6
AF-60*	151 days	N/A	2
NC-60**	N/A	N/A	N/A

*JDLM = Joint Depot-Level Maintenance U.S. Air Force aircraft; a lesser scope of work compared to U.S. Coast Guard MH-60.

**NAVY CONVERSION = Conversion of U.S. Navy H-60F to U.S. Coast Guard MH-60T assets.



SHORT RANGE RECOVERY

The Short Range Recovery (SRR) Product Line (PL) remains focused on providing the fleet with safe, reliable, and mission-ready aircraft as well as the technical and logistics support to operate them. The talented men and women in the PL have reduced quality discrepancies on PDM aircraft by 30-50% and continue to deliver ahead of schedule.

ENHANCEMENTS AND TECH SERVICES

Devoted to customer support, SRR Technical Services completed over 1,120 technical requests for assistance and processed 445 CG-22 requests to keep technical guidance up-to-date. The PL provided onsite unit support with 15 field repair teams. Most notably, SRR dispatched technicians and completed an urgent fleet main gearbox inspection in just 9 days.

Following an extensive study with the manufacturer, SRR submitted the changes to expand the operating limit of the aircraft from -25 to 40 °F to support Great Lakes and potential polar operations.

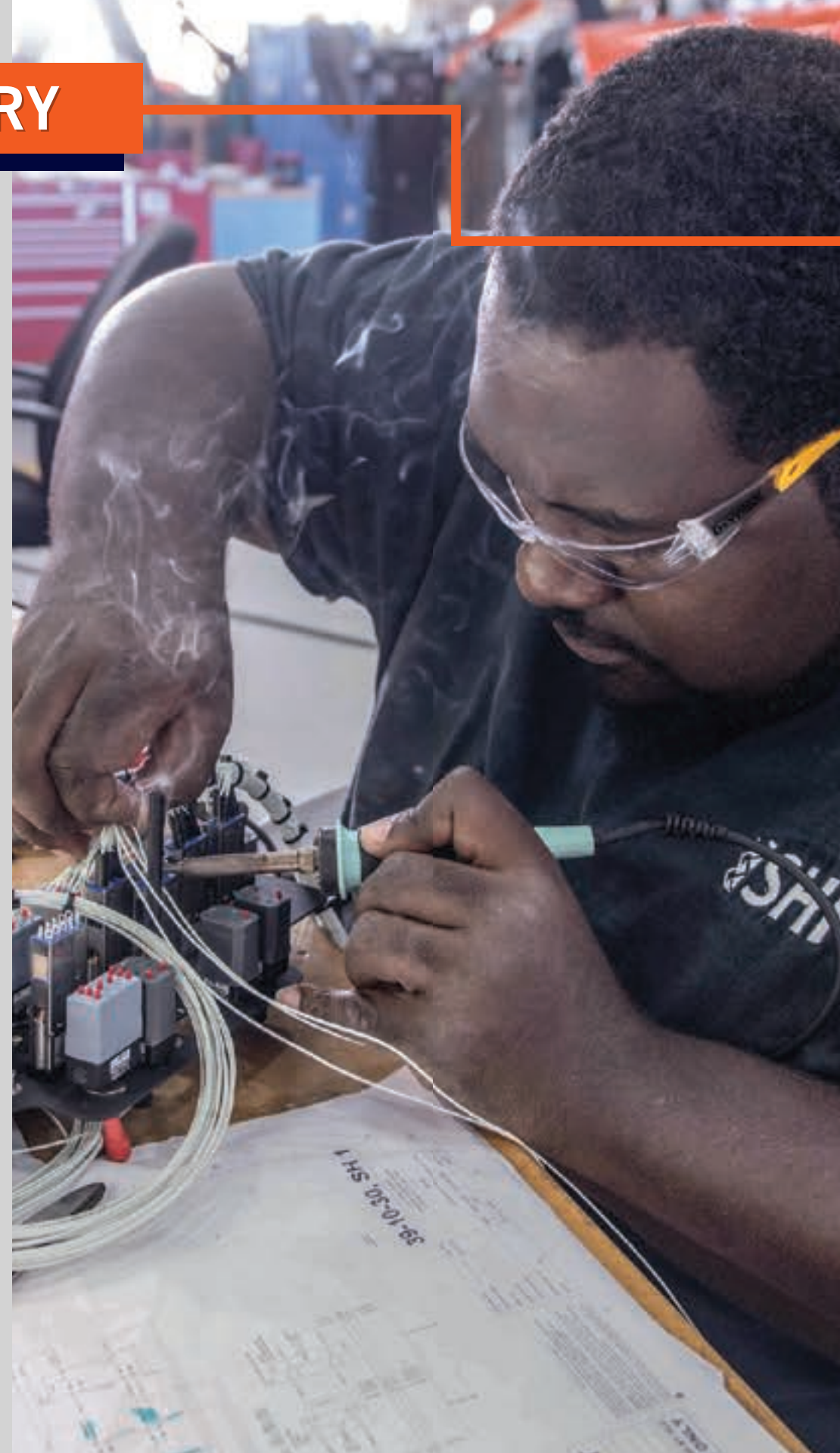
PRODUCTION

SRR production staff conducted a toolbox lean event and is in the final stages of converting 39 individual toolboxes to 8 crew boxes. The outcome will save 790 square feet of floor space, enhance tool control, and provide a surplus of \$116K in spare tools.

SRR PROJECTS MH-65E

SRR Projects has been extremely productive in the last year, completing over 600 total MH-65E test and evaluation flight hours and 6 software development tests in the advancement of the MH-65E. The majority of software development and testing this year was devoted to tuning the new Common Avionics Architecture System (CAAS) Flight Director (FD). The CAAS FD adds a suite of new modes which will increase capabilities and safety for the MH-65E fleet.

The MH-65E team completed extensive Instrument Meteorological Condition (IMC) certification testing including day and night conditions, FD capabilities, display queuing, and aircraft handling. With only a few minor display fixes, the MH-65E will be ready for its full IMC certification in early 2018.



SRR PROJECTS - NEXT YEAR

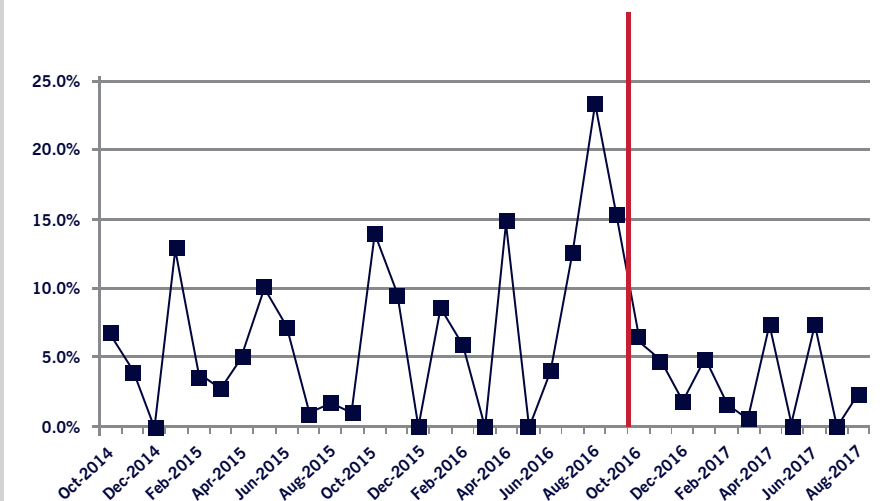
ALC is concluding conversion of the Aviation Technical Training Center (ATTC) Hot Mock-Up (HMU) from a D to an E model. The HMU is a partial airframe hull that is fully configured with electrical and avionics systems to support realistic AET "C" school training and prepare the next generation of technicians to maintain the E model.

SUPPLY

SRR Supply ordered over \$84M in parts/materials in FY 2017 and submitted/processed over 550 Supply Item Change Requests (SICR). Improving vendor accountability and performance reliability, supply processed 328 Product Quality Deficiency Reports (PQDR) with a 70% success in warranty repairs saving \$430K.

Responding to Operational Commander request for prioritizing aircraft availability when supply shortages exist, SRR launched a Supply Shortages Priorities Strategy designed to provide maximum availability to all units while also targeting higher availability at specific locations for the Operational Commander. Under the new strategy, parts are dispersed equally across east and west coasts with priority given to larger units, priority missions, and units considered strategic shipping locations that can easily pool parts.

