

# THE KWAIALEIN HOURGLASS



## THIS WEEK

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MAJ. GEN. PETE JOHNSON, LEFT, DEPUTY COMMANDING GENERAL OF U.S. ARMY PACIFIC COMMAND, CHECKS OUT ISLAND POINTS OF INTEREST WITH USAG-KA DIRECTORATE OF PUBLIC WORKS ENGINEERING TECH STEVE PRUDENCE. SEE PHOTOS, PAGE 9.

○ JESSICA DAMBRUCH





U.S. Army photos by Mike Brantley

1) Kwajalein Provost Marshal's Office Sgt. Miles Eiswirth, left, Lt. Brian Richey, fold a flag for Curt Hahn, a Veteran of the U.S. Navy who collects flags flown in each U.S. state and territory.

## VETERAN'S FLAGS FLY AROUND GLOBE

BY MIKE BRANTLEY / USAG-KA PUBLIC AFFAIRS

**One man's goal** of flying American flags around the world recently took a stop here on Kwajalein Atoll.

Curt Hahn, a retired U.S. Navy senior chief petty officer from California, began flying the flags back in 2000 when he was a year away from retiring. His goal is to fly flags in all 50 states and around the world. He is currently at 38 states and U.S. territories and has plans to fly more at historic places, military bases, past duty stations and other places of interest.

On July 25, his American flag flew over U.S. Army Garrison-Kwajalein Atoll, adding our tiny speck of paradise to his growing inventory of locations that have flown his flags.

That particular flag has previously flown over the Buffalo and Erie County Naval and Military Park in Buffalo, New York; the USS Little Rock CLG-4; state

capitals of North Dakota, Virginia, New York and Massachusetts; Wake Island; and Nellis Air Force Base, Nevada.

In addition to those locations, his flags have also flown over Iraq, Kuwait, Afghanistan and Syria. Those flags are retired now and will never fly anywhere else.

Once the flag returns to Hahn, he marks the border with the date and location. Once it is full, the flag is retired and placed on display.

When asked why he does this, he states, "Because I can. I may never be able to actually visit some of the places in person, but I can visit through the story behind the flag." He added that he also likes the challenge of doing it.

The next stop for this flag is Vandenburg AFB, California.

**To follow Hahn's flags, visit his Facebook page dedicated to the flags' travels at <https://www.facebook.com/s3productionsflag/>.**



2) Hahn's flag flies over U.S. Army Garrison-Kwajalein Atoll. 3) An historic battlefield marker located at the USAG-KA American war memorial garrison flagpoles commemorates Kwajalein as an island battlefield.

## 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.

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Garrison Commander.....Col. Jeremy Bartel  
Garrison CSM.....Sgt. Maj. Kenyatta Gaskins  
Public Affairs Officer.....Mike Brantley  
Communications Manager.....Jordan Vinson  
Communications Specialist ..... Jessica Dambruch





U.S. Army photos by Mike Sakaio

Members of Honolulu-based U.S. Navy Environmental and Preventative Medicine Unit-6 visited U.S. Army Garrison-Kwajalein Atoll and the Republic of the Marshall Islands in July. Team members are pictured here with USAG-KA Commander Col. Jeremy Bartel, center.

# U.S. NAVY MEDICAL TEAM VISITS RMI

## HOURLASS REPORT

**U.S. Navy** Environmental and Preventative Medicine Unit-6 visited the Republic of the Marshall Islands in July in support of its public health programs. NEMPU-6 is based out of Joint Base Pearl Harbor-Hickam, Hawaii. Their visit is the team's third to the RMI since January 2019.

The goal for NEMPU-6 is to augment the RMI's understanding and technical capabilities to respond to diseases while expanding and sustaining public health capacity. The team initially met

with the RMI's Ministry of Health representatives and other regional partners from the World Health Organization and Pacific Island Health Officers' Association on a first visit in January to assess gaps in health programs during the World Health Organization International Health Regulations-Health Emergency Preparedness and Response Workshop.

In April NEMPU-6 executed the first Subject Matter Expert Exchange. The SMEE included didactic training on various principles of pesticide application, mosquito biology, identification and trapping, laboratory biosafety measures,

food safety program management, sanitation practices, water quality and policy guidance.

During this most recent visit, the team visited Majuro, Ebeye and USAG-KA to conduct a SMEE in support of increased RMI public health program capacity in the areas of environmental health, food and water safety, vector control, laboratory, biosafety surveillance and outbreak response. The SMEE also included field evolutions for environmental health food inspections, water quality testing and vector surveillance trapping and mosquito identification techniques.

