

Ode to E Pluribus Unum for Sunday December 17 2023

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Euclid 'Dark Universe' Telescope Captures First Full-Color Views of the Cosmos



Spiral galaxy IC 342 resides about 10.7 million light-years from Earth. It spans the width of a full moon. If it were not obscured by the Milky Way's gas and dust, it would be one of the brightest objects in the sky.

(Image credit: ESA)

Mission scientists gathered in Darmstadt, Germany to reveal and discuss the telescope's first five vibrant images of various pockets in the universe. Euclid's [first test images](#)

were released at the end of July, but important as they were, these visuals barely scratched level 1 of this telescope's abilities.

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

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73 Pre-Incan Mummies Unearthed from Wari Empire in Peru

By Owen Jarus for LiveScience



Two wooden staffs were found near the cemetery in the remains of a settlement. They have carvings depicting people wearing headgear.

(Image credit: © Juan Tió Idrogo)

Several dozen burials from the Wari culture, which prospered in the region before the Inca took over, were unearthed in Peru.

Archaeologists in Peru have unearthed the burials of at least 73 people dating to around 1,000 years ago, a few hundred years before the Inca took over parts of western South America.

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

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Google Geothermal Electricity Project. Clean Energy Milestone?



*An advanced geothermal project near Milford, UT has begun pumping carbon-free electricity onto the Nevada grid to power Google data centers there.
(AP Photo/Ellen Schmidt)*

The International Energy Agency has long projected geothermal could be a serious solution to climate change. It said in a 2011 roadmap document that geothermal could reach some 3.5% of global electricity generation annually by 2050, avoiding almost 800 megatonnes of carbon dioxide emissions per year.

Google and Fervo Energy started working together in 2021 to develop next-generation geothermal power. Now that the site near Winnemucca, Nevada is operating commercially, it's sending about 3.5 megawatts to the grid. There are three wells there.

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

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**I RECENTLY BOUGHT
A TOILET BRUSH...**

**LONG STORY SHORT,
I'M GOING BACK TO
TOILET PAPER.**

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Neanderthals: More Knowable Now Than Ever

They have held our fascination ever since we first identified their remains. Today, thanks to new artifacts and technologies, findings about [our closest relatives](#) are coming thick and fast.



Credit: © Neanderthal Museum, Holger Neumann

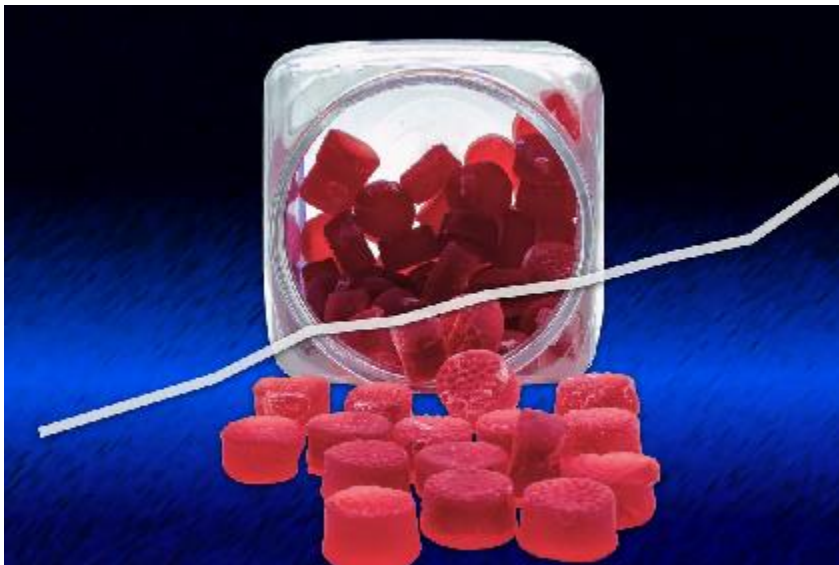
<https://bit.ly/4a8O2fJ>

They're more likely to roost in your family tree than you think.

