

Welcome to the March 9th, 2016 Edition of REVENGE OF HUMP DAY!

Pay attention dear children, it's time for the next installment of Uncle Timmy's Conspiracy Corner. I have been watching the political shenanigans that have been going on in the Republican Party Elites over the past week with astonished eyes. They have decided that it would be better to fracture the party than to have either "The Donald" or the 'Dark Cruz Knight' in the position of the Republican Nominee for President. They seem to think that the rank and file of the party will rally around who they deemed to pick for the position. This is utter BS in my humble opinion and in the opinion of a lot of people I have been reading about over the past week.

Well folks, I think that they have screwed the pooch on this one and have disregarded the ire and intelligence of both 'The Donald' and the 'Dark Cruz Knight'. So I have come up with a Jim Dandy of a Conspiracy Theory to entertain you this week. What if 'The Donald' goes to Ted after the first ballot, if he doesn't win and does this. The both know that the Republican Party Elites pretty much hate them both and will do anything to stop them. What if Donald offers Ted a partnership with Ted as the VP and a full partner in the administration if Ted directs his delegates to vote for 'The Donald' on the second ballot. What if Ted takes the deal and Trump wins the nomination with Ted as VP.

I'm not finished with my conspiracy theory yet. By this time the Democrats have pretty much anointed Hillary. BUT, the Democrat Party Elites realize that Hilary can't win against that combination and have to do something. Well, there is these little problems with the emails and the influence peddling of the Clinton Foundation with foreign governments while Hilary was Secretary of State still hanging over her head. What if at that time the Department of Justice now decides to bring charges against her because of these little problems. I would think that the DNC, who knows that Bernie would be a disaster for the entire Democratic Party in the election would have to ask her to step aside for the good of the party. Think about it, what she has done was a hundred times worse than General Petraeus was charged with (2 emails vs over 1,800) and was convicted of. It is not a 'Security Review' as spoken by Hilary. It is a full blown investigation that over 150 FBI agents are working on. So, what if Hilary releases all of her delegates before the convention and recommends another person to take her place. Maybe somebody by the name of Joe? I think that the DNC will do anything to keep Bernie out. And I also see a presidential pardon in her future if she cooperates.

I love a good conspiracy theory and this one look like it might just have a few legs. Hell, it will probably go south in a few weeks though and I have had an interesting time just thinking about it. For those of you who don't know me, I am an Fiscal Conservative and a Social Liberal. An Independent who does not actively support any of the leading candidates in both parties. Some of them I would not vote for in any case. Others I will hold my nose and vote for just to keep the other side out of office. What do y'all think about my ideas?

So, on that "Whimpering 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

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MINI WRAP UP ON THE TENNESSEE VALLEY INTERSTELLAR CONFERENCE

HELD AT THE CHATTANOOGA CHOO CHOO

From: "Martha Knowles (TVIW)" knowlesme@tviw.us

TVIW 2016 was a success! Folks had a good time at the talks and the working tracks. Sam Lightfoot was toasted; the Monday night banquet speech was dedicated to him. The Hospitality suite seemed to be a big hit. Problems were few and far between.

Martha also added, "I've been in bed more than not since we got home last Thursday. The Symposium Crud was of the sinus variety this year. I've been told the current variety lasts a couple of days. After 4 days, I don't feel much better. So it goes."

I WISH I COULD HAVE BEEN THERE BUT I WAS IN THE MIDDLE OF RECOVERING FROM A BAD BOUT OF A LUNG INFECTION ASSOCIATED WITH COPD. IT'S HELL GETTING OLDER. BRANDY WANTED TO GO BUT TVA SENT HER TO MUSCLE SHOALS, ALABAMA ON ASSIGNMENT. AND THEN THEY MADE HER DRIVE HOME LATE TUESDAY NIGHT TO GO TO TRAINING ALL DAY WEDNESDAY. NOT A GOOD WEEK TO GET TO THE TVIW FOR THE BOLGEO CLAN GETTING TO ENJOY THEIR LOVE OF SCIENCE. BUT I AM HAPPY TO SAY THAT LIBERTYCON, WITH THE ABLE ASSISTANCE OF OUR CHIEF ENGINEER JOHN TRIEBER PROVIDED TECHNICAL SUPPORT FOR THE CONFERENCE. I'M GLAD WE COULD HELP THIS WORTHY SEMINAR. UT

Martha added in a latter email, "Double the thanks to John Trieber! From the survey comments, A/V got Big Kudos, and the comment 'this is the first conference I've ever been to that has had NO sound problems.'

And, Tim, you and Brandy were both missed. Folks were asking after you."

From the TVIW FB page:

<http://www.usatoday.com/story/opinion/2016/03/03/glenn-reynolds-stars-closer-than-you-think/81237714/>

<http://www.jackmcdevitt.com/Pages/Journal-204.aspx>

From Yohon Lo:

That's a wrap! A big thank you to all who attended the TVIW 2016 Symposium. The presentations were outstanding, and we made great progress in our Working Tracks to solve some of the issues identified with interstellar travel. The discussions at the hospitality suite/consuite were, as always, engaging and insightful. As an all volunteer organization, and we couldn't have done it without all of our awesome volunteers and sponsors. To all of our speakers, attendees and volunteers, you should all be proud of the contribution you made to the future of our species.

TVIW Symposium #5, a.k.a. TVIW 2017 will return to Huntsville Alabama in October of 2017. We hope to see you all there! Until then...Look Up at the Stars and Dare to Dream Big. Something Really Big!

AS SOON AS THE FULL WRITE UP ON THE TVIW IS AVAILABLE, I WILL REPORT IT TO ALL OF YOU. UT

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FUND TO HELP BUD WEBSTER'S WIDOW WITH HIS MEDICAL EXPENSES

From: "Christina Cowan" cowan1028@earthlink.net

Tim -

I was aware Bud was very ill - there was a fundraiser at Marscon this January - but only heard today that he had died.

Marscon has started a fund, using Square, to help Mary with the horrendous debt from his medical expenses. This is the site:

<https://squareup.com/market/marscon/bud-webster-medical-fund>

I've talked with Rich Stow, Dealer Room Boss and Butch Allen, this year's Con Chair. Rich says it's OK to ask you to put this out, as long as the information below is included:

"The out-of-pocket medical expenses that Bud and Mary have incurred are staggering. Many of you have asked how you can help. Donations for these medical expenses are being accepted through the MarsCon online store at <https://squareup.com/market/marscon/bud-webster-medical-fund> 100% of every donation will go to Bud's out-of-pocket medical and final expenses. The MarsCon Executive Committee has agreed to cover all of the fees that are levied by Square on each transaction. Thank you for any help you can give."

Can you please put this in next week's Revenge? Bud was and Mary is good people and his death is a great loss.

This is SFWA's page: <http://www.sfw.org/2016/02/in-memoriam-2/>

This is from Wikipedia: <http://www.sfw.org/2016/02/in-memoriam-2/>

I DID NOT KNOW BUD WEBSTER, BUT I HAVE HEARD OF HIM FOR MANY YEARS. HE SEEMED LIKE A VERY GOOD DUDE AND EVERYBODY SEEMED TO LIKE HIM. UT

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

From: "Bob Bolgeo" bbolgeo@aol.com

A JEWISH BOOKIE WAS AT THE RACES PLAYING THE PONIES...

A Jewish bookie was at the races playing the ponies and losing his shirt.

He noticed a Priest step out onto the track and blessed the forehead of one of the horses lining up for the 4th race. Lo and behold, that horse - a long shot - won the race.

Next race, as the horses lined up, the Priest stepped onto the track. Sure enough, he blessed one of the horses.

The bookie made a beeline for a betting window and placed a small bet on the horse. Again, even though it was another long shot, the horse won the race. He collected his winnings, and anxiously waited to see which horse the Priest would bless next.

He bet big on it, and it won.

As the races continued the Priest kept blessing horses, and each one ended up winning.

The bookie was elated. He made a quick dash to the ATM, withdrew all his savings, and awaited for the Priest's blessing that would tell him which horse to bet on.

True to his pattern, the Priest stepped onto the track for the last race and blessed the forehead of an old nag that was 100/1. This time the priest blessed the eyes, ears, and hooves of the old nag.

The bookie knew he had a winner and bet every cent he owned on the old nag.

He watched dumbfounded as the old nag pulled up and couldn't even finish the race.

In a state of shock, he went to the track area where the Priest was.

Confronting him, he demanded, 'Father! What happened? All day long you blessed horses and they all won. Then in the last race, the horse you blessed never even had a chance. Now, thanks to you I've lost every cent of my savings!'

The Priest nodded wisely and with sympathy. "You are not Catholic are you my son?"

"No, I'm Jewish"

"That's the problem", said the Priest, "you couldn't tell the difference between a blessing and last rites".

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From: "Mike Waldrip" waldripk@gmail.com

IT COULD BE WORSE

Freddie always looked on the bright side. He would constantly irritate his friends with his eternal optimism. No matter how horrible the circumstance, he would always reply, "It could have been worse."

To cure him of his annoying habit, his friends decided to invent a situation so completely bad, so terrible, that even Freddie could find no hope in it. So on the golf course one day, one of them said, "Freddie, did you hear about Tom? He came home last night, found his wife in bed with another man, shot them both and then turned the gun on himself!"

"That`s awful," said Freddie, "But it could have been worse."

"How in the hell," asked his angry friend, "Could it have been worse?"

"Well," replied Freddie, "If it had happened the night before, I'd be dead now."

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JESUS AND ST. PETER

St. Peter was guarding the Pearly Gates, waiting for new souls coming to heaven. Jesus walked by and asked Peter how long he'd been tending The Gates. Peter replied, "Since I arrived, some time ago".

Jesus asked him if he'd ever taken any time off. Peter answered, "No. I've been sitting here minding The Gates the entire time.

Jesus expressed surprise and apologized to Peter for having never provided any time off. So, Jesus told Peter to take the day off and he'd watch The Gates.

Jesus sat down on the stool, slid his hands and arms into the sleeves of his robe and made himself comfortable.

Some time passed and an old man slowly walked towards The Gates and peered through, sort of squinching up his face in an effort to see more clearly. He had long gray hair and a long white beard. He just stood there peering in, apparently hoping to see something or someone.

Jesus asked him about what was looking for.

The old man peered at Jesus through The Gate and replied he was looking for his son.

Jesus replied, "I know pretty much everyone in here. Perhaps if you could tell me a little about him, I might be able to help you find him".

The old man said his son would probably be about the same age and height as Jesus. He also added that the most significant feature was that he had holes in his hands and feet.

At that, Jesus slid off the stool, walked towards The Gates, withdrew his hands and arms from his sleeves, and showed the old man his palms. As he did he quietly said, "Father"?

The old man squinted at Jesus' face and then his hands. He leaned forward and quietly said, "Pinocchio"?

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MRS. DONOVAN

Mrs. Donovan was walking down O'Connell Street in Dublin when She met up with Father Flaherty.

The Father said, 'Top o' the mornin' To ye! Aren't ye Mrs. Donovan And didn't I marry ye and yer Hoosband two years ago?'

She replied, 'Aye, that ye did, Father.'

The Father asked, 'And be there Any wee little ones yet?'

She replied, 'No, not yet, Father.'

The Father said, 'Well now, I'm going to Rome next week And I'll light a fertility candle for ye And yer hoosband.'

She replied, 'Oh, thank ye, Father...' They then parted ways..

Some years later they met again. The Father asked, 'Well now, Mrs. Donovan, how are ye these days?'

She replied, 'Oh, very well, Father!'

The Father asked, 'And tell me, Have ye any wee ones yet?'

She replied, 'Oh yes, Father! Two sets of twins and six singles, Ten in all!'

The Father said, 'That's wonderful! And how is yer loving hoosband doing?'

She replied, 'E's gone to Rome To blow out yer fookin' candle.'

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

I am only sending this to those of you who I think will have pretty close to a perfect score. If you don't get one you either led a deprived childhood or you are so damn old you forgot about these things.

Count all the ones that you remember not the ones you were told about. Ratings are at the bottom.

1. Blackjack chewing gum
2. Wax Coke-shaped bottles with colored sugar water
3. Candy cigarettes
4. Soda pop machines that dispensed glass bottles
5. Coffee shops or diners with table side jukeboxes
6. Home milk delivery in glass bottles with cardboard stoppers
7. Party lines on the telephone
8. Newsreels before the movie
9. P.F. Flyers
10. Butch wax
11. TV test patterns that came on at night after the last show and were there until TV shows started again in the morning. (there were only 3 channels...[if you were fortunate])
12. Peashooters
13. Howdy Doody
14. 45 RPM records
15. S&H green stamps
16. Hi-fi's
17. Metal ice trays with lever
18. Mimeograph paper
19. Blue flashbulb
20. Packards
21. Roller skate keys
22. Cork popguns
23. Drive-ins
24. Studebakers
25. Wash tub wringers

If you remembered 0-5 = You're still young

If you remembered 6-10 = You are getting older If you remembered 11-15 = Don't tell your age,

If you remembered 16-25 = You' re older than dirt!

I might be older than dirt but those memories are some of the best parts of my life.

I AM OLDER THAN DINOSAUR SHIT ACCORDING TO MY GRANDCHILDREN! UT

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A LETTER TO DAD

A father passing by his son's bedroom was astonished to see that his bed was nicely made and everything was picked up. Then he saw an envelope, propped up prominently on the pillow that was addressed to 'Dad.' With the worst premonition he opened the envelope with trembling hands and read the letter.

Dear Dad:

It is with great regret and sorrow that I'm writing you. I had to elope with my new girlfriend because I wanted to avoid a scene with Mom and you.

I have been finding real passion with Stacy and she is so nice. But I knew you would not approve of her because of all her piercings, tattoos, tight leather motorcycle clothes and the fact that she is much older than I am.

But it's not only the passion Dad /... she's pregnant. Stacy said that we will be very happy. She owns a trailer in the woods and has a stack of firewood for the whole winter. We share a dream of having many more children. Stacy has opened my eyes to the fact that marijuana doesn't really hurt anyone. We'll be growing it for ourselves and trading it with the other people that live nearby for cocaine and ecstasy. In the meantime we will pray that science will find a cure for AIDS so Stacy can get better. She deserves it.

Don't worry Dad. I'm 15 and I know how to take care of myself. Someday I'm sure that we will be back to visit and you can get to know your grandchildren.

.....Love, Your Son John

PS. Dad, none of the above is true. I'm over at Tommy's house. I Just wanted to remind you that there are worse things in life than the Report Card that's in my center desk drawer.

I love you. Call me when it's safe to come home.

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UNDERTAKER

Bob, an undertaker, recently came home with a black eye

"What happened to you?" asked his wife.

"Had a terrible day" replied Bob. "I had to go to an hotel and pick up a man that had died in his sleep.

When I arrived there, the manager said they couldn't get him into a body bag because he had this huge erection".

"Anyway, I went up and, sure enough, there was this big naked guy laying on the bed with this huge erection. So I grabbed it with both hands and tried to bend it in half".

"I see", said his wife, "that must have been awful, but how did you get the black eye?"

Bob replied, "Wrong room."

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THE ITALIAN LOVER

The Italian Lover, a virile middle aged Italian gentlemen named Guido, was relaxing at his favorite bar in Rome when he managed to attract a spectacular young blond woman.

Things progressed to the point where he led her back to his apartment and, after some small talk, they retired to his bedroom where he rattled her senseless.

After a pleasant interlude, he asked with a smile, "So, you finish?"

She paused for a second, frowned, and replied, "No."

Surprised, Guido reached for her and the rattling resumed. This time she thrashed about wildly and there were screams of passion. The sex finally ended and again, Guido smiled and asked, "You finish?"

Again, after a short pause, she returned his smile, cuddled closer to him and softly said, "No."

Stunned, but damned if he was going to leave this woman unsatisfied, Guido reached for the woman yet again.

Using the last of his strength, he barely managed it, but they ended together screaming, bucking, clawing and ripping the bed sheets.

Exhausted, Guido fell onto his back gasping. Barely able to turn his head, he looked into her eyes, smiled proudly and asked again, "You finish?"

