## VOLUME GO NUMBER 30 JULY 27, 2019 THE KYDDLEIN HOURGLASS



THREE GENERATIONS

FROM KWAJ



U.S. Army Maj. Carl McGrew (Ret.), a former Kwajalein Missile Range Range Operations officer, poses for a photo July 21 in front of Meck Island, where he supported test launches of several generations of anti-ballistic missile systems through the years.

° JORDAN VINSON

#### **BACK ON FORMER RANGE OPS OFFICER REFLECTS ON ATOLL'S MISSILE HISTORY**

FEATURE / JORDAN VINSON

searing sun slides into the horizon, revealing a cavalry of puffy horsehead-shaped clouds marching slowly westward. Carl McGrew, a visitor all too familiar with the iconic cotton-candy-pink sunsets of Kwajalein Atoll, props himself on the mainsail boom of his son's sailboat, Cherokee, and lets the moment soak in. "How sweet it is," he says, clasping a cup of icy gin and tonic water.

Between brief, quiet moments of reflection, he tells story after story about his adventures on and off Kwajalein Missile Range, hitting everything from his involvement in the Terminal High Altitude Aerial Defense program, to catching massive marlin with nothing but the head of a mop and fishing line. His presence aboard the boat is one of the reasons I've accepted a last-minute invitation to set sail on a short trip to Roi-Namur with him, his son, Paul, and friends and family. If Carl was going, I wanted to go, too. Not only to share his company but also to record a little of the history of the anti-ballistic missile programs in which he was involved.

A retired Army major in the explosive ordnance disposal field, and later a Kwajalein Missile Range operations officer with more than 13 years of service on Kwaj, McGrew helped direct missions on the range through the 1970s, 1980s and 1990s. These were pivotal times for America's anti-ballistic missile programs.

McGrew's assignment as an EOD officer at White Sands Missile Range was one of his earliest forays into the ABM industry.

Beginning in the mid-1960s, Bell Tele-

phone Laboratories, Western Electric and other contractors hired by the Army Rocket and guided Missile Agency were tasked with developing a viable ABM system, busying themselves with early test launches of the superfast shortrange ABM missile called Sprint. Mc-Grew was assigned to EOD support for these missions.

"There were some 45 Sprint missiles launched at White Sands," he says. "I was able to support some 15 of those there in the early development of the Sprint, since it was a very hot booster system." Equipped with a small, 1-kiloton thermonuclear warhead, it was designed to intercept ICBMs inside the atmosphere just 15 seconds after launch. In testing, the two-stage missile popped out of its

silo via a small explosive piston, after which its first stage ignited and accelerated the vehicle at more than 100Gs to a max speed of Mach 10 in just 10 seconds—so fast the nose cone became incandescent. The missile's engineering was nearly beyond the state of the art. "They had about a 50 percent success rate just to get [Sprints] out of the silos," McGrew tells me. But the early testing at White Sands created a stable foundation for engagement and intercept testing at Kwajalein, where McGrew would continue to work with the Sprints and another longer-range missile system called Spartan.

As the 1960s gave way to the 1970s, the Nixon administration, the Joint Chiefs and a slim congressional majority



Army Maj. Carl McGrew (Ret.), a former Range Operations officer at the Kwajalein Missile Range, discusses his 13 years of helping test several generations of anti-ballistic missile systems on Kwajalein Atoll.

#### THE KWAJALEIN HOURGLASS

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

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supported deployment of these ABM missiles and two families of advanced phased array radars in an ABM arrangement called Safeguard. Centered among the wheat fields outside of Nekoma, North Dakota, construction of the Stanley R. Mickelsen Safeguard Complex was nearly complete, with systems soon coming online, when McGrew, still an Army EOD officer, moved his family to Kwajalein in June 1974. Flight tests of the Safeguard program's Sprint and Spartan interceptor missiles were launching from Meck and Illeginni at a breakneck rate: roughly one M2-series intercept attempt a month, and the population of Kwaj was more than 6,000, McGrew remembers. He was assigned to Kwajalein Missile Range's range operations group, working in the building now known as 1010, and he and four officers directed the range's operations and mission scheduling for the Sprint and Spartan launches. "When Sprint finally arrived at Kwajalein, it was very successful," he says. "The development program allowed for it to launch from Meck Island and Illeginni. So, Sprint was a very successful, high-performance missile." Meck was a beehive of activity until the final test shots, Safeguard M2-545 and M2-548, blasted off the pad at Meck the following April, ending this crucial testing period for the Safeguard program.

U.S. Army Safeguard Command activated the Mickelsen Safeguard Complex in North Dakota on Sept. 28, 1975, and only 19 weeks later the Joint Chiefs ordered the site to shut down: The slim congressional majority that had authorized the program years earlier had given way to voices opposed to Safeguard. It was the end of the line for nuclear-armed ABM missiles on American soil. A new phase in the evolution of ABM defenses would soon begin.

"Those programs were very successful," McGrew says. "But with the [Strategic Arms Limitation Treaty] agreements, those systems were taken off the shelf, and new systems that were less hazardous to nuclear detonations—hence the rise of kinetic kill programs—came online."

