VOLUME 57 NUMBER 42 OCTOBER 15, 2016 THE KWAJALEN HOURGLASS

Jackson Chalgren performs at the Vets Hall during a three day concert series on Kwajalein and Roi by Jackson and the Roosters.

°O⁻ Jessica Dambruch



KRC COLUMBUS DAY RUNNERS CELEBRATE WITH FITNESS - P 4

NEW DIVE HELMET BRINGS GAMING HUD TO DIVING -P 8-9

JACKSON AND THE ROOSTERS WRAPS TRIPLE CONCERT SERIES

BY JESSICA DAMBRUCH

Minneapolis-based newgrass band Jackson and the Roosters just completed their concert series and are grateful to the QOL committee for facilitating the visit. This tour marks band's first tour abroad and first excursion since the addition of violinist Ann Letsinger to the band 9 months ago. In their three days on Kwaj and Roi, the band snorkeled, raised the bar for local bands, and introduced the island to the sweet sounds of newgrass music.

"We've seen the pictures and read the books [about Kwajalein] and were like - absolutely! That would be an amazing experience," says Wills Johnson, drum-mer and guitarist.

The band first learned about Kwajalein around a Canadian campfire. They came a long way to play their three day tour at venues on Kwajalein and Roi—and today they're sweating bullets on the deck of the Kwajalein Yacht Club awaiting their sound check.

'When we did hear [from the Quality of Life Committee], excitement is an un-derstatement," says bandleader Jackson Chalgren.

NEW GRASS ROOTS

Newgrass is part nostalgic Bluegrass revival, part modern fun. It is music that offers sonic certainty in uncertain times. With roots in different varieties of American music and folk, it is hard not to find something in newgrass to enjoy. Tradi-tional vocals, technical virtuosity on guitar and a diverse array of acoustic instruments are also trademarks of newgrass. Like all musicians, the band is influenced by musical luminaries: The band is inspired by Bob Dylan, Regina Carter and The Wailers. But not everyone can listen and adapt a melody or a motif into some-thing new. Musicians "with chops" like Jackson and the Roosters get blend their talents to produce sonic admixtures of blues, folk, classic rock, and sea chantand have fun bringing it to new places and people.

Like all good things, newgrass is best when it is shared with friends. Getting

their music to us was the band's ultimate goal. On Kwajalein, audiences at two concerts were inspired to break into spontaneous dance: something in the music sparked them to action.

'We wanted to go to a place we'd never been before and that most of us had never heard of before, and we wanted to jump on that," says Chalgren. "We were so excited to be able to share our music with people who have most likely never heard it before."

The band started as a series of friendships and connections.

'It was one of those spur of the moment things where we learned that both of us were musicians, and we began to play music together," says Johnson. Chalgren and Johnson are graduates of the University of Minnesota – Duluth. The band met Letsinger through a family connection to fulfill a strings presence after their former cello player departed to start a family.

A deep noise thrums in the background.

Johnson and Chalgren look toward the stage as Alex Glasenap tunes up.

"Alex usually plays an upright bass," says Chalgren. "It weighed too much. For this one he brought the electric." Near him, drummer Sam Berseres adjusts the snare as rain begins to fall.

The bandmates are multitalented: they play ukulele, banjo, violin, drums, guitar, and harmonica and don't shy away from acapella when the occasion for a Canadian fishing song presents itself. Perhaps this accounts for why the band plays acoustically-driven tunes in a market dominated by electronica.

"For me the answer is, I grew up in a house that loved music. Music was al-ways on in the background, in my house" says Chalgren. He grew up listening to classic rock, the Rolling Stones, Bob Dylan, and "people who were strong song writers.



LEFT TO RIGHT: Alex Glasenapp, Ann Letsinger, Jackson Chalgren, Sam Beseres and Wills Johnson of Jackson and the Roosters' perform at the Vets Hall Oct. 9.

The Kwajalein Hourglass is named for the insignia of the U.S. Army 7th Infantry Division, which liberated the island from the forces of Imperial Japan on Feb. 4, 1944.

The Kwajalein Hourglass is an authorized publication for military personnel, federal employees, contractor workers and their families assigned to U.S. Army Garrison-Kwajalein Atoll. Contents of the Hourglass are not necessarily official views of, or endorsed by, the

THE KWAJALEIN HOURGLAS

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🖸 U.S. Army photo by Jessica Dambruch Jackson and the Roosters perform Stan Rogers' "Barrett's Privateers" at the Vets Hall Oct. 9.

"I fell in love with the Avett Brothers eight years ago. I discovered them and they had a way to capture a lot of live raw energy at their shows with just acoustic instruments. I was so attracted to it."

COMPOSING AMERICANA

It is that tenacious drive to embrace multiple genres while staying true to Americana roots that helps the band find its energy. "I think that's what helped us play a number of genres—things that date back to old folk music to Johnny Cash to the Beetles, to Sam Cook, to Aretha Franklin, the Temptations, Bob Marley," says Johnson.

"A lot of the songs were written before I joined the band, so I have to listen and say, where does my instrument fit into this song," says Letsinger. Trying out different genres as a member of a newgrass band has helped her leverage her academic musical training in ways she couldn't have imagined.

"It's really opened up my creative side," says Letsinger. When not on tour she teaches pre-K through fifth grade strings. She never expected to be in a rock band.

"I was classically trained in the Suzuki method. It's changing, with strings. I didn't know this was a possibility. When I have time I like to learn things by Regina Carter, her solos. She's amazing.'

"It's tough to put yourself into one genre," says Chalgren. "We'd say Ameri-cana—or new grass, the new blue grass folk rock. It's kind of, in the last 5 to 10

years there is this new wave of styles that really don't fit a traditional genre, and I think we fit into that as well.

Johnson adds that after acquiring a drummer, the quality of the sound the band had searched for was set.

