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THE KWAJALEIN HOURGLASS

THIS WEEK

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NASA LAUNCHES A SOUNDING ROCKET INTO THE IONOSPHERE FROM ROI-NAMUR DURING THE TOO-WINDY MISSION JUNE 19.

UNIV. OF ALASKA FAIRBANKS/DON HAMPTON

SUCCESS FOR TOO-WINDY

BY JESSICA DAMBRUCH

Accolades and emailed high-fives from researchers around the globe poured into the Too-WINDY Mission email thread hours after the first message reported success.

"The team's hard work finally paid off today!" wrote NASA Operations/Campaign Manager Nathan Empson to the crew of the NASA Too-WINDY Mission June 19. "Both vehicles were launched into a science event of interest after a huge team effort."

With support from NASA's Wallops Flight Facility and researchers from Cornell University in Ithaca, New York; Clemson University in Clemson, South Carolina; and Boston College in Chestnut Hill, Massachusetts, Too-WINDY had successfully launched two suborbital sounding rockets into the ionosphere to collect data on an issue that affects terrestrial life.

"You guys rock(et)!" wrote an investigator in reply.

If you don't think weather in outer space has anything to do with you, think back to the last interrupted radio signal you've experienced.

Too-WINDY, or Waves and Instabilities from a Neutral Dynamo mission, is the second flight of the WINDY mission that launched from Roi in 2017. It continues to study a post-sunset ionospheric phenomenon that occurs close to the equator.

—Story continues p. 3

The two Too-WINDY rockets fire in this composite photo.

 NASA/ROC Photo by Chris Lanier

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.

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 U.S. Government, Department of Defense, Department of the Army or USAG-KA. It is published Saturdays in accordance with Army Regulation 360-1.
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📷 Courtesy of Nathan Empson

The Too-WINDY Mission team takes a group photo at the Roi-Namur mission site launch pad. The NASA launcher on the right holds vehicle 36.344, the first of the two Black Brant IX mission rockets launched by NASA June 19. Resting in the Reagan Test Site 20K launcher on the left is vehicle 36.345.

The mission is referred to as Too-WINDY, according to a NASA press release, because it's catchier than WINDY 2.

NASA describes the disturbance, termed equatorial spread F, or ESF, as a layer of charged particles in the upper atmosphere—the F region of the ionosphere to be exact. If you can't quite picture that, think of them as storms.

"People may not be aware that much as we have terrestrial weather here on the ground that sometimes complicates our lives, something similar takes place in the upper atmosphere," said Cornell University's Dr. David Hysell, the mission's principal investigator.

As a lifelong HAM radio operator, Hysell was well aware the interference kept him from communicating with friends around the world. What he wanted to know was why it happened. He combined his initial enthusiasm for radio with an electrical engineering background and recast the radio puzzle as a funded research question. The question brought him back to Roi in 2019.

Think back for a moment to that interrupted radio signal—one indicator of the larger ionospheric weather scene impacting daily life on planet Earth. The storms of the upper atmosphere also create disruptions in terrestrial instrumentation used for navigation and imaging, says Hysell.

When societies rely on this technology, the interruptions can pose hazards.

What can we do about it?

The answer to that question is why Hysell returned to Roi this summer. In the future, the Too-WINDY research data will have benefits for the Department of

Defense, meteorological forecasting, students, Soldiers—even HAM radio operators.

"One day we might be able to anticipate [the storms] in the same way that we try to predict terrestrial weather," said Hysell.

Why visit to the Marshall Islands to do science?

Based on its proximity to the magnetic equator and strong action from post-sunset ionosphere storms, Kwajalein Atoll is the ideal place to measure the weather in space.

The Too-WINDY mission consisted of two NASA suborbital sounding rockets launched from Roi-Namur five minutes apart in a window between 8 p.m. and 3 a.m. local time.

The first rocket launched at 11:28 p.m. It flew to an altitude of 232 miles in the ionosphere where it released tri-methyl aluminum and lithium into the winds that marked disturbances with a cloud.

The second rocket, released at 11:33 p.m. carried a payload of instruments streamlined to accomplish science objectives and measure magnetic and electric fields, says Hysell.

For the record, that's science at 256 miles in altitude.

"We have a stable of rockets to choose from," said Empson. "The Black Brant IX fit the bill."

On Kwajalein, residents checked out the skies, hoping for a glimpse of the fabled nighttime vapor clouds of science.

Scientists on the ground and in NASA Langley Research Center aircraft photographed the substance for approximately 30 minutes during the mission before

the clouds dissipated.

For Empson, the launch was the result of weeks of careful preparation. As a campaign manager, Empson communicates with outward organizations on matters like logistics and safety to ensure that once the team reaches a launch site, it can get to work. He provides the practical apparatus to make the research go.

It was an internship at Wallops Flight Facility that made Empson, who grew up on a farm, stick to the world of science and rockets.

"I fell in love with it," said Empson. "It was a rural place that gave me the opportunity to work on rockets. I got a taste of something I thoroughly enjoyed and I still do."

