

The October 31st, 2017, Halloween Edition of THE REVENGE HUMP DAY!

Page 1 of 39

Welcome to the October 31st, 2017, Halloween Edition of THE REVENGE HUMP DAY!

Happy Spooky day to all of you out there. Tonight all the ghosts and goblins will invade the night and assault your homes for 'TRICKS OR TREATS'. Tristan, Bubba Bear, will be decked out in a Minions costume from 'Despicable Me' and he will be looking great. Beth, Destroyer of Worlds, has already been working on her skeleton costume and Brandy has posted it on Facebook. It really looks fantastic.

Back in the old days we used to have 80 or 90 kids come through the neighborhood for candy, but in the past few years we have been lucky to have 10 come through. I guess our neighborhood has gotten too old and not that many young one's live here anymore. But I always used to have fun in the old days by opening the front windows of the house and blasting out sound track from 'The Rocky Horror Picture Show' to help set the mood for the evening. Ah, good times.

When Brandy and Jason were little, SWMBO would get them costumes and they would roam the neighborhoods for hours looking for candy. I, of course, would have to stay at home and give out our candy to all the spooks and goblins. When the kids would come home, we would layout all of the candy on the living room



floor and I would personally go through them to make sure there was nothing dangerous in the bag of goodies. We won't talk about a piece or two of Reece's Peanut Butter Cups that might go missing after the inspection. Ah, great times.

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

Uncle Timmy

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



[LibertyCon](#) Facebook Post, [October 27 at 8:19pm](#) .

Hey all! Brandy here, live from our Chattanooga sister convention [HallowCon](#)! I know we said there would be an announcement this week, but we are still ironing out a few details. I miss all of my [LibertyCon](#) family, so what do you guys think about hanging out with me from June 29 - July 1, 2018 in Chattanooga? Love you all!

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

Re: Delingpole Climate Article

From: "Scott Thorn" castlep@aol.com

Regarding Delingpole's article linked to in this week's Revenge, Snopes contacted the authors of the 58 papers cited in the June article and every one of the scientists that responded said that Delingpole had either misinterpreted, misunderstood or misused their work and none of them agreed with the conclusions he drew from their research. <https://www.snopes.com/scientific-papers-global-warming-myth/>

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I looked back on Breitbart's website about this paper and there have been no retractions of the original article. I then went on to find a similar article,

400 Scientific Papers Undermine Global Warming, and That's Just for This Year, BY V SAXENA, OCTOBER 25, 2017 AT 3:40PM,

[https://conservativetribune.com/scientific-papers-global-warming/?utm_source=Emails&utm_medium=newsletter&utm_campaign=dailypm&utm_content=conservative-tribune,](https://conservativetribune.com/scientific-papers-global-warming/?utm_source=Emails&utm_medium=newsletter&utm_campaign=dailypm&utm_content=conservative-tribune)

and Snopes had no comment about this one. UT

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

Re: Star Trek Discovery Comments

From: "Holly Lisle" hdl@hollylisle.com

Try The Orville. On Fox. If you're really fast.

It's the true spiritual successor to Star Trek.

<U><T><'><s><*><C><O><M><M><E><N><T>

I have been watching the Orville since it came on. At first I didn't love it but I admit that it is growing on me. And I agree with you Holly, it is to me the spiritual successor to Star Trek, UT

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

Re: Star Trek Discovery Comments

From: "J. R. Madden" jrmaddog@aol.com

"... the cannon of Star Trek."

cannon - goes boom

canon - a collection of sacred books accepted as genuine.

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

Re: Joke

From: Stephanie Osborn

Regarding this joke:

"Some people try to turn back their odometers. Not me! I want people to know why I look this way. I've traveled a long way and some of the roads weren't paved. "

My response would be: "Wait. There were roads?!"

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

Re: Liquid sodium

From: "Jim Woosley" jimwoosley@aol.com

Also there was a mid-90's, IIRC, power plant accident in Japan where four workers were injured, IIRC, trying to collect spilled molten sodium from their sodium-cooled reactor in an open bucket.