"After Sam joined, I would say that we have totally turned it up into Rooster Rock. We like to say our sound is infectious. We play shows for all ages, [from] the typical bar scene to people in college, to our parents' ages. We're able to attract a wide swath of people. We're really able to capture a wide spectrum of genres, and I think that at our shows, no matter what music you like, we'll be able to capture something you will find attractive?

EMPLOYEE ASSISTANCE PROGRAM PROVIDES COUNSELING TO COMMUNITY AND DEPARTMENTS

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COMMUNITY CONNECTION BY: JERRY PHILLIPS, KWAJALEIN PSYCHOLOGIST

Hello and Welcome to Kwajalein.

As the EAP representative I want your transition to the Island Lifestyle here on Kwajalein to be all you wanted and expected it to be. I also want you to know about the EAP program and that we are here to serve you and your family.

EAP is counseling for personal concerns you may have. The only difference between EAP counseling and Mental Health Counseling (Psychotherapy) is EAP is designed to help employees and their families using "brief therapy" (8 to 10 sessions) to deal with any stress, family concerns or mental health issues you or someone in your family might have. EAP is not designed for long term counseling as one might expect at a counseling center back home. There is no cost to you, the employee.

What is EAP?

The Employee Assistance Program is an employee benefit. EAP offers confidential counseling to all employees and their families on Kwajalein and Roi-Namur. This service is available to all civilians, contractors, Active Duty Military Personnel and their families and the RMI employee workforce. EAP can help you in many ways, including the following focus areas:

—Depression and Anxiety —Separation or Divorce

- —Anger or Rage
- -Work conflict
- —Grieving a loss or death

-Substance abuse

- —Smoking cessation
- —ADHD -Marital and Family counseling -Weight management

EAP is also available to conduct on-site training to meet specific needs of individual departments.

What does it cost?

EAP is not an insurance plan. There will never be a co-pay or deductible or charges billed to your insurance. EAP is paid for by your employer/company. It is a Benefit of being an employee or resident on Kwajalein.

How can I sign up for Counseling at EAP?

Call the Hospital at 5-2223. On the day of your appointment, come to the main desk on the 1st floor of the hospital to check in. The receptionist will help you with any initial paperwork. They will then send you to the EAP office on the 2nd floor of the hospital.

The Kwajalein Hourglass

KWAJALEIN RUNNING CLUB CELEBRATES COLUMBUS DAY WITH CARDIO

BY ERIN WAITE

In the early hours of Tuesday morning, 70 runners competed in the 39th Annual Kwajalein Running Club Columbus Day Run.

Of the participants, only ten runners opted to run the course twice, completing an astounding 13.04 mile half marathon, while the remaining competitors chose to undertake the 6.52 mile quarter marathon.

In the quarter marathon men's division, Lt.j.g. Patrick Edwards arrived first in his category with a time of 44 minutes and 33 seconds. 8th grader Julia Sholar was the first woman to complete the 6.52 mile trek, coming in at 54 minutes and 21 seconds. Of the athletes who endeavored to complete the half marathon, Eric England was the first to finish two laps around Kwajalein in one hour, 40 minutes, and 49 seconds.

After crossing the finish line in front of the teen center, Bob and Jane Sholar awarded each of the competitors a certificate in celebration of their accomplishments. Bob, who has been active in organizing the Columbus Day Run for the past twenty years said of the race, "it's such a great thing for the community, and it's a pleasure to be able to participate in something that everyone enjoys so much."



🖸 U.S. Army photo by Erin Waite

FROM LEFT TO RIGHT: Alex Murphy, Allison Hormuth and Caleigh Yurovchak sprint for the finish line during the 39th Annual KRC Columbus Day Run Oct. 11.

13.04 MILES	13.0	04	Μ	ILES
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13.04	2:38:31	JENNY CUNNINGHAM
13.04	2:51:27	SHANA DARRAH
13.04	2:51:27	URSULA LABRIE
13.04	2:53:34	CHRISTINA E. BARNES
13.04	3:10:00	KATHY SKINNER
13.04	3:07:33	LAURA LAWSON
13.04	1:40:49	ERIC ENGLAND
13.04	1:53:32	ERIC MILLER
13.04	1:53:45	RAY MOYER
13.04	2:07:40	WESLEY KIRK

OFFICIAL TIMES

6.52 MILES

6.52	1:13:41	CHRISTINA SYLVESTER
6.52	1:15:38	KAREN BRADY
6.52	1:16:22	ANGEL BOLTON
6.52	1:31:02	JENIFER PETERSON
6.52	1:31:48	ELISSA FIORE
6.52	1:41:32	CARMEL SHEARER
6.52	1:56:59	STACEY O'ROURKE
6.52	1:06:05	HOLLY BOTES
6.52	1:06:20	JOANNA FOSTER