Empson says he can gauge a mission or a job well done by the team's smiles.

"At the end of the day, if the science team is smiling, then I am happy," he said.

What's Next for Too-WINDY?

The Too-WINDY team left the atoll last week. Next, the data collected must be processed. Hysell calls it space truth.

"We have developed some numerical code that we think will help us forecast the activity happening in the ionosphere," said Hysell.

"We need to validate it. We need some information that is unassailable. That's what we're trying to do here—to get very solid, very high-quality measurements in the ionosphere that we can pump through our forecast strategy to see if it's going to work."

Before departing, members of the mission team enjoyed sharing time with the Roi community.

"Roi is a great place for downtime," said Empson, who enjoys fishing and snorkeling. "We go to a lot of remote locations and as far as the extracurriculars available here, this is fantastic."

Hysell made regular visits to Roi's functioning HAM radio shack.

"If you use it, you are very, very popular and you have more friends than you can handle," he said.

That is, if they can hear you.

As he moves forward with the Too-WINDY data, Hysell hopes future scientists will explore the vast range of opportunities available to them through the study of science, technology, engineering and mathematics, much as he did by pairing an initial interest in radio with rockets.

"Whether your interests are deep in the ocean, up in the atmosphere or down in wells, caves, the Arctic or any kind of exotic place," he said, "you can carve out a career and pursue your interests."



1) U.S. Army photo by Jessica Dambruch



2) NASA photo by Berit Bland



3) NASA photo by Libby West



4) U.S. Army photo by Jessica Dambruch



5) Courtesy of Nathan Empson

1) Too-WINDY Prime Investigator Dr. David Hysell and NASA Campaign Manager Nathan Empson head up the science and logistics behind the Too-WINDY Mission. 2) One of the two Too-WINDY payloads is prepared for vibration testing at NASA's Wallops Flight Facility prior to shipment to the Marshall Islands. 3) Project team members from Wallops prepare the launch pads and shelters on Roi-Namur. 4) A mission control display cabinet on Roi contains a legacy of missions in patches. 5) Before reporting for duty June 18, members of the Too-WINDY team joined the community for a Roi rat fun run.



U.S. Army photo by Jessica Dambruch

Jarrod Atkins, left, Fred Evans and David Burkhead prepare for another night's work in the mission control center for the Too-WINDY Mission on Roi-Namur June 15.

BY JESSICA DAMBRUCH

For those working and living abroad, the unexpected joy of meeting people from home is an unparalleled reminder that the world is not as big as it seems.

USAG-KA recently welcomed members of the NASA Too-WINDY Mission, an unclassified research operation based out of Wallops Flight Facility on the Eastern Shore of Virginia. Little did I know a fellow Old Dominion University graduate was among them.

When universities and colleges advise their students to “go far,” they should be prepared to find Kwajalein Atoll on a map.

It took rocket science and a trip around the world for me to meet Jarrod Atkins, the Too-WINDY launcher group systems lead, more than 7,000 miles away from our alma mater.

How Atkins found his way from school, to rocket research, to one of the few places where spectators can take in a rocket launch from the comfort of a lawnchair is a great story.

Jessica Dambruch: What is your role in the Too-WINDY Mission?

Jarrod Atkins: My role is Launcher Group Systems Lead. Our group is responsible for maintenance, reconfiguration and installation of the NASA Sound-

ing Rocket Program's fleet of launchers all around the globe.

For this remote campaign, we also undertake the role of range setup and takedown which provides support to the payload team, science team and range operations team.

JD: You are a graduate of Old Dominion University. Go Monarchs! What was your major? How did you become interested in space research?

JA: I graduated from Old Dominion University in 2001 with a degree in mechanical engineering technology. Once out of college, I accepted a position as an aircraft carrier test engineer for Northrop Grumman at Newport News Shipyard.

After eight years there I moved to the Eastern Shore of Virginia while working for the Ship Self Defense Sector of Northrop Grumman. At the time, the company also held the NASA Sounding Rocket Contract at Wallops Flight Facility.

Space research has always interested me. When the opportunity to work for NSROC arose, I took it. I started working for the NASA Sounding Rocket Operations Contract and in 2009, the Launcher Systems Group began.

I was hired as the group's engineer. This year I was moved into the position

of Launcher Systems group lead.

JD: This is your second trip to the atoll. Are Kwajalein and Roi-Namur at all like you first expected?

JA: My first time to the Kwajalein Atoll was in 2012 in support of the EVEX/MOSC mission.

I had heard plenty of stories regarding Kwajalein and Roi-Namur from coworkers as we have been launching sounding rockets here since the early 90s. My expectations of the area were pretty much spot on so far as geography and climate.

One unexpected benefit of working here off and on for the past seven years is making great friends and contacts that will last a lifetime.

JD: Please describe one of the fun challenges of contributing to a research mission like Too-WINDY.

JA: One of the things I enjoy most about any remote campaign is the dynamic challenges associated with standing up a range, launching rockets and then breaking it all down to take it home.

