

THE KWAIALEIN HOURGLASS



Marshall Islands Swim Federation swimmers Molly Premo, back left, Colleen Furgeson, back right, Troy Kojelang, front left, and Giordan Harris, front right, earn the silver medal in the Mixed SC 800m FS Relay during the 8th Micronesia Games held July 19-25 in Pohnpei. For a full list of medal winners, see page 7.

Photo courtesy of Mary Harris

TOWN HALL MEETINGS

U.S. ARMY GARRISON-KWAJALEIN ATOLL COMMANDER COL. NESTOR SADLER INVITES YOU TO THE FOLLOWING TOWN HALL MEETINGS:

1-2 p.m., Wednesday, Roi Tradewinds Theater: Roi Residents

2-3 p.m., Wednesday, Roi Tradewinds Theater: Roi RMI Work Force

1-2:30 p.m., Thursday, Island Memorial Chapel: Kwajalein RMI Work Force

6:30-8 p.m., Thursday, CRC Room 6: Kwajalein Residents

Ask & Answer



Feedback from the ongoing KRS survey regarding service experiences.

Post Office Roi-Namur

Roi and Kwaj mail arrive in the same batch. Roi mail is sorted from Kwaj mail at the Kwajalein Post Office; typically this takes 4-5 hours depending upon volume. Next, the mail is scanned into the postal system as required by Postal standards. Then, Roi mail is scanned out and manifested for the flight to Roi. Depending on volume and space availability, the Roi mail departs the Kwajalein Post Office for Roi on the same afternoon or the next morning. Roi mail is not held at the Kwajalein Post Office unless a commuter flight is not available.

Hobby Shop

We received your feedback regarding the shortage of supplies. At the time, KRS was restricted on purchases because we had not been provided a budget for the year by the government. Now that there is a budget, purchases are being prioritized and supplies restocked. An order of essential supplies was placed April 15. Some supplies have arrived and the rest should be on-island by Aug. 15.

<https://www.surveymonkey.com/s/KRSFeedback>

Betel Nut Prohibition

Pursuant to Republic of the Marshall Islands and Kwajalein Atoll Local Government law, and U.S. Army Garrison-Kwajalein Atoll Regulation 190-1, the importation, sale, distribution and consumption of betel nut is prohibited in all areas of Kwajalein Atoll, including all USAG-KA islands and all other islands that fall under KALGOV jurisdiction.

RMI, KALGOV and USAG-KA jointly enforce this law. For more information, please contact the RMI Ministry of Foreign Affairs Liaison Office at 53600 or the USAG-KA PMO at 53530.

Einwot kemlet iumin kakien ko an RMI kap KALGOV kabalok USAG-KA Regulation 190-1, emo boktok, wia kake kejerbale kap lelo-letok ilo jabdrewot wewein Betel Nut ion aolepen jikin ko USAG-KA ej kejerbali kab ko ewor an KALGOV maron ie.

RMI, KALGOV kap USAG-KA rej juon wot ilo aer erre im kabin kien in. Elane elon am kajitok, joij im kir lok office eo an RMI Ministry of Foreign Affairs Liaison Office ilo 5-3600 kab USAG-KA PMO ilo 5-3530.



THE KWAJALEIN HOURGLASS

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

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

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RMI worker passes DoD certification course to apply pesticides at USAG-KA

Article and photo by Sheila Gideon
Managing Editor

Kwajalein Range Services Pest Control Technician Eugene Langinbelik was presented a certificate of competency July 26 at the Pest Control Office. Langinbelik recently passed a Department of Defense course that certified him to apply pesticides at USAG-KA.

"I'd like to congratulate you for this great accomplishment," U.S. Army Garrison-Kwajalein Atoll Commander Col. Nestor Sadler told Langinbelik. "It means a lot to your fellow coworkers. It definitely means a lot to your supervisor, Billy. Your hard work and dedication is greatly appreciated by all."

The certificate read, "... in recognition of the completion of requirements for Certified Pesticide Applicator in the following categories: forest; ornamental and turf; aquatic; right-of-way; industrial, institutional and health-related and public health as prescribed by Department of Defense standards. This certificate authorizes the bearer (Langinbelik) to select and apply pesticides."

According to the Integrated Pest



Eugene Langinbelik, second from left, receives a certificate of competency for a Department of Defense pesticide course July 26 at the Pest Control Office. There to congratulate him are, from left, Pest Control Technician Ronnie Keju, USAG-KA Commander Col. Nestor Sadler, Pest Control Technician Tibeo Akeang and Pest Control Supervisor Billy Abston.

Management Plan, in order to qualify for the course, Langinbelik first had to work for Pest Control for a minimum of two years. After that, he had to pass an on-line correspondence course from Purdue University. He attended the DoD class in San Antonio, where he studied in a classroom environment and received hands-on field training.

Langinbelik is now the third

certified technician in the Pest Control group, along with Technician Ronnie Keju and Pest Control Supervisor Billy Abston. His certification is a significant help to the group. Pesticides can only be administered by a certified technician. Langinbelik's certification will now allow the team to rotate shifts at Kwajalein and Roi-Namur to keep pests under control.

Pest Control Reminders



With the recent heavy rains and the incinerator down, community involvement is more important than ever to help limit pests on the islands.

The following actions can greatly help to reduce the number of flies and mosquitoes on island. Remember, the mosquito breed on Kwajalein is known to carry Dengue Fever. Let's all work together to keep our island clean and healthy.

