

Ode to E Pluribus Unum for Sunday July 10 2022



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M51: The Whirlpool Galaxy from Hubble



Image Credit: NASA, ESA, Hubble, HLA; Processing & Copyright: Bernard Miller

The Whirlpool Galaxy is a classic spiral galaxy. At only 30 million light years distant and fully 60 thousand light years across, M51, also known as NGC 5194, is one of the brightest and most picturesque galaxies on the sky.

The featured image is a digital combination of images taken in different colors by the Earth-orbiting Hubble Space Telescope, highlighting many sharp features.

Anyone with a good pair of binoculars, however, can see this Whirlpool toward the constellation of the Hunting Dogs (Canes Venatici). M51 is a spiral galaxy of type Sc and is the dominant member of a whole group of galaxies. Astronomers speculate that M51's spiral structure is primarily due to its gravitational interaction with the smaller galaxy on the image left.

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"From the gentleman at the bar."

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Simon and Garfunkel Mrs. Robinson



"Mrs. Robinson" is by American music duo Simon & Garfunkel from their fourth studio album, Bookends (1968). The song was released as a single on April 5, 1968, by Columbia Records.

It is famous for its association with the 1967 film The Graduate. The song was written by Paul Simon, who pitched it to director Mike Nichols alongside Art Garfunkel after Nichols rejected two other songs intended for the film. The Graduate's soundtrack

album uses two short versions of "Mrs. Robinson"; a full version was later included on Bookends.

"Mrs. Robinson" became the duo's second chart-topper, hitting No. 1 on the Billboard Hot 100, as well as peaking within the top 10 of the United Kingdom, Ireland, and Spain, among other countries. In 1969, it became the first rock song to win the Grammy Award for Record of the Year.

Mrs. Robinson <https://www.youtube.com/watch?v=9C1BCAgu2I8>

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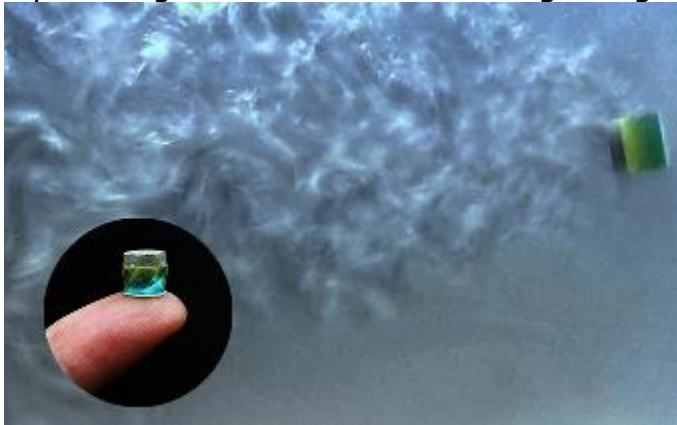


"Have I gotta sit here looking at you
everywhere we go?"

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Tiny Robots to Bring Health Care Closer to Precisely Targeted Drug Delivery

A promising innovation within this burgeoning area of biomedicine is the millirobot.

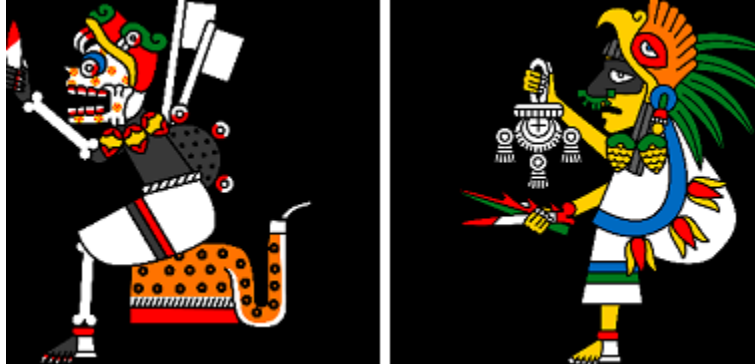


Origami millirobot with spinning-enabled propulsion.
(Image credit: Zhao Lab)

https://news.stanford.edu/2022/06/14/tiny-robots-precision-drug-delivery/?utm_source=Stanford+Science+Digest&utm_campaign=683f20a82b-EMAIL_CAMPAIGN_2022_06_15_10_47&utm_medium=email&utm_term=0_ed7e4827fe-683f20a82b-54935754

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A Little Shaky on Your Aztec Pantheon? Shake no More



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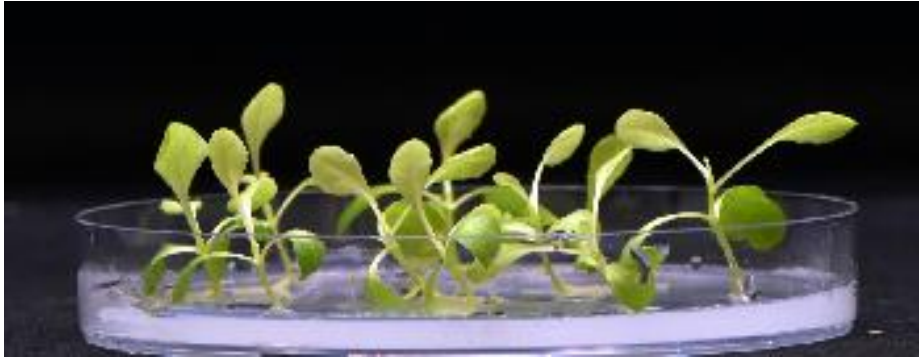
Worried About Your House with Sea Level Rise? Make it Float and Worry About Something Else



https://edition.cnn.com/style/article/maldives-floating-city-spc-intl/index.html?utm_source=join1440&utm_medium=email&utm_placement=newsletter

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Artificial Photosynthesis Can Produce Food Without Sunshine



Scientists are developing artificial photosynthesis to help make food production more energy-efficient here on Earth, and one day possibly on Mars

Holly Ober

Photosynthesis has evolved in plants for millions of years to turn water, carbon dioxide, and the energy from sunlight into plant biomass and the foods we eat. This process, however, is very inefficient, with only about 1% of the energy found in sunlight ending up in the plant. Scientists at UC Riverside and the University of Delaware have found a way to bypass the need for biological photosynthesis altogether and create food independent of sunlight by using artificial photosynthesis.



