

Ode to Happiness for Sunday January 31 2021

The Magnetic Field of the Whirlpool Galaxy



Image Credit: NASA, SOFIA, HAWC+, Alejandro S. Borlaff; JPL-Caltech, ESA, Hubble; Text: Jayanne English (U. Manitoba)

.Do magnetic fields always flow along spiral arms? Our face-on view of the Whirlpool Galaxy (M51) allows a spectacularly clear view of the spiral wave pattern in a disk-shaped galaxy.

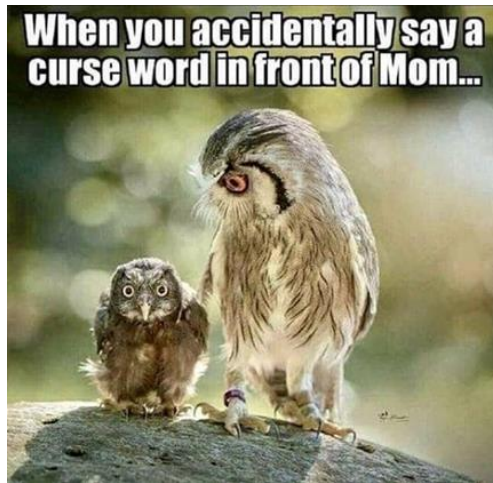
When observed with a radio telescope, the magnetic field appears to trace the arms' curvature. However, with NASA's flying Stratospheric Observatory for Infrared

Astronomy (SOFIA) observatory, the magnetic field at the outer edge of M51's disk appears to weave across the arms instead.

Magnetic fields are inferred by grains of dust aligning in one direction and acting like polaroid glasses on infrared light. In the featured image, the field orientations determined from this polarized light are algorithmically connected, creating streamlines.

Possibly the gravitational tug of the companion galaxy, at the top of the frame, on the dusty gas of the reddish star-forming regions, visible in the Hubble Space Telescope image, enhances turbulence -- stirring the dust and lines to produce the unexpected field pattern of the outer arms.

=====



=====

Better Check Six if Robin Olds Is in Your Neighborhood



worldwarwings.com

<https://www.youtube.com/watch?v=SwBK0a3n658>

This is a tremendous video of one of America's greatest military leaders and combat fighter pilot. His daughter, Christina, does such a wonderful job capturing the feeling of fighter pilots, their life style and the camaraderie that lasts for a life time. Definitely worth the time to watch the entire video as it says it all...SF, Lancer

=====

The Growing Generational Wealth Gap

As young generations usher into adulthood, they inevitably begin to accumulate and inherit wealth, a trend that has broadly remained consistent.

But what has changed recently is the rate of accumulation.

In the U.S., household wealth has traditionally seen a relatively even distribution across different age groups. However, over the last 30 years, the U.S. Federal Reserve shows that older generations have been amassing wealth at a far greater rate than their younger cohorts.

As the visual above shows, the older have been getting richer, and the younger have been starting further back than ever before.

By Generation: Baby Boomers Benefit & Millennials Lag

To examine the proportion of wealth each generation holds, it's important to clearly define each age group. Though personal definitions might differ, the U.S. Federal Reserve uses a clear metric:

| Generation | Birth Years | Age (2020) |
|-----------------------------|------------------|------------|
| Silent Generation & Earlier | 1945 and earlier | 75+ |
| Baby Boomers | 1946–1964 | 56–74 |
| Generation X | 1965–1980 | 40–55 |
| Millennials | 1981–1996 | 24–39 |

Relative to younger generations growing up, the Silent Generation and Greatest Generation before them have seen a decreasing share of household wealth over the last 30 years.

However, the numerical levels have been relatively stable. For these combined generations, total wealth has gone from \$16 trillion in 1989 to \$19 trillion in 2019, with a peak of \$27 trillion in 2007. Considering this cohort has understandably shrunk over time—from an estimated 47 million to 23 million in 2019—their individual shares of wealth have actually increased.