- Tip standing water in your yard. Check flower pot bases, kids' toys and patio tarps. Mosquito larvae breed in standing water. It just takes a few minutes to inspect your yard each day. Your non-itchy ankles will thank you for it.
- Thick vegetation provides mosquitoes a resting place during the heat of the day. Thin out the vegetation surrounding your quarters.
- Seal any food in a plastic bag before throwing it into the trash. This is especially important after cooking out at the beaches.
- Pick up your "gold stick" fly traps from Self Help. They are free and help to reduce the fly population.
- Keep your yard clean. Piles of rotting lumber and rubbish offer places for rats to shelter.

RTS Weather Station undergirds space-based precipitation study

By Jordan Vinson
Associate Editor

Part from the tropical beauty and small-town congeniality of U.S. Army Garrison-Kwajalein Atoll, the installation is usually thought of as a premiere U.S. ballistic missile test range and space debris tracking location. But unknown to a great many local residents, USAG-KA's Reagan Test Site Weather Station is a key component of an international mission to better understand the Earth's water and energy cycle and how that process affects hurricanes, floods, droughts, agricultural forecasting and even climate change.

Co-led by NASA and the Japanese Aerospace Exploration Agency, the Global Precipitation Measurement project, or GPM, involves space agencies from India, France and other European nations. It is headquartered at NASA's Goddard Space Flight Center in Greenbelt, Maryland.

Employing a network of 10 satellites and a fleet of sensors on the ground at locations throughout the world, the project is now poised to return a real-time global view of the precipitation forming and falling onto the Earth across the entire planet every three hours. It's set to provide the most intimately detailed data view into the science of precipitation worldwide since the beginning of space programs across the planet.

One of the central prongs of the GPM mission is the push to better understand how the planet's water and energy cycle drives the Earth's climate through a phenomenon called "atmospheric circulation." It's the process by which thermal energy—heat released during steps in the water and energy cycle, mainly evaporation, condensation and precipitation—is distributed around the world through the atmosphere. About 75 percent of the heat in the Earth's atmosphere is transferred around the planet in this way.

The deeper and more comprehensively that climate sci-



Illustration of the network of satellites, featuring the GPM Core Observatory at top-right, that contribute to the international Global Precipitation Measurement project.

entists delve into understanding precipitation throughout the world, NASA says, the more they'll understand how the climate is changing and will continue to evolve down the road.

"Water is fundamental to life on Earth," GPM mission leaders said in a statement. "Knowing where and how much rain and snow falls globally is vital to understanding how weather and climate impact both our environment and Earth's water and energy cycles, including effects on agriculture, fresh water availability and responses to natural disasters."

Of course, there are many immediate societal benefits the project will produce, as well. Between July 1 and July 5, for instance, the GPM project returned high-resolution measurements of rain and ice in Hurricane Arthur, the 2014 Atlantic hurricane season's first tropical cyclone.

"With these new observations we are able to see fine scale structures of precipitation to about 1,000 feet vertically and three miles horizontally," said Gail Skofronick-Jackson, GPM project scientist at the Goddard Space Flight Center. "This allows us to measure precipitation regionally and to improve weather forecasting models."

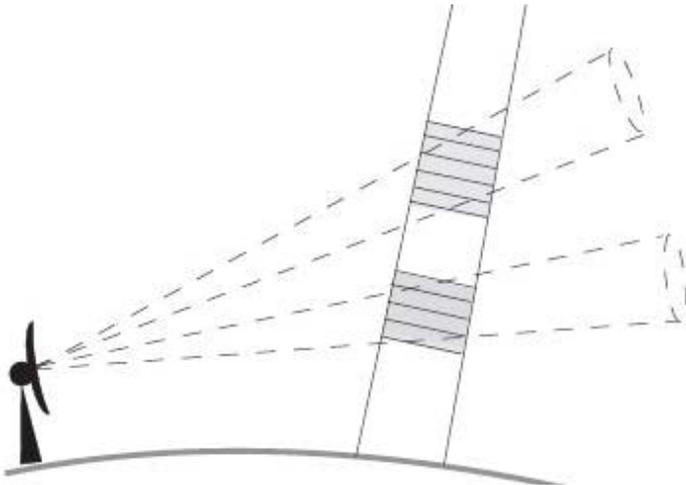
RTS Weather Station: quality control

At the center of the project's network of international satellites circling the globe is a \$933 million NASA/JAXA-funded satellite called the Global Precipitation Measurement Core Observatory. The largest satellite ever built at the Goddard Space Flight Test Center, it was launched Feb. 27 from Tanegashima Space Center, Japan aboard



Credit: NASA

Among the suite of sensors the GPM Core Observatory satellite is hauling through orbit are a U.S.-made microwave imager and a Japanese-made dual-frequency precipitation radar. They are now allowing scientists to "see"—better than ever before—into clouds to measure the amount, size, spatial distribution and type of precipitation hiding inside.



Credit: Global Precipitation Measurement Project

Illustration of simultaneous precipitation measurements by the space-based GPM Core Observatory and a ground-based validation radar. Scanning the same geographical area, both radars produce measurements that are compared by project scientists to determine the accuracy of the GPM satellite's sensors.

a Mitsubishi Heavy Industries H-IIA rocket. Having gone through start up and testing phases, the satellite and its sensors have been up and running for several months.