	6.52	1:08:48	TED SHULTZ	6.52	2:51:15	MAKENA MOSELEY
	6.52	1:10:13	LYNN LEINES	6.52	1:56:53	KIMMY O'ROURKE
	6.52	1:17:04	MALLORY MASCIARELLI	6.52	0:50:16	JEFFREY FLUHRER
	6.52	1:21:31	JOY MCANDREWS	6.52	0:59:59	BEN BARTYZEL
	6.52	1:21:31	DARCI WHEELER	6.52	1:01:27	BRUCE PREMO
	6.52	1:23:20	HOLLY MANESS	6.52	1:03:20	RONALD SYLVESTER
	6.52	1:47:35	CHELSEA REED	6.52	1:05:51	ROBERT STACK
	6.52	1:47:37	JENNIFER HILL	6.52	1:12:27	VICTOR BURNLEY
	6.52	1:47:42	RIZA WALKER	6.52	1:27:26	BEN WALKER
	6.52	0:54:21	JULIA SHOLAR	6.52	1:31:02	GARY KOHLER
	6.52	1:04:40	ABIGAIL BISHOP	6.52	0:44:33	PATRICK EDWARDS
	6.52	1:14:43	ERIN WAITE	6.52	0:51:39	JAY LORD
	6.52	1:31:06	KAYA SYLVESTER	6.52	0:54:42	DAVID CASBARRA
	6.52	1:37:08	GRAESON COSSEY	6.52	1:03:15	KYLE MILLER
	6.52	1:37:45	JENSYN COLE	6.52	1:04:49	BRANDON SIMONS
	6.52	1:38:25	REIKA SAMUEL	6.52	1:05:33	STEVE BEGGS
	6.52	1:39:48	SASAKO BRADY	6.52	1:08:48	TED SHULTZ
	6.52	1:40:15	RYAN LARSEN	6.52	1:10:08	MICHAEL HILLMAN
	6.52	1:41:30	HANNAH FINLEY	6.52	0:56:04	LIAM BEGUHN
	6.52	1:42:24	COLLEEN FURGESON	6.52	1:06:20	ZACHARY HILL
	6.52	1:42:24	KAYLA HEPLER	6.52	1:10:13	DOMINIC LEINES
	6.52	1:42:24	LEAH LOKEIJAK	6.52	1:44:25	ALEX MURPHY
	6.52	1:42:24	CLAIRE STEPCHEW	6.52	1:11:55	SEAN HEPLER
	6.52	1:44:22	JAYCIE REED	6.52	1:11:57	LUC BURNLEY
	6.52	1:44:25	CALEIGH YUROVCHAK	6.52	1:11:03	KEVIN SKINNER
	6.52	1:44:29	ALLISON HOMUTH			
	6.52	1:44:33	KATIE O'ROURKE			
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Saturday, October 15, 2016 / Volume 57 Number 42

THE MARSHALLS AND THE PACIFIC, No. 7, PART 2.

HOURGLASS SPECIAL

FRIDAY, AUGUST 6, 1965.

In the mid-1960s, E. H. Bryan, Jr., former manager of the Bishop Museum in Honolulu, and his staff at the museum's Pacific Scientific Information Center prepared an in-depth guide to the geography, biodiversity and history of the Marshall Islands and the cultural practices, lifestyles and histories of the Marshallese people. Written specially for Kwajalein Hourglass readers, the 24-part series appeared over the course of two years and was titled "The Marshalls and the Pacific."

Uncovered at the Grace Sherwood Library, it comprises a literal bounty of professionallycurated essays that take the reader on a profound tour of knowledge on everything from marine shell identification and the etymology of atoll names, to the traditional division of labor in the Marshallese household and explanations on how atolls are formed.

Included are excerpts from the timeless "Marshalls and the Pacific" series. Enjoy.

MARSHALL ISLAND INSECTS, PART 2. By E. H. BRYAN, JR. This is the second half of the seventh in a series of articles concerning life in the Marshall Islands against a background of the Pacific Ocean as a whole. They are being published exclusively by the Hourglass and written by E.H. Bryan, Jr., with the assistance of the staff of the Pacific Scientific Information

CENTER AT THE BERNICE P. BISHOP MUSEUM IN HONOLULU.

The order Heteroptera, the true bugs, get their name ("different wings") from the fact that the base of their wing is thick and the extremity thin. Folded flat over the abdomen these give an x-shaped pattern behind a thickened triangular area, directly behind the prothorax. The family Lygaeidae, which includes the chinch bugs, is represented by Pachybrachus nigripes (fig. 92). Shield bugs and stink bugs (Pentatomidae) have even broader and more pointed "shoulders" and shield-shaped body; there are a few species. A closely related family, Cydnidae, burrowing bugs. Represented by Geotomus pygmaeus, a "little negro bug," socalled because it is entirely shiny black. The leaf bug family, Miridae, is represented by: Campylemma hericornis, pale yellow with dark spots, about 2.3 mm. long; Hallieus tibalis,

OF WHICH HE IS MANAGER.



black and a little smaller, on bean, pumpkin, and sweet potato plants; and Trigonostylus dohertyi, straw color to greenish-yellow. All of these suck sap from plants.

In contrast there are some families of Heteroptera which such the fluid from insects and even blood from man. These include the assassin bugs, Reduvilldae, and damsel bugs, nabidae, which are slender and longer. Nabis capsiformis (fig. 93) a widely distributed species, is abundant on grass, feeding on aphids and leafhoppers. All too well known to man is the broadly circular, flattened bedbug, Cimex lectularis, family Cimicidae.

Next in the classification come the moths and butterflies, Lepidoptera, meaning "scale wings." Butterflies have wings relatively large in proportion to the slender body usually folded vertically above the body when at rest. They also have slender, thread-like antennae with a globu-enlargement at the tip.

The only butterfly in the Marshall Islands is Hypolimnus bolina. You might think there were two kinds, for the male and female are somewhat different. The male has the upper surface of the wings purplish with a few small white spots, and the lower surface brownish. The female has a brown and white pattern with patches of orange-yellow on each wing, and the upper surface of the front pair a white area divided into four parts by dark veins, also other white spots.

Most of the moths are small, although a few are rather heavy set. One of the most distinctive, a tiger moth (Arctilldae) called Utethsia pulchelloides, has a pattern of very small red and black dots on its white wings. Its caterpillars frequently are found on tree heliotrope (Meserschmida). Another moth has light green wings edged by a narrow dark border; the body scales are pale silvery green. The male has a "collar" of dark brown scales just forward of the white tip of its abdomen. This moth is believed to belong to the genus Chloauges. The nut grass armyworm, Spodoprera mauritius, has been collected on Kwajalein. It is a noctuid, having slaty-gray wings with brown markings, about an inch and a quarter across the two when spread. Its



caterpillar feeds on nut grass sedge, and reaches a length of more than an inch before burrowing into soft earth to pupate. There are several smaller moths, most of which would be hard to identify.

Beetles (coleopteran) make up the largest order of insects. In some regions they outnumber all the other orders combined. Click beetles (Elateridae) have a distinctive form, shown in Figure 94 of Conderus pallipes, one of the most abundant species in the Marshall Islands. When held in the hand, these beetles "click" the Protorax against the base of the wing-covers (elytra). The larvae, cylindrical wireworms, bore into trees.