Wiki tells it a little differently than I remember:

https://en.wikipedia.org/wiki/Monju_Nuclear_Power_Plant#1995_sodium_leak_and_fire

Also: <http://www.nytimes.com/1996/02/24/world/reactor-accident-in-japan-imperils-energy-program.html>

[www.iaea.org/inis/collection/NCLCollectionStore/ Public/31/044/31044840.pdf](http://www.iaea.org/inis/collection/NCLCollectionStore/Public/31/044/31044840.pdf)

<https://www.youtube.com/watch?v=SiSqW6pFuR8> shows the four workers in protective gear exploring the scene. Very different from my 20 year old memory of news reports.

I recall from college (go Big Re...oh, never mind) the (possibly apocryphal) story of a classmate who stole a brick of sodium from the chemistry department and threw it into the Barren River (now presumably more barren), where it "skipped" upstream on the series of heat explosions generated every time it touched the surface of the water.

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

From: "Jim Woosley" Jimwoosley@aol.com



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



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

THE GETTING DEPORTED BY TRUMP HALLOWEEN COSTUME



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

VIDEO AT THE WEBSITE

From: "Mike Waldrip" waldripk@gmail.com

WATCH A SHARK SCARE THE CRAP OUT OF SOME DUDE AT THE MUSEUM

http://mashable.com/2017/10/25/man-scared-fake-shark-museum/?utm_campaign=Mash-Prod-RSS-Feedburner-All-Partial&utm_cid=Mash-Prod-RSS-Feedburner-All-Partial&utm_source=feedly&utm_medium=webfeeds#xmftfCrYMZqF

Be warned: The International Spy Museum in D.C. is a total troll.

If you haven't already seen it, there's a shark exhibit in the museum, which has become well known in the past few years for briefly terrifying those who are easily scared.

In the exhibit, there's a screen that's supposed to look like an aquarium, with a sign that reads, "touch at your own risk" above it. when you touch the glass, it triggers a fake shark that then comes charging at the glass, cracking it when it makes contact.

People have been falling for it for years, but this dude's reaction may be the best yet.

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

INPONDERABLES

1. If you take an Oriental person and spin him around several times, does he become disoriented?
2. If people from Poland are called Poles, why aren't people from Holland called Holes?
3. Do infants enjoy infancy as much as adults enjoy adultery?
4. If a pig loses its voice, is it disgruntled?
5. If love is blind, why is lingerie so popular?
6. Why is the man who invests all your money called a broker?
7. When cheese gets its picture taken, what does it say?
8. Why is a person who plays the piano called a pianist but a person who drives a racing car not called a racist?
9. Why are a wise man and a wise guy opposites?
10. Why do overlook and oversee mean opposite things?
11. Why isn't the number 11 pronounced onety one? (I like this one a lot!)
12. 'I am' is reportedly the shortest sentence in the English language. Could it be that 'I do' is the longest sentence?

13. If lawyers are disbarred and clergymen defrocked, doesn't it follow that electricians can be delighted, musicians denoted, cowboys deranged, models deposed, tree surgeons debarked, and dry cleaners depressed?

14. I thought about how mothers feed their babies with tiny little spoons and forks, so I wondered if Chinese mothers use toothpicks?

15. Why do they put pictures of criminals up in the Post Office? What are we supposed to do, write to them? Why don't they just put their pictures on the postage stamps so the postmen can look for them while they deliver the post?

16. You never really learn to swear until you learn to drive.

17. No one ever says, 'It's only a game' when their team is winning.

18. Ever wonder about those people who spend two pound a piece on those little bottles of Evian water? Try spelling Evian backwards:

19. Isn't making a smoking section in a restaurant like making a peeing section in a swimming pool?

20. If 4 out of 5 people suffer from diarrhea, does that mean that one enjoys it?

21. Why if you send something by road it is called a shipment, but when you send it by sea it is called cargo?

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

A BETTER TOLD VERSION OF AN OLD JOKE

The best story of the year doesn't give the proper praise and Credit for this painful but understandable story as told by a loving wife.

The pastor asked if anyone in the congregation would like to express praise for answered prayers.

Suzie Smith stood and walked to the podium.

She said, "I have a praise.

Two months ago, my husband, Tom, had a terrible bicycle wreck and his scrotum was completely crushed.

The pain was excruciating and the doctors didn't know if they could help him."

(You could hear a muffled gasp from the men in the congregation as they imagine the pain that poor Tom must have experienced.)

"Tom was unable to hold me or the children," she went on, "and every move caused him terrible pain."

We prayed as the doctors performed a delicate operation, and it turned out they were able to piece together the crushed remnants of Tom's scrotum, and wrap wire around it to hold it in place."