HITRON Deployed NMCS



NOTEWORTHY

SRR's dedicated work can be summed up through the example of CGNR 6510, which was directly assigned to participate in rescue efforts after Hurricane Harvey. CGNR 6510 was 32 years young and had over 17,334 flight hours at the time. This asset has been cared for in PDM by the men and women at ALC seven times during its life span and still quite capable of performing the mission. This asset is scheduled to return to ALC in November to once again be returned to like-new condition.

MEDIUM RANGE RECOVERY

FULL OPERATIONAL CAPABILITY

Medium Range Recovery (MRR) along with Engineering Services Division (ESD) and SRR worked with stakeholders across the U.S. Coast Guard to complete Air Station Traverse City's transition from MH-65Ds to MH-60Ts, reaching Full Operational Capability ahead of schedule in support of Western Hemisphere Transit Zone enforcement initiatives. The MRR division completed PDM on CGNR 6045 for early delivery in May and delivered the newest U.S. Coast Guard MH-60T (CGNR 6048) just a month later ahead of schedule. All of ALC worked together to deliver \$1M in support equipment and \$6.2M in material inventory to bring the extended range capabilities of the MH-60T to the Great Lakes area. Air Station Traverse City makes the ninth U.S. Coast Guard station operating the MH-60T in execution of the U.S. Coast Guard's maritime mission.



ENDING OF AN ERA

FY 2017 witnessed the close of a long and exciting program of executing Joint Depot Level Maintenance (JDLM) for the U.S. Air Force. JDLM officially ended in October when CGNR 6238 departed the ALC like the 47 that departed before. The JDLM partnership with the Air Force led to extraordinary capabilities for ALC, particularly in equipment for the industrial back shops and was the first step in MRR's development of the MH-60T and Navy Conversion Programs.



ADVMS

MRR completed full integration of the U.S. Coast Guard's first helicopter Health and Usage Monitoring System (HUMS) with the final installation of the Aircraft Diagnosis and Vibration Management System (ADVMS). This set of 21 accelerometers and 5 tachometers provide continuous monitoring of rotor, powerplant, and drive train systems to alert maintenance personnel of developing anomalies before component failures. The ADVMS significantly reduces the effort required for optimal rotor tuning; more importantly, the data provides advanced diagnostics of aircraft and component fatigue. As the U.S. Coast Guard's MH-60T fleet has greatly exceeded the usage of any H-60 variant in the world with several assets over 16,000 hours, fatigue concerns are of paramount importance.

PROJECTS

ALC's MRR Project Staff was very busy this year working on numerous initiatives aimed at improving safety of flight, enhancing aircrew interface, increasing operational capability, and complying with regulatory agency mandates. In two separate mishaps, a lack of an adequate low Nr (Rotor Speed) aural annunciation was a contributing factor. MRR Projects, with civil industry partnerships, developed a voice audio tone and control to accompany visual warnings. This new capability, integrated in 2018, will greatly improve situational awareness to aircrews. MRR also designed and began execution of a project to comply with the Federal Aviation Administration (FAA) mandate for Automatic Dependent Surveillance-Broadcast Out (ADS-B Out) capability by January 2020. The development and integration of this capability within the MH-60T avionics suite is on track with initial software testing scheduled in late 2017 and full fleet integration next summer. The Low Rotor Voice Indication and the ADS-B Out capability are just two of the many projects completed by MRR this year and are a testament to the great work and customer focus from a dedicated group of professionals.

HOLE QUALITY TRAINING

In 2017, MRR conducted the first ever ALC MRR/SRR Hole Quality Standardization Process Course in response to major structural fitting failures. This course helps the artisan understand the importance of hole quality and how to achieve it through the process of drilling, reaming, cold working, and fastener installation/removal, and provides students the knowledge and expertise necessary to correctly prepare and cold work holes in aircraft structural components. The students learn correct cold working procedures, tooling selection, material preparation, and all safety precautions.

Four hours of instructional information precedes 10 hours of hands-on instruction. In FY 2017, MRR completed 18 classes with four individuals per class. This course, initially designed for and provided to MRR and SRR sheet metal civil service, contractor, and military personnel, recently expanded to include nine enlisted personnel from across U.S. Coast Guard Aviation, allowing for the expansion of this valuable knowledge and skill. Currently conducted at the ATTC by MRR personnel, this course is a critical part in sustaining the MH-60T past its initial service life limit where the U.S. Coast Guard's MH-60T assets vastly exceed employment duration of similar assets around the world. Due to the course's success during initial implementation, current efforts are underway to move this initiative into full sustainment.



LONG RANGE SURVEILLANCE

This past year, the Long Range Surveillance (LRS) PL has completed three Progressive Structural Inspections (PSI), 3 Progressive Structural Extension Inspections, four drop-in depot maintenance evolutions, and deployed seven Contract Field Teams to LRS units throughout the U.S. Coast Guard which has directly supported 13,877.7 flight hours for LRS. This included 2,790.8 Search and Rescue flight hours, over 5,000 Maritime Domain Awareness hours, and included the relief efforts for Hurricane Harvey, Irma, and Maria. The LRS PL has also devised a comprehensive LRS fleet schedule to extend the HC-130 legacy fleet by utilizing U.S. Forest Service designated aircraft (aircraft that were unexpectedly being put into storage due to the delay of the Retardant Delivery System). The LRS PL also leveraged a two-year Original Equipment Manufacturer (OEM) engineering service life study which has eliminated gaps in the operational fixed wing fleet resulting from delays in other programs.

CASPER REFRESH

In July of 2017, the LRS PL and Mission System Sustainment Lab (MSSL) collaborated to upgrade the CASPER Pallet ATW with software and hardware components providing increased capability, improved usability, and a reduced maintenance footprint. The project was successful in upgrading the CRYSTAL Server software/application (Red Hat VM, GCCS-G6, and AIS Parser), hardware power switch, and two 1TB hard drives. It also improved the ADCS wiring configuration and removed the GETAC laptop. The Special Compliance Technical Order (SCTO) installation is on schedule and expected to be completed fleet-wide before November 2017.

LRS DEPOT MAINTENANCE DIRECTION

The LRS PL is transitioning from a firm-fixed price HC-130 PSI contract where the PDM process is managed solely by the contractor to a time and materials labor force contract which will eventually allow the U.S. Coast Guard to own the PDM process. This will enable the LRS PL to fall in line with the ALC model like the other three PL's and manage the PDM process within the Enterprise Production System.

MINOTAUR & ACQUISITION OF NEW C-130J AIRCRAFT

The ALC LRS PL, CG-931, Air Station Elizabeth City, and the HC-130J Standardization (STAN) team worked together to finalize the HC-130J Minotaur prototype effort on CGNR 2003 and retrofit of CGNR 2008 and CGNR 2009 at L3's Aerospace Systems Division, which can handle up to four U.S. Coast Guard HC-130J aircraft in flow at any given time. Lockheed Martin officially delivered the tenth HC-130J aircraft S/S 5805, designated CGNR 2010, to the U.S. Coast Guard in February 2017. A LRS PL-led crew flew the aircraft from Lockheed Martin's Greenville facility to L3's Aerospace Systems Division facility in Waco, TX for induction into the Minotaur modification line. CGNR 2010 will undergo the full modification to include installation of the Elta Multi-Mode Radar in the standard belly radome configuration.

H-MODEL ENGINEERING ASIP & UTILIZATION OF USFS AIRCRAFT

While working with Lockheed Martin, the PL provided the Flight-Data Acquisition Unit (FDAU) data from HC-130H model aircraft throughout the fleet, analyzing center wing box and outer wing loading of the airframes. The conclusions of Lockheed's analysis reduced the average severity factor on the Equivalent Based Hour (EBH) from 1.52 to 0.96. This greatly increased the airframe life of all HC-130H aircraft, enabling 12 U.S. Coast Guard aircraft to extend their Do Not Exceed limitation and operate without life extension restrictions beyond 2023. In addition, a Memo of Understanding (MOU) and D&F spearheaded by the LRS PL was signed, enabling the U.S. Coast Guard to continue flying CGNRs 1706 and 1713 until implementation of the Retardant Delivery System (RDS) contract for the U.S. Forest Service. This extension provides operational HC-130H aircraft well past the sundown timeframe and ensures the fleet will not be gapped through 2023, meeting the requirements of the new fixed wing siting plan.



