

Welcome to the August 9, 2017 Edition of THE REVENGE HUMP DAY!

I would call this week remove and replace at Casa Bolgeo. First of all, we replaced our old router from a N to and AC. Will McAmis came over and did the grunt work and now we have a faster router for he home. Alexander the Grape and Beth, Destroyer of Worlds, will really like this for their games. Linda's lap went boom so we had to replace that one with a new one. I tried my best to fix the old one and she bitched the whole time. Later she admitted that I had got it working but that she still wanted a faster laptop. Then Jason convinced me that I needed to get a new laser printer. I have had my brother 14400 for 6 or 7 years, but it was getting cranky. So I went to Sam's and bought a MFC-2707 duoplex laser scanner printer. It should be OK.

So, I figured that all was well except then the TV downstairs wouldn't turn on. It just died and now I have to go out an buy another one. That is really not too much of a biggie because I bought a 3 year warrantee when I purchased it and it has is less than 2 years old. Sam's is really good about honoring their warrantee's, so I will get a new one with better specs for just a few extra bucks. Jason and I are heading out a little later to fine a new HDTV. Maybe I'll pick up one of those HD Smart 4k TV's for the bedroom. That would be nice.

So on that "thoughtful note", why don't y'all sit back and relax because here's the best in gossip, jokes and science for your reading pleasure!

Uncle Timmy

<G>~<O>~<S>~<S>~<I>~<P>~<S>~<T>~<A>~<R>~<T>~<S>~<H>~<E>~<R>~<E>~<I>

BEWARE OF "SHADY" ECLIPSE GLASSES SELLERS

From: "Chris Cowan" cowanc1028@earthlink.net

The Washington Post just published a warning about "Shady" types that sell worthless eclipse glasses - and you can damage your eyes if you use them. The American Astronomical Society site lists reputable vendors -

<https://eclipse.aas.org/resources/solar-filters>

I pasted this in, and it worked! Remember, If you damage your eyes, you can't watch cat videos

Full story:

https://www.washingtonpost.com/business/get-there/dont-be-blindsided-during-the-eclipse/2017/08/01/437348b2-76d0-11e7-8f39-eeb7d3a2d304_story.html

<L>~<I>~~<E>~<R>~<T>~<Y>~<C>~<O>~<N>

FAN NEEDS A LITTLE HELP

From: "Paula Handley" mystikwaboose@yahoo.com



New Used Van for Mystik Waboose

For those folks who might not have heard, we are now without a work vehicle.

<https://www.gofundme.com/new-van-for-mystik-waboose>

On July 10, 2017, our van dropped the steering box. Luckily, we were in a safe (if remote) place when it happened and no one was injured. We were very lucky that it did NOT happen on the freeway and turn our van into a bobsled. After more than a week of waiting to have it repaired properly, we managed to limp it home (much to the amazement of our regular mechanic). However, due to stresses on the frame, it is completely unrepairable.

Our business is our primary source of income. I am currently taking online courses for future employment, however that will take until the end of 2017. My husband cannot work a traditional full time job due to his physical disability. He has a part time job doing deliveries, but it is piece work and is not a guaranteed paycheck. We cannot go the traditional route for financing because of past debt from an out of state medical emergency that state insurance would not cover.

We have a dozen more conventions booked in 2017, and a half dozen for 2018. We will need to rent a van for at least the next couple of conventions, but that will only work in the short term.

Now, we could go out and buy another cheap used van that might last us a year or two OR develop other sudden complications like the last one did.

We would like to be able to have something reliable that will allow us to continue to maintain and grow the business, not just operate on a shoestring. If we can make our goal, we can have a safe, reliable vehicle that should last us for at least 5 years or more.

We are offering rewards for donations, as we feel this makes it seem like more of a "long term loan" as opposed to "please just give us money". The gift certificates would be available for use beginning Nov 1, 2017 and would be good until Dec 31, 2018.

By donating to this campaign, you will aid us in continuing to bring the best selection of t-shirts and other items to a convention near you. We appreciate your support in this endeavor and in the future of Mystik Waboose.

<https://www.gofundme.com/new-van-for-mystik-waboose>

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Re: ASK ANDREW W.K.: MY DAD IS A RIGHT-WING ASSHOLE

From: "Frank Brayman" afranklin3@gmail.com

Andrew W K's reply was well thought out, and I agree fully. However, he could have boiled the heart of it down to just two sentences. For example:

"He who fights with monsters should look to it that he himself does not become a monster. For when you gaze long into the abyss, the abyss gazes also into you."

-Friedrich W. Nietzsche, "Beyond Good and Evil", Aphorism 146 (1886)

<T>~<H>~<E>~<J>~<O>~<K>~<E>~<S>~<S>~<T>~<A>~<R>~<T>~<H>~<E>~<R>~<E>

From: Bob Bolgeo" bbolgeo@aol.com

CNN BREAKING NEWS:

Our reliable sources place Trump on the grassy knoll in Dallas the day JFK was killed. He was seen speaking with a group of Russian cosmonauts and two Martians just before the fatal shots were fired... Congress is planning to appoint an unbiased special prosecutor, the Reverend Jesse Jackson, to investigate.

Republican senators John McCain and Lindsey Graham and Democrat Charles "Our Man Chuck" Schumer have solidly verified this story in a nude seance utilizing Ouija board and the blood of two roosters.

In a related story, broken by CNN Breaking news Washington Post and corroborated by the New York Times, Trump was seen running from Ford's theater on the night President Lincoln was assassinated. Trump was reportedly accompanied by two Russian diplomats and the editor of National Lampoon magazine.

The totally unbiased FBI is investigating. A statement released moments ago by the agency included "We are leaving no stone unturned. We are currently combing through Mrs.

Lincoln's laptop and checking surveillance footage from the theater cameras that most of the public never knew existed, but we created... uh, discovered them. We ARE going to railroad Trump...

I mean find the culprit through modern "investigative techniques."

Mr. Trump is also being mentioned in connection with the killing of Bambi's mom, the expansion of global warming, and the sinking of the Titanic. These are ongoing investigations, as the evidence is still being manufactured.

Stay tuned... (Rachael Madow will have further details)

CNN #1 in news that smells like #2...

"We don't report the news, we create it"

JUST IN!! Trump's fingerprints were found on the control console at Chernobyl !

More from Wolf Blitzer after he finishes his vodka.

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AN ETHICS ISSUE.....

A doctor had sex with one of his female patients and felt guilty all day long. No matter how much he tried to forget about it, he just couldn't. The guilt and sense of betrayal of his patient were overwhelming. But every once in a while he'd hear an internal, reassuring voice in his head that said:

"Don't worry about it. You aren't the first medical practitioner to have sex with one of his patients and you won't be the last. Plus you're single. Just let it go."

But, invariably, another voice in his head would bring him back to reality, whispering:

"You're a veterinarian, you sick bastard."

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DATING IN THE SENIOR CITIZENS CENTER

Dorothy and Edna, two "senior" widows, are talking.

Dorothy: "That nice George Johnson asked me out for a date. I know you went out with him last week, and I wanted to talk with you about him before I give him my answer."

Edna: "Well, I'll tell you. He shows up at my apartment punctually at 7pm, dressed like such a gentleman in a fine suit, and he brings me such beautiful flowers! Then he takes me downstairs. And what's there; a limousine, uniformed chauffeur and all. Then he takes me out for dinner; a marvelous dinner, lobster, champagne, dessert, and after-dinner drinks. Then we go see a show. Let me tell you Dorothy, I enjoyed it so much I could have just died from pleasure! So then we are coming back to my apartment and he turns into an

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ANIMAL. Completely crazy, he tears off my expensive new dress and has his way with me - three times!"

Dorothy: "Goodness gracious! So you are telling me I shouldn't go?"

Edna: "No, no, no... I'm just saying, wear an old dress."

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Unclebobby Bolgeo shared this on his Facebook Page:

"I Love Motorcycles's photo."

August 3, 2017 .

I WANT ONE.....BAD.....



<J>~<O>~<K>~<E>~<S>~<of>~<the>~<W>~<E>~<E>~<K>

From: "Mike Waldrip" waldripk@gmail.com

WHEN INSULTS HAD CLASS

This has been around a few times but each time I like it more.

