Surface Forces Logistics Center
SFLC EXISTS TO SUPPORT THE FLEET
Spring 2020; Volume 10, Issue 2

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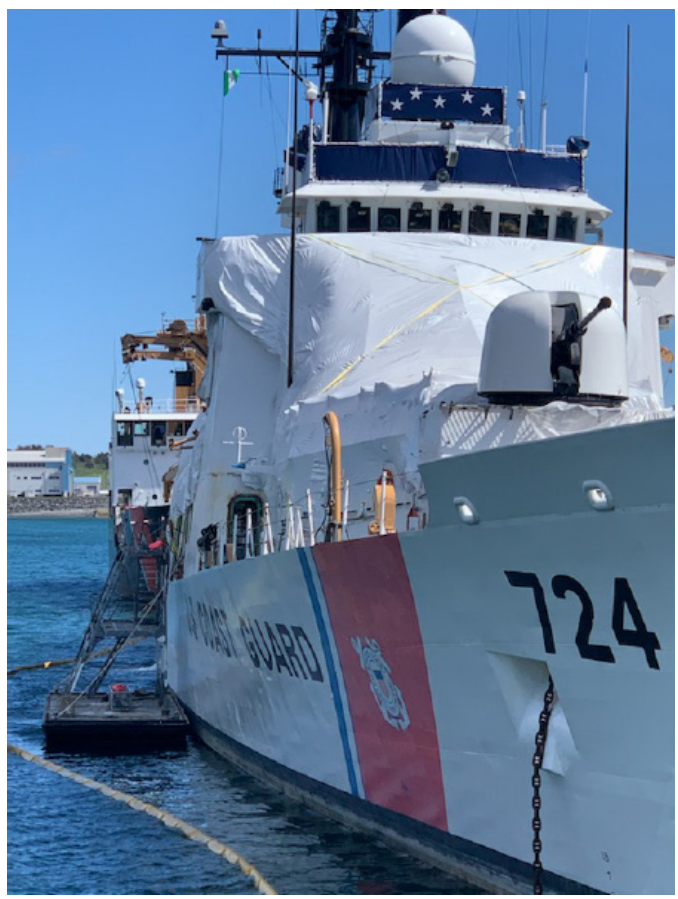
LRE's Mission Support to Kodiak, AK

CDR Nick Parker, Long Range Enforcer Product Line Deputy



Base Kodiak is home to Air Station Kodiak and three cutters, CGCs Douglas Munro, Alex Haley, and Spar. Located on Kodiak Island, AK it remains one of the most remote Coast Guard bases to date. Base Kodiak is as far west as Base Hono, but with significantly less access to the tune of a single 737 aircraft per day, and suspended ferry operations in the winter. The Long Range Enforcer Product Line (LRE) has been overcoming the logistical challenges supporting its assets in Kodiak, AK since NED Kodiak dissolved in the early 2000s. This is accomplished via the hard working travel team of technicians from NED Seattle, whom serve as the only source of intermediate depot maintenance workforce and only shoreside blue-suit expertise for these units. The reality of this arrangement comes at the expense of nearly $300k in travel per year, comprised of multiple trips up to 9 weeks a year for CGC's Douglas Munro and Alex Haley.

The "normal" logistical challenges have been complicated by FY20 budget shortfalls and COVID-19 travel restrictions, creating a maintenance backlog from the resulting year-long hiatus of any NED presence in Kodiak. The last time a formal project was able to be executed by NED Seattle was July 2019; afterwards, the Shore Maintence Projects (SMPs) were cancelled due to funding. Now, with adequate funding in hand, the COVID-19 pandemic has created strict travel restrictions in the state of Alaska, further limiting the product line's ability to send NED support to Kodiak. The SMP that was scheduled for April 2020 was first pushed to May, and finally to the latest possible date in June. With restrictions still in place for a mandated two-week quarantine for any persons outside of D17, LRE has sought to accomplish its mission via unconventional support, while also upholding the state and CG District/Base goals of preserving a COVID-free environment in this remote resouce-limited community that could otherwise be devasteated in the event of an outbreak. This unorthodox approach has been found in the capable workforce of other D17 units, albeit with limited knowledge of the LRE platforms and the typical planned maintenance. Members from Sector Juneau, MAT Ketchikan, and ANT Kodiak have all volunteered to help support CGC's Douglas Munro and Alex Haley worklists.