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Melatonin Use and Poisoning Reports Surging in Children

Experts believe the cause of the increase in poisoning reports may extend beyond issues of melatonin safety.



(Illustration by The Epoch Times, Shutterstock)

Between 2012 and 2021, poison control centers in the United States have seen a 530 percent increase in melatonin ingestion reports among children, some of which resulted in hospitalization and death, according to research published in the U.S. Centers for Disease Control and Prevention’s (CDC) Morbidity and Mortality Weekly Report (MMWR) publication.

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

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Reader’s Digest Names the Top 5 Feel-Good Videos of the Year



AI generated image

Reader’s Digest may be known for finding the Nicest Places in America each year, but if, like us, you’re feeling the need for more sunshine, rainbows, cute puppies and funny babies this season, we’ve got you covered with the first installment of our annual Feel-Good Videos of the Year.

<https://bit.ly/46N7c8f>

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Palazzo Vilòn Opens to Overnight Guests in Rome



*The Borghese Suite, on the first floor, has its own living room.
Mattia Aquila/Courtesy Palazzo Vilòn*

Palazzo Vilòn can be all yours for 25,000 euros (\$27,107) per night if you opt for the “buy-out” offer.

<https://bit.ly/485sBu2>

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How New England Air Museum Restores Aircraft



warrior481blogspot.com

Most people only see the public areas of flight museums and wonder how all that historic beauty and precision is created and maintained. Aviation Consumer Editor-in-Chief Larry Anglisano got to see where the real magic happens at the New England Air Museum.

<https://youtu.be/ILBI3mqcc5U>

By Russ Niles -for AVWeb

I'll find a way to get there.

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Curiosity Helps Swiss-Mile's ANYmal Handle Doors And Boxes



swissmile

The ETHZ researchers got the robot to reliably perform these complex behaviors using a kind of reinforcement learning called 'curiosity driven' learning. In simulation, the

robot is given a goal that it needs to achieve—in this case, the robot is rewarded for achieving the goal of passing through a doorway, or for getting a package into a box.

<https://spectrum.ieee.org/quadruped-robot-wheels>

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Could This Be Boston Dynamics' Latest Robot?



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Are Your Organs Ageing Well? The Blood Holds Clues

One organ in a person's body can age faster than the rest — with implications for health and mortality.



Scientists studied more than 5,000 people to understand variation in the ageing of individual body organs.

Credit: Christopher Furlong/Getty

As people age, their cells undergo a raft of biochemical changes that lead to organ damage and, eventually, death. But a new study¹ that tracks proteins suggests that these changes aren't uniform: an individual's organs can age at different rates, and a given organ can age at a faster rate in one person than in another with the same chronological age.

<https://bit.ly/3Nj9cOy>

The References contain more depth.

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Animal Robots in the African Wilderness

Lessons learned and outlook for field robotics



Kamilo Melo, Tomislav Horvat And Auke J. Ijspeert

In early 2016, we had the opportunity to test a pair of sprawling posture robots, one designed to mimic a crocodile and another designed to mimic a monitor lizard, along the banks of the Nile River in Uganda, Africa. These robots were developed uniquely for a documentary by the BBC called *Spy in the Wild* and fell at the intersection of our interests in developing robots to study animals and robots for disaster response and other missions in challenging environments.

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

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Boeing 737 Cockpit for Dummies



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International Wedding Photographer of the Year Awards.



*A bride reacts as a whiskey jack lands on her head just as the groom started saying his vows.
Tara Lilly*

A photo of a saucy bird interrupting a wedding ceremony by perching itself on top of the bride's head as the couple were saying their vows has taken home the top prize in the International Wedding Photographer of the Year competition.

<https://bit.ly/3GuRL9P>

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Visualizing U.S. GDP by Industry in 2023



As of Q1 2023, the annualized GDP of the U.S. sits at \$26.5 trillion.