McGrew loved his assignment on Kwajalein and extended his twoyear tour to three years. "I loved the environment to raise my kids in, and it was a wise move." Apart from his work on the missile range, he became an avid scuba diver, organizing Kwajalein Scuba Club trips to Pohnpei and Chuuk. In 1975, he and 29 other Kwajalein divers checked 60 KSC air tanks onto a Continental Airlines flight, paying \$5 per tank, and spent two weeks of diving the reefs and wrecks in those Micronesian states.

"We did the same trip again the next year in 1976," he says. "The scuba club was very active—a lot of divers, and there were never enough tanks."

In 1977, the Army assigned McGrew to Huntsville, Alabama, where he retired from the Army as a major, completing 20 years of service. It was the beginning of the Pentagon's studies into methods of destroying incoming ICBMs through blunt impact instead of nuclear explosions: like hitting a bullet with a bullet, the Army says. One of those early studies, begun in 1977, was the Homing Overlay Experiment, and McGrew was brought aboard by Lockheed Corporation to assist. While the Army and its contractor teams performed deep dive studies on improving radar and computer abilities to discriminate enemy warheads—that is, identify warheads from decoys, penetration aids and debris while en route to their targets—the Army also began developing kinetic kill vehicles. By using rocket stages to launch an independently steerable, thrust-er-powered object guided by infrared optical guidance systems, the idea was that a KKV could collide head-on with a target, destroying it: no nuclear detonation needed.

FROM TOP: A Sprint missile is prepared on the launch rail at White Sands Missile Range June 4, 1965; McGrew supported 15 Sprint launches there. A Sprint, incandescent from the intense speed and air compression, is fired from Meck, where McGrew also supported launches. An un-fired Homing Overlay Experiment interceptor on display in a museum. This photo depicts the launch of a recent THAAD intercept test launch.







DOD photos; Wikimedia Commons



The HOE project was the start of McGrew's 18-year stint in KKV development with Lockheed, and the project brought him and his family back to Kwajalein Missile Range for a second tour. In three tests in 1983, the Air Force launched Minuteman ICBMs toward Kwajalein Atoll, and the Army's HOE interceptors failed in each test to destroy the dummy warhead. "It was a challenging program" that used off-the-shelf technology, essentially, McGrew says. But on June 10, 1984, the date of the fourth and final test, the HOE's 13-feet-wide umbrella skeleton wrapped the Minuteman re-entry vehicle in a concussive death hug with a closing speed of more than 6 km per second. McGrew and the HOE planners were elated.

"It was the first kinetic kill, and that was the start of Star Wars, according to President Reagan at the time," McGrew tells me as we sit at anchor off Roi-Namur.

Formally known as the Strategic Defense Initiative, Star Wars programs blossomed in the coming years, each fixated on different ways to destroy incoming warheads without the use of nuclear explosions. Some were fanciful for their time-think lasers and platforms bursting with KKVs in orbit around Earth-and some were more straightforward. McGrew moved on to a program grounded on past successes, the Exoatmospheric Re-Entry Interceptor Subsystem, which was a direct descendent of the HOE program and designed to kill ICBMs at long range, outside of the Earth's atmosphere. On Jan. 29, 1991, the ERIS crew launched the 200-kilogram ERIS booster and KKV from Meck and scored a direct hit against a target Minuteman launched from Vandenberg Air Force Base, California. McGrew looks fondly on that achievement: They had proven KKVs might work in the real world. "Fortunately, we were very lucky and got the first round off and also had a first-round kinetic kill hit," he says, acknowledging the long road kinetic defense programs still had ahead of them.

A second intercept attempt in March 1992 tested the KKV's ability to discriminate the correct warhead using its onboard infrared sensors but failed to destroy the target missile. Budget constraints forced an end to ERIS testing soon after, but the knowledge the Strategic Defense Initiative Organization gained on infrared seeking, onboard discrimination, KKV vector thrusting and more were transferred directly to the following—and current—generation of exo-atmospheric kinetic ABM systems: the Missile Defense Agency's Ground-based Midcourse Defense. With 44 Ground-Based Interceptors deployed in silos at Fort Greely, Alaska and Vandenberg, the system is charged with protecting the United States from limited ICBM attacks from adversaries.

McGrew looks back fondly on his involvement in HOE and ERIS and his role in ushering the long-range kinetic system from infancy to deployment.

"We did a lot of work out here," he told me, staring off at Meck Island as we sailed by. "A lot of important work."

His favorite program, he later tells me, is THAAD, another kinetic ABM system with roots planted during the Reagan Star Wars years. The theater defense system was borne out of the High Endo-atmospheric Defense Interceptor program and designed to destroy medium- and long-range theater ballistic missiles primarily just inside the atmosphere. THAAD was McGrew's last assignment with Lockheed. He worked as the mission director for a total of nine launches of the THAAD interceptor at White Sands before later system testing took place on Kwajalein Atoll, Wake Island and elsewhere.

"That was a very successful program," he says. "And it's operational now, along with the GBI in Alaska and Vandenberg. So, I'm fortunate to see two programs to their fulfillment, and that was 20 years with Lockheed.

"And it's good that's deployed," he continues. "Because things in Korea and in other places have requirements for that system. And it's nice to see that the Army is able to activate it and keep the Soldiers trained on it."