These glorious insults are from an era before the English language got boiled down to 4-letter words. They have done the rounds before, but they are still comedy gold!!

A member of Parliament to Disraeli: "Sir, you will either die on the gallows or of some unspeakable disease."

"That depends, Sir," said Disraeli, "whether I embrace your policies or your mistress."

"He had delusions of adequacy." -Walter Kerr

"He has all the virtues I dislike and none of the vices I admire." - Winston Churchill

"I have never killed a man, but I have read many obituaries with great pleasure." -Clarence Darrow

"He has never been known to use a word that might send a reader to the dictionary." - William Faulkner (about Ernest Hemingway)

"Thank you for sending me a copy of your book; I'll waste no time reading it." -Moses Hadas

"I didn't attend the funeral, but I sent a nice letter saying I approved of it." -Mark Twain

"He has no enemies, but is intensely disliked by his friends." -Oscar Wilde

"I am enclosing two tickets to the first night of my new play; bring a friend, if you have one." -George Bernard Shaw to Winston Churchill

"Cannot possibly attend first night, will attend second... if there is one." -Winston Churchill, in response

"I feel so miserable without you; it's almost like having you here." -Stephen Bishop

"He is a self-made man and worships his creator." -John Bright

"I've just learned about his illness. Let's hope it's nothing trivial." -Irvin S. Cobb

"He is not only dull himself; he is the cause of dullness in others." -Samuel Johnson

"He is simply a shiver looking for a spine to run up." - Paul Keating

"In order to avoid being called a flirt, she always yielded easily." -Charles, Count Talleyrand

"He loves nature in spite of what it did to him." -Forrest Tucker

"Why do you sit there looking like an envelope without any address on it?" -Mark Twain

"His mother should have thrown him away and kept the stork." -Mae West

"Some cause happiness wherever they go; others, whenever they go." -Oscar Wilde

"He uses statistics as a drunken man uses lamp-posts... for support rather than illumination." -Andrew Lang (1844-1912)

"He has Van Gogh's ear for music." -Billy Wilder

"I've had a perfectly wonderful evening. But I'm afraid this wasn't it." -Groucho Marx

"My, you're ugly madam", Winston Churchill to Lady Astor.

"And you Sir, are drunk..." Lady Astor in Response

"Yes but I will be sober in the morning!" Churchill's Reply.

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THE RADIO

When we get older we think differently, don't we? This letter was sent to the Principal's office after the school had sponsored a luncheon for the elderly. An elderly lady received a new radio at the lunch as a door prize and was writing to say thank you. This story is a credit to all humankind.

Dear Kean Elementary:

God bless you for the beautiful radio I won at your recent senior citizens luncheon. I am 94 years old and live at the Sprenger Home for the Aged. All of my family has passed away. I am all alone now and it's nice to know that someone is thinking of me. God bless you for your kindness to an old forgotten lady. My roommate is 95 and has always had her own radio, but before I received one, she would never let me listen to hers, even when she was napping.

The other day her radio fell off the night stand and broke into a lot of pieces. It was awful and she was in tears. Her distress over the broken radio touched me and I knew this was God's way of answering my prayers. She asked if she could listen to mine, and I told her to kiss my a**.

Thank you for that opportunity.

Sincerely,
Agnes

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SOME OBSERVATIONS OFFERED BY OUR SPORTS HEROES

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“Coach Tom Landry is such a perfectionist that if he was married to Raquel Welch, he would expect her to cook.” - Don Meredith, Dallas Cowboys quarterback

"Last year we couldn't win at home and we were losing on the road My failure as a coach was that I couldn't think of anyplace else to play"- Harry Neale, professional hockey coach

"Blind people come to the ballpark just to listen to him pitch."- Reggie Jackson commenting on Tom Seaver.

"I'm working as hard as I can to get my life and my cash to run out at the same time. If I can just die after lunch Tuesday, everything will be perfect."- Doug Sanders, professional golfer

"All the fat guys watch me and say to their wives, 'See, there's a fat guy doing okay. Bring me another beer.'"- Mickey Lolich, Detroit Tigers pitcher

"When it's third and ten, you can have the milk drinkers; I'll take the whiskey drinkers every time."- Max McGee, Green Bay Packers receiver

"I found out that it's not good to talk about my troubles. Eighty percent of the people who hear them don't care and the other twenty percent are glad I'm having them."- Tommy LaSorda , L A Dodgers manager

"My knees look like they lost a knife fight with a midget."- EJ. Holub, Kansas City Chiefs linebacker regarding his 12 knee operations

"When they operated, I told them to add in a Koufax fastball. They did, but unfortunately it was Mrs. Koufax's."- Tommy John , N.Y. Yankees, recalling his 1974 arm surgery

"I don't know. I only played there for nine years."- Walt Garrison, Dallas Cowboys fullback when asked if Tom Landry ever smiles.

"We were tipping off our plays. Whenever we broke from the huddle, three backs were laughing and one was pale as a ghost." - John Breen, Houston Oilers

"The film looks suspiciously like the game itself."- Bum Phillips, New Orleans Saints, after viewing a lopsided loss to the Atlanta Falcons.

When I'm on the road, my greatest ambition is to get a standing boo." - Al Hrabosky, major league relief pitcher

"I have discovered in 20 years of moving around the ball park that the knowledge of the game is usually in inverse proportion to the price of the seats."- Bill Veeck, Chicago White Sox owner.

“Because if it didn't work out, I didn't want to blow the whole day."- Paul Horning, Green Bay Packers running back on why his marriage ceremony was before noon.

"I have a lifetime contract. That means I can't be fired during the third quarter if we're ahead and moving the ball."- Lou Holtz , Arkansas football coach

"I won't know until my barber tells me on Monday."- Knute Rockne, when asked why Notre Dame had lost a game

"I tell him "Attaway to hit, George."- Jim Frey, K.C. Royals manager when asked what advice he gives George Brett on hitting.

"I learned a long time ago that 'minor surgery' is when they do the operation on someone else, not you."- Bill Walton, Portland Trail Blazers

"Our biggest concern this season will be diaper rash."- George MacIntyre, Vanderbilt football coach surveying the team roster that included 26 freshmen and 25 sophomores.

"The only difference between me and General Custer is that I have to watch the films on Sunday."- Rick Venturi, Northwestern football coach

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BMW Driver

This was written with driving in the UK in mind but you should get the general idea.

The other day I was cruising along as usual coming onto one of my motorways, which was very busy with inferior cars. First off, I couldn't believe that the volume of traffic DIDN'T slow down for me AT ALL as I came off the slip road!

I had to squeeze into a barely big enough gap between two cars in order to get onto my motorway! The driver of the car behind me did realise his mistake though and honked an apology to me with a long blast of his horn. Unbelievably, I had to do the same again before I could get to the BMW lane.

Anyway, once I was in the BMW lane and posing along at 110 mph enjoying the adulation that the inferior car drivers were giving me, I noticed an inferior car ahead of me which was not only in the BMW lane of my motorway, but was driving at a ridiculous 70 mph! Naturally, I got within a foot or so of his rear bumper and flashed my headlights to remind him he shouldn't be in the BMW lane of my motorway and to get out of my way.

Of course, once he realised it was a BMW behind him, he did just that, but I could hardly believe it when he pulled straight back out behind me! He also tried to keep up with me and when he realised I would out-run him, he put on some blue lights in his front grill and urged me to get onto the hard shoulder so that he could congratulate me on my excellent car.

Needless to say, I was eager to oblige and when we had stopped, the man gave me a piece of paper confirming what I already knew - that my car goes fast! Apparently he wants everyone to know what a superior car I have, so I had to take my driver's licence to a police station to be sent away to have some points put on! (They're not free points either - they're £20 each and I was only allowed 3.)

But the man at the police station said that because I drive a BMW, it won't be much longer before I earn the full 12 points, and then I won't even NEED a driving licence, so they will take it off me!

See, now THAT'S the sort of respect you get when you own and drive a BMW!

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I NEED A DAY OFF

One day, a blonde and her male co-worker are sitting in the lunch room, and the guy says, "I can't take anymore today, I am going home!"

The blonde replies, "You can't just get up and leave. You'll be fired!".

"Not to worry, I am going to be sent home. I have an idea." the guy says and leaves the room.