MEDIUM RANGE SURVEILLANCE

MRS DUAL MODIFICATION LINE

The U.S. Coast Guard operates 18 Ocean Sentry aircraft, manufactured by AIRBUS Space and Defense.

Recently, the Medium Range Surveillance (MRS) PL was tasked with the acceleration of its HC-144 upgrade implementation schedule. The total upgrade effort consists of the Minotaur conversion, Ocean Sentry Refresh (OSR), Block 1 upgrade, and Mode 5 and Automatic Dependent Surveillance-Broadcast (ADS-B) implementation. This large effort, which significantly alters the HC-144 electrical, surveillance, and Flight Management System (FMS), will be in addition to MRS's normal depot maintenance requirements. MRS's current hangar facility, with two aircraft in depot maintenance and two on the modification line, does not provide adequate space for this monumental effort. In a combined effort with Civil Engineering Unit Cleveland, CG-931, a temporary hangar facility is being evaluated for a possible 2-year lease solution to provide the additional space needed. Funding was provided to support a 13% contract workforce expansion and the acquisition of three additional hangar deck tool boxes. The dual modification line will start 1 February 2018 and continue until the fleet of 18 HC-144 aircraft are modified. The estimated completion date is the end of the first quarter of 2020.



The OSR resolves obsolescence issues of the internal processing components of the FMS. It consolidates required engineering changes with increased Communication, Navigation, Surveillance, and Air Traffic Management (CNS/ATM) functionality to operate in the NEXTGEN 2020 FAA airspace.

OSR will include ADS-B. This sophisticated surveillance technology determines aircraft position via satellite navigation which is periodically broadcasted by the system allowing it to be tracked. The information can be received by air traffic control ground stations as a replacement for secondary radar and can be received by other aircraft to provide situational awareness.

OSR will transform the commercial technologies into a military-hardened package and offer reduced maintenance and increased reliability. It will also provide enhanced safety with the addition of IFF Mode 5 and WAAS/LPV approach capability while paving the way for the upcoming MINOTAUR mission system.

The MRS Product Line is preparing to roll out its fourth B-Model aircraft at the end of the year. With this change, the U.S. Coast Guard HC-144 aircraft officially changes from HC-144A to HC-144B.

The Minotaur MSO PODs provide mission data processing, video processing and display, sensor management and control, and communications capabilities for the HC-144B aircraft. The Minotaur MSO PODs are constructed of rugged nondevelopmental computer equipment, flat panel displays, communications, avionics, and sensor equipment. Each Minotaur MSO POD consists of one workstation with an equipment enclosure which can be rolled on or off the aircraft and interfaces mechanically with the aircraft cargo handling system. With the Minotaur MSO PODs installed, the HC-144B aircraft is integral to executing the three roles of the U.S. Coast Guard: Maritime Safety, Security, and Stewardship.



Why does MRS reverse engineer and locally manufacture structural components? Glad you asked. Several factors can lead to that action. Long lead-times from the OEM's or suppliers tend to be the primary drivers. However, sometimes substandard parts don't meet the rigorous standards of the U.S. Coast Guard and need to be modified to meet operational demands.

In the MRS structure shop, we are able to accomplish these tasks using the average of 22 years of experience in aircraft manufacturing and structural repairs among the personnel employed in the shop. This vast experience has been used to produce extremely high quality molds using Aluminum Filled Epoxy Casting Resin to manufacture parts such as the HC-27J vertical stabilizer leading edge reinforcement rib. Several factors and processes are acknowledged to ensure the product is manufactured and documented properly. This includes identifying material type, dimensions, hardness, surface treatments, top coats, and required hardware to complete assembly. Strict processes must be followed, including the ALC Local Parts Manufacture Instruction, and the Drawing Control Procedures Instruction. The use of these instructions ensures airworthiness and enables a documented and repeatable manufacturing process for structural components.



ENGINEERING SERVICES DIVISION

To provide the U.S. Coast Guard with the latest data technology, the Engineering Services Division (ESD) Technical Publications Branch developed life cycle processes and policies related to the development and sustainment of Interactive Electronic Technical Manuals (IETMs). The HC-130J and HC-144 Minotaur IETM were delivered in 2017; they include intelligent wiring functionality. The recent transition of operational publications to Aviation Training Center (ATC) Mobile was successful and provides more efficient access to subject matter experts. While the migration and configuration management of all technical data files is complete within WebCenter Content (WCC), the Branch continues to define requirements to transition Technical Manual Application System (TMAPS) to WebCenter Portal in the near future as part of the CG-LIMS (Logistics Information Management System) project.

The Airborne Data Communication System (ADCS) is an Iridium-based system that provides both satellite communications and automated position reporting from anywhere in the world. Using a Short Burst Data (SBD) transmission sent every 5 minutes, the ADCS sends the following information: The aircraft International Mobile Equipment Identity (IMEI) number, date, time, flight condition, mission type, Global Positioning System (GPS) accuracy figure, latitude, longitude, altitude, course, and speed. All this information is then made available online both on the Situation Awareness Geospatial Enterprise (SAGE) NORTHCOM website and the U.S. Coast Guard Common Operational Picture (COP). The ADCS was already in use on the HC-130 and known for its reliability and ease of use; ESD's Engineering Support Branch (ESB) took this reliable system and adapted it for use in the rotary wing fleet by designing a portable kit. The portable system is fully functional and provided operational support during this year's Operation Arctic Shield. Additionally, a miniature version of the system was successfully tested, with the goal of full rotary wing integration. The "mini" system combines the Receiver/Transmitter (RT) and the Radio Set Control (RSC) into one overall smaller unit, roughly half the size of the original RSC, with a weight reduction of 13 pounds. The ADCS offers dependable aircraft tracking for the command, excellent long-distance communications capabilities to the crew, and a viable replacement for the HF/ALE systems.

The Laser Illuminator (LI) in the electro-optical Infrared Sensor System (ESS) is a Class 4 non-eye safe covert laser spotlight that is only visible through the ESS Electron Multiplied Charged Coupled Device (EMCCD) camera or Night Vision Goggles (NVG). The U.S. Coast Guard received an FDA exemption letter, requiring certain safety measures be added to the ESS to prevent inadvertent operation of the LI, in order to operate the laser. ESD's ESB partnered with the OEM to develop v4.03 software to incorporate radalt and range finder data to comply with the Nominal Ocular Hazard Distance (NOHD) limitations set by the FDA; the inputs will secure the laser if the aircraft is below 200 feet Above Ground Level (AGL) or closer than 200 feet slant range. The MH-60T and MH-65D/E were successfully tested, and the LI capability was provided to all rotary wing operators in the fleet.

The NAVAIR Aviation Maintenance Management Team (AMMT) conducted its first-ever audit of ALC during 6-10 April 2017. The AMMT consisted of nine active-duty Navy personnel of different ratings to evaluate the entirety of maintenance programs required to maintain aircraft airworthiness. The auditors evaluated 32 ALC depot maintenance program areas utilizing U.S. Coast Guard doctrine and NAVAIR best practices. Though primarily positive, the visit identified a few areas for improvement; ALC has embraced the opportunity to make positive changes.



CERTIFIED INDUSTRY ENGINEERS

ESD has increased ALC's organic engineering capabilities by hiring three new experienced and industry certified engineers. This has enabled ESD to undertake more complex engineering studies and analyses while increasing customer service with the PL's and fleet. ESD subject matter experts have been involved in major initiatives at ALC to include mishap analyses, additive manufacturing, and heat treatment process development, vibration studies for the MH-65E prototype, designing the HC-27J Search and Rescue (SAR) rack, and numerous other service requests. ESD looks forward to assisting all divisions and the fleet with their airworthiness needs.

Airworthiness Sustainment Branch (ASB) responded to many requests for engineering assistance, to include mishap analysis. The following two images show a closeup of a parted cable from CGNR 6018. The first image appears to show a normal parted cable with no indication of the root cause; however, upon closer examination under a scanning electron microscope, crushed damage can be seen on the cable which reduced the breaking strength and led to the parted cable.