Swinging through its orbital track at 4.3 miles per second, the GPM Core Observatory cruises at an altitude of 253 miles above the Earth's surface, about as high up as the International Space Station. But every two or three days, it passes less than 50 miles from Kwajalein Island as the crow flies.

It is when the satellite arcs over the skies of Kwajalein Atoll that the RTS Weather Station guys go to work for the GPM project.

Grabbing the controls of a special S-band weather radar called the Kwajalein Polarimetric Radar, meteorologists at the station pull the radar from its typical duties, dial up the its resolution and get ready for the pass. When the satellite approaches, station staff punch in commands to make the dish scan back and forth, moving upward degree by degree to a tilt of about 40 degrees from sea level. As the satellite passes overhead, mapping the location and intensity of rain around Kwajalein Atoll, the Kwajalein Polarimetric Radar makes its own vertical measurements of the same rain, reaching out 93 miles in high resolution.

"This is much higher resolution radar data over a smaller area," said Mark Bradford, chief meteorologist at the RTS Weather Station. "... What is important is high resolution vertical measurements made nearly simultaneously."

The point of all this is, essentially, quality control. NASA employs a process it calls "ground validation" to accomplish that goal.

"With GPM, scientists will gather vast amounts of precipitation data on a global scale," GPM project leaders said in a press briefing. "But, how do they know how to interpret the data? How do scientists know the data is correct? This is where ground validation contributes to the mission."

Using banks of computers at the Goddard Space Flight Center that run special algorithms, a data retrieval system accepts the data sent by RTS Weather staff and performs a direct comparison of the radar data picked up by the GPM Core Observatory and the data read by the Kwajalein Polarimetric Radar. If there is considerable variability

or bias between both precipitation measurements, project scientists can then adjust the algorithms' code to make the radar in orbit and the radar on the ground match up more closely the next time they meet.

"We provide this ground truth, and we're in this pure tropical regime," Bradford said. "So we have all this data that represents in real-time and space what tropical rain looks like so that they can go back and calibrate their algorithms for how they evaluate rain from space."

The Ground Validation Network

The RTS Weather Station isn't the only validation site tasked by the Goddard Space Flight Center to corroborate the data scooped up by the project's key satellite. It's one of many sites throughout the world that, when combined, make up what NASA calls a "validation network" for the program's GPM Core Observatory and partner satellites.

"At present, the [validation network] includes contributions from ground radars located in Australia, South Korea, the Kwajalein Atoll in the Marshall Islands, and the southeastern United States," wrote GPM project scientists in a journal paper for the *Journal of Atmospheric and Oceanic Technology*.

Throughout the southeastern region of the U.S. alone, there are nearly two dozen ground validation radars keeping tabs on the precision of the Core Observatory and other partner satellites. A band of 18 radars operated by the Korean Air Force and the U.S. Air Force dot the southern Korean Peninsula and provide validation support at different orbital locations. And an Australian Bureau of Meteorology-owned dual-polarization Doppler radar, located at Darwin, Australia just off the Timor Sea, also provides support.

What makes the RTS Weather Station important in this menagerie of data validation sites is its unique location.

Smack dab on a string of small, low-lying coral islands in the middle of the west-central Pacific Ocean, the RTS Weather Station's presence on Kwajalein Atoll gives scientists at the Goddard Space Flight Center the single best ground-based view into the water and energy cycle as it exists and changes over the open oceans.

The importance of Kwajalein's location as a ground validation site lies in its pristine access to precipitation conditions as they exist over the open ocean. If GPM scientists hope to accurately measure precipitation and the water and energy cycle on a global scale, they must make sure that the Core Observatory's measurements over the open ocean are accurate. And because oceans cover the vast majority of the Earth's surface—about 69 percent—and have a tremendous impact on the global water and energy cycle, ensuring accuracy of space-based measurements over the open ocean is a top priority.

Actually achieving these measurements over open oceans isn't a piece of cake, though. It's difficult to find a small enough chunk of land—with the resources to operate a weather radar—to park a ground-based radar to scan the sky.

That's the beauty of Kwajalein, though. The few islands in the Pacific that are developed and host the infrastructure necessary to operate a weather radar—Guam and Hawaii, for instance—are simply too big. Their large size and mass affect the immediate water and energy cycle nearby, creating their own weather through a process Bradford calls "the island effect." It results in skewed precipitation

See GPM, page 6

GPM, from page 5

measurements, and that's not what GPM scientists want.

Kwajalein Atoll is a different story. There is land, but the land that's here consists of scraps of coral that are tiny and flat. Without the presence of any island effect, the rain that falls around the RTS Weather Station's immediate vicinity is unadulterated, forming and behaving the same way as it does hundreds of miles away over the openness of the ocean.

"We're out here in the middle of the ocean, and it's different," Bradford said. "And they know—Kwajalein is a very pristine, clear site, because there's no other islands. There's no air pollution. ... If you want a ground validation point that shows the truth, [Kwaj is] a great place to do that. Because it's not contaminated. ... [and] because we don't have land."