Plants are growing in complete darkness in an acetate medium that replaces biological photosynthesis.

(Marcus Harland-Dunaway/UCR)

The research, published in *Nature Food*, uses a two-step electrocatalytic process to convert carbon dioxide, electricity, and water into acetate, the form of the main component of vinegar. Food-producing organisms then consume acetate in the dark to grow. Combined with solar panels to generate the electricity to power the electrocatalysis, this hybrid organic-inorganic system could increase the conversion efficiency of sunlight into food, up to 18 times more efficient for some foods.

“With our approach we sought to identify a new way of producing food that could break through the limits normally imposed by biological photosynthesis,” said corresponding

author Robert Jinkerson, a UC Riverside assistant professor of chemical and environmental engineering.

In order to integrate all the components of the system together, the output of the electrolyzer was optimized to support the growth of food-producing organisms. Electrolyzers are devices that use electricity to convert raw materials like carbon dioxide into useful molecules and products. The amount of acetate produced was increased while the amount of salt used was decreased, resulting in the highest levels of acetate ever produced in an electrolyzer to date.

“Using a state-of-the-art two-step tandem CO₂ electrolysis setup developed in our laboratory, we were able to achieve a high selectivity towards acetate that cannot be accessed through conventional CO₂ electrolysis routes,” said corresponding author Feng Jiao at University of Delaware.

Experiments showed that a wide range of food-producing organisms can be grown in the dark directly on the acetate-rich electrolyzer output, including green algae, yeast, and fungal mycelium that produce mushrooms. Producing algae with this technology is approximately fourfold more energy efficient than growing it photosynthetically. Yeast production is about 18-fold more energy efficient than how it is typically cultivated using sugar extracted from corn.

“We were able to grow food-producing organisms without any contributions from biological photosynthesis. Typically, these organisms are cultivated on sugars derived from plants or inputs derived from petroleum—which is a product of biological photosynthesis that took place millions of years ago. This technology is a more efficient method of turning solar energy into food, as compared to food production that relies on biological photosynthesis,” said Elizabeth Hann, a doctoral candidate in the Jinkerson Lab and co-lead author of the study.

The potential for employing this technology to grow crop plants was also investigated. Cowpea, tomato, tobacco, rice, canola, and green pea were all able to utilize carbon from acetate when cultivated in the dark.

“We found that a wide range of crops could take the acetate we provided and build it into the major molecular building blocks an organism needs to grow and thrive. With some breeding and engineering that we are currently working on we might be able to grow crops with acetate as an extra energy source to boost crop yields,” said Marcus Harland-Dunaway, a doctoral candidate in the Jinkerson Lab and co-lead author of the study.

By liberating agriculture from complete dependence on the sun, artificial photosynthesis opens the door to countless possibilities for growing food under the increasingly difficult conditions imposed by anthropogenic climate change. Drought, floods, and reduced land availability would be less of a threat to global food security if crops for humans and animals grew in less resource-intensive, controlled environments. Crops could also be grown in cities and other areas currently unsuitable for agriculture, and even provide food for future space explorers.

“Using artificial photosynthesis approaches to produce food could be a paradigm shift for how we feed people. By increasing the efficiency of food production, less land is needed, lessening the impact agriculture has on the environment. And for agriculture in non-traditional environments, like outer space, the increased energy efficiency could help feed more crew members with less inputs,” said Jinkerson.

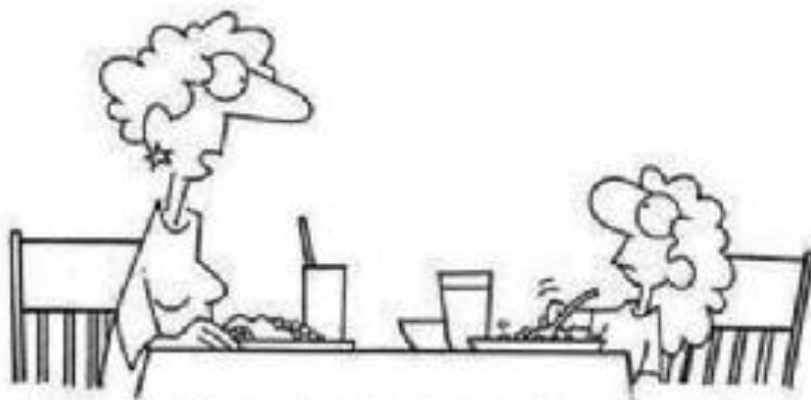
This approach to food production was submitted to NASA’s Deep Space Food Challenge where it was a Phase I winner. The Deep Space Food Challenge is an international competition where prizes are awarded to teams to create novel and game-changing food technologies that require minimal inputs and maximize safe, nutritious, and palatable food outputs for long-duration space missions.

“Imagine someday giant vessels growing tomato plants in the dark and on Mars—how much easier would that be for future Martians?” said co-author Martha Orozco-Cárdenas, director of the UC Riverside Plant Transformation Research Center.

Andres Narvaez, Dang Le, and Sean Overa also contributed to the research. The open-access paper, “A hybrid inorganic–biological artificial photosynthesis system for energy-efficient food production,” is available here.

The research was supported by the Translational Research Institute for Space Health (TRISH) through NASA (NNX16AO69A), Foundation for Food and Agriculture Research (FFAR), the Link Foundation, the U.S. National Science Foundation, and the U.S. Department of Energy. The content of this publication is solely the responsibility of the authors and does not necessarily represent the official views of the Foundation for Food and Agriculture Research.