## KWAJALEIN PUBLIC HEALTH UPDATE

- On August 7, the Republic of the Marshall Islands announced one (1) confirmed of dengue fever out of 22 unconfirmed cases on Ebeye, as of August 1, 2019.
- The last reported dengue fever outbreak in the Marshall Islands was in 2011.
- Ebeye is conducting an island-wide clean-up of potential mosquito breeding areas.
- Kwajalein environmental services are continuing their mosquito control program. As always, residents should remove standing water around their homes and businesses.
- Dengue fever can occur in persons of any age, although pregnant women and children are particularly vulnerable populations.





# USAG-KA NEWS



*Republic of the Marshall Islands President Dr. Hilda Heine, left, Acting Deputy Chief of Mission Holly Kirking Loomis, center, and U.S. Army Garrison-Kwajalein Atoll Commander Col. Jeremy Bartel, right, visit at the 40th session of the Nitijela Parliament.*

## HOURLASS REPORT

**At the invitation** of the government of the Republic of the Marshall Islands, Col. Jeremy Bartel, USAG-KA Commander, joined Acting Deputy Chief of Mission Holly Kirking Loomis from the U.S. Embassy in Majuro, in attendance at the second part of the 40th Constitutional Regular Session of the Nitijela (RMI parliament) in Majuro Aug.1.

Others in attendance included sen-

ators from their representative atolls; council of Iroij; members of the clergy; members of the judiciary and other RMI government offices; representatives of the diplomatic corps; business leaders; choirs from the atolls of Majuro, Arno and Utrok; and private citizens.

A highlight of the session was RMI President Dr. Hilda Heine's state of the country address. An official luncheon, hosted by the speaker of the Nitijela, followed the session.



## A BRIEF POLITICAL HISTORY OF THE MARSHALL ISLANDS

*To understand the role of the Nitijela, it helps to be familiar with the history of the Republic of the Marshall Islands. Here are some highlights in the development of modern RMI politics.*

### **The Trust Territory of the Pacific Islands**

Under a 1947 Trusteeship Agreement with the United Nations, the United States administered the Marshall Islands and other Micronesian countries. Under the trusteeship agreement the United States assumed the obligation to foster the development of political institutions suited for member countries of the Trust Territory of the Pacific Islands.

The United States was tasked with promoting the development of the inhabitants of TTPI towards independence, according to the wishes of the peoples concerned. A bicameral Congress of Micronesia was established in 1964 of which the Marshall Islands was a part.

### **Political Development**

In 1978 the Marshall Islands, in a referendum, broke away from the rest of Micronesia and opted for a separate constitution. In 1979 its constitution was ratified. The country gained independence and signed a compact of free association with the United States in 1986.

The 1979 constitution provides for a unicameral parliamentary system. However, the president is elected by members of the Nitijela (parliament), and serves as the head of government as well as the head of state. A consultative upper house for traditional leaders, known as the Council of Iroij, advises on customary issues.

*Text from [rmiparliament.org](http://rmiparliament.org).*





Colleen Furgeson, left, Phillip Kinono and Annie Hepler show some RMI pride at the International Swimming Federation World Championships in Gwangju, Korea, in mid-July 2019.

# KWAJALEIN SWIM PROS COMPETE IN KOREA

BY JORDAN VINSON

**Three Marshall Islands swimmers** competed in the International Swimming Federation World Championships, held July 12-28 in Gwangju, Korea. Phillip Kinono, an Ebeye resident; Colleen Furgeson, a Kwajalein Jr-Sr High School graduate and competitor in the 2016 Olympics; and Annie Hepler, a veteran of the 2012 London Olympics and fellow graduate of KHS, went stroke for stroke with the world's finest swimmers during the Olympic-qualifying event.

Furgeson swam the 50-meter backstroke and 100-meter backstroke; Hepler swam the 50-meter butterfly and 50-meter freestyle; and Kinono swam the 50-meter freestyle and 50-meter backstroke. See their stats from Gwangju below.

## FURGESON

**50-meter backstroke Heat 2, July 24, 33.28 sec, 38th overall**

**100-meter backstroke Heat 2, July 22, 1 min 13.64 sec, 58th overall**

## HEPLER

**50-meter butterfly Heat 3, July 26, 30.77 sec, 50th overall**

**50-meter freestyle Heat 5, July 27, 29.63 sec, 78th overall**

## KINONO

**50-meter freestyle Heat 4, July 26, 29.25 sec, 124th overall**

**50-meter backstroke Heat 1, July 27, 41.27 sec, 74th overall**

Shortly before competing in Gwangju, the athletes swam in the 2019 Pacific Games in Apia, Samoa, also an Olympic qualifier, but one featuring athletes only from countries in the Pacific region. Hepler and Furgeson both swam in seven events in Apia, taking the momentum

they gained there to Gwangju.

"The World Championships is an amazing atmosphere to be around," Furgeson wrote in an email to the Hourglass. "The competition and the stage [are] much bigger than the ... Pacific Games that were held in Samoa."

Swimming for the Marshall Islands during any international event is a thrill, Hepler wrote.