Of this, 88% or \$23.5 trillion comes from private industries. The remaining \$3 trillion is government spending at the federal, state, and local levels.

Here's a look at the largest private industries by economic contribution in the United States:

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

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AI System Beats Chess Puzzles With 'Artificial Brainstorming'

By bringing together disparate approaches, machines can reach a new level of creative problem-solving.



Nash Weerasekera for Quanta Magazine

Chess has long been a touchstone for testing new ideas in artificial intelligence, and Penrose's puzzles piqued Zahavy's interest. "I was trying to understand what makes these positions so hard for computers when at least some of them we can solve as humans," he said. "I was completely fascinated." It soon evolved into a professional interest: As a research scientist at Google DeepMind, Zahavy explores creative problem-solving approaches. The goal is to devise AI systems with a spectrum of possible behaviors beyond performing a single task.

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

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Evolving Bacteria Can Evade Barriers to 'Peak' Fitness

Paradoxically, natural selection can sometimes seem to block organisms from evolving useful adaptations. But a new study of "fitness landscapes" and antibiotic resistance in bacteria shows that life still finds a way.



Researchers are learning new things about the "fitness landscapes" that they sometimes use to plot evolutionary trajectories for organisms.

Carlos Arrojo for Quanta Magazine

Over the course of the last hundred years, evolutionary biologists have used mathematical models and, increasingly, lab experiments with living organisms to explore how populations of all sizes can move through fitness landscapes (sometimes called adaptive landscapes). Now, in a [study just published in Science](#), researchers have engineered more than a quarter-million versions of a common bacterium and plotted each strain's performance to create one of the largest lab-built adaptive landscapes ever.

<https://bit.ly/3Gw2rVS>

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Ancient Redwoods Recover from Fire by Sprouting 1000-Year-Old Buds

After a devastating conflagration, trees regrow using energy stored long ago



*A fire in August 2020 reached high into the canopy of a redwood forest in California.
Kent Nishimura/Los Angeles Times Via Getty Images*

Mild fires strike coastal redwood forests about every decade. The giant trees resist burning thanks to the bark, up to about 30 centimeters thick at the base, which contains tannic acids that retard flames. Their branches and needles are normally beyond the reach of flames that consume vegetation on the ground. But the fire in 2020 was so intense that even the uppermost branches of many trees burned and their ability to photosynthesize went up in smoke along with their pine needles.

<https://bit.ly/3Rvd6Gr>

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Searching for Bait



Photographs By Marla Tomorug & Adam Moore

Sardine bait balls are a remarkable marine phenomenon where countless individual sardines synchronously cluster into a dense, spherical formation. This collective

behaviour not only showcases the power of unity in the face of predation, but also highlights intricate complexities of marine ecosystems.

Sardines, members of the Clupeidae family, are small, pelagic fish that are found in oceans worldwide. While individually they might seem mundane or insignificant, in aggregated groups they create one of nature's most extraordinary marine displays.

<https://oceanographicmagazine.com/features/searching-for-bait-in-moalboal/>

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Looking Beyond Natural Selection

Paleoanthropologists have long focused primarily on adaptive processes



*Lauren Schroeder studies the processes that have driven human evolution. She has a tattoo of her favorite fossil, a 2-million-year-old Homo habilis skull.
Blake Eligh/University of Toronto*

As a paleoanthropologist at the University of Toronto, Schroeder works to untangle the various processes by which humans have evolved. One such process, natural selection, is adaptive: Changes in an organism's features make it more suited to its environment. But some changes are not selected for, or even totally random. Despite the existence of "nonadaptive" processes, paleoanthropology has often attributed evolutionary changes in hominids to adaptation alone.