The blond finishes her lunch and heads back into work, to see her co-worker hanging upside down from the ceiling, yelling over and over, "I'm a light bulb!". The owner hears this and comes down. He takes one look at the guy, hanging upside down, yelling he is a light bulb, and sends him home for the rest of the day, with pay, so he can rest, because he has obviously been working to hard.

The guy gets down off the ceiling, thanks the owner and leaves.

The blonde turns around and starts to leave. The owner yells to her, "Hey where the heck do you think you are going?" The blonde replies, "I'm going home. You can't expect me to work in the dark!"

<J>~<O>~<K>~<E>~<S>

WORLD'S SHORTEST BOOKS

THINGS I LOVE ABOUT MY COUNTRY

By Jane Fonda

& Michelle Obama

Illustrated by Michael Moore

Foreword by George Soros

MY CHRISTIAN ACCOMPLISHMENTS & HOW I HELPED AFTER KATRINA

By "The Rev Jesse Jackson"

& "The Rev Al Sharpton"

THINGS I LOVE ABOUT BILL

By Hillary Clinton

Sequel: THINGS I LOVE ABOUT HILLARY

By Bill Clinton

THINGS I CANNOT AFFORD

By Bill Gates

THINGS I WOULD NOT DO FOR MONEY

By Dennis Rodman

THINGS WE KNOW TO BE TRUE

By Al Gore & John Kerry

HOW TO LIVE LIFE TO THE FULLEST

By Dr. Jack Kevorkian

TO ALL THE MEN WE HAVE LOVED BEFORE

By Ellen de Generes & Rosie O'Donnell

GUIDE TO DATING ETIQUETTE

By Mike Tyson

MY PLAN TO FIND THE REAL KILLERS

By O. J. Simpson

HOW TO DRINK & DRIVE SAFELY

By Ted Kennedy

MY BOOK ON MORALS

By Bill Clinton

With introduction by

The Rev. Jesse Jackson

And foreword by

Tiger Woods with John Edwards

HOW TO WIN A SUPER BOWL

BY THE ATLANTA FALCONS

AND, JUST ADDED:

My Complete Knowledge of Military Strategy

By Nancy Pelosi

And the shortest book of all....

THINGS I DID TO DESERVE THE NOBEL PEACE PRIZE

By Barack Obama

<J>~<O>~<K>~<E>~<S>~<of>~<the>~<W>~<E>~<E>~<K>

From Glenn Baggott post on Facebook

<https://www.facebook.com/glenn.baggott.54/posts/206476703216685>

Adelle Cover

“Hello from the Darkside”