(continued on page 4)

CO Corner

CAPT Chad Jacoby

Thank you for leading. Over the past three years we have faced some steep challenges: 11 major hurricanes, a Government Shutdown, severe flooding events, record setting ice seasons, the constant challenge of keeping 40-50 year old ships running, and now a worldwide pandemic. Each time the country was faced with a new challenge, the members of SFLC found a way to take it on, figure it out, and keep CG surface assets operating 24/7 365 days per year.

One of the biggest strengths of SFLC is the ability to adapt. We constantly read the environment, determine what the surface fleet needs from us, and adapt SFLC services to match the operational commander's priorities. This is a characteristic that is predominantly found in small organizations. The fact that we have built our capability into the largest CG unit is impressive and sets SFLC apart from other CG units and from private industry.

Our organizational structure, made up of Product Lines and Shared Service Divisions, helps us to be agile. However, the willingness of all SFLC members to step forward and lead is what has impressed me most during my role as SFLC Commander. I have been amazed by your abilities and dedication to "Support the Fleet" in the face of great challenges. I will be relieved by CAPT Stukus on 26 June, 2020 and will move to a new position in DCMS. I look forward to watching SFLC members continue to lead at every level of the organization and to keep the fleet running, no matter what challenge shows up on the horizon.

Thanks for all that you do.

Captain Chad Jacoby
Commander, Surface Forces Logistics Center

CMC Column

Almost two years have flown by since I reported as your Command Master Chief and what an eventful two years it's been. A government shutdown and a global pandemic have certainly made this tour the most dynamic one of my career. I'm inspired by how flexible and adaptable our members are in situations where information, guidance, and sometimes even laws change day-to-day. None of us were taught how to be leaders from home or by teleconference but yet we still managed to keep the fleet operational and protecting this nation. I am confident that whichever ways we move forward recovering from COVID-19, the extremely professional members of SFLC will continue to adapt and remain flexible in order to provide the best service possible.

MCPO Matthew Valenti

With all that said, I wouldn't be me if I didn't mention that this year marks the 100th anniversary of the rank of Chief Petty Officer. For 100 years the Chiefs Mess has been here to mentor and guide the junior enlisted, advice and support the officer corps and civilian supervisors, and partner with their military and civilian peers. With a strong Chiefs Mess comes a competent and professional junior enlisted crew, junior officers who have the assurance to seek the Chiefs experience and knowledge, civilian employees who have the support and partnership they need, and a senior staff that has the confidence to lead knowing the exceptional crew they have striving to support the fleet under them.

Please feel free to reach out to me at any time and again, it is my absolute pleasure to be here as your Command Master Chief and I look forward to serving each and every one of you as you support the fleet.

MCPO Matthew Valenti
Command Master Chief , Surface Forces Logistics Center

CG-45's Corner

CAPT Chris Webb

Hello from your Office of Naval Engineering in Headquarters! I will take this opportunity to thank you for your tireless and tremendous efforts during this unprecedented time in all that you do supporting the fleet!

Despite the tremendous challenges presented by the o COVID-19 pandemic, your efforts have kept the USCG fleet mission ready. Product lines executed planned maintenance projects, , awarded contracts, delivered the right parts at the right time and the CG Yard completed timely availabilities. The critical expertise and advice provided to operational commanders and stakeholders enabled greater decision-making spaces.

