

Ode to E Pluribus Unum for Sunday February 4 2024

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NASA's Ingenuity Helicopter Retires After Epic Flights on Mars



NASA

The small helicopter made the first extraterrestrial flight on any planet. It proved that we could explore the Red Planet by helicopter, despite the Martian atmosphere, which is 0.6% as dense as the air on Earth.

The Ingenuity helicopter's official mission was to take 5 flights over 30 days. The actual helicopter performed over 72 flights over the course of nearly 3 years.

<https://bit.ly/3Uh5OYK>

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Jupiter's Moon Io as a Mote in the Churning Eye



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Stunning Fog Waves Rolling Over Landscapes



<https://mossandfog.com/stunning-fog-waves-rolling-over-landscapes/>

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Ray Hodgson's Homebuilt B-29's Encounter with a Golf Cart



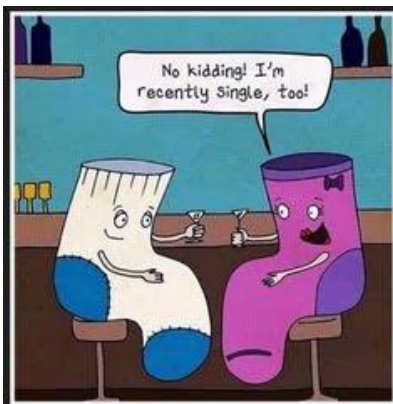
secretprojects.uk

The FAA is investigating the collision between a piloted 35 percent scale replica of a B-29 with a golf cart at Glendale Airport near Kokomo, Indiana, that sent a woman to the hospital on Sunday. Howard County Sheriff's Office said in a statement the woman was at the side of the runway at the small airport shooting video of the homebuilt aircraft from a golf cart. "As the plane came down for a landing, the plane drifted and struck the golf cart causing it to roll over, knocking the sole occupant unconscious," the statement said. The woman was airlifted to the hospital and her condition wasn't known.

The aircraft involved is a reproduction of a B-29 and is powered by four Honda Fit automotive engines with belt reduction drives to the props. At 35 percent scale, it's about 35 feet long with a wingspan of almost 50 feet. The aircraft was built from scratch over the past few years by Ray Hodgson. Hodgson was flying the aircraft, according to local media reports. Videos on YouTube have documented the construction process, which involved some unique processes using composites.

<https://youtu.be/RAWv1rhb8Uw>

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Alliance to Boost Hydrogen Technology in Motorsports



Hydrogen fuel news

Three organizations have announced they are coming together to form a joint Hydrogen Technical Working Group to evaluate hydrogen technology development and potential applications for H₂ within motorsport and wider mobility.

<https://bit.ly/4akkI61>

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1st Partial-Heart Transplant Growing with Baby 1 Year Later

Heart valves transplanted as part of the first partial-heart transplant in a human are now growing along with the infant who received them.



Owen Monroe, the transplant recipient, is pictured here as a baby in April 2022. (Image credit: Duke Health)

<https://bit.ly/3S9qIaX>

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How 10 Animals Evolved Their Iconic Features

Why are whales so big? Why are giraffe's necks so long? Here are the origins of 10 iconic features in the animal kingdom.



Turtle shells

Image credit: Jon G. Fuller/VWPics/Universal Images Group via Getty Images)

Animals come in all shapes and sizes, and many have iconic features that make them memorable. From the long necks of giraffes to the oddly shaped heads of hammerhead sharks, here's how 10 remarkable animals evolved their signature features.

<https://bit.ly/3RRX3l4>

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Researchers Create a Dictionary of Saltwater Crocodile Sounds



*Sunshine Coast researchers are collecting crocodile sounds as part of a 12-month project.
(Supplied: UniSC)*

Spouting water, hissing and blowing bubbles might not work for humans on the dating scene, but for saltwater crocodiles it's a different story.

That's according to researchers from the University of the Sunshine Coast (UniSC), who are recording and classifying sounds made by the animals — the world's most vocal reptiles — in a bid to aid conservation efforts.