<J>~<O>~<K>~<E>~<S>~<of>~<the>~<W>~<E>~<E>~<K>

From: "Jim Hollis" jhollis@northsidesales.com

MAN'S FIRST DIFFICULT DECISION



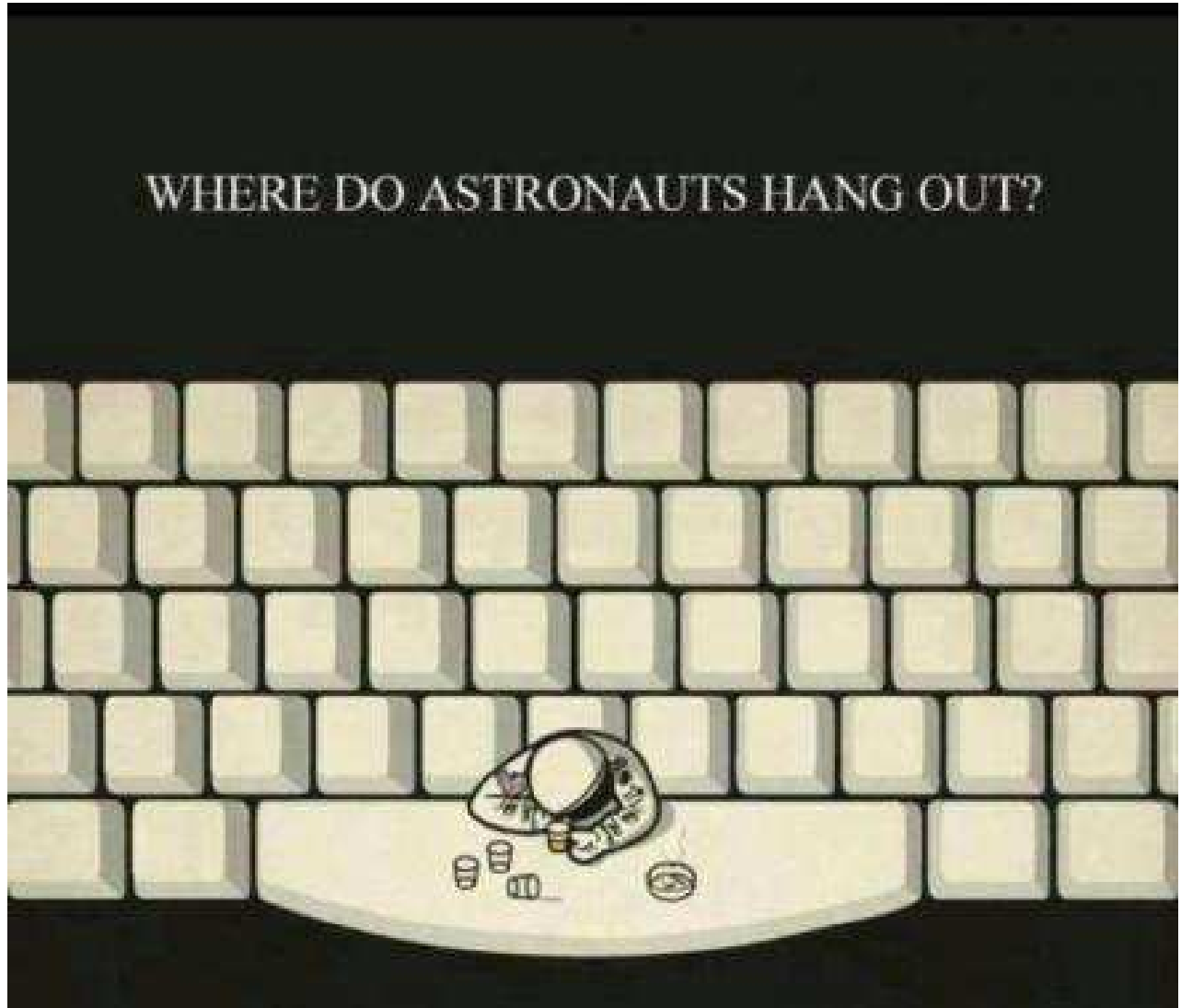
~~~~~

From: "William Green" [whgconsulting@gmail.com](mailto:whgconsulting@gmail.com)

That's not difficult, everybody knows its milk AND cookies.

<J>~<O>~<K>~<E>~<S>~<of>~<the>~<W>~<E>~<E>~<K>

From: "Chris Cowan" <cowanc1028@earthlink.net>



<J>~<O>~<K>~<E>~<S>~<of>~<the>~<W>~<E>~<E>~<K>

From: "Douglas Dudash"

SOMETHING FOR EVERYONE.....

1. A rat can last longer without water than a camel.

2. Your stomach has to produce a new layer of mucus every two weeks or it will digest itself.
3. The dot over the letter "i" is called a tittle.
4. A raisin dropped in a glass of fresh champagne will bounce up and down continuously from the bottom of the glass to the top.
5. A female ferret will die if it goes into heat and cannot find a mate.
6. A duck's quack doesn't echo. No one knows why.
7. A 2 X 4 is really 1-1/2" by 3-1/2". (Before about 1965, a 2 x 4 was really 1-3/4" by 3-3/4".)
8. During the chariot scene in "Ben Hur," a small red car can be seen in the distance (and Heston's wearing a watch).
9. On average, 12 newborns will be given to the wrong parents daily! (That explains a few mysteries... .)
10. Donald Duck comics were banned from Finland because he doesn't wear pants.
11. Because metal was scarce, the Oscars given out during World War II were made of wood.
12. The number of possible ways of playing the first four moves per side in a game of chess is 318,979,564,000.
13. There are no words in the dictionary that rhyme with orange, purple and silver.
14. The name Wendy was made up for the book Peter Pan. There was never a recorded Wendy before.
15. The very first bomb dropped by the Allies on Berlin in World War II killed the only elephant in the Berlin Zoo.
16. If one places a tiny amount of liquor on a scorpion, it will instantly go mad and sting itself to death. (Who was the sadist who discovered this??)
17. Bruce Lee was so fast that they actually had to s-l-o-w film down so you could see his moves. That's the opposite of the norm.
18. The first CD pressed in the US was Bruce Springsteen's "Born in the USA."
19. The original name for butterfly was flutterby.
20. The phrase "rule of thumb" is derived from an old English law which stated that you couldn't beat your wife with anything wider than your thumb.

21. The first product Motorola started to develop was a record player for automobiles. At that time, the most known player on the market was Victrola, so they called themselves Motorola.
22. Roses may be red, but violets are indeed violet.
23. By raising your legs slowly and lying on your back, you cannot sink into quicksand.
24. Celery has negative calories. It takes more calories to eat a piece of celery than the celery has in it to begin with.
25. Charlie Chaplin once won third prize in a Charlie Chaplin look-alike contest.
26. Chewing gum while peeling onions will keep you from crying.
27. Sherlock Holmes NEVER said, "Elementary, my dear Watson."
28. An old law in Bellingham, Washington, made it illegal for a woman to take more than three steps backwards while dancing!
29. The glue on Israeli postage is certified kosher.
30. The Guinness Book of Records holds the record for being the book most often stolen from public libraries.
31. Astronauts are not allowed to eat beans before they go into space because passing wind in a spacesuit damages them.
32. Bats always turn left when exiting a cave!

<J>~<O>~<K>~<E>~<S>

#### THE INVENTORS OF THE AUTOMOBILE AIR CONDITIONER

Here's a little fact for automotive buffs, or just to dazzle your friends.

The four Goldberg brothers, Lowell, Norman, Hiram, and Maxwell, invented and developed the first automobile air-conditioner. On July 17, 1946, the temperature in Detroit was 97 F degrees.

The four brothers walked into old man Henry Ford's office and sweet-talked his secretary into telling him that four gentlemen were there with the most exciting innovation in the auto industry since the electric starter.

Henry was curious and invited them into his office

They refused and instead asked that he come out to the parking lot to their car.

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They persuaded him to get into the car, which was about 130 F degrees inside, turned on the air conditioner, and cooled the car off almost immediately.  
The old man got very excited and invited them back to the office, where he offered them \$3 million for the patent.

The brothers refused, saying they would settle for \$2 million, but they wanted the recognition by having a label, 'The Goldberg Air-Conditioner,' on the dashboard of each car in which it was installed.

There was no way that Old man Ford was going to put the Goldberg's name on two million Fords.

They haggled back and forth for about two hours and finally agreed on \$4 million and that just their first names would be shown.

And so to this day, all Ford air conditioners show –

Lo, Norm, Hi, and Max -- on the controls.

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From: "Chris Cowan" [cowanc1028@earthlink.net](mailto:cowanc1028@earthlink.net)





<YOU>~<>~<JUST>~<>~<CAN'T>~<>~<MAKE>~<>~<THIS>~<>~<STUFF>~<>~<UP!>

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Tim Bolgeo" [tbolgeo@epbf.com](mailto:tbolgeo@epbf.com)

**EXCLUSIVE: AL GORE'S HOME DEVOURS 34 TIMES MORE ELECTRICITY THAN AVERAGE U.S. HOUSEHOLD**

DREW JOHNSON, Senior Fellow, National Center for Public Policy Research, 10:39 AM 08/02/2017

<http://dailycaller.com/2017/08/02/exclusive-al-gores-home-devours-34-times-more-electricity-than-average-u-s-household/>



**Former Vice President Al Gore talks to the media after meeting with President-elect Donald Trump at Trump Tower on December 5, 2016 in New York City. (Photo by Kevin Hagen/Getty Images)**

**On Friday, Al Gore’s sequel to “An Inconvenient Truth” – “An Inconvenient Sequel: Truth to Power” – arrives in movie theaters across the country. But there’s another inconvenient sequel worth noting and, like most sequels, this one is even worse than the original.**

**Gore’s hypocritical home energy use and “do as I say not as I do” lifestyle has plunged to embarrassing new depths.**

**In just this past year, Gore burned through enough energy to power the typical American household for more than 21 years, according to a new report by the National Center for Public Policy Research. The former vice president consumed 230,889 kilowatt hours (kWh) at his Nashville residence, which includes his home, pool and driveway entry gate electricity meters. A typical family uses an average of 10,812 kWh of electricity per year, according to the U.S. Energy Information Administration.**

**Last September alone, Gore devoured 30,993 kWh of electricity. That’s enough to power 34 average American homes for a month. Over the last 12 months, Gore used more electricity just heating his outdoor swimming pool than six typical homes use in a year.**

**The National Center for Public Policy Research obtained the environmentalist’s energy usage information from individuals at the Nashville Electric Service, the utility that provides electricity to Gore’s home and much of Middle Tennessee.**

**In 2007, the day after Gore won an Academy Award for “An Inconvenient Truth,” I revealed Gore’s hypocritically high electric bills. In some months, I discovered, his residence gobbled up to 20 times more electricity than the average American household.**

**When Gore’s inconvenient truth became public knowledge, he promised to change his ways and gave his property a green makeover. Gore added 33 solar panels at a princely price tag of approximately \$60,000. He also upgraded the home’s windows and ductwork,**

replaced the insulation, put in a driveway rainwater collection system, and installed a geothermal heating system.

The Nobel laureate also heroically went to the trouble of replacing his incandescent light bulbs with compact fluorescent ones.

In total, the renovation are estimated to cost well over \$250,000.

But the home's green facelift wasn't enough to offset Gore's colossal energy consumption.