Our 2020 program priorities remain steady and focused for this spring update, but with a renewed emphasis on our Naval Engineering (NE) community at large, and further intensified active management of our workforce. We have taken multiple proactive steps to improve and align recruitment and retention efforts to better meet the mission support needs of the Coast Guard. Working with our programs key stakeholders at Headquarters (HQ) has enabled delivery of the largest NE retention bonus in program history. The first Mission Support Industry training program for NE and Cyber officers has been initiated and there is increased Training Allowance Billets for NE Advanced Education opportunities. We have formalized a Commandant (CG-45) Inclusion and Diversity Advisor to ensure NE workforce equities are fairly represented within program policies. Publication of the first NE Officer Career Guide is underway as are community program and initiatives including BETWEENtheMAINS, Warm Calls, and CGA involvements. All of these efforts seek to enhance and strengthen our bond and further develop our community as a culture of professionals that lead and adapt mission support programs.

As we have all been adapting to COVID-19 pandemic, our transfer seasons and household goods shipments are in full swing. From the CG-45 helm I'll take this opportunity to recognize folks that will definitely be missed as they move on to new chapters in the Coast Guard: CDR Miles Randall, CG-452, will PCS to the Asset Project Office (APO) as Cutter Transition Division (CTD) Chief on July 24th; CDR Jeff Zamarin of CG-452 will frock upon departing from HQ and PCS to USCG Sector Hampton Roads on August 1st as Logistics Department Head; LCDR Kara Burns will move to CG-932 and work Surface Asset Foreign Military Sales on July 8th; LCDR Jeff Milgate returns to sea onboard CGC James (WMSL 754) in Charleston, SC as Engineer Officer OOA July 24th; and finally, LCDR (sel) Will Van Cleave will be frocked and head for Baltimore, as APO Division Officer on June 19th. We could not have been more fortunate to have such talented Naval Engineers on our team, and I wish everyone the best in their transitions!

As for those reporting to CG-45 in coming weeks, we look forward to welcoming the following members joining our team: In CG-451, LTJG Justin Humme joins us from Grad School (DUINS) as our newest IBCT System Manager; CWO Lee Airth comes to us from SFLC-ESD-ISVS as our Boat System Manager and LT Kevin O'Brien reports in from CGC Healy as our ISVS & Polar Sys Manager. In CG-452, LT Ryun Konze reports from CGC J. Midgett as our Navy Type Navy Owned PM and LCDR Nate Dufrene reports in from CGC Reliance on June 29th as our Naval Engineer Workforce Manager. We welcome you all to the team!

Lastly, I had the opportunity to attend the video recording for SFLC's change of command on June 12th. I cannot wish CAPT Chad Jacoby and his family enough in all their future endeavors. Thank you for always provisioning innovative alternatives while exceptionally leading support for our operational partners. Welcome back CAPT Paul Stukus! We look forward to continuous program support for both you and Mr. Jim Lane in his new role as Executive Director of SFLC. SFLC and CG Yard are well poised for continued success with this leadership team in place and for on-going support to our cutter and boat fleets!

Captain Chris Webb
Chief, Office of Naval Engineering

(*Con't from page 1)*

While solving the challenge for organic maintenance support, the LRE Availability planning team has also responded to the road blocks in contractual competition for homeport dockside availabilities due to the same remote posture of Base Kodiak.

In the last two years LRE has innovatively combined the maintenance periods of both LRE cutters, increasing the dollar value of the contract to where ship repair companies are motovated to mobilize and perform the work in Kodiak. This year, CGC Douglas Munro's dockside was to begin April 13th, but was deferred two weeks as solicitation revisions were updated COVID-19 travel mandates. Revised proposals were requested at least three times to account for these quarantine requirements, PoP shifts, and the de-scope of multiple technical representatives who could not travel. Ultimately a Seward, AK based contractor was selected for CG project work in addition to their securing commercial work as an essential service, permitting them early access in Kodiak. The contractor's 14-day quarantine on Kodiak Island was served, enabling them to avoid unnecessary lodging costs at the expense of the government, and start the project on CGC Douglas Munro only one day late. The technical representative requirements were remedied by utilizing an on-island HM&E technical representative already under contract with LRE.