"Every international swim meet I compete in always feels so surreal to me, believe it or not," she stated. "I've been competing internationally for a very long time now, and every meet still feels like the first. The excitement, the anxiety, the nerves—it's all there. It feels amazing to be able to represent the Marshall Islands on such big platforms, and I feel very blessed for continuously being given the opportunity to do so."

Each swimmer fell in love with the

sport for the wide array of benefits it brings. For Kinono, swimming helps him "live stronger and healthier in the future," while also allowing him to travel the world and swim with some of the best athletes on the planet.

For Hepler, she's used swimming to make countless connections with other swimmers in other countries, forging lasting friendships: "Swimming has also given me the opportunity to meet so many people over the years and to make friendships that will last a lifetime. Along with loving the feeling of representing the Marshall Islands, one of the main reasons I continue to love swimming is because of the friends I've made and the friendships I hope to continue to make."

Furgeson loves the competition and the honor of representing the Marshall Islands in events around the world, from national capitals throughout the Pacific to the United States to the 2016 Olympics in Rio de Janeiro.

"It's truly an honor being one of the athletes to represent the Marshall Islands," stated Furgeson.

Furgeson and Hepler have the Kwajalein Swim Team to thank for their introduction to swimming in their early years and the constant training and competition they experienced throughout their childhood and high school swimming careers.

"If the Kwajalein Swim Team didn't exist, I don't think I'd be representing the Marshall Islands like I have been," Hepler wrote. "The Kwajalein Swim Team itself, all my coaches, my teammates from when I was [four] years old to senior year—They are the reason I've been able to accomplish so much in swimming. They are the reason I am the swimmer I am today."

What do these young athletes do when they're not in the pool? Furgeson is entering her third year of college, studying sports management and captaining her school's swim team. Hepler lives and works on Kwajalein for San Juan Construction, and Kinono lives on Ebeye and works at Bucholz Army Airfield.

Courtesy photo



## REEF PREDATOR

1-2) This crown of thorns starfish was spotted at a depth of 30 feet off Big Bustard island, feeding on a small colony of hard coral. A growing number of *A. planci* have been spotted in waters around southern Kwajalein Atoll.

BY JORDAN VINSON

**Slowly digesting** the vulnerable reefs of the Marshall Islands' waters is this little hellraiser, *Acanthaster planci*, aka the crown of thorns starfish. *A. planci*'s common name is derived from its prickly appearance. Hundreds of venomous, thorny spikes protrude from its upper surface, giving it a rough resemblance of the Biblical crown of thorns.

*A. planci* has a bad reputation: It specializes in eating hard coral polyps, earning it the nickname "corallivore." Like other star fish, they evert their stomachs through their mouths onto their prey, liquify stony coral polyps with digestive enzymes and pull in the polyps' nutrients through their stomach walls. What is left behind is the hard coral exoskeleton, which soon bleaches snow white—similar in appearance to corals killed by warm water.

Using a metal rod and some effort, a diver can safely peel a feeding starfish away from the coral and watch the creature retract its extruded stomach lining in for safety. It's a sight fit for a creature horror movie.

A few crown of thorns sea stars here and there are natural to reefs ranging from the Red Sea to the south Pacific, and the sea stars' predation can be beneficial to the biodiversity among reefs. But too many can prove catastrophic. Take the case of the Great Barrier Reef off Australia's coast, currently under attack from

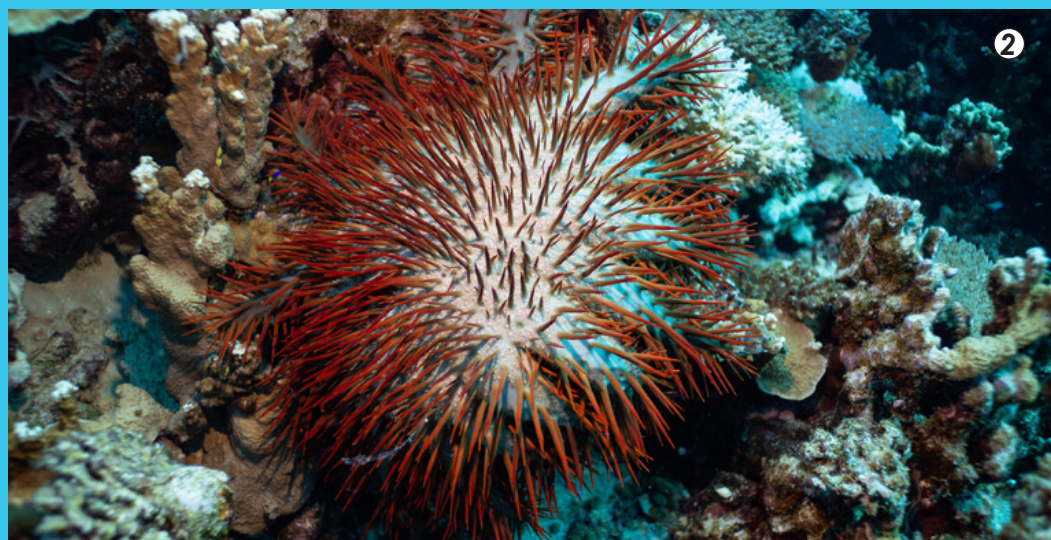
a massive surge in crown of thorn populations. More than half of the coral lost on the Great Barrier Reef between 1985 and 2012 was due to crown of thorns predation. And the attack is continuing.

