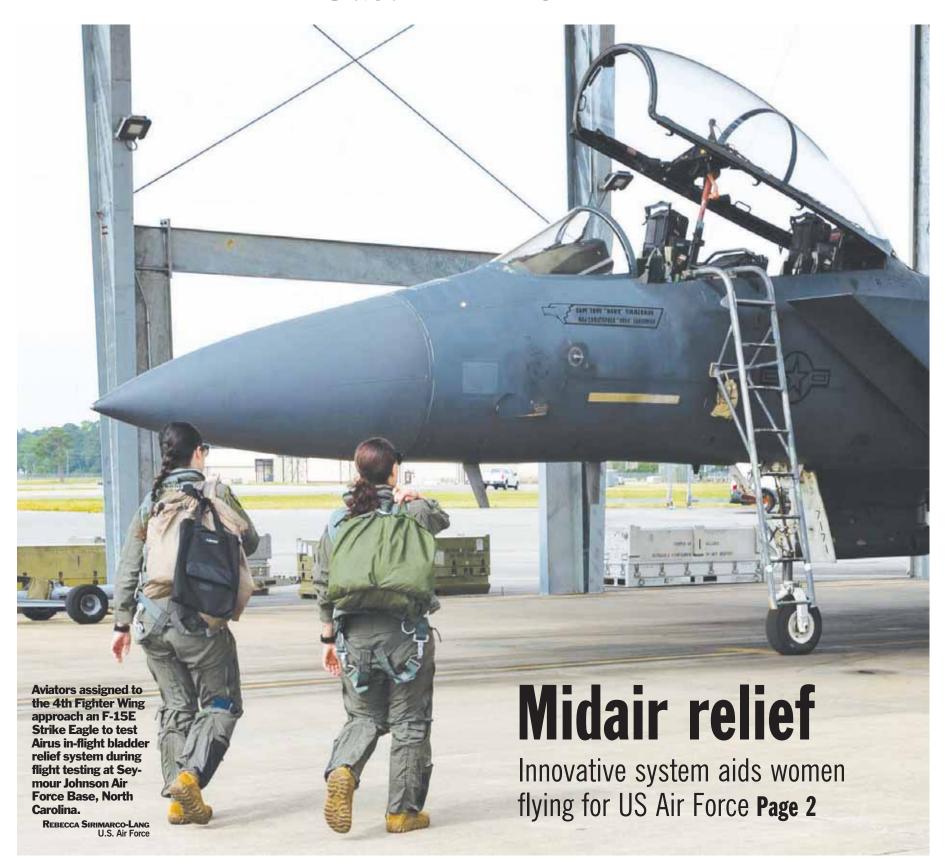
STARS STRIPES.com

Volume 17 Edition 23

©SS 2025

U.S. EDITION

FRIDAY, MAY 16, 2025



PAGE 2 • STARS AND STRIPES • Friday, May 16, 2025

COVER STORY

Pilots get new gear to 'go' while in the air

Innovative system aids women flying for US Air Force

By Gary Warner Stars and Stripes

During more than a century of manned flight, a nagging problem has been how to answer nature's call when up in the wild blue yonder.

Modern fighter jets such as the F-15 Eagle top out at more than 1,900 miles per hour, though the technology for bladder relief for single and dual-seat aircraft pilots strapped into an ejector seat has lagged.

The problem is a bigger challenge for a growing segment of Air Force flight crews — the 118 female fighter pilots in jets such as the F-15 Eagle, F-16 Fighting Falcon, F-22 Raptor, F-35 Lightning II and A-10 Thunderbolt II, as well as female weapons systems operators flying in two-seat variants.

"I've flown sorties where I end up covered in my own urine," said Capt. Madeleine Poisson, a F-15 weapons system officer with the 48th Wing based in England.

Prior to January, options for female pilots and weapons system operators for bladder relief in aircraft included adult diapers and a "piddle pack" sleeve that required unstrapping from the seat, unzipping the lower part of their uniform, and applying a synthetic sock-like funnel to their body.

There was also a pump system that was not suited to women compared to the men, for whom it was designed.

Along with the discomfort of "flying wet," at least two crashes — both involving male pilots — in the past three decades have been linked to faulty systems or pilot error while attempting in-flight relief, according to the Air Force

But male and female pilots have some relief arriving with a new system developed under the "Sky High Relief Challenge" issued by AFWERX, the service's idea incubator program based at Wright-Patterson Air Force Base in Ohio.