Immediately following are the Baby Boomers, who held more than half of U.S. household wealth towards the end of 2020. At \$59 trillion, the generation holds more than ten times the amount held by a comparative number of Millennials.

| Generation | Wealth (2019) | Population | Wealth/Person |
|--------------|-----------------|--------------|---------------|
| 1945 & Older | \$18.8 Trillion | 23.0 Million | \$817,391 |
| Baby Boomers | \$59.4 Trillion | 71.2 Million | \$834,270 |
| Generation X | \$28.6 Trillion | 65.0 Million | \$440,000 |
| Millennials | \$5.0 Trillion | 72.6 Million | \$68,871 |

With \$29 trillion held in 2019, Generation X has also been gaining in wealth over the last 30 years. It's good enough for five times the wealth of Millennials, though at just \$440k/person, they've fallen far behind Baby Boomers in rate of growth.

Finally, trying to catch up to their older cohorts are Millennials, who held the least amount of household wealth (\$5 trillion) for the greatest population (73 million) in 2019, an average of just under \$69k/person.

For a direct comparison, it took Generation X nine years to climb from their start of 0.4% of household wealth in 1989 to above 5%, while Millennials still haven't crossed that threshold. But it's not all doom and gloom for Millennials. Their rate of growth is starting to rise, with the generation's level of wealth climbing from \$3 trillion in 2016 to \$5 trillion in 2019.

By Age: A Growing Share for 55+

Though the generational picture is stark, the difference in U.S. household wealth by age makes the picture of shifting wealth even clearer.

Until 2001, the shares of household wealth held by different age groups were relatively stable. People aged 40-54 and 55-69 held around 35% each of household wealth, retirees aged 70+ hovered around 20%, and younger people aged under 40 held around 10%.

Since that time, however, the shift in wealth to older generations is clear. The 70+ age group has seen their share of wealth increase to 26%, while the share held by ages 55-69 has grown from 35% to almost half.

But not all ages are seeing an increasing slice of wealth. The 40-54 age group saw its share drop sharply from 36% to 22% between 2001 and 2016 before starting to recover towards the end of the decade, while the youngest cohort now hover around just 5%.

Breaking down that wealth by components is even more eye-opening. The 39 and under age group holds 37.9% of their assets in real estate, the largest share amongst any age group (and concentrated in the hands of fewer people) while older age groups have their wealth spread out across real estate, equities, and pensions.

| Assets | 70 + | 55-69 | 40-54 | ≤39 |
|----------------------|-------------|--------------|--------------|------------|
| Real estate | 21.6% | 20.5% | 27.6% | 37.9% |
| Consumer durables | 3.8% | 3.6% | 5.2% | 9.4% |
| Equities Funds | 24.6% | 23.1% | 18.6% | 8.1% |
| Pension entitlements | 16.3% | 25.0% | 21.9% | 21.0% |
| Private businesses | 7.9% | 9.7% | 12.1% | 8.1% |
| Other assets | 25.8% | 18.1% | 14.7% | 15.5% |

But the difference is as much in assets as it is in opportunity. In 1989, Baby Boomers and Generation X under 40 accounted for 13% of household wealth, compared to just 5.9% for Millennials and Generation Z under 40 in 2020.

Will the Tide Turn for Generation Z?

As new and accumulated wealth has been built up in older generations, it's a matter of time before the pendulum starts to swing the other way.

The Millennials age group are expected to inherit \$68 trillion by 2030 from Baby Boomer parents. Of course, that payout isn't going to be even across the board, with wealthier families retaining the bulk of wealth and the majority of Millennials laden with debt.

And with Generation Z (born 1997-2012) starting to come of age, the uneven playing field is making it hard to begin accumulating wealth in the first place.

Since it is in the best interest of societies to have wealthy generations that can drive economic growth, potential solutions are being examined all over the political sphere. They include different taxation schemes, changing estate laws, and potentially cancelling student debt.