The 13.5 years McGrew spent on Kwajalein Atoll left an indelible impression on him. He's proud of the roles he had in testing critical

FROM TOP: The final Spartan launch ocurred April 17, 1975, less than a year after McGrew's arrival. McGrew would later move on to the Homing Overlay Experiment interceptor program, the Exoatmospheric Reentry Interceptor Subsystem, at bottom, and the Terminal High Altitude Aerial Defense system.





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ABM systems deployed today, earning many titles though the years. But he's most proud of calling himself a father, husband and Scoutmaster, he says. Scouting was a way for him to spend time with his family, give back to the community and integrate into the local Marshallese community in ways most people can only imagine now. McGrew and scout leaders from Ebeye would join forces to organize massive, annual Boy Scout jamborees on Bigej, inviting the 500 Marshallese Boy Scouts living on Ebeye and the 30 Kwajalein Boy Scouts for a week-long adventure of cooking pigs in earth ovens and practicing scouting skills.

"Everybody loved to sail, fish and scuba dive," he says. "But since I was a scout master and had two boys—one became a Life Scout, and one became an Eagle Scout—I enjoyed scouting."

The fundraisers McGrew helped organize would pull in enough money from the Kwajalein community to send \$25,000 checks to the Boy Scout leadership in Honolulu and buy Cadillacs for raffle winners. Yes, Cadillacs for raffle winners on Kwajalein—It was a different time. Other adventures included Boy Scout reef hikes from Ninji to Kwajalein during low-tides, before the causeway from Gugeegue to Ebeye was constructed.

He tells of catching so many marlins that he and his friends employed a clever safer way of continuing to fish them and release them back to the ocean: using the head of a mop, literally. It helps if he explains the quirky technique himself:

"I think I got about 28 [marlin] up next to the boat. I learned after about 10 of them that it was hard to get the hook out of them and hard to release them. So we went with what is called a mop head technique. You could actually buy a mop at the store and make three lures. And it didn't have a hook. You just tied the 300-pound line around it and towed it, and it would splash up, and the marlin would hit it. It would hit the mop head like it's a fish and try to kill it. And its beak would tangle into the mop head getting so tangled up that we were able to reel the marlin in-without a hook. Using that technique, we caught a lot of them safely. The mop head would stay attached to the beak and the big marlins would just walk on top of the water with the mop head behind the boat. The mop head would eventually break down in the water and come off the marlin's beak. So that was a lesson learned on catching marlin and releasing them."

A lot has changed on Kwajalein since McGrew first arrived 45 years ago. The Kwajalein Missile Range is now the Reagan Test Site, but it remains a critical test bed for the nation's missile defense programs, the Air Force's follow-on test shots of Minuteman III ICBMs and space surveillance and new foreign missile launch tracking. But in the world of missile defense, much of the range activity that kept scientists, engineers and Soldiers busy in earlier decades has moved to other national missile ranges, McGrew says. A population of more than 6,000 in the early 1970s has dropped to just more than 1,000 today. But while budgets are a function of the number of boots on the sand here, enjoying life on Kwaj and Roi is not.

"The lifestyle is the same," he says. "It's the most beautiful place to live and raise a family, to enjoy the natural environment to its fullest. It's great to be able to get these experiences time and time again."

As Paul motors me away from Cherokee so I can catch a flight back to Kwaj, Carl sits on the stern of the boat, flashes a thumbs up and says goodbye. I remember him saying this might be his last sailing adventure on Kwajalein Atoll. That partly saddens me, but I'm reminded he's got plenty of other adventures ahead—plus five nights at Nell, the next destination for the Cherokee crew on their trip around the largest atoll in the world.



🖸 U.S. Army photos by Jordan Vinson

FROM TOP: McGrew, right, gets a photo with his son, Paul, in front of Meck Island July 20 during a sail trip on Kwajalein Atoll. McGrew, seated next to Courtney Swanson, gets ready to head off on another leg of sailing.

## **KWAJ LINKS THREE GENERATIONS**

#### BY MIKE BRANTLEY / USAG-KA PUBLIC AFFAIRS

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or a tiny speck in the middle of the Pacific Ocean, Kwajalein Atoll has a lot of coincidences when it comes to its residents.

Take Katey Beavers for example. Katey has lived here for two years and is a certified pharmacy technician at the Kwajalein Hospital pharmacy. Katey's father, Bill, grew up here from 1967 to 1970 (ages 10-13), and again from 1973-1978 (ages 16-20).

Katey is on the Green Team in soccer while Bill played on the softball and basketball teams.

Katey lives in the Coral Bachelor Quarters, the same BQ as her father.

Katey, 32, from Murray, Kentucky, moved here two years ago after years of hearing about Kwajalein from her family, and how it was a tropical wonderland.

"My Dad loves to tell stories about all the diving, skiing, fishing and social things he did while he was here," she said. "I like to describe it as, 'Kwaj is to my Dad as football is to Hank Hill. Very special."

Katey worked at a local pharmacy in Kentucky and was looking for a change. "I would not have known about this island, except for the family connection. When I applied, it was at my dad's suggestion." Her father had noticed a pharmacy technician position open and encouraged her, she said.

"It was the perfect option. Go somewhere I have always wanted to go and go forward into a different avenue of pharmacy," she said. "I think my dad was daydreaming about coming back out here. We chatted about it, and I decided it would be a good idea."