The program tries to solve key issues at an accelerated timetable compared



AIRMAN 1ST CLASS REBECCA SIRIMAR / 4th Fighter Wing

Air Force airman connects the AIRUS in-flight bladder relief system at Seymour Johnson Air Force Base, N.C., last year.

to the sometimes glacial pace of normal military procurement. Instead of years, ideas can get approved in as little as six months.

For the challenge, the directive was to come up with something better suited for female flight crews then the diapers, piddle pack or pump.

From more than 50 submissions in 2020, the Air Force narrowed the field of solutions to 24, then chose 11 companies to receive \$1.5 million in design prizes to advance their ideas.

"It's energizing and inspiring to see how government, industry, and academia come together to roll up their sleeves and dive deep into problem solving," said Cayley Dymond, the AFWERX challenge program leader.

The Air Force settled in 2021 on the idea from Airion Health, a Los Angeles start-up company, to prototype its solution to the challenge.

The winning idea essentially reverse-engineered the bladder relief problem, coming up with what the Air Force termed a "biocompatible" system that could be used by female flight crews, then adapting it to male pilots as well.

Airion's final product was named the

Advanced Inflight Relief Universal System, or AIRUS.

It's a form-fitting, self-cleaning underwear system using a small pump with soft tubing that directs waste to a custom-made "biofluid" bag. Pilots control the system with a remote hand controller and simply unplug the bag from the tubing at the end of missions for disposal.

Airion co-founder Colt Seman, who worked in the baby product industry, said bringing a female perspective to the project from the start would be a key to winning the challenge.

"We knew it was imperative to assemble a design team of women, including medical professionals, pilots, and flight engineers," Seman said.
"AIRUS is a product designed by women, for women."

Full system development started in March 2022 after an initial \$2.5 million contract was awarded to Airion Health by the Air Force.

After testing in 2023, flights with female flight crews in F-15s at Seymour Johnson Air Force Base in North Carolina began in 2024. The last tweaks to the AIRUS design wrapped up in November, and the final version

"I've flown sorties where I end up covered in my own urine."

Capt. Madeleine Poisson F-15 weapons system officer

of the system was ready in January.

The AIRUS system is available for purchase by squadrons via the General Services Administration website. The base price is about \$4,000 per kit, which are requisitioned by squadrons for the pilots and flight officers.

The primary challenge centered on a system that could be used by women, and there are multiple-sized cup attachments for different female body types. But the system also offers two variants built for the male anatomy as well.

"Through the end of April, about 50 AIRUS units have been deployed and more than 100 are in the pipeline," said Matthew Clouse, an AFWERX spokesman at Wright-Patterson AFB. "Orders are coming in for both males and females in units."

The cost to date of developing and fielding AIRUS is about \$4.5 million, Clouse said.

The Pentagon also plans to adapt the system for use by Navy and Marine jet pilots, along with Army helicopter crews. Eventually, the system could be sold to allied nations.

Retired Air Force Col. Samantha Weeks graduated from the U.S. Air Force Academy in Colorado in 1993 and logged 2,200 flying hours in F-15Cs, F-16s and T-38 Talons — including 105 combat hours enforcing "no-fly zones" in the Middle East. She was the first woman to command an F-16 fighter wing and flew the key "solo slot" with the Air Force's elite Thunderbirds aerial demonstration team.

Weeks said she has been involved since 2000 in Defense Department efforts to advance flight equipment for female pilots. In 2018, she made a video about how to choose and use a piddle pack.

CONTINUED ON PAGE 4

Friday, May 16, 2025 • STARS AND STRIPES • Page 3



Moving and storage the way you need it

- We handle the driving*
- You control the schedule
- Active-duty PPM/DITY weight tickets available upon request
- Flexible, easy storage options
- Packing and loading help available



SAVE UP TO
10%
on moving and storage**

Promo Code
SERV10

Save when you book at ...
(866) 556-9574
PODS.com/Military

*PODS arranges for independent third-party motor carriers to transport containers long distance between PODS service locations.