<https://bit.ly/3O6m0bl>

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50 Fascinating Facts You May Not Have Known



amazingfacts4u

<https://youtu.be/Qa4KPPsivRA>

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Columbia, Rodinia and Pangaea: Earth's Supercontinents



An illustration of Earth 200 million years ago as Pangaea, the last supercontinent, began to break apart.

(Image credit: Walter Myers/Stocktrek Images via Getty Images)

Scientists have identified three definitive supercontinents in Earth's history and predict the landmasses we live on today will come together again in the future.

Scientists are still debating how many supercontinents have existed in Earth's history, but they're sure of at least three. Here are all of the known supercontinents that have existed and a few honorable mentions.

<https://bit.ly/3U4A350>

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Jester Looks at Las Week's Ode

Burgers



I don't pretend to be an expert on much, but I know a little about hamburgers. By my estimate, I've eaten north of 15,000 of them--which might go at least part way toward explaining my angioplasty at age 49 and bypass 5 years ago. My hometown, New Orleans, has its share of burger excellence, though not necessarily by Yelp's criteria--like the idea that quantity trumps

quality. People will line up at the Camellia Grill waiting for a seat at the counter--it's that or get it to go, or just go and come back later. The rare burger is done perfectly, especially garnished with relish and lots of raw onions.

But NOLA's real piece de resistance is Lee's hamburgers.... Started out (according to legend which I do not doubt) as Mr. Lee having a cart that he'd wheel down to the docks. He'd cook for the longshoremen. He realized later that the then-new theater crowd might like a bite to eat after the movie, so he took his show downtown and did it there. By the time I was a kid, he had a restaurant, if you want to call it that. What it was was a counter at which you could seat maybe a dozen people. It was L-shaped. Eventually that got blown down--well it was blown into leaning, so he relocated. Two blocks further down Tulane Avenue. He salvaged everything: counter, stools, stove. Didn't lok a lick different from the original place.

If there was a sign in front, I don't remember it. You either knew it was there or you didn't. He really didn't care one way or the other. He had a phone, but an unlisted number. He was open when he decided to open and when he didn't, he didn't. One night, when I was in high school, my girlfriend and I were there and I saw the phone. I pointed it out to him. He looked at me as if to say "you really are a smart ass, aren't you?" but what he actually said was, "so?" I told him that his number was unlisted. Same reply. I asked him for the number. He asked me whether I came there often. I told him that I'd be there more often if I didn't drag my ass across town to find out that he wasn't open. He chuckled, looked at the black lady who helped him, and told her to give me the number. I was in!!

He started a day with a certain amount of meat and when it was cooked, he closed. All burgers were mixed in with a lot of impossibly finely minced onions that got caramelized during the cooking process. Here's his menu, which doesn't tax my memory very much:

- Burgers with raw onions.
- Burgers without raw onions.
- Coke.
- Root Beer.

Eventually he decided to go way out on a limb, and you could also buy a small bag of potato chips. Condiments available were ketchup, mustard, salt, pepper. There was probably a Tabasco bottle somewhere, but I wouldn't swear to it. And I never put ketchup on them.

Mustard was a different matter: to me, there are two kinds of burgers--red burgers and yellow burgers. The former take ketchup and are rare; the latter take mustard and are common. I'm by far a yellow burger man. And no, I can't tell you what makes one

read any more than Potter Stewart could tell you what makes something obscene. I know it when I see it--or taste it.

It really was a purist's delight. Since he never seemed to change the cooking oil, it had the flavor of decades of caramelized onion and beef. We said that eating there was a trip to ancient grease.

He died while I was in medical school --early '70s. A cop had bought the place and he did a very good job of keeping to the original burgers. But his assistant--different from Mr. Lee's--tended toward the bottle and was unreliable, so he sold it to a brash, arrogant young guy who had no clue what he was doing. Lee's closed a few weeks later.