Growing up on Kwajalein in the late 60s and 70s, Bill Beavers, from Kirksey, Kentucky, enjoyed everything that his island home offered: fishing, reefing, snorkeling, golf, tennis, archery and soccer. He was even the paperboy who delivered The Kwajalein Hourglass to residents when he was 12 and 13 years old.

Bill's father, John, who passed away in 2003, was the liaison officer for Kwajalein, working between the Kwajalein Missile Range and the former Trust Territory of the Pacific Islands. "We had the high commissioner and the attorney general of the Trust Territory over for dinner," said Bill. "And when I was a senior, my dad told me I was 'going fishing with the governor of the Marshall Islands tomorrow—so no school.""

"I graduated in 1975 with no plans for the future," Bill said, who worked at the post photo lab, hobby shop and movie projection. He stayed for two years and returned to Huntsville, Alabama, to attend Jacksonville State University.

Katey says what she enjoys most about her job are the patient interactions. "We live in a small community and to be in a position to help my neighbors is very rewarding. I know if you are at the pharmacy then odds are your day might not be going too well," she said. "It feels good to try and be a positive note in someone's day."

While her first impression of the island was that it had "seen

"I MADE MONEY AS THE PAPERBOY, DELIVERING THE KWAJALEIN HOURGLASS WHEN I WAS 12-13 YEARS OLD." ----BILL BEAVERS---- better days," she acknowledges that it is still a thriving community. "My original plan was to try and stay for three years, but honestly, I could see myself staying even longer."

In February 2018, Bill visited his daughter here after being away for 40 years. She said that he has so many fond memories of Kwajalein and was able to reminisce with several residents who still live here, "like a mini Kwaj reunion."

She said that he noticed many changes: missing buildings, new buildings, and new housing, and that the island looks greener.

"He said that the island is very green now and all the palm trees are taller," she said. "After looking at pictures from the 70s, you can see everything was very tan and sandy looking. It's much more inviting looking now, in my opinion."

Carrying on the family tradition of living on Kwajalein, Bill said about Katey's Kwajalein adventures, "I think it's cool that she's out there living 'da kine' life in the sun."





ABOVE: John Beavers, left, who worked on Kwajalein from 1967 to 1970 and again from 1973 to 1978, receives an award for exceptional performance. John served as the liaison officer between the Kwajalein Missile Range and the former Trust Territory of the Pacific Islands. LEFT: Katey Beavers, certified pharmacy technician here, and her father, Bill, enjoyed Emon Beach in February 2018 while he visited for the first time in 40 years.

## **CAPTURE THE GALAXY WITH YOUR CAMERA**

#### FEATURE / ALBERTO PANDYA

**Dark locations** on Kwajalein Atoll offer striking views of the night sky. Those views are even better during the summer months, when the center of the Milky Way can be seen from this latitude after nightfall. Unfortunately, the human eye can resolve only so much light. If you want to see the center of the galaxy in all its glory, use your camera to create the images the human eye fails to see.

To begin, understand the core goal of night sky photography: All you're doing is capturing and funneling starlight light onto your camera's sensor. Here are some tips to get you started.

1) SHUTTER SPEED. In order to capture as much starlight as possible, understand the 500 Rule of shutter speed and lens selection. This simple equation tells you how slow your shutter speed should be based on the focal length of your lens so the stars in your shot are frozen as points of light. The equation is easy to understand. Simply divide the focal length number of your lens for (15mm, for example) into 500. A focal length of 15 into 500 gives us just over 33 seconds. This means we can keep the shutter open for 33 full seconds and have a nice, crisp shot instead of a bunch of smudges for stars. Most importantly, we have 33 seconds of starlight hitting the camera's sensor. This helps scoop up enough light to create a stunning image. The shorter the lens focal length, the better. Here's another example using a narrower lens. A 24-70mm lens, set at its widest point, 24mm, only allows 20 full seconds of time for light to hit the camera's sensor (500/24=20.83 seconds). That's 13 seconds less open-shutter time than the 15mm lens. Seldom will you want to go with a lens that gets you less than 20 seconds of exposure time. Again, the more natural light you funnel to the sensor the better.

2) APERTURE. The aperture setting you



A shot of the Milky Way over Kwajalein Holmberg Fairways.

select also controls how much natural starlight hits the camera sensor. Just as we want a long, or slow shutter speed, before it hits the sensor, we want light to pass through the largest opening. If your lens opens up to f/2.0, select that and perhaps stop up to f/2.8 to prevent distortion along the edges of the image.

3) ISO. Think of ISO as artificial light, as opposed to real, natural starlight controlled by shutter speed and aperture. ISO simply deals with how sensitive the camera sensor is to the impact of light. In other words, the higher the ISO number, the more sensitive the sensor and the brighter the image. Night sky photographers generally set ISO after shutter speed and aperture. Select whatever number gives your image enough brightness. Generally speaking, the higher the ISO number, the more noise will be visible in your image. More advanced techniques not covered in this article allow for high ISO settings, software processing and stacking of multiple exposures to reduce noise.

**4) STABILIZE.** A tripod is absolutely necessary, as any slight movement at this setting will blur your photos. You'll also

need a camera shutter release cable. These allow you to stabilize the image and to activate the camera without blurring the image in the process.