There are always stumbling blocks wherever we go to launch, and I enjoy adapting and overcoming them to ensure we are delivering a quality product to NASA.

BY MIKE BRANTLEY / USAG-KA PUBLIC AFFAIRS OFFICER

CLEAN-UP AT BIGEJ

Students from Matthew Gerber's science class at Kwajalein Jr.-Sr. High School collected trash from the beaches of Bigej on May 28 as part of a project they started in class called, "Clean Island, Clean Beaches." See story, 7.

CLEAN ISLANDS, CLEAN BEACHES



Ashley Homuth, left, and Jenna Gray pick up debris from the beaches of Bigej May 28 as part of their class project's goal of cleaning up the beaches of one island in the Kwajalein Atoll.

📷 Courtesy of Matt Gerber



CLEAN ISLANDS, CLEAN BEACHES

Students from Matthew Gerber's science class at Kwajalein Jr.-Sr. High School collected trash from the beaches of Bigej on May 28 as part of a project they started in class called, "Clean Island, Clean Beaches."

BY MIKE BRANTLEY / USAG-KA PUBLIC AFFAIRS

A broken flip flop. A plastic lighter. A water bottle. Another flip flop ... and another.

The beaches of Kwajalein are beautiful, as well as littered with an endless array of trash items that have sailed the high seas and landed upon our shores.

But recently, a group of students from the Kwajalein Junior-Senior High School did something about it.

"My Marine Science class started a project called 'Clean Island, Clean Beaches' out of the organization we created in class," said Matthew Gerber, science teacher at the high school. "It's our hope of cleaning up one entire island completely and then documenting how much trash washes ashore in a single year. This will be helpful data to communicate out to the world."

Meghan Day, 18, and a recent Kwajalein Jr.-Sr. High School graduate, was one of about 26 students who traveled to Bigej May 28 with the goal of cleaning up the beaches.

"I see the trash floating in the ocean and I see the trash on the beaches," said Day. "I volunteered because I wanted to make a difference. I feel if we all did a bit of work then we could really make a lasting difference, and this was one way

I VOLUNTEERED
BECAUSE I WANTED TO
MAKE A DIFFERENCE.

—Meghan Day

we could take part in helping create the bigger picture of a cleaner planet."

Day, who starts college in the fall at Grand Valley State University in Allendale, Michigan, said, "It is important to do this because it helps the environment and the ocean. Also, I think when people see other people volunteering and picking up trash, they might be inspired to help or at least pay attention to where their trash goes, creating a chain reaction of awareness about pollution."

Day, who will major in mechanical engineering, plans to get a master's degree in ocean engineering later.

"Hopefully this will lead to a career that includes renewable energy like hydro energy or coming up with ways to clean up pollution or working with the ocean to create a more sustainable way to live and keep our planet healthier," she added.

Gerber, who has taught for eight years to include the last five on Kwajalein, said he got into teaching to make a significant impact on the world and on students.

"In order to improve the health of our oceans," said Gerber, "people need to have real connections to it. Projects like this connect people to the issues and help people feel like they can make a difference in changing the events that are hurting our waters and the life in our oceans."



Meredith Kirk, left, Morgan De-thlefsen, and Emily Andress pick up debris from the beaches of Bigej May 28. Meghan Day, not pictured, said that "hopefully this will inspire others to take action even on Kwaj, to pay attention to where our trash ends up, and maybe stop and pick up trash wherever it is found."

Photos courtesy of Matt Gerber

NAMO WETO

YOUTH CENTER

**Namo Weto Youth Center
will follow new hours of
operation beginning July 1.**

**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.**



KWAJALEIN SCHOOL SYSTEM RECOMMENDED FOR CONTINUING ADVANCED ACCREDITATION

PUBLIC NOTICE

Kwajalein School System was recommended for continued accreditation by AdvancED, according to a statement released June 22.

The recommendation followed action at the AdvancED Global Commission meeting held on June 17 and 18. KSS has been accredited since 1963.

AdvancED provides nationally-recognized accreditation, the purpose of which is continuous school improvement focused on increasing student performance. To earn accreditation, schools must meet AdvancED's high standards, be evaluated by a team of professionals from outside the school and implement a continuous process of school improvement. Accreditation is granted on a five-year term.

"Accreditation demonstrates to our students, parents and community that we are focused on raising student achievement, providing a safe and enriching learning

environment, and maintaining an efficient and effective operation staffed by highly qualified educators," said Principal Susan Davis.

AdvancED accreditation is recognized across state lines, which not only eases the transfer process as students move from accredited school to accredited school but also assures parents that the school is meeting nationally accepted standards for quality and successful professional practice.

Parents and interested community members can learn more about accreditation at www.advanc-ed.org.

About AdvancED

AdvancED is a non-profit, non-partisan organization that conducts rigorous, on-site school external engagement reviews of pre-K through 12 schools and school systems to help educators and their communities ensure that all learners realize their full potential.

ARE YOU FOLLOWING CURRENT EVENTS?