And stayed that way for a decade or two. It has re-emerged, now selling a much larger menu. But you can still get the originals and they taste just as good as they used to....

The Magic Number 42

42: The first 4 cubes are 1, 8, 27, and 64, so you can't get 42 by summing any 3 of them. But you can get it by summing 3 squares: $1 + 16 + 25 = 42$. I'm guessing that's what you meant.

BB

Regarding BB, here's an ad for used BMWs from years back:



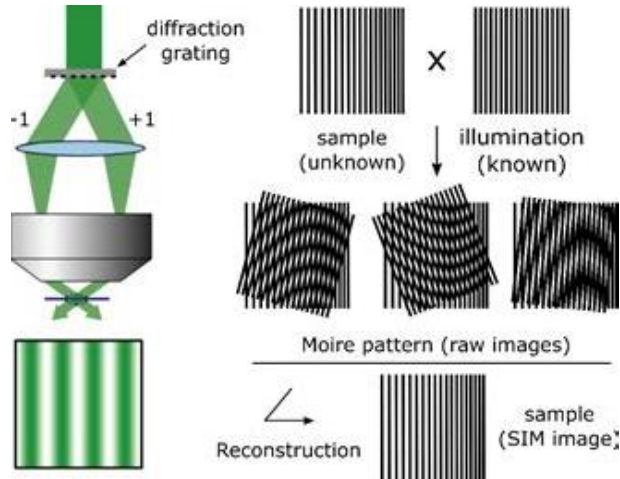
BMW-youre-not-the-first-ad.jpg

You'd think Ferrari rather than BMW would have been the author.

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Getting Right Down to It Through Trickery

Deep super-resolution imaging of thick tissue using structured illumination with adaptive optics.



Structured Illumination Microscopy and 3D SIM Imaging- Oxford Instruments andor.oxinst.com

Fluorescence microscopy has greatly advanced with the development of super-resolution microscopy (SRM) techniques that enable biological imaging with spatial resolutions well below the optical diffraction limit.

One of these approaches is 3D structured Illumination microscopy (3D-SIM) which features two-fold increased resolution in each spatial direction.

<https://bit.ly/48MwmFu>

It's amazing how much more of our world we can see thanks to curved glass.

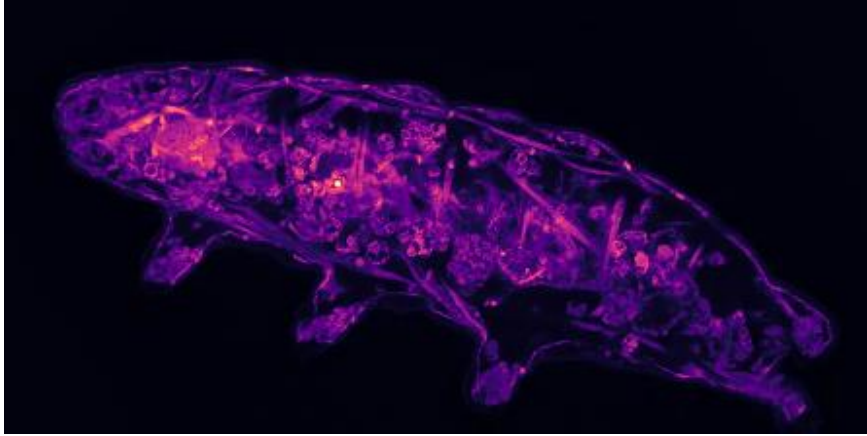
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Life's short. Make sure you spend as much time as possible on the Internet arguing with strangers about politics.

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Here's How Tardigrades Go into Suspended Animation

Chemical changes to the amino acid cysteine trigger what's called the "tun" state



Tardigrades, like this one stained with a dye to show its internal organs, can survive extreme conditions while dormant. Scientists have discovered the chemical signal that causes the animals to hunker down and wake up again.