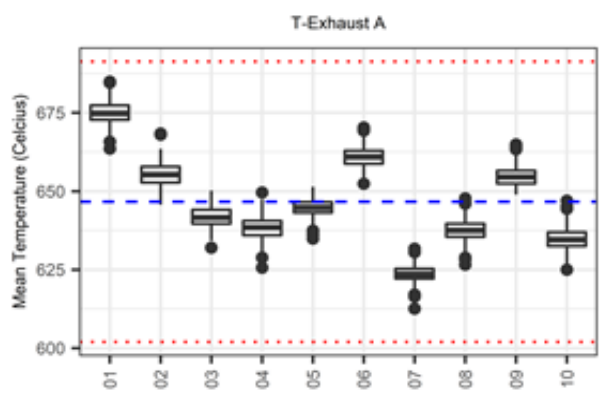
SFLC has continually pursued creative new ways to support our Bering Sea cutters homeported in Kodiak, AK, including support from the cutter crews and surrounding CG networks.

Formation of a new Data Analytics Team

By Ryan Roberts, PE; Chief Naval Architecture & Marine Engineering Branch

The SFLC-ESD-NAME-MAIN PROP Section has formed a Data Analytics Team (DAT) for diesel engines to provide the fleet and product lines with evidence-based maintenance recommendations. Benefits include identification of defects, assessment of engine operation and cutter speed/performance, reduction in costs, and an increase in availability. The DAT is starting with Main Diesel Engines (MDEs) on the Fast Response Cutter Class 154-WPC patrol cutters.

The DAT worked with the Patrol Boat Product Line (PBPL) to create Maintenance Procedure Cards (MPCs) to capture diesel engine data from annual full power trials, including factors that affect performance (wind speed and direction, trim, tank levels, etc.), and transferring to the DAT. Paul Schaefer then analyzes the data and provides a timely report identifying discrepancies and recommended actions to the cutter and PBPL. Mike Pohland is automating the analysis process and report generation using the "R" software environment for statistical computing and graphics. As data is observed, algorithms are developed to identify and predict failure patterns.



The DAT used analysis approaches while developing health diagnostic tools for crews and the data analyst. This tool allows crews and sustainment personnel to interact with engine data, which may allow identification of discrepancies before they become costly repairs, and to extend time between overhauls. Operators and analysts can view and compare key engine performance parameters such as injection quantity, exhaust temperatures, and coolant pressures. From this comparison, engine degradation can be detected and traced to specific components.

The figure shows example data from the health diagnostic tool, presenting one bank of 10 engine cylinder temperatures during the course of a full power trial, high/low/mean of each, the average (blue dotted line) and 3 standard deviations (red dotted lines) of all. The plot allows quick visualization and identification of "bad" cylinders.

(Cont'd page 5)

The DAT process is the first CG effort to create a systematic method for diesel engine sensor data analysis with feedback in a timely manner. It places the data analyst in a strategic position to view class wide failures, trends, and alarm conditions. Having an individual that is dedicated full time to analyzing the data and fielding troubleshooting calls from the product line and cutters is immensely helpful.

Specific examples of benefits to crew and PBPL include:

1. Revealing excessive times “clutched in” or “idle”
2. Identifying hull cleaning needs
3. Alarm evaluations and suggested corrections
4. Component or entire engine overhaul effectiveness
5. Analysis of data after catastrophic failure
6. Central location of failure knowledge
7. Increased crew awareness of diesel engine issues
8. Increased awareness of cutter trim/loading.

The DAT effort is continuously improving as reports are written, feedback is obtained, and algorithms are modified. The changes improve the program for cutters, PBPL, and SFLC-ESD-NAME-MAIN PROP. Goals of the program are to extend successes with the WPC-154 diesel engines to other engines.

From L to R: SK1 Teresa Balbi, ET2 Melissa Hyacinth, incoming SFLC CO Capt Paul Stukis, CG-4 RADM Nathan Moore, outgoing CO CAPT Chad Jacoby, ELC2

The Change of Command Ceremony is a time-honored event. This year’s Change of Command was a condensed ceremony to safely ensure the tradition of the formal relief process was carried out. Incoming CO Paul Stukis and outgoing CO Chad Jacoby would like to recognize the collateral duty Public Affairs team that created a video that amply capture’s the significance of this milestone. The PA team, pictured above, took initiative to learn new photography and videography editting skills to successfully accomplish this highly anticipated task. You can view the 2020 SFLC Change of Command at https://vimeo.com/showcase/7280734

Partnerships to Overhaul the MK110 Gun Mount?