5) FOCUS. A simple trick will help you capture sharp shots. Find a star that is bright enough to show up on your camera screen and point the lens at it. Almost all cameras have digital zoom buttons. For instance, both Canon and Nikon DSLR cameras use the same labels for this function: a magnifying glass with a plus mark icon in it. Press this button until you are digitally zoomed on the star. Cameras will allow you to zoom in at different magnifications. Make sure you are set to the highest magnification. An out-of-focus star will appear to have a lensing effect. Turn the focus knob until the star shrinks down to the smallest point that it can before lensing again. Press the digital zoom button to exit magnification, and you're all set. Because the stars are so far away, minimal refocusing is required. However, it never hurts to check your focus after every few shots.

Experiment with these settings and find out which works best with your lens or camera combination. Happy shooting!













1-2) A top-10 Kwaj sunset envelops the skies west of Kwajalein July 18. 3) Kwaj residents Ben Gleich, left, and Kristen Rowe pack up Gleich's Hobie catamaran on Torruji following a night of camping a few weeks ago. 4) ALTAIR's dish and feedhorn poke out of the jungle of Namur in this shot taken July 22. 5) Berry Aviation pilots eye Kwajalein, seen in the background, in a flight from Roi-Namur July 23.

THE KWAJALEIN HOURGLASS









1) Sailors from the Netherlands stop by a Kwaj sailboat to say hello July 20. 2) Marshallese children play on the shore of Ebeye July 20. 3) A classic Kwaj sunset, as seen from the island of Edjell, north of the Takamushikan Reef on Kwajalein Atoll, July 21. 4-5) Participants in in the FMWR Kickball Tournament gather for team photos July 17 and 18.

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## **SCUBA DIVING SAFETY TIPS**

Always dive with a buddy. Never dive alone.

Wait at least 12 hours before flying after doing a single dive.

Wait 18-24 hours to fly doing multiple dives.

Divers Alert Network recommends refraining from strenuous work at least 24 hours before AND after diving.

Keep your gear up-to-date and serviced regularly. DAN recommends that regulators get overhauled at least once a year.

Each diver should have their own computer.

On any given dive, both divers in the buddy pair should follow the most conservative computer.

Do not ascend greater than 60 feet per minute.

Even if not required, always make a safety stop at 15 feet for at least three minutes.

Start the dive day with the deepest dive first.

Avoid making multiple deep dives on the same day.

Remember to HYDRATE! Always liberally drink water before and after every dive.





# **HARDERESCUE**

**Rest easy, citizen!** Captain Cardboard is here! Help him in his crusade to rid post office patrons of their cardboard boxes—the honorable way! Follow his lead by crushing boxes and thunder smashing them into the bright yellow receptable next to the post office. Kkkaaapppooowww!

#### **Kwajalein Hospital Public Health Update**

#### **Typhoid Fever**

#### What is Typhoid Fever?

• Typhoid Fever is an illness caused by a bacteria and has been reported on Ebeye. There are no Typhoid Fever cases reported on Kwajalein.

#### How is it spread?

 Spread by an infected person who has not washed their hands thoroughly after going to the bathroom.

#### How can I protect myself and my family?

- WASH YOUR HANDS:
  - After using the bathroom
  - Before preparing food
  - Use hand sanitizer

#### **Dengue Fever**

#### What is Dengue Fever?

 Dengue Fever is an illness caused by a virus and has been reported on Ebeye.
There are no Dengue Fever cases reportec.

#### How is it spread?

on Kwajalein.

- Spread to people through the bite of an infected mosquito.
- No cases of Dengue Fever have originated in the Marshall Islands.

#### How can I protect myself and my family?

• Low risk on Kwajalein Atoll. If concerned, use insect repellent.



## ROAD CLOSURES

PUBLIC NOTICE

**Operations** on the Navy Dump Shoreline Cleanup project will require the intersection of Industrial Drive and Olympus Drive to be shut down intermittently until August 19.

This will include all pedestrian and bike traffic as well. Refer to the image for road blocks, detour route and the exclusion zone. No one is to enter the Exclusion Zone during this time without prior approval.

Please adjust routes accordingly and thank you for your patience. Please call the KFS Field Office at 5-1226 with any questions.

## **SPECIAL HOURS AT THE ROI BARBERSHOP**

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The Roi Barbershop is offering special hours of operation to accommodate all incoming Roi residents during July and August. The Barbershop will be open Tuesdays from 9:30 a.m. to 4:30 p.m. and Wednesdays from 8:30 a.m. to 2:30 p.m. on select dates. Appointments are preferred, but walk-ins are welcome if a stylist is available. Payment is accepted in cash or checks. Questions? Please call 5-3319 or 5-6889.

Select dates at the	
Roi Barbershop	

July 30-31 Aug. 6-7 Aug. 13-14 Aug. 20-21 Aug. 27-28

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Namo Weto Youth Center is following new hours.

Monday- 2-9 p.m. Tuesday- 3-9 p.m. Wednesday- 2-9 p.m. Thursday- 3-9 p.m. Friday- 3-9 p.m. Saturday- 3-9 p.m. Sunday- Closed

For more information, please call 5-3796.