Barely able to speak, the beautiful blonde whispered in his ear, "No, I Norwegian."

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From: "Kay Bolgeo" ronkaybo@bellsouth.net

FUN WITH BABY PANDAS

Smile for the day. Just 1 minute 20 seconds and well worth it.

<https://www.youtube.com/embed/sGF6bOi1NfA?autoplay=1&autohide=1&showinfo=0&rel=0>

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From: "Martin L King Jr" kingjr_martin@yahoo.com

But this is the first guy I have ever seen play the piano with his balls.

PIANO JUGGLER

<https://www.youtube.com/embed/mFfeU85CozU>

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From: "Jim Woosley" Jimwoosley@aol.com

BRITISH HUMOR - Not PC, and may cause you to think for a second.

It has been announced that the police are going to be allowed to use water cannons on rioters. They are putting some Tide washing powder in to stop the coloureds from running.

Two Muslims have crashed a speedboat into the Thames barrier in London. Police think it might be the start of Ram-a-dam.

Riots in Birmingham last month caused over \$1 million worth of improvements

Muslims have gone on the rampage in Manchester, killing anyone who's English. Police fear the death toll could be as high as 8 or 9.

Years ago it was suggested that, "An apple a day keeps the doctor away."

But, since all the doctors are now Muslim, I've found that a bacon sandwich works great!

Police in London have found a bomb outside a mosque...They've told the public not to panic as they've managed to push it inside.

During last night's high winds an African family were killed by a falling tree. A spokesman for the Birmingham City council said "We didn't even know they were living up there".

Jamaican minorities in the UK have complained that there are not enough television shows with minorities in mind, so Crimewatch is being shown 5 times a week now.

I was reading in the paper today about this dwarf that got pick pocketed. How could anyone stoop so low.

I was walking down the road when I saw an Afghan bloke standing on a fifth floor balcony, shaking a carpet.

I shouted up to him, "What's up Abdul, won't it start?"

An Emergency Call Centre worker has been fired in Toronto, much to the dismay of her colleagues who were unhappy with her dismissal. It seems that a caller dialed 911 from a cell phone stating, "I am depressed and lying on a railway line so that when the train comes I can finally meet Allah." To which the call centre employee replied, "Remain calm and stay on the line."

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Translations of Common Euphemisms

DEMOCRAT	REPUBLICAN
Arsenal of Weapons	Gun Collection
Delicate Wetlands	Swamp
Undocumented Worker	Illegal Alien
Cruelty-Free Materials	Synthetic Fiber
Assault and Battery	Attitude Adjustment

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Heavily Armed	Well-protected
Narrow-minded	Righteous
Taxes or Your Fair Share	Coerced Theft
Commonsense Gun Control	Gun Confiscation Plot
Illegal Hazardous Explosives	Fireworks or Stump Removal
Non-viable Tissue Mass	Unborn Baby
Equal Access to Opportunity	Socialism
Multicultural Community	High Crime Area
Fairness or Social Progress	Marxism
Upper Class or "The Rich "	Self-Employed
Progressive, Change	Big Government Scheme
Homeless or Disadvantaged	Bums or Welfare Leeches
Sniper Rifle	Deer Rifle with scope
Investment For the Future	Higher Taxes
Healthcare Reform	Socialized Medicine
Extremist, Judgmental, or Hater	Conservative
Truants	Homeschoolers
Victim or Oppressed	Criminal or Lazy Good-For-Nothing
High Capacity Magazine	Standard Capacity Magazine
Religious Zealot	Attends Church
Fair Trade Coffee	Overpriced Yuppie Coffee
Exploiters or "The Rich "	Employed or Land Owner
The Gun Lobby	NRA Members
Assault Weapon	Semi-Automatic handgun
Fiscal Stimulus	New Taxes and Higher Taxes
Same Sex Marriage	Legalized Perversion
Mandated Eco-Friendly Lighting	Chinese Mercury-Laden Light Bulbs
Accepted Fact	Horse shit

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From: "Jerry Hale Tollett" haleja@comcast.net

VIDEO: DOVES

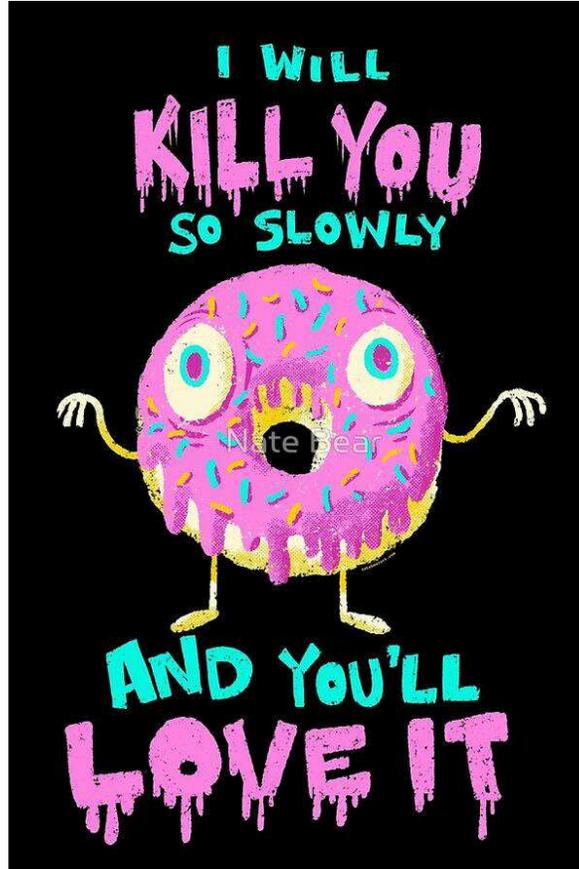
I hope you have time to watch this guy. He is absolutely amazing. It will blow your mind!

This is one you have to watch. Keep your eye on the doves!

<http://www.flixxy.com/darcy-oakes-jaw-dropping-dove-illusions-britains-got-talent-2014.htm>

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From Gary Shelton's Facebook Page



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From Cynthia Tish Groller's Facebook Page



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From: "Ray Beloate" beerman@rittermail.com

WHY ETHEL CHANGED HOTELS

Ethel checked into a Motel on her 65th Birthday, she was lonely, a little depressed at her advancing age so decided to risk an adventure. She thought, "I'll call one of those men you see advertised in phone books for escorts and sensual massages."

She looked through the phone book, found a full page ad for a guy calling himself Bodacious Brent, a very handsome man with assorted physical skills flexing in the photo. He had all the right muscles in all the right places, thick wavy hair, long powerful legs, dazzling smile, six pack abs and she felt quite certain she could bounce a dime off his well-oiled buns...

She figured, what the heck, nobody will ever know. I'll give him a call.

"Good evening, ma'am, how may I help you?"

Oh my, he sounded sooo sexy!

Afraid she would lose her nerve if she hesitated, so she rushed right in, "I hear you give a great massage. I'd like you to come to my motel room and give me one. No, wait, I should be straight with you. I'm in town all alone and what I really want is sex. I want it hot, and I want it now. Bring implements, toys, everything you've got in your bag of tricks. We'll go at it all night - tie me up, cover me in chocolate syrup and whipped cream, anything and everything, I'm ready! Now how does that sound?"

He said, "That sounds absolutely fantastic, but you need to press 9 for an outside line!"

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

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Tim Bolgeo" tbolgeo@comcast.net

THREE CONCEPTS YOU NEED TO GRASP IF YOU WANT TO KNOW WHETHER TO LEGALIZE DRUGS (YES, EVEN HEROIN)

By Johann Hari, March 2, 2016

http://www.vice.com/read/three-concepts-you-need-to-grasp-if-you-want-to-know-whether-to-legalize-drugs-yes-even-heroin?utm_source=homepage

This piece was published in partnership with The Influence.

The arguments for the war on drugs are collapsing all around us. Today, some 53 percent of US citizens think this war has not been worth the cost—while only 19 percent think it has. As I saw when I traveled to a dozen countries for my book *Chasing The Scream: The First and Last Days of the War on Drugs*, whenever a state or nation decides to move beyond the drug war, there's a three-step dance. It is massively controversial, and there's a

lot of anxiety; then people see in practice what it means; and then support goes up, and stays up.

After Colorado legalized marijuana, and people saw the legal, tax-paying, kid-proof stores in practice, support went up—and now 58 percent support it, and only 38 percent want to go back to prohibition.

After Portugal decriminalized all drugs in 2001, and transferred all the money spent on punishing addicted people to improving their lives, injecting drug use fell by 50 percent. Even the cop who led the opposition to the decriminalization publicly changed his mind, and he told me he hoped the whole world would now follow Portugal's example.

After Switzerland legalized heroin for addicted people over a decade ago (called heroin-assisted treatment, or HAT), literally nobody has died of an overdose on legal heroin, and crime fell significantly. That's why even the Swiss electorate—who are highly conservative—voted to keep heroin legal by 70 percent in a nationwide referendum.

As this debate starts to become more mainstream in America, there are lots of misunderstandings and misapprehensions being passed off as fact. That's natural—this is a complex subject, and the people who are anxious about it are overwhelmingly decent folk who want to protect their kids and prevent harm. But their fears are overwhelmingly unfounded. There are three major concepts that help dispel some of the concerns around legalization.

CONCEPT 1: THE RISK PREMIUM

The worst aspect of the war on drugs—I believe—is the violence caused by drug prohibition, in precisely the way that alcohol prohibition created Al Capone. When a substance is illegal, dealers are forced to resort to violence to protect their turf.

As I wrote here, imagine you run a liquor store. If someone steals a bottle of vodka and you catch them, you can call the police—so you don't need to be violent, or intimidating. But if you're selling cannabis or crack, and someone tries to rob you, you have to fight them—you have no recourse to the law. And you have to fight them in a way that will make sure nobody else tries to mess with you ever again. The war on drugs, as Charles Bowden put it, creates a war for drugs—fought out with guns and blood.

But many people respond by arguing that legalization will not, in fact, bankrupt drug-dealers, and they will, in fact, carry on in the same way afterwards. The conservative British commentator, Simon Heffer, made the case that legalization would still allow a black market of illegal traffickers and dealers to flourish because legal drugs would be more expensive. And Guardian commentator Deborah Orr says in an otherwise on-the-money piece that gangs will "always be able to sell cheaper... than a taxed and regulated market could or should."

Many people believe this. But both arguments are based on a failure to understand the "risk premium" involved in a prohibited market.

The best way to explain it is with another thought experiment. Imagine if I asked you to carry a bottle of rum across your city, to deliver to my aunt for her birthday. You wouldn't ask for much money—it's a fairly menial task. Now imagine I asked you to carry her not

some rum, but a bag of cannabis, or a bag of cocaine. You'd be pretty wary. You'd likely say no. And if you were going to do it, you'd want to be paid a lot more than for carrying the rum—to cover the risk you are taking of getting a criminal record, or of going to prison.

That difference is called the "risk premium"—and it happens at every link in the chain when a drug is illegal. The farmer who grows the cannabis, or opium, or coca—in Colombia or Afghanistan or Morocco—has to be paid a higher premium for the risk he takes. The guy who then makes it into your drug in a lab has to be paid a higher premium for the risk he takes. The people who transport it across borders—usually a chain of people—have to each be paid a higher premium for the risk they take. And the guys who sell it to you directly have to be paid a higher premium for the risk they take.

Each time, that risk premium pushes the price up, and up, and up.

When you legalize—and transfer the market to legitimate businesses—there's no risk premium for legal businesses. They aren't taking any more risks than they would if they were selling potatoes, or copies of the Bible. And once the risk premium is gone, the legal product will be significantly cheaper than the prohibited product.

This shows us why the picture Simon Heffer and Deborah Orr (and, to be fair, many others) are promoting isn't right.

Now, there's a different and opposite concern they don't raise. You don't want there to be a big collapse in price when you legalize, because that might increase use. (If you make something cheaper, more people can afford it: If I halved the price of beer tonight, more of you would drink it.) So you make up the gap with taxes on those drugs—just as they have in Colorado and Washington. This is how you hold the price steady while bankrupting the criminal gangs. You also get the bonus that you can then spend on lots of great things, like schools, and proper compassionate care for addicted people to turn their lives around.

And if you doubt that legalizing this way bankrupts cartels, ask yourself: Where's the Pablo Escobar of gin? Where's the El Chapo of Bacardi? Since the end of alcohol prohibition, there has been no such person. When alcohol prohibition ended, the Al Capones of alcohol ended. Illegal businesses didn't persist in supplying the drug because the risk premium meant legal businesses undercut them every time.

CONCEPT 2: PROHIBITION, A VAST INVESTMENT BANK FOR CRIME

Many people argue that when you end the war on drugs, criminal gangs will simply transfer to other forms of criminality—whether it's human trafficking, or prostitution, or kidnapping, or even more depraved "trades," like child pornography.

In fact, there are two arguments that should help us to think about this differently.

The late 1920s and early 1930s are widely regarded in the US—darkly—as the golden age of kidnapping. Everybody remembers the kidnapping of Charles Lindbergh's baby and his eventual death. But it was one of a widespread rash of kidnappings at that time, one which has long since ebbed away.

Why would there be a sudden spike in kidnappings at that time?

In trying to solve this puzzle, it's worth noting that Colombia had a big spike in kidnappings in the late 1980s and the early 1990s. And today, northern Mexico is the kidnapping capital of the world.

Why did they also spike at that time?

There's one reason that's pretty clear. Let's imagine you and I decided to kidnap a rich person's child and hold him or her for ransom. (Before you call the FBI, I'm only thinking out loud here.) We need to spend a lot of time scouting out where the victim goes and where he can be snatched. We need a car. We need a driver. We need a place to keep the child where nobody will hear him. We need a team of people to watch the kidnappee round the clock. We need a detailed plan for how to demand the money and where the drop will be. And on, and on.

Kidnapping, it turns out, is a capital-intensive business. You need to invest a lot up-front.

You have to get that money from somewhere. There are no kidnapers' loans at your local Bank of America. You have to get it from other criminals.

Now you can begin to see why it spiked up in the US at the peak of alcohol prohibition, and in Colombia and Mexico at the height of drug prohibition.

When you ban a popular substance—alcohol or cannabis or cocaine—it doesn't vanish. It's transferred from legal businesses to criminals. Suddenly, those criminals have a lot more money than they had before—billions more. What do they do with their money? Some they take home as profit—and, like any businessmen, they invest some of the rest in other business enterprises. Like, for example, kidnapping.

Prohibition, in effect, creates a vast investment bank for crime. They use that investment bank to spread criminality to other spheres.

And that's why reclaiming drugs from criminal gangs likely won't increase kidnapping and other forms of crime; it'll decrease it. When alcohol prohibition ended, the famous kidnapping cases in the US bled away. When the center of the drug trade shifted from Colombia to Mexico, the eruption of kidnapping moved with it. That should tell us something.

CONCEPT 3: WHY CRIMINALS COMMIT CRIMES

Some people will respond to this by saying, "Yes, but some people are just inherently criminal. If they can't commit one form of crime, they'll just commit another form of crime because that's their nature." There's a certain quantity of the population who are inherently criminal, and all we can do is catch and detain them. You could call this the "quantity theory of crime."

So after we legalize, the criminals will move onto another area of crime—like the ones I listed above.

But there's a different way of thinking about crime. It suggests that criminals are people who are motivated like the rest of us—by incentives. If I asked you to smuggle a bag of cannabis or cocaine across the US-Mexico border as a favor to me, I bet you'd say no. If I offered you a million dollars, you might think twice. If I—as some weird drug-obsessed

deity—offered you a billion dollars, I bet you'd think very hard about doing it. Think of this as the "incentive theory of crime."

Which of these theories is right? It turns out we can, in fact, test them to see. And the evidence is very clear. There's a whole field of sociology known as the "economics of crime," and we know its findings.

Criminals are, in fact, human, and they do, in fact, usually respond to incentives. It's why when youth unemployment goes up, generally crime by young people goes up: Crime seems more financially appealing when there are fewer alternatives. It's why when wages go down for low-skilled workers, crime generally goes up too: You can earn more, Walter White-style, through crime. And on, and on: There's a good summary of the evidence by two professors at the London School of Economics here. The evidence that crime is affected by incentives is overwhelming.