(Again, the men in the congregation cringed and squirm uncomfortably as they imagined the horrible surgery performed on Tom.)

"Now," she announced in a quivering voice, "thank the Lord, Tom is out of the hospital and the doctors say that with time, his scrotum should recover completely." (All the men sighed with unified relief.)

The pastor rose and tentatively asked if anyone else had something to say. A man slowly stood up and walked just as slowly to the podium.

He said, "I'm Tom Smith." The entire congregation held its breath.

"I just want to tell my wife -- the word is sternum."

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

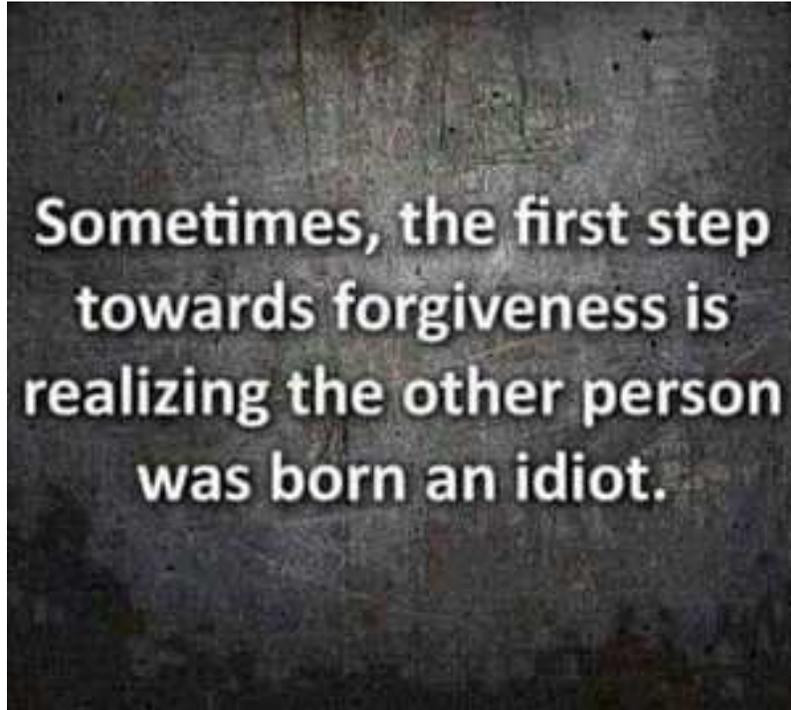


'IT'S ONE WORD GEORGE!'

STARECAT.COM

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

Of Course I Didn't Mean You, Of Course Not.



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



Do you want to go with the deluxe colonoscopy using a tiny fiber optics camera, or the economy procedure using the hamster and GoPro helmet?

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

UNUSUAL WALK

My cousin sent this to me.

Two medical students were walking along the street when they saw an old man walking with his legs spread apart. He was stiff-legged and walking slowly.

One student said to his friend: "I'm sure that poor old man has Peltry Syndrome. Those people walk just like that."

The other student says: "No, I don't think so. The old man surely has Zovitzki Syndrome. He walks slowly and his legs are apart, just as we learned in class."

Since they couldn't agree they decided to ask the old man. They approached him and one of the students said to him, "We're medical students and couldn't help but notice the way you walk, but we couldn't agree on the syndrome you might have..Could you tell us what it is?"

The old man said, "I'll tell you, but first you tell me what you two fine medical students think."

The first student said, "I think it's Peltry Syndrome."

The old man said, "You thought - but you are wrong."

The other student said, "I think you have Zovitzki Syndrome."

The old man said, "You thought - but you are wrong."

So they asked him, "Well, old timer, what do you have?"

The old man said, "Well, I thought it was GAS - but I was wrong, too!"

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

LAWYER VS POLICEMAN

A lawyer runs a stop sign and gets pulled over by a traffic cop. He thinks he's smarter being a big shot lawyer from New York and has a better education than a police officer from West Virginia. The officer asks for license and registration.

The lawyer asks, "What for? Did I make a mistake?"

The officer responds, "You didn't come to a complete stop at the stop sign."

The lawyer says, "I slowed down and nobody was coming."

"You still didn't come to a complete stop. License and registration please," say the cop impatiently.

The lawyer says, "If you can show me the legal difference between slow down and stop, I'll give you my license and registration and you can give me the traffic ticket. If not, you let me go and don't give me the traffic ticket."