## KNOWLEDGE



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## WEATHER WATCH



#### **RTS WEATHER STATION STAFF**

**The light wind 'doldrum'** period persists. There are currently no larger scale atmospheric features in the region to create any large coverage of rainfall. We don't see any features developing over the next week either. Thus shower coverage remains isolated (10-20%) but persistent. However, showers will be slow moving so any area impacted by shower may have an 1-2" accumulation. Precipitation outlook for the next 7 days is average to below average.

**SATURDAY:** Partly to mostly sunny with isolated showers (10-20% coverage). Winds ENE-ESE around 5 kts.

**SUNDAY:** Partly to mostly sunny with isolated showers (10-20% coverage). Winds ENE-ESE around 5-10 kts.

**MONDAY:** Partly sunny with widely scattered showers (20% coverage). Winds ENE-ESE at 7-12 kts.



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	SUNRISE SUNSET	MOONRISE MOONSET	HIGH TIDE	LOW TIDE
SUNDAY	6:40 a.m.	2:31 a.m.	12:51 a.m. 3.2'	7:29 a.m. 0.8'
	7:11 p.m.	3:21 p.m.	1:23 p.m. 2.6'	7:19 p.m. 0.6'
MONDAY	6:40 a.m.	3:23 a.m.	1:54 a.m. 3.7'	8:29 a.m. 0.3'
	7:11 p.m.	4:18 p.m.	2:26 p.m. 2.9'	8:17 p.m. 0.2'
TUESDAY	6:40 a.m.	4:20 a.m.	2:45 a.m. 4.2'	9:17 a.m0.2'
	7:11 p.m.	5:18 p.m.	3:16 p.m. 3.3'	9:07 p.m0.1'
WEDNESDAY	6:40 a.m.	5:20 a.m.	3:31 a.m. 4.6'	10:00 a.m0.6'
	7:11 p.m.	6:19 p.m.	4:00 p.m. 3.6'	9:52 p.m0.5'
THURSDAY	6:40 a.m.	6:23 a.m.	4:14 a.m. 5.0'	10:41 a.m0.9'
	7:10 p.m.	7:19 p.m.	4:42 p.m. 3.9'	10:35 p.m0.7'
FRIDAY	6:41 a.m.	7:26 a.m.	4:55 a.m. 5.2'	11:21 a.m1.0'
	7:10 p.m.	8:17 p.m.	5:23 p.m. 4.0'	11:17 p.m0.7'
AUGUST 3	6:41 a.m.	8:28 a.m.	5:36 a.m. 5.2'	12:01 p.m1.0'
	7:10 p.m.	9:10 p.m.	6:03 p.m. 4.1'	11:59 p.m0.7'
		5 18 5 15	B	



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

**CW2 Jarell Smith** SHARP Victim Advocate Work: 805 355 2139 Home: 805 355 2036

#### 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



## **PUBLIC NOTIFICATION - IMPORTANT** INFORMATION ABOUT YOUR DRINKING WATER

#### Kwajalein Drinking Water Total Trihalomethanes (TTHM) MCL Violation

The Kwajalein drinking water system recently exceeded a drinking water standard. This incident is not an emergency. However, public notification is required to meet the requirement in the USAKA Environmental Standards (UES). The information below is a summary of cause of non-compliance and actions taken to ensure drinking water quality.

- Testing results from the first quarter of fiscal year 2019 (1QFY19; October – December 2018) show that the Kwajalein Island drinking water system exceeds the standard, or maximum contaminant level (MCL), for the TTHM locational running annual average (LRAA).
- The standard, or MCL, for the TTHM LRAA is 0.080 mg/L determined by averaging the results of samples collected at each sampling location for the past four quarters.
- The level of TTHM averaged at two locations for 1QFY19 was 0.089 and 0.083 mg/L.

#### What should I do?

- Nothing. You do not need to boil your water or take other corrective actions.
- If you have a severely compromised immune system, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

#### What does this mean?

- This is not an emergency!
- TTHM are four volatile organic chemicals which form when disin-fectants, such as chlorine, react with natural organic matter in the water.
- Long term consumption of wa ter with levels of TTHM in excess of the MCL may result in issues with liver, kidney, or nervous system, and an increased risk of cancer.
- Short term exposure has not been

shown to lead to adverse health effects.

• Potential exposures to Kwajalein residents and personnel is considered short term due to the limited time the MCL has been exceeded.

#### What is being done?

•Kwajalein Island's drinking water is now being processed through our reverse osmosis (RO) system prior to treatment and distribution through the potable water system.

oRO removes most of the organic matter present in the water prior to chlorination reducing TTHMs.

oA Granular Activated Carbon (GAC) filter system is planned for installation on Kwajalein in the near future to treat the entire Kwajalein drinking water supply to remove naturally occurring organic compounds before the water is disinfected with chlorine reducing the resulting TTHMs to minimal levels.

If you have any questions, please contact DynCorp Environmental, at 5-1134.

#### MELELE KO RAUROK KIN DREN IN IDRAAK EO ILO KWAJALEIN

Jonan Total Trihalomethanes (TTHM) ilo dren in idraak eo ilo Kwajalein ekar le jen jonak eo emoj an kien karoke (MCL)

Dren in idrak eo ion Kwajalein emoj an la ilon in standard eo an dren in idrak. Joraan in ejjab juon idin. Botab, karon jukjuk in bed in ej juon requirement ilo USAKA Environmental Standards (UES) me ej aikuj komane. Ilal ej melele ko ikijien likjab in im ta bunton ko emoj ejaki non bobrae likjab in.