An even more familiar form of beetle is the hemispherical ladybeetle. A very famous species, the Australian 8-spotted Ladybeetle, Coelophora inaequalis (fig. 95) occurs on Kwajalein. It was introduced into Hawaii from Australia in 1894 because its larvae (fig. 96) feeds voraciously on aphids, immature leafhoppers and other soft-bodied insects, which were damaging sugar cane and other crops in Hawaii. It probably reached Kwajalein from Hawaii and is a useful friend to man.

Small beetles of one group (Nitidulidae) are attracted to rotting fruit and vegetable matter. One found in the Marshalls, Urophorus humeralis (fig. 97) is a cosmopolitan scavenger on corn, banana roots, rotting papayas, fallen coconuts, breadfruit sap and the like. It is 3 to 5 mm. long. A smaller species, Caropophylus davidsoni, is on pandanus fruits, under bark, on decaying papayas, overripe bananas, corn and copra. A tiny species, less than 2 mm. long, is Haptognathus minutus (fig. 98).

The family Chrysomelidae is represented by a pest of coconut leaves, Brontispa chalybeipennis (fig. 99), a metallic green beetle, 7 to 8.5 mm. long. Its drab larva (fig. 100) is what does the damage to coconut leaves.

REMOVAL ACTION ACTIVITIES: KWAJALEIN LANDFILL DRAFT ENVIRONMENTAL ASSESSMENT

EXTERNAL REPORT

NOTICE OF AVAILABILITY Extension of Public Review Period Sept. 19, 2016 - Oct. 28, 2016.

Removal Action Activities Associated with the Kwajalein Landfill. Removal Action Memorandum and Draft Environmental Assessment.

THE COMMENT PERIOD FOR THE RE-MOVAL ACTION MEMORANDUM, DRAFT ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT (FONSI) HAS BEEN EXTENDED TO OCTOBER 28, 2016

The U.S. Army Garrison–Kwajalein Atoll (USAG-KA), with assistance from the US Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ ARSTRAT), has completed a Removal Action Memorandum (RAM) and a Draft Environmental Assessment (DEA), prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality regulations implementing NEPA. The RAM documents the need for the removal action and iden-

tifies the appropriateness of the selected removal actions for cleanup. The DEA for the Removal Action Activities Associated with the Kwajalein Landfill analyzes the impacts of executing the components of the removal action alternatives. The potential components analyzed in the DEA include: (1) remove metals, armor the shoreline east of the landfill, remove metal debris from storage area adjacent to landfill and remove debris from between Glass Beach and the Shark Pit; (2) close the landfill with an impermeable cap; (3) close the landfill/excavate refuse and ship to CONUS/install impermeable cap; (4) construct new landfill; (5) transport future refuse to a CONUS landfill; (6) stabilize landfill shore; and (7) water quality monitoring for 6 years. Based on the analysis, the USAG-KA has determined in the DEA that proposed removal action activities associated with the components are not expected to result in significant impacts to the environment.

A draft Finding of No Significant Impact (FONSI), the DEA, and the RAM are available at www.usagkacleanup.info and at the following locations: —Office Lobby of the Republic of the Marshall Islands Environmental Protection Authority, Majuro, Marshall Islands

—Office Lobby of the Republic of the Marshall Islands Environmental Protection Authority, Ebeye, Marshall Islands

-Grace Sherwood Library

P.O. Box 23

Kwajalein, Marshall Islands

APO, A.P. 96555

-Roi-Namur Library

Roi-Namur, Marshall Islands

Public comments on the DEA, Draft FONSI, and Removal Action Memorandum will be accepted from

19 September 2016 - 28 October 2016 and can be provided in three ways: (1) E-mail comments to www.usagkacleanup.info (2)

Mail comments to

USASMDC/ARSTRAT

ATTN: SMDC-EN (T. Craven)

P.O. Box 1500

Huntsville, AL 35807-3801

(Must be postmarked no later than 28 October 2016) (3) Fax comments to USASMDC/ARSTRAT

ATTN: SMDC-EN (T. Craven) (1) -(256)-955-6659



AREA SAFETY AND CLOSURE NOTICES

Area 2

Area 2 is open for recreational activities as authorized in USAG-KA Reg. 385-9, including reefing, SCUBA Diving, and Surfing.

The following activities are not authorized per 385-9:

Swimming Snorkeling Fishing Skiing Board Sailing Kayaks/Small Day Sailors





Building 602

For everyone's safety, pedestrians, bicycles, and unauthorized traffic, include pedestrians, and vehicles in the 602 construction area is prohibited until further notice.

This warning applies to both business and non-business hours. It shall remain in effect until construction is complete.

Workers in the area should wear a safety vest at all times. Pedestrians walking down marine road should stay to the lagoon side of the street. On 6th street, pedestrians should always use sidewalks.

HEALTH AND WELFARE BENEFITS OPEN ENROLLMENT NOV. 3-17 FOR KRS----CMSI----BAI EMPLOYEES

Attend one of the presentations listed below—and don't forget the Health Fair—to learn more about the open enrollment process and your 2017 benefits.

10-11 a.m. Wednesday, Oct. 19

4-5 p.m., Tuesday, Oct. 18

4-6 p.m., Wednesday, Oct. 19

5-6 p.m., Wednesday, Oct. 19

8:30-9:30 a.m., Thursday, Oct. 20

Roi- Presentation at TRADEX Conf. Rm.

Kwaj- Presentation at CRC Room 1

Kwaj- Health Fair at CRC Gym 📕

Kwaj- Presentation at CRC Room 1

Kwaj- Presentation at CRC Room 1

Enrollment packets will be mailed to KRS/BAI eligible employees Oct. 20. Contact your FCE Benefits office at 805 355 0939 or 805 355 1701 if you have questions concerning the benefits presentations or your 2017 benefits enrollment.