**CLICK THE LOGO TO CATCH THE LATEST
EPISODE OF THE KWAJ CURRENT ON
CHANNEL 29-1.**



Check out the official USAG-KA Facebook page for community updates and information. Remember, DPSEC is everyone's business. Visit <https://www.facebook.com/USArmyKwajaleinAtoll/>

KWAJALEIN HOURGLASS ORIGINS

COMMUNITY CONNECTION

By Bill Remick

Our hometown newspaper, *The Kwajalein Hourglass*, will complete 74 years continuous publication.

Despite some rumors to the contrary, *The Hourglass* was not the first newspaper published in Kwajalein Atoll. That honor goes to a short-lived paper called the *Amphibian* on Roi-Namur whose first issue appears on Feb. 1, 1944, the day that island was assaulted. It was probably only published for a few days when it was succeeded by another newspaper, the *Roi-Namur News*.

The first newspaper on Kwajalein island came out on Feb. 27, 1944 as noted in a post-war *Hourglass* article by Charles Barnard.

News was delivered seven days a week under three different names over time: the Office of S-2 News, the APO 241 News and the Kwajalein Daily News through June 1945.

I knew that years ago Kwajalein had

been a naval base, but I had one nagging question: How did a Navy publication wind up being named after an Army division? It turned out there were more moving parts here than I first thought.

While Kwajalein was under the command of the Navy in the person of the theater commander, Admiral Nimitz, it was an Army air base.

There was a Naval Base Kwajalein, but it was a parallel command.

On July 2, 1945, the Army turned over the air base and overall command of the island to the Navy. In conjunction with the change of command, the base newspaper was renamed—sort of.

Someone decided that an island-wide contest would be held to give a fitting permanent name to the publication. In the meantime, the paper was called "Contest-You Name It." I don't think they had any idea how permanent the name would be. On July 15, the winner was declared and the paper was christened "The Hour Glass." The July 18 issue, the earliest one I have, shows the winning name.

During the war there was little "island" news beyond the theater showings and occasional sporting events carried in the paper. News from home and about the war in general was important to the over 11,000 personnel scattered over some 12 islands on the atoll. Beginning in September 1945, *The Hour Glass* began carrying some local news items and articles like the one about on-island publishing history.

The *Hourglass* underwent many format changes over the years from letter size all the way to folio size. The name has changed a tad as well. Around 1961 the name was contracted to *Hourglass* and in January 1976, it became the Kwajalein *Hourglass*. It still carries that name today.

Bill Remick is an independent author and contributor to The Kwajalein Hourglass. Views expressed in this article do not necessarily represent the opinions of USAG-KA.



Photos courtesy of Bill Remick. 1) The first page of *The Kwajalein Hourglass*, dated July 18, 1945, chronicles events during World War II. 2) An excerpt of an *Hourglass* article by Charles Barnard, dated Sept. 21, 1945.

U.S. ARMY GARRISON-KWAJALEIN ATOLL CELEBRATES

Independence Day

Join the community and celebrate July 4 with an afternoon of red, white and blue fun, games and grilling! Enjoy selections from a special a la carte menu and check out activities for kids of

all ages before the evening fireworks display. For more event information, please contact USAG-KA Family and Morale, Welfare and Recreation at 5-3332.

SCHEDULE OF EVENTS

FUN IN THE SUN

Begins at 3 p.m.

MWR Bar & Grill, marine equipment, bouncy houses, corn hole, bocce ball, lawn dice and volleyball.

BIKE PARADE

Begins at 5 p.m.

Decorate your bike and join the parade! This event will begin at the north end of the beach path and loop around the Namo Weto Youth Center. Display your bike at the basketball court after the parade.

COMMUNITY WATER FIGHT

5:30 p.m. near Emon playground

Bring your own water shooters and get ready for a community-wide water fight!

FLOTILLA FUN

6 p.m. in the lagoon

Turn the lagoon red, white and blue with patriotic floats.

FUN AND GAMES

6:30 p.m.

Join potato sack races and a tug of war battle.

FIREWORKS DISPLAY

8 p.m.

Enjoy the fireworks display after the sunset!

INDEPENDENCE DAY MENU

A LA CARTE

Grilled chicken	\$4.50
Grilled burgers	\$4.00
Grilled beef hotdogs	\$2.50
Grilled sausage dog	
w/ peppers and onion	\$3.50
Grilled veggie burgers	\$4.00

SIDES

Baked beans	\$2.50
Mac N Cheese	\$2.50
Potato salad	\$2.50

SNACKS

Nachos & cheese	\$3.00
Peach cobbler	\$3.00

DRINKS

Water	\$1.00
Soda	\$1.50
Mango punch	\$2.00

MEALS

Hotdog, 1 side, & drink	\$5.00
Hamburger, 1 side & drink	\$7.00
Chicken, 1 side & drink	\$8.00
Polish Dog 1 side & drink	\$7.00

Food service will be available from 3-7 p.m. next to the Emon Beach main pavilion.