CORROSION PREVENTATIVE COMPOUND STUDY

ASB's Corrosion Cell led a 6-month study at the Army Corps of Engineers facility in Duck, NC to evaluate current approved and proposed Corrosion Preventative Compounds (CPC). The test validated approved CPC's listed in the NAVAIR 01-1A-509 and used in U.S. Coast Guard aviation outperformed newly proposed CPC's. Additionally, the study found strengths and weakness in each CPC's ability to fight corrosion.



SUPPORTING

THE MISSION

HURRICANE SUPPORT

AIR STATION SUPPORT

Total Aircraft	46
Missions	925
Sorties	1,487
Hours	3,670
Assets	140
Hoists	798

In addition to depot maintenance and logistics support, ALC provides additional services to support U.S. Coast Guard Air Stations missions. These include:

- 12 Logistics Compliance Inspections
- 31 Field Team Units
- 104 Aircraft Transfers
- 5 Continuous Process Improvement Events
- 35 Locations Supported by the Aeronautical Support Equipment Program

AVIATION LOGISTICS DIVISION

ACCURATE MAINTENANCE

Successfully managed one of the three U.S. Coast Guard General Ledgers; accurately maintained a full chart of accounts including 16,260 vendor payments, receipt, and accurate inventory; met Department of Homeland Security (DHS) goals for prompt pay and avoided unnecessary interest payments; 99.59% of payments made on time.

EXTERNAL AUDITORS

Supported the DHS and U.S. Coast Guard in the FY 2017 Chief Financial Officers (CFO) Act audit by responding to 317 requests for information from external auditors. All ALC divisions provided documents or other information to meet these requests. This effort supported the DHS and U.S. Coast Guard unqualified (or "clean") audit opinion over financial reporting.

VALUATION FORECASTING

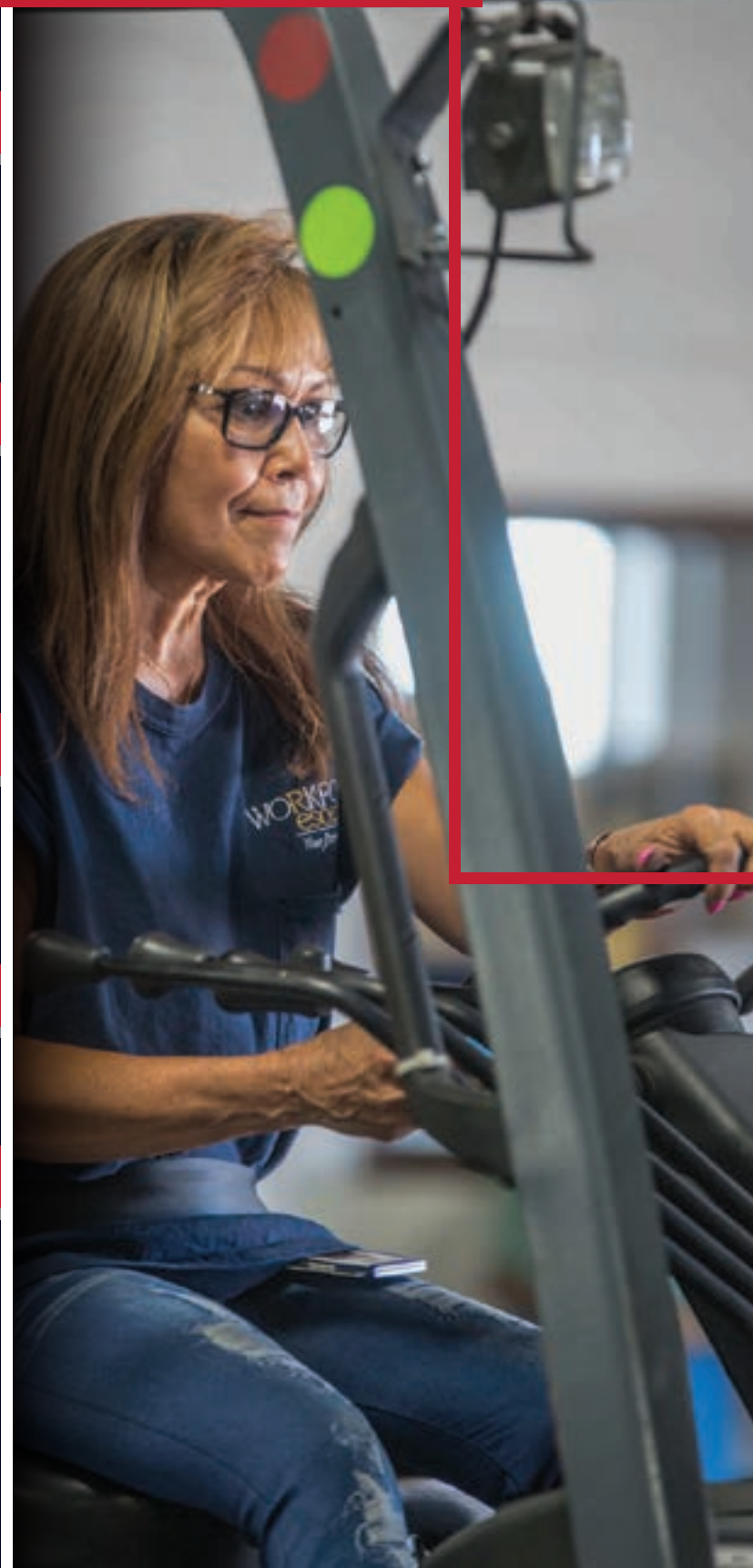
Aviation Logistics Division (ALD) reports on over 36,000 parts in Operating Materials and Supplies (OM&S), valued at over \$1.1B. The correct valuation of these parts ensures accurate cost models and forecasting while providing accurate reporting for financial statements.

ORDERS

ALD filled over 161,000 orders for aircraft parts to maintainers at air stations and our depot.