So if you take away control of one of the biggest industries in the world—with a 300 percent profit margin from production to sale—you take away a large incentive to commit crime. And this evidence suggests that lots of people will transfer out of crime. They're not doing it out of some criminal essence buried in their bones, but because they want a slice of the cash, and the excitement, provided by a prohibited market.

If the amount of money to be made in, say, plumbing fell by 90 percent in 2016, would there be more or fewer people who were plumbers in 2017? The same principle applies to the drug trade. When you reduce incentives, you reduce numbers of people who take up the incentives.

Some of them will try to go into other forms of criminality, of course—but those markets are already, alas, being met. Let's think about the most commonly-cited alternative to dealing drugs: pimping. There is already a market among men who want to pay for sex, and it is already being met. The day after a drug is legalized, there won't be more people who want to pay for sex than there were the week before. That market already has a group of (vile) criminals who control it. Without an increase in demand, there won't be a big increase in incentives, so there won't be a big increase in people taking them up.

Again, this isn't theoretical. In Switzerland, after it legalized heroin for people who were already addicted to the drug, the country didn't see an increase in prostitution and pimping. In fact, as I learned when I reported there and interviewed people on the ground, the opposite happened. Because women working the streets were given legal heroin and support to turn their lives around, street prostitution virtually ended, and it has never gone back to the level it was before, when heroin was in the hands of criminals.

If the people who believe in the quantity theory of crime were right, that would make no sense—the drug dealers would have transferred to being pimps. But pimping was in reality radically reduced. It is there for us to learn from.

There's a lot, of course, we still don't know about ending the war on drugs. To paraphrase what Barack Obama said when he was running for the White House about ending the war in Iraq, we need to be as careful getting out of this war as we were careless getting in. But there are plenty of things we do know, from the experiment with alcohol prohibition, and the experiments with ending drug prohibition that are now happening all over the world, from Uruguay to Washington to Switzerland.

But there is one thing I learned above everything else—one that led me to these concepts. As we end the drug war, we have to be guided not by fear, but—at last, at long last—by cool, hard facts.

Johann Hari is a British journalist and author. This article draws from his New York Times best-selling book *Chasing The Scream: The First and Last Days of the War on Drugs*. His last column for *The Influence* was, *Why Is Marijuana Banned? The Real Reasons Are Worse Than You Think*.

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

VIDEO: LADY GAYAGEUM - GIRL PLAYS 'SMELLS LIKE TEEN SPIRIT' ON A TRADITIONAL KOREAN GAYAGEUM

No matter what instrument you play "Smells Like Teen Spirit" on, it stills sounds really, really grungy.

Luna Gayageum

<http://digg.com/video/nirvana-luna-gayageum-instrument>

GO AN CHECK THIS ONE OUT! IT IS AWESOME! UT

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

SCUBA DIVER SOMEHOW SURVIVES BEING SUCKED INTO FLORIDA NUCLEAR POWER PLANT THROUGH PIPE

BY CHRISTOPHER BRENNAN, NEW YORK DAILY NEWS, Updated: Saturday, March 5, 2016, 11:51 AM

<http://www.nydailynews.com/news/national/scuba-diver-survives-sucked-nuclear-plant-article-1.2553804>

2nd scuba diver sucked into power plant pipe
WPTV - West Palm, FL

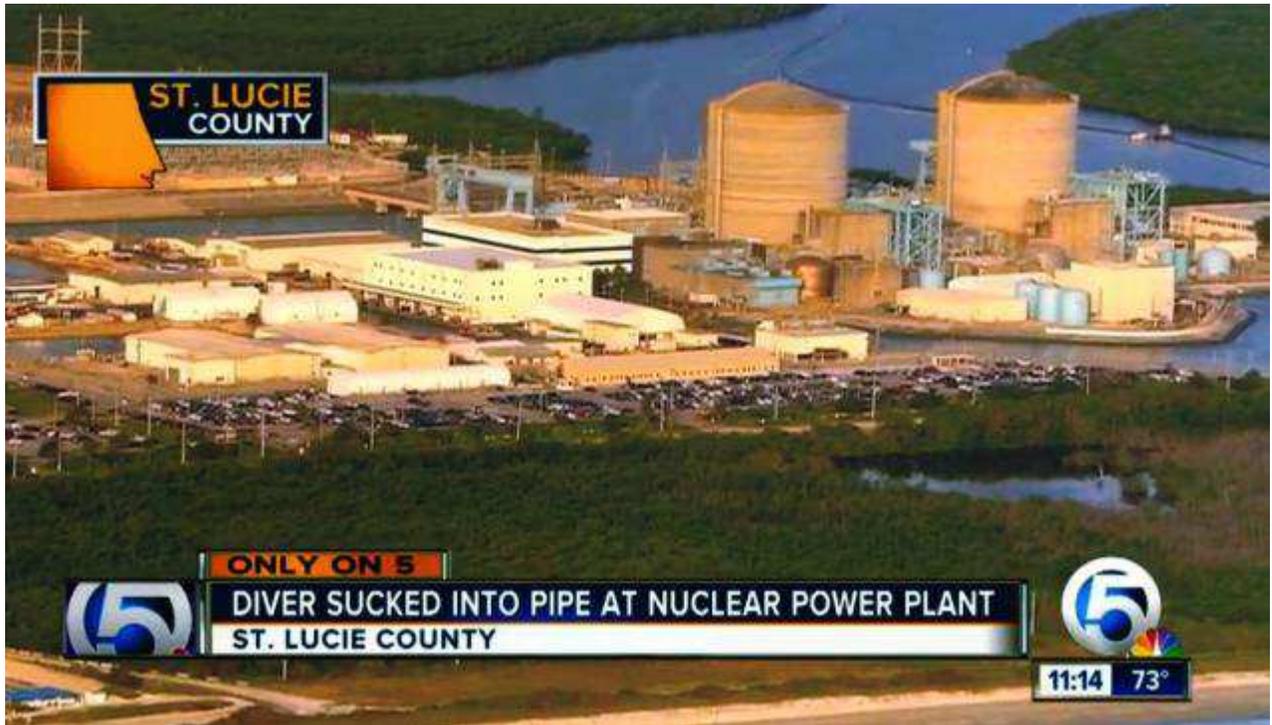
A man scuba diving in Florida somehow survived being sucked into a nuclear power plant in a terrifying log flume ride.

Christopher Le Cun was boating off the coast of Hutchinson Island when he and his friend went under to check out three large shadows beneath the waves that looked like buildings.

After diving down, he felt a current that quickly pulled him toward one of three intake pipes, got sucked in and was immersed in darkness for five minutes in the water being taken to cool the St. Lucie Nuclear Power Plant.

Le Cun told WPTV that he thought he was going to be chopped into tiny bits when he hit a turbine at the end of the 16-foot-wide, quarter-mile tube.

However, the turbine never came, and the pipe eventually spat him out into a reservoir at the plant holding water used to cool the nuclear reactor.



WPTV WEST PALM BEACH

After finding a passing worker, Le Cun was able to call wife Brittany, who thought her husband was dead after seeing the shocked face of his diving partner.

Christopher Le Cun said that he was thinking about his family and believed he would die while being sucked through the 16-foot-wide intake tube at a nuclear power station.

The family is now suing Florida Power and Light for allegedly failing to put up any warning.

However, the company claims that there was a sign telling potential visitors to “stay back 100 feet” to avoid getting sucked into an unwelcome James Bond-style thrill ride.

It also said that Le Cun intentionally swam into the intake pipe and got past equipment meant to prevent anything foreign from getting into the pipe.

“Nothing is more important safety at our St. Lucie Nuclear Power Plants, which is a reason that we have a protective over the intake piping,” a statement said.

The power company says that there was a warning sign above the tunnels, and that “nothing is more important than safety.”

Safety information provided online by the plant covers radiation and emergency evacuation plans, but does not discuss dangers from the pipes.

While Le Cun’s terrifying experience may seem one-of-a-kind, a similar event actually happened at the same power plant in 1989, according to UPI.

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

VIDEO: WATCHING A LOG CABIN HAND BUILT FROM SCRATCH WILL MAKE YOU WANT TO LIVE IN A FOREST

Andrew Liszewski, March 7, 2016

<http://sploid.gizmodo.com/watching-a-log-cabin-hand-built-from-scratch-will-make-1763267764>

Technology has made many aspects of our lives easier, but at the same time incredibly chaotic with non-stop emails, social media posts, and electronic alerts. If you've ever thought about walking away from it all, disconnecting, and living a simpler life, watching this guy build his family a log cabin from scratch will be your tipping point.

The craftsmanship on display here is incredible, and the amount of satisfaction you'd get from building an entire log cabin using just hand tools might even come close to the satisfaction you get from responding to every last email in your inbox.

OMG, THIS IS INCREDIBLE. I TOOK THE TIME TO WATCH THE ENTIRE VIDEO AND I AM JUST ENVIOUS OF THESE GUYS TALENTS! UT

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

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Michael Townsend" mtown3721@gmail.com

Worth watching all the way through from the President to MSgt Rou Benavidez

This is awesome.....very moving. A MUST watch!

MSGT ROU BENAVIDEZ – HERO

Meet a man who was such a bad ass that it took President Reagan almost 5 minutes to tell the tale... then listen to the man himself tell you all the bits that got left out! MSG Roy Benavidez passed away in 1998, but his bravery, honor, and sheer fortitude will live forever. Long live "Tango Mike Mike" - his call sign (That Mean Mexican)

<https://www.youtube.com/watch?v=oUtJxE4sjs>

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YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Keith A. Glass" salgak@comcast.net

A PLAN IN CASE ROBOTS TAKE THE JOBS: GIVE EVERYONE A PAYCHECK

Farhad Manjoo, STATE OF THE ART MARCH 2, 2016

http://www.nytimes.com/2016/03/03/technology/plan-to-fight-robot-invasion-at-work-give-everyone-a-paycheck.html?_r=2

Let's say computers come for most of our jobs. This may not seem likely at the moment; computer scientists and economists offer wildly varying ideas for how deeply automation will affect future employment.

But for the sake of argument, imagine that within two or three decades we'll have morphed into the Robotic States of America.

In Robot America, most manual laborers will have been replaced by herculean bots. Truck drivers, cabbies, delivery workers and airline pilots will have been superseded by vehicles that do it all. Doctors, lawyers, business executives and even technology columnists for The New York Times will have seen their ranks thinned by charming, attractive, all-knowing algorithms.

How will society function after humanity has been made redundant? Technologists and economists have been grappling with this fear for decades, but in the last few years, one idea has gained widespread interest — including from some of the very technologists who are now building the bot-ruled future.

Their plan is known as “universal basic income,” or U.B.I., and it goes like this: As the jobs dry up because of the spread of artificial intelligence, why not just give everyone a paycheck?

Imagine the government sending each adult about \$1,000 a month, about enough to cover housing, food, health care and other basic needs for many Americans. U.B.I. would be aimed at easing the dislocation caused by technological progress, but it would also be bigger than that.

While U.B.I. has been associated with left-leaning academics, feminists and other progressive activists, it has lately been adopted by a wider range of thinkers, including some libertarians and conservatives. It has also gained support among a cadre of venture capitalists in New York and Silicon Valley, the people most familiar with the potential for technology to alter modern work.

Rather than a job-killing catastrophe, tech supporters of U.B.I. consider machine intelligence to be something like a natural bounty for society: The country has struck oil, and now it can hand out checks to each of its citizens.

These supporters argue machine intelligence will produce so much economic surplus that we could collectively afford to liberate much of humanity from both labor and suffering.

The most idealistic thinkers see the plan as a way to foster the sort of quasi-utopian future we've only encountered in science fiction universes like that of “Star Trek.” As computers perform more of our work, we'd all be free to become artists, scholars, entrepreneurs or otherwise engage our passions in a society no longer centered on the drudgery of daily labor.

“We're talking about divorcing your basic needs from the need to work,” said Albert Wenger, a venture capitalist at Union Square Ventures, a proponent who is working on a book about U.B.I. “For a couple hundred years, we've constructed our entire world around the need to work. Now we're talking about more than just a tweak to the economy — it's as foundational a departure as when we went from an agrarian society to an industrial one.”

Sam Altman, president of the tech incubator Y Combinator, recently proposed to fund research into U.B.I. The firm has received thousands of applications for research funding, Mr. Altman said; it plans to select winning recipients within a few weeks, and ultimately Y Combinator plans to spend “tens of millions” of dollars on research to answer some of the most basic questions about life under U.B.I.

Mr. Altman said these questions range from the most practical — how much U.B.I. would cost the country, and whether we could afford it — to deeper issues concerning people’s motivation and purpose in what you might call a “postwork” age.

When you give everyone free money, what do people do with their time? Do they goof off, or do they try to pursue more meaningful pursuits? Do they become more entrepreneurial? How would U.B.I. affect economic inequality? How would it alter people’s psychology and mood? Do we, as a species, need to be employed to feel fulfilled, or is that merely a legacy of postindustrial capitalism?

There is an urgency to the techies’ interest in U.B.I. They argue that machine intelligence reached an inflection point in the last couple of years, and that technological progress now looks destined to change how most of the world works.

“People have been predicting that jobs would go away for a long time, and usually what happens is they just change,” Mr. Altman said. But even so, “during those periods of change, things can be quite disruptive,” and at the very least, U.B.I. may be able to smooth out the transition period.

We may already be seeing the disruptions. Though the macroeconomic statistics suggest the United States has recovered from the last recession — job growth in 2015 reached levels not seen since the 1990s — surveys show that many Americans feel vulnerable and anxious about their jobs and finances.

Wage growth is sluggish, job security is nonexistent, inequality looks inexorable, and the ideas that once seemed like a sure path to a better future (like taking on debt for college) are in doubt. Even where technology has created more jobs, like the so-called gig economy work created by services like Uber, it has only added to our collective uncertainty about the future of work.

“All of a sudden people are looking at these trends and realizing these questions about the future of work are more real and immediate than they guessed,” said Roy Bahat, the head of Bloomberg Beta, the venture capital firm funded by Bloomberg L.P.

A cynic might see the interest of venture capitalists in U.B.I. as a way for them to atone for their complicity in the tech that might lead to permanent changes in the global economy. After all, here are rich people who both actively fund and benefit from creating highly profitable companies that employ very few people.

It doesn’t help that you have some investors who’ve been terrifically tin-eared about the perils of globalization and the modern economy (see musings from Paul Graham on inequality, Marc Andreessen on colonialism and Thomas J. Perkins on class resentment.)

But my conversations with techies interested in U.B.I. revealed a sincerity and sophistication about the idea. They aren't ashamed or afraid of automation, and they don't see U.B.I. merely as a defense of the current social order. Instead they see automation and U.B.I. as the most optimistic path toward wider social progress.

"I think it's a bad use of a human to spend 20 years of their life driving a truck back and forth across the United States," Mr. Wenger said. "That's not what we aspire to do as humans — it's a bad use of a human brain — and automation and basic income is a development that will free us to do lots of incredible things that are more aligned with what it means to be human."

Like much of what venture capital firms work on, basic income is a pie-in-the-sky notion. Though it has enjoyed recognition among wonks and some political momentum in Europe, not a single American presidential candidate has expressed even passing interest in the idea. It has also been hampered by some very basic practical questions: How much should we give out in monthly income? Can the country afford that?

Proponents say these questions will be answered by research, which in turn will prompt political change. For now, they argue the proposal is affordable if we alter tax and welfare policies to pay for it, and if we account for the ways technological progress in health care and energy will reduce the amount necessary to provide a basic cost of living.

They also note that increasing economic urgency will push widespread political acceptance of the idea. "There's a sense that growing inequality is intractable, and that we need to do something about it," said Natalie Foster, the co-founder of Peers, an organization that supports sharing-economy workers.

Andrew L. Stern, a former president of the Service Employees International Union, who is working on a book about U.B.I., compared the feeling of the current anxiety around jobs to a time of war. "I grew up during the Vietnam War, and my parents were antiwar for one reason: I could be drafted," he said.