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**“It’s ok to mix peas and corn,
but don’t call it ‘porn’.”**

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Grilled Tuscan Tuna



This is another quick-and-easy favorite. The rub works well with a lot of other things, too, including swordfish and (probably) chicken. Goes well with rice and grilled veggies. A salad doesn't hurt either.

Ingredients

- 4 fresh tuna steaks, 8 ounces each, 1-inch thick
- 1 lemon, zested
- 3 sprigs fresh rosemary, about 2 tablespoons leaves stripped from stem
- Handful flat leaf parsley
- 3 cloves garlic, crushed
- Coarse salt and black pepper or grill seasoning
- Extra-virgin olive oil, for cooking

Preparation

- Rinse and pat tuna steaks dry.
- Place zest on top of cutting board.
- Pile rosemary and parsley leaves on top of zest. Pile garlic and some coarse salt and black pepper or grill seasoning on top of herbs.
- Finely chop the garlic, herbs, and spices.
- Drizzle the olive oil over the tuna steaks just enough to coat each side.
- Rub herb and garlic mixture into fish, coating pieces evenly on each side. Let stand 10 minutes.

Grill tuna steaks 6 minutes on each side or 4 minutes on each side, if you prefer pink tuna at the center.

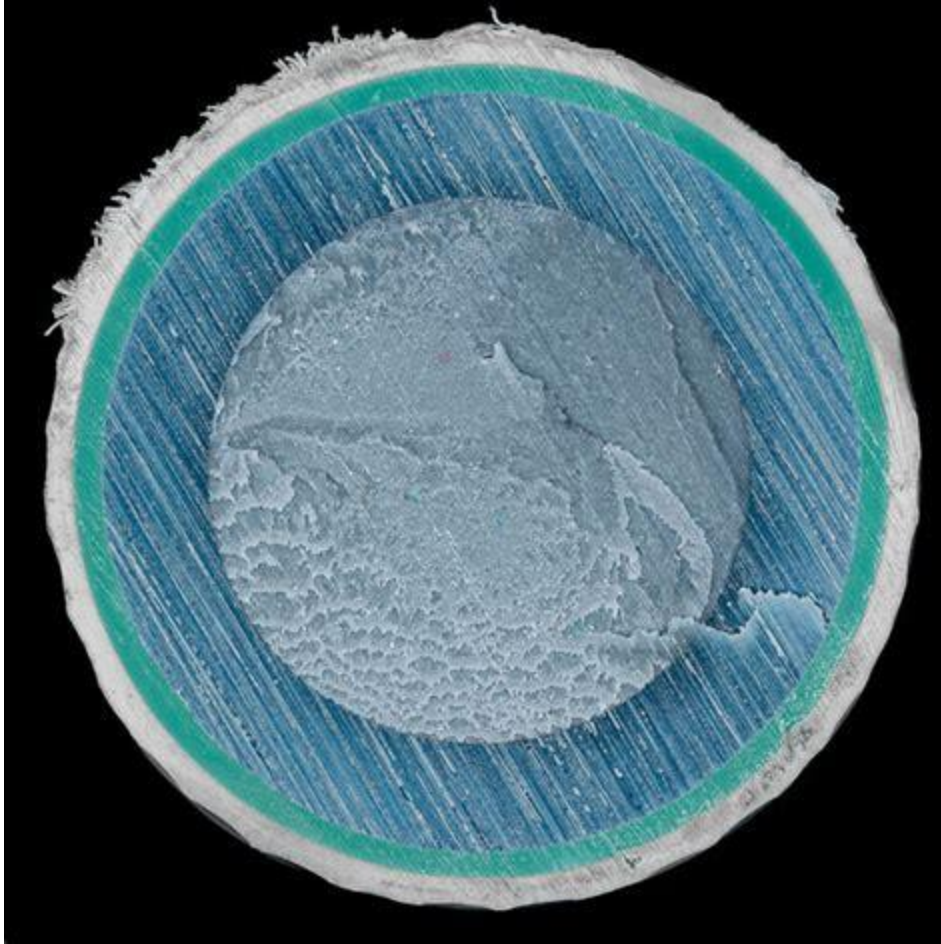
- Cook steaks over high setting on indoor electric grill, medium high heat on outdoor gas grill or, 6 inches from hot, prepared charcoal.

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Journey to the Center of the Bowling Ball



Mo Pinel spent a career reshaping the ball's inner core to harness the power of physics. He revolutionized the sport—and spared no critics along the way.

https://www.wired.com/story/one-mans-amazing-journey-to-the-center-of-the-bowling-ball/?bxid=617fdd8c62717d23af47aa50&bxid=617fdd8c62717d23af47aa50&cnid=67131721&cnid=67131721&esrc=&esrc=&hasha=4782ace3954582fd7e469974b0c17215&hasha=4782ace3954582fd7e469974b0c17215&hashb=29b137acc80e1e19b755b18a40d8fd7a9842c1e9&hashb=29b137acc80e1e19b755b18a40d8fd7a9842c1e9&source=EDT_WIR_NEWSLETTER_0_ENGAGEMENT_ZZ&source=EDT_WIR_NEWSLETTER_0_ENGAGEMENT_ZZ&utm_brand=wired&utm_brand=wired&utm_campaign=aud-dev&utm_campaign=aud-dev&utm_content=WIR_PaywallSubs_052522_Classics&utm_content=WIR_PaywallSubs_052522_Classics&utm_mailing=WIR_PaywallSubs_052522_Classics&utm_mailing=WIR_PaywallSubs_052522_Classics&utm_medium=email&utm_medium=email&utm_source=nl&utm_source=nl&utm_term=WIR_PaywallSubs_Active_EXCLUDE_DailyTopClickers&utm_term=WIR_PaywallSubs_Active_EXCLUDE_DailyTopClickers

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The Ideal Gas Law

Without it, it would be impossible to inflate a balloon or a tire. But understanding how it works requires a little bit of physics and chemistry.