A hypothesis behind the *A. planci* population explosions has identified water currents, which are pulling up nutrients from deeper waters, all of which correlates with starfish larvae growth. The results are large, roving packs of *A. planci*, the cumulative appetite of which can decimate coral reefs. An average adult, like the specimen in the included photos, can alone kill a dinner plate-sized portion of coral per day. That's 10 square meters of living reef per year alone. When a crown of thorns population explosion occurs, multiply that area of destruction by 20 to 200—or in the case of

the Great Barrier Reef, many times more.

Other outbreaks in Pacific regions like Japan and the Samoan archipelago have also wreaked havoc on local reefs in recent years. But while anecdotes from local divers at Kwajalein Atoll suggest there are more crown of thorns in the area than normal, there is no recorded evidence that an outbreak of *A. planci* is occurring here.

The crown of thorns is one of the largest species of sea star, growing more than 14 inches across. It sports up to 21 arms radiating out from a central mouth, and under it all is an army of tube feet the animal uses to move up to 35 centimeters per minute. The range of their habitat is limited by the location of hard, stony corals; thus, you'll find *A. planci* in waters shallower than 65 meters, usually in





1) This closeup shows the specimen's tube feet, feeling around the stony coral the starfish is feeding on. 2) Unlike a coral bleached dead due to warm waters, coral attacked by *A. planci* will only bleach white in the area the starfish was feeding. Biologists call the bleached portion of a coral a scar, and a scar can be surrounded by healthy coral—like a scar on a human's body. The associated photo shows an example of scarring on coral. Credit: Greg McFall, NOAA Dive Program.



Photo Courtesy of Jordan Vinson

sheltered areas safe from wave action. The species' striking venomous spikes are its main means of warding off predators, with each spike capable of delivering a painful sting. Some predators don't mind the defenses. Triton triggerfish will kill the starfish, and Triton triggerfish, aka the giant triton (*Charonia tritonis*) is particularly fond of *A. planci*. The giant gastropod will devour a crown of thorns sea star whole, making it a powerful tool in biologists' battle against *A. planci* outbreaks. In the meantime, conservationists have taken to culling the population by injecting crown of thorns starfish, one by one, with substances like sodium bisulfate, which kill the starfish but leave surrounding life unharmed.

Using these techniques and others, the National Oceanic and Atmospheric Administration's Coral Reef Conservation Program has supported efforts to remove more than 7,000 just around American Samoa alone. Yet, there's a long way to go before *A. planci* levels return to normal, especially in the Great Barrier Reef.



Photo by Australian Institute of Marine Science

**CLICK HERE TO  
LINK TO VIDEO**

*Giant tritons like this could play a role in reducing crown of thorns starfish numbers in population outbreak areas.*



Photo by Australian Institute of Marine Science



# EVERYTHING YOU NEED TO KNOW ABOUT SCHOOL

## PUBLIC NOTICE

By The Kwajalein School System

**Kwajalein Schools** develop productive, successful and responsible students committed to academic excellence and life-long learning.

On behalf of all of the school staff, we'd like to welcome everyone back to school!

School begins for students on Thursday, August 23, and we look forward to a fantastic year full of new learning experiences. We hope the information that follows will be helpful to all families of school age children.

The Kwajalein School System Plus Portal is a valuable resource for parents and community members. Anyone can access the official school calendar, parent-student handbooks, school policies, school supply lists and links to the school website and a parent tutorial for the portal on the Kwajalein School System Portal log-in page. This does not require a password to access. Contact the school for assistance with creating an account to view your students' grades.