Today, as people across all income levels become increasingly worried about how they and their children will survive in tech-infatuated America, "we are back to the Vietnam War when it comes to jobs," Mr. Stern said. "We're entering a universal, white-collar, middle-class anxiety, which drives political change faster than poor people tend to drive change."

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YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Jim Woosley" Jimwoosley@aol.com

Just when you thought you had heard everything...

GO NORTH KOREA!!!

I think one of these referred to world war eleven in a news blurb... Duh... Amazing how dumb some Young Americans can be in the Information Age

Unbelievable! You have to watch this short video. By the way all of these people are likely to vote!... God save America! Sound up, click link, watch full screen, shudder, then pass it along...

https://www.youtube.com/watch_popup?v=33D3NOI0-aq

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YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Mike Williamson" mzmadmike@gmail.com

ACADEMICS AT THE UNIVERSITY OF OREGON PRESENT THEIR FEMINIST GLACIOLOGY FRAMEWORK FOR GLOBAL ENVIRONMENTAL CHANGE RESEARCH:

Sunday, March 06, 2016 (12:06pm)

http://blogs.news.com.au/dailytelegraph/timblair/index.php/dailytelegraph/comments/just_what_weve_been_waiting_for/

Glaciers are key icons of climate change and global environmental change. However, the relationships among gender, science, and glaciers – particularly related to epistemological questions about the production of glaciological knowledge – remain understudied. This paper thus proposes a feminist glaciology framework with four key components: (1) knowledge producers; (2) gendered science and knowledge; (3) systems of scientific domination; and (4) alternative representations of glaciers. Merging feminist postcolonial science studies and feminist political ecology, the feminist glaciology framework generates robust analysis of gender, power, and epistemologies in dynamic social-ecological systems, thereby leading to more just and equitable science and human-ice interactions. (Via James Morrow.)

Here is the weblink to the paper:

<http://phg.sagepub.com/content/early/2016/01/08/0309132515623368.long>

I AM GIVING THIS 'SCIENTIFIC PAPER' ALL THE CREDENCE IT DESERVES. NONE! UT

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

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Mike Waldrip" waldripk@gmail.com

Two Stories BOTH TRUE - and worth reading!!!!

STORY NUMBER ONE

Many years ago, Al Capone virtually owned Chicago . Capone wasn't famous for anything heroic. He was notorious for enmeshing the windy city in everything from bootlegged booze and prostitution to murder.

Capone had a lawyer nicknamed "Easy Eddie." He was Capone's lawyer for a good reason.

Eddie was very good! In fact, Eddie's skill at legal maneuvering kept Big Al out of jail for a long time.

To show his appreciation, Capone paid him very well. Not only was the money big, but Eddie got special dividends, as well. For instance, he and his family occupied a fenced-in mansion with live-in help and all of the conveniences of the day. The estate was so large that it filled an entire Chicago City block.

Eddie lived the high life of the Chicago mob and gave little consideration to the atrocity that went on around him.

Eddie did have one soft spot, however. He had a son that he loved dearly. Eddie saw to it that his young son had clothes, cars, and a good education. Nothing was withheld. Price was no object.

And, despite his involvement with organized crime, Eddie even tried to teach him right from wrong. Eddie wanted his son to be a better man than he was.

Yet, with all his wealth and influence, there were two things he couldn't give his son; he couldn't pass on a good name or a good example.

One day, Easy Eddie reached a difficult decision. Easy Eddie wanted to rectify wrongs he had done.

He decided he would go to the authorities and tell the truth about Al "Scarface" Capone, clean up his tarnished name, and offer his son some semblance of integrity. To do this, he would have to testify against The Mob, and he knew that the cost would be great. So, he testified.

Within the year, Easy Eddie's life ended in a blaze of gunfire on a lonely Chicago Street . But in his eyes, he had given his son the greatest gift he had to offer, at the greatest price he could ever pay. Police removed from his pockets a rosary, a crucifix, a religious medallion, and a poem clipped from a magazine.

The poem read:

"The clock of life is wound but once, and no man has the power to tell just when the hands will stop, at late or early hour. Now is the only time you own. Live, love, toil with a will. Place no faith in time. For the clock may soon be still."

=====

STORY NUMBER TWO

World War II produced many heroes. One such man was Lieutenant Commander Butch O'Hare.

He was a fighter pilot assigned to the aircraft carrier Lexington in the South Pacific.

One day his entire squadron was sent on a mission. After he was airborne, he looked at his fuel gauge and realized that someone had forgotten to top off his fuel tank.

He would not have enough fuel to complete his mission and get back to his ship.

His flight leader told him to return to the carrier. Reluctantly, he dropped out of formation and headed back to the fleet.

As he was returning to the mother ship, he saw something that turned his blood cold; a squadron of Japanese aircraft was speeding its way toward the American fleet.

The American fighters were gone on a sortie, and the fleet was all but defenseless. He couldn't reach his squadron and bring them back in time to save the fleet. Nor could he warn the fleet of the approaching danger. There was only one thing to do. He must somehow divert them from the fleet.

Laying aside all thoughts of personal safety, he dove into the formation of Japanese planes. Wing-mounted 50 caliber's blazed as he charged in, attacking one surprised enemy plane and then another. Butch wove in and out of the now broken formation and fired at as many planes as possible until all his ammunition was finally spent.

Undaunted, he continued the assault. He dove at the planes, trying to clip a wing or tail in hopes of damaging as many enemy planes as possible, rendering them unfit to fly.

Finally, the exasperated Japanese squadron took off in another direction.

Deeply relieved, Butch O'Hare and his tattered fighter limped back to the carrier.

Upon arrival, he reported in and related the event surrounding his return. The film from the gun-camera mounted on his plane told the tale. It showed the extent of Butch's daring attempt to protect his fleet. He had, in fact, destroyed five enemy aircraft.

This took place on February 20, 1942 , and for that action Butch became the Navy's first Ace of W.W.II, and the first Naval Aviator to win the Congressional Medal of Honor.

A year later Butch was killed in aerial combat at the age of 29. His home town would not allow the memory of this WW II hero to fade, and today, O'Hare Airport in Chicago is named in tribute to the courage of this great man.

So, the next time you find yourself at O'Hare International, give some thought to visiting Butch's memorial displaying his statue and his Medal of Honor. It's located between Terminals 1 and 2.

SO WHAT DO THESE TWO STORIES HAVE TO DO WITH EACH OTHER?

Butch O'Hare was "Easy Eddie's" son.

<S>~<C>~<I>~<E>~<N>~<C>~<E>~<S>~<T>~<A>~<R>~<T>~<S>~<H>~<E>~<R>~<E>

From: "Tim Bolgeo" tbolgeo@comcast.net

THINNEST, LIGHTEST, SOLAR CELLS EVER CREATED OUTPERFORM THEIR BULKY GLASS BRETHREN

Colin Jeffrey March 1, 2016

<http://www.gizmag.com/lightest-thinnest-solar-cells-mit/42092/>

Using gossamer-like layers of flexible polymers, researchers at MIT have created the thinnest and lightest solar cells ever made. Just one-fiftieth the thickness of a human hair, and capable of producing up to 6 watts of power per gram, these cells are so thin and light that they can be supported on the surface of a soap bubble without breaking it. With such impressive credentials, the prototype cells have the potential to add solar power to everything from paper-based electronics through to all manner of mobile devices and exceptionally lightweight wearables.



Researchers at MIT have created prototype solar cells so light and so thin, that they can be balanced on the surface of a soap bubble without breaking it (Credit: Joel Jean and Anna Osherov)

Though flexible solar cells are hardly a new innovation, even being produced experimentally in everything from continuously printed rolls to spray on panels, the power-to-weight ratio is where these new cells come into their own. With a demonstrated output of 6 watts per gram, they produce an output some 400 times greater than standard glass-covered solar cells that generate about 15 watts of power per kilogram on average.

This type of light-weight/high-output performance could be crucial for such things as reducing the mass of spacecraft or electric aircraft. Or it could simply make portable devices much easier to use and carry around.

"It could be so light that you don't even know it's there, on your shirt or on your notebook," said MIT Fariborz Maseeh Professor of Emerging Technology in MIT's School of

Engineering, Vladimir Bulovi?. "These cells could simply be an add-on to existing structures."

Leading on from previous work on ultra-thin solar cells by professor Bulovi?, the team sought to confirm the hypothesis that solar cells could be made even more thin and flexible, while also being practical and robust. As such, the researchers employed the common flexible polymer parylene (a material resembling cling wrap – but ten times thinner – often used to protect electronic circuit boards and biomedical devices) for both the substrate and the coating, and DBP (Dibutyl phthalate, an organic material and a commonly used plasticizer), as the main light-absorbing layer.

Unlike many other solar cell production methods, the entire process is performed at room temperature without the use of any solvents. The substrate and the cell are simply produced using standard vapor deposition methods in a vacuum chamber.

"We put our carrier in a vacuum system, then we deposit everything else on top of it, and then peel the whole thing off," said MIT research scientist, Annie Wang.

The most important aspect in making these new solar cells, according to professor Bulovi?, is in producing both the supporting layer (the substrate) and the protective top coating at the same time, thereby sealing the fragile photovoltaic layer from harm early in the manufacturing process. In this way, the dangers of tearing are minimized because the cells only require handling once in fabrication, and the exposure to contaminants or foreign particulates that may reduce the cell's performance are virtually eliminated.

"The innovative step is the realization that you can grow the substrate at the same time as you grow the device," said professor Bulovi?.

Though the team acknowledges that the materials used in the prototype were not selected for their on-going suitability for future manufacture, but merely to validate the hypothesis, it is the proving of the one-step substrate manufacturing and coating process that is the most important factor. As a result, the researchers believe that other materials, such as quantum dots or perovskites, could easily replace the organic compounds used making the prototype.

The work is still in the early stages, and there is no guarantee of producing a commercial device yet, but the team are confident that their initial prototype shows a great deal of promise for a slew of new and innovative applications for solar power in the future.

"We have a proof-of-concept that works," said professor Bulovi?. "How many miracles does it take to make it scalable? We think it's a lot of hard work ahead, but likely no miracles needed."

Source: MIT

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DRONE RACING PUSHING SMALL, FAST UAS TECHNOLOGY

Feb 29, 2016Graham Warwick | Aviation Week & Space Technology

http://aviationweek.com/defense/drone-racing-pushing-small-fast-uas-technology?NL=AW-05&Issue=AW-05_20160302_AW-05_361&sfvc4enews=42&cl=article_2&utm_rid=CPEN1000001477803&utm_campaign=5149&utm_medium=email&elq2=4d8e0df5771a41dca222e8cc7b1ad2bb

Air racing was a powerful driver of both technology and public awareness in the early days of aviation. Motor racing has been the proving ground for advances in the automotive industry. Will the emergence of drone racing do the same for unmanned aircraft?

Today's multicopter small unmanned aircraft systems (UAS) are designed to hover and take pictures. They are easy to fly, but slow and susceptible to wind and weather. As developers look ahead to uses such as delivering emergency medicines, or rapidly clearing a building, speed and agility enter the picture.



Pilots fly Drone Racing League's own high-performance quadrotor. Credit: Drone Racing League

While Darpa develops a quadcopter that can autonomously maneuver and fly indoors at speeds up to 45 mph, the growing sport of "first-person view" (FPV) drone racing is introducing audiences to competitions where small UAS maneuver through complex

indoor courses at speeds exceeding 80 mph.

The Drone Racing League (DRL) conducted its first race inside the Miami Dolphins stadium on Feb. 22, the first of six events leading up to a world championship planned for the end of 2016. Twelve pilots competed in the initial Level 1 race, with four making it through to the finals.

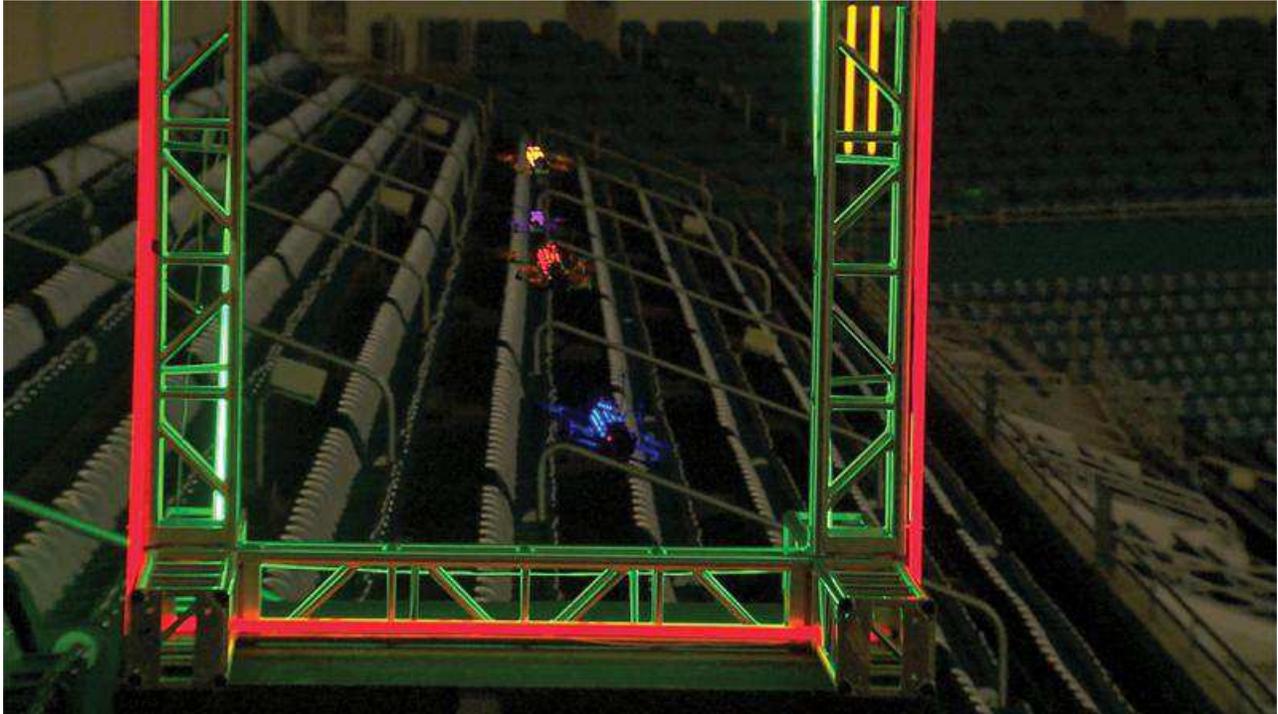
Although in its infancy, drone racing has already experienced rapid advances in technology, particularly in radio communications and control software, says Ryan Gury, DRL's product director. Pilots competing in the league all fly the same DRL-developed high-performance small quadcopter.

In FPV racing, pilots wear goggles that show the image from a camera on the UAS. Reliable radio communications are essential to avoid latency or dropouts that could result in loss of control. The goggles project analog video to eliminate the latency in digital conversion, he says.

The UAS fly a 1-km-long (0.6-mi.), three-dimensional course and score points by flying through gates. Gury says DRL installs a large radio-frequency infrastructure equivalent to a cellular network around the course to ensure continuous communications using custom radios.

The only moving parts in the quadcopters are the electric motors; flight control is managed by varying motor speed. Gury says rapid advances in electronic speed control technology

have already occurred, even from the first event in December to the Miami race. “They no longer waffle in wind, but fly like a razor blade.”



Points are scored for flying through gates on a 3-D course. Credit: Drone Racing League

Where consumer small UAS are designed for ease of use and carry GPS, accelerometer, altimeter and other sensors, DRL’s racing drone uses only a gyroscope to provide attitude and rate information. With all competitors flying the same UAS, this ensures that flying skill is the differentiator, he says.

For the pilot, “the pure sense of speed in FPV racing is more immersive than in a racing car or motorcycle,” Gury says. Drones race four at a time, and complete the course in about 90 sec. The tiny UAS wear hundreds of specifically colored LEDs so spectators can tell them apart.

Darpa’s Fast Lightweight Autonomy (FLA) program, meanwhile, is not focused on speed for sport but on enabling a UAS to check and clear a potentially dangerous building quickly for rescue teams or soldiers.