Ideal Gas Law

The combination of these three laws gives the ideal gas law which is a special form of an *equation of state*, i.e., an equation relating the variables that characterize a gas (pressure, volume, temperature, density, ...). The ideal gas law is applicable to low-density gases.

$$\frac{pV}{T} = \text{constant} \quad (\text{fixed mass of gas})$$

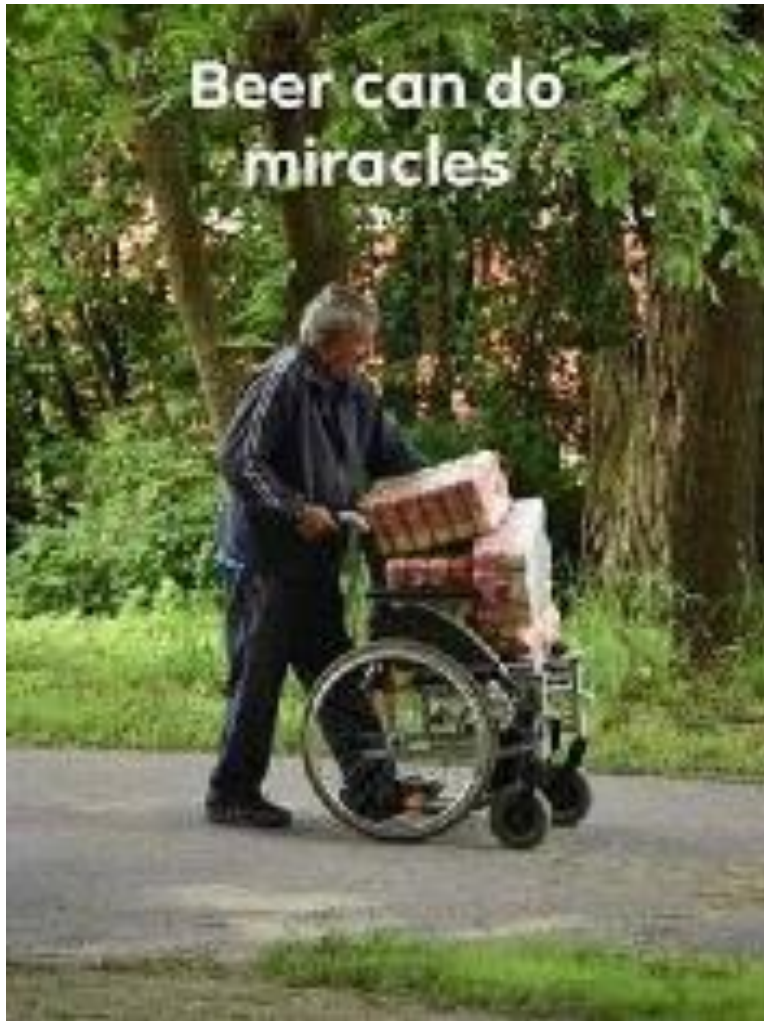
$$pV = nRT$$

$$pV = Nk_B T$$

$$p = \rho RT$$

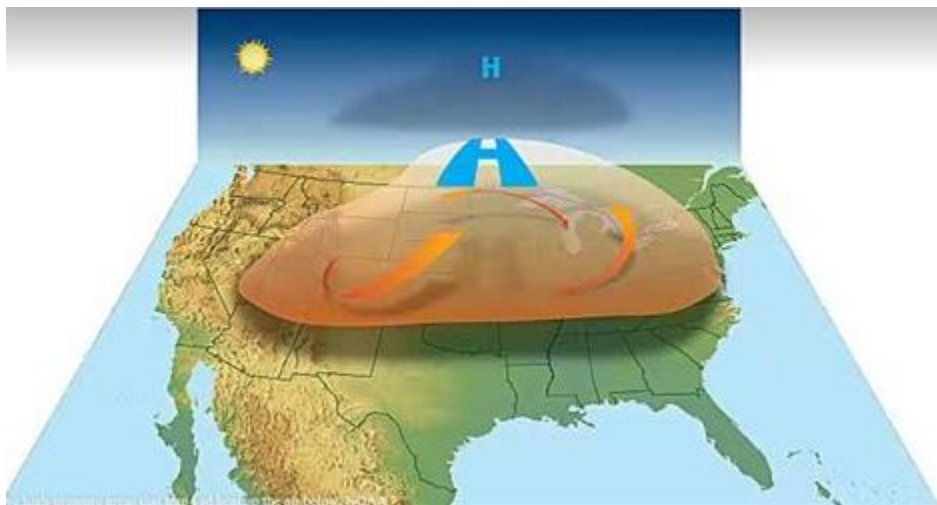
https://www.wired.com/story/what-is-the-ideal-gas-law/?bxid=617fdd8c62717d23af47aa50&cndid=67131721&esrc=growl2-regGate-0321&source=EDT_WIR_NEWSLETTER_0_DAILY_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_content=WIR_Daily_061922&utm_mailing=WIR_Daily_061922&utm_medium=email&utm_source=nl&utm_term=P1

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What Is a Heat Dome? Here's what the weather phenomenon baking large parts of the country actually means.



William Gallus

A heat dome occurs when a persistent region of high pressure traps heat over an area. The heat dome can stretch over several states and linger for days to weeks, leaving the people, crops and animals below to suffer through stagnant, hot air that can feel like an oven.

<https://twitter.com/i/status/1538941467686756352> Typically, heat domes are tied to the behavior of the jet stream, a band of fast winds high in the atmosphere that generally runs west to east.

Normally, the jet stream has a wavelike pattern, meandering north and then south and then north again. When these meanders in the jet stream become bigger, they move slower and can become stationary. That's when heat domes can occur.

When the jet stream swings far to the north, air piles up and sinks. The air warms as it sinks, and the sinking air also keeps skies clear since it lowers humidity. That allows the sun to create hotter and hotter conditions near the ground.