Please Join Us
Thursday July 4th
Emon Beach
1500 - 2030
Food, Fireworks
& Fun!

Bike Parade, Dunk Tank,
Relay Races *and* MORE !!



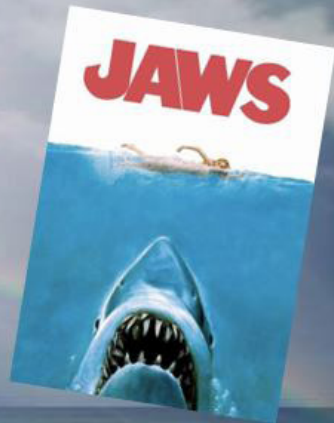
POC: MWR Library Bldg. #805 / 5-3331



Please Join Us! MOVIE on the Beach!

Bring your own chair &
blanket or what you need
to be comfortable!

Where: Emon Beach
When: Saturday, July 6th
Time: 8:00 pm "JAWS"



Sunday, July 7th
8:00 pm. "MOANA"



POC: MWR Library / 5-3331



Kwajalein
Emon Beach



Don't forget your float!!



POC: MWR Library Bldg #805 / 5-3331



Celebrate your Independence!

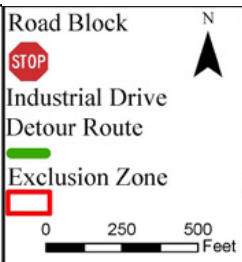
Help your neighbors

turn the Lagoon

Red, White & Blue

Emon Beach Lagoon

Innertube Flotilla Fun 1800



UPCOMING 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.

RESIDENTS CAUTIONED AGAINST CLOGGING SEWER LINES

PUBLIC NOTICE

Many household products are labeled and marketed as disposable or flushable. Many baby and adult personal hygiene products, along with household wipes and cleaning towelettes are labeled both disposable and flushable.

While these products may be marketed as a convenience item in this way, the truth is that these types of items have the ability to clog and stop up not only the sewer line to your quarters, but also can cause blockage and service problems in your neighbor's sewer system and the island pump stations.

Unlike toilet paper, these products do not break down once they are flushed. They can cause blockages in your onsite sewer, especially older pipelines that may have greases, roots, or other obstructions already existing.

A repair of the onsite sewer line can be very inconvenient to you and your neighbors and can leave the government with a costly sewer repair. On a larger scale, when these products make their way into the public sewer system they collect together, causing very large obstructions and clogs in the main collector lines and get tangled in pump stations requiring repair or replacement of equipment.

Please do not discard the following items in any toilet:

- Moist towelettes or disinfectant pads
- Wipes for babies, jewelry, pet care, cosmetics and First-Aid.
- Disposable diapers or diaper liners
- Cotton swabs
- Dental floss
- Feminine hygiene products
- Consumer items other than toilet paper.

PUBLIC NOTIFICATION: IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

PUBLIC NOTICE

KWAJALEIN DRINKING WATER TOTAL TRIHALOMETHANES MCL VIOLATION

The Kwajalein island 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. The information below is a summary of cause of non-compliance and actions taken to ensure drinking water quality.

- Testing results from the fourth quarter of fiscal year 2018 (July – September 2018) show that the Kwajalein Island drinking water system exceeds the standard, or maximum contaminant level, for the TTHM locational running annual average.
- 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 3QFY18 was 0.083 and 0.092 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 disinfectants, such as chlorine, react with natural organic matter in the water.

- Long term consumption of water 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 system prior to treatment and distribution through the potable water system.

- RO removes most of the organic matter present in the water prior to chlorination reducing TTHMs.
- A Granular Activated Carbon bfilter 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 USAG-KA

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 iki-jien likjab in im ta bunton ko emoj ejaki non bobrae likjab in.

- Result in taaj ko jen kuwata 4 eo an iio eo 2018 (4QFY 18; July–September 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 sam-

ple ko emoj boki jen jikin ebok sample ko jen kuwata ko 4 remootlok.

- Jonan TTHM jen jikin ko jilu ilo 4QFY18 ekar ikotaan 0.083 im 0.092 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 ninnin, 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 relap 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.

This notice will appear in the Kwajalein Hourglass until 12 July.

KWAJ A LA CART

HOW TO RENT YOUR WHEELS



HOURLASS REPORT

Ah, the thrill of the open road.

Imagine yourself cruising down Lagoon Road at five miles per hour with the wind in your hair and a portable speaker playing your favorite music. For U.S. Army Garrison-Kwajalein Atoll, it is the little things that matter.

Kwajalein is a small island. The distance between point A and point B is never too far. Then again, renting a golf cart can make a short jaunt easier when transporting coolers, equipment and gaggles of visitors and friends.

Here's the story on how to rent the FMWR golf cart to make your four-wheeled dreams come true.

GET A DRIVER'S LICENSE

Rental golf carts can be operated by any adult who possess a valid driver's license and a USAG-KA driver's license. In order to get your USAG-KA license, you must have a valid driver's license issued by one of the 50 states, the District of Columbia or a U.S. territory.