The goal is to demonstrate that autonomous UAS can fit through an open window and fly at up to 20 meters/sec. (45 mph), navigating rooms, doors and hallways while avoiding obstacles without relying on GPS and independent of communication with outside operators or sensors.

The agency has completed its first data-collection flights using the common quadcopter platform that three research teams are using for the FLA program. This is a commercial DJI Flamewheel 450 with 12-in. propellers and 3D Robotics’ Pixhawk autopilot.

The UAS is capable of reaching the required speed carrying high-definition cameras and other lidar, sonar and inertial sensors, Darpa says. The vehicle demonstrated its speed in level flight along a simulated corridor and also tested initial autonomous capabilities by seeing and avoiding obstacles at slow speed without aid from a human controller.

The three teams are from Draper, with the Massachusetts Institute of Technology; the University of Pennsylvania; and Scientific Systems Co. teamed with AeroVironment. The data-collection flights took place at an Air National Guard base in Cape Cod, Massachusetts, in a former aircraft hangar transformed into a warehouse with simulated walls, boxes and other obstacles.

EDITOR'S NOTE: The credit for the image about scoring in races was corrected.

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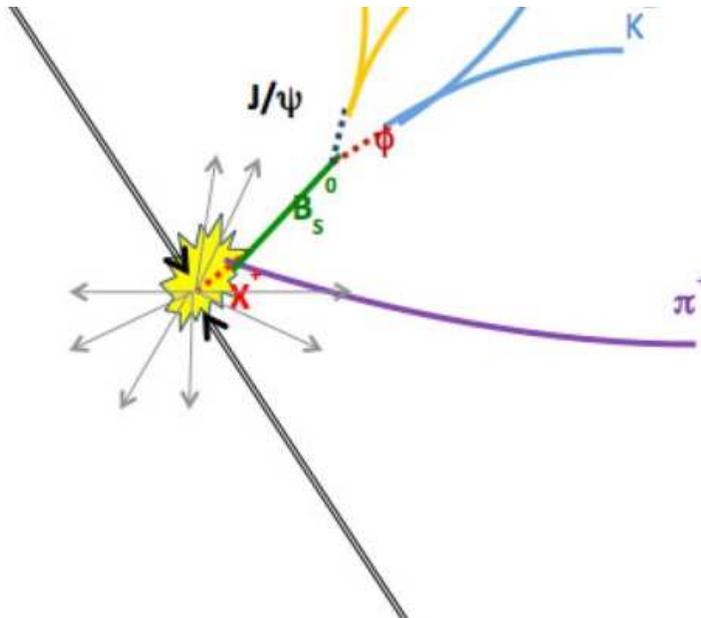
PHYSICISTS MAY HAVE DISCOVERED A NEW "TETRAQUARK" PARTICLE

Data from the DZero experiment shows evidence of a particle containing four different types of quarks

By Clara Moskowitz on February 26, 2016

http://www.scientificamerican.com/article/physicists-may-have-discovered-a-new-tetraquark-particle/?WT.mc_id=SA_SPC_20160303

The potential new "tetraquark" particle, made of four quarks, decays into two mesons, or pairings of two quarks, which then decay into other daughter particles.



Fermilab

Evidence for a never-before-seen particle containing four types of quark has shown up in data from the Tevatron collider at the Fermi National Accelerator Laboratory (Fermilab) in Illinois. The new particle, a class of "tetraquark," is made of a bottom quark, a strange quark, an up quark and a down quark. The discovery could help elucidate the complex rules that

govern quarks—the tiny fundamental particles that make up the protons and neutrons inside all the atoms in the universe.

Protons and neutrons each contain three quarks, which is by far the most stable grouping. Pairs of quarks, called mesons, also commonly appear, but larger conglomerations of

quarks are extremely rare. Scientists at the Large Hadron Collider (LHC) in Switzerland last year saw the first signs of a pentaquark—a grouping of five quarks—which had long been predicted but never seen. The first tetraquark was found in 2003 at the Belle experiment in Japan, and since then physicists have encountered a half dozen different arrangements. But the new one, if confirmed, would be special. “What’s unique in this case is that we basically have four quarks, which are all different—bottom, up, strange and down,” says Dmitri Denisov, co-spokesperson for the DZero experiment. “In all previous configurations usually two quarks are the same. Is this telling us something? I hope yes.”

The unusual arrangement, dubbed X(5568) in a paper submitted to Physical Review Letters, could reflect some deeper rule about how the different types, or “flavors,” of quarks bind together—a process enabled by the strongest force in nature, called, appropriately, the strong force. Physicists have a theory—called quantum chromodynamics—that describes how the strong force works, but it is incredibly unwieldy and difficult to make predictions with. “While we understand many features of the strong force, we don’t understand everything, especially how the strong force acts on large distances,” Denisov says. “And on a fundamental level we still don’t have a very good model of how quarks interact when there are quite a few of them joined together.”

One open question is: How many quarks can stick together to form a particle? So far scientists have not seen groupings of more than five, but theoretically there is no limit. Physicists would also like to discover different configurations of four and five quarks than the handful that have been seen. “Finding tetraquarks has proven difficult to do, but it is likely that there are many more to find,” says Fermilab physicist Don Lincoln, a member of the DZero team.

The Tevatron collider shut down in 2011, but the DZero team found signs of the new tetraquark in the archive of data from the tens of billions of particle collisions it achieved during its 28 years of operation. Other experiments such as the LHC’s LHCb (“b” stands for beauty) project are now looking through their own data to see if they also have evidence of the particle. “If it is real, it would be very interesting,” says LHCb physicist Sheldon Stone of Syracuse University.

“Discussions among LHCb collaborators have raised several issues of concern with the DZero result that LHCb can check expeditiously. Until the check is done and the DZero result is confirmed, we are not sure exactly what they are seeing.”

Either way, scientists expect current particle accelerators—especially the LHC, which restarted last year at higher energy levels than ever before—to discover more new particle configurations in the coming years, making it an exciting time for quark physics and for clearing up the intricate mechanics of the strong force.

“I would compare it with something like a puzzle—it’s not finished yet but we’ve added one more piece to what was already known,” Denisov says. “Hopefully there will eventually be a theory that explains these observations to gain a better understanding of these quarks and the forces acting between them.”

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Guest Blog

EAST OF SIBERIA: CLEAN WATER AND HEALTHY LIVING

The March 9th, 2016 Edition of REVENGE OF HUMP DAY!

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A conservation biologist goes on the prowl looking for owls, tigers and other creatures

By Jonathan C. Slaght on March 1, 2016

http://blogs.scientificamerican.com/guest-blog/east-of-siberia-clean-water-and-healthy-living/?WT.mc_id=SA_ENGYSUS

Despite nearly twenty years of experience in the Russian Far East, I unambiguously remain an outsider here. I am clumsy on backcountry skis, I'm a terrible fisherman, and I am unable to repair a vehicle with scraps I found lying about (or at all).

These are glaring character flaws among the outdoorsmen of the region; the men and women who populate the few villages scattered among the mountains of pine and oak in the province of Primorye. But in my time working here to conserve Blakiston's fish owls, Amur tigers, and other animals, I've forged ties with locals who love the wilderness here with the same focused determination I do. These biologists, hunters, and fishermen have made me feel welcome; we work together to keep this place wild. And by now my shortcomings are largely ignored.



Shurik, a field assistant, scoops water along a thawing river in Primorye, Russia. Photograph © Jonathan C. Slaght

The purpose of this blog series—East of Siberia—is to shed light on this little-known corner of the world by offering short vignettes of wildlife, fieldwork, and life in this land of breathless beauty.

My first story is from the 2009 winter field season, when my Russian partners and I camped out along the Saiyon River in northern Primorye, just a few kilometers from the western shores of the Sea of Japan.

We spent nearly two weeks there watching the resident pair of Blakiston's fish owls hunt for salmon and trout in the clear waters. These stout, enormous birds would wait in ambush along the riverbank then lunge into the shallow water with outstretched wings and a surprisingly delicate pounce.

Our goal was to observe the behavior of both the resident male and the resident female; but as each bird had its own preferred hunting spot at different sections of river, we set up two different observation blinds. I usually manned the downriver Saiyon blind where the female hunted, one reason being that I preferred the solitude. The upriver blind was closer to our main camp, an industrial-sized Kamaz truck with a custom-built two-room living compartment secured to the flatbed.

Given that nights dipped to the mid-minus thirties Celsius, those working out of the upriver blind usually succumbed to the temptation of the wood-heated sleeping quarters in the truck for rest once fish owl observations ceased. The drawback of this warmth was the crowd; a human sardine can of sleeping bags, snoring biologists, and the pervasive stench of the long-unbathed.

I welcomed the quiet of the lower Saiyon blind where, alone a kilometer from camp and wrapped in a sleeping bag and sipping warm tea, I would watch the female owl fish via remote infrared camera then tuck deeper into my sleeping bag and drift off to sleep once she disappeared.

Another, perhaps less romantic reason for preferring the downriver blind was the fact that a series of radon hot springs flowed into the Saiyon River close to the upper blind. This meant that any drinking water collected near there was, well, radioactive. At least at the downriver blind this radiation was diluted by a kilometer of gurgling river.

Our time at Saiyon saddled the winter-spring divide, with snow and ice melting measurably by the day. One afternoon toward the end of our stay I approached my regular ice hole by the downriver blind to find it considerably expanded by the spring thaw. Now visible, just a meter or two upstream of where I'd been collecting my drinking water for the last week-and-a-half, was the twisted carcass of a drowned roe deer. It had clearly been there all winter.

A low, guttural noise of abject repulsion escaped my throat. Which was worse: radiation water or dead deer water?

I moved a bit upstream and dipped my cup.

This is the first post in what will be an ongoing series, "East of Siberia," in which Dr. Jonathan C. Slaght of the Wildlife Conservation Society will be writing about owls, tigers, and fieldwork in the Russian Far East]

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SPACE X SATELLITE LAUNCH SUCCEEDS, BUT ROCKET CRASH LANDS

The March 9th, 2016 Edition of REVENGE OF HUMP DAY!

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By Kerry Sheridan, AFP, March 5, 2016

http://news.yahoo.com/spacex-launches-satellite-toward-distant-orbit-001415770.html;_ylt=AwrXoCHbOdpWL08AUxHQtdMD;_ylu=X3oDMTByYnR1Zmd1BGNvbG8DZ3ExBHBvcwMyBHZ0aWQDBHNIYwNzcg--

Miami (AFP) - SpaceX successfully launched a communications satellite to a distant orbit but failed, as expected, to land the first stage of its Falcon 9 rocket on an ocean platform.

The rocket launched from Cape Canaveral, Florida at 6:36 pm (2336 GMT), propelling the satellite, known as SES-9, built by Boeing for the Luxembourg-based company SES.



This photo obtained from SpaceX on December 20, 2015 shows the Falcon 9 rocket in Cape Canaveral, Florida (AFP Photo/)

The satellite successfully reached its geostationary orbit more than 24,000 miles (40,000 kilometers) above the Earth, about 100 times as high as the International Space Station.

From there it will deliver broadband and television channels to southeast Asia.

"Target altitude of 40,600 kilometers achieved," wrote SpaceX CEO Elon Musk on Twitter.

"Thanks @SES_Satellites for riding on Falcon 9! Look forward to future missions."

After the launch, SpaceX tried to land the first stage of its rocket on a platform floating in the Atlantic Ocean about 375 miles (600 kilometers) off the east coast of Florida.

The droneship, as it is called, is marked with a large "X" and the words, "Of Course I Still Love You."

Grainy video footage showed a bright light approaching the droneship from the upper left, before the live feed cut out.

"Rocket landed hard on the droneship. Didn't expect this one to work," Musk wrote on Twitter.

"But next flight has a good chance."

SpaceX had cautioned it did not expect a successful landing this time, but tried anyway as part of its broader attempt to perfect its technique of recycling rocket parts in order to make spaceflight cheaper and more sustainable.

The California-based company has managed to land upright on solid ground once -- in December 2015 -- but several attempts at ocean touchdowns have failed.

"This landing attempt is going to be a really tough one," said Lauren Lyons, mission integrator for SpaceX, ahead of the launch, noting that the rocket needed a lot of propellant to lift the satellite to space and might run short of fuel needed to control the landing on the way back.

THIS IS NOT A BFD. SPACEX PUT A VERY BIG SATELLITE INTO ORBIT AND WAS TRYING TO RECOVER THE FIRST STAGE. BUT, ACCORDING TO SPACEX OFFICIALS, "...noting that the rocket needed a lot of propellant to lift the satellite to space and might run short of fuel needed to control the landing on the way back..." SOMETIMES YOU TRY SOMETHING THAT YOU KNOW ISN'T GOING TO WORK JUST TO SEE HOW IT GOES BOOM. THAT IS THE WAY OF EXPERIMENTATION. UT

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THE FUTURE OF WI-FI IS 10,000 TIMES MORE ENERGY EFFICIENT

AUTHOR: APRIL GLASER.GEAR, DATE OF PUBLICATION: 03.05.16.03.05.16



<http://www.wired.com/2016/03/future-wi-fi-10000-times-energy-efficient/>

PAUL TAYLOR/GETTY IMAGES

GET READY TO send a thank-you note to students at the University of Washington, where a group of electrical engineers is trying to solve the eternal struggle of Wi-Fi battery drain. It's a problem that's rapidly getting worse as more and more devices require access to the cloud, not to mention the constant strain of searching for a good signal or boosting a weak one.

The student researchers invented a new type of hardware that uses 10,000 times less power than traditional Wi-Fi networking equipment. It's called Passive Wi-Fi, (you can read their paper here) and it works just like a home router, just more efficiently. To give some perspective, the state of the art in low power Wi-Fi transmissions today consume 100s of milliwatts of power, whereas the technology the student researchers developed consume only 10-50 microwatts—10,000 times lower power.

Wi-Fi typically requires two radios to communicate back and forth, and it takes a lot of energy to discern the signal from the noise because there may be several devices using the same frequency (2.4 GHz or 5 GHz). Each device has an RF transmitter that creates a radio wave and a baseband chip that encodes that radio wave with data. With Passive Wi-Fi, instead of each device using an analog radio frequency to receive and transmit a signal, just one produces a radio frequency. That frequency is relayed to your Wi-Fi-enabled device via separate, passive sensors that have only the baseband chip and an antenna and require almost no power. Those sensors pick up the signal and mirror it in a way that sends readable Wi-Fi to any device that has a Wi-Fi chipset in it.

This may sound a lot like a mesh network, with the signal bouncing from antenna point to antenna point, but it's not. A mesh network uses multiple routers, with full analog RF transmitters and digital baseband chips to receive and rebroadcast a signal.

"The low power passive device isn't transmitting anything at all. It's creating Wi-Fi packets just by reflection," says Vamsi Talla, another student working on the project. "It's a transmission technique that's ultra low-powered, as opposed to a network device."

That "reflection" happens via a process called "backscatter," and the students at UW have created Wi-Fi equipment that sends out a signal via backscatter instead of using a full radio signal.

Right now most devices do not have the backscatter hardware inside of them to send Wi-Fi packets back to the Internet-connected router. But if this technology takes off, it could increase the amount of devices that are connected to the Internet because it nearly nullifies previous energy constraints of making a device Wi-Fi compatible.

To be clear, Passive Wi-Fi still requires running one Wi-Fi router, and Wi-Fi routers aren't super energy efficient. The Environmental Protection Agency even created an Energy Star certification for home networking devices in 2013 to try to encourage the manufacture of less energy intensive devices. According to the EPA's website, "If all small network equipment sold in the United States were ENERGY STAR certified, the energy cost savings would grow to more than \$590 million each year and more than 7 billion pounds of annual greenhouse gas emissions would be prevented." The energy savings with Passive Wi-Fi come from the Wi-Fi transmission chipset in devices that communicate via wireless Internet, not the router connected to the initial uplink.

It's hard to say what this will do for your battery life, because there are so many components in a device that impact that—like the screen, for example. "But using Passive Wi-Fi would improve battery life by about as much as turning your Wi-Fi off would," said Bryce Kellog, an electrical engineering graduate student at UW who co-developed Passive Wi-Fi.