A.L. Smythers Et Al/ Plos One 2024 (Cc-By 4.0)

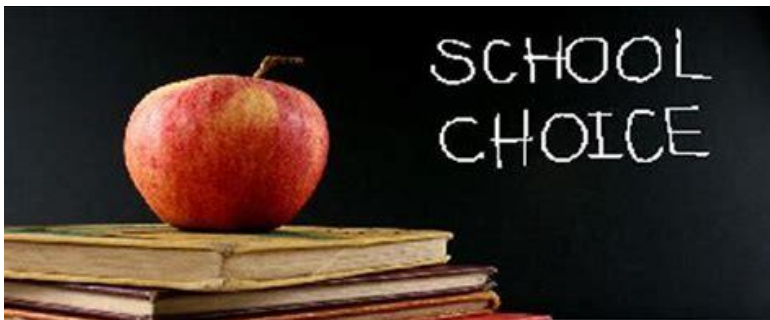
When times get tough, the microscopic invertebrates curl into a ball called a tun. They pull in their legs, jettison water, turn their insides to glass, and slow their metabolism to imperceptible levels. In that state, tardigrades are able to withstand completely drying out, trips into space, X-rays and other extreme insults, but aren't entirely bulletproof.

<https://www.sciencenews.org/article/tardigrade-tun-oxidation-suspended-animation>

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School Choice Is Popular and Increasingly Common

Kids have disappeared from public schools, with most opting for a range of alternatives.



laschoolreport

<https://bit.ly/3Si0VvZ>

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Peter Schickele Performs Schickele and P.D.Q. Bach



pinterest.com

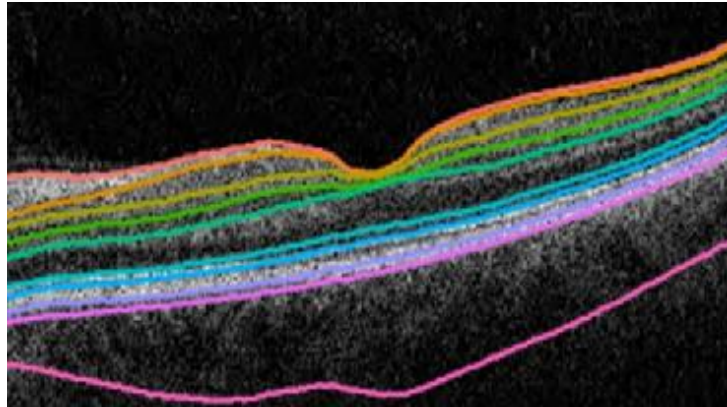
P. D. Q. Bach is a fictional composer created by the American musical satirist Peter Schickele for a five-decade career performing the "discovered" works of the "only forgotten son" of the Bach family.

Schickele's music combines parodies of musicological scholarship, the conventions of Baroque and Classical music, and slapstick comedy. The name "P. D. Q." is a parody of the three-part names given to some members of the Bach family that are commonly reduced to initials, such as C. P. E. for Carl Philipp Emanuel Bach; PDQ is an initialism for "pretty damned quick".

<https://youtu.be/jjS6g3sdgPc>

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Eyes: The Window to Health



The Human Retina Is Composed Of Nine Distinct Layers (Colored Above), Which Can Offer Clues About The Health Of The Eye, As Well As The Rest Of The Body.

Zekavat Et Al. / Science Translational Medicine (2024)

It's often said that the eyes are the windows to the soul. But it turns out that a person's retina—the light-sensitive tissue that lines the back of the eye—may offer clues about their overall physical health.

The human retina is a delicate, complex and multi-layered structure. According to a new study, the thickness of particular cell layers can reveal whether a person is at risk of developing certain health problems. Using 3D images of the eye and other data gathered from nearly 45,000 participants in the UK Biobank, scientists identified specific genes that influence the thickness of different retinal layers. They also found that patients with thinness in some layers were more likely to wind up with a range of different diseases, including those that affect the heart, lungs, and kidneys—not just the eyes.