Whatever ends up happening, it's important to track how the distribution of wealth changes over the coming decade, and begin accumulating your personal wealth as best as you can.

=====

New Zealand City Closes Road to Protect Sea Lion Mother and Pup

Move comes after pair take up residence at golf course and regularly need to navigate traffic to get to the nearest beach

Eleanor de Jong in Queenstown



*12,000 New Zealand sea lions are left, and their main breeding population remains in decline.
Photograph: Wolfgang Kaehler/LightRocket/Getty Images*

The second largest city on New Zealand's South Island has closed a popular road for an entire month in order for a sea lion to nest safely with its pup.

Dunedin City council said in a Facebook post it would close John Wilson Drive above the city's St Claire beach for a month to allow "some special residents to use the road safely".

"A New Zealand sea lion and her pup have taken up residence at the golf course next door and are regularly crossing the road to get to the beach," the council said.

"You can still visit the area by foot or bicycle, but please give the sea lions lots of space (at least 20m) ... New Zealand sea lions are endangered and one of the rarest sea lion species in the world."

The harbour city, home to 120,000 people, regularly shuts roads during the summer months to allow wildlife to cross safely, but typically only for a day or two at most.

The month-long closure has been applauded by locals, many of whom urged the council to make it permanent to protect vulnerable wildlife.

Sea lions are threatened in New Zealand and are often attacked by dogs or chase humans if they get too close.

The animals, which can weigh up to 200kg, have been giving birth in and around Dunedin since 1993, and since protection efforts have ramped up – both official and otherwise – the sea lion breeding season has become a fixture of the summer months, with at least 20 pups expected in the city this year.

Pups who had been born in the city later return to have their own pups there, and have been found giving birth in paddocks, farm sheds, and beside motorways.

According to the Department of Conservation, there are about 12,000 New Zealand sea lions left, and their main breeding population remains in decline, facing threats from fisheries, diseases, food availability and human impact.

Before the Covid pandemic, tourists in Dunedin routinely disturbed sea lions sunbathing on local beaches, encroaching on the animal's habitat for selfies and photographs.

Māori consider sea lions a taonga [treasured] species.

=====

Here's a Race that's Hard to Handicap



<https://www.youtube.com/watch?v=gt7BR-JXcuA>

Dinosaur racing has become an annual tradition at the Emerald Downs racetrack in Auburn, Washington, where people don T. rex costumes and sprint like they're running from extinction!

=====

Joyce Kilmer; More than Just Trees...But



Alfred Joyce Kilmer (1886 –1918) was an American journalist and poet; his best-known work is "Trees". The poem is notable for its anthropomorphism: the tree in the poem presses its mouth to the earth's breast and looks at God and raises its leafy arms to pray. The poem was given a musical setting that was quite popular in the 1940s and 1950s. His home in New Brunswick is still standing and houses offices.

Love's Lantern

(For Aline)

Because the road was steep and long
And through a dark and lonely land,
God set upon my lips a song
And put a lantern in my hand.
Through miles on weary miles of night
That stretch relentless in my way
My lantern burns serene and white,
An unexhausted cup of day.
O golden lights and lights like wine,
How dim your boasted splendors are.
Behold this little lamp of mine;
It is more starlike than a star!

Trees

(For Mrs. Henry Mills Alden)

I think that I shall never see
A poem lovely as a tree.
A tree whose hungry mouth is prest
Against the earth's sweet flowing breast;
A tree that looks at God all day,
And lifts her leafy arms to pray;
A tree that may in Summer wear
A nest of robins in her hair;
Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me,
But only God can make a tree.

Patty Page; Trees <https://www.youtube.com/watch?v=1NMt2B9kCWA>

Folly

(For A. K. K.)