In the future, these passive sensors may even end up in our devices themselves, reflecting packets to send back to the router instead of broadcasting new transmitter waves. For now, using the hardware can reduce the energy used to spread Wi-Fi to devices.

“Our passive Wi-Fi devices now talk up to 11 megabits per second,” said Kellog. For comparison’s sake, that’s 11 times faster than Bluetooth. One of the main selling points of devices communicating via Bluetooth rather than Wi-Fi has been Bluetooth’s comparatively low energy consumption. But Passive Wi-Fi is 1,000 times more energy efficient than Bluetooth, and the network can be secured like any Wi-Fi signal can, unlike Bluetooth.

11 megabits per second might be faster than Bluetooth, but it’s slower than most home broadband connections. “While backscatter radio technology typically has less range and reliability and lower data rates than active radios, you wouldn’t use this type of communication to watch a YouTube video,” Chris Valenta, an engineer at the Georgia Tech Research Institute told WIRED. “For many Internet of Things applications, however, this technology is perfect. Radios typically account for the largest power draw of any cell phone.”

Wi-Fi hasn’t always been the best choice for connecting our Internet-ready smart devices because of its power constraints. “Communication tends to be a big portion of smart home devices’ power budget,” said Kellog.

For now, Passive Wi-Fi is a laboratory-controlled research project, but in the future, these passive sensors may end up as part of the ubiquitous hardware construction of Wi-Fi connected devices. That would mean that our electronics would be reflecting packets to send back to the router instead of always broadcasting new transmitter waves to communicate via Wi-Fi. But even now, using the students’ hardware can reduce the energy used to spread Wi-Fi to devices.

“Passive Wi-Fi uses only a few simple components, so it would be very cheap and easy to integrate into existing devices like smartphones or tablets. Additionally, it could even reuse the antenna already inside those devices,” Kellog added.

“This type of technology is really meant to reduce the power consumption of the transmitter to enable IoT devices to send small amounts of data back and forth,” says Valenta. As more and more of our smart devices rely on batteries instead of needing to be plugged directly into the wall, conserving battery power will continue to be an important issue with how we use our electronics. And according to the student researchers, companies are already tapping them on the shoulder to see if their vision of a less energy consumptive, increasingly networked world might one day be a reality.

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VIDEO: NASA WANTS TO MAKE A SUPERSONIC JET WITH NO BOOM

The Concorde jet could go Mach 2 but it was so loud that it was banned from flying over land. Now NASA engineers think they have a design that could muffle the boom and might usher in the two-and-half hour New York to LA flight.

<http://www.wired.com/2016/03/nasa-thinks-can-make-supersonic-jet-no-boom/>

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VIDEO: BOEING'S SELF-CLEANING BATHROOM WOULD NUKE GERMS WITH UV RAYS

AUTHOR: ALEX DAVIES. DATE OF PUBLICATION: 03.04.16.03.04.16

FLYING ECONOMY IS an exercise in indignity. You suffer the TSA, just to cram yourself into a tiny seat and sadly eat a \$12 airport sandwich because no one serves food anymore. In a bid to make the experience at least a little better, Boeing is focusing on one part of the plane: the lavatory.

The American plane maker has spent the past year working on a prototype loo that uses ultraviolet light to zap 99.99 percent of germs your fellow flyers leave behind, in just three seconds. (In between flights, airline crews will still clean the WC, since there are some messes no amount of UV can tackle.)

The bathroom is just a prototype right now, and Boeing hasn't made any final decisions on the hardware it will use. But it says airlines are interested, and that it's moving ahead with the development process. So even if that middle seat isn't about to get any bigger, at least your time on that other seat should be a bit more pleasant.

<http://www.wired.com/2016/03/boeings-self-cleaning-bathroom-nuke-germs-uv-rays/>

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EVIDENCE FOUND FOR UNSTABLE HEAVY ELEMENT AT SOLAR SYSTEM FORMATION

by Staff Writers, Chicago IL (SPX) Mar 07, 2016

http://www.spacedaily.com/reports/Cosmochemists_find_evidence_for_unstable_heavy_element_at_solar_system_formation_999.html

This close-up picture shows a ceramic-like refractory inclusion (pink inclusion) still embedded into the meteorite in which it was found. Refractory inclusions are the oldest-known rocks in the solar system (4.5 billion years old). Analysis of the uranium isotope ratios of such inclusions demonstrates that a long-lived isotope of the radioactive element curium was present in the solar system when this inclusion was formed. The inclusion measures 1.5 centimeters (.59 inches) in length. Image courtesy Origins Lab, University of Chicago.



University of Chicago scientists have discovered evidence in a meteorite that a rare element, curium, was present during the formation of the solar system. This finding ends a 35-year-old debate on the possible presence of curium in the early solar system, and plays a crucial role in reassessing

models of stellar evolution and synthesis of elements in stars. Details of the discovery appear in the March 4 edition of Science Advances.

"Curium is an elusive element. It is one of the heaviest-known elements, yet it does not occur naturally because all of its isotopes are radioactive and decay rapidly on a geological time scale," said the study's lead author, Francois Tissot, UChicago PhD'15, now a W.O. Crosby Postdoctoral Fellow at the Massachusetts Institute of Technology.

And yet Tissot and his co-authors, UChicago's Nicolas Dauphas and Lawrence Grossman, have found evidence of curium in an unusual ceramic inclusion they called "Curious Marie," taken from a carbonaceous meteorite. Curium became incorporated into the inclusion when it condensed from the gaseous cloud that formed the sun early in the history of the solar system.

Curious Marie and curium are both named after Marie Curie, whose pioneering work laid the foundation of the theory of radioactivity. Curium was only discovered in 1944, by Glenn Seaborg and his collaborators at the University of California, Berkeley, who, by bombarding atoms of plutonium with alpha particles (atoms of helium) synthesized a new, very radioactive element.

To chemically, and unambiguously, identify this new element, Seaborg and his collaborators studied the energy of the particles emitted during its decay at the Metallurgical Laboratory at UChicago (which later became Argonne National Laboratory). The isotope they had synthesized was the very unstable curium-242, which decays in a half-life of 162 days.

On Earth today, curium exists only when manufactured in laboratories or as a byproduct of nuclear explosions. Curium could have been present, however, early in the history of the solar system, as a product of massive star explosions that happened before the solar system was born.

"The possible presence of curium in the early solar system has long been exciting to cosmochemists, because they can often use radioactive elements as chronometers to date the relative ages of meteorites and planets," said study co-author Nicolas Dauphas, UChicago's Louis Block Professor in Geophysical Sciences.

Indeed, the longest-lived isotope of curium (^{247}Cm) decays over time into an isotope of uranium (^{235}U). Therefore, a mineral or a rock formed early in the solar system, when ^{247}Cm existed, would have incorporated more ^{247}Cm than a similar mineral or rock that formed later, after ^{247}Cm had decayed. If scientists were to analyze these two hypothetical minerals today, they would find that the older mineral contains more ^{235}U (the decay product of ^{247}Cm) than the younger mineral.

"The idea is simple enough, yet, for nearly 35 years, scientists have argued about the presence of ^{247}Cm in the early solar system," Tissot said.

Early studies in the 1980s found large excesses of ^{235}U in any meteoritic inclusions they analyzed, and concluded that curium was very abundant when the solar system formed. More refined experiments conducted by James Chen and UChicago alumnus Gerald Wasserburg, SB'51, SM'52, PhD'54, at the California Institute of Technology showed that

these early results were spurious, and that if curium was present in the early solar system, its abundance was so low that state-of-the-art instrumentation would be unable to detect it.

Scientists had to wait until a new, higher-performance mass spectrometer was developed to successfully identify, in 2010, tiny excesses of ²³⁵U that could be the smoking gun for the presence of ²⁴⁷Cm in the early solar system.

"That was an important step forward but the problem is, those excesses were so small that other processes could have produced them," Tissot noted.

Models predict that curium, if present, was in low abundance in the early solar system. Therefore, the excess ²³⁵U produced by the decay of ²⁴⁷Cm cannot be seen in minerals or inclusions that contain large or even average amounts of natural uranium. One of the challenges was thus to find a mineral or inclusion likely to have incorporated a lot of curium but containing little uranium.

With the help of study co-author Lawrence Grossman, UChicago professor emeritus in geophysical sciences, the team was able to identify and target a specific kind of meteoritic inclusion rich in calcium and aluminum. These CAIs (calcium, aluminum-rich inclusions) are known to have a low abundance of uranium and likely to have high curium abundance. One of these inclusions - Curious Marie - contained an extremely low amount of uranium,

"It is in this very sample that we were able to resolve an unprecedented excess of ²³⁵U," Tissot said. "All natural samples have a similar isotopic composition of uranium, but the uranium in Curious Marie has six percent more ²³⁵U, a finding that can only be explained by live ²⁴⁷Cm in the early solar system."

Thanks to this sample, the research team was able to calculate the amount of curium present in the early solar system and to compare it to the amount of other heavy radioactive elements such as iodine-129 and plutonium-244. They found that all these isotopes could have been produced together by a single process in stars.

"This is particularly important because it indicates that as successive generations of stars die and eject the elements they produced into the galaxy, the heaviest elements are produced together, while previous work had suggested that this was not the case," Dauphas explained.

The finding of naturally occurring curium in meteorites by Tissot and collaborators closes the loop opened 70 years ago by the discovery of man-made Curium and it provides a new constraint, which modelers can now incorporate into complex models of stellar nucleosynthesis and galactic chemical evolution to further understand how elements like gold were made in stars.

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LET THE LIGHT SHINE IN: NEW LED STREETLIGHTS CATCH EYE OF SOME

Mar 6 - McClatchy-Tribune Content Agency, LLC - Eric Lindquist The Leader-Telegram, Eau Claire, Wis.

http://www.energycentral.com/functional/news/news_detail.cfm?did=38962924&utm_source=2016_03_07&utm_medium=eNL&utm_content=93924&utm_campaign=DAILY_NEWS

Question: How many Xcel Energy workers does it take to change the bulbs in 25,000 streetlights?

Answer: Three two-man crews.

That is the challenge the utility is undertaking as it converts all its streetlights in 186 Wisconsin communities to LED technology.

And that's no joke.

Xcel is now about a third of the way through the conversion it says will cut electricity usage by 40 to 60 percent from the high-pressure sodium vapor bulbs the light-emitting diode bulbs are replacing. Consumers should notice the LED lights are whiter and more focused. "We're using a better light, a safer light and one that uses less energy at a lower price point," said James Hanke, spokesman for Xcel in Eau Claire.

In Eau Claire alone, the changeover is projected to save the city about \$42,000 a year in power costs for its nearly 3,000 streetlights owned and maintained by Xcel, Hanke said, noting that communities aren't charged for the upgrade.

Western Wisconsin customers are the first to see the new streetlights in a five-year plan to replace about 300,000 lights across Xcel's eight-state service area.

The company recently completed the changeover in Eau Claire, Altoona and Menomonie and is in the process of finishing up in Chippewa Falls.

While the LEDs are a lower wattage than their predecessors, the lumen rating, or brightness, as measured at the bottom of the streetlight poles is effectively the same, Hanke said.

But the difference in intensity may take a little getting used to for some consumers, as the old sodium vapor bulbs cast a softer, yellower light over a wider area. The LEDs are intended to reduce glare and focus the light directly on the area to be lit, he said.

FEW COMPLAINTS

As of Wednesday, the utility reported having received only four complaints in the region. Two focused on the spacing of streetlights; the other two were from Eau Claire homeowners concerning too much light shining in their houses

Xcel addressed the homeowner concerns by putting up shields to direct the light away from those homes.

Ellen and Doug Faulkner were excited about the prospect of the new energy-efficient lights but then were dismayed when an LED bulb was installed on the light post outside their Third Ward home. They found it cast what they considered an "oppressive" glare on one side of their house.

"It was bathing the whole side of the house in light, including shining into our second-floor bedrooms," Ellen said. "It really was a lot of light in there."

But she confirmed the couple was extremely pleased with how Xcel dealt with the problem and how effective the shield is at directing the light into the street, where it's supposed to be, and away from their corner lot.

"We are absolutely, deliriously happy with the shielded streetlight. Not only is it a huge improvement over a day ago, it's also much nicer than it was with the old lighting," Ellen said in an email to Hanke the day after the fix.

TOUGH CROWD

Hanke faced a skeptical audience Tuesday night when he delivered a presentation about the LED conversion to the Chippewa Valley Astronomical Society, which comprises members who prefer it dark when they gaze at stars and planets in the night sky.

For the most part, he won them over with statistics showing the lumen rating of the new lights isn't any higher than the ones they are replacing, and the LED bulbs comply with light-pollution standards set by the International Dark-Sky Association.

But the coup de grace was a pair of before-and-after aerial photos Xcel had T-BO Photography Studio of Chippewa Falls take of a broad section of Eau Claire at night. While the photos generated some discussion about whether they were the exact same exposure, they clearly showed significantly less light escaping upward from residential neighborhoods where the utility installed the LEDs.

"It's one thing to tell you it's dark-sky compliant, but it's another to be able to show you," Hanke told the amateur astronomers.

Astronomical Society member Bert Moritz called the results "very impressive."

Mike Brown, the group's president who arranged for Hanke's presentation, said the photos appeared to show that the bulk of the light pollution from Eau Claire comes from large commercial projects and major thoroughfares such as Clairemont Avenue and Hastings Way, which are illuminated by a high density of city-owned streetlights that still use the less-focused sodium vapor bulbs.

While dark-sky compliance might not seem like a widespread concern, Lauren Likkel, a physics and astronomy professor at UW-Eau Claire, said stargazing is a popular pastime.

"A lot of people are interested in being able to see the Milky Way and the other stars," Likkel said. "The brighter the sky is, the less chance they have to see it."

Some members still had reservations about the broad-spectrum light emitted by the LEDs. They noted that the redder tone of the old lights was fairly easy for them to filter out when looking through telescopes, and that short-wavelength blue light scatters more in the atmosphere and can contribute to sky glow.

NOTICEABLE CHANGE

With the effectiveness of shields that stop light from the LEDs from escaping upward, the immediate concerns of Astronomical Society members were focused more on their experiences on the ground than their time looking into the night sky.

"The LEDs seem to be well-shielded, but when you're under them, they're bright as heck," Likkel said. "You have to avert your eyes or your night vision is really compromised."

Indeed, the International Dark-Sky Association reported recently that the surface brightness of commercial white LEDs is about one-thirtieth the surface brightness of the sun.

While Hanke acknowledged the LEDs "can be a little bit blinding if you look right at them," he advised residents to give the change 90 days or so and see if they still have objections. People should feel free to contact Xcel if their concerns continue, he said.

"There is a very significant change in that light spectrum, and that does require some adjustment," Hanke said. "It changes the way we see things that are familiar to us."

Hanke said Xcel attempted to balance a wide range of concerns -- from energy usage and light pollution to color preference and public safety -- in selecting its LED bulbs. The utility conducted two years of trials in multiple jurisdictions before reaching its decision, which it wanted to be sure to get right, considering that the new bulbs are expected to last at least 10 years.

Safety and community expectations are among the reasons the company didn't select dimmer bulbs.

"Public safety is extremely important to us," Hanke said, "and we feel confident that we are offering a product that makes our communities a safe place to be at night."

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From: "Keith A. Glass" salgak@comcast.net

RUSSIAN BEACON SATELLITE SET TO LIGHT UP THE NIGHT SKY: 'ARTIFICIAL STAR' WOULD REFLECT SUNLIGHT TO ILLUMINATE PARTS OF EARTH

- * Crowdfunding target for next stage of testing has now been reached
- * Raised almost 1.8 million rubles (£17,365/\$24,235) from 2,322 sponsors
- * It will be launched from a Soyuz 2 rocket with help from Roscosmos
- * Made of a reflective thin polymer film 20 times thinner than human hair
- * See more news from Russia at www.dailymail.co.uk/russia

By ABIGAIL BEALL FOR MAILONLINE, PUBLISHED: 05:36 EST, 1 March 2016

<http://www.dailymail.co.uk/sciencetech/article-3470871/Russian-Beacon-satellite-set-light-night-sky-Artificial-star-reflect-sunlight-illuminate-parts-Earth.html#ixzz41gijZYKc>

The brightest star in the night sky is Sirius, known as the 'dog star' or Alpha Canis Majoris.