- Result in taaj ko jen kuwata 1 eo an iio eo 2019 (1QFY19; October – December 2018) ej kwalok ke dren in idrak eo ion kwajalen emoj an la ilon in kakien eo, ak jonok ko (MCL non TTHM LRAA).
- Jonok eo, ak MCL non TTHM LRAA ej 0.080 mg/L eo me ej walok jen sample ko emoj boki jen jikin ebok sam-

ple ko jen kuwata ko 4 remootlok.

Jonan TTHM jen jikin ko jilu ilo 1QFY19 ekar ikotaan 0.089 im 0.083 mg/L.

#### Ta eo kwoj aikuj in komane?

- Ejelok men kwoj aikuj komane. Kwojjab aikuj boil i dren eo ak komane jabdrewot.
- Ne kwojjab ejmour, ak elon nejim ninnnin, ko boraro/kwoj naninmej, ak ko rutto(lillap im lollap), emaron bidodo am bok naninimej im kwoj aikuj kebaak takto eo am im bok melele ko rellap lak ne e safe non am maron draak e dren in.

#### Ta melele in?

- Ejjab emergency ak menin idin.
- TTHM ej emen volatile organic chemicals ko im rej walok ne jej kojerbal jerajko non karreo dren in idraak,
- Jorren ko im remaron walok ne aitok kitien am idraak dren eo im elap level in TTHM ej jorren non aj im kidney ak naninmej in cancer.
- Ejanin wor enaan in joraan ko emoj an walok me emaron jelet jikin ejmour.
- Kakolkol ko rej walok non armej in Kwajalein ej bed wot ilo ien eo ekadru.

#### Te eo emoj komane?

•

- Dren in idrak eo ion Kwajalein ej kio kareo im treat mokta jen an diwojlok kin reverse osmosis (RO).
- RO in ej jolok organic matter ak kij ko im etal wot non jerajko bwe en kadriklok TTHM mokta jen an diwojlok.
- Granular Activated Carbon (GAC) ej juon bar filter botab ej bed wot ilo plan non kolaki ion Kwajalein ilo raan kane tok elik non treat i aolepen dren in idrak eo mokta jen an jerajko im kein bobrae ko jet bwe driklok level in TTHM.

Ne elon am kajitok, jouj im kurlok DI Environmental ilo 5-1134.







## **E-WARENESS**

#### REPORT / DI ENVIRONMENTAL

**Kwajalein Island** has two water systems. The reclaimed (Non-Potable) system, color-coded with red labels, is not suitable for drinking. Landscaping with reclaimed water conserves drinking (Potable) water. Call DynCorp Environmental if you have any questions at 5-1134.

Ewor ruo kain system in dren ion Kwajalein. Reclaimed (Non-Potable) system eo, ekokalle kon label biroro, ejjab emman nan idrak. Utrikrik kon reclaimed water ekojbarok drenin idrak (Potable). Ne ewor am kajitok kaki, call e lok DynCorp Environmental ilo 5-1134.

E-Wareness is a weekly product of DI Environmental. If you have questions, please call DI Environmental at 5-1134. Elane elon am kajjitok, jouj im kurlok DI Environmental ilo 5-1134.

## IREPORT

#### See Something Say Something Your Actions Can Save Lives

WHO TO REPORT TO Local law enforcement and security \* 911

\*5-4445/4443 \*usarmy.bucholz.311-sgcmd. mbx.usag-pmo@mail REPORTING SUSPICIOUS ACTIVITY -Date and time activity occurred -Where and what type of activity occurred -Physical description of the people involved -Description of modes of transportation -Describe what you saw or heard -Provide pictures if you took any



#### **UNITED CHECK-IN TIMES**

Monday, United 155—3:30-4:45 p.m. Tuesday, United 154—11-11:30 a.m. Wednesday, United 155—2:30-3:45 p.m. Thursday, United 154—11:30 a.m.-Noon. Friday, United 155—3:30-4:45 p.m. Saturday, United 154—11-11:30 a.m.

#### ATI CHECK-IN TIMES

Early departures—7:45-8:15 a.m.; All other departures—8-8:30 a.m. \*Check with your ATI flight representative to confirm check-in and flight departure times.

#### **SHUTTLE BUS SERVICE**

To set up a pick-up time for the shuttle please call 5-8294 or 5-3341. If a representative cannot be reached, please leave a detailed message and your phone call will be returned as soon as possible. Shuttle services start one hour prior to check-in times for United flights and 0700 for the ATI.



#### HOURGLASS IS ON FLICKR

Visit the official Kwajalein Hourglass Flickr page for photos.

CLICK THE LOGO BELOW!

## flickr



#### KWAJALEIN

Yuk Theater 7:30 p.m.

Saturday, July 27 Long Shot (R)

Sunday, July 28 Shazam! (PG-13)

Monday, July 29 Little (PG)

#### **ROI-NAMUR**

Tradewinds Theater 7:30 p.m.