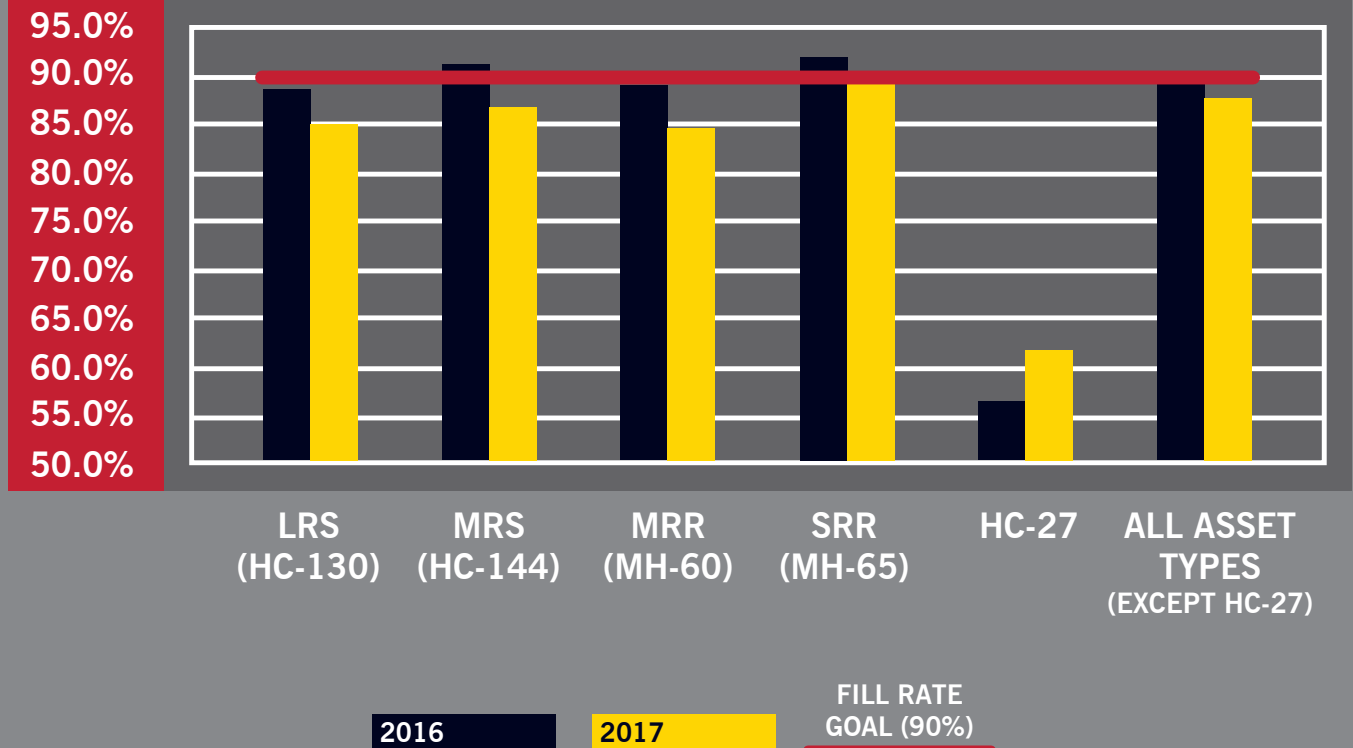
PROCUREMENT

ALD oversaw all micropurchases throughout four product lines and six divisions. Accountable for preparation, management, and oversight of 15 Service Maintenance Agreements with a total value of over \$325,000, processing over 3,500 purchase requests a year with a total value of over \$2.5M, 30 purchase orders valued at \$350,000, and processing over 275 MILSTRIP purchases valued at \$210,000.



INVENTORY CONTROL POINT (ICP) FILL RATE (% INVENTORY AS VALUES)

ICP FILL RATE: The percentage of time ALC was able to fill all unit or depot maintenance orders including Air Station Allowed Inventory orders. A target of 90% is a planning tool for this metric.



FY 2016-2017 Air Station vs. Depot Level Maintenance Requisitions

	AIR STATION		DEPOT LEVEL MAINTENANCE	
	Number of Requisitions	Percentage of Requisitions	Number of Requisitions	Percentage of Requisitions
2016	56,350	36%	100,457	64%
2017	53,665	33%	107,625	67%
Average	55,008	35%	104,041	65%

FY 2017 OPERATING EXPENSE SUMMARY

Approp	Description	AFC	Funding	Obligated & Expended	Obligation Rate
701	OE Approp	41	\$341,126,027	\$340,926,845	100%
		30	\$3,410,209	\$3,410,208	100%
		34	\$519,396	\$519,395	100%
		45	\$1,398,627	\$1,398,626	100%



AVIATION LOGISTICS DIVISION



ALC AC&I BUDGET

Name	Approp	Funding Availability	Funding Expiration	Funding	Obligations	Expenditures	Unobligated Balance
HC-130J Conversion/Sustainment	0M	2016	2020	\$37,760,416	\$543,684	\$754,676	\$36,462,056
	9P	2015	2019	\$3,055,973	\$1,340,966	\$49,103	\$1,665,904
	8F	2014	2018	\$2,331,513	\$-	\$2,331,512	\$1
	7U	2013	2017	\$8,718,064	\$3,202,556	\$5,515,508	\$ 0.07
	Total				\$51,865,966	\$5,087,206	\$8,650,799
HC-27J Conversion/Sustainment	1Y	2017	2021	\$51,283,299	\$36,747,592	\$2,476,812	\$12,058,894
	0M	2016	2020	\$62,769,965	\$14,176,568	\$46,256,970	\$2,336,427
	9P	2015	2019	\$10,816,627	\$3,396,632	\$7,388,981	\$31,315
	8F	2014	2018	\$964,861	\$-	\$959,984	\$4,877
	Total				\$125,834,752	\$54,320,792	\$57,082,447
H-60 Airframe Replacement	9P	2015	2019	\$12,000,000	\$3,136,919	\$5,091,172	\$3,771,909
Total				\$12,000,000	\$3,136,919	\$5,091,172	\$3,771,909
HH-65 Conversion/Sustainment	1Y	2017	2021	\$7,593,070	\$5,482,930	\$1,380,794	\$729,347
	0M	2016	2020	\$2,618,759	\$1,228,308	\$1,290,177	\$100,274
	9P	2015	2019	\$5,736,597	\$431,014	\$5,005,150	\$300,433
	8F	2014	2018	\$249,442	\$31,200	\$206,015	\$12,227
	7U	2013	2017	\$26,682,400	\$6,569,604	\$20,112,793	\$3
	Total				\$42,880,268	\$13,743,055	\$27,994,929
Sundown Conversion Aircraft	7U	2013	2017	\$13,316,425	\$2,742,028	\$10,397,419	\$176,978
Total				\$13,316,425	\$2,742,028	\$10,397,419	\$176,978
HC-144 Conversion/Sustainment	1Y	2017	2021	\$1,013,830	\$303,476	\$-	\$710,354
	0M	2016	2020	\$2,838,435	\$299,209	\$2,531,865	\$7,361
	9P	2015	2019	\$14,985,255	\$721,835	\$14,261,141	\$2,279
	7U	2013	2017	\$2,185,096	\$47,805	\$2,101,784	\$35,507
	Total				\$21,022,616	\$1,372,325	\$18,894,791
Other Equipment and Systems	1Y	2017	2021	\$742,000	\$18,746	\$-	\$723,254
	7U	2013	2017	\$530,771	\$-	\$530,770	\$1
	Total			\$1,272,771	\$18,746	\$530,770	\$723,255
Grand Total				\$268,192,798	\$80,421,071	\$128,642,326	\$59,129,401

BUSINESS OPERATIONS DIVISION

In ALC's first year of sustaining its newly acquired Aviation and Safety certifications, we continue to identify opportunities to improve our integrated Business Management System. The document and record management system for corrective actions was modernized via Sharepoint on the Coast Guard Portal and the newly established Corrective Action Team yielded numerous successes. Not resting on our laurels, the Business Performance Branch (BPB) aggressively closed gaps and changed processes to align with the recently released AS9110 and ISO 14001: 2015 revisions. Maintaining these certifications at their most current versions are essential in ensuring ALC meets the international aviation, safety, and environmental standards that allow it to remain a recognized organization in the aerospace and industrial industry. BPB continued to share lessons learned by supporting Continuous Process Improvement (CPI) inside and outside the fence-line by promoting Lean Production methodology and concepts. As we continue to face the challenges of limited resources, Lean event facilitators identified and exploited opportunities to mitigate their negative impacts and do more with less. Lean training and process improvement event facilitation was provided to three air stations, CG-93, and Base Honolulu in addition to nine local ALC events, yielded an estimated savings of \$17M, and removed thousands of miles of needless motion from labor processes.

The Business Development Branch (BDB) expanded its role in the U.S. Coast Guard modernization effort by becoming a leader in the development and implementation of CG-LIMS. We established a working team focused on addressing the emerging business processes and requirement changes and facilitated numerous workshops for subject matter experts that mapped and aligned changes to numerous business processes including supply chain management and depot level maintenance. These events were critical in providing CG-LIMS Development Team with the necessary information to meet customer needs and identify improvements to business processes. Additionally, the BDB continued to apply modern supply chain and inventory management concepts such as the Theory of Constraints via our Enterprise Production System (EPS) that streamlined, standardized, and improved ALC processes. A major highlight of this growth was laying the foundation for the full enrollment of the MRS PL into EPS to include both the HC-144 and HC-27J aircraft.

The Business Intelligence Branch (BIB) continued to provide extensive analytical and logistical support to both ALC and field units. At ALC, the team partnered with HQ, OSC, TISCOM, and ISD to successfully navigate information system consolidation efforts and ever-changing security standards that brought the new PTC parts supply chain demand forecasting tool online. The new connection removed two superfluous processes resulting in reduced connection errors, increasing processing speed, and higher forecast accuracy. In support of EPS, the BIB meticulously reviewed and updated over 7,800 lines of code to optimize and streamline production workflows of ALC business processes. Additionally, we provided support and recommendations to numerous field unit requests including Forward Operating Location spare parts recommendations for HITRON, HC-144 aircraft rotation strategy to optimize airframe lifetimes, cost savings associated with utilizing MH-60T radar on the MH-65E, recommended engine purchase calculations to support increasing the MH-60T fleet, and allowance forecasts for the HC-130J at Air Stations Elizabeth City, Kodiak, and Barbers Point.