But that could be about to change if a crowdfunded project in Russia takes off as planned later this year.

Called the 'Mayak' or 'Beacon' project, engineers are hoping to launch a satellite that will become the brightest object in our skies, apart from the sun, thanks to a giant reflective sheet of material.

Engineers on the the 'Mayak' or 'Beacon' project are hoping to launch a satellite (illustrated) that will become the brightest object in our skies, apart from the sun, thanks to a giant reflective sheet of material

The launch is scheduled for the summer and is expected to be taken up in a Soyuz 2 rocket, with help from Roscosmos, the Russian space agency.

The team is planning to place the spacecraft in a sun-synchronous orbit 370 miles (600km) above the ground.

This means it will always be in the path of sunlight, so will always be shining at different locations on Earth as it rotates.

CROWDFUNDING SPACE PROJECTS

Crowdfunding has become a popular way of raising money for space exploration projects in the last few years.

In 2013, the asteroid-mining company Planetary Resources raised more than \$1.5 million (£1m) via the crowdfunding site Kickstarter to help develop its public-use Arkyd space telescope.

The company's first space craft was successfully deployed from the International Space Station (ISS) last year.

Another Kickstarter campaign by a group called Lunar Mission One, aiming to send a robotic spacecraft to drill deep into the rocks near the moon's south pole, received more than \$1 million (£716,000) in pledges in 2014.

The small spacecraft will launch a giant pyramid-shaped solar reflector in orbit.

The reflector is 170 square feet (16 square metres) in size and made of a thin polymer film 20 times thinner than human hair.

The aim of the project is to promote space research in the country, and to make science and engineering more appealing to young Russians.

The satellite itself won't serve a particular purpose, other than to prove what can be possible in the field.

A previous proposal, which involved attaching a reflective panel of plastic to a cargo ship heading to the Mir space station, was designed to see if orbiting mirrors could illuminate cities or other parts of Earth by reflecting sunlight.

The idea was that the mirrors could extend daylight hours for farmers, for example, reports Ars Technica.

The Mayak project team recently announced it has raised enough money to undergo the next stage of the rocket's testing.

+4

Its target of 1.5 million rubles (£14,537/\$20,320) has now been surpassed and as of Tuesday morning, the team had raised almost 1.8 million rubles (£17,365/\$24,235) from 2,322

sponsors on its Boomstarter crowdfunding page.

'We are sending a spacecraft into orbit that will be the brightest star in the sky, visible from any point on our planet,' project leader Alexander Shaenko, head of the modern cosmonautics course at Moscow State University of Mechanical Engineering.

'We want to show that space exploration is something exciting and interesting, but most importantly that today it is accessible to everybody who is interested.'

Students from the university are also taking part in the crowdfunded project to launch the orbital spacecraft.

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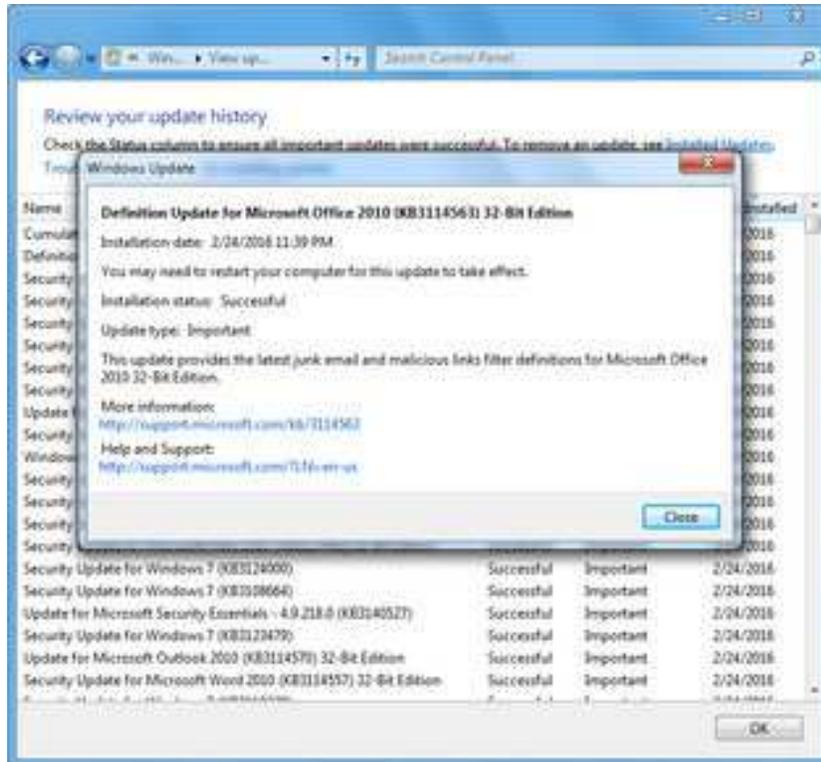
From: "Christina Cowan" cowan1028@earthlink.net

KEEPING TRACK OF WINDOWS UPDATES

Tech Tip

By J. D. BERSDORFER MARCH 1, 2016

http://www.nytimes.com/2016/03/02/technology/personaltech/keeping-track-of-windows-updates.html?emc=eta1&_r=0



The Update History area of Microsoft's Windows Update utility shows what updates were installed on the PC and when they were added. Credit The New York Times

Q. At least once a month, Microsoft invades my Windows 7 computer with so-called improvements. I have no idea what they are. How can I find out?

A. The Windows Update program on your PC not only downloads and installs new software from Microsoft, but it also keeps a list of what it has done to your computer. You can see this running list of installed software by going to

the Start menu and selecting Windows Update (or typing "update" in the search box to find it). On the left side of the Windows Update box, select View Update History.

When the Update History box opens, you'll see a list of updates that have already been downloaded and installed on your system. In addition to Windows security patches, you may also see updates for other Microsoft programs like Word or Outlook.

Double-click on an entry in the list to see more information, including the installation date and a brief description of what problem the update was intended to resolve. A link to further information from Microsoft's support site is often included. If you have Windows Update set to download but not automatically install new updates, click the "available updates" link on the main Windows Update screen to get more details about each new piece of software waiting for you. (Keep in mind that Microsoft has started to push its Windows 10 update out to Windows 7 users through Windows Updatenow, too.)

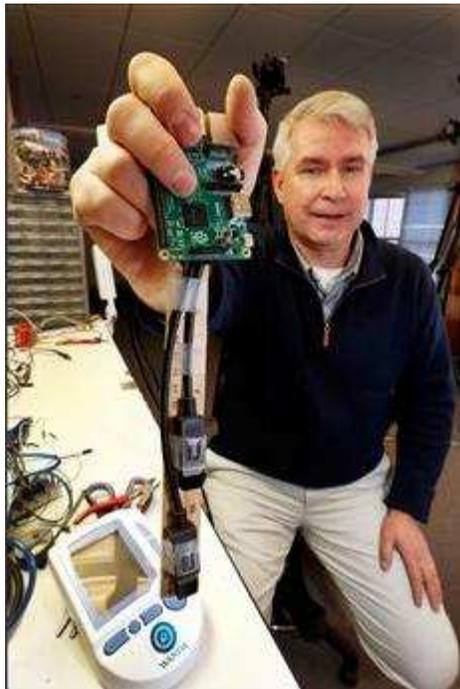
Microsoft pushes out program updates at least once a month for Windows and its other programs like Microsoft Office. Although you may receive notifications from Windows Update regarding new software every few weeks, most of the security repairs tend to arrive on the second Tuesday of the month, a day often referred to by many as "Patch Tuesday." Microsoft calls these monthly updates "security bulletins" and posts brief summaries of what each update in the patch batch is supposed to protect on your computer; you can read these summaries in the Library area of the Microsoft's Security TechCenter site.

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DARTMOUTH'S 'MAGIC WAND' PAIRS MEDICAL DEVICES TO WI-FI

By HOLLY RAMER, From Associated Press, March 05, 2016 6:26 PM EST

<http://my.earthlink.net/article/us?guid=20160305/27e65c82-2246-4971-b5bf-76e2dcf99c3a>



In this photo taken Wednesday March 2, 2016 in Hanover, N.H., Dartmouth College grad student Tim Pierson holds a prototype called "wanda" that can connect a medical device to a WiFi network. Researchers envision it being used in homes so doctors could remotely monitor a patient's blood pressure. (AP Photo - Jim Cole)

CONCORD, N.H. (AP) — Doctors could keep better tabs on their patients between visits with a simple wave of a magic wand-like device being developed at Dartmouth College.

The prototype, dubbed "Wanda," is part of a multi-university project to develop ways to protect patient confidentiality as health care increasingly moves out of hospitals and doctors' offices and into the home. But beyond safety, simplicity also is a key goal, said doctoral student Tim Pierson, Wanda's creator.

"Quite frequently in the computer security business, we invent things that are super-secure but hard to use, and people don't understand them," he said. "We set out to make something that my parents and in-laws could use."

Here's how Wanda could work: A doctor sends a patient home with a Wi-Fi-enabled blood pressure cuff. Instead of having to type in a passcode to connect the monitor to a home Wi-Fi network, the patient just points the wand at the device.

Once that connection is made, blood pressure readings can be transmitted back to the doctor's office.

"In a hospital you tend to have trained people who can configure medical devices, and set them up and monitor them to make sure they're working," Pierson said. "If we're going to move into a world where sensors are outside of the hospital, we started wondering what are the challenges to configuring these devices in the home where there is no IT team, or in a small clinic with a couple of doctors and nurses?"

The prototype consists of a ruler with two antennas attached to it. It can acquire a network name and password by being plugged into a Wi-Fi router, and is then detached and pointed at the medical device to connect it to the network. The password information is converted into binary code — ones and zeroes — with one antenna transmitting information packets containing the "ones" and while the other sends the "zeroes."

Because the medical device is close to the wand, it can tell which packet came from which antenna based on the signal strength and can reconstruct the information. But a hacker farther away couldn't tell the difference.

"One of the good things about this system is that the user doesn't even have to know that information. The wand can get it from your Wi-Fi router and impart it on the device," he said. "We talked to a lot of people who have Wi-Fi in their homes and have no idea what their password is."

Researchers elsewhere have tried similar approaches using sound to transmit a secret key that allows devices to be paired, or accelerometers that pair devices if they are shaken, said Pierson. One drawback of those approaches is that they require some kind of extra sensor or equipment to be included in the medical device.

Pierson's project is part a \$10-million, five-year grant from the National Science Foundation to Dartmouth, Johns Hopkins University, the University of Illinois Urbana-Champaign, the University of Michigan and Vanderbilt University.

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From: "Jim Woosley" Jimwoosley@aol.com

HOW THE 'INTERNET OF THINGS' COULD BE FATAL

Harriet Taylor | @Harri8t, March 4, 2016

<http://www.cnbc.com/2016/03/04/how-the-internet-of-things-could-be-fatal.html>

Researcher Marie Moe woke up after emergency surgery in 2011 with a new pacemaker to correct a heart condition. What she didn't realize at the time was that the lifesaving device in her chest exposed her to a completely different kind of threat.

The pacemaker keeping her alive has wireless connectivity capabilities — a detail her doctors didn't tell her — meaning it could be hacked.

Moe was understandably disturbed that it never occurred to her doctors to tell her that her device had wireless capability, and they had not considered the security implications.

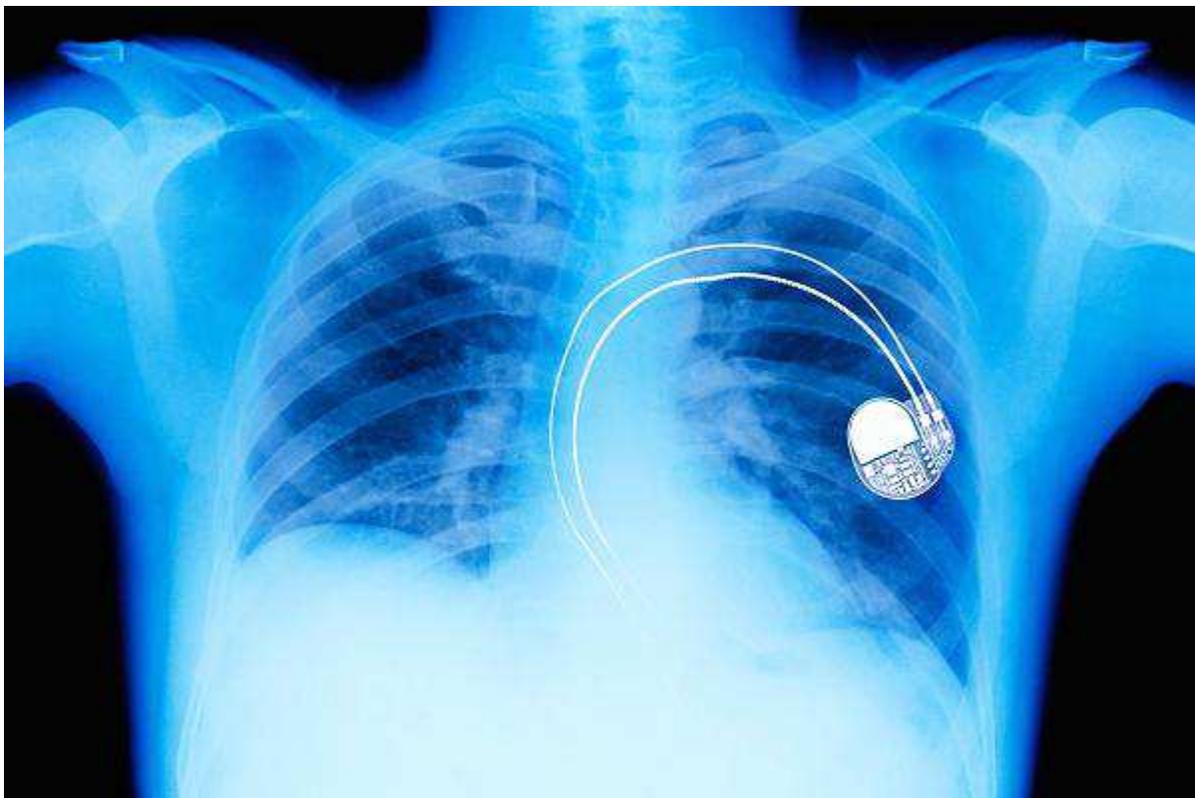
"They really had not thought about the pacemaker security at all," she said.

Vulnerabilities like Moe's are moving quickly from the rare to the extremely common. The FBI recently warned consumers that the proliferation of connected devices — from medical devices to security systems — means even more potential targets for malicious cybercriminals. That opportunity will be huge, as there will be more connected devices than humans by 2017, according to Gartner.

Security experts believe the tech industry needs to figure out how to secure the "Internet of Things" now, while the architecture is still being developed. That means building in features such as encryption, authentication and the ability to remotely update devices now, said experts.

"Software bugs could actually kill me," said Moe. "That's something developers should have in mind when they write the code for these devices."

Moe is a hacker and Ph.D. research scientist at SINTEF in Norway, which carries out research in information and communication technology. She presented some of her findings at the RSA Conference in San Francisco on Friday.



X-ray with pace maker.

After the surgery in 2011, Moe found a technical manual for her pacemaker online and discovered it had two different wireless communication interfaces (wireless connectivity can be very useful for patients in need of frequent follow-ups). Even though that capability was not active in her pacemaker, the potential — and the fact that she wasn't told — disturbed her.

"For me that was not the case, the functionality was not switched on and I was not informed," said Moe.

"They really hadn't thought about the pacemaker security at all."-Marie Moe, SINTEF ICT research scientist

Frustrated with her doctors and the manufacturer of her pacemaker, Moe has turned her life's work into finding out more on behalf of all patients.

She has testified in front of the FDA and worked with grassroots organization I Am The Cavalry to develop a Hippocratic Oath for Connected Devices. Her goal is to force transparency into an industry where doctors are uninformed, code is proprietary and third-party access limited.