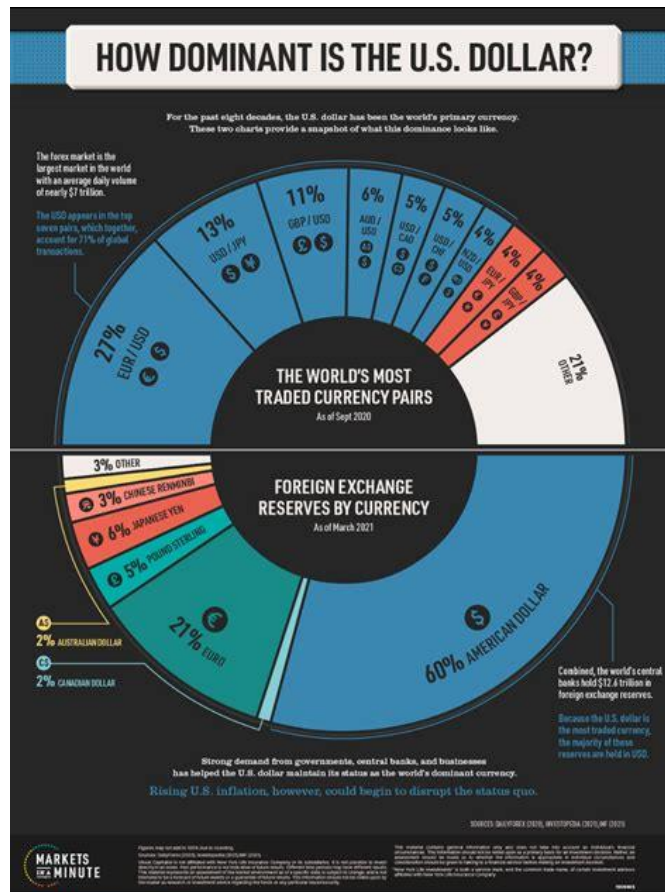
<https://bit.ly/3R4IKt2>

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Visualizing the Rise of the U.S. Dollar Since the 19th Century



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

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Ralph Vaughan Williams (1872-1958)



Phantasia on Christmas Carols
youtube

Born in London, Vaughan Williams' studies of English folk song and his interest in English music of the Tudor period fertilized his talent, enabling him to incorporate modal elements (i.e., based on folk song and medieval scales) and rhythmic freedom into a musical style at once highly personal and deeply English.

Williams broke the ties with continental Europe that for two centuries through George Frideric Handel, Felix Mendelssohn, and lesser German composers had made Britain virtually a musical province of Germany. Although his predecessors in the English musical renaissance, Sir Edward Elgar, Sir Hubert Parry, and Sir Charles Stanford, remained within the Continental tradition, Vaughan Williams, like such nationalist composers as the Russian Modest Mussorgsky, the Czech Bedřich Smetana, and the Spanish Manuel de Falla, turned to folk song as a wellspring of native musical style.

Fantasia on a theme of Thomas Tallis <https://youtu.be/ihx5LCF1yJY>

English Folk Song Suite <https://youtu.be/D0sC4xbyT5c?t=2>

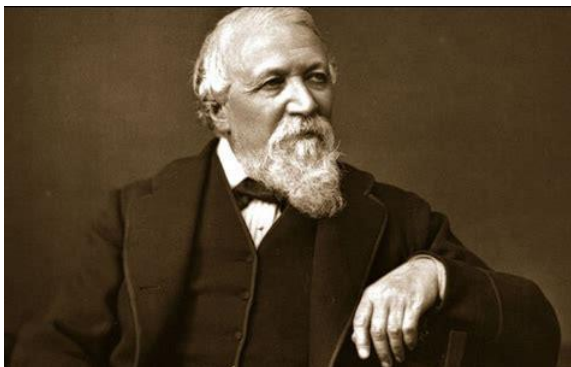
The Lark Ascending <https://youtu.be/Fa00432GI18>

Fantasia on Christmas Carols <https://youtu.be/Ib8LUJkMEjU?t=2>

Old 100th - <https://youtu.be/yNbLtiG2dWU>

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Robert Browning (1812-1889)



Brewminate.com

Browning received only a slight formal education, although his father gave him a grounding in Greek and Latin.