**For local moves, offer includes 10% off initial local delivery and first month's storage, except when better discounts are in place locally. For moves between two different PODS company-owned and/or franchise locations, offer includes 10% off first month's storage, except when better discounts are in place locally. For moves between two different PODS company-owned and/or franchise locations, offer includes 10% off first month's storage, initial delivery, and the cost of long-distance transportation. Must mention promotional code at time of order. Available for a limited time only at participating locations. Offer void where prohibited by law. Cannot be combined with any other offer. Discounts do not apply to any extended delivery fees, if applicable. Please call or visit the PODS website for service locations.

©2024 PODS Enterprises, LLC. PODS* is a registered trademark of PODS Enterprises, LLC. 54262_02 0624

PAGE 4 • STARS AND STRIPES • Friday, May 16, 2025

MILITARY

Special ops due for changes in doctrine

Official: Pentagon aims sharpen key skills, align with White House Indo-Pacific focus

By MATTHEW M. BURKE Stars and Stripes

The Pentagon is overhauling its special operations doctrine to sharpen key skills and align with the White House's Indo-Pacific focus, a senior defense official said.

Colby Jenkins, the acting assistant secretary of defense for special operations and low-intensity conflict, outlined the changes in his keynote address at the Special Operations Forces Week convention earlier this month in Tampa, Fla., according to a Defense Department statement the same day.

"This is our moment to forge the future of special operations," said Jenkins, a former member of Army Special Forces. He added that it's a future "where resilience, adaptability and speed win the day."

The annual convention draws upward of 20,000 people, including influential defense officials and world leaders. Sponsored by U.S. Special Operations Command and the Global Special Operations Forces Foundation, it began in its current format in 2023.

Among the priorities Jenkins listed were a shift from stationary counterterrorism and crisis response formations toward more flexible teams able to operate by land, sea, air and in the cyber realm.

"The future of SOF is relentless, smaller teams, faster decisions, smarter systems (and) harder targets," he said. "We cannot afford to simply maintain the old standards. We must



lanking

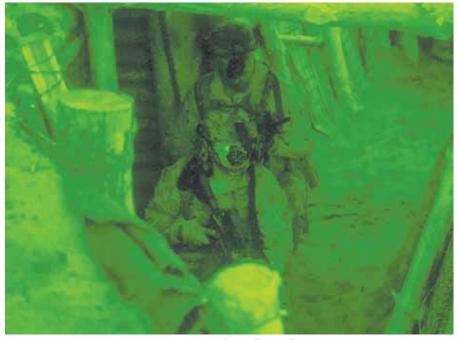
sharpen them, modernize them and expand them without losing the warrior ethos that (defines) our special operations."

The Pentagon also will focus on resilience, improving

training and readiness, aligning development to priorities and strengthening the oversight of resources and accountability, Jenkins said.

During his speech, he vowed to harness artificial intelligence and invited the special operations community to contribute ideas regarding its future.

Defense Secretary Pete Hegseth, who was in attendance, also thanked the special operators for maintaining physical standards, noting that standards must be high throughout the armed services.



LISETH ESPINEL CUERVO /U.S. Special Operations Command

Members of the U.S. Army's 10th Special Forces Group (Airborne) and NATO partner forces clear a trench at night during training at an undisclosed location in Poland in April.

The comments came as the Pentagon conducts a global review of the military's force posture, including special operations.

Lawmakers also must consider the role of special operators in such White House priorities as securing the southern border and fighting foreign drug cartels, the Congressional Research Service said in a March report.

The U.S. Special Operations Command, headquartered at MacDill Air Force Base, Fla., includes about 70,000 active duty, reserve and civilian personnel, the report said.

burke.matt@stripes.com @MatthewMBurke1

'Tactical dehydration' reduces cognitive abilities

FROM PAGE 2

"At times, there were females at wings or in squadrons who didn't have someone to ask how does this work, what do I do, where can your purchase this type of flight suit, or this brand of piddle pack," she said.

Weeks retired from the Air Force in 2020 but remains involved in the Defense Department efforts to improve equipment for female aircrews. She hopes AIRUS will cut back on the long-time practice of pilots — particularly women — simply avoiding fluids before flying.

"Tactical dehydration — I hate this term," Weeks said. "Any person saying they "tactically dehydrate" not to urinate is really just reducing their phys-

ical and cognitive abilities, and that has no place in combat."