The cop says, "That sounds fair, please exit your car."

The lawyer steps out and the cop takes out his nightstick and starts beating the lawyer with it.

The cop says, "Do you want me to stop or just slow down?"

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

I filled in a job application For the local council and Under disabilities, I put Narcolepsy and Tourette's syndrome. Not only will I be able to sleep at work But if someone tries to wake me up I can tell them to eff off

=====

I was remarking on all my Mother In-law's wrinkles to her. 'Oh, they're just laughter lines', she said.

I replied, 'Nothing's that funny'.

=====

"What do we want!?"

"HEARING AIDS!!!"

"When do we want them!?"

"HEARING AIDS!!!"

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

Interesting Definitions

CIGARETTE:

A pinch of tobacco rolled in paper with fire at one end and a victim at the other!

LECTURE:

An art of transmitting Information from the notes of the lecturer to the notes of students without passing through the minds of either

CONFERENCE:

The confusion of one man multiplied by the number present

COMPROMISE:

The art of dividing a cake in such a way that everybody believes he got the biggest piece

TEARS:

The hydraulic force by which masculine will power is defeated by feminine water-power!

CONFERENCE ROOM:

A place where everybody talks, nobody listens and everybody disagrees later on

CLASSIC:

A book which people praise, but never read

SMILE:

A curve that can set a lot of things straight!

OFFICE:

A place where you can relax after your strenuous home life

ETC:

A sign to make others believe that you know more than you actually do

COMMITTEE:

Individuals who can do nothing individually and sit to decide that nothing can be done together

EXPERIENCE:

The name men give to their Mistakes

ATOM BOMB:

An invention to bring an end to all inventions

DIPLOMAT:

A person who tells you to go to hell in such a way that you actually look forward to the trip

OPPORTUNIST:

A person who starts taking a bath if he accidentally falls into a river

MISER:

A person who lives poor so that he can die RICH!

FATHER:

*A banker provided by nature

CRIMINAL:

A guy no different from the other, unless he gets caught

BOSS:

Someone who is early when you are late and late when you are early

POLITICIAN:

One who shakes your hand before elections and your Confidence Later

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

Ah! The Children

1) NUDITY

I was driving with my three young children one warm summer evening when a woman in the convertible ahead of us stood up and waved. She was stark naked! As I was reeling from the shock, I heard my 5-year-old shout from the back seat, 'Mom, that lady isn't wearing a seat belt!'

2) OPINIONS

On the first day of school, a first-grader handed his teacher a note from his mother. The note read, 'The opinions expressed by this child are not necessarily those of his parents '

3) KETCHUP

A woman was trying hard to get the ketchup out of the jar. During her struggle the phone rang so she asked her 4-year-old daughter to answer the phone. 'Mommy can't come to the phone to talk to you right now. She's hitting the bottle.'

4) MORE NUDITY

A little boy got lost at the YMCA and found himself in the women's locker room. When he was spotted, the room burst into shrieks, with ladies grabbing towels and running for cover. The little boy watched in amazement and then asked, 'What's the matter, haven't you ever seen a little boy before?'

5) POLICE # 1

While taking a routine vandalism report at an elementary school, I was interrupted by a little girl about 6 years old. Looking up and down at my uniform, she asked, 'Are you a cop? Yes,' I answered and continued writing the report. My mother said if I ever needed help I should ask the police. Is that right?' 'Yes, that's right,' I told her. 'Well, then,' she said as she extended her foot toward me, 'would you please tie my shoe?'

6) POLICE # 2

It was the end of the day when I parked my police van in front of the station. As I gathered my equipment, my K-9 partner, Jake, was barking, and I saw a little boy staring in at me. 'Is that a dog you got back there?' he asked.

'It sure is,' I replied.

Puzzled, the boy looked at me and then towards the back of the van. Finally he said, 'What'd he do?'

7) ELDERLY

While working for an organization that delivers lunches to elderly shut-ins, I used to take my 4-year-old daughter on my afternoon rounds. She was unfailingly intrigued by the various appliances of old age, particularly the canes, walkers and wheelchairs. One day I found her staring at a pair of false teeth soaking in a glass. As I braced myself for the inevitable barrage of questions, she merely turned and whispered, 'The tooth fairy will never believe this!'