OPEN TO

THE WHOLE

EYES IN THE DARK: NAVY DIVE HELMET DISPLAY EMERGES AS A GAME-CHANGER

EXTERNAL REPORT

By Amaani Lyle Dod News Defense Media Activity

PANAMA CITY, Fla. — The once-ribbing term "four-eyes" now secures a coolness factor, thanks to a team of Navy engineers who have developed a high-resolution, see-through, heads-up display embedded directly inside a KM-37 Navy dive helmet to keep its users safer, more efficient and more effective underwater.

Project Manager Dennis Gallagher, an engineer with the underwater systems development and acquisitions branch special optics lab, said he and his team have developed a next generation, futuristic, 3D-printed prototype that might even evoke the envy of Ironman.

Meet DAVD, also known as the Divers Augmented Vision Display. Years in the making, a plastic waveguide houses binocular-style "smart glasses," featuring a tiny micro-display smaller than a postage stamp and ready to receive a variety of critical topside data that assists divers working in even the most austere and low-visibility underwater conditions.

Once a mere concept based on a need, DAVD has matured into an operational and testable prototype that Gallagher said is so far earning rave reviews from the Navy, joint and allied forces' dive communities.

"Unlike recreational diving, where you're in the Bahamas [and] it's crystal clear and it's beautiful, military diving is almost [always] dark, pitch-black water. You're working in diving in salvage, ship husbandry -- very dangerous, difficult environments," Gallagher said. "So you can't see life-support information, critical sensor data that you need. Your gauges are almost useless down there, because you cannot see them in front of your face."

The technology, Gallagher said, is a culmination of display capabilities, much of which the Air Force has used for years to send and receive information.

An Augmented Reality

"What we can send on that heads-up display is literally anything the topside dive supervisor has on the computer," Gallagher said of the point-of-view, video game-style device. "It can be sonar or sector scan that's a top view of what the salvage area looks like. We can even send a 3-D augmented reality overlay on an area."

The diver, he added, can see the wreck, the object of interest, even him or herself navigating to the target area. The system works through voice commands, which can carry a diver's request for text messages, drawings,



A light illuminates a prototype dive helmet with the Diver Augmented Vision Display at the Naval Surface Warfare Center Panama City Division at the Naval Support Activity Panama City in Panama City, Fla.

pictures, and video placed anywhere on the screen. He or she can also turn the entire system off and return to see-through mode if necessary.

Gallagher noted that DAVD even has favorable outreach beyond the military, including commercial and first-responder dive realms, including law enforcement.

"[The police divers] had people who lost their lives -- they couldn't see their gas pressure, because [the visibility] was so bad when they were trying to do a body recovery," Gallagher said. "So this kind of thing has tremendous outreaching capability."

How It's Made

How the DAVD is made seems to have just as storied a journey as what it can already help divers achieve. Gallagher said he knew the lab would need to bring forth the technology as quickly and inexpensively as possible, which prompted concept development through 3-D models. "We can take our mechanical engineering models, and electrical engineering models, and literally email it across the base to the 3-D printing shop -they make the versions of them there -- then we can do the final assembly, put it in the lab and start testing it at lightning speed for very little money." Chuck Self, head of the Navy Surface Warfare Center Panama City rapid prototyping shop, said making something from nothing is all in day's work, as he and his team are the first stop for designers with prototypes and initial articles.

Self's work puts 3-D printed models in hands of engineers, enabling them to quickly conduct design reviews, find flaws in parts, make revisions, and get a product to market much faster. Additionally, the prototyping shop partners with all other warfare centers in a 3-D printing, or additive manufacturing, working group, Self explained.

"This working group's main goal is to help implement additive manufacturing to the Navy in a smart, safe, effective way," Self said, adding that qualification, certification, and workforce development are all major factors for the Navy to approve additive manufacturing as an acceptable process. "The goal is to approve a process so that it doesn't have to be a case-by-case situation and we can certify the part to go for fleet use," he said.

Additive manufacturing uses state-of-theart technology to instruct computer-controlled machines to print parts in a layered format, Self said. "We have nothing to start with, and we add material layer by layer until we've achieved that final part," he added.

The technology is not as new as much of



A prototype dive helmet with the Diver Augmented Vision Display, left, provides a comparison view to an unmodified dive helmet at the Naval Surface Warfare Center Panama City Division at the Naval Support Activity Panama City in Panama City, Fla.

the public might think. Self said the Panama City lab has been leveraging 3-D printing for close to 20 years, and the technology originated about 25 years ago. "During that time, you've seen a massive maturation of the process," Self said.

Putting DAVD to Use

Perhaps the rubber really meets the road when the concept ripens to practical use in the fleet.

Navy Petty Officer 2nd Class Chris Lambertsen, Navy Diving and Salvage Training Center dive medical technician, said he and his colleagues look forward to wider use of DAVD. "The heads-up display where you can find your compass and heading would aid any diver and would help make diving efficient, keeping your bottom time at a minimum," Lambertsen said. "It could help not only a lost diver find himself, but would help his dive buddy find a lost diver and ultimately save lives."

He also shared his personal stake in the technology and diving in general.

"I dive because I love it," Lambertsen said. "I'm lucky enough to have been here at the Navy Surface Warfare Center to see some of the best and newest diving technology come through and have the opportunity to be part of some of the testing and development for Navy Petty Officer 1st Class Steven Starner, also a military diver and DAVD prototype user, recalled a mission in 2014 in which the priority was to recover a piece of history from the Civil War vessel CSS Georgia. Starner and his team faced low visibility, high currents and limited time to get the job done.

"On the bottom of the Savannah River, everything was done by feel. I was able to see maybe 6 to 8 inches in front of my face, and anything more than that was nothing but a blur and darkness," Starner recalled. "DAVD would've helped to decrease the amount of time it took to complete this mission."

Today, DAVD testing will continue with ongoing enhancements, capabilities and interoperability, progress made possible by the creative freedom the Navy allows, Gallagher said. But he also stressed that creative freedom isn't his only motivation in going to work each day. He recalled briefing about one of his earliest diver display systems to a group of service members, newly returned from Iraq and Afghanistan. He remembered how eager they were to use the technology.