INDUSTRIAL OPERATIONS DIVISION

One of the FY 2018 Industrial Operations Division (IOD) project initiatives is to transition the CAD/CAM shop (103) into a new prototyping shop within Building 100. This new shop location would focus additive manufacturing expertise on growing prototyping demand, concentrate expertise on full program development, allow larger production runs that can be handed off to the machine shop (133) after prototype validation is complete, and leverage the benefits of cross-training similar skill sets with the industrial graphics shop for the first time.

As ALC IOD Additive Manufacturing (3D printing) expands, colocating the tools and talent would provide a new rapid prototyping and design verification, providing a promising major step towards alleviating some of the parts availability pressure faced by all five airframe product lines.

IOD ENGINEERING ELIMINATES 36 HOURS OF REWORK ON EACH MH-60T PDM AIRCRAFT

During the MH-60T PDM, a special tool was designed to ensure that alignment conditions for the tail drive shaft were met well before installation was attempted. IOD personnel developed a "piano wire" fixture to simulate a perfect alignment prior to assembly. This allows for very accurate placement of bearing brackets and the oil cooler fan mounts.

The problem was how to reinstall the oil cooler fan while maintaining a configuration that would ensure drive shaft alignment later in the assembly process. Often, when the assembly crew attempted to install the tail drive shaft and associated equipment, they would discover a misalignment, requiring two full shifts of rework.

This is quite an accomplishment considering the size of the new fixtures and the extremely tight tolerances.

IOD - INNOVATION ON DEMAND

Further proof that "necessity is the mother of invention" occurred in May 2017 when an expedite request was received from LRS, requiring Nondestructive Inspection (NDI) and heat treating of a HC-130 wing rib. The size of the wing rib presented the machine shop with a requirement beyond their capability to perform a quench following the heat treatment process. It was initially thought that to perform the work, the shop would first need to construct a large quench tank, which would have taken several days. The shop work leaders looked for other solutions and determined that an ATF-3 Falcon Engine Storage Can would be large enough to enable the required passivation process and serve as a water tank for "quenching" the wing rib. It worked perfectly.

CT7 SUCCESS AT LAST

The IOD Engine Test Cell has completed the HC-144 CT7-9C3 engine correlation with General Electric. This completes the test cell upgrade, a long process that began with the ATF3 Engine Fire in Test Cell No. 1 in 2010. The correlation required hundreds of labor hours to overcome electrical, mechanical, programming code, and other technical challenges to complete this process. This included successfully attaining a stringent set of performance parameters within 0.05% of GE "Gold Motor" proprietary reference standards for CT7 engines. Beyond succeeding in a 5-year effort to achieve this standard with General Electric, we expect to deliver our sixth Ready For Installation (RFI) engine to the PL by the end of the year.

The successful correlation of the CT7 Test Cell is a major milestone for ALC, we are now able to test and self-certify engines for the HC-144 fleet. This test cell is one of only three in the United States (and one of four in the world) rated to test the CT7. The first production engine (981028) was successfully tested and returned to RFI status on 22 May 2017.

INFORMATION SYSTEMS DIVISION

The Asset Logistics Management Information System (ALMIS) continues to grow in assets and users. ALMIS has become the largest enterprise logistics system for the U.S. Coast Guard. In the last year, we have continued to induct more assets into the system which included the Commandant's aircraft (C37B), Utility Boats (UTMS-2), Tactical Training Boats (TTB-3), Vessel Traffic Systems (VTS-148), Unmanned Aerial Systems (UAS-3), and Skiffs (21) for a total of 178 new assets. In 2017, an additional 6,000 users were given permission-based access to ALMIS. Currently, there are over 27,000 users and 3,500 assets in ALMIS. Next year there will be more assets and users added to the system that will include Rescue 21, Government Support Equipment (GSE), command centers, ice skiffs, and training assets.

In August 2016, ALMIS was impacted with a catastrophic hardware failure that made the system unavailable. During that time, all information was kept manually until the system could be restored. Information Systems Division (ISD) system engineering worked diligently to restore system capability with the help from the disaster recovery site in West Virginia at the Operations System Command (OSC). Even with this help, it took around-the-clock effort to bring ALMIS back online within 7 days. The recovery effort lost only 4 hours of data that had to be reentered manually from historic records. Many lessons were learned from this episode which resulted in the ALMIS production system being moved out of ALC data center and put at OSC in West Virginia with a more hardened and secure infrastructure. Performance was increased through these efforts due to a better network infrastructure at OSC. Network traffic was also reduced at ALC which benefited the entire ALC campus. The direction has been set to ultimately close ALC data center with production support at OSC and a disaster recovery site that will use cloud computing. In the end, ALMIS will be more resilient against hardware failures and environmental impacts such as hurricanes and floods.

ISD is responsible for most computers, laptops, printers, and other mobile devices used by the ALC. This includes the procurement, setup, and movement of those devices. The Client Services team within ISD currently services well over 1,200 standard and nonstandard workstations. These workstations are required to be upgraded periodically for security vulnerabilities and general image upgrades. The biggest effort facing the Client Services team this year is the upgrade to Windows 10. This upgrade will help to better secure these devices and make them more reliable and stable; however, a lot of the applications that run on these devices are impacted by this upgrade which requires remediation. Close coordination with the affected parties is a required activity in order to implement a successful upgrade. Client Services also provides laptops and portable hard drives to support remote access to the U.S. Coast Guard network. This supports ALC's ability to provide the right services at the right place at the right time. Client Services currently provides support for over 150 laptops and over 50 smartphones used for ALC personnel. Infrastructure support is also provided for core switches and routers and the Video Teleconference System (VTC) used by ALC. Client Services continues to provide critical support for everyday technology used on the ALC campus and other offsite locations.



PROCUREMENT

In FY 2017, the very talented procurement staff of ALC issued approximately 6,394 actions valued at nearly \$321M in obligations while deobligating \$18M. In addition, 35 Indefinite Delivery/Indefinite Quantity (IDIQ) and requirements contracts were awarded valued at approximately \$382M, and 239 existing contracts were administered valued at almost \$1.1B.

THIRD ANNUAL ALC INDUSTRY DAY

ALC held its Third Annual Industry Day event on 3 May 2017 in Elizabeth City, NC. This event is established as a time to interface with the industry on how we can support U.S. Coast Guard missions through contracting actions. Over 175 participants attended representing 120 companies.

The event consisted of presentations and an open venue where the attendees met with some of ALC's most experienced contracting and technical representatives. ALC Deputy COCO welcomed all in attendance and presentations were given by ALC Executive Officer, Chief of Contracting Office, Procurement Policy Manager, and Small Business Administration (SBA) Office, ALSE Program Manager, Logistics Compliance Branch Chief, as well as the Chief of Office of Procurement Policy and Oversight CG-913.

The open venue allowed companies to interact and network with contracting and technical representatives from all of the ALC divisions and product lines (Aviation Logistics Division, Business Operational Division, Information Systems Division, Safety and Environmental Health Division, Industrial Operations Division, Engineering Services Division, Long Range Surveillance, Medium Range Recovery, Medium Range Surveillance, Short Range Recovery), and the Aviation Project Office/HC-27J. Also on site were representatives from the Small Business and Technology Development Center, North Carolina Military Business Center - College of the Albemarle, North Carolina State University, and the U.S. Coast Guard Small Business Program Manager.

LRS PROGRESSIVE STRUCTURAL INSPECTION INDUSTRY DAY

The LRS PL held an Industry Day on 19 July 2017 for vendors to gain insight and ask questions about a draft statement of work for a recompetes of the U.S. Coast Guard HC-130H/J PSI/DLM requirement. Representatives from 25 companies attended the event. The PSI is the depot level inspection of the HC-130 series aircraft to ensure airworthiness through detailed NDI procedures and effect repairs as required. Due to the corrosive environment in which U.S. Coast Guard aircraft operate, a PSI is required to be performed on each U.S. Coast Guard HC-130 every 48 months (previous PSI to new induction). The Captain of ALC and the LRS PL Manager provided opening remarks and an introduction to ALC and the LRS PL programs. Presentations were provided by the Supply Branch Chief, PL Manager, and a Contract Specialist. The LRS HC-130J Assistant Engineering Branch Chief led a tour of the ALC Heavy Maintenance Facility. The Contracting Officers Representative (COR) and Production Contract Liaison, a Contracting Officer, and the LSC-ALC Attorney also participated.