Despite spending more than a quarter-million dollars on making his home more environmentally friendly, his energy consumption is higher than ever.

Those 33 solar panels generate about 12,000 kWh of electricity a year – way more than enough energy to power a typical American household. Gore is such an enormous energy hog, however, that his gigantic rooftop solar array produces just 5.7 percent of the electricity he uses in his home, or enough to power his home for a measly 21 days a year.

Gore also claims that his environmental sins are washed clean because he contributes to Green Power Switch, a scheme in which customers can donate extra money beyond the cost of their power bill to support green energy efforts. The money goes to the Tennessee Valley Authority (TVA), the source of NES' electricity, to fund renewable energy projects.

Gore even told the "TODAY Show" that his home uses 100 percent renewable energy, but that is an outright lie.

Just because Gore donates to the Green Power Switch program doesn't mean he receives green energy at his home. Gore gets the same electricity every other Nashville resident receives – 87 percent of which comes from nuclear, coal and natural gas power plants. About 10 percent of Gore's electricity comes from the TVA's environmentally devastating dams. Only a puny 3 percent comes from renewable sources such as solar and wind.

Not counting the \$432 a month Gore spends on his Green Power Switch indulgences, the green extremist shells out about \$22,000 a year to pay his electric bills.

Spending more than \$1,800 a month on an energy bill would sink most Americans, but it's pocket change to Gore. He has manipulated environmental concerns into a big business. When his term as vice president ended in 2001, Gore's net worth was less than \$2 million. Today, Gore is worth an estimated \$300 million.

Gore apologists argue that his large home is the reason for his massive energy consumption. That's not true, either.

According to Energy Vanguard, a company devoted to making homes more energy efficient, a residence that uses less than 10 kWh of electricity per square foot each year is considered "efficient." Homes that gulp down more than 20 kWh of electricity per square foot each year are labeled "energy hogs." Gore's house consumed 22.9 kWh per square foot in the past 12 months making him a huge energy hog by any measure.

Astonishingly, Gore also owns at least two other homes – a penthouse in San Francisco and a farmhouse in Carthage, Tennessee – so his carbon footprint is even larger than it appears.

The former veep has become a prophet of environmentalism, a religion he helped create. But he is a false prophet. He appears to exploit his followers for recognition and money, and it's unclear whether he actually believes a word he says.

Al Gore is happy to talk the talk, but has proven completely unwilling to walk the walk when it comes to living a green lifestyle – and that should make every person question the messenger as well as the message.

Drew Johnson is a Senior Fellow at the National Center for Public Policy Research.

<YOU>~<>~<JUST>~<>~<CAN'T>~<>~<MAKE>~<>~<THIS>~<>~<STUFF>~<>~<UP!>

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Jim Woosley" [Jimwoosley@aol.com](mailto:Jimwoosley@aol.com)

**JUDICIAL WATCH WARNS CALIFORNIA: 11 COUNTIES HAVE MORE VOTERS THAN VOTING-AGE CITIZENS**

by JOEL B. POLLAK5 Aug 20173,640

<http://www.breitbart.com/california/2017/08/05/judicial-watch-warns-california-11-counties-voters-voting-age-citizens/>

Judicial Watch, a conservative watchdog organization, has sent a letter to California Secretary of State Alex Padilla on behalf of the Election Integrity Project, noting that there are 11 counties in the state with more registered voters, and alleging that the state may be out of compliance with Section 8 of the National Voter Registration Act (NVRA).

The letter reads, in part:

NVRA Section 8 requires states to conduct reasonable list maintenance so as to maintain an accurate record of eligible voters for use in conducting federal elections.<sup>1</sup> As you may know, Congress enacted Section 8 of the NVRA to protect the integrity of the electoral process. Allowing the names of ineligible voters to remain on the voting rolls harms the integrity of the electoral process and undermines voter confidence in the legitimacy of elections.

...

As the top election official in California, it is your responsibility under federal law to coordinate California's statewide effort to conduct a program that reasonably ensures the lists of eligible voters are accurate.

Judicial Watch lays out the specifics: "[T]here were more total registered voters than there were adults over the age of 18 living in each of the following eleven (11) counties: Imperial (102%), Lassen (102%), Los Angeles (112%), Monterey (104%), San Diego (138%), San

Francisco (114%), San Mateo (111%), Santa Cruz (109%), Solano (111%), Stanislaus (102%), and Yolo (110%).” The letter notes that the percentage in L.A. Country may be as high as 144%.

The letter contains a threat to sue the Secretary of State if Padilla does not remove from the rolls “persons who have become ineligible to vote by reason of death, change in residence, or a disqualifying criminal conviction, and to remove noncitizens who have registered to vote unlawfully.” It gives Padilla 14 days to respond, and 90 days to correct alleged violations of the law.

Padilla has been one of the main voices in opposition to President Donald Trump’s Presidential Advisory Commission on Election Integrity, refusing to share voter data with it on the argument that doing so would “legitimize false claims of massive election cheating last fall.”

President Trump has claimed that he would have won the popular vote in the 2016 presidential election if not for illegal voting, and his administration has singled out California as a possible contributor to that margin.

The Election Integrity Project is a California-based volunteer organization that monitors voting irregularities.

Joel B. Pollak is Senior Editor-at-Large

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From: “Tim Bolgeo” [tbolgeo@epbfi.com](mailto:tbolgeo@epbfi.com)

**RUSSIA’S FAILED AIRLINE COULD CUT COST OF AIR FORCE ONE**

Aug 1, 2017 James Drew | Aerospace Daily & Defense Report

[http://aviationweek.com/defense/russia-s-failed-airline-could-cut-cost-air-force-one?NL=AW-05&Issue=AW-05\\_20170802\\_AW-05\\_295&sfvc4enews=42&cl=article\\_4&utm\\_rid=CPEN1000001477803&utm\\_campaign=11147&utm\\_medium=email&elq2=cbc78c325a444a0698c51d92157e3f62](http://aviationweek.com/defense/russia-s-failed-airline-could-cut-cost-air-force-one?NL=AW-05&Issue=AW-05_20170802_AW-05_295&sfvc4enews=42&cl=article_4&utm_rid=CPEN1000001477803&utm_campaign=11147&utm_medium=email&elq2=cbc78c325a444a0698c51d92157e3f62)



**President Donald Trump had threatened to cancel the next-generation Air Force One project because of its almost \$4 billion price tag. He will likely tout any cost savings as a major win. USAF**

**As Washington imposes fresh sanctions on Moscow, two Boeing 747-8Is intended for defunct Russian airliner Transaero could become the next U.S. presidential aircraft.**

**Boeing has reportedly been negotiating with the U.S. Air Force for the sale of two white-tail aircraft that were already in production when St. Petersburg-based OJSC Transaero Airlines filed for bankruptcy in October 2015.**

**As first reported by Defense One, the two sides have been hammering out a deal for the two unadopted aircraft, which were completed in 2016 and flown to the 747 aircraft boneyard in Victorville, California, for storage in February.**

**The Air Force and Boeing have been scrambling to find ways to reduce the cost of building the next presidential aircraft fleet since then-President-elect Donald Trump threatened to cancel the project in a tweet Dec. 6.**

**On Jan. 27, the Pentagon ordered a cost-cutting review of the Air Force Once program, along with the Lockheed Martin F-35.**

**Trump pegged the cost of the Presidential Aircraft Recapitalization program at \$4 billion, with more than \$3.6 billion in funding requested from the start of the program in 2016 through fiscal 2022. A brand-new 747-8 Intercontinental sells for \$387 million at list price.**

**Trump has already claimed victories on costs through his self-appointed role as “negotiator-in-chief,” with the White House saying in February that the price of the next-generation Air Force One has been capped at millions of dollars below the price agreed**

under the Obama administration. This might be partly attributable to buying unsold 747-8ls over new aircraft off the Boeing widebody assembly line in Everett, Washington. The two aircraft in question carry the registration numbers N894BA and N895BA, and would replace two aging 747-200s VC-25 aircraft that currently transport the president.