What distant mountains thrill and glow
Beneath our Lady Folly's tread?
Why has she left us, wise in woe,
Shrewd, practical, uncomforted?
We cannot love or dream or sing,
We are too cynical to pray,
There is no joy in anything
Since Lady Folly went away.
Many a knight and gentle maid,
Whose glory shines from years gone by,
Through ignorance was unafraid
And as a fool knew how to die.
Saint Folly rode beside Jehanne
And broke the ranks of Hell with her,
And Folly's smile shone brightly on
Christ's plaything, Brother Juniper.
Our minds are troubled and defiled
By study in a weary school.
O for the folly of the child!
The ready courage of the fool!
Lord, crush our knowledge utterly
And make us humble, simple men;
And cleansed of wisdom, let us see
Our Lady Folly's face again.

=====

Electric Self-Driving Transit Vehicle

The transit authority plans 3 month pilot on Bayshore Drive in St. Pete
by Andrew Harlan



*Light orange self-driving car on the waterfront
PSTA*

The Pinellas Suncoast Transit Authority (PSTA) just unveiled its new self-driving car AVA, which stands for Autonomous Vehicle Advantage. The Pilot Launch is set for Monday, November 23. AVA will transport residents and visitors up and down Bayshore Drive.

PSTA is always looking for innovative ways to help safely connect people to places. As autonomous vehicle technology is becoming more advanced, PSTA is exploring its potential use in Pinellas County. During its three-month pilot, AVA will be looking to gain feedback on how the community feels about the possibility of using Autonomous Vehicles as a transit option in the future.

One of the first autonomous vehicles to operate in mixed use traffic

AVA is one of the first autonomous vehicle programs in the state to operate in mixed use traffic, on an open road next to other vehicles.

This vehicle is also eco-friendly. The 100% electric vehicle can drive for 9 hours on just a few dollars of electricity. In addition, fewer moving parts means less environmental impact due to reduced maintenance and AVA has no consumable fluids onboard, like oil or engine coolant, that can harm the environment.

AVA operates on Bayshore Drive between 5th Avenue N (The Vinoy Hotel) and Dali Blvd (The Dali Museum). Perfect for those enjoying a stay at the Vinoy, or residents in the Old Ne who want to efficiently visit The Pier, the Saturday Morning Market, or The Dali Museum.

Enjoy free rides aboard AVA

AVA operates from 10:00am -10:00pm Wednesday through Sunday. AVA offers rides free to the public and air-conditioned. Passengers are limited to one round trip. AVA will be operational from November 25th, 2020 – February 15th, 2021.

To keep AVA's passengers and copilots safe from COVID-19, capacity is currently limited to 6 passengers in the same party and 4 passengers in different parties. Passengers will be asked to sit in a pattern that allows for social distancing and must wear a mask when riding.

Safety precautions for passengers

Similar to PSTA's policy, passengers and attendants onboard AVA are always required to wear a mask. Beep has implemented several processes and procedures in light of COVID-19. AVA's copilots undergo a temperature check before the start of every shift and are required to wear masks when on board. Disinfecting wipes and hand sanitizer stations are available on AVA for copilots and passengers to use.

AVA can travel up to 15mph on the road.

Do you plan to use AVA? Let us know in the comments.

[Santa Barbara Metropolitan Transit District introduced its electric bus service in the 1990 as a way to steer away from polluting transportation options often seen in cities across America.]



Developed by Lunar Rover designer, Ferenc Pavlics, the buses were used for athlete transportation for the 1992 Atlanta Olympics. Many other cities looked at Santa Barbara as an example of what they wanted to incorporate into their transportation plans. The Santa Barbara system was the first of its kind in America. While the shuttles were ahead of their times, not enough so to incorporate autonomous operation.]

=====

Building the B-29 Superfortress



https://www.youtube.com/watch?v=XHYhpeXAggc&feature=emb_rel_end



What a monumental achievement.