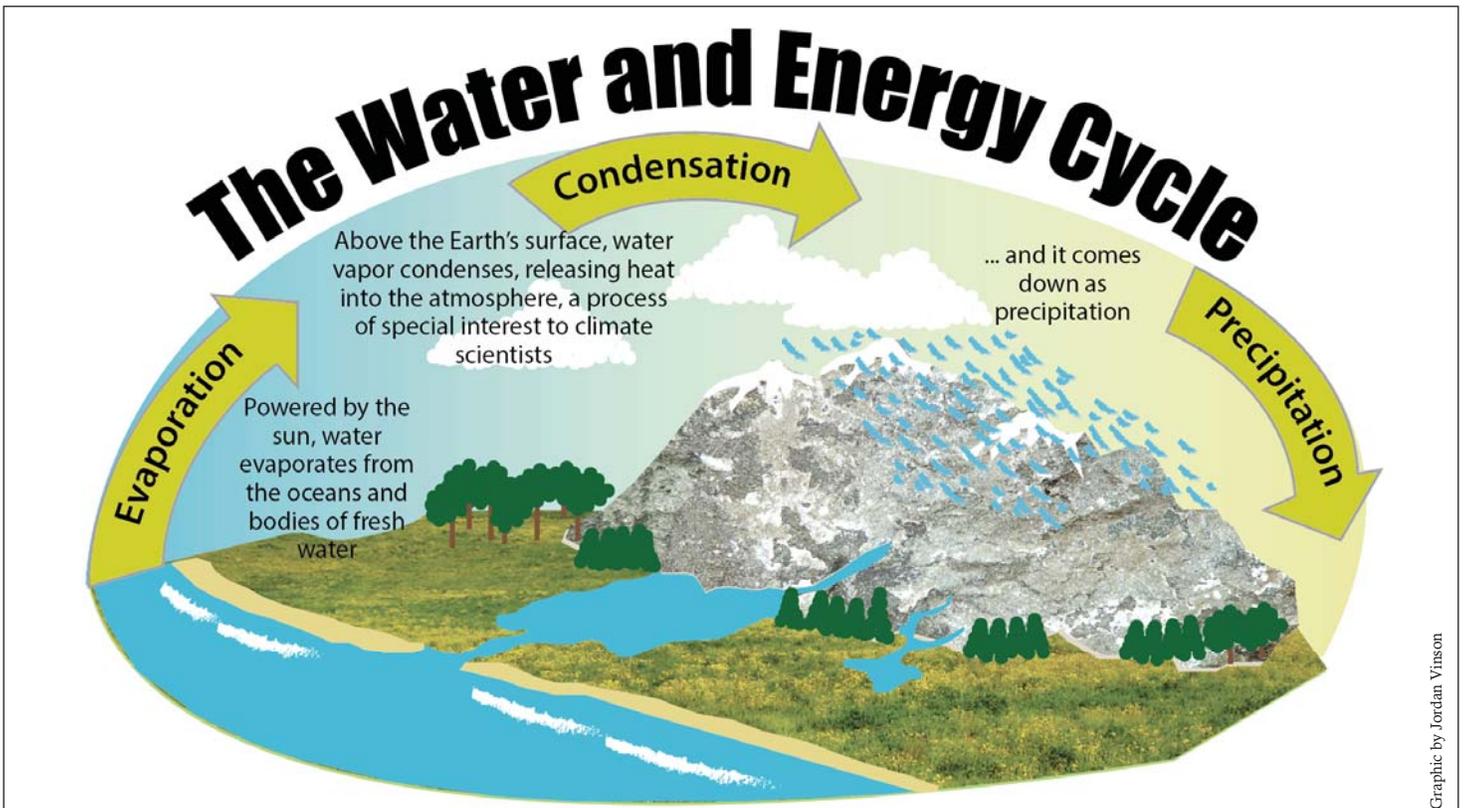
And that's exactly what the scientists working on the GPM program are shooting for.

Mission to Planet Earth

The GPM project is part of NASA's Mission to Planet Earth, an effort "dedicated to understanding the total Earth system and the effects of natural and human-induced changes on the global environment," the agency has stated on its web-site. "The [Mission to Planet Earth] Enterprise is pioneering the new discipline of Earth system science, with a near-term emphasis on global climate change."

As part of this mission, NASA has tasked itself with determining how it can use humanity's knowledge of the sun, the Earth and other planetary objects to develop solid predictive models regarding the climate, natural disasters and natural resources. The end goal: ensure long-term, sustainable development for the Earth's population into the future.

The GPM project is but the latest iteration of these efforts, and the RTS Weather Station's ground validation work is helping ensure its success.



Graphic by Jordan Vinson

Understanding the water and energy cycle—a NASA explainer

“Water—the main reason for life on Earth—continuously circulates through one of Earth’s most powerful systems: the water cycle. Water flows endlessly between the oceans, atmosphere and land. Precipitation in the form of rain, snow, sleet or hail, for example, is a vital component of the water cycle and affects everyone on Earth.

“While the effects of precipitation are felt at local scales, understanding the role of Earth’s water cycle and how it interacts with other

Earth systems requires a global view. The distribution of water throughout the atmosphere and how it moves, changing between its solid, liquid and gaseous forms, is a powerful vehicle for redistributing Earth’s energy and influences the behavior of the planet’s weather, climate and other environmental systems.

“Energy, in the form of latent heat, is absorbed or released when water undergoes a phase change. For example, when water vapor in the atmosphere condenses into clouds, latent heat is released—warming the atmosphere. Conversely, when liquid water in the atmosphere

evaporates, such as when rainfall moves through a layer of dry air, latent heat is absorbed—cooling the atmosphere. Latent heat drives atmospheric circulation and plays a major role in cloud formation and storm development.

“In turn, these clouds and storms produce precipitation over land and oceans, influencing our lives on a daily basis. From drizzle or snow on a morning commute, to flash floods caused by thunderstorms, precipitation enters local watersheds and contributes to the water supply, where fresh water is needed for drinking, agriculture, industry and the environment.”