**Kwajalein School System Plus Portal:** <https://www.plus-portals.com/KwajaleinSchool>

**School Website:** <https://kwajaleinschools.org/>

**Parent Tutorial:** <https://docs.rediker.com/interactive/plusportals/progress.htm>

- **August 15-17:** New Teacher In-Service
- **August 20-22:** All Teacher In-Service
- **August 20 from 3:30-4 p.m.:** Elementary students may visit their classrooms at the George Seitz Elementary School campus. There are no expectations that classrooms will be set up yet, but teachers will be present to meet and greet. Elementary students may drop off school supplies.
- **August 22:** Seventh graders and new students' orientation from 5-6 p.m.
- **August 23:** First day of school for all students
- **August 27 from 5-6 p.m.:** Rikatak Parent Meeting in the High School MP Room
- **September 5 from 6:30-7:30 pm:** Kwajalein Jr.-Sr. High School Back to School Night in the high school Multi-Purpose Room
- **September 6 from 6-7 p.m.:** George Seitz Elementary School Back to School Night in the Coconut Room



## Elementary School Hours of Operation

- Office hours are 7:30 a.m.-4:30 p.m. Tuesday – Saturday
- All GSES students line up on the playground with the 8:30 a.m. bell
- Kindergarten and 1st grade students are dismissed for lunch at 11:25 a.m.
- Second grade-6th grade students are dismissed for lunch at 11:30 a.m.
- All GSES students line up on the playground with the 12:30 p.m. bell.
- Kindergarten and 1st grade students are dismissed for the day at 3:25 p.m.
- 2nd grade-6th grade students are dismissed for the day at 3:30 p.m.

\*Please note that supervision for students begins at 8:20 a.m. and at 12:20 p.m. Students may not be on the playground before these times due to lack of supervision.

## Jr.-Sr. High School Hours of Operation

- Office hours are 7:30 a.m.-4:30 p.m. Tuesday – Saturday
- All KJSHS students should be in their first class at the first bell that rings at 8 a.m.
- All KJSHS students will be dismissed for lunch at 11:25 a.m. and return for the 12:25 p.m. afternoon bell
- All KJSHS students are dismissed at the 3 p.m. bell.

## Early-Release Wednesdays

Wednesdays are early release days. KJSHS and GSES students are all released at 2:15 p.m. each Wednesday so that teachers can participate in professional development activities.

## Kwajalein Child Youth Services

Child Youth Services has school age programs for students before and after school. Call 5-2158 for information on programs available.

## School Advisory Committee Meetings

The School Advisory Committee has monthly public meetings held on the third Wednesday of each month at 7 p.m. in the Coconut Room. The community is welcome to attend and participate in these meetings. The first meeting of the year will be held September 18. Questions and concerns may always be referred to SAC representatives. Watch the AFN roller channel for a list of representatives and their contact information.



# USARPAC VISITS USAG-KA

## HOURGLASS REPORT

**U.S. Army** Garrison-Kwajalein Atoll enjoyed a recent visit from Maj. Gen. Pete Johnson, commanding general of U.S. Army Pacific Command.

The general joined USAG-KA Commander Col. Jeremy Bartel, Host Nation Director Maj. Daniel Young, Host Nation RMI Liaison Specialist Mike Sakaio and Department of Defense civilian employees Aug. 6 for a tour of the garrison's infrastructure and Ronald Reagan Ballistic Missile Defense Test Site on Kwajalein island and Roi-Namur. The general also visited Ebeye where he met local officials.



2

1) USARPAC Maj. Gen. Pete Johnson, USAG-KA Commander Col. Jeremy Bartel and USAG-KA personnel prepare to depart on a tour of Kwajalein. 2) Bartel and Johnson check out the dairy case at Surfway. 3) The party makes a stop to the enticing blue waters of the Emon Beach lagoon. 4) No tour is complete without a visit to the famous historic crossroads marker near the Kwajalein air terminal. 5) Spencer Johnson provides an overview at a Kwajalein sensor site.



1



3



4



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# A MEDEVAC INSURANCE PRIMER

## HOURLASS REPORT

**Are you a USAG-KA resident** and have a visitor coming out to visit on a 480 pass? Are you an employer sponsoring a TDY employee on a 55R? Make sure your visitor is covered by a medical evacuation insurance plan before travel plans are finalized. Failing to do so could net you, the visitor's sponsor on the garrison, \$130,000-250,000 in uncovered costs associated with performing a medical evacuation for a serious illness or injury to Hawaii or beyond. It's like buying a house—but not getting a house. Of course, we all want our friends, family and staff who visit to have a fun and safe time, and to have a safety net if something happens. Fortunately, that safety net can cost a fraction of a fraction of the price of an uncovered medevac from Kwajalein Atoll. To shop around for plan prices, simply use your favorite internet browser to take you to online insurance plan exchanges where you can compare different plans and prices to fit your visitor's needs.

Here are some pointers to keep in mind during the shopping process.