Putting it all into perspective, he went back to his office and wept.

"I realized that I complained that the coffee was cold at the mess and these guys have been out doing these kinds of things, trying to get back to their families," Gallagher said. "That changed my entire outlook – whatever I do could literally make a difference in that person in theater getting back, ... because the next crazy idea we have could do something like that. I'll stay and work the weekend for that one."



A Marine wears a prototype dive helmet with the Diver Augmented Vision Display at the Naval Surface Warfare Center.

The Kwajalein Hourglass

WEEKLY WEATHER OUTLOOK

RTS WEATHER STATION STAFF

WEATHER TRENDS: The Intertropical Convergence Zone (ITCZ) has become well established through the northern RMI running eastward pass the dateline to about 170 West. This is evident on today's satellite imagery.

Small embedded circulations are present within the ITCZ transiting westward. One such circulation is currently moving across the area causing our local winds to become northerly and supporting local rain activity. Thunderstorms were prominent early Thursday morning within our lightning detection network showing several strikes 50 - 100 nautical miles northeast of the atoll. This circulation will support a larger area of rain activity, with chance of thunderstorms, into Friday morning.

The threat of Tropical cyclone development will remain west of Kwajalein in the Monsoon trough. There is currently a strengthening tropical depression just east of the Philippines and our indicators are trying to initiate a new depression somewhere in Western Micronesia in a few days. Locally there is little threat of tropical storms due to the lack of support high in the atmosphere.

OUTLOOK: For the next few days we are expecting the wind directions to be changing routinely due to the embedded waves traveling through the ITCZ. Some indicators are showing a break between these waves during the weekend. The ITCZ itself looks like it may moderate into next week and we will see more consistent easterly winds. After the occasional showers Thursday and Friday we are expecting a lower amount of shower activity into the weekend.



				1000
	SUNRISE SUNSET	MOONRISE MOONSET	HIGH TIDE	LOW TIDE
SUNDAY	6:37 a.m.	6:42 p.m.	3:57 a.m. 4.8'	10:05 a.m1.1'
	6:32 p.m.	6:19 a.m.	4:18 p.m. 5.1'	10:29 p.m1.1'
MONDAY	6:37 a.m.	7:36 p.m.	4:35 a.m. 4.8'	10:41 a.m1.2'
	6:32 p.m.	7:18 a.m.	4:55 p.m. 5.2'	11:09 p.m1.1'
TUESDAY	6:37 a.m.	8:32 p.m.	5:13 a.m. 4.6'	11:16 a.m1.0'
	6:32 p.m.	8:19 a.m.	5:32 p.m. 5.1'	11:50 p.m0.9'
WEDNESDAY	6:37 a.m.	9:30 p.m.	5:53 a.m. 4.2'	11:52 a.m0.7'
	6:31 p.m.	9:20 a.m.	6:11 p.m. 4.8'	
THURSDAY	6:37 a.m.	10:28 p.m.	6:33 a.m. 3.7'	12:33 a.m0.6'
	6:31 p.m.	10:21 a.m.	6:53 p.m. 4.4'	12:30 p.m0.2'
FRIDAY	6:37 a.m.	11:26 p.m.	7:18 a.m. 3.1'	1:21 a.m0.1'
	6:30 p.m.	11:21 a.m.	7:40 p.m. 3.8'	1:10 p.m. 0.3'
OCTOBER 22	6:37 a.m.		8:17 a.m. 2.5'	2:19 a.m. 0.5'
	6:30 p.m.	12:17 p.m.	8:44 p.m. 3.3'	2:02 p.m. 0.9'

COMMANDER'S HOTLINE

HAVE SOMETHING THE USAG-KA COMMANDER SHOULD KNOW ABOUT?





Sexual Harassment/Assault Response and Prevention (SHARP) Contact Information

Capt. David Rice SHARP Victim Advocate

Work: 805 355 2139 • Home: 805 355 3565 USAG-KA SHARP Pager: 805 355 3243/3242/3241/0100 USAG-KA SHARP VA Local Help Line: 805 355 2758 DOD SAFE Helpline: 877 995 5247



LUNCH Tuesday Wednesday Thursday October 22 Monday Friday Sunday Grilled Chicken Garlic Cheddar Chicken Chicken Alfredo Baked Chicken/Gravy Grilled Reuben Sandwich Bangers and Mash Taco Bar Chef's Choice Beef Pasticio Sweet Spicy Meatballs Grilled Cheese Sandwich Mexican Rice Fish Du Jour Baked Ravioli Vegetable Fritatta French Toast Casserole Macaroni and Cheese Chef's Choice Chef's Choice **Rice Pilaf** Pasta Aglio e Olio DINNER October 22 Monday Tuesday Wednesday Thursday Friday Sunday Old Fashioned Pot Roast Steak Night with Aujus Pancake Supper Kwaj Fried Chicken Pork Pot Roast Hamburger Bonanza General Tso's Chicken Roast Chicken Ham Steak Hawaiian Fish Du Jour Meatloaf Chicken Stir Fry Chicken Marsala Beef Pad Thai Mashed Potatoes **Boiled Potatoes** Mashed Potatoes **Baked Potato Roasted Potatoes Roasted Potatoes** Chef's Choice

Captain Louis S. Zamperini Dining Facility

Saturday, October 15, 2016 / Volume 57 Number 42

The Kwajalein Hourglass

COMMUNITY CLASSIFIEDS

HELP WANTED

Visit USAJOBS.GOV to search and apply for USAG-KA vacancies and other federal positions.

KRS and Chugach listings for on-Island jobs are posted at: Kwajalein, Roi-Namur and Ebeye Dock Security Checkpoint locations; outside the United Travel Office; in the Roi Terminal/Post Office; at Human Resources in Bldg 700 and on the "Kwaj-web" site under Contractor Information>KRS>Human Resources>Job Opportunities. Listings for off-island contract positions are available at www.krsjv.com.