8) DRESS-UP

A little girl was watching her parents dress for a party.. When she saw her dad donning his tuxedo, she warned, 'Daddy, you shouldn't wear that suit.'

'And why not, darling?'

'You know that it always gives you a headache the next morning.'

9) DEATH

While walking along the sidewalk in front of his church, our minister heard the intoning of a prayer that nearly made his collar wilt. Apparently, his 5-year-old son and his playmates had found a dead robin. Feeling that proper burial should be performed, they had secured a small box and cotton batting, then dug a hole and made ready for the disposal of the deceased.

The minister's son was chosen to say the appropriate prayers and with sonorous dignity intoned his version of what he thought his father always said: 'Glory be unto the Faaather, and unto the Sonnn, and into the hole he goooes.' (I want this line used at my funeral!)

10) SCHOOL

A little girl had just finished her first week of school. 'I'm just wasting my time,' she said to her mother. 'I can't read, I can't write, and they won't let me talk!'

11) BIBLE

A little boy opened the big family Bible. He was fascinated as he fingered through the old pages. Suddenly, something fell out of the Bible. He picked up the object and looked at it. What he saw was an old leaf that had been pressed in between the pages.

'Mama, look what I found,' the boy called out.

'What have you got there, dear?'

With astonishment in the young boy's voice, he answered, 'I think it's Adam's underwear!'

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

From: "Jerry Tollett" <haleja@epbf.com>



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



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

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Tim Bolgeo" tbolgeo@epbfi.com

COPS SEE NFL TEAM KNEELING, TELL THEM TAKE CARE OF YOUR OWN SECURITY

BY CILLIAN ZEAL , OCTOBER 25, 2017 AT 9:10AM

https://conservativetribune.com/cops-see-nfl-kneeling/?utm_source=Email&utm_medium=newsletter&utm_campaign=weeklyam&utm_content=conservative-tribune

If the Miami Dolphins aren't going to stand for the national anthem, Miami cops aren't going to stand for their nonsense.

According to the Miami Herald, the number of off-duty police officers willing to work Sunday's game at Miami's Hard Rock Stadium was about a third less than usual, thanks to officers who declined the detail — apparently, they were telling the Dolphins to take care of their own security.

Dade County Police Benevolent Association President John Rivera said prior to the game that police presence would be "the minimal amount where they feel safe, but I don't think they're going to have the ideal amount."

The Miami-Dade Police Department could only muster 270 officers, and only got to that number by forcing off-duty officers to show up and paying them at an overtime rate. The department is usually able to get volunteers for the game, even though the voluntary pay isn't as high. Only 175 officers volunteered for the off-duty work for Sunday's game, according to the Washington Examiner.

Rivera said that an “ideal” number would be around 400 in a game featuring Sunday’s opponents, the New York Jets. Matchups between the divisional rivals apparently produce an inordinate number of fights and incidents that need to be handled by law enforcement.

“This whole movement started against police officers,” Rivera said. “And now it’s morphed into disrespecting the flag and the country.”

The first signs of trouble began brewing on Thursday, when radio host Andy Slater revealed that due to the continued national anthem protests of Dolphins players Kenny Stills, Julius Thomas and Michael Thomas, the department was scrambling to find officers to work the Sunday game.



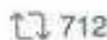
Empty Seats Galore

@EmptySeatsPics



#NFL #NYJvsMIA RT @nsbbcom: Nobody cares about jet or dolphins @[me]

1:06 AM - Oct 23, 2017



Slater also obtained an email from Rivera, which read in part that, “Working the game, or not working the game, is a personal choice and has at the very least the same level of

freedom these ‘entertainers’ claim to express. The irony of all this is that they disrespect the very officers that are there to protect them, the team owners and the property they own. But then again, hypocrisy seems to be rampant these days.”

“Public safety is the top priority of the Miami-Dade Police Department,” a spokesperson with the department said on Thursday. “We take great pride in coordinating off-regular duty police services for special events in Miami-Dade County and are working diligently on our operational plan for Sunday’s NFL game. Any shortfall in volunteer officers does not necessarily indicate that the game will result in less safety. We are weighing alternate options with our law enforcement and security partners to accomplish the desired outcome.”

Perhaps there was no reason for worry in the first place: It seems that the fans thought just as highly about the Dolphins’ anthem shenanigans as the police officers did.

I guess it’s not just the officers who are offended.