=====

St Patty's Day at Temple Bar



https://www.youtube.com/watch?v=Rnsz-pE2Kj8&feature=emb_rel_end

=====

Reno Tesla Factory



https://youtu.be/8_lfxPI5ObM

Tesla Giga Nevada is a lithium-ion battery and electric vehicle component factory in Storey County, Nevada. The facility, located outside Reno, is owned and operated by Tesla, Inc., and supplies the battery packs for the company's electric vehicles.

According to Elon Musk, one hundred factories like Giga Nevada will be necessary to transition the world to sustainable energy consumption.

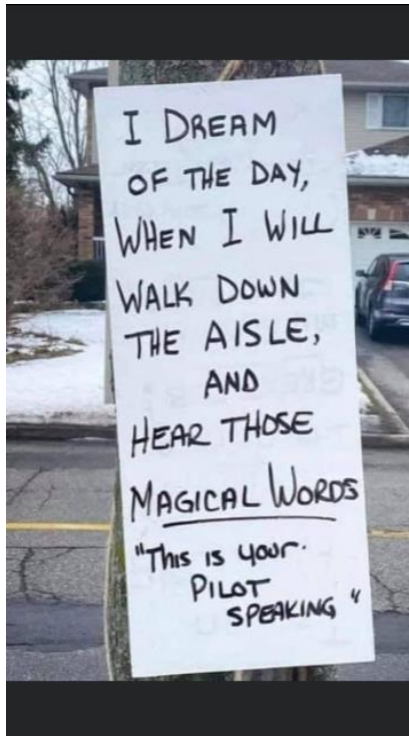
=====

Puppies Show No Regard for Social Distancing



<https://youtu.be/KTiPoCDdh5g>

=====



=====

The Truth About Pilots

A pilot left home about 8:30 a.m. to do some work in his hanger at the airport with his friends.

On the way out the door he answered his wife's "What time will you be home?" question with "Probably about 1:30. I'll have lunch at the airport."

1:30 came & went, 3:00 passed, 6:15, still not home, finally at about 7:00 pm he rolls in the driveway, and presents his wife with a pizza, and begins the apologetic story.

"I finished cleaning the plane about 11:30, had lunch, and I started home, when alongside the road I saw this attractive girl with a flat tire on her car. I stopped to help, got the tire changed, and looked around for a place to wash my hands.

She offered money, but I refused, so she suggested that I at least allow her to buy me a beer. She said there's a tavern just up the road, and they have a restroom, you can clean up a bit.

I agreed to stop, we had a beer, then another beer, then a couple more, and I realized that this girl was not only pretty, she was very friendly, and a good companion to spend time with. Before I knew it, we were in the motel next door having sex. And that is why I am so late getting home."

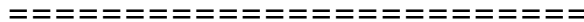
His wife looked him right in the eye and said "Don't lie to me;

"You Went Flying, Didn't You?"

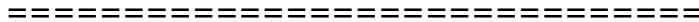
=====



"I'm your anesthetist and he's my backup man."



"On the Internet, nobody knows you're a dog."



Game Changers

The Bird



Charlie



Charlie and Diz



Charlie and Miles



Charlie and Thelonius Monk



Charlie and Strings

It is not by accident that Charlie Parker is revered by musicians of every stripe...he studied and worked at his craft with a fury that allowed his free-flowing riffs to vault to the top of the heap. As cotemporary, Miles Davis said, "You can tell the history of jazz in four words: Louis Armstrong, Charlie Parker".

Parker was a highly influential soloist and leading figure in the development of bebop, a form of jazz characterized by fast tempos, virtuosic technique, and advanced harmonies. Parker was a blazingly fast virtuoso and introduced revolutionary harmonic ideas into jazz, including rapid passing chords, new variants of altered chords, and chord substitutions. Primarily a player of the alto saxophone, Parker's tone ranged from clean and penetrating to sweet and somber.

Parker began playing the saxophone at age 11, and at age 14 he joined his high school band where he studied under Bandmaster Alonzo Lewis. His biggest influence at that time; however, was a young trombone player named Robert Simpson, who taught him the basics of improvisation.