By 1845 the first phase of Browning's life was near its end. In that year he met Elizabeth Barrett. In her *Poems* (1844) Barrett had included lines praising Browning, who wrote to thank her (January 1845). In May they met and soon discovered their love for each other. Barrett had, however, been for many years an invalid, confined to her room and thought incurable. Her father, moreover, was a dominant and selfish man, jealously fond of his daughter, who in turn had come to depend on his love. When her doctors ordered her to Italy for her health and her father refused to allow her to go, the lovers, who had been corresponding and meeting regularly, were forced to act. They were married secretly in September 1846; a week later they left for Pisa.

Throughout their married life, although they spent holidays in France and England, their home was in Italy, mainly at Florence, where they had a flat in Casa Guidi. Their income was small, although after the birth of their son, Robert, in 1849 Mrs. Browning's cousin John Kenyon made them an allowance of £100 a year, and on his death in 1856 he left them £11,000.

Browning produced comparatively little poetry during his married life. Disappointed by the reception of his work, Browning in the following years wrote little, sketching and modeling in clay by day and enjoying the society of his friends at night. At last Mrs. Browning's health, which had been remarkably restored by her life in Italy, began to fail. On June 29, 1861, she died in her husband's arms. In the autumn he returned slowly to London with his young son.

After Romanticism came the Victorian poets, at least in nineteenth-century Britain. 'Porphyria's Lover' is an example of the dramatic monologue form which Browning and Tennyson, in particular, pioneered in the 1830s.

This one is spoken by a murderer, a man who strangles his lover with her own hair. It was one of Browning's first great poems, published in 1836 (as 'Porphyria') when the poet was still in his mid-twenties, just on the eve of the Victorian era.

Despite the poem's reputation as one of Browning's finest dramatic monologues, it – like much of Browning's early work – was largely ignored during his lifetime. Now it's regarded as an important development in nineteenth-century English poetry.

Porphyria's Lover

The rain set early in to-night,
The sullen wind was soon awake,
It tore the elm-tops down for spite,
And did its worst to vex the lake:
I listened with heart fit to break.
When glided in Porphyria; straight
She shut the cold out and the storm,
And kneeled and made the cheerless grate
Blaze up, and all the cottage warm;
Which done, she rose, and from her form
Withdrew the dripping cloak and shawl,
And laid her soiled gloves by, untied
Her hat and let the damp hair fall,
And, last, she sat down by my side

And called me. When no voice replied,
She put my arm about her waist,
And made her smooth white shoulder bare,
And all her yellow hair displaced,
And, stooping, made my cheek lie there,
And spread, o'er all, her yellow hair,
Murmuring how she loved me — she
Too weak, for all her heart's endeavour,
To set its struggling passion free
From pride, and vainer ties dissever,
And give herself to me for ever.
But passion sometimes would prevail,
Nor could to-night's gay feast restrain
A sudden thought of one so pale
For love of her, and all in vain:
So, she was come through wind and rain.
Be sure I looked up at her eyes
Happy and proud; at last I knew
Porphyria worshipped me; surprise
Made my heart swell, and still it grew
While I debated what to do.
That moment she was mine, mine, fair,
Perfectly pure and good: I found
A thing to do, and all her hair
In one long yellow string I wound
Three times her little throat around,
And strangled her. No pain felt she;
I am quite sure she felt no pain.
As a shut bud that holds a bee,
I warily oped her lids: again
Laughed the blue eyes without a stain.
And I untightened next the tress
About her neck; her cheek once more
Blushed bright beneath my burning kiss:
I propped her head up as before,
Only, this time my shoulder bore
Her head, which droops upon it still:
The smiling rosy little head,

So glad it has its utmost will,
That all it scorned at once is fled,
And I, its love, am gained instead!
Porphyria's love: she guessed not how
Her darling one wish would be heard.
And thus we sit together now,
And all night long we have not stirred,
And yet God has not said a word!