Additional regulations and restrictions apply to those seeking a learner's permit, drivers under the age of 18, visitors and TDY personnel. Schedule a license appointment by calling LOGCAP Safety at 5-1134 or by visiting Building 357.

GET YOUR CART

Your next stop is the MWR Cart Rent-

als desk in the Grace Sherwood Library, Building 805.

Be sure to complete a rental form before scheduling a cart with the technician. You must also show your driver's license and pay in full before renting your cart.

Customers have the option of paying with cash or card to rent four-, six- and eight-seater golf carts between 8 a.m. and 8 p.m. Monday through Friday, and 8 a.m. and 8 p.m. on Saturdays and Sundays. After 8 p.m. on Saturdays and Sundays keys must be returned to the Bowling Center by 9 p.m.

Cart rental fees start at \$7 per hour depending on the number of seats in your vehicle. Check with the technician at the desk for current rental rates.

FIND YOUR CART

Rental carts are conveniently located at Kwajalein Automotive. Park your bike and find your assigned cart.

Then, cruise on to your beach party or scenic destination. Snap photos, tour the island at a slightly faster pace, and play taxi for your buddies as you scope out the beach and run errands. The open road is yours—sort of.

SAFETY LIMITS STILL APPLY

Cart drivers are advised to exercise caution at all times when operating rental vehicles. Cart headlights should be used during the hours of darkness. Drivers must follow all traffic and vehicle safety

rules applicable on the garrison and should exercise caution on non-paved roads and areas frequented by pedestrians and children.

WHEN RETURNING YOUR CART

When it's time to head home, return your cart to Automotive and be sure to plug in your vehicle at the charging station. Visit Building 805 and drop the key with the technician at the desk.

QUESTIONS?

Be safe and have fun. For more information about cart rentals, please call 5-3439. For more information about specific driving and vehicle regulations on USAG-KA, contact Security and Access at 5-4445.

CART RENTAL QUICK-REFERENCE

HOURS OF OPERATION
MONDAY-FRIDAY
8 A.M.-8 P.M.

SATURDAY AND SUNDAY*
8 A.M.-8 P.M.

***KEYS MUST BE RETURNED TO**
THE BOWLING CENTER BY 9 P.M.

HOURLY RATE	
4-SEATER CARTS	\$7
6-SEATER CARTS	\$9
8-SEATER CARTS	\$10
PAY WITH CASH OR CARD	

SPECIAL HOURS AT THE ROI BARBERSHOP

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.-4:30 p.m. and Wednesdays from 8:30 a.m.-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 23-24
July 30-31
Aug. 6-7
Aug. 13-14
Aug. 20-21
Aug. 27-28



U.S. ARMY SOLDIER WILL RETURN TO EARTH AFTER 204-DAY MISSION ABOARD THE ISS

U.S. Army Lt. Col. Anne McClain runs through rehearsal procedures in the Soyuz MS-09 spacecraft May 20, 2018, at the Baikonur Cosmodrome Integration Facility, Kazakhstan.

EXTERNAL REPORT

By Ronald Bailey
SMDC/ARSTRAT

REDSTONE ARSENAL, Ala.—U.S. Army Lt. Col. Anne C. McClain will depart from the International Space Station to return to earth aboard a Soyuz “Union” MS-11 spacecraft June 24 at 7:25 p.m. EDT, following her 204-day mission with Expeditions 58 and 59, conducting technical and research tasks.

“Army astronauts have a very proud legacy in the astronaut program,” McClain said. “I can tell you that just like everywhere else in the Army, the biggest attributes that we can bring to the table are leadership and team skills, and those traits that I learned in the Army as both a follower and as a leader working in austere environments with small groups in high gain tasks where lives are at risk. Those traits have absolutely transferred over into my time at NASA and I think that is the best thing that we can bring to NASA.”

During her time aboard the ISS, McClain participated in or helped facilitate numerous research investigations and technology demonstrations not possible on Earth. Among these included: on-orbit radiation detection; plant growth in microgravity; human immune-system response and antibody production; pro-

tein crystal formations to provide insight into Parkinson’s disease; and many other experiments ranging from physics to biological studies.

McClain conducted Extra-Vehicular Activities, also called spacewalks, to modify the station’s robotic arm, Canadarm2, and install new batteries for the station’s solar arrays March 22 and April 8. She also participated in an assessment of the unmanned SpaceX Crew Dragon, the first commercially built American spacecraft designed to carry humans to the ISS, when it arrived on station March 3.

McClain launched with her crew Dec. 3, 2018, from Baikonur Cosmodrome’s famous “Gagarin’s Start,” the same launch pad used for Sputnik 1 and later by Russian Cosmonaut Yuri Gagarin. She will return to earth aboard the same spacecraft she launched to the ISS in early December.