Paul Schurke, Deputy, Engineering Services Division

USCGC Bertholf (WMSL-750) started a MK 110 57mm Gun System overhaul in January 2019 with a Material Condition Assessment (MCA) conducted by SFLC-ESD-EOB Ordnance section and the Navy's In-Service Engineering Agent (ISEA). The MCA Information identified which components needed to be replaced and what could be overhauled. This targeted, early inspection approach informed better development of the scope of work.

Prior to the team's arrival at CGC Bertholf's homeport of Alameda, CA, the Coast Guard Yard (CG Yard) Ordnance shop coordinated the numerous logistical elements necessary to remove the mount and ship it to Baltimore, MD. When members of SFLC-ESD-EOB-ORDSEC, CG Yard Ordnance Shop, WAT Alameda and the ISEA arrived in January 2020, they were able to quickly and safely remove the gun, power supply and ammunition hoist components with the crane services and 35,000 pound forklift already on site.

Upon arrival at CG Yard, the Yard's Ordnance technicians installed the gun mount in the shop's overhaul stand, then proceeded to disassemble the gun's major assemblies in a systematic process documenting the condition of the individual components. The CG Yard's Ordnance shop performed the majority of the work items, and the CG Yard's other shops performed sub component inspections and overhauls, such as the electric shop's overhaul of the hoist drive motors, and the paint shop repairs to the cupola.

It is important to note this is only the second MK110 overhaul performed by the Coast Guard and Navy. These overhauls have previously been performed by the OEM aboard Navy ships. The ISEA is undertaking a major step of independence by using these overhauls for the development of Technical Repair Standards (TRS). Once the TRS is fully developed the overhauls will be standardized, promoting time and cost efficiencies.

Once the overhaul was completed, the team prepared the gun mount for shipment back to the cutter. The installation takes approximately eight days from when it arrives at the unit, and begins with the WAT removing the gun mount from the truck. While the WAT was getting the shore side tasks completed, the cutter team installed and hooked up equipment onboard, readying the ship for landing the gun mount. After installation, the team performed the System Operation and Verifications Tests (SOVT) and Final Acceptance Tests. Once tests were complete and passed, and no further actions were needed, the MK110 Gun Mount was turned over to the cutter.

The last step was the Combat Systems Alignment, which SFLC-LRE Product Line arranged several months in advance, and performed by Naval Surface Warfare Center Port Hueneme. The combat systems alignment is the process of adjusting all the elements of a weapons system (including all gun bores, launchers, fire-control directors, radar antennas, and optics) to a common reference point, line, and plane and maintaining them in this relationship.

The CG Yard is projected to overhaul one MK110 Gun Mount every year out to 2030 and will ultimately increase to 3 overhauls a year when the Offshore Patrol Cutters are delivered. The Navy is also considering using the CG Yard for their MK110 overhauls for the Littoral Combat Ships.

Milestones: Military Personnel
July – December 2019

OFFICER PROMOTIONS

CDR Mark Jorgensen
CDR Nichola Sparker
LCDR Patrick Burnett
LT Tyler Kotchman
LCDR Martin Mckenna
SFLC Officer Promotions