Air Force studies have shown the practice puts a pilot's physical and mental wellbeing at risk.

Air Force researchers have found being dehydrated can cut a pilot's ability to tolerate gravitational force by as much as half. The lower tolerance can cause pilots to experience "Ginduced Loss of Consciousness" — known as GLOC.

The lack of liquids can also cause vertigo-like loss of situational awareness, blurred vision, memory lapses, and headaches. Pilots who dehydrate repeatedly during their career can develop kidney problems, urinary infections and suffer from long-term

incontinence.

The issues have become more pressing as military aviation has advanced with long-range missions using inflight refueling that can keep the pilot of a fighter or attack aircraft in the air for up to 16 hours, the Air Force said.

"I am glad to see AIRUS hit the market," Weeks said. "I hope other needs for proper fitting equipment for women continues to have support."

She said the anthropometric data — measurements for the size, shape, and weight of pilot and flight officer equipment — is based on a 1967 study using only men. Revisions since 2008 have updated some of the gear.

AIRUS is part of finding solutions for female pilots that can also benefit male

pilots — a crucial step in meeting pilot recruiting goals and aiding in the national defense.

"Expedient production of female aviator gear initiatives will maximize the combat lethality and readiness of all military services," Weeks said.

Poisson, the F-15 weapons system officer, is a happy early adopter of the AIRUS system.

"Oh, I love it," she said. "Hands down, the best system that I've seen. I can leave it in while flying, it's relatively comfortable, and you have the ability to put it in and take it out while flying. There's no decrease in my capabilities during the mission."

warner.gary@stripes.com



WINTER OPS: CHECK

UNLIMITED \$185



LAST CHANCE FOR THE LOWEST PRICE:

MAY 26
EPICPASS.COM/MILITARY







PAGE 12 • STARS AND STRIPES • Friday, May 16, 2025

MILITARY

Soldier returned fire, saved victim in NC

NCO receives Army medal for actions during off-post shooting

By Corey Dickstein Stars and Stripes

Army Sgt. Brian Lieberman said he was simply doing what the service trained him to do when he risked his own life to respond to the sound of gunshots outside his Fayetteville, N.C., apartment almost two years ago.

"I went into fight or flight," the 22-year-old combat medic with the 82nd Airborne Division's 1st Brigade Combat Team said of his June 6, 2023, heroics for which he was awarded the Soldier's Medal this month at Fort Bragg. "I was just doing my job."

The soldier was in his apartment with his roommates that evening when he heard gunshots and immediately grabbed his personally owned firearm and ran toward the commotion near the apartment complex's pool, according to the citation for his Soldier's Medal, the Army's top award for noncombat heroics. Lieberman shouted out

that he was an Army medic and was pointed to a victim — a 14-year-old girl — who had been shot.

He began treating the victim when he heard a car "rapidly approaching" and saw "an individual hanging out of the rear window aiming a firearm at him," according to the citation.

"I threw myself over the girl, almost used myself as a shield [for] her so she wouldn't get shot again," Lieberman said. "I pulled out my weapon and returned fire, then continued to treat the victim."

After the car fled the scene, Lieberman used a plastic grocery bag as an improvised chest seal to slow the victim's bleeding until he could receive proper medical supplies.

His actions saved the girl's life and were credited with helping end the active shooter incident, according to the Army.

Col. Jason Schuerger, the 1st Bri-

gade's commander, said this month that Lieberman's response to the gunfire went above and beyond the call of duty and was not the kind of reaction most people have to such incidents. The colonel said the soldier's actions showed the courage of paratroops from the 82nd Airborne, especially combat medics.

"Without a doubt, our airborne medics move to the sound of gunfire to save lives," Schuerger said. "Of course he moved to the sound of gunfire, of course he administered aid, of course he saved somebody's life."

The Soldier's Medal was established in 1926 to "recognize distinguished individual acts of heroism not involving actual contact with any enemy," according to the Army.

Lieberman said that he did not expect to receive the high honor. He said he still finds the entire incident at his home on American soil difficult to



PRIM HIBBARD/U.S. Army

Army Sgt. Brian Lieberman receives the Soldier's Medal from Col. Jason Schuerger during a ceremony at Fort Bragg, N.C., this month.

believe.