These results are limited, the researchers caution, and further research with more diverse patient groups is needed to validate them. Still, the potential link between retinal thickness and health could lead to new methods for detecting and predicting different conditions. After all, retinal imaging is a simple, non-invasive test that is already frequently used by optometrists.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4559975/>

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Researchers Demonstrate Rapid 3D Printing with Liquid Metal

Their new technique can produce furniture-sized aluminum parts in only minutes.



MIT Self Assembly Lab

Their technique, called liquid metal printing (LMP), involves depositing molten aluminum along a predefined path into a bed of tiny glass beads. The aluminum quickly hardens into a 3D structure.

<https://bit.ly/3Ug2Svr>

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5,000 Fire Ants Create Raft with Their Bodies to Save Colony



*Fire ants formed a floating raft to save the colony from drowning in a swimming pool.
(Image credit: National Geographic/Disney+/A Real Bug's Life)*

By smooching together to protect their queen, these fire ants create a structure that "would take 400 times their body weight to break" said series producer, Bill Markham. He added that these rafts can stay afloat for 12 days, but in this case they found a pool noodle and got to dry land within a few minutes.

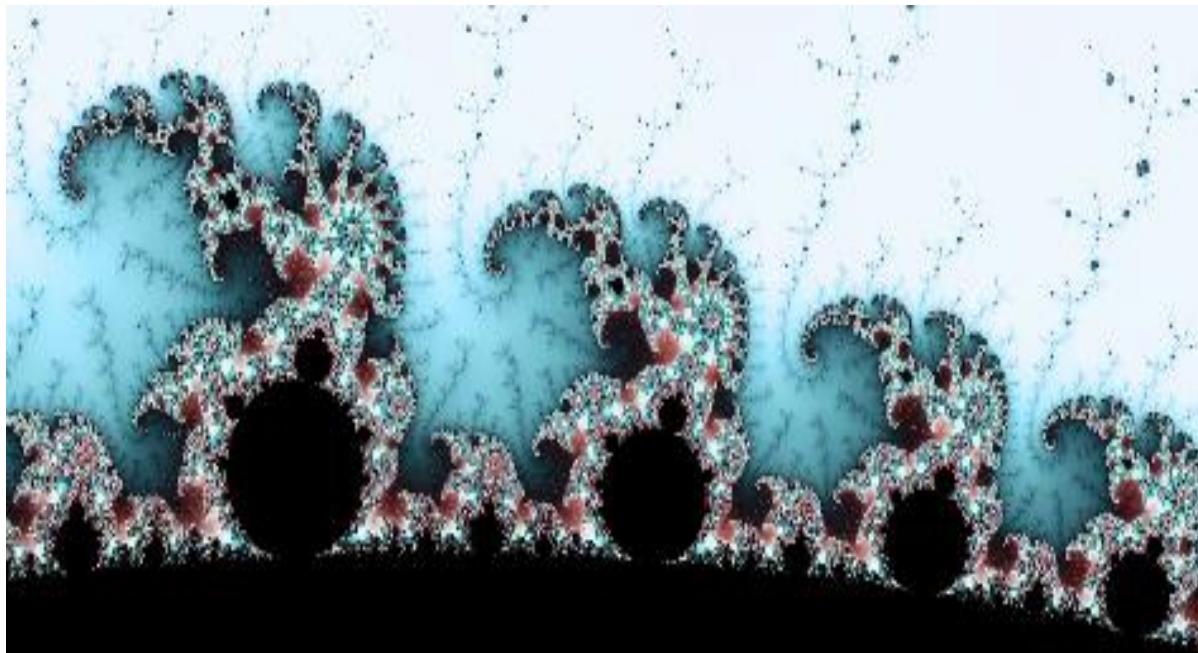
<https://bit.ly/48YkYGm>

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The Quest to Decode the Mandelbrot Set, Math's Famed Fractal



Zoom into a spot near the cusp of the Mandelbrot set's main cardioid, and you'll see a pattern that looks like a parade of elephants.