If the air near the ground passes over mountains and descends, it can warm even more. This downslope warming played a large role in the extremely hot temperatures in the Pacific Northwest during a heat dome event in 2021, when Washington set a state record with 120 degrees Fahrenheit (49 Celsius), and temperatures reached 121 F in British Columbia in Canada, surpassing the previous Canadian record by 8 degrees F (4 C).

The human impact

Heat domes normally persist for several days in any one location, but they can last longer. They can also move, influencing neighboring areas over a week or two. The heat dome involved in the June 2022 U.S. heat wave crept eastward over time.

On rare occasions, the heat dome can be more persistent. That happened in the southern Plains in 1980, when as many as 10,000 people died during weeks of high summer heat. It also happened over much of the United States during the Dust Bowl years of the 1930s.

A heat dome can have serious impacts on people, because the stagnant weather pattern that allows it to exist usually results in weak winds and an increase in humidity. Both factors make the heat feel worse – and become more dangerous – because the human body is not cooled as much by sweating.

The heat index, a combination of heat and humidity, is often used to convey this danger by indicating what the temperature will feel like to most people. The high humidity also reduces the amount of cooling at night. Warm nights can leave people without air conditioners unable to cool off, which increases the risk of heat illnesses and deaths. With global warming, temperatures are already higher, too.

One of the worst recent examples of the impacts from a heat dome with high temperatures and humidity in the U.S. occurred in the summer of 1995, when an estimated 739 people died in the Chicago area over five days.

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Amazon Shows Off Impressive New Warehouse Robots



Evan Ackerman

Three mostly flat wheeled green robots with attachments that allow them to drive under carts and lift them up to transport them around a warehouse

One year ago, we wrote about some “high-tech” warehouse robots from Amazon that appeared to be anything but. It was confusing, honestly, to see not just hardware that looked dated but concepts about how robots should work in warehouses that seemed dated as well. Obviously we’d expected a company like Amazon to be at the forefront of developing robotic technology to make their fulfillment centers safer and more efficient. So it’s a bit of a relief that Amazon has just announced several new robotics projects that rely on sophisticated autonomy to do useful, valuable warehouse tasks.

The highlight of the announcement is Proteus, which is like one of Amazon’s Kiva shelf-transporting robots that’s smart enough (and safe enough) to transition from a highly structured environment to a moderately structured environment, an enormous challenge for any mobile robot.

Proteus is our first fully autonomous mobile robot. Historically, it’s been difficult to safely incorporate robotics in the same physical space as people. We believe Proteus will change that while remaining smart, safe, and collaborative.

Proteus autonomously moves through our facilities using advanced safety, perception, and navigation technology developed by Amazon. The robot was built to be automatically directed to perform its work and move around employees—meaning it has no need to be confined to restricted areas. It can operate in a manner that augments simple, safe interaction between technology and people—opening up a broader range of possible uses to help our employees—such as the lifting and movement of GoCarts, the nonautomated, wheeled transports used to move packages through our facilities.

I assume that moving these GoCarts around is a significant task within Amazon’s warehouse, because last year, one of the robots that Amazon introduced (and that we were most skeptical of) was designed to do exactly that. It was called Scooter, and it was this massive mobile system that required manual loading and could move only a few carts to the same place at the same time, which seemed like a super weird approach for Amazon, as I explained at the time:

We know Amazon already understands that a great way of moving carts around is by using much smaller robots that can zip underneath a cart, lift it up, and carry it around with them. Obviously, the Kiva drive units only operate in highly structured environments, but other AMR companies are making this concept work on the warehouse floor just fine.

From what I can make out from the limited information available, Proteus shows that Amazon is not, in fact, behind the curve with autonomous mobile robots (AMRs) and has actually been doing what makes sense all along, while for some reason occasionally showing us videos of other robots like Scooter and Bert in order to (I guess?) keep their actually useful platforms secret.

Anyway, Proteus looks to be a combination of one of Amazon’s newer Kiva mobile bases, along with the sensing and intelligence that allow AMRs to operate in semi structured warehouse environments alongside moderately trained humans. Its autonomy seems to be enabled by a combination of stereo-vision sensors and several

planar lidars at the front and sides, a good combination for both safety and effective indoor localization in environments with a bunch of reliably static features.



Close up image of the front of an Amazon Proteus robot which has an arrangement of sensors that resembles a face

I'm particularly impressed with the emphasis on human-robot interaction with Proteus, which often seems to be a secondary concern for robots designed for work in industry. The "eyes" are expressive in a minimalist sort of way, and while the front of the robot is very functional in appearance, the arrangement of the sensors and light bar also manages to give it a sort of endearingly serious face. That green light that the robot projects in front of itself also seems to be designed for human interaction—I haven't seen any sensors that use light like that, but it seems like an effective way of letting a human know that the robot is active and moving. Overall, I think it's cute, although very much not in a "let's try to make this robot look cute" way, which is good.

What we're not seeing with Proteus is all of the software infrastructure required to make it work effectively. Don't get me wrong—making this hardware cost effective and reliable enough that Amazon can scale to however many robots it wants to scale to (likely a frighteningly large number) is a huge achievement. But there's also all that fleet-management stuff that gets much more complicated once you have robots autonomously moving things around an active warehouse full of fragile humans who need to be both collaborated with and avoided.

Proteus is certainly the star of the show here, but Amazon did also introduce a couple of new robotic systems. One is Cardinal:

<https://youtu.be/3dB-YHAP5RM>The movement of heavy packages, as well as the reduction of twisting and turning motions by employees, are areas we continually look to automate to help reduce risk of injury. Enter Cardinal, the robotic work cell that uses advanced artificial intelligence (AI) and computer vision to nimbly and quickly select one package out of a pile of packages, lift it, read the label, and precisely place it in a GoCart to send the package on the next step of its journey. Cardinal reduces the risk of employee injuries by handling tasks that require lifting and turning of large or heavy packages or complicated packing in a confined space.

The video of Cardinal looks to be a rendering, so I'm not going to spend too much time on it.