- Travel insurance DOES NOT equate to medical evacuation insurance. Unless your travel insurance plan explicitly states medical evacuations, you should only assume medical expenses, such as medical procedures and medicine, are covered—not the costs of physically relocating the patient from point A to point Z.
- If your visitor has health insurance (typically plans offered through employers), there is no guarantee medevacs are covered. Again, you must read the plan's details and know exactly what is covered and what is not. For most stateside residents, medevacs from nations as remote as the Marshall Islands will not be covered. Your visitor will need to contact their insurance provider for additional information and to verify service areas.
- If your visitor has a credit card that offers medical evacuation coverage as part of their membership benefits, again, it's important to read the fine print. For instance, is Kwajalein Atoll/Marshall Islands within the area of responsibility of the credit card company's coverage provider? A medevac from the Bahamas may be covered by a credit card company, but a medevac from the Marshall Islands may NOT be covered. Your visitor will need to call customer support to find out more before traveling.
- Most importantly, if your visitor is not covered by medevac insurance via one of the methods already described, they should take this to heart: Medevac coverage does NOT have to be pricey. Yes, it is possible to visit USAG-KA without medevac insurance; it is not a requirement to enter the garrison on a 480 pass, for instance. But a three-week period of full coverage can cost as little as \$120. That's \$40 per week for peace of mind—and freedom from the catastrophic effects a full medevac bill will cost a sponsor in the event of a medical evacuation.
- When selecting a plan, be sure to take note of any plan activation conditions associated with the plan. For instance, some providers stipulate that the plan must be purchased a month or so before the start of the travel period. Not understanding these conditions could make or break the bank in the event of a medevac.
- As you consider policies, please make sure that you select a medical evacuation insurance policy that includes a minimum of \$1 million of emergency medical evacuation (costs vary from \$130,000 to \$250,000), medical expenses, repatriation to home of record and repatriation of mortal remains (\$25,000-50,000), as well as 24/7 access to a travel assistance center. The policy should also include coverage for emergency medical expenses, as your home country insurance may not extend to Kwajalein. Moreover, if you are evacuated, the destination healthcare system may not accept your current insurance plan.
- Finally, at every point along your path in shopping for a plan, make sure Kwajalein Atoll is within the geographic area of responsibility of the medevac provider. Ask this at the beginning of the process, during the shopping process, and verify at the end before purchasing.

If you have questions regarding medevac coverage for you and your dependents, please contact your human resources office.





# INNOVATIVE AI SYSTEM COULD HELP MAKE ARMY FUEL CELLS MORE EFFICIENT

## EXTERNAL REPORT

By U.S. Army CCDC Army Research Laboratory

### RESEARCH TRIANGLE PARK, N.C. —

As part of an effort to address the gap the U.S. Army faces in the need for long-lasting power and batteries for warfighters, the Army Research Office funded a research team who developed an artificial intelligence system that officials say identifies a promising material for creating more efficient fuel cells.

Researchers said the system, developed at Cornell University, is a potential breakthrough in both materials science and machine learning. It relies on a collective of algorithmic bots each performing a distinct task and sifts through hundreds to thousands of combinations of elements to create a map of phases—arrangements of atoms in relation to each other—that humans can then use to determine which might work as a new material.

“The exciting part about basic science research is you can’t always predict where the results will lead,” said Dr. Purush Iyer, division chief, network sciences at the Army Research Office, an element of the U.S. Army Combat Capabilities Development Command’s Army Research Laboratory. “We funded this research to better understand collective intelligence (wisdom of crowds). While material science application, such as design of novel alloys, were always on the cards, the serendipitous nature of the eventual outcome, that of a catalyst to aid in designing better fuel cells, is solving a problem of immense importance for the Army—battery power in the field—shows the importance of investing in basic research.”

The problem forced researchers to develop a whole new approach, they said.

“[It] really pushes the frontier of AI to derive physically meaningful solutions,” said Dr. Carla Gomes, professor of computer science and director of the Institute for Computational Sustainability, and first author of the paper published in June in Materials Research Society Communications.

Researchers seeking to improve fuel cells for cars are searching for a catalyst that would allow them to replace hydrogen, which is difficult to store, with methanol, which could be far more efficient. But because no known materials are efficient catalysts for methanol oxidation, a new material is needed, said co-author John Gregoire, Ph.D., a staff scientist at the California Institute of Technology.

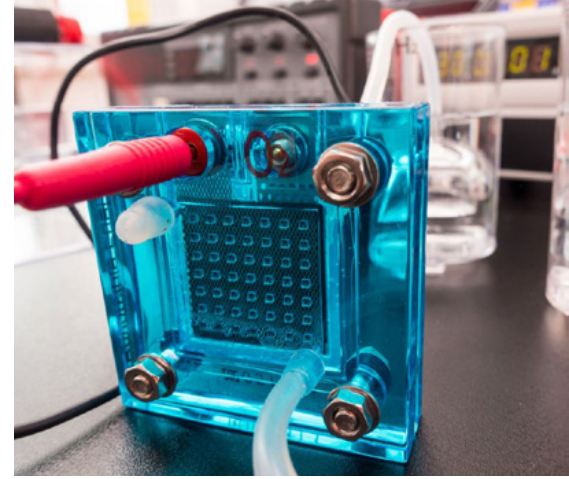
“If a viable catalyst exists, it’s going to need to be discovered by combining elements of the periodic table, and the number of combinations is so vast that it can’t be done with traditional experimentation,” Gregoire said.