Maths.Town

For decades, a small group of mathematicians has patiently unraveled the mystery of what was once math's most popular picture. Their story shows how technology transforms even the most abstract mathematical landscapes.

<https://bit.ly/49a9srk>

The Mandelbrot set is a special shape, with a fractal outline. Use a computer to zoom in on the set's jagged boundary, and you'll encounter valleys of seahorses and parades of elephants, spiral galaxies and neuron-like filaments. No matter how deep you explore,

you'll always see near-copies of the original set — an infinite, dizzying cascade of self-similarity.

That self-similarity was a core element of [James Gleick's bestselling book Chaos](#), which cemented the Mandelbrot set's place in popular culture. "It held a universe of ideas," Gleick wrote. "A modern philosophy of art, a justification of the new role of experimentation in mathematics, a way of bringing complex systems before a large public."

Read this and then if you haven't read Gleick's Chaos you're missing an essential link between the past and present. While you're at it you might want to read [Gleick's The Information](#).

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Study Shows Vitamin D Supplements May Help Fend Off Dementia



Massive Study Shows Vitamin D Supplements May Help Fend Off Dementia
The Hearty Soul

The more research that gets done on vitamin D, the more we are realizing how important a vitamin it is. The study examined 12,388 participants who were dementia-free when they signed up. Researchers at the University of Calgary's Brain Institute in Canada and the University of Exeter in the UK partnered with the US National Alzheimer's Coordinating Center. Of the group, 37% took supplements.

The team found that it was associated with 40 percent fewer dementia diagnoses in the group who took supplements. They also linked the vitamin to living dementia-free for longer.

<https://bit.ly/3Salj1P>

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What Was the Typical Life Span of a Dinosaur?

It depends on the size and species, of course.



vervetimes.com

Dinosaurs have left a wealth of information behind in their fossils, including how they defended themselves, what they ate and sometimes even how they died. But when these beasts bit the dust, did they leave any clues behind about how old they were, indicating whether they were youngsters, middle aged or old geezers?

<https://bit.ly/3SEvRYJ>

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'They Did Not Hesitate to Accept Their Duty'

[Last letters](#) from young kamikaze pilots provide rare insights into Japan's feared special attack unit.



Three women look at photos of Japanese kamikaze pilots, who gave their lives in WWII suicide attacks against US forces, hanging on a wall at the Chiran Peace Museum.

David Guttenfelder/A

The youngest kamikaze pilot was Yasuo Tanaka, just 16. He flew an Okha – essentially a bomb with wings but no wheels--dropped from a mother aircraft. He died on May 11, 1945. You can see his photograph at the Kanoya museum, on the grounds of a current Japan Maritime Self-Defense Force base.

<https://bit.ly/4biS5GL>

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Four Cozy Scarf Styles to Keep You Warm This Winter.



pinterest.com

When it's cold outside, you definitely want to bundle up. Beside sweaters, puffer coats, mittens and hats, scarves are another way to keep yourself warm during the chilly months.

<https://bit.ly/3SjDang>

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Poetry Corner

Writing

My suitor calls but I let the phone ring
For after all I am writing
It's not his fault I have a hobby it seems

I do wonder if he will understand
To me poetry is like pottery in hand
And my inner demons demand I dance

We all have some Yin and Yang
No one of us is the very same
With surges of urges to teal tame

I am a romantic yet I ponder
Am I fit to be his girl wonder
For my muse is one of thunder

I don't know but yet I grow

To find enlightenment I hope
Perhaps this gap will close

Writing is for me a turquoise thing
I can engage stage a dream
For my hand he must be understanding.

By Karen Jones

Golf Chat

Three old men on the golf course,
(Each had trouble hearing well)
Were playing a round on a breezy day,
When one blew over and fell.

"Windy, isn't it?" said one of them,
While helping the other to rise.
"No, it's Thursday," said the second man.
And they walked off to exercise.