AWARDS

AWARDS	PRODUCT LINE	AWARD TYPE
MKC Brandon Capps	SBPL	CGCM
MKCS Christian Grunden	SBPL	LOC
MKCS Michael McIntyre	SBPL	CGAM
LT Alexander G. Sullivan	PBPL	CGCM
LT Hannah M. Wyderko	PBPL	CGCM
LT Thomas J. Bondurant	PBPL	CGCM
CDR Peter Fant	IBCT	MSM
CWO4 Paul Jefferys	SBPL	CGAM
MK1 Joachim Boyles	SFLC	LOC
SK1 Ezilda U. Warth	IBCT	CGAM
LT Peter J. Schroeter	LRE	CGCM
LT Samuel T. Birch	SBPL	CGCM
LT Joshua S. Fischer	PBPL	CGCM
LT Alicia J. Flanagan	WSD	CGAM
EMC Ronald Cowgill	IOD	CGAM
EMC Dionte James	IOD	CGAM
LCDR Kara Burns	SBPL	CGAM
CWO3 Forrest J. Heath	PBPL	CGAM
CDR Jonathan D. Baker	SFLC	CGCM
ET2 Melissa Hyacinth	LRE	LOC
CDR Terence J. Williams	YARD	MSM
CDR Hector A. Castro	WSD	CGCM
CWO3 Daniel D. Keith	LRE	CGCM
IBCT Hurricane Response	IBCT	MTC
CDR John Brady	ALD	MSM
LT Sarah Troch	IBCT	CGCM

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Milestones: Military Personnel

July – December 2019

RETIREMENTS

CDR Jack Jackson	IOD	ENG4 Glenn Seymour	LRE
LCDR Hector Castro	WSD	EMCS Craig Jenkins	IOD
CAPT Patrick Murphy	IOD	SK1 Ezilda Warthaw	IBCT
CWO4 Stephen Pitre	IBCT	MKCS Eric Childers	IOD
MKC Joseph Boraski	SBPL	EMC Dionte James	IOD
DCC Ralph Sabatini	ESD	ENG4 Jovan Selvon	SBPL
CDR Seth Denning	SBPL	MKC Albert Rudin	PBPL
DC1 Eric Yutzey	LRE	CDR Peter Fant	IBCT
CWO4 Casher Haggerty	ESD	MKC Sean Gross	SBPL
EMC Christopher Coleman	CPD	MKCS Michael McIntyre	SBPL
MKCS Jonathan Voeltner	SBPL	MKC Shawn Parsons	SBPL
EMC Ronald Cowgill	IOD	ENG3 Forrest Heath	PBPL
MKCM Donald Ensminger	PBPL	CDR Jonathan Baker	LRE
ETCS James Thomas	ESD	CWO3 Daniel Keith	IBCT
CWO4 Aaron Julch	PBPL		

Enlisted Person of the Quarter

Third Quarter: ET2 Melissa Hyacinth, LRE

Fourth Quarter: SK1 Gabriel Okwara, ALD

2019 EPOY: SK2 Elizabeth Garcia, CPD3- SAP

Milestones: Civilian Personnel

July – December 2019

PROMOTIONS

Mark Blankenship	ESD	Visual Information Specialist	GS-12
Shannon Bricker	ESD	Technical Information Specialist	GS-11
George Burlock	ALD	Crane Operator	WG-09
Amanda Carey	ESD	Technical Information Specialist	GS-09
Laura Countiss	ALD	Supply Technician	GS-05
Ernest Dinning	SBPL	Supv Logistics Mgmt Specialist	GS-13
Martine Duvall	MEC	Inventory Specialist	GS-12
Eric Goldstein	CPD	Purchasing Agent	GS-09
Kevin Lettich	CPD	Contract Specialist	GS-12
Thao Ly	CPD	Contract Specialist	GS-12
Denise Manor	CPD	Contract Specialist	GS-11
Hannah Reed	ESD	Technical Information Specialist	GS-07
Michael Shaffer	ESD	Technical Information Specialist	GS-11
Benjamin Wilhelms	ALD	Supv Logistics Mgmt Specialist	GS-13

RETIREMENTS

John Harwell	ESD	42 Years
Karen Colhouer	ALD	39 Years
Terry Bernard	BOD	36 Years
Luanna Straker	SBPL	34 Years
Kathryn Rato	CPD	32 Years
Dennis Strahl	ESD	32 Years
Frances Devonish	SPBL	31 Years
William Zajdel	ALD	26 Years
Sandra Fletcher	CPD	22 Years
Ronald Messerschmidt	ESD	20 Years
Syed Mohammed	ESD	13 Years
Randall Wickman	SBPL	12 Years