CONTRACTING OFFICER REPRESENTATIVE PROGRAM

One of the initiatives from the U.S. Coast Guard Head of Contracting Activity (HCA) Strategic Framework 2016-2021 was to "Expand the COR program into a robust offering which manages and tracks the certification and nomination process to align with contracting needs, provides dedicated training, and performs COR file audit capabilities (random and annual)." ALC accepted this challenge and proceeded to charter a COR working group with the purpose of piloting a COR program to support the entire U.S. Coast Guard enterprise. The working group is made up of a diverse group of individuals from multiple disciplines. The group is challenged to take an innovative look at current policy, training, and certification requirements, and develop a robust COR program that will centralize COR policies into a comprehensive guidebook to address standardization, policy, best practices, templates, training, formal audits, and oversight, ultimately strengthening the relationship between the Project Manager (PM), COR, and contracting communities, allowing acquisitions to be more efficient and successful.



NOTEWORTHY CONTRACT AWARDS AND ACHIEVEMENTS

The ALD Procurement Branch awarded a contract for HAZMAT services to Alliance Technical Services, Inc. valued at \$6.2M. This contract provides HAZMAT support services to Base Elizabeth City, ALC, HC-27J Aviation Project Office (APO), ATTC, Air Station Elizabeth City, and Elizabeth City Small Boat Station. The contract also serves as the initial turn-in location for certain hazardous wastes generated on the complex.

The ESD Procurement Branch awarded an 8(a) contract for the procurement of Maintenance Test Pilot Services in the SRR PL to support and perform maintenance ground runs, test flights, certification flights, induction, and delivery of ferry flights to various operational air stations. This effort is scalable to allow for the provision of increased services or services supporting another aircraft operated and maintained by the DHS or U.S. Coast Guard within the limits imposed under the SBA 8(a) Business Development (BD) Program.

The LRS Procurement Branch awarded a contract for Power-By-the-Hour (PBH) support for the U.S. Coast Guard's AE2100D3 engines which are used on the HC-27J and HC-130J aircraft, respectively. The contract, which consists of a 1-year base period followed by nine 1-year option periods, was awarded to the OEM, Rolls Royce Corporation. The contract provided for PBH support for the engines which includes logistic support, technical/engineering and program management support, onsite Field Service Representatives support at U.S. Coast Guard fixed wing air stations, technical publications manual and updates, and monetary incentives for the contractor when no Aircraft-on-the-Ground (AOG) conditions occur during the 10-year period. The award resulted from aggressive negotiations between the parties, culminating in a savings of approximately \$42M from the contractor's proposal. The contract total is \$224.8M over the 10-year period.

The MRS Procurement Branch awarded a contract to King Aero valued at \$8.4M for the stripping and painting of the HC-144 and HC-27J aircraft.

The SRR Procurement Branch received approval from the DHS Chief Procurement Officer for a Class Justification for Other Than Full and Open Competition (J&A). This Class J&A covers spare parts purchased from Airbus Helicopter, the OEM's (Airbus Helicopters France) only approved source of supply in North America, through FY 2022.

Each U.S. Coast Guard aircraft is required to meet the FAA mandate Title 14 of Code of Federal Regulation (14 CFR) 91.225 for ADS-B Out and Mode 5 Level 1 by 1 January 2020. In order to comply with these regulations, the MH-60T's Common Avionics Architectural System (CAAS) and the APX-119 transponder required software modifications. The MRR Procurement Branch was able to award orders valued over \$3.1M to two different OEM's in a short timeframe in order to ensure complete compliance with these regulations could be met.

OPERATIONS DIVISION



WEIGHT AND BALANCE (W&B)

A data management and customer support service contract for the Automated Weight and Balance System (AWBS) was awarded to Lockheed Martin in June 2017. All 26 aviation units' Weight and Balance (W&B) data is in the process of transferring to a central server that will ensure the integrity of W&B data and is considered a significant piece of airworthiness for every U.S. Coast Guard aircraft. Additionally, all end unit users now have direct access to AWBS help desk support that is fully staffed by trained AWBS technicians.

DEVELOPMENT TEST AND EVALUATION (DT&E) FLIGHT OPERATIONS

ALC Operations directly supported CG-931 acquisition and upgrade programs for the MH-65E, HC-144B, and HC-130J aircraft in a variety of test locations from Pax River, MD to Waco, TX. This included the appropriate oversight and flight clearance for over 200 DT&E flight test sorties. Oversight included the review of flight test plans, assessment and assignment of pilots and aircrew, and the guidance for risk management and mitigation.



SAFETY AND ENVIRONMENTAL HEALTH OFFICE

SAFETY STANDARDS

The U.S. Coast Guard ALC Safety and Environmental Health Office (SEHO) is committed to ISO 9001, ISO 14001, AS 9110, and OHSAS 18001 standards for Quality Environmental and Safety and Health management programs. These certifications allow the ALC SEHO to safeguard our people and the environment, as well as continuously improve safety management and performance.

ASSURING AIRWORTHINESS AND RELIABILITY

We are fully committed to stakeholders by focusing on Assuring Airworthiness and Reliability, Optimizing Logistics, and Ensuring Stewardship Excellence. This commitment includes continual improvement of our integrated business system, promoting a safe and healthy workplace, and adhering to federal, state, and local legal requirements.

PROACTIVE IDENTIFICATION

Hazard identification is vital in proactively promoting a safety culture and healthy workplaces. In doing so, mishaps and workman compensation costs may be reduced. The ALC hazard tracking tool was recognized by international auditors as an industry "best practice" in risk management and helped mitigate over 350 hazards in 2017. By creating an environment that is open to identifying and reporting hazards, we develop a sense of teamwork, increase productivity, and improve morale among personnel.

PROFESSIONAL DEVELOPMENT

We are proud to have all six ALC applicants accepted into the FY 2017 Leadership and Professional Development program offered by the Office of Leadership, CG-12C, for civilians and military members. These outstanding programs are designed to grow future public service leaders with unique opportunities to expand their leadership knowledge base in focused environments. The following is a list of ALC members and the program they are attending: Anthony Trotman, IOD - The Aspiring Leader Program; Lahonda Carter-Graves, ALD, and Joseph Moxley, IOD - The New Leader Program; Sarah Gillis, ALD, and Alysha Purvis, SRR -The Executive Leader Program; and Charles Hatfield, ESD - The Excellence in Government Program.

Mr. Joshua Stoddard, a Contract Specialist in the MRS Procurement Branch, participated in the Office of Chief Procurement Education, Development, Growth, and Excellence (EDGE) Mentoring Program. The EDGE Mentoring Program is designed to leverage the talent and skills of its diverse workforce across career fields, grade levels, components, and geographic regions. EDGE is a mentoring program specifically for the DHS procurement community.

Over the last 3 years, there has been a tremendous effort put forth by ALC's Command Master Chief, to create a new competency code for enlisted personnel that will formally recognize their higher level of knowledge and skill required for depot level maintenance. The efforts have officially created the Aviation Depot Maintenance (AVIDM) competency at ALC. In addition to formally documenting an enlisted member's knowledge and skill obtained during a tour at ALC, the AVIDM syllabus will also give them an opportunity to receive an FAA Airframe & Powerplant license funded by the ALC. The AVIDM competency code has been one of the biggest initiatives accomplished for aviation enlisted personnel in recent years, and directly supports the U.S. Coast Guard Human Capital Strategy. For those who earn the competency code, it will provide them an additional advantage when competing for higher level positions within the aviation engineering field. It will also attract more top quality enlisted personnel to pursue a tour at the ALC.



2016 WG CIVILIAN EMPLOYEE OF THE YEAR

Mr. Larry Foust, subject matter expert within the field of avionics on the MRR PL, was selected as the ALC Calendar Year 2016 WG Employee of the Year. Larry volunteered his services in support of the MH-60T's RNP/NAV upgrade. This effort has required him to conduct installation field trips to Air Stations Elizabeth City, Cape Cod, Kodiak, Sitka, and Clearwater, as well as Sector San Diego. His dedication to the project has equipped the MH-60T to stay in line with the latest FAA navigational requirements and avert possible obsolescence issues when legacy NAVAIDS are retired. In addition to modifying the aircraft, he personally provided instruction to fleet avionics shops on wire repair, wire lacing, boot shrinking, software loading, and system operational check procedures. His guidance increased the organic capability of field units and ensured the system integrity as the aircraft life expectancy is extended to 2039. His team approach to his duties here at the ALC is appreciated and sets an example to be emulated by all.