McClain was selected as an astronaut candidate in June 2013, completing the training in July 2015. Prior to her selection as an astronaut candidate, she served as a commissioned Army officer and an OH-58D Kiowa Warrior scout/attack helicopter pilot. She served 15 months in support of Operation Iraqi Freedom flying more than 800 combat hours. McClain also served as an instructor pilot, operations officer, troop commander, and she is a graduate from the U.S. Naval Test Pilot School.

Originally from Spokane, Washington,

McClain earned a Bachelor of Science in mechanical and aeronautical engineering from the U.S. Military Academy at West Point in 2002, followed by a Master of Science from the University of Bath in Bath, England. She earned a Master of Science in international relations from the University of Bristol in Bristol, England.

The U.S. Army’s deep involvement in the nation’s space program and close work with NASA dates back to the launch in 1958 of Explorer 1, the United States’ first satellite, and it was a U.S. Army rocket that carried the first U.S. astronaut into space. Over the years, 18 Army astronauts have been selected by NASA with 16 of those flying aboard the Space Shuttle, Russian Soyuz spacecraft, and the International Space Station, including McClain.

Soldiers of U. S. Army Space and Missile Defense Command/Army Forces Strategic Command’s NASA Astronaut Detachment serve as NASA flight crew and provide engineering expertise for human interface with space systems.

U.S. Army astronauts will continue their presence aboard the ISS this year after McClain’s return. On July 20, the 50th anniversary of the Apollo XI lunar landing, U.S. Army Astronaut Detachment commander Col. Andrew Morgan will begin his planned nine-month mission aboard the ISS.

NASA photo by Victor Zelentsov

E-WARENESS

2018 WATER QUALITY REPORT

REPORT / DI ENVIRONMENTAL

Photo by Albert Kok

The **2018** Water Quality Report is now available to all USAG-KA residents with important information about drinking water at USAG-KA.

- Available at Kwajalein and Roi-Namur:
- Post Offices
- Libraries
- Air Terminals
- Dock Security Check Points

2018 Water Quality Report ebojak non aolep armij ro ilo USAKA lale ej kwalok kin melele ko raurok kin dren in idrak eo ion USAG-KA Ebojak ilo Kwajalein im Roi-Namur:

- Post Offices
- Libraries
- Air Terminals
- Dock Security Check Points

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.

Report Suspicious Activity or Behavior



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

Two rules of OPSEC.

1) Don't share all the information.

2) [REDACTED]



Woof! The Kwaj Veterinary Clinic has moved!

The new clinic will be located in Building 566, next to Kwajalein Hospital. The clinic will be open for regular hours of operation in Building 566 beginning June 29.



HOURLASS IS ON FLICKR

Visit the official
Kwajalein Hour-
glass Flickr page
for photos.

Visit [https://
www.flickr.com/
photos/kwajalein-
hourglass/](https://www.flickr.com/photos/kwajalein-hourglass/)



MOVIES

KWAJALEIN

Yuk Theater
7:30 p.m.

Saturday, June 29
SuperFly (R)
116 min.

Sunday, June 30
Bumblebee (PG-13)
114 min.

Monday, July 1
Christopher Robin (PG)
103 min.

ROI-NAMUR

Tradewinds Theater
7:30 p.m.

Saturday, June 29
Tradewinds Theater
Alita: Battle Angel (PG-13)
122 min.

Sunday, June 30
Tradewinds Theater
Skyscraper (PG-13)
103 min.

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

Alcoholics Anonymous. AA meets weekly on Tuesdays from 6:30-7:30 p.m. upstairs in the REB (Rm. 213). Contact Steve for more information (907-350-1193 or millea@alaskan.com).

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.

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.

New Island Memorial Chapel office hours are 7:30 a.m. to 4:30 p.m. Tuesday through Friday and 7:30 to 11:30 a.m. on Saturdays. The office is closed for lunch from 11:30 a.m.-12:30 p.m.

Roi Chapel Dates. Chapel services will be held on Roi July 12. Catholic services will be held at 4:45 p.m. Interdenominational services will be held at 6:30 p.m.

Kwajalein Island Memorial Chapel Services for July. Interdenominational traditional services are held Sundays at 8:15 a.m. Contemporary services meet at 11 a.m. Catholic Mass meets July 6, 7, 13 and 14 at 5 p.m. Regular times resume on July 20. Mass also meets at 5:30 p.m. Saturdays and 9:15 a.m. Sundays.

Prayer quilt ministry meets every Tuesday at 1 p.m. in the REB. We could use your help designing and sewing quilts for those in need. You can come whenever it works for your schedule. For questions, contact Mary Ruiz (5-1195).

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 hand-icrafts. 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.



**THE KWAJALEIN AND ROI ARMY POST
OFFICE WILL BE CLOSED JULY 4.
NORMAL BUSINESS HOURS WILL RESUME
JULY 5 FOR BOTH LOCATIONS.**



Check out the official USAG-KA Facebook page for community updates and information. Remember, DPSEC is everyone's business. Visit [https://
www.facebook.com/USArmyKwajaleinAtoll/](https://www.facebook.com/USArmyKwajaleinAtoll/)

WEATHER WATCH

RTS WEATHER STATION STAFF

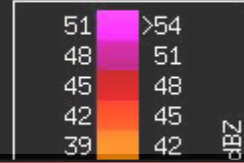
WEATHER DISCUSSION: It appears this weekend will be mostly dry. The Intertropical Convergence Zone will rebuild mid-next week and bring possible showers Tuesday and Wednesday. The bulk of the showers should remain south of the atoll.