"It was surreal," he said. "Felt like I had woken up the next day from a crazy dream."

dickstein.corey@stripes.com

F-35 pilot earns Marine Corps award after Yemen combat

By BRIAN McElhiney

Stars and Stripes

Maj. Zachary Sessa didn't expect to fly combat missions when he deployed last summer aboard the aircraft carrier USS Abraham Lincoln with the Marine Corps' first F-35C Lightning II squadron.

But on Nov. 9 and 10, Sessa led the stealth fighter's first combat sorties, targeting Houthi weapons storage facilities in Yemen. The Iranian-backed group had been attacking military and civilian vessels in the Red Sea and Gulf of Aden.

Sessa's role in the mission earned him the Alfred A. Cunningham Award, named for the Marines' first aviator, and the title of Marine Aviator of the Year, according to an April 23 news release from the 3rd Marine Aircraft Wing.

His unit — Fighter Attack Squadron 314, based at Marine Corps Air Station Miramar, Calif. — was also named Marine Fighter Attack Squadron of the Year.

It was embarked with Carrier Air Wing 9 aboard the Abraham Lincoln



U.S. Marine Corps

Maj. Zachary Sessa was recently named Marine Aviator of the Year.

between July 11 and Dec. 14.

After leaving its homeport, the carrier was informed it would operate in the 5th Fleet's area of responsibility, Sessa told Stars and Stripes by phone this month. The fleet oversees operations in the Persian Gulf, Red Sea, Arabian Sea and parts of the Indian Ocean.

That was when "the possibility of

combat operations certainly came to the table," he said from Yuma, Ariz., where he is now an F-35 instructor nilot

"This wasn't my first deployment in an F-35," he said, "but it was my first flying combat sorties, so it was a challenging experience to learn a completely different [area of responsibility]."

Sessa, 33, of Butler, Pa., also served as the Marines' first F-35C weapons and tactics instructor during the deployment, according to the release.

The F-35C, used by both the Navy and Marine Corps, is a long-range, carrier-capable strike fighter, according to manufacturer Lockheed Martin.

Sessa said he flew the combat missions at night, which required changes to his sleep schedule.

"A lot of these challenges were things that I was familiar with from a previous deployment that I hadn't even really thought about," he said. "But as we started executing these operations, they became increasingly important because fatigue certainly sets in."

Lt. Col. Jeffrey Davis, the 314th's

commander during the deployment, credited Sessa with the squadron's success.

"Maj. Sessa's integral role in unprecedented combat strikes and his contribution to mission success is a testament to his leadership, experience, and proficiency, forever etched in Black Knight history," Davis said this month.

He said an internship at the Pentagon while attending the College of Wooster in Ohio helped him decide to serve. He was commissioned in March 2015

During the deployment, Sessa said he helped train six F-35 section leads, three division leads, two air combat maneuvering instructors, one Lightning tactics instructor, two low-altitude tactics instructors and one F-35 mission commander.

"It's not just a couple pilots out there flying an F-35," he said. "There is a massive network of assets and efforts that [are] taking place to allow these sorties to occur."

mcelhiney.brian@stripes.com @BrianMcElhiney PAGE 14 • STARS AND STRIPES • Friday, May 16, 2025

MILITARY

Drones change equation for Arctic drill

US Army troops join exercise in Norway to test air defenses

By PHILLIP WALTER WELLMAN
Stars and Stripes

ANDOYA, Norway — It was nearly 1:30 a.m., the Arctic sky was still light and Spc. Isiah Hernandez was wide awake.

"I have an adrenaline rush because I pulled the trigger," Hernandez said, after firing a Stinger missile from the Army's newest short-range air defense system.

The morning launch marked the first time a U.S.-made Sgt. Stout — formerly known as the Maneuver Short-Range Air Defense system — fired a missile during an exercise with NATO allies.

That the first launch occurred during a Navy-led exercise underscores the belief among U.S. and allied planners that defending against potential Russian missile and drone onslaughts would require more coordination on land, sea and air, as well as cyberspace and in orbit.

The nearly monthlong Formidable Shield 2025 exercise began May 3 in northern Norway and will shift to Scotland's Hebrides islands.

What began a decade ago as a naval missile defense demonstration has grown to include allied air forces and, in recent years, ground troops. This year's exercise features 16 ships, 27 planes and eight ground units from 11 NATO and partner nations.