2016 GS CIVILIAN EMPLOYEE OF THE YEAR

Mr. Tony Twiddy, a Contract Specialist for the MRR PL, was awarded the ALC Calendar Year 2016 Employee of the Year. The Supervisory Contracting Officer (SKO) position in MRR had been vacant for almost 1 year. For approximately 10 months of the vacancy, Mr. Twiddy assumed a leadership role above and beyond what is required for his position. He worked extensively with vendors to resolve any issues that could impact the mission. An example includes a weekly teleconference that he established with the prime manufacturer for the aircraft to discuss reducing the number of late due-ins. He took time to provide training to his juniors and peers alike on subjects where he identified deficiencies through the contract review process contracting branch and the entire MRR PL.



OLIVER BERRY AWARD

AMT1 Levi Berg, along with being selected as one of ALC Enlisted Person of the Quarter during 2017, was presented the prestigious Oliver F. Berry Maintenance Award by the Assistant Commandant for Logistics and Support for his exceptional leadership, superb technical expertise, and professionalism in enhancing the overall quality of U.S. Coast Guard aviation maintenance.

PEOPLE OF ALC

TRAINING

- 6 Chief Petty Officer Academy
- 6 Chief Warrant Officer Professional Development
- 1 Direct Commission Engineering
- 1 Excellence in Government Fellow
- 2 Midgrade Officer and Civilian Transition
- 1 Collaborative Leadership
- 2 Executive Leader
- 2 New Leader
- 1 Aspiring Leader
- 170 ALC New Employee Orientation
- 400+ FERS Benefits and Financial Planning
- 163 Monthly Supervisor Training
- 13 U.S. Coast Guard Supervisory Tier II for Supervisors of Civilian Employees
- 60+ Suicide Prevention

INDIVIDUAL AWARDS

- 1 Legion of Merit Medal
- 8 U.S. Coast Guard Meritorious Service Medal
- 18 U.S. Coast Guard Commendation Medal
- 25 U.S. Coast Guard Achievement Medal
- 26 U.S. Coast Guard Commandant Letter of Commendation Ribbon
- 10 U.S. Coast Guard Special Ops Service Ribbon
- 1 Military Outstanding Volunteer Service
- 2 U.S. Coast Guard Sea Service Ribbon
- 48 U.S. Coast Guard Good Conduct Medal
- 1 U.S. Coast Guard Pistol Marksman Ribbon

TEAM/UNIT AWARDS

- 1 U.S. Coast Guard Unit Commendation Medal
- 7 U.S. Coast Guard Meritorious Unit Commendation Ribbon
- 26 U.S. Coast Guard Meritorious Team Commendation Ribbon

LENGTH OF SERVICE AWARDS

- 18 5 Years
- 17 10 Years
- 14 15 Years
- 4 20 Years
- 10 25 Years
- 6 30 Years
- 7 35 Years
- 1 40 Years



Master Chief Scott Harris accepts Unit Commendation Award on behalf of ALC from Rear Admiral Bouboulis, Deputy Commandant for Engineering and Logistics, during 2017 Change of Command Ceremony.

Way Forward

The U.S. Coast Guard aviation enterprise faced historic safety and security challenges this year, with increased focus on the nation's borders and an incredible hurricane season that will be long remembered. For the men and women of ALC, delivering the capabilities needed to overcome ever-increasing operational challenges is the inspiration that drives our path forward.

ALC's Strategic Plan 2017-2021 identifies the way forward and issues four strategic challenges: Evolving Mission Requirements, Aging Assets and Infrastructure, Human Capital, and Federal Budget Climate. The Strategic Plan also identifies the principles we will utilize to design solutions to these challenges: Adaptability, Innovation, Accountability, and Affordability. These principles are woven throughout our core functional areas, which provide the context to our Strategic Goals: Assure Airworthiness, Optimize Logistics, and Ensure Stewardship Excellence.

Our increasing Maritime Border mission responsibilities greatly depend on our fixed wing aviation fleet capabilities. Great technological advances have occurred in Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR), and these tremendous capabilities can potentially become game-changers for U.S. Coast Guard Operations. The cost of technology and its rapid life cycle have also led to persistent concerns for affordability and sustainability. The Minotaur program, discussed earlier in this document, will be delivered to our fixed wing fleet over the next few years and produce that elusive balance of capability and affordability as the system will be shared across platforms within the U.S. Coast Guard as well as other services and agencies.

Another capability that could address evolving mission requirements has been developed and proven by the MRR PL: Converting retired US Navy MH-60's to U.S. Coast Guard MH-60T aircraft. The vulnerability of our territories in the Caribbean was very apparent during Hurricanes Irma and Maria in 2017. Additionally, the increased maritime activity in the Arctic has signaled demand for capabilities that may require more medium range rotary wing assets. The U.S. Coast Guard will likely pursue an increase in the size of its rotary wing fleet to address these and other concerns, and ALC will be ready to provide a uniquely affordable and effective way ahead for our Operational Commanders.

The SRR PL is on the cusp of a series of projects that will extend the life of the MH-65D for at least 20 more years. Leveraging ALC's IOD capabilities, the MH-65 Echo project has prepared an extraordinarily cost-effective solution to ensure airworthiness of the platform and improve return on investment. The Echo project includes implementation of the Common Avionic Architecture System (CAAS), already installed in the MH-60T, providing another example of economies of scale for C4ISR equipment. Additionally, the Echo project includes the installation of new wiring, addressing a key aging aircraft issue responsible for difficult troubleshooting and unnecessary downtime.

ALC is accustomed to and comfortable with change, whether organizational, technological, or product-based. What doesn't change is the steady dependability of the ALC Workforce, which has met every challenge dating back decades. A consistent shortcoming over the years is our Workforce and Human Capital Planning. Despite meaningful and energetic efforts of years past, ALC is still without an effective Human Capital Plan. We will do better in 2018 to give our Workforce Trident (Military/Civilian/Contractors) the attention and resources it deserves. ALC can only adapt as well as our workforce can adapt. We will address competencies and career paths, designing our Human Capital Plan to directly support and integrate with our Strategic Plan.

ALC must continue to improve the stewardship of our federal dollars. As the Federal Budget climate continues an era of stagnation, ALC must generate the ideas and innovation needed to add the best possible value to our Nation. ALC will continue to achieve its third-party certifications in AS 9110, OHAS 12001, ISO 14001, and NAVAIR Airworthiness, so that we ensure quality and business process control throughout the organization. We will also bring the LRS PL into the Enterprise Production System (EPS), ensuring all work at ALC uses the same process for its critical chain management and prioritization. In the next few years, we will use what we've learned from EPS and other tools to dramatically improve our decision making, particularly in the choice to repair devices in-house or to send them to an external source (make vs. buy).

The mission of ALC now and into the future is to be "right". Our four PL Divisions and eight Shared Service Divisions have a broad portfolio, but they are aligned in purpose: We Keep 'Em Flying by Providing: the Right Stuff, at the Right Time, at the Right Cost, EVERY TIME. Thanks for reading our 2017 Annual Report.

PATH FORWARD

ALC ETHOS

We are the United States Coast Guard Aviation Logistics Center; a diverse team of professionals.

We are a process-driven organization inspired by the highest industry standards, determined to be the best aviation logistics center in the world.

We ensure stewardship excellence by investing in our people, improving our infrastructure, encouraging process and fiscal transparency with a commitment to the American public.

We optimize logistics and embrace new challenges through global partners, centralized inventory control, and an adaptive production model.

We are innovative and dedicated with a reputation for sustaining airworthiness and reliability by providing exceptional aircraft to our customers.

We embrace the U.S. Coast Guard's core values of Honor, Respect, and Devotion to duty as part of the ALC culture.

We are ALC.

CHECK OUT ALC'S PORTAL PAGE FOR MORE EXCITING NEWS ABOUT THE AVIATION LOGISTICS CENTER.



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