Moe would like an independent investigator to be able to access her pacemaker and its data, "in the case that I drop dead and it is because of my pacemaker," she said.

So far, there are no known cases in which malicious hackers have attacked a pacemaker, but researchers have proved it's possible. In addition, research firm Forrester has predicted that 2016 will be the year we see ransomware for a medical device or wearable.

The systems those devices connect to in hospitals often have a lot of legacy equipment — like MRI's and X-ray machines — running outdated operating systems and software that cannot be updated.

"It's about time hospitals started worrying about computer viruses, not just ordinary germs," said Moe.

"That's what we have to look at today, to invest in the area to make sure we are solving those problems today, not four years from now when the problem is too heavy to be solved," said Google vice president, security and privacy Gerhard Eschelbeck at the RSA Conference on Tuesday.

"It's about time hospitals started working about computer viruses, not just ordinary germs."-Marie Moe, SINTEF ICT research scientist

Of course, it's not just medical devices that pose a threat. Well-publicized car hacks by researchers have shown just how easy it is for hackers to take remote control of certain car models. Automakers are acutely aware of the liability issues surrounding connected vehicles and are working to build security into their systems.

It's the task of General Motors chief product cybersecurity officer Jeff Massimilla and his team of 70 cryptologists, mathematicians and certified ethical hackers, to look for vulnerabilities in their vehicles.

"With the addition of connectivity to the vehicle and potential automated driving systems, there's a responsibility to ensure that there's a cybersecurity posture that's appropriate for those systems, he said. "We take this very seriously."

The average GM car has 30 computers, all built by different partners and suppliers. (For example, a car stereo system may be integrated with Apple CarPlay or Android Auto.)



The General Motors logo on the world headquarters building in Detroit.

In January, GM launched a new bug bounty program and also has a partnership with start-up HackerOne. The goal is to encourage researchers to reveal bugs in the company's computing infrastructure and vehicles so it can patch problems and prevent hackers from exploiting those vulnerabilities.

Massimilla is also vice chairman of the Auto Information Sharing and Analysis Center (Auto-ISAC), a group of automakers that share vulnerability and threat intelligence across the industry and is developing a set of industry best practices. Legislation has also been passed to enable the industry to share threat intelligence to help car companies act more quickly on any new vulnerability or intelligence.

"We are, with many other industries, at a tipping point of cybersecurity posture of products and connected services," said Massimilla.

Of course, when weighing the adoption of connected devices, it's important to take into account the risks and potential rewards, said John Stewart, senior vice president, chief security and trust officer at Cisco.

"For the most part, all of this is going to be beneficial more than it's going to be endangering and risky," said Stewart. "This security conference has a tendency to think the whole world's going to melt down by tomorrow. [But] We're still here 20 years after we thought it was going to meltdown 20 years ago."

CORRECTION: This version corrects the name of the group of automakers sharing threat information from the Alliance of Automobile Manufacturers to the Auto Information Sharing and Analysis Center (Auto-ISAC) and Massimilla's position on that council from member to vice chairman.

I AM VERY INTERESTED IN THIS ARTICLE BECAUSE I HAVE HAD A BILATERAL DELIBERATOR BLUETOOTH PACEMAKER INSTALLED FOR ALMOST 8 YEARS NOW. UT

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DRINKING MORE COFFEE MAY UNDO LIVER DAMAGE FROM BOOZE

BY LISA RAPAPORT, Reuters, Feb 18th 2016 2:07PM

http://www.aol.com/article/2016/02/18/drinking-more-coffee-may-undo-liver-damage-from-booze/21314917/?icid=maing-grid7%7Chtmlws-sb-bb%7Cdl19%7Csec1_Ink3%26pLid%3D-393504882

(Reuters Health) - Drinking more coffee might help reduce the kind of liver damage that's associated with overindulging in food and alcohol, a review of existing studies suggests. Researchers analyzed data from nine previously published studies with a total of more than 430,000 participants and found that drinking two additional cups of coffee a day was linked to a 44% lower risk of developing liver cirrhosis.

"Cirrhosis is potentially fatal and there is no cure as such," said lead study author Dr. Oliver Kennedy of Southampton University in the U.K.

"Therefore, it is significant that the risk of developing cirrhosis may be reduced by consumption of coffee, a cheap, ubiquitous and well-tolerated beverage," Kennedy added by email.

Cirrhosis kills more than one million people every year worldwide. It can be caused by hepatitis infections, excessive alcohol consumption, immune disorders, and fatty liver disease, which is tied to obesity and diabetes.

Kennedy and colleagues did a pooled analysis of average coffee consumption across earlier studies to see how much adding two additional cups each day might influence the odds of liver disease.

Combined, the studies included 1,990 patients with cirrhosis.

In eight of the nine studies analyzed, increasing coffee consumption by two cups a day was associated with a significant reduction in the risk of cirrhosis.

In all but one study, the risk of cirrhosis continued to decline as daily cups of coffee climbed.

Compared to no coffee consumption, researchers estimated one cup a day was tied to a 22% lower risk of cirrhosis. With two cups, the risk dropped by 43%, while it declined 57% for three cups and 65% with four cups.

But the results still leave some unresolved questions.

One study, for example, found a stronger link between coffee consumption and reduced cirrhosis risk with filtered coffee than with boiled coffee.

And, while the studies accounted for alcohol consumption, not all them accounted for other cirrhosis risk factors like obesity and diabetes, the authors note in the journal *Alimentary Pharmacology and Therapeutics*, online January 25.

Patients also shouldn't take the findings to mean loading up on frothy caramel lattes packed with sugar and topped with whipped cream is a good way to prevent liver disease, Kennedy cautioned. It's also not clear exactly how coffee might lead to a healthier liver, or whether the type of beans or brewing method matter.

"Coffee is a complex mixture containing hundreds of chemical compounds, and it is unknown which of these is responsible for protecting the liver," Kennedy said.

It's also important to note that coffee isn't powerful enough to counteract lifestyle choices that can severely damage the liver, said Samantha Heller, a senior clinical nutritionist at New York University Langone Medical Center in New York who wasn't involved in the study.

"Unfortunately, although coffee contains compounds that have antioxidant effects and anti-inflammatory properties, drinking a few cups of coffee a day cannot undo the systematic damage that is the result of being overweight or obese, sedentary, excessive alcohol consumption or drastically mitigate an unhealthy diet," Heller said by email.

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ABSOLUTELY & TOTALLY POLITICALLY INCORRECT & AS FAR TO THE RIGHT AS YOU CAN GO!

From: "Jim Woosley" Jimwoosley@aol.com

FEDERAL LAW: TITLE 18. SECTION 2071

<https://www.law.cornell.edu/uscode/text/18/2071>

Federal Law: Title 18. Section 2071

Former United States Attorney General Michael Mukasey tells MSNBC that not only is Hillary Clinton's private email server illegal, it "disqualifies" her from holding any federal office.

Such as, say, President of the United States.

"If you do this or that bad thing, you've essentially disqualified yourself as being the leader of the free world," said Mukasey, referring to the illegal server and the illegal handling of classified materials.

Mukasey specifically points to one federal law, Title 18. Section 2071.

For those of us who do not have United States Code committed to memory, here's what it says:

Whoever willfully and unlawfully conceals, removes, mutilates, obliterates, or destroys, or attempts to do so, or, with intent to do so takes and carries away any record, proceeding, map, book, paper, document, or other thing, filed or deposited with any clerk or officer of any court of the United States, or in any public office, or with any judicial or public officer of the United States, shall be fined under this title or imprisoned not more than three years, or both.

Whoever, having the custody of any such record, proceeding, map, book, document, paper, or other thing, willfully and unlawfully conceals, removes, mutilates, obliterates, falsifies, or destroys the same, shall be fined under this title or imprisoned not more than three years, or both; and shall forfeit his office and be disqualified from holding any office under the United States. As used in this subsection, the term "office" does not include the office held by any person as a retired officer of the Armed Forces of the United States.

Yes, it explicitly states "shall forfeit his office and be disqualified from holding any office under the United States."

Shouldn't voters know that? The media won't tell them.

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CLINTON, ON HER PRIVATE SERVER, WROTE 104 EMAILS THE GOVERNMENT SAYS ARE CLASSIFIED

By Rosalind S. Helderman and Tom Hamburger March 5 at 8:00 PM

https://www.washingtonpost.com/politics/clinton-on-her-private-server-wrote-104-emails-the-government-says-are-classified/2016/03/05/11e2ee06-dbd6-11e5-81ae-7491b9b9e7df_story.html

Hillary Clinton wrote 104 emails that she sent using her private server while secretary of state that the government has since said contain classified information, according to a new Washington Post analysis of Clinton's publicly released correspondence.

The finding is the first accounting of the Democratic presidential front-runner's personal role in placing information now considered sensitive into insecure email during her State Department tenure. Clinton's authorship of dozens of emails now considered classified could complicate her efforts to argue that she never put government secrets at risk.

In roughly three-quarters of those cases, officials have determined that material Clinton herself wrote in the body of email messages is classified. Clinton sometimes initiated the conversations but more often replied to aides or other officials with brief reactions to ongoing discussions.

<SNIP>

AFTER WORKING FOR THE FEDERAL GOVERNMENT FOR OVER 40 YEARS IN THE AIR FORCE, POST OFFICE AND THE TENNESSEE VALLEY AUTHORITY, I AM DEFINITELY AWARE OF FEDERAL LAW: TITLE 18. SECTION 2071. THOSE OF US WHO HAVE BEEN THOROUGHLY BRIEFED ON THIS FEDERAL STATUE DO NOT UNDERSTAND WHAT IS TAKING THE FBI SO LONG TO COME UP WITH AN INDICTMENT OF MS. CLINTON. WHETHER YOU LIKE HER OR NOT, IT DOESN'T MATER. THE LAW IS QUITE STRAIGHT FORWARD IN THIS CASE. UT

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ABSOLUTELY & TOTALLY POLITICALLY INCORRECT & AS FAR TO THE CENTER AS YOU CAN GO!

From: "Tim Bolgeo" tbolgeo@comcast.net

NO, TURNING ON YOUR PHONE IS NOT CONSENTING TO BEING TRACKED BY POLICE

Alex Emmons, Mar. 4 2016, 10:38 a.m.

<https://theintercept.com/2016/03/04/no-turning-on-your-phone-is-not-consenting-to-being-tracked-by-police/>

Photo: U.S. Patent Office, A Stingray, manufactured by Harris Corp.



The Maryland Court of Special Appeals on Wednesday upheld a historic decision by a state trial court that the warrantless use of cell-site simulators, or Stingrays, violates the Fourth Amendment.

The trial court had suppressed evidence obtained by the warrantless use of a Stingray — the first time any court in the nation had done so.

Last April, a Baltimore police detective testified that the department has used Stingrays 4,300 times since 2007, usually without notifying judges or defendants.

The ruling has the potential to set a strong precedent about warrantless location tracking. “Police should now be on notice,” said Nate Wessler, a staff attorney with the ACLU’s Speech, Privacy, and Technology Project. “Accurately explain your surveillance activities to a judge and get a warrant, or risk your evidence being thrown out.”

Stingrays mimic cellphone towers, tricking nearby phones into connecting and revealing users’ locations. Stingrays sweep up data on every phone nearby — collecting information on dozens or potentially hundreds of people.

The case centers around the 2014 arrest of Kerron Andrews, a suspect in a shooting that injured three people. In order to locate him, police filed a “pen register” application, which is not a warrant, and does not require them to establish probable cause. A judge granted the application, which said that police would obtain the information from Andrews’ wireless service provider.

Instead, police used a high-tech Stingray called the “Hailstorm.” They located Andrews and found the murder weapon. However, they repeatedly failed to notify the judge about the change in tactics. Finally, during a hearing last June, the police department was forced to testify about the Hailstorm, leading the judge to accuse it of intentionally withholding information from the defense.

After the trial court threw out the Stingray evidence, the Maryland attorney general alarmed civil liberties groups by arguing that anyone who keeps their phone turned “on” is consenting to being tracked by police. The full ruling, which has not yet been issued, will presumably reject that argument.

During the oral argument before the appeals court in February, one of the judges called the police’s pen register application a “completely false document,” and “completely disingenuous.”

The Department of Justice issued guidelines in September requiring federal officers to apply for a warrant before using a Stingray. Those guidelines only applied to the seven agencies known to use them, not to state and local police. In 2014, the state of Maryland passed a law requiring a warrant for police to track an individual's current or real-time location. The law only affects cases going forward, so it did not influence Andrew's case.

Stingrays are also piquing the interest of lawmakers on Capitol Hill. Lawmakers held a hearing Tuesday on a bill that would require all police departments to get a warrant before using Stingrays. "Just because it's easier in 2016 for law enforcement to track our location and learn intimate details about our lives, it doesn't mean those details are somehow less worthy of Constitutional protection," said House Oversight Committee Chairman Jason Chaffetz. "Get a warrant."

In December, The Intercept published a secret catalogue of U.S. government surveillance equipment, including Stingrays. The advertisements for some items boast that they can spy on 10,000 people.

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From: "Jim Woosley" Jimwoosley@aol.com

BACKGROUND CHECKS

Please note that I have not verified the specific quotes, but this is certainly close to government policy under the current ... uh, administration?

Both statements made during the same speech. I think this just about sums it up!!!



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ABSOLUTELY & TOTALLY POLITICALLY INCORRECT & AS FAR TO THE LEFT AS YOU CAN GO!

From: "Tim Bolgeo" tbolgeo@comcast.net

OBAMA ADMIN EXEMPTS 100 MILLION FROM HHS CONTRACEPTION MANDATE — BUT NOT LITTLE SISTERS OF THE POOR

by DR. SUSAN BERRY5 Mar 20161,146



AP Photo/Brennan Linsley

Approximately 100 million Americans do not have health insurance plans covered by Obamacare's HHS contraception mandate because the Obama administration has exempted plans for big corporations, large cities, and the U.S. military.

The same administration, however, insists that a group of Catholic nuns who care for the elderly poor provide its employees free contraception, abortion-inducing drugs, and sterilization procedures—all of which are against its faith—or be forced to pay \$70 million in punitive fines.

According to a press release by the Becket Fund for Religious Liberty—which represents the Little Sisters of the Poor—the Obama administration has exempted corporations such as

Chevron, Exxon, Visa, and Pepsi Bottling from the HHS mandate, as well as large cities like New York City. The Little Sisters have now asked the U.S. Supreme Court to protect them from the mandate.

The Obama administration claims that, through an “accommodation,” it has offered to reimburse the costs of the services it requires the Little Sisters to provide—so they should have no moral objection to complying with the mandate.

The Little Sisters, however, say their legal challenge is not about money, but conscience and the freedom not to offer services in their healthcare plan that conflict with their beliefs. They also say they should not have to comply with the HHS mandate when those services could be provided more effectively through the government’s healthcare exchanges.

The Becket Fund states that the Obama administration’s arguments to the Supreme Court admits that women not covered by the mandate can still obtain free birth control through a family member’s health plan or through the Obamacare exchanges. But it also simultaneously argues that exempting the Little Sisters would compromise the government’s goal of offering universal free access to birth control and abortion-inducing drugs.

The Becket Fund states:

Using the healthcare exchanges, which the government has hailed as an ‘easy and fast’ healthcare option for millions of Americans, would protect both the Little Sisters of the Poor’s religious freedom and the government’s goal to provide free access to these services to women who want them.

More than 40 friend-of-the-court briefs have been filed at the Supreme Court on behalf of the Little Sisters. The high court will hear their case on March 23.

Last September, in a highly unusual move, five federal judges of the U.S. Court of Appeals for the 10th Circuit issued an opinion criticizing their court panel’s refusal to change its decision to force the Little Sisters into providing free birth control to employees.

“The opinion of the panel majority is clearly and gravely wrong—on an issue that has little to do with contraception and a great deal to do with religious liberty,” the opinion reads. “When a law demands that a person do something the person considers sinful, and the penalty for refusal is a large financial penalty, then the law imposes a substantial burden on that person’s free exercise of religion.”

The judges added, “[I]t is not the job of the judiciary to tell people what their religious beliefs are.”

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