Researchers also need to understand the crystal structure, or phase, of the material, because solids may have multiple phase structures and each one behaves differently as a catalyst.

“Humans can solve the phase map for simple composition systems containing two elements,” Gregoire said, “but whenever there are more than two elements, it’s too much information for humans to process, and we need AI to assist.”

Existing machine learning approaches, however, were not well suited for the strict constraints of scientific discovery, in which solutions must not only be plausible but also obey the laws of physics and chemistry, Gomes said.

To meet the challenge, Gomes and col-



*Army-funded researchers at Cornell University are using artificial intelligence to search for a catalyst that would allow them to replace hydrogen with methanol to make fuel cells more efficient.*

leagues developed a system called CRYSTAL for crystal phase mapping, in which multiple bots each take on a different part of the problem, from predicting the phase structures of various combinations to making sure those predictions obey the rules of thermodynamics.

Gomes said CRYSTAL was inspired partly by the IBM Watson supercomputer, which used a community of AI agents coming up with different possible solutions to beat human champions at “Jeopardy!”

Using the system, researchers were able to identify a unique catalyst, composed of three elements crystallized into a certain structure, which is effective for methanol oxidation and could be incorporated into methanol-based fuel cells.

“This is an important discovery that challenges our understanding of catalysis, and an important research direction toward designing the next generation of catalysts,” Gregoire said.

“The outcome of this research is to make battery power readily, and continuously, available to soldiers in a form that is safe and easily transportable, which could have a huge impact on the lives and performance of our soldiers,” Iyer said.



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



## ARE YOU FOLLOWING CURRENT EVENTS?

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



# NAMO WETO

## YOUTH CENTER

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.



CLICK  
FOR  
VIDEO

## CAPTAIN CARDBOARD TO THE RESCUE

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. **Kapow!**



CLICK  
FOR  
VIDEO

## GERM MAN

Is it just the Kwaj krud—  
or a nefarious plot by Germ  
Man? Check out the Kwaj  
Current to find out!



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



# WEATHER WATCH

RTS WEATHER STATION STAFF

**WEATHER DISCUSSION:** We are in the beginning of the wettest part of the year for Kwajalein Atoll. The average amount of rainfall for each of the next four months is around 11 inches. The beginning of August has seen just shy of two inches thus far, with all but one day having more than trace amounts of rainfall. The forecast for the weekend looks no different, as a wave will move through late tomorrow delivering at least widely scattered showers for the early portion of Sunday. Normal low-level convergence showers are expected in the morning for the other days in the forecast period. Winds will stay in the mid-teens until the aforementioned wave passes Sunday morning and then become light and highly variable for the rest of the week. With no dominant weather feature, we will return to the near doldrum-type flow we have recently seen.

**SATURDAY:** Partly sunny with isolated showers (10 percent coverage across the atoll). Winds NE-E at 12-17 knots.

**SUNDAY:** Partly sunny to mostly cloudy with widely scattered showers (25 percent coverage across the atoll). Winds E-SE at 9-14 knots.

**MONDAY:** Partly to mostly sunny with widely scattered showers (20 percent coverage across the atoll). Winds NE-SE at 4-9 knots.

**NEXT WEEK:** Partly cloudy Tuesday with sunny showers. Mostly dry for Wednesday, then a wet mid-week. Light and variable winds all week.

KWAJ  
CAPPI  
TV\_Z\_010\_150  
Task: GWV0L5  
PRF: 960Hz  
Height: 1.0 km  
Max Range: 150 km  
**21:42:44**  
10 APR 2019 U



 <b>SUN-MOON-TIDES</b>				
	SUNRISE SUNSET	MOONRISE MOONSET	HIGH TIDE	LOW TIDE
<b>SUNDAY</b>	6:41 a.m. 7:07 p.m.	3:44 p.m. 2:48 a.m.	1:28 a.m. 3.3' 2:10 p.m. 2.5'	8:16 a.m. 0.7' 7:52 p.m. 0.8'
<b>MONDAY</b>	6:41 a.m. 7:07 p.m.	4:36 p.m. 3:39 a.m.	2:24 a.m. 3.6' 2:58 p.m. 2.8'	9:02 a.m. 0.3' 8:42 p.m. 0.5'
<b>TUESDAY</b>	6:41 a.m. 7:07 p.m.	5:26 p.m. 4:30 a.m.	3:06 a.m. 3.9' 3:34 p.m. 3.0'	9:37 a.m. 0.0' 9:21 p.m. 0.2'
<b>WEDNESDAY</b>	6:41 a.m. 7:06 p.m.	6:14 p.m. 5:21 a.m.	3:41 a.m. 4.1' 4:05 p.m. 3.3'	10:07 a.m. -0.2' 9:54 p.m. -0.1'
<b>THURSDAY</b>	6:41 a.m. 7:06 p.m.	6:59 p.m. 6:11 a.m.	4:12 a.m. 4.3' 4:33 p.m. 3.5'	10:35 a.m. -0.4' 10:25 p.m. -0.3'
<b>FRIDAY</b>	6:41 a.m. 7:06 p.m.	7:42 p.m. 6:59 a.m.	4:41 a.m. 4.5' 5:01 p.m. 3.7'	11:01 a.m. -0.5' 10:55 p.m. -0.4'
<b>AUGUST 17</b>	6:41 a.m. 7:05 p.m.	8:22 p.m. 7:46 a.m.	5:09 a.m. 4.5' 5:28 p.m. 3.8'	11:28 a.m. -0.5' 11:24 p.m. -0.4'