MISF swimmers bring home gold, silver, bronze from Micronesian Games in Pohnpei



GOLD

Hourglass Reports

The Marshall Islands Swim Federation competed in the 8th Micronesian Games held in Pohnpei, Federated States of Micronesia, July 19-25. The 17 swimmers competed in at least four and up to eight events. Below is a list of medal winners from MISF. A complete article on the Games will be printed in the *Hourglass* later this month.

Individual Results:

- Colleen Furgeson, *Women SC 200m Backstroke*
- Colleen Furgeson, *Women SC 50m Backstroke*
- Ann-Marie Hepler, *Women SC 50m Butterfly*
- Ann-Marie Hepler, *Women SC 100m Butterfly*
- Troy Kojelang, *Men SC 200m Butterfly*

Team Results:

- Colleen Furgeson, Ann-Marie Hepler, Angela Kendrick, Molly Premo, *Women SC 200m FS Relay*



SILVER

Individual Results:

- Colleen Furgeson, *Women SC 100m Backstroke*
- Ann-Marie Hepler, *Women SC 100m Freestyle*
- Ann-Marie Hepler, *Women SC 50m Backstroke*
- Ann-Marie Hepler, *Women SC 50m FS*
- Angela Kendrick, *Women SC 50m Butterfly*
- Troy Kojelang, *Men SC 200m Breaststroke*
- Troy Kojelang, *Men SC 50m Breaststroke*
- Troy Kojelang, *Men SC 100m Breaststroke*

Team Results:

- Ramel Alfred, Giordan Harris, Troy Kojelang, Daniel Langinbelik, *Men SC 400m Medley Relay*
- Keith Brady, Giordan Harris, Troy Kojelang, Daniel Langinbelik, *Men SC 400m Freestyle Relay*
- Colleen Furgeson, Ann-Marie Hepler, Angela Kendrick, Mary-Ruth Long, *Women SC 400m Freestyle Relay*
- Colleen Furgeson, Giordan Harris, Troy Kojelang, Molly Premo, *Mixed SC 800m FS Relay*



BRONZE

Individual Results

- Colleen Furgeson, *Women SC 200m Freestyle*
- Colleen Furgeson, *Women SC 50m FS*
- Giordan Harris, *Men SC 100m Freestyle*
- Giordan Harris, *Men SC 200m Freestyle*
- Giordan Harris, *Men SC 400m IM*
- Giordan Harris, *Men SC 400m FS*
- Giordan Harris, *Men SC 50m FS*
- Ann-Marie Hepler, *Women SC 50m Breaststroke*
- Angela Kendrick, *Women SC 100m Butterfly*
- Troy Kojelang, *Men SC 200m IM*
- Troy Kojelang, *Men SC 50m Butterfly*
- Troy Kojelang, *Men SC 100m Butterfly*

Team Results

- Ramel Alfred, Giordan Harris, Joseph Kemem, Troy Kojelang, *Men SC 200m Medley Relay*
- Colleen Furgeson, Ann-Marie Hepler, Angela Kendrick, Molly Premo, *Women SC 400m Medley Relay*
- Colleen Furgeson, Iesha Floor, Ann-Marie Hepler, Angela Kendrick, *Women SC 200m Medley Relay*
- Keith Brady, Giordan Harris, Troy Kojelang, Daniel Langinbelik, *Men SC 200m FS Relay*

DISPATCH FROM ROI



From Alana Brooks



From Alana Brooks



From Jordan Vinson



From Alana Brooks



From Jordan Vinson

View from Kwajaj

*Email photo submissions to:
usarmy.bucholz.311-sig-cmd.mbx.hourglass@mail.mil*



From Billy Abston



From Julie Savage



From Bill Williamson



From Jerry Brumm



From Julie Savage

HELP WANTED

KRS AND CHUGACH listings for on-Island jobs are posted at: Kwajalein, Roi-Namur and Ebeye Dock Security Checkpoint locations; outside the United Travel Office; in the Roi Terminal/Post Office; at Human Resources in Building 700 and on the USAG-KA webpage under Contractor Information>KRS>Human Resources>Job Opportunities. Job listings for off-island contract positions are available at www.krsjv.com.

LOST

TO THE PERSON(S) that thought it appropriate to borrow our iPod Touch and glassware from the Vet's Hall, please return them, no questions asked. We would like to think that with the modest amount of charity and community support that the American Legion provides, that everyone can be counted on to respect the privilege the local community, members and non-members alike, have to be able to enjoy the Vet's hall/ American Legion. Thank you for your continued support. If you have any questions contact Mike Woundy at 54440.

PRESCRIPTION SUNGLASSES in black case with "Auntie" written on it, lost more than three weeks ago around the golf course. Reward if found. Call 54501 or 52170.

PATIO SALE

MONDAY, 7 a.m., quarters 224-A.

FOR SALE

2000 PROLINE POWERBOAT, 24-foot Walkaround with cabin, recently serviced 2007, Suzuki 250HP 4 stroke (366hrs), 2007 Mercury 15HP 2 stroke kicker, new stainless steel prop, new Standard Horizon GX1200B VHF radio, canvas enclosure, long range 150 gallon fuel

Religious Services

Catholic

5:30 p.m., Saturday, Small Chapel

9:15 a.m., Sunday, Island Memorial Chapel

Roi-Namur service, 4:45 p.m., Second and Fourth Friday of each month. Appointments with Fr. Vic available after dinner.