Transaero had ordered four 747-8ls from Boeing in December 2013, but ran into financial troubles after sanctions and plummeting oil prices sent the Russian economy into a nosedive. One order was canceled and another never entered production, and Boeing has been unable to find buyers for the remaining two aircraft because demand for jumbo-size widebody passenger aircraft has evaporated.

The Air Force and Boeing would not confirm any details about the pending transaction, but a contract award is expected “soon.”

If the deal does materialize as reported, Russia’s economic woes under Obama will have delivered a win for the Trump White House.

“This is the perfect solution for the Air Force One replacement,” says Lexington Institute’s Loren Thompson, a long-time defense analyst. “Obviously, President-elect Trump’s comments about the price tag were a bit of political theater, but this episode shows how political theater can turn into tangible results.

“The irony of the situation is, the president will be flying on airframes not otherwise available in the absence of sanctions following the Ukraine invasion,” Thompson added.

Richard Aboulafia, vice president of analysis at Teal Group, expects the savings from buying abandoned 747-8ls to be relatively minor compared to the overall cost of upgrading them to presidential standards. But it does bring the 747-8 production line in Everett “a few months closer to death,” with 747s now delivering at a rate of less than one per month due to lackluster sales.

“The savings are marginal at best [but] at least Boeing gets to move the unwanted planes off its lot,” he says. “Nobody wants a four-engine heavyweight aircraft for passengers anymore.”

Thompson and Aboulafia expect the president to play up the deal and probably overstate the actual savings. The price is mostly driven by tearing those two commercial aircraft apart and installing all the military hardware and trappings expected of a presidential airplane. That includes an aerial refueling system, electromagnetic pulse hardening and an assortment of protected global communications antennas.

However, the schedule might be shortened significantly, since the airframes are already built and modification could start immediately.

“One thing we can say for certain: Trump’s complaints gave the Air Force and Boeing a sense of urgency about finding a lower-cost solution,” Thompson says. “The president will point to this bargain-basement price on jumbo jets as proof of being a chief negotiator—and he’ll be right. This is emblematic of the way Trump has approached his job.”

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**VIDEO: THE HUNT FOR ASTEROIDS**

<https://science.nasa.gov/science-news/sciencecasts/the-hunt-for-asteroids>

Video Length: 3:19

NASA is hunting for Near-Earth Objects, while also working on ways to defend Earth against them.

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**MAKE CONCRETE ROMAN AGAIN!**

POSTED BY BRIAN GALLAGHER ON JUL 28, 2017

<http://nautil.us/blog/make-concrete-roman-again>



Pliny's literary challenge, in composing his "Natural History" in 1st century A.D., was giving "novelty to what is old, and authority to what is new." Modern engineering's is to see that what is old has some authority, too. "Roman Capriccio: The Pantheon and Other Monuments," by Giovanni Paolo Panini (1735)



The Roman naturalist Pliny the Elder can be charmingly self-deprecating. He attempted, in the 1st century A.D., to curate all ancient knowledge in his *Natural History*, yet he described its 37 volumes to his close friend's son, Titus, the Emperor of Rome, as having "such inferior importance." To Pliny, they did "not admit of the display of genius," nor "of anything particularly pleasant in the narration, or agreeable to the reader." But he reminded Titus of his basic challenge—that it was, "indeed, no easy task to give novelty to what is old, and authority to what is new."

He might be pleased, then, to see an ancient technology that he himself admired taking on a modern relevance and novelty. Who, Pliny wondered, could help but be surprised at the way the Roman harbor infrastructure, made from a mix of lime and volcanic ash, overcomes entropy, "forming a barrier against the waves of the sea, becoming changed into stone the moment of its immersion, and increasing in hardness from day to day—more particularly when mixed with the cement of Cumae," an ancient city in Naples?

The geologist and geophysicist Marie Jackson, of the University of Utah in Salt Lake City, shares Pliny's admiration for these still-standing structures, and has scoured ancient Roman texts in hopes of uncovering the recipe that makes them so durable. The goal would be to revive Roman concrete, and their building techniques, for the modern age—but, alas, her efforts were to no avail.

We have a lot to relearn from the ancients.

So she's been working backwards. In "Unlocking the secrets of Al-tobermorite in Roman seawater concrete," a study she and her colleagues published in 2013, they confirmed, via trace element analyses at the Advanced Light Source, an X-ray synchrotron at the Lawrence Berkeley National Laboratory in California, that drill cores of a 2000-year-old block submerged in the Bay of Pozzuoli near Naples came "from Flegrean Fields volcanic district, as described in ancient Roman texts." The samples contained aluminum tobermorite, a rare mineral and not an ingredient in conventional concrete, which accounted for their great durability and strength. In another study published this month, the researchers found that the aluminum tobermorite grew out of a silicate mineral common to volcanic ash, called phillipsite, spurred by ocean contact. "We're looking at a system that thrives in open chemical exchange with seawater," Jackson said.

The tobermorite's long plate-like crystals grant the concrete an unusual flexibility under stress that increases with time submerged. "It's a very rare occurrence in nature," Jackson said. By contrast, modern concrete, made from a mix of Portland cement and coarse aggregate, corrodes in seawater within decades, making the application of Roman concrete, Jackson noted, an enticing option for steel reinforcement-free seawalls that guard against rising sea levels.

Nele De Belie, a materials engineer at Ghent University in Belgium, agrees, and sees fly ash—a product of coal-burning similar to volcanic ash but much more abundant—as the key to inventing new forms of concrete with the sort of "self-healing" properties Roman concrete possesses. Investors are taking notice.

In a recent blog post, Trebuchet Capital Partners, a private equity real estate firm in Los Angeles, states that Portland cement, the world's standard, is popular because it can be "poured on site" and it's "cheap to produce." But architectural projects using fly ash-based

concrete will be more sustainable—environmentally, structurally, and economically. The E.P.A. concurs. Using fly ash, the agency’s website states, “can produce positive environmental, economic and performance benefits such as reduced virgin resources, lower greenhouse gas emissions, reduced cost of coal ash disposal, and improved strength and durability of materials.” (It’s not clear if it’s specifically Jackson’s research that’s informing these views.)

“We are entering a new gilded age.”