There's also a new system for transferring pods from containers to adorable little container-hauling robots, designed to minimize the number of times that humans have to reach up or down or sideways:

<https://youtu.be/c0uhDPgtqc8> It's amazing to look at this kind of thing and realize the amount of effort that Amazon is putting in to maximize the efficiency of absolutely everything surrounding the (so far) very hard-to-replace humans in their fulfillment centers. There's still nothing that can do a better job than our combination of eyes, brains, and hands when it comes to rapidly and reliably picking random things out of things and putting them into other things, but the sooner Amazon can solve that problem, the sooner the humans that those eyes and brains and hands belong to will be able to direct their attention to more creative and fulfilling tasks. Or that's the idea, anyway.

Amazon says it expects Proteus to start off moving carts around in specific areas, with the hope that it'll eventually automate cart movements in its warehouses as much as possible. And Cardinal is still in prototype form, but Amazon hopes that it'll be deployed in fulfillment centers by next year.

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Are Beavers as Eager as You've Been Led to Believe?



<https://youtu.be/s2YXFeraM8I>

Maybe you should ask one.

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Is that why there are people high up in gummint who want to get rid of it.

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The Wisdom of Mothers Superior

In a convent in Ireland, the 99-year-old Mother Superior lay quietly.

She was dying. The nuns had gathered around her bed, laying garlands around her and trying to make her last journey comfortable.

They wanted to give her warm milk to drink but she declined. One of the nuns took the glass back to the kitchen.

Then, remembering a bottle of Irish Whiskey that had been received as a gift the previous Christmas, she opened it and poured a generous amount into the warm milk.

Back at Mother Superior's bed, they lifted her head gently and held the glass to her lips. The very frail Nun drank a little, then a little more and before they knew it, she had finished the whole glass down to the last drop.

As her eyes brightened, the nuns thought it would be a good opportunity to have one last talk with their spiritual leader.

"Mother," the nuns asked earnestly, "Please give us some of your wisdom before you leave us."

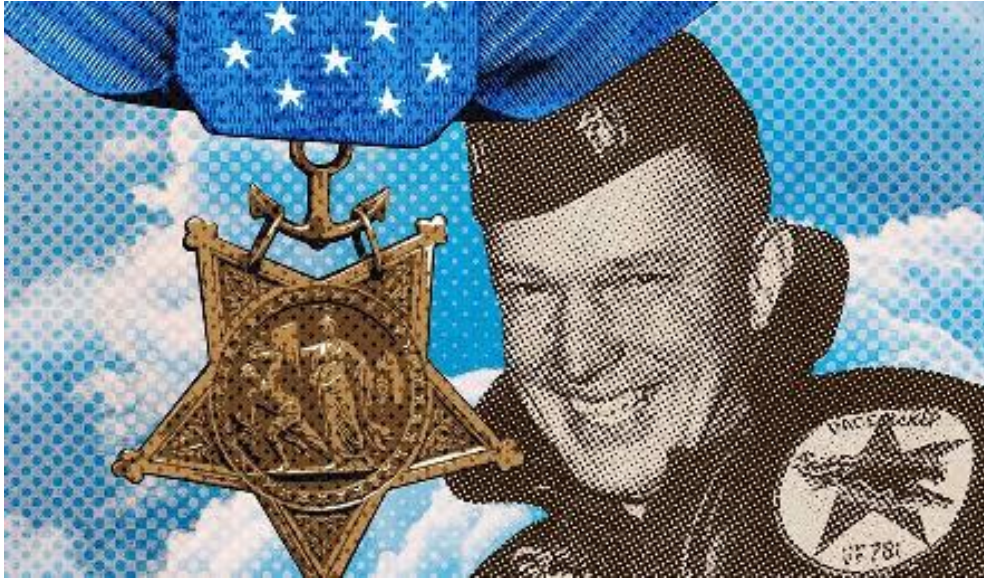
She raised herself up very slowly in the bed on one elbow, looked at them and said:



"DO NOT SELL THAT COW!"

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'Operation Just Reward': A tale for the ages



*Illustration on awarding Captain E. Royce Williams the Congressional Medal of Honor
by Greg Groesch/The Washington Times*

By Christian Josi

Something's afoot in Washington that dovetails almost eerily well with the invigorating cultural moment we have found ourselves in once again courtesy of Tom Cruise and the makers of the "Top Gun" film franchise.

As we drive irresponsibly on the way home from movie theaters, calculating whether or not we are too old to actually join the Navy and fixate anew on the folklore that has always surrounded our nation's most elite military aviators, a great, bipartisan thing is shaping up in Congress (believe it or not!). Something which will hopefully culminate in an even greater thing happening very soon in a White House ceremony.

In the midst of a determined campaign by retired military officials of all stripes dubbed "Operation Just Reward" that's had its ups and downs mostly due to bureaucratic nonsense, Rep. Darrell Issa, California Republican, has grabbed the reins, built an impressive bipartisan coalition of fellow lawmakers, and introduced H.R. 5909 to fast-track the effort to authorize the president to give one of the greatest combat pilots the world has known, retired 97-year-old Capt. E. Royce Williams, just that in the form of the Congressional Medal of Honor.

The tale of Capt. Williams' real-life heroics and the reason why it has taken so long to secure for him the United States government's highest and most prestigious military decoration could fit right in with the "Top Gun" franchise, should Mr. Cruise and company feel the urge to have another go. His story is long, intense and perhaps more fantastical than even the best Hollywood screenwriters could conjure.

As an aside, the very first commanding officer of the Navy's advanced fighter tactics program that came to be called TOPGUN, retired Rear Adm. Roger Box, simply referred to him in an email exchange as "the most remarkable fighter pilot alive." From what I can tell that sentiment seems very much to be shared in most relevant quarters.

Here's the gist: 70 years ago this Nov. 18, one of the greatest and certainly the hardest-won dogfighting triumphs in military aviation history took place in international waters off the Korean coast. On that day, 27-year-old Williams found himself suddenly alone in the sky in his F9F-5 Panther, staring down seven superior Russian MiG-15s who had come to eat his lunch and move on to sink his nearby carrier, the USS Oriskany.