Protestant

8 a.m., Sunday, Island Memorial Chapel

11 a.m., Sunday, Island Memorial Chapel

6:30 p.m., Thursday, Roi Chapel

Latter-day Saints

10 a.m., Sunday, CRC Room 3

Contact the chaplain's office at 53505 for more information.

tank, great boat for fishing, diving and camping, \$25,000. Call 51678.

1987 BENETEAU 432 "Kailuana," length 43, beam 14, draft 5'10, new 2010 Yanmar 4jh5e, 53hp diesel, three bedroom, two heads, full galley with four burner stove and large fridge, major refit November 2009- April 2011, new electrical, three solar panels and wind generator, autopilot, new cabinets, flooring and plumbing, new upholstery, \$65,000 or best offer. Contact mnast@hotmail.com or call 54203.

WOODEN DECK, 8X12 feet, six-inch planking, great for placing on concrete slab, you carry away, located at quarters 412-B in back yard, \$50. Call 51806 after 5 p.m. or come by 427-B to inquire or pay.

ROI HAPPENINGS

"SMELLS LIKE FISH" will perform at 8 p.m., Aug. 9, at the Outrigger Bar and Grill. This is their last performance until New Year's Eve. Let's make it hot one! Come out and dance, dance, dance!

COMMUNITY NOTICES

THE VETS HALL will be closed Sunday for a private function. For questions, call Mike Woundy or Jan Abrams.

BINGO IS THURSDAY at the Vet's Hall. Packet price is \$20. Card sales begin at 5:30 p.m.; Bingo begins at 6:30 p.m. Windfall completion at 23 numbers, \$1,300 payout; Blackout completion at 53 numbers, \$1,300 payout. Shuttle transportation available from the Ocean View Club and tennis courts. No outside alcoholic beverages permitted. Must be 21 to enter and play, bring your ID.

KWAJALEIN AMATEUR Radio Club meeting is at 7 p.m., Thursday, at the Ham Shack, just south of the Adult Pool. We will be nominating officers since the September meeting is the Annual Meeting to elect KARC officers. We will also be planning a 'work day' to install junction boxes and run cable.

UNIVERSITY OF MARYLAND University College is waiving the \$50 application fee through Friday! Check us out at <https://www.asia.umuc.edu/> and apply online. Email Kwajalein-asia@umuc.edu for more information.

REGGAE STRIKE NIGHT will be from 6-10 p.m., Aug. 9, at the Kwajalein Bowling Center. \$2 for shoes and \$2 per game. Bust out your tie-dye, bring your beverages and groove to some island jams! Ya' mon! Adults only.

EMPLOYEE ASSISTANCE Program Community Classes for the month: Weight Management Class meets Thursday; Bariatric Support Class meets Aug. 12; ADHD Support Class meets Aug. 14; Smoking Cessation Class is ongoing. All

classes meet from 4:45-5:30 p.m., at the Hospital Conference Room. For questions, contact EAP at 55362.

THE U.S. AIR FORCE Band of the Pacific Presents: "Small Kine." Live performances: 7 p.m., Aug. 15, Roi Outrigger; 5:30 p.m., Aug. 17, Rich Theater; 6 p.m., Aug. 18, Vet's Hall. Questions? Contact Community Activities at 53331.

IVEY GYM will be closed Aug. 17-18 for A/C repair and installation. The gym will re-open Aug. 19. For questions, contact the Recreation Office at 51275.

CYSS YOUTH SPORTS Basketball League registration is open now through Aug. 26. Season dates are Sept. 9-Oct. 23. Cost is \$40 per player. Open to all CYSS Youth in Kindergarten through grade 6. To register visit Central Registration, Building 358, or call 52158. For questions, call Jason Huwe at 53796.

SURFSIDE SALON will not be providing manicure or pedicure services until further notice due to the high demand in hair care services.

THE LONG AWAITED DAN Oxygen Kits are now available for boat diving to Kwajalein Scuba Club members who are O2 Provider qualified. The green Oxygen kits may be checked out at the Small Boat Marina. KSC will provide the SBM with a list of divers authorized to check out the kits. In order to qualify you must hold a current O2 Provider card for DAN, PADI, NAUI or other national recognized training agency. To be added to the list, contact KSC Environmental Officer Bill Williamson. If you would like to become qualified, KSC will provide one more group class in August; sign up at the dive shop or at the August meeting.

KYC SUNFISH RACING will be held on the first and third Thursday of the month through October. Participates should show up at Camp Hamilton by 5 p.m. for boat assignments and prepare for a 5:45 p.m. race start time. Send questions to racing@kwajachtclub.com.

NEW PRODUCE DISPLAYS are being installed at Surfway. All your favorite fruits and veggies will still be available, but while the area is under construction will be re-located within the store. Please pardon our dust and the temporary layout.

E-TALK: Kwajalein has two types of water: Potable and Non-Potable (reclaimed). Potable = drinking water = yellow markings. Non-Potable = do not drink = red markings.

SAFELY SPEAKING: Always wear closed-toe shoes, safety glasses, hearing protection and long pants when operating a line trimmer or lawn mower. Keep bystanders clear of the discharge of the equipment and wear gloves when picking up debris.