Since Portland cement production accounts for over 5 percent of human greenhouse gas emissions, in the future, governments might impose a carbon tax on its use. Trebuchet argues that that burden “may be a game changer” for future fly ash use, especially if developers start relying more on automation and 3D printing in concrete manufacturing. Fly ash naturally lends itself better to a manufacturing setting than Portland cement. Developers, Trebuchet predicts, will be able “to make spectacularly detailed molds to form precast friezes and architectural elements...cheaper, faster, [and] with better working conditions.”

What this means, at least for investors interested in building and architecture, is that “we are entering a new gilded age.” People, Trebuchet argues, will stop having “to put up with cookie cutter bland disposable architecture,” and there may even be “a return on [investment for] more superfluous and pretty structures in the neo-classical or Beaux Arts style,” inspired by buildings like the Pantheon.

That’s an outcome that might appeal to the Pantheon-lover John Oschsendorf, a professor of engineering at M.I.T. and a MacArthur “Genius” Fellow who, like Jackson, thinks we have a lot to relearn from the ancients. In his Nautilus Ingenious interview, he told us, “I think the Pantheon is probably the greatest building of all time.” It’s not mere nostalgia. “I’m in awe,” he said, it’s “like a great work of Mozart.” Much of that appreciation stems not just from its aesthetic, but from the fact that we still don’t understand how the Romans did it. That mystery goes beyond construction materials, and into design.

“What we can find are relationships—geometrical relationships—that are encoded within the buildings, which show some of the rules that the builders had,” Oschsendorf told us. “[M]any Roman domes have a supporting wall which is about one-seventh of the span of the dome, and that meant that the builders... were able to devise ratios and proportions that were stable” and “largely independent of scale. Unfortunately, in the Industrial Revolution, a lot of this knowledge was lost. In particular, we don’t often build arches or domes today. It’s very common if you tried to build a structure in [concrete] or brick today that the building code and the engineers involved will insist that it requires steel.”

This highlights the knowledge gap in modern civil engineering, Oschsendorf says. “We’ve lost centuries of knowledge, which has been replaced by other knowledge about how to build in steel and concrete. But today’s knowledge doesn’t necessarily map easily onto those older structures. And if we try to make them conform to our theories, it’s very easy to say that these older structures don’t work. It’s a curious concept for an engineer to come along to a building that’s been standing for 500 years and to say this building is not safe.” The tendency derives in part from a “progress ideology of engineering,” he says, “Something old doesn’t have value to us as a profession. Something new, something hi-tech has value.”

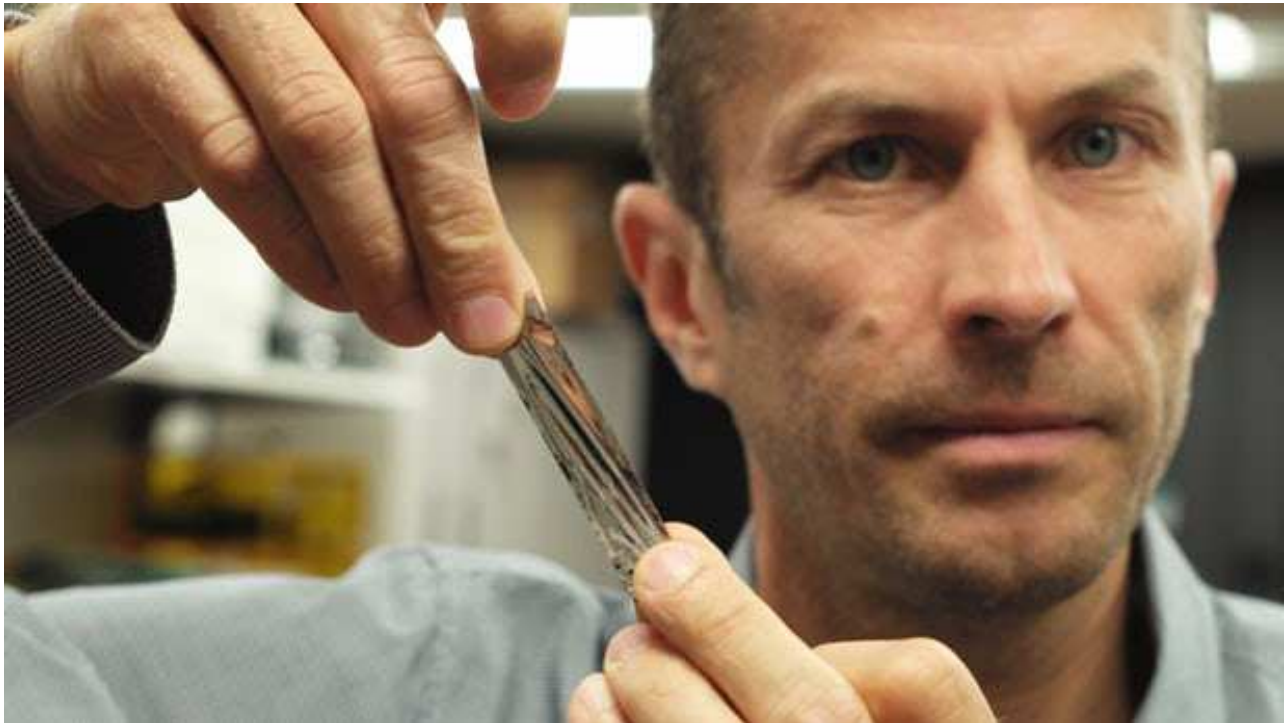
Pliny's challenge, in composing his Natural History, was giving "novelty to what is old, and authority to what is new." Modern engineering's is to see that what is old has some authority, too.

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## SONY AND IBM SHATTER MAGNETIC TAPE STORAGE DENSITY RECORD

Michael Irving August 2, 2017

<http://newatlas.com/sony-ibm-magnetic-tape-density-record/50743/>



IBM scientist Mark Lantz holding a sample of the new high-density magnetic tape (Credit:IBM Research)

Storing data on magnetic tape might seem more antique than cutting edge, but with more data in the world than ever, it could still be one of the most energy efficient and secure storage methods we have. Now, Sony and IBM Research have teamed up to break the areal density record for the medium, cramming 201 billion bits of uncompressed data into each square inch of tape.

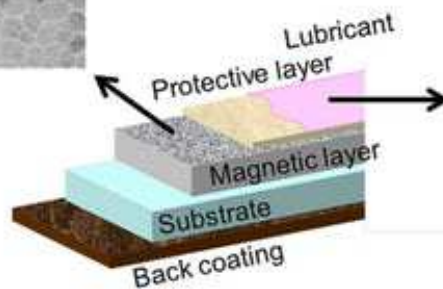
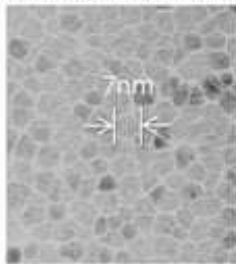
IBM has a history of breaking these world records, claiming five of them since 2006, and the newest record comes thanks to a new magnetic tape technology developed by Sony Storage Media Solutions. The last few generations have been built with magnetic particles of barium ferrite, but the new system is made up of several thin layers of metal film that are coated onto the tape through a process known as sputter deposition.

Sputtered media gives the magnetic layer an average grain size of 7 nm, allowing more particles to be crammed in closer together. This is combined with a few other new tricks

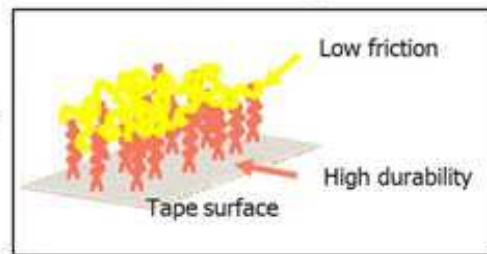
Sony has developed, including a processing technique that reduces impurities, and a lubricant that reduces friction between the magnetic head and the tape surface to speed up reading and writing.

On the other side of the equation, IBM was responsible for developing magnetic heads that work with the lower-friction tape, advanced servo control technologies that can accurately position the heads over the tiny dots, and algorithms that can process the signals more precisely.

Nano-grained magnetic layer  
(Particles seen from above)



Lubricant diagram



A cross-section of the new tape's structure (Credit: Sony)

Altogether, the collaboration resulted in a tape prototype with a recording areal density of 201 Gb/in<sup>2</sup>, which the companies claim is 20 times the capacity of current systems. Scaled to a useable device, that means 330 TB of data could fit onto a palm-sized cartridge, which is a big leap above the 15 TB cartridges currently available.

Widely used for over 60 years, advances like these allow magnetic tape to remain a viable option in our current age of Big Data and cloud computing, thanks to its high capacity, low cost, low power consumption and longevity.

"Tape has traditionally been used for video archives, back-up files, replicas for disaster recovery and retention of information on premise, but the industry is also expanding to off-premise applications in the cloud," says IBM Fellow Evangelos Eleftheriou. "While sputtered tape is expected to cost a little more to manufacture than current commercial tape that uses barium ferrite, the potential for very high capacity will make the cost per TB very attractive, making this technology practical for cold storage in the cloud."

The developers of the technology are presenting the prototype at the 28th Magnetic Recording Conference this week. The team discusses the advances in the video below.

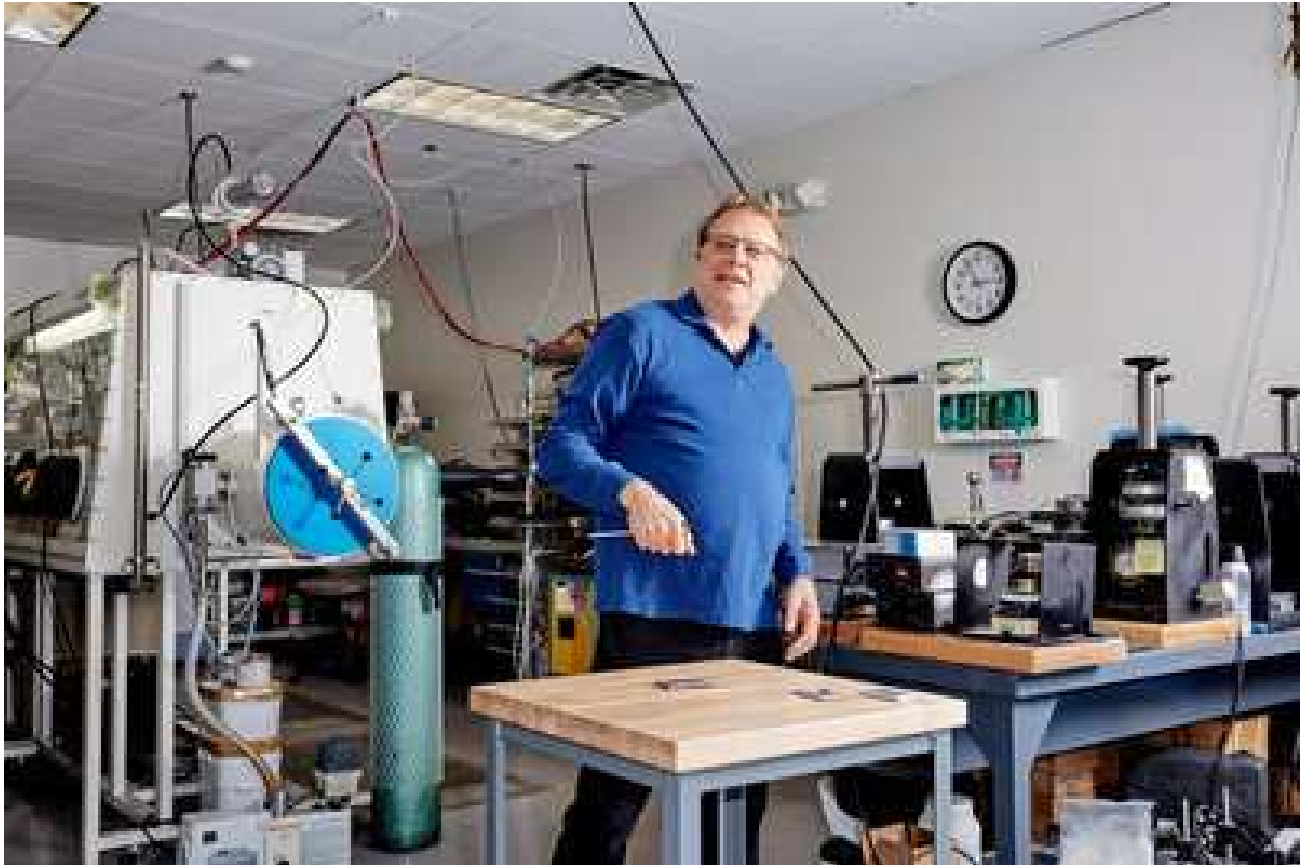
Sources: Sony, IBM

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## **A BETTER, SAFER BATTERY COULD BE COMING TO A LAPTOP NEAR YOU**

**By JOHN MARKOFFAUG. 1, 2017**

<https://www.nytimes.com/2017/08/01/technology/alkaline-batteries-replace-lithium-ion.html>



**Mike Zimmerman, the founder and chief executive of Ionic Materials, in his lab in Woburn, Mass. He said the company had developed an alkaline battery that is safer and less expensive than lithium-ion batteries. Credit Tony Luong for The New York Times**

**SAN FRANCISCO — A start-up company is trying to turbocharge a type of battery that has been a mainstay for simple devices like flashlights and toys, but until now has been ignored as an energy source for computers and electric cars.**

**Executives at Ionic Materials, in Woburn, Mass., plan to announce on Thursday a design breakthrough that could make solid-state alkaline batteries a viable alternative to lithium-ion and other high-energy storage technologies.**

**Alkaline batteries can be made far more cheaply and safely than today's lithium-ion batteries, but they are not rechargeable. That issue, along with the superior power of lithium-ion batteries, has meant that alkaline batteries are not used in personal computers, smartphones or electric vehicles.**

**Ionic could change that equation with an alkaline battery the company said could be recharged hundreds of times. One additional benefit of the company's breakthrough: An**

alkaline battery would not be as prone to the combustion issues that have plagued lithium-ion batteries in a range of products, most notably some Samsung smartphones.

Cheaper and more powerful batteries are also considered by many to be the driver needed to make the cost of renewable energy technologies like wind and solar competitive with the coal, gas and nuclear