By any clear-headed calculation, lunch-eating is exactly what should have happened at that moment. Except it didn't. What did ensue was a fierce 35-minute dogfight (note that most last mere seconds, and in exceptional cases have lasted up to five minutes) which ended with Williams safely back on the deck of the now-safe Oriskany after a dicey landing, 263 bullet holes and a 37-millimeter shell gash in his crippled Panther.

It didn't end quite as well for at least for six of the seven MiGs that set out to dispatch the outgunned American, as only one of them returned to base.

Though one of the most extraordinary feats in the history of military aviation had just happened, there was no celebration and no dramatic recounting from Capt. Williams to his shipmates. Quite the contrary. A frank conversation and handshake with his admiral was intended to be the last time the mission would be spoken of.

Turns out the circumstances and detail surrounding the dogfight, which ended so badly for the Soviets, contained a level of sensitivity that necessitated immediate top-secret classification. No one outside of a very small cadre of individuals knew a whiff of it for over 50 years until the Soviet Union fell and it was reported out of their archives. One of those in the loop, Dwight D. Eisenhower, was president-elect of the United States at the time. Eisenhower summoned Capt. Williams for a visit and a drink during a dramatic pre-inaugural fact-finding visit to Seoul because he wanted to meet the young aviator. Yet even in that rarified setting, the mission was not discussed.

When the U.S. government finally declassified it all in December of 2017, no one was more surprised than Capt. Williams' wife and his brother — a fellow elite military aviator with whom he shared a long-running friendly pilots' rivalry.

Capt. Williams had gone half a century without breaking his promise to his admiral. Half a century keeping secret something that could bring him immediate fame, fortune and

a place among the greatest aviators in history. As 146 of his fellow Korean War heroes were honored and celebrated with well-deserved Medals of Honor, he was content with his Silver Star, knowing full well that an upgrade was out of the question for national security reasons.

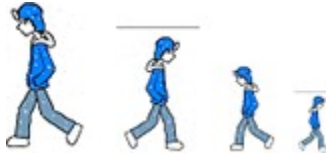
But as Mr. Issa says, "America owes Williams a debt of gratitude that can never be repaid, and we won't stop fighting until he is at least given the proper recognition he has not sought but richly deserves."

Thanks to Mr. Issa's laudable efforts to force the issue (remember, Capt. Williams is 97 and we don't have all the time in the world here) and thanks to the longtime determination of his "Operation Just Reward" comrades plus the endorsements of over 100 retired general officers and admirals, The American Legion, Distinguished Flying Cross Society, Special Operations Association of America and others, the most deserved and overdue military honors upgrade of all time may well be imminent.

Let's make it so. America could use a feel-good moment, and if anyone deserves a Hollywood ending it's Capt. E. Royce Williams. Let's challenge Congress to come together immediately upon return from the July 4 recess and pass H.R. 5909,

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My Walking Thoughts



For July 10 2022

Last week, in looking forward to Independence Day I made a suggestion...

Tomorrow, with all the hotdogs, fireworks, and parades, I hope you will find some time to think about the course we are on...that rather than congratulating ourselves for being recipients of a bequest from those who came before, determine what legacy we intend to leave to those of the next quarter millennium.

This week I'd like you tell us what your thoughts on how individual liberty figures in that legacy and how you see our society moving forward in this endeavor.

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Outtakes from Phantoms from Vietnam

[Echoes of this remain in the book, but highly truncated and solely from Gordon's point of view...thus he knows little of this, and even then much later in his life.]

On-a rainy Thursday afternoon Gordon arrived at his Uncle Joe's farm with nothing but the clothes he'd worn to school in Huntington Beach that day. Gordon's swift relocation was the result of his father's, unanticipated return after only a week from a voyage that was supposed to have taken several months.

The light cruiser Savannah, of which Commander William Gordon Talbott, USN, was Captain, put to sea following upgrades to its armament and a host of modifications to its propulsion system. The voyage had barely begun, however, when one of its brand-new boilers exploded. Nine sailors died, a dozen more injured, and the ship sustained a ten-foot tear on the port side aft on the bridge below the waterline. Before counter-flooding brought the ship back onto an even keel, four more sailors were lost overboard, their bodies never recovered despite the efforts of an accompanying destroyer that searched the area for a day and a half without success.

The crippled ship put about and made for San Diego where repairs to the hull and engineering spaces were estimated to take four months before the ship would once again be ready for sea, so for all intents and purposes he was out of a job save answering charges of incompetence to a group of his supposed peers.

In limbo until the incident board was convened, Commander Talbott caught the midnight Greyhound Bus to Long Beach followed by a taxi to his home, arriving just as the Episcopal Church carillon pronounced it to be ten A.M., which turned out to be an unfortunate time for the charming Mrs. Patricia Talbott —Tricia to her friends—who was at the time entertaining an equally charming Mr. Fleming, purveyor of stocks and bonds when not satisfying the needs navy wives whose husbands were somewhere out there on the bounding main. Worse still, both she and Mr. Fleming were blissfully unaware that their frolicking had an audience, or that the audience had a 45-caliber pistol as well as an attitude shaped by the knowledge that his naval career was finished.

Following four squeezes on the automatic's sensitive trigger--two for each including 'make-sures--he solemnly placed his cherished blue uniform in the closet, changed into civvies, and walked out on the front porch where he made certain Mrs. Campos, the Talbott's neighbor across the street, was watching.

Mrs. Campos had long since branded Tricia a slut so when she heard what she thought was hammering coming from the back of the house, the thought whisked through her mind that perhaps it was Commander Talbott ridding the world of his tramp and her friend. Still, she was horrified when the Commander came out brandishing the pistol pitched her a smart salute, put the muzzle of the deadly instrument to his temple, and added a staccato exclamation point to his morning's duties.