Captain Louis S. Zamperini Dining Facility

Lunch

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Aug. 9
Korean Roast Beef	BBQ Spareribs	Vegetarian Quesadillas	Grilled Cheese Sand.	Chicken/Corn Salsa	Savory Pot Roast	Pork Chops
Soya Chicken	Chicken Cordon Bleu	Country Fried Chicken	Corned Beef/Cabbage	Spicy Beef Stew	Fish Du Jour	Pizzas
Quiche	Eggs Florentine	Hawaiian Chopped Steak	Turkey Pot Pie	Nacho Chips/Cheese	Mashed Potatoes	Chili Mac

Dinner

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Aug. 9
BBQ Chicken	Fish Sandwich	Spaghetti/Meatballs	Carved London Broil	Chicken Fried Steak	Baked Potato Bar	Beef Tips in Burgundy
Macaroni and Cheese	Roast Beef	Mostaccioli	Garlic Roast Chicken	Shrimp/Peapod Stir-fry	Lemon Pepper Chicken	Breaded Chicken Strips
Beef Stew	Mashed Potatoes	Vegetarian Stir-fry	Pork Pimento	Steamed Potatoes	Vegetarian Stir-fry	Beans in Broth

Military Casualties

Boatswain's Mate Seaman Yeshabel Villotcarrasco, 23, of Parma, Ohio, died as a result of a non-hostile incident June 19 aboard *USS James E. Williams (DDG-95)* while the ship was underway in the Red Sea.

Two Soldiers died supporting Operation Enduring Freedom. They died July 24, in Mirugol Kalay, Kandahar Province, Afghanistan, of wounds suffered when the enemy attacked their vehicle with an improvised explosive device. These Soldiers were assigned 1st Battalion, 12th Infantry Regiment, 4th Infantry Brigade Combat Team, 4th Infantry Division, Fort Carson, Colo. Killed were: **Staff Sgt. Benjamin G. Prange**, 30, of Hickman, Neb.; and **Pfc. Keith M. Williams**, 19, of Visalia, Calif.

Pfc. Donnell A. Hamilton, Jr., 20, of Kenosha, Wis., died July 24, at Brooke Army Medical Center, Joint Base San Antonio, Texas, from an illness sustained in Ghazni Province, Afghanistan. He was assigned to the 1st Battalion, 5th Cavalry Regiment, 2nd Brigade Combat Team, 1st Cavalry Division, Fort Hood, Texas.

THUMBS UP!



... to Brad Pinnell for replacing parts on the Hobby Shop kiln so we could keep everything running smoothly. Your willingness to go above and beyond is very much appreciated by the Hobby Shop staff.

Kwajalein Reclaimed Water Standard Violation

The Reclaimed Water Document of Environmental Protection requires public notification when reclaimed water standards are violated. The reclaimed water system has shown higher than normal turbidity levels resulting from a system upset at the Kwajalein wastewater treatment plant. Turbidity is the cloudiness or haziness of a liquid caused by individual particles that are generally invisible to the naked eye. The seven day rolling turbidity average at the reclaimed water system point of entry as well as the entry to the distribution system has exceeded the permitted maximum of 2.0 NTUs. The issue at the wastewater plant has not yet been resolved. Both Liquid Systems and Environmental personnel are actively investigating the problem and working hard to bring the plant back to normal function. There is currently no threat to public health or the environment as a result of this turbidity exceedance. If you have any questions, call 51134.

Ekkar non pepa eo naetan Reclaimed Water Document of Environmental Protection (DEP) kojella ej aikuj koman non jukjuk in ped eo elane kakien ko ikijen tiljek im erreo in dren emoj aer rub. Level in turbidity eo ekkar le jen jonok eo emoj an EPA karroke kon an lon jorren ilo Kwajalein wastewater treatment plant eo. Turbidity ej jonan an lim dren eo im ej itok jen particles (etoon) ko im jej maron loi kon mejed. Average turbidity im ej koman lak in 7 raan ar le ilon in 2.0 NTU, ak jonok eo emoj karrok ilo kakien bwe jen lore. Rejjanin jela ta eo ej koman bwe en le jonok eo ilo wastewater treatment plant eo. Rijerbal ro an Liquid Systems im Environmental rej jermal ibben dren im etale ta eo ej koman jorren. Ejelok kauwatata im emaron jelot ejmour an armij im ijoko ibelakid enaj walok kon an le ilon in jonok eo. Komol! Ne elon kajitok, kir Environmental department ilo 5-1134.

Environmental Assessment and Finding of No Significant Impact: Advanced Hypersonic Weapon Flight Test-2 Hypersonic Technology Test

The U.S. Army Space and Missile Defense Command/ Army Forces Strategic Command completed an Environmental Assessment, prepared in accordance with the National Environmental Policy Act of 1969 and the Council on Environmental Quality regulations implementing NEPA. The Advanced Hypersonic Weapon Flight Test - 2 Hypersonic Technology Test EA analyzes the potential environmental consequences that could result from test-related activities including the preparations, launch, flight, impact and demobilization. The preferred alternative primarily uses facilities in Alaska and at the U.S. Army Garrison-Kwajalein Atoll.

Based on the information and analysis, the USASMDC/ARSTRAT determined that proposed activities are not expected to result in significant impacts to the environment. A final Finding of No Significant Impact and the EA can be viewed and downloaded from the internet at www.ahw-ft2-htt-ea.info.

Printed copies of these documents are available for review at the following locations: Office Lobby of the Republic of the Marshall Islands Environmental Protection Authority, Majuro, Marshall Islands; Grace Sherwood Library and Roi-Namur Library.