July marks the beginning of the wet season. The increased rain comes from having more support for stronger, higher convective updrafts in the atmosphere. This means the wet season also brings an increased risk for short term wind gusts up to 50 knots when these tall storms collapse. That type of weather is not predicted for next week. However, it is advised to set a mindset now for outdoor work and recreation during the wet season.

SATURDAY: Partly sunny with stray showers (less than 10 percent coverage). Winds NE-ENE at 7-12 knots.

SUNDAY: Partly sunny with stray showers (less than 10 percent coverage). Winds ENE-ESE at 5-10 knots.

MONDAY: Partly sunny with stray showers (less than 10 percent coverage). Winds E-SE at 5-7 knots.



SUN-MOON-TIDES

	SUNRISE SUNSET	MOONRISE MOONSET	HIGH TIDE	LOW TIDE
SUNDAY	6:34 a.m. 7:11 p.m.	3:53 a.m. 4:39 p.m.	2:20 a.m. 3.9' 2:40 p.m. 3.2'	8:45 a.m. 0.2' 8:37 p.m. 0.0'
MONDAY	6:34 a.m. 7:12 p.m.	4:44 a.m. 5:36 p.m.	3:02 a.m. 4.3' 3:26 p.m. 3.4'	9:28 a.m. -0.2' 9:19 p.m. -0.2'
TUESDAY	6:34 a.m. 7:12 p.m.	5:38 a.m. 6:36 p.m.	3:43 a.m. 4.6' 4:09 p.m. 3.6'	10:10 a.m. -0.6' 10:01 p.m. -0.4'
WEDNESDAY	6:35 a.m. 7:12 p.m.	6:38 a.m. 7:37 p.m.	4:24 a.m. 4.9' 4:51 p.m. 3.7'	10:52 a.m. -0.8' 10:42 p.m. -0.5'
THURSDAY	6:35 a.m. 7:12 p.m.	7:39 a.m. 8:37 p.m.	5:05 a.m. 5.0' 5:34 p.m. 3.7'	11:34 a.m. -0.8' 11:24 p.m. -0.5'
FRIDAY	6:35 a.m. 7:12 p.m.	8:42 a.m. 9:35 p.m.	5:47 a.m. 5.0' 6:17 p.m. 3.6'	12:17 p.m. -0.8' -----
JULY 6	6:35 a.m. 7:12 p.m.	9:43 a.m. 10:29 p.m.	6:31 a.m. 4.8' 7:03 p.m. 3.5'	12:08 a.m. -0.3' 1:01 p.m. -0.6'

USAG-KA JULY 4 HOURS OF OPERATION

KWAJALEIN HOURS

Adult Pool	Open 24 hours
American Eatery	10 a.m.-4 p.m.
Cart Rentals	8 a.m.-8 p.m.
Emon Lifeguard Hours	3 p.m.-7 p.m.
Millican Family Pool	Closed
Food Court	10 a.m.- 4 p.m.
Kwaj Post Office	Closed
Kwajalein Golf Course	Normal hours
Kwajalein Hospital	Holiday schedule
Laundry	Closed
Ocean View Club	4:30 p.m.-11 p.m.
Pxtra	10 a.m.- 5 p.m.
Shopette	10 a.m.- 4 p.m.
Small Boat Marina	8 a.m.-6:30 p.m.
Sunrise Bakery	8 a.m.-noon
Surfway	Closed
Surfside Salon	Closed
Zamperini Cafeteria	
Breakfast	7 a.m. – 10 a.m.
Lunch	11 a.m. – 1 p.m.
Dinner	4:30 p.m. – 7 p.m.

ROI-NAMUR HOURS

Fly Roi	All flights canceled
Roi Post Office	Closed
AAFES	11 a.m.- 4 p.m.
Outrigger Bar	5 p.m.-2 a.m.
Outrigger Snack	5:30-10:30 p.m.
Roi Dispensary	Holiday schedule
Small Boat Marina	8 a.m.-6 p.m.
Rental Office	1-6 p.m.

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



**GO GREEN FOR GROCERIES!
REMEMBER TO BRING YOUR
REUSABLE BAGS
TO SURFWAY.**

Need Housing Repairs?

Call the Service Desk at 5-3550.

AFTER going through the service desk process, if you continue to experience issues, please contact David Shimaoka 5-2465, Shawn Shelton 5-0040 or Jamie Heidle 5-2283.

We will work with you to resolve your issue.

Email us at usarmy.bucholz.311-sig-cmd.list.mbxowner-pub-wks-svc-desk@mail.mil



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: 5-3341 or 5-8294. 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.