PHOTOS BY PHILLIP WALTER WELLMAN/Stars and Stripes

Army Maj. Ben Bowman, operations officer for 5th Battalion, 4th Air Defense Artillery Regiment, and Lt. Col. Christoper Couch, the battalion's commander, speak to a Marine participating in Formidable Shield 2025, on May 7.

The inclusion of ground-based, short-range air defense units — which target low-altitude threats like drones, helicopters and cruise missiles — comes as planners learn lessons from battlefield trends in Ukraine.

Last week, ground troops on Norway's Andoya island acted as a final layer of defense, engaging targets that slipped past naval units in the Norwegian Sea.

The soldiers of Alpha Battery, a unit of the Army's 5th Battalion, 4th Air Defense Artillery Regiment, based in Ansbach, Germany, were among them.

"You can imagine this is how a realworld scenario would be," said Hernandez, one of the battery's gunners.

In 2021, 5th Battalion was the first Army unit to field the Sgt. Stout. The system mounts Stinger missiles, a 30mm cannon and radar on an armored Stryker vehicle. Until this exercise, none of the battery's soldiers had fired a live missile from it.

Hernandez's shot narrowly missed. Other launches faced problems: one missile misfired, another plunged into the sea and a third crew couldn't lock onto a target's heat signature.

Staff Sgt. Elijah Bentz, the battery's master gunner, said the issues could have stemmed from the age of the Stingers, some of which were more than three decades old. Part of the reason, he said, was that newer missiles have been sent to Ukraine

Still, Bentz and other soldiers generally were happy with the unit's performance in Norway.

"From what I observed, the crews shouldn't have to change anything," Bentz said. "Their engagement procedures were 100% good to go. I think now it's just time to give feedback to the developers."

The failure of one Sgt. Stout to lock onto a target during the final firing window gave its crew the chance to dismount and fire from the shoulder with a Man-Portable Air Defense System, or MANPADS.

After the shot, soldiers filming with their phones erupted in cheers.

"Even with the little setbacks, that really boosted morale," Bentz said.

In combat, other allied systems could backstop a failed intercept.



Marine Cpl. Marc Larade holds a Man-Portable Air Defense System.

U.S. Marines also were among the forces that took part in the land-based portion of Norway drills.

Some assigned to Marine Air Control Group 28 also fired the MANPADS. Others ran a tactical air operations center, which directed U.S. and Norwegian ground-based units.

The inclusion of the Sgt. Stout and comparable Norwegian systems in this year's Formidable Shield came after the Association of the U.S. Army in 2020 identified inadequate mobile short-range capability as one of the biggest gaps in the military's air and missile defense. Their participation this year shows progress, officials said.

Another area of focus was on sharing the same tactical picture with the various countries involved.

Formidable Shield participants used Link 16, a network that collected data from ships, planes and ground-based radar

"Our radar here can only see so far, but we push what we see to the network, and the ships that maybe can't see over here get early warning," said Maj. Ben Bowman, operations officer for 5th Battalion, 4th Air Defense Artillery Regiment. "Likewise, they can see a track further out than we can, so we have a heads-up that something's coming a lot earlier and that just gives us the edge."

Col. Hailey Bairu, commander of the Army's 52nd Air Defense Artillery Brigade, emphasized the importance of a shared picture while visiting the exercise, which he said was unlike any other in his 22 years in air defense due to its scope and scale.

"If we're interoperable when a war kicks off, we're going to be way ahead of any enemy that threatens peace," Bairu said.

Max D. Lederer Jr., Publisher Brian Bowers, U.S. Edition Editor Scott Foley, Revenue Director

CONTACT US

633 3rd Street NW, Suite 500, Washington, D.C. 20001 Editorial: (202) 886-0005

Advertising: (202) 886-0014

Additional contact information: stripes.com

This publication is a compilation of stories from Stars and Stripes, the editorially independent newspaper authorized by the Department of Defense for members of the military community.

The contents of Stars and Stripes are unofficial, and

are not to be considered as the official views of, or endorsed by, the U.S. government, including the Defense Department or the military services. The Guam Edition of Stars and Stripes is published jointly by Stars and Stripes and this newspaper.

The appearance of advertising in this publication, including inserts or supplements, does not constitute endorsement by the Department of Defense or Stars and Stripes of the products or services advertised.