"Sadness," she thought aloud, wondering what was to become of young Gordon—Gordon to distinguish him not only from his father, but the numerous Williams that dotted the neighborhood--whom she babysat nearly every evening while his mother made her nocturnal sojourns. After a bit of reverie, however, she went inside to call the police who arrived after barely a minute.

Chief Arnold Harrison arrived ten minutes later to take charge, though there was not much for him or anyone else to see or do. After poking around for no more than two minutes, he came across the street to see what Mrs. Campos might know. After relating the meager details she had of the episode, she went on to explain that the son, William

Gordon Talbott, Jr, was just starting kindergarten at the Harbor City Primary School, adding that the boy's maternal uncle and his wife, Joe and Claire Graves, were the only relatives she'd heard of and that they had a farm near Bakersfield.

Thus, as the bell announced the end of the school day, plans for young Gordon's immediate future had been made and accomplished. Principal Irene Nelson popped her head into the classroom, collected the boy, and led him to her office where Police Chief Harrison was waiting.

"Your Uncle Joe is on the way down from Bakersfield," Harrison explained in the reassuring manner that people in his profession mastered early in their careers. You'll be going home with him,"

Uncle Joe arrived half an hour later, a little shaken by the trip over the twisting Grapevine highway separating the fertile San Joaquin Valley from the Los Angeles Basin. Principal Nelson took Gordon out front while Uncle Joe and Chief Harrison discussed the situation, after which, Joe led Gordon to the truck and boosted him onto the seat for the trip north.

Watching the mud-splattered pickup truck exit the parking lot, Principal Nelson felt tears form for the youngster who was on his way to a new life with people he had never met.

While Joe worried what if anything he needed to say to Gordon about this sudden disruption to his life, his primary concern was how Claire, who still mourned the loss of their only child in childbirth, was going to handle this new situation.

Joe of course shared her anguish, but after nearly seven years he had come to grips with the disappointment. But not so Claire who, rather than moving toward forward with her life, appeared to be going the other direction.

Of the many doubts that flooded through his mind as he manhandled the clumsy pickup through the infamous corridor that weekly claimed a regular toll of victims braving its serpentine curves, was that of his and Claire's ability to care for the boy properly, placed opposite Gordon's ability to fit into the daily demands that came with farm life.

Beset with and almost endless string of such problems, Joe mumbled to himself, while Gordon sat totally absorbed in fascination of the sheer magnificence of the rugged mountain pass. It was, he to recognize much later, a feeling of wonder he would never outgrow.

When finally they emerged from the tortuous clutches of the Grapevine and plunged steeply downhill on the ribbon-straight US 99 highway leading to the burgeoning city of Bakersfield, Joe's concerns for the future vanished, swept away by the stunning recognition that in Gordon lay dreams of the future so long ago dashed in a silenced crib.

"God works in mysterious ways," he said aloud, and in his mind's ear he heard an answering, "Amen."

So wrapped up in his new-found joy was Joe that he was scarcely aware the final legs of the trip, first East toward the Sierras on Highway 221 to the small community of Arvin, north again for three miles to Weedpatch Road, then east through ruts axel-deep to the farm.

Home.

First to greet them was Buster, the family's three-legged shepherd, who hopped up on the running board to lick Joe's face, then ran around to the passenger side to bestow a similar kiss on Gordon, who shrunk away until Joe quieted the pooch with the easy command, "simmer down, old fella. This here's Gordon who's come to live with us." Buster backed away and lay down, waiting to see what would happen next.

"Go give him a hug," Joe suggested as he helped Gordon down from the cab. "Then we'll go find your Aunt Claire and see what's she's fixed us for supper."

But the welcome was not quite what Joe had in mind.

Claire wasn't in the kitchen anxiously awaiting their arrival. Nor was she in the bedroom, living room, or the room that Joe had built a decade before for the baby and where he had died alone in the middle of the night, his soul protected by baptism, his body barely larger than the day he was born.

"Maybe she's out by the barn," he said, pointing to the building at the end of the driveway, surrounded by purposeful fencing. But she wasn't there either.

"Huh," he grunted in confusion as he worked through the list of possibilities, but coming up blank, said to Gordon, "I'll bet you need to go to the bathroom after the trip, then we'll get something to snack on 'til your Aunt Claire gets back from the store."

Claire wasn't at the store, but at the Calvary Baptist Church explaining to Pastor Jacobs the terror, her nephew's immanent and totally unexpected arrival produced in her.

"Joe didn't even ask me what I thought," she said in a voice that ranged between anger and desperation. "He just told me that my sister's husband had murdered her then killed himself, leaving little Gordon an orphan." She paused, expecting the pastor to acknowledge her predicament, but he sat silent waiting for her to work out the situation for herself.

"We can't take care of him...raise him on the farm," and after another pause, "We're too old and know nothing about..."

"About what," Pastor Jacobs interjected, feeling it was time to get her to refocus her thoughts on what was really bothering her. "About how to care for a five-year-old boy? Come on, Claire, of course it's a frightening prospect..." he looked hard at her finally capturing her eyes, "but don't you see? Here is the opportunity that both you and Joe have needed all these years."

"But we...I...killed our baby back then," she cried out in anguish. "Don't you see that? Can't you see what a terrible mistake it will be to entrust the care and safety of a helpless little boy to people who failed once before."

"Nonsense, Claire." Then more gently, "William was the victim of Sudden Infant Death Syndrome, though it was called 'Crib Death' at the time and very few people knew what it was. Even today experts can't tell you why it happens, only that most often it occurs to boys between two and four months."

"But...but..."

"But nothing, Claire. The boy needs a home, and unless you want to turn him over to people with no family connection, God has elected you and Joe by a vote on one to none.'

Claire shook her head and snuffled for a bit longer, then finally looked up and asked, "Do you really think so?"

"I know so, and got from the highest authority. Now git, my dear friend. Joe and the boy are probably starving by now."

And that was, as she was wont to say in her later years, "was that."

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