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11 Levels of Gift Wrapping: Easy to Complex



Sophie Liard, an expert gift wrapper and author of "The Folding Lady," demonstrates and explains a variety of gift wrapping techniques in 11 levels of difficulty, from the easiest to most complex. From a traditional box with a bow to concealing a soccer ball in a wrapping paper gift bag, this expert shows us how to add some spark to your gifting this holiday season.

<https://youtu.be/bvohPUQMf78>

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My Walking Thoughts



For Sunday December 17 2023

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Trip to Terra Incognita: Quantico, September 1959 (#3)

As the day before, Sergeant Davy's swagger stick began what promised to be a fateful addition to our locker box collection of lifetime experiences.

It began innocently enough as an introduction to what became a part of the "Fall In" process, in this case the establishment of the interval between candidates on a single line arrayed by height. Not unexpectedly this put me on the very end of the stack.

Sergeant Malone (Bulldog) then trooped the line, pausing to reposition a pair here, another there until our arrangement met with his satisfaction, after which he ordered us to 'count off by threes,' a task that encountered several false starts before the evolution made it all the way to me without failure.

"Two," I bellowed out in as Marine-worthy a voice as I could muster, where upon Bulldog ordered us to arrange ourselves in three ranks. For some reason we almost managed to accomplish this task with a minimum of confusion except we forgot to complete it with the 'dress right' performance on our own.

"You miserable dummies," Bulldog screamed at us in a voice that could have stopped traffic at Bull Run, "Dress Ri-eet...DRESS!" This accomplished, he was joined by Sgt. Davy who worked his way down the files, finally arriving in at the last of the files where he frowned, thought for a minute, then shoved me back to the last rank, advising me in case I didn't understand, "You're now a three."

It was at this point that Gunnery Sergeant Reeves materialized and took charge.

"Here's today's plan, candidates," he said in a manner that indicated it had been formed in heaven and passed down through some cosmic chain of command (listed below). Woe betide the poor son-of-a gun who misses so much as a middle initial in the recitation of this structure. Ditto one's service number, rifle number, any of the Corps' many battles and heroes, and the Marine Corps' Standing Orders (video).

"After a little warm-up drill," Gunny Reeves as senior commander on site explained, "we'll march our way to the physical education area where you will perform your incoming physical evaluation exercises.

"Ry-eet...FACE!" he called out and somewhat to his surprise we managed to get ourselves pointed in the same general direction.

Fahr-Ward...HARCH!" This didn't work out too well when two buffoons got their feet tangled, fell, and splintered the group into a dozen different pieces. Sergeant's Davy and Malone dived into the heart of the disaster with obvious glee, screaming epithets that would have scorched the gates of hell. After a minute or so, the Gunny took charge again in his reasonable tone, "Ok you donkeys, before you give it another shot, how 'bout all of you show me your left foot," which we did. "That's the one you start

with...got it? Ok, let's try it again," and we did...and we did again until he seemed somewhat satisfied.

Then it was 3 hours of "Left...left...left-right-left...left," at first at a walking pace of 120, 40-inch steps per minute, followed by 240 steps ...a.k.a. double time.

It was precisely 1130 when we arrived for our turn for our physical evaluation performance.

Chain of Command (September 1959)

President Dwight D. Eisenhower

Commandant Randolph M. Pate

Commanding Officer of the Marine Training & Test Regiment, Colonel Louis H. Wilson

D Company Commander Captain Roger D. Simpson

2nd Platoon Commander, First Lieutenant William T. Gately

Platoon Sergeant Gunnery Sergeant Waldo W. Reeves

Sergeant Instructors: Sergeant Harlow N. Davy, and Sergeant Michael A. Malone

You see, I still remember...but I've forgotten my rifle number.

Marine Corps Standing Orders:

Continued next week.

John