Job Opportunity at KRS. Position: KRS – Technical Writer II (Full-time). Education: High School Diploma or equivalent. Experience: Minimum of 2 years of progressive Technical Writer experience or related field. Qualification: Experience with process facilitator /documentation administrator or related to IT or Cybersecurity. Ability to obtain CAC Card & Network Access. Please submit your application to the HR Office, Bldg. 700.

FOR SALE

Modified female military uniforms, good for Halloween and the Swashbuckler's Ball. For sale or rent. Call Thane at 54553.

COMMUNITY NOTICES

Food Court Construction Ongoing. Aug. 23 - Oct. 22. Customers are requested to stay clear of the work areas. We apologize for the inconvenience.

Vet's Hall Holiday Parties. HO! HO! HO! The holidays are coming don't ya know! Time to start thinks about your holiday party. Dates are starting to fill up so please book yours early.

Please join us for Quizzo at The Vet's Hall on Fri., Oct. 21, at 7:30 p.m. Special Guest Host Terry Torres will wrangle the trivia we have stuck in our heads! Questions? Contact Neil Dye or Mike Woundy.

All children who participate in CYSS activities are required to renew their memberships every year. A CYSS reg-

istration will allow your child, youth or teen the following services: Child Development Center; School Age Services Care; Free Open Recreation Activities (K-6th); Youth Sports (K-6th) and Start Smart Sports (3-5yrs); Access to the Youth Center; Please stop by the Central Registration Office anytime Tue-Sat 7 a.m.-5:15 p.m. Questions, contact Donna Pippitt at 5-2158.

CYSS Youth Sports: Flag Football Season. Registration Open: Oct. 7 – Oct. 28. Season Dates: Nov. 15 – Dec. 15. Cost is \$25.00 per player. Open to all CYSS Youth Kindergarten-Grade 6. To register visit Donna Pippitt at Central Registration, Building 358 or 5-2158. Contact Momo Wase at 5-3796 with questions.

CYSS Youth Sports: Golf Season. Registration Open: Oct. 7 – Oct. 28. Season Dates: Nov. 12 – Dec. 17 (Thursdays). Cost is \$30.00 per player. Open to Ages 8 – Grade 6. To register visit Donna Pippitt at Central Registration, Building 358 or 5-2158. Contact Momo Wase at 5-3796 with questions.

2016 Shaving Cream Social Saturday Oct. 15 at the Richardson Ravine. Pre-School must be accompanied by an Adult in the Pit. 4:30-4:40 p.m., Pre-School; 4:40-5:00 p.m., K - 2nd Grade; 5:10-5:30 p.m., 3rd - 6th Grade; 5:40-6:00 p.m., Jr. and Sr. High. Each participant will receive one free can of shaving cream. Participants are encouraged to wear goggles. No gel, menthol, or mint creams allowed.

Kwajalein Running Club's October 2016 Fun Run will be conducted concurrently with Kwajalein Hospital's annual Breast Cancer Awareness Run/Walk. Start time is 5:30 p.m. on Oct. 17. There will be three distance options: 1-mile, 2-miles and 5-miles. Everyone is invited. KRC members: this event will start and end at Kwajalein Hospital, on Ocean Road; so please don't forget and go to the Bowling Alley (as we normally do).

CYSS Start Smart Program: Golf Season. Registration Open: Oct. 7 – Oct. 28 Season Dates: Nov. 16 – Dec. 14 (Wednesday's) Cost is \$20.00 per player. Open to Ages 4 - 7. To register visit Donna Pippitt at Central Registration, Building 358 or 5-2158. Contact Momo Wase at 5-3796 with questions. Your Elementary School Parent Teacher Organization (PTO) needs your help! Volunteers for the 2016-2017 school year are needed and necessary to continue PTO fundraisers and events for our children. Events include Christmas Corner, Used Book Fair, Reading Counts Celebration, Teacher Appreciation Week, Field Day, School Store, Spelling Bee, Talent Show, Father-Daughter Dance, Mother-Son Beach Party, Box Tops, Family Bingo Night, and Classroom Volunteers. If you would be willing to serve as a volunteer, please contact kwajpto@gmail.com.

Adult Volleyball Season Registration. Oct. 11 – 21. Season runs from Nov. 1 – Dec. 16. \$100 team fee. A League and B League. Limited team slots available so register fast!

School Advisory Council (SAC) Public Meeting. Weds. Oct. 19., 7 p.m. Elementary School, Coconut Room # 29. Questions, please call 5-3601. https://www.plusportals.com/KwajaleinSchool.

The Family Pool will be closed on Monday, October 24 until 2:30pm for the KST Swim Meet.

The Optometrist, Dr. Chris Yamamoto, will be on Kwajalein and will see patients on Oct. 21 through Nov. 3. Please call the Hospital for eye exam appointment at 5-2223/5-2224 or ES&H for prescription safety glasses at 5-8855.

Kwajalein Atoll International Sportfishing Club monthly meeting will be held Weds., Oct. 26, at the Pacific Club. Food & beverages will be served at 6:30 p.m., meeting will start at 7 p.m. All anglers welcome to attend! Questions? Contact Bill, 5-2693.

Vet's Hall 6th Annual Halloween Party! Come fly on down for a ghoulish night of fright. Costume contests, cash prizes, and undead entertainment by Ballistic Love. Sun., Oct. 30, 8 p.m.

The Veterinary Clinic is closed until Nov. 2. Please contact the hospital at 5-2223 for any animal related emergencies. Holiday Timber Tree Lot. Friday, Nov. 4. 4:30-6:00 p.m. On the Corner of 7th and Lagoon. Come pick your blank pallet tree form and paint at the Holiday Timber Tree Lot. Decorate it on your own or with a group, place it around the island by Dec. 2 and enter to win!