Saturday, July 27 Flatliners (PG-13)

Sunday, July 28 Captain Marvel (PG-13)

#### COMMUNITY CLASSIFIEDS

#### HELP WANTED

To research and apply for government employment opportunities on U.S. Army Garrison-Kwajalein Atoll and worldwide, visit usajobs.gov.

RGNext, LLC seeks qualified candidates to fill several open positions on Kwaj and Roi in engineering, technical and other areas. For more information and to apply, go to: www.rgnext.com.

DynCorp International (DI) is looking for qualified candidates to fill various positions. Current DI open positions on USAG-KA include education services, aviation and airfield operations, marine operations and public works among others. For more information and to apply, go to: www.dilogcap.com or contact your local HR representative.

#### COMMUNITY NOTICES

The USAG-KA notary is off island July 18-31. For notary services, please plan appointments for after July 31.

Ongoing Smoking and Tobacco Cessation offered. Please call EAP at 5-5362 or make an appointment with a physician.

Payments for monthly telephone fees are accepted in Bldg. 702 on Kwajalein (Tue. - Sat., 1-5 p.m.), and the Finance Office at the Air Terminal on Roi-Namur during normal business hours. Payments are due the first of every month. For billing questions, please call 5-0843.

Reminder that internet customers can access their account and pay online! Simply visit KwajNetBilling.dyn-intl. com to log in and pay via our secure, online payment gateway using the payment method of your choice. You may also pay online for future months in advance! For support, contact us via phone @ 805-355-0843 (5-0843) or email KwajNet.Billing@dyn-intl.com

The Kwajalein Post Office hours of operation are: Monday: 12:30 to 5 p.m.; Tuesday and Thursday: Noon to 6 p.m.; Wednesday and Friday: 11 a.m. to 6 p.m. Please remember to display your badge at the window prior to package pick-up.

Facility Manager Evacuation Coordinator Training meets on the first and third Wednesday of each month at 10 a.m. in Bldg. 904 in the Fire Station Training Room. Call 5-3364 to sign up. -There is a 15-person cap on classes.

The MIC Shop is looking for ladies and gentlemen to work one two-hour shift per month selling beautiful, one-of-a-kind handicrafts. Please contact Joanna Battise at joanna\_correll@ yahoo.com or 5-4122 for more info! Hours are Monday 12-2 p.m., Tuesday and Thursday 5-7 p.m., and Wednesday and Friday 9-11 a.m.

FMWR is exploring the possibility of selling lumber out of the Hobby Shop and would like community feedback. Please go to the FMWR Facebook page at www.facebook. com/usagkafmwr and click on the survey link to complete a five-question survey. Your feedback is appreciated.



### **UXO REMINDER**

#### PUBLIC NOTICE

Remember the three Rs of UXO: Recognize an item as possible Unexploded Ordnance. Retreat from the area of the UXO. Report suspected UXO immediately by notifying EOD (5-1433) or CPS (5-4445).

Provide the following information: Location (building #, GPS, landmarks, etc); Size (compared to common items - football, scuba cylinder, etc). Treat UXO like you would treat dangerous sea creatures. Look but do not touch. For a detailed refresher, please attend the Island Orientation Briefing on the fourth Wednesday of every month.

Kemejmej R ko 3. Recognize (kile) juon kwopej bajjok emaron Bokutan ak kein kabokkolok (UXO). Retreat (Jenliklik) bed ettolok im jab kepaak UXO eo. Report (Ripoot e) boktun ak kein kabokklok eo ien eo emokajtata non EOD ilo nomba kein (5-1433) ak CPS (5-4445).

Ken melele kein: Ia eo (nomba in ijo, GPS, kakolle in ijo, etc.); Jonan (jonan e ibben jet kain mweik - football, taan in turan, etc.). Tiljek kon UXO kein einwot am kojparok menin mour in lojet ko rekauwotata. Kalimjek wot jab jibwe. Non bar kakemejmej eok, eokwe jouj im koba lok ilo Island Orientation allon otemjej.

#### USAG-KA RELIGIOUS COMMUNITY INFO

PCS Party - Charissa Finn & Family - Aug 11th. Charissa and her family are leaving the island soon. We would like to invite you to celebrate them on Sunday August 11th in the REB at a Chocolate Themed Potluck following the 11:00 a.m. church service. The chapel will provide drinks and paper products. Please bring a dish to share. RSVP to the Chapel Offices at 5-3505 or kwajchapel@gmail.com

Men's Bible Study. Every Thursday at 5:30pm in the Chapel Office. We are studying "The Spirit of Christ" by Andrew Murray. For more info, contact Mike Ignacek mmignacek@ gmail.com.

Catholic Services on Kwaj. Sunday- 9:15am, Main Chapel. Saturday- 5:30pm, Small Chapel. Daily Mass (T-F) 5:15pm in the chapel office (except for second and fourth Fridays).

Interdenominational Services on Kwaj, Sunday- 8:15am. Traditional Service, Main Chapel Sunday- 11:00am. Contemporary Service, Main Chapel.

New Roi services schedule, effective Aug. 1. Catholic service takes place at 6:30 p.m. on the second and fourth Fridays of every month. The interdenominational service takes place at 6:30 p.m. on first and third Fridays of every month.

AA meets weekly on Tuesdays from 6:30-7:30 pm upstairs in the REB (Rm. 213).