Ionic said it had developed prototypes of a rechargeable alkaline battery that can be made using continuous manufacturing processes similar to the making of plastic wrap. So far, the company, which is backed by William Joy, a pioneering Silicon Valley computer designer, has demonstrated up to 400 recharge cycles for its prototypes. Ionic executives say they believe they will be able to triple that.

The alkaline batteries that Ionic has developed would initially be heavier than today's lithium-ion batteries, said Mike Zimmerman, a materials scientist who is the founder and chief executive of Ionic. But the new batteries would more than compensate for that handicap with their cost advantage and, in time, their ability to store more energy.

There are other advantages besides cost and safety. Lithium-ion batteries rely on cobalt, and using that element comes with a human cost. Cobalt mines in Africa, for example, have been accused of using child labor while leaving behind a toxic mess.

Alkaline batteries, on the other hand, use relatively abundant zinc and manganese. "Ionic can help us get lithium-ion past cobalt and completely eliminate it with alkaline," said Mr. Joy, who is a member of Ionic's board.

He also said that the company had made progress toward an alkaline battery design that would replace zinc with more affordable aluminum. In the past, aluminum has not been usable because of issues like corrosion. Alkaline batteries based on aluminum would potentially weigh less than lithium-ion batteries and would be even cheaper to produce than today's alkaline designs.

Ionic will make its announcement in Colorado at a conference for the 35th anniversary of the Rocky Mountain Institute, a sustainable-energy research group founded by the physicist and environmentalist Amory Lovins and Hunter Lovins, his former wife.

"They started with a very sensible set of criteria," Dr. Lovins said of Ionic. "They use an unusual electrolyte to come up with a battery that uses common cheap materials and is benign

."

But he added a note of caution: "Batteries are very difficult and I want to see what they have and what can be measured and proven and whether it will get to market."

Technological progress in battery technology has been glacial compared with the exponential advances in processing speed and data storage capacity that have been staples of Silicon Valley's growth. In the last 150 years, only a handful of rechargeable battery chemistries have reached mass adoption.

Tesla, in partnership with Panasonic, is building a factory in Nevada with the intent of greatly expanding capacity to make lithium-ion batteries and lower production costs. Tesla

officials said they wanted to create enough capacity to produce batteries for 1.5 million cars a year.

There is growing interest in pursuing such so-called solid-state battery technologies for both consumer and transportation applications. Last fall, the United States Department of Energy's agency for supporting research in next-generation energy technology announced 16 research awards aimed at accelerating development of solid battery technologies, including a \$3 million contract to Ionic Materials. The company said it had signed several licensing deals to produce commercial versions of its design, but it would not identify its partners.

The United States Advanced Battery Consortium, an auto industry group, wants to greatly reduce the cost of lithium-ion production. Analysts, however, say they believe the new facilities and technology from auto and battery manufacturers will help bring costs down, but still fall short of industry goals.

In contrast, Ionic executives said they had found a way to achieve energy production costs that would be less than a fifth of the auto consortium's target.

Bloomberg New Energy Finance, an energy research group, has forecast that mass-market adoption of electric vehicles will not occur until operating costs fall to match those of internal combustion engines. That is expected to happen in 2025, according to the group.

In December, Ionic Materials also described a solid material it said would improve the safety of existing lithium-ion batteries. The company has demonstrated the batteries' resistance to catching fire or exploding by driving nails through them and even shooting them with bullets.

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From: "Jim Woosley" [Jimwoosley@aol.com](mailto:Jimwoosley@aol.com)

#### **NORTH KOREAN MISSILES MAY REACH US, BUT LACK EFFECTIVE RE-ENTRY: ANALYSTS**

By Perry Chiaramonte, Published Fox News, August 01, 2017

<http://www.foxnews.com/world/2017/08/01/north-korean-missiles-may-reach-us-but-lack-effective-re-entry-analysts.html>

Officials say US in range for some North Korean missiles.

North Korea may have finally developed a missile capable of hitting the U.S., but whether it can do any actual damage is open for debate, according to some analysts.

U.S. and South Korean experts said Tuesday that Japanese video footage capturing the Hwasong-14's re-entry vehicle shortly before it crashed into the sea suggests it failed to survive the extreme heat and pressure after re-entering the Earth's atmosphere following its launch from northern North Korea last week.



The apparent failure likely means the rogue regime will conduct more flight tests of the Hwasong-14 missile to ensure the warhead could survive the re-entry from space and hit its intended target.

After analyzing video from a rooftop camera operated by Japan's NHK television on the northern island of Hokkaido, U.S. missile expert Michael Elleman concluded that Hwasong-14's re-entry vehicle "disintegrated" before it landed at sea.

"In short, a reasonable conclusion based on the video evidence is that the Hwasong-14's re-entry vehicle did not survive during its second test," Elleman, an expert with the International Institute for Strategic Studies said in an article on the research website 38 North. "If this assessment accurately reflects reality, North Korea's engineers have yet to master re-entry technologies and more work remains before Kim Jong Un has an ICBM capable of striking the American mainland."



A man walks in front of a public TV screen broadcasting news of North Korea's test-firing of its second intercontinental ballistic missile, in Tokyo, Japan. The ticker above reads: "North Korea fired ICBM missile." (AP Photo/Eugene Hoshiko, File)

Elleman said the video showed the re-entry vehicle shedding small radiant objects at an altitude of 2.5 to 3 miles and that it dims and quickly disappears at an altitude of 1.9 to 2.5 miles before it passes behind a mountain range and is obscured from the camera's view. Had the re-entry vehicle survived, it would have continued to glow until disappearing behind the mountains, he claims.

The missile expert told reporters on a recent conference call organized by 38 North, that fixing the design flaw "might take them another six months," according to The New York Times. "But the key is that they'll have to do additional flight tests."



*The August 9, 2017 Edition of THE REVENGE HUMP DAY!*

*Page 33 of 33*

While North Korea has declared that the Hwasong-14's latest launch confirmed important features of the missile, such as its range and the warhead's atmospheric re-entry, it also described the rocket as "landing in the target waters in the open sea."

It probably wasn't an ideal outcome for North Korean engineers because nuclear warheads are usually designed to detonate at lower altitudes shortly before impact, Kim Dong-yub, a defense analyst at the Institute for Far Eastern Studies at Kyungnam University in Seoul, said to The Associated Press.

"Considering the cost and efforts they put into tests, North Korea likely would have tried to detonate the warhead properly; they apparently failed this time, but could focus on this aspect in future tests," Kim said. "Mastering re-entry is among the most critical military milestones the North has left, along with developing submarine-launched ballistic missile system and solid-fuel ICBMs."

The Associated Press contributed to this story.

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