The third man had listened intently;
Now he chimed in, with good cheer;
As he followed the others, he called out,
"So am I. Let's have a beer!"

By Joanna Fuchs

I would like to apologize for the delay

I would like to apologize for the delay
in coming to work today.
This is due to a signaling failure
between my primary motor cortex and pyramidal motor pathway.
I shall remain here instead,
sidelined in this bed,
until further notice.

I would like to apologize for the delay
in going for a run today.

This is due to leaves on the tracksuit
I wore last week,
during my unsuccessful attempt to bury myself
in a coppiced wood.
I would be there still, if I could.

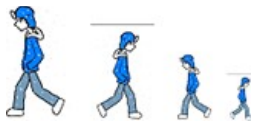
I would like to apologize for the delay
in joining your skiing holiday.
This is due to the wrong kind of snow,
which, as far as I'm concerned, is any kind of snow
that enables people
to hurtle down slopes, at speed,
on skis.

I would like to apologize for the delay
in taking part in life today.
This is due to delays.

by Brian Bilston

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My Walking Thoughts



For Sunday February 4 2024

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Trip to Terra Incognita: Pensacola, December 1959

Reporting in

The last leg of my 2½ day drive from Los Angeles to Pensacola took place in heavy rain augmented with occasional strokes of lightning. As I approached the main gate I was assaulted by the thought that the guard might take one look and arrest me for impersonating an officer, but instead a sharp sentry in blue trousers and two stripes on his brown service shirt took a cursory look at my brand new ID card and without the slightest hesitation laid out for me his idea of my itinerary for the next hour or so. It began with a visit to the office next to the guard station to get a sticker for my car followed by a five minute drive to the Marine Air Detachment (MAD) where I was to report in.

Properly badged and briefed on a variety of local course rules headed by the injunction of never straying to the north side of 25 mph, I crept away in pursuit of my next destination, which I found after only two foiled attempts. The admin building, undergoing extensive repair bore the soggy handwritten advisory, **MAD**. At the front entrance a smaller sign read "*Closed. Use Rear Door.*" I did, but once inside found the outer office vacant but for scraps of construction debris.

"What now," I asked aloud as if the answer might arise from the dunnage, then a voice from behind me asked, "Do you always talk to yourself?" I turned to find a Marine Captain shrugging off his rain slicker at the same time eyeing me intently.

"No sir," I answered reflexively, "Only when I am confused." Then remembering my purpose here, "Trotti, John H., second lieutenant, reporting in for..."

I got no further as he stepped forward, his hand outstretched. "Welcome aboard, Lieutenant, you're the first of the new bunch of brown bars to show up.

"I'm Captain Rapp, the detachment's admin officer. I'll be herding your class around for the first week or so while you go through all the arrival hogwash. After that you'll be in the hands of the Preflight Instructors." As an afterthought, "I'll be teaching you the course on aerodynamics."

With that, Rapp replaced my orders with a heavy packet that he explained would answer nearly every question a newbie to the command could possibly have but, he sighed, "I'm sure you will prove me wrong." He smiled as he allowed that--the first I had ever seen on a Marine officer from the night I had arrived at Quantico four months before—and in a flash of insight I sensed I might actually belong here.

A side note here: I have always had problems with remembering names, so why after 65+ years have I managed to exhume Rapp's from a long list of associates who have been part of my passing parade?

The best explanation I can come up with is that he made it plain from the very beginning that he was there to help me and those who would become my classmates to achieve success in our quest to earn those little 'Wings of gold' that are the hallmark of naval aviators...and that beyond that he was happy to do so.

I have recalled this happy intersection at odd times over the years, particularly on occasions where I have been in similar situations with newbies. I'd like to think that he would take some pleasure in my attempts to walk in his footsteps. You'll see him again in this saga.