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 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 (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 RAUOK 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 iki-jien 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 ninnin, ko boraro/kwoj naninmej, ak ko rutto(lillap im lollap), emaron bidodo am bok naninmej 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 kitin 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.



# MOSQUITO FOGGING



REGULAR, MONTHLY-SCHEDULED MOSQUITO FOGGING WILL BE PERFORMED THE NIGHT OF SATURDAY, AUG. 10 BETWEEN 10 P.M. AND 2 A.M. ON KWAJALEIN.



## E-WARENESS

REPORT / DI ENVIRONMENTAL

**The Kwajalein** Environmental Emergency Plan addresses emergency spill notification and response procedures as well as hazard evaluation, responder training, and spill prevention.

Pepa eo naetan KEEP ej kwalok buntan ko jej aikuj in komon ilo ien lutok ko rejid-rimkij, bareinwot jonan kauwotata ko rej walok ilo ien lutok kein, won ro rej aikuji training ko im wawein bobrae lilutoktok ko.

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

SATURDAY, AUGUST 10, 2019 / VOLUME 60 NUMBER 32

## 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]

## 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.



# 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.

# IF YOU CAN READ THIS, IT'S TIME TO HYDRATE



## Soccer Season Registration

Register at the Library  
Building 805

Registration starts July 23

Registration ends September 4

**\$100 / Team**  
Season Starts

September. 10-October. 25

POC: Library Front Desk 5-3331



## OUTDOOR MOVIE NIGHT

August 17 – “Enter The Dragon” starting 8 p.m. at Oceanview

August 18 – “Monster University” starting 8 p.m. at Emon Beach

BRING YOUR OWN CHAIR AND BLANKET OR SNACKS FOR THE OUTDOOR MOVIE NIGHT!

# SPECIAL HOURS AT THE ROI BARBERSHOP

The Roi Barbershop is offering special hours of operation to accommodate all incoming Roi residents during 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

Aug. 13-14  
Aug. 20-21  
Aug. 27-28





## HOURLASS IS ON FLICKR

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

CLICK THE  
LOGO BELOW!

flickr

## MOVIE SCHEDULE

### KWAJALEIN

7:30 p.m. at the Yuk Theater

Saturday, August 10  
The First Purge (R)  
112 min.

Sunday, August 11  
Thor: Ragnarok (PG-13)  
130 min.

Monday, August 12  
Pokémon Detective Pikachu  
(PG)  
105 min.

### ROI-NAMUR

7:30 p.m. at the  
Tradewinds Theater

Saturday, August 10  
Intruder (PG-13)  
102 min.

Sunday, August 11  
The Hustle (PG-13)  
104 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](http://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](http://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](http://www.dilogcap.com) or contact your local HR representative.

### COMMUNITY NOTICES

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](http://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](mailto: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](mailto: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](http://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.

Kememej 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 emokajata non EOD ilo nombra kein (5-1433) ak CPS (5-4445).

Ken melele kein: la 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 rekawotata. Kalimjek wot jab jibwe. Non bar kakemejmej eok, eokwe jouj im koba lok ilo Island Orientation allon otemje.

## USAG-KA RELIGIOUS COMMUNITY INFO

PCS Party - Charissa Finn & Family - August 11. Charissa and her family are leaving the island soon. We would like to invite you to celebrate them on Sunday August 11 in the REB at a Chocolate Themed Potluck at 12:30 p.m. The chapel will provide drinks and paper products. Please bring a dish to share. RSVP to the Chapel Offices at 5-3505 or [kwa-jchapel@gmail.com](mailto:kwa-jchapel@gmail.com)

Prayer Group. We are excited to announce that the chapel will begin hosting times of prayer twice a month. If you are in need of prayer or you would like to join us as we pray for others, please come! Where: Main Chapel. When: 1st and 3rd Fridays. Time: 6 p.m.

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

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

Interdenominational Services on Kwaj, Sunday- 8:15 a.m. Traditional Service, Main Chapel Sunday- 11 a.m. 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 p.m. upstairs in the REB (Rm. 213).