Café Roi

Lunch

Sunday Roast Beef Cornish Hen Breakfast Frittata	Monday Chicken Strips Chorizo Casserole Southern Benedict	Tuesday Corn Dogs Roast Beef Corn on the Cob	Wednesday Monte Cristo Sand. Pork Chops Stir-fry Vegetables	Thursday BBQ Chicken Sand. Beef Stroganoff Tofu Stir-fry	Friday Salmon Cakes Italian Sausage Hoagies Onion Rings	Aug. 9 Chicken Quesadillas Beef Tacos Pinto Beans/Rice
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Dinner

Sunday BBQ Spareribs Fried Fish Red Beans/Rice	Monday Chicken Pasta Olivetti Marinara Sauce/Pasta Fresh Bread	Tuesday Turkey Cordon Bleu Beef Stew Ratatouille	Wednesday Steak Night Huli Huli Chicken Baked Potatoes	Thursday Roi Fried Chicken London Broil Mashed Potatoes	Friday Tuscan Nights Pork Osso Buco Italian Baked Fish	Aug. 9 Char-Grilled Burgers Homemade Chili Three-Cheese Pasta
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INNER-TUBE WATER POLO

Game Results

Team Standings

High Scorers (# Goals)

Wednesday, July 23

Soggy Bottoms def. Zissou 35-31
 Chargogg def. USAG-KA Splashers 56-26

Wednesday, July 30

Turbo Turtles def. Soggy Bottoms 64-21

Turbo Turtles	5-1
Chargogg	4-1-1
Micro Commanders	3-2
USAG-KA Splashers	2-3-1
Zissou	154
Soggy Bottoms	2-5

Bill Williamson (Turbo Turtles)	69
Bruce Premo (Turbo Turtles)	59
Shawn Carpenter (USAG-KA)	52
Jeremy Gideon (Chargogg)	49
Joseph Kemem (Micro Comm.)	26
Dash Alfred (Micro Comm.)	19

**Includes games through July 30*

Ready and Resilient Wellness Calendar

Events are sponsored by the Community Health Promotional Council and are free of charge to the community.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1. Spiritual Resilience, see page 10. All welcome. 2. Smoking Cessation Classes, open enrollment, call 55362.	1. Circuit Training, 8 a.m., Ivey Gym. 2. Pick-up Soccer, 6 p.m., Brandon Field.	1. Cross Fit, 5:30 a.m., Family Pool.	1. Circuit Training, 5 a.m., Ivey Gym.	1. Cross Fit, 5:30 a.m., Ivey Gym. 2. Weight Management Class, 4:45 p.m., Kwajalein Hospital Conference Room. 3. Run Intervals, 5:30 p.m., Emon Beach. 4. Pick-up Tennis, 5:30 p.m., Tennis Courts. 5. Alcoholics Anonymous, 7 p.m., REB.	1. Circuit Training, 5 a.m., Ivey Gym.	1. Cross Fit, 5:30 a.m., Ivey Gym. 2. Pick-up Tennis, 5:30 p.m., Tennis Courts.

Weather

Courtesy of RTS Weather

Day	Skies	Chance of Rain	Winds
Sunday	Partly Sunny	10%	ENE-ESE at 5-9 knots
Monday	Partly Sunny	20%	NNE-ENE at 6-10 knots
Tuesday	Mostly Sunny	10%	N-NE at 5-9 knots
Wednesday	Partly Sunny	20%	Variable at 4-8 knots
Thursday	Mostly Sunny	10%	ENE-ESE at 5-9 knots
Friday	Partly Sunny	20%	ENE-ESE at 4-8 knots

Yearly total: 72.41 inches
 Yearly deviation: +31.33 inches

Call 54700 for updated forecasts or visit www.rts-wx.com.

	Sunrise	Moonrise	Low Tide	High Tide
	Sunset	Moonsset		
Sunday	6:41 a.m. 7:10 p.m.	11:56 a.m. -----	1:51 a.m. 0.6' 2:11 p.m. 0.4'	7:54 a.m. 3.2' 8:35 p.m. 3.2'
Monday	6:41 a.m. 7:10 p.m.	12:47 p.m. 12:05 a.m.	2:47 a.m. 0.9' 3:04 p.m. 0.7'	8:45 a.m. 2.8' 9:46 p.m. 3.0'
Tuesday	6:41 a.m. 7:09 p.m.	1:40 p.m. 12:52 a.m.	4:16 a.m. 1.1' 4:28 p.m. 0.9'	10:11 a.m. 2.4' 11:27 p.m. 3.1'
Wednesday	6:41 a.m. 7:09 p.m.	2:36 p.m. 1:43 a.m.	6:16 a.m., 1.0' 6:14 p.m. 0.8'	----- 12:13 p.m. 2.4'
Thursday	6:41 a.m. 7:09 p.m.	3:34 p.m. 2:39 a.m.	7:42 a.m. 0.5' 7:34 p.m. 0.4'	12:59 a.m. 3.4' 1:41 p.m. 2.7'
Friday	6:41 a.m. 7:08 p.m.	4:33 p.m. 3:37 a.m.	8:39 a.m. 0.0' 8:32 p.m. 0.0'	2:05 a.m. 3.9' 2:39 p.m. 3.2'
Aug. 9	6:41 a.m. 7:08 p.m.	5:32 p.m. 4:38 a.m.	9:24 a.m. -0.5' 9:21 p.m. -0.5'	2:56 a.m. 4.5' 3:26 p.m. 3.7'