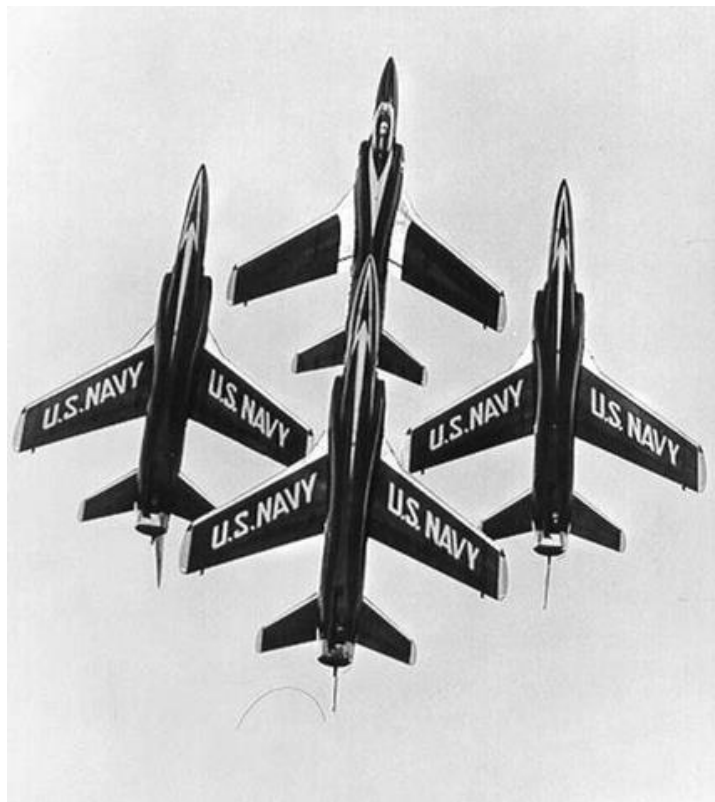
Ps. I never found out his first name but I've secretly thought it to be "Ripp," the second 'p' to maintain the symmetry.

Leaving the MAD office I took Captain Rapp's advice to get myself squared away at the Batchelor Officer Quarters (BOQ) and take it easy until the following Monday morning when I was to report back in uniform to meet his boss, the unit's commander, Lt. Colonel Petersen.

The hallowed halls of the Pensacola BOQ

I could have missed the BOQ were it not for its parking area whose first four slots were filled by identical powder blue 1959 Thunderbirds displaying rear window Blue Angels stickers. What a hoot.

It seems someone had talked the Ford folks into supplying the Blues with wheels that allowed them to proclaim whenever anyone had the temerity to ask, "Well of course we fly Thunderbirds,". Great marketing even though by then the once graceful semi-sportsters had been 'Bluto-sized' by the chrome pimps of Detroit who seemed pathologically unable to leave well-enough alone. I don't know what the Blues putt around in this days but I suspect it's a bit zoomier.



Note the overlap and that The Boss is inverted
aerobaticteams.net

An added thought: The Blue Angels flew the long-nosed version of Grumman's F-11F Tiger, perhaps the most beautiful bird to ever make its resident Bernoulli's shiver and dance. Sadly, the engine it was designed to use--the GE-J-79--was commandeered by the almost as beautiful Air Force F-104 Starfighter, leaving the

Tiger to struggle along with the PW J-65, which though equipped with afterburner fell 5,000 pounds of thrust short of target. That said, it should also be noted that in terms of flight characteristics it was the most harmonized of all birds I have ever flown. How did I manage that? You'll see anon.

The building itself, handsome from the outside, was workmanlike in its interior decor...a place where junior officers like myself could bed down in Motel-6 like surroundings with bed, desk comfortable chair, good lighting, and a bathroom separating it from an identical accommodation...this one unoccupied for the moment.

Unlike the Officers Club dining room that was open to visitors, the BOQ's Mess was for its residents only. This was not out of any desire for exclusivity, but because we who lived there paid for the privilege by assigning to it our subsistence allowance amounting to \$42.00 per month. I have to say I found it to be a most satisfactory trade.

To be continued next week when Classes begin.

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