It was in 1939 in New York that Parker had his musical breakthrough that had begun in 1937 in the Missouri Ozarks. Playing through the changes on the song "Cherokee", Parker discovered a new musical vocabulary and sound that shifted the course of music history.

One night in 1939, Parker was playing "Cherokee" in a practice session with guitarist William "Biddy" Fleet when he hit upon a method for developing his solos that enabled one of his main musical innovations. He realized that the 12 semitones of the chromatic scale can lead melodically to any key, breaking some of the confines of simpler jazz soloing. He recalled: "I was jamming in a chili house on Seventh Avenue between 139th

and 140th. It was December 1939. Now I'd been getting bored with the stereotyped changes that were being used all the time at the time, and I kept thinking there's bound to be something else. I could hear it sometimes but I couldn't play it... Well, that night I was working over 'Cherokee' and, as I did, I found that by using the higher intervals of a chord as a melody line and backing them with appropriately related changes, I could play the thing I'd been hearing. I came alive."

A longstanding desire of Parker's was to perform with a string section. He was a keen student of classical music, and contemporaries reported he was most interested in the music and formal innovations of Igor Stravinsky and longed to engage in a project akin to what later became known as Third Stream, a new kind of music, incorporating both jazz and classical elements as opposed to merely incorporating a string section into performance of jazz standards. On November 30, 1949, Norman Granz arranged for Parker to record an album of ballads with a mixed group of jazz and chamber orchestra musicians. Six master takes from this session became the album Charlie Parker with Strings: "Just Friends", "Everything Happens to Me", "April in Paris", "Summertime", "I Didn't Know What Time It Was", and "If I Should Lose You".

Parker's style of composition involved interpolation of original melodies over existing jazz forms and standards, a practice known as contrafact and still common in jazz today. Examples include "Ornithology" (which borrows the chord progression of jazz standard "How High the Moon" and is said to be co-written with trumpet player Little Benny Harris), and "Moose The Mooche" (one of many Parker compositions based on the chord progression of "I Got Rhythm"). The practice was not uncommon prior to bebop, but it became a signature of the movement as artists began to move away from arranging popular standards and toward composing their own material.

While tunes such as "Now's The Time", "Billie's Bounce", "Au Privave", "Barbados", "Relaxin' at Camarillo", "Bloomdido", and "Cool Blues" were based on conventional 12-bar blues changes, Parker also created a unique version of the 12-bar blues for tunes such as "Blues for Alice", "Laird Baird", and "Si Si." These unique chords are known popularly as "Bird Changes". Like his solos, some of his compositions are characterized by long, complex melodic lines and a minimum of repetition, although he did employ the use of repetition in some tunes, most notably "Now's The Time".

Parker contributed greatly to the modern jazz solo, one in which triplets and pick-up notes were used in unorthodox ways to lead into chord tones, affording the soloist more freedom to use passing tones, which soloists previously avoided. Parker was admired for his unique style of phrasing and innovative use of rhythm. Through his recordings and the popularity of the posthumously published Charlie Parker Omnibook, Parker's identifiable style dominated jazz for many years to come.

Other well-known Parker compositions include "Ah-Leu-Cha", "Anthropology", co-written with Gillespie, "Confirmation", "Constellation", "Moose the Mooche", "Scrapple from the Apple" and "Yardbird Suite", the vocal version of which is called "What Price Love", with lyrics by Parker.

Here are four examples of Parker's genius:

Charlie Parker - Bird and Diz (1952): <https://www.youtube.com/watch?v=ovCpL1zjBgI>

Charlie Parker at Montreal; https://www.youtube.com/watch?v=OqIQ_5O2YEq

Charlie Parker - Bird The Savoy Recordings;
<https://www.youtube.com/watch?v=5uP8hoW6xHk>

Charlie with Strings; <https://www.youtube.com/watch?v=DP7E0K4IMqo>

=====