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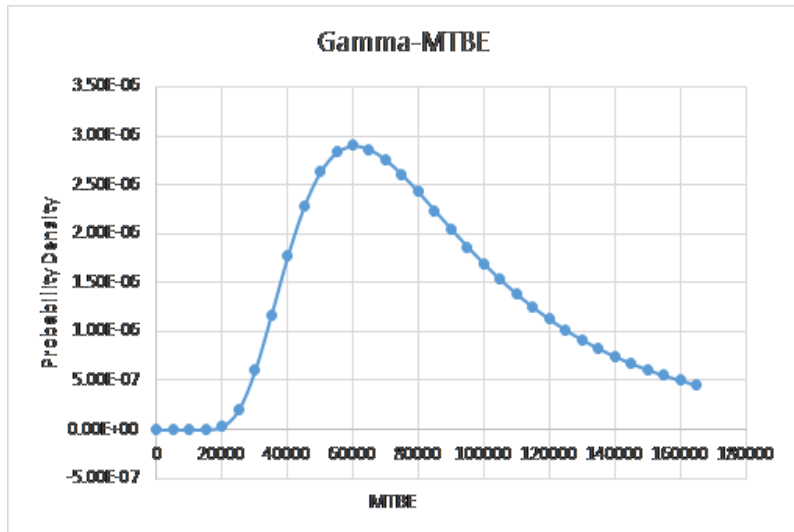
CIVILIAN EMPLOYEE OF THE QUARTER (CEOQ)

Christopher Smith, PBPL, Level I (4th Quarter, FY19, Jul-Sep)
Heather Shacklock, BOD, Level II (4th Quarter, FY19, Jul-Sep)
Andrea Hawkins, ALD, Level I (1st Quarter, FY20, Oct-Dec)
George Burlock, ALD Level II (1st Quarter, FY20, Oct-Dec)

Assessing Risk in Naval Engineering?

By Ryan Roberts, PE; Chief Naval Architecture & Marine Engineering Branch

One responsibility within the USCG's Naval Engineering, Engineering Technical Authority is to perform Technical Risk Assessments (TRAs) for acquisition of new boats and cutters to sustain the current fleet. But what is a risk? Simply put, it's the chance something bad might happen, a car wreck for example. But how big is that risk? If it's a nice day, you're paying attention in a well maintained car, with no traffic, it's probably low. If it's pouring rain, you're distracted, and the brakes need repair, the risk is probably much higher. But everyone's risk appetite is different: one person may be willing to climb a mast for high-pay but not for flight pay.



There are operational and human factor risks in Naval Engineering, so how do we make sense of these risks to allow leaders to prioritize and make decisions? We're engineers, so naturally the answer is: MATH! The formal definition of risk is: the expected value of a risk event is the probability of occurrence times the consequences in dollars, or R = PxC. Probability is the chance risk will occur, like a 60% chance of rain or 1:6 chance of rolling a one on a die. The consequences are the total damage of the event in dollars including: equipment, environment, lost time, and personnel. But how do we put a dollar value on injury or death of a member? It's more common than you might think. Many of us have life insurance policies, and we're willing to pay a certain amount for a payout in the event we die. Like the hazard pay above, people make calculations every day on how much money its worth to climb a mast, go to sea, or fuel a helicopter. Dollars are a good way to find common ground on the risks we all face every day.

SFLC-ESD-NAME performs TRAs on variety of issues, but they all begin with a risk statement, like, "If a boat capsizes in a seaway, then injury or death to the boat crew, damage or loss of the boat, and inability to accomplish the mission will occur." Engineers then determine the P and C. Sometimes they are specific numbers, or point estimates, but usually there is uncertainty, so ranges are determined using techniques such as Monte Carlo simulation, Bayesian statistical inference, and modelling and simulation. The figure above shows an example of the possible range of potential rates of capsize for a boat.

The analysis ultimately results in a statement of expected risk. With this information, leaders can evaluate all the risks in their portfolio and prioritize where and how much resources to spend to mitigate them. And NAME will continue to support TRAs across hull, mechanical, and electrical systems to provide the objective quality evidence in making those decisions.

CAPT Chad Jacoby
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