Products or services advertised in this publication shall be made available for purchase, use, or patronage without regard to race, color, religion, sex, national origin, age, marital status, physical handicap, political affiliation, or any other nonmerit factor of the purchaser, user, or patron.

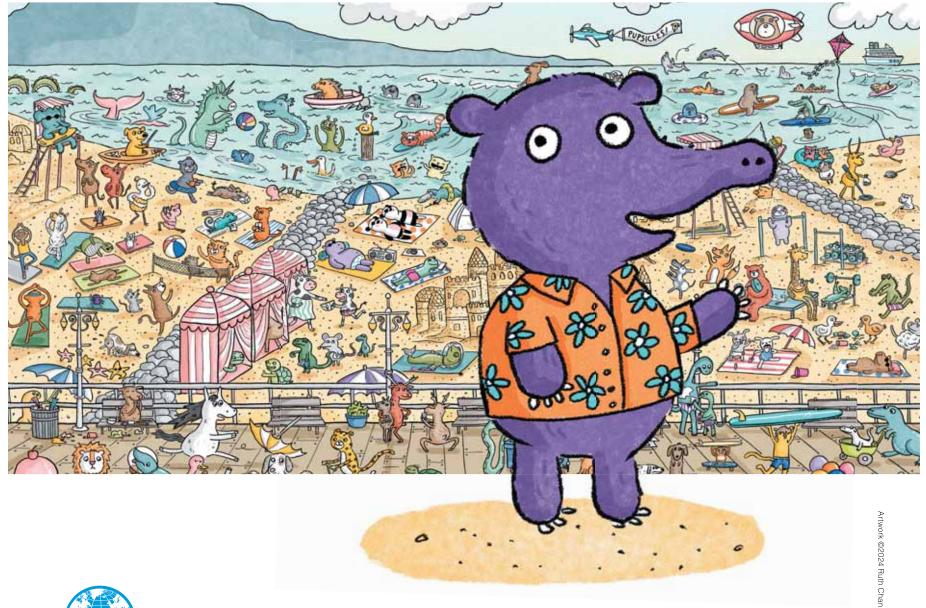
© Stars and Stripes, 2025



Verify military status for account holder within 45 days and maintain valid military line on account; otherwise plan becomes Essentials (additional cost up to \$20/line per month). During congestion, customers on this plan using >50GB/mo. may notice reduced speeds until next bill cycle due to data prioritization. With eligible payment method. Activate up to HD streaming on capable device, or video typically streams in SD. Savings: Based on cost of 1-6 lines of Essentials Military vs. comparable plans including discounts, taxes, and regulatory fees. Submit U.S. military verification at my.4-mobile.com/profile. \$35 device connection charge due at sale. Credit approval & deposit may be required. Monthly Regulatory Programs (RPF) & Telco Recovery Fee (TRF) totaling \$3.49 per connection charge due at sale. Credit approval & deposit may be required. Monthly Regulatory Programs (RPF) & Telco Recovery Fee (TRF) totaling \$4.40 per data only line (\$0.12 for RPF & \$1.28 for TRF) applies; taxes/fees approx. 4-38% of bill. Capable device required for some features. Not combinable with certain offers. Switching plans may cause you to lose current plan/feature benefits; ask a rep for details. Max 6 lines. Plan not available for hotspots and some other data-first devices. Unlimited talk & text features for direct communications between 2 people; others (e.g., conference & chat lines, etc.) may cost extra. Some messages, including those over 1MB, use data and may be unavailable internationally. Roaming: U.S. roaming and on-network data allotments differ: includes 200MB roaming. High-speed data is US only; in Canada/Mexico, unlimited at up to 128kbps; additional purchase required for data elsewhere. Calls from 215+ countries and destinations, including over Wi-Fi, are \$.25/min. (no charge for Wi-Fi calls to US, Mexico and Canada). Service may be terminated or restricted for excessive roaming. Not for extended international use; you must register on our U.S. network. Device must register on our U.S. network Device must register on

2025 SUMMER READING AT YOUR LIBRARY!

LEWEL WP AT YOUR LIBRARY





For more information about DoD MWR Libraries Summer Reading for adults, teens, children, and families, visit: ila.org/DoDSummerReading