Nov-Dec 2016 Lifeguard Class Announcement. Session Dates: Nov. 9 - Dec. 12. Classes on Saturdays and Mondays. Cost: \$150 (includes book, pocket mask, and certification fees) Course fee due after the first class Registration: Oct. 25 - Nov. 5. For questions and registration: Contact Kimberly Yarnes at 5-3331 Participants must be at least 15 years old.

Want to take out the B-boats? Register for the basic boating course at the Small Boat Marinas. The class will be scheduled when 20 people have registered. In addition to the class time you will have an orientation cruise and a practical exam. In the meantime, find a friend with a license and hit the open water to begin to orientate to the local area. Questions? Call 5-3643 or 5-3331.

Planning a holiday party this year? Think you might need tents, tables, or chairs? Contact Community Activities to complete your reservations now and ensure equipment availability. Reservations are already booked solid for Nov. 12-14, Nov. 21-25 and Dec. 1-5. Questions? Call 5-3331.

Want to learn how to dance? Come join us Wednesdays CRC Room 6 and Saturdays CRC room 1 both times at 7:30-9pm. We will be teaching swing, blues, and everything ballroom. Beginners always welcome. For questions contact Josh H-2423 W-7266

Safely Speaking: How would you escape from your workplace in an emergency? Do you know where all the exits are? Are you sure the doors will be unlocked during emergency? Know your exit plan and practice it with the rest of your coworkers.

E-Talk: Protected Species at USAG-KA USAG-KA's Environmental Standards define protected animal species and habitats. Transporting protected species can result in heavy fines. Contact Environmental (5-1134) for more information.

			– Café Roi		*MENU CU	JRRENT AS OF OCT. 12
LUNCH			Cupe Not			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	October 22
Peking Style Chicken	Pepper Steak	Spaghetti	Beef Stir Fry	Shredded Beef Tacos	Turkey Sandwich	Shoyu Chicken
Indonesian Pork	Glazed Pork Loin	Meat & Marinara Sauce	Chicken & Broccoli	Enchilada Casserole	Apple Glazed Chicken	Hawaiian Chopped Steak
Eggs Benedict	Cheese Quiche	Sausage & Peppers Sub	Ginger Rice Pilaf	Mexican Rice	Collard Greens	Spicy Asian Noodles
DINNER						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	October 22
Herb Baked Fish	French Braised Beef	Korean Steak	Roast Beef	Fried Chicken	Fish Provencal	Hot Dogs
Mashed Potatoes	Chicken Dumplings	Stir Fry Vegetables	Mustard Chicken	Meatball Sub	Boeuf Bourguignon	Chili and Sauerkraut
Pasta Florentine	Au Gratin Potatoes	Chicken w/Pineapple	Corn on the Cob	Stir Fry Vegetables	Pommes Duchesse	Meatloaf and Potatoes

HEROES OF THE WEEK

HOURGLASS REPORT

Ever wonder who printed your newspaper? Every presentation, oversize map, Kwa- love the challenge whenever jalein Hourglass, church pamphlet and school workbook on Kwajalein is printed by exactly two hardworking men who requested I take is as a chalmeet the print-on-demand lenge. My motto is do it now needs of the entire island with and not put up and wait for a smile. This week's heroes are tomorrow." the dynamic duo at KRS Reproduction - Helmer Emos and Lee mings' patience and mentor-Cummings.

It's a tough job. Together the Reproduction operators bring people. Well-most people diverse professional experience to machine repair and He is native to Oklahoma print shop management on and has worked extensively Kwajalein. Their care and atten- in both Oklahoma and Texas. tion to detail is the mark of a re- As a former employee of Xefined and dedicated work ethic; rox, Cummings worked and it shows when they anticipate traveled extensively for 21 and troubleshoot mechanical years prior to his eight and errors and also when they pa- a half years of service as an tiently attend to customers. No Equipment Repair Tech III matter how busy they are, they with the KRS Office Products will stop and share a laugh and team. He enjoys making maput the customer at ease.

of positions on Kwjalein and how to get it done for all of has worked in Reproduction the KRS reproduction mafor five years. In his free time, chines on the island. he enjoys spending time with his wife Neikoj, children and Kwajalein with his wife Avis. grandchildren, and assisting his In his spare time he enjoys parents with their local bakery. snorkeling and church activi-He enjoys talking with custom- ties on Ebeye. ers about current events and

brightening their day.

"As an operator right now I projects arise with short notice," says Emos.

"Whenever a project is

Emos is grateful for Cumship as well.

"I enjoy working with anyway," laughs Cummings. chines operate at optimum Emos has worked in a variety capacity—and he knows

> Cummings resides on

"It is a challenge to keep



🖸 U.S. Army photo by Jessica Dambruch

Helmer Emos and Lee Cummings have everything under control at KRS Reproduction.

equipment going here," says Cummings. he keeps a good sense of humor about the stressors of repairing our valuable equpment

"Sometimes it can up to six months to receive parts. I have [waited for] some parts that took a year to receive. All in all it is a good place to work; it is a tropical island."

If you have ever been a customer at KRS Reproduction, visit and thank the guys manning the machines for making your print job the best possible product.



RESULTS LAST WEEK	ncconuə				
Oct. 4		<u>Men's League</u>	Win	Loss	Tie
Go Green Go tied Spartan Women	1-1	Bako	1	3	1
K.A.T. def. Spartan Co-ed White	-0	FC Swell	5	0	1
		Kwaj Rejects	3	2	1
Oct. 7		KFC	2	1	2
Kwaj Rejects def. Spartans II	2-1	Spartans I	3	1	1
Spartans I def. Bako	6-1	Spartans II	0	7	0
Oct. 8					
GoGreen Go d Spartan Co-ed Red	6-0	<u>Women's League</u>	Win	Loss	Tie
		K.A.T.	2	4	0
	MCN I	Go Green Go	6	0	1
	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Spartan Women	4	1	1
	1	Spartan Co-ed Red	2	4	0
	The state of the same	Spartan Co-ed White	0	5	0