H/T TheBlaze

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

3 ILLEGALS JUMP OVER BORDER FENCE JUST AS MSNBC IS REPORTING ON TRUMP’S WALL

BY V SAXENA, OCTOBER 24, 2017 AT 1:21PM

https://conservativetribune.com/illegals-jump-over-border-fence/?utm_source=Email&utm_medium=newsletter&utm_campaign=weeklyam&utm_content=conservative-tribune

During a report Monday afternoon from the U.S.-Mexico border fence that runs next to San Diego, a reporter from MSNBC unintentionally proved why President Donald Trump’s proposed “big, beautiful” border wall is necessary.

The segment started simple enough, with MSNBC correspondent Jacob Soboroff speaking with a U.S. Border Patrol official about the logistics of Trump’s wall and also taking a look at eight project prototypes. Then all of a sudden, something happened.

“What happened?!” Soboroff shouted in shock as a group of Border Patrol agents on horseback moved in to apprehend the border jumpers. “The people are crossing!”

Yeah, that frequently happens when all you have to protect your border is a short, weak fence. And Soboroff would have known that were he not living in a liberal bubble.

“It’s like, a small group of three people jumped over in the middle of the day,” Soboroff told the Border Patrol official. “There’s a girl there in a pink backpack. Can you explain to me what’s going on?”

The fact he even needed an explanation is just sad.

“This is the reality of every day border enforcement,” the official said. “The United States is still the draw, the ultimate draw, for people that have dire situations where they’re at. We’re going to continue to witness this. It plays out on a regular basis for us.”

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

YOU JUST CAN’T MAKE THIS STUFF UP!

From: "Jim Woosley" jimwoosley@aol.com

IRONY – REP FREDERICA WILSON WROTE LEGISLATION DEMANDING DOD POLICY THAT FRAMED LETHAL MISSION OF SGT. JOHNSON...

Posted on October 23, 2017 by sundance

<https://theconservativetreehouse.com/2017/10/23/irony-rep-fredERICA-wilson-wrote-legislation-demanding-dod-policy-that-framed-lethal-mission-of-sgt-johnson/#more-140284>

Sometimes there’s a level of irony that goes beyond the normal boundaries of ordinary irony and simultaneously creates a tear in the space-time continuum of DC hypocrisy; this is one such example.

Representative Frederica Wilson, a devoted member of the professional grievance club, has been at the epicenter of a story surrounding the death of Sergeant La David Johnson in Niger ever since Wilson politicized the bereavement call of President Trump, and the bereavement of Sgt. Johnson’s widow, her constituent, Myeshia Johnson.

Representative Wilson has also claimed she was unaware of why we are carrying out military engagements in Niger, and has called the mission “President Trump’s Benghazi”.



Given that level of expressed outrage it might surprise people to know that it was Representative Frederica Wilson who personally constructed H.R. 3383 / S.1632, joint House and Senate legislation that directs the State Department and Dept of Defense to execute military missions in Niger. Yes, in 2016 Wilson demanded military campaigns in the same place Wilson claims not to know about in 2017.

From her own 2016 press release: Washington, D.C.– In a long-awaited victory, the U.S. House of Representatives today by a voice vote passed H.R. 3833/S. 1632, legislation introduced by Congresswoman Frederica S. Wilson (D-Florida) and Senator Susan Collins (R-Maine) to help combat Boko Haram.

The measure directs the U.S. secretaries of State and Defense to jointly develop a five-year strategy to aid the Nigerian government; members of the Multinational Joint Task Force created to combat Boko Haram; and international partners who’ve offered their support to counter the regional threat posed by the insurgents.

[...] “Boko Haram has pledged allegiance to ISIS and continues to commit terrible acts of brutal violence against civilians in Nigeria as well as in Chad, Cameroon, and Niger,” said

Senator Collins, who authored and originally introduced the bill. “Rep. Frederica Wilson was a willing and able partner in the effort to pass this bipartisan legislation, which requires a five-year strategy to pursue Boko Haram and will bolster U.S. efforts throughout the region. I urge the president to immediately sign this bill into law”, said Wilson.

[...] “Boko Haram captured my attention and the headlines when the terrorist group kidnapped 276 Nigerian schoolgirls from their dormitory rooms 968 days ago. For most of the world, the Chibok girls symbolize the horror that is Boko Haram, but the damage its members have wrought goes far deeper,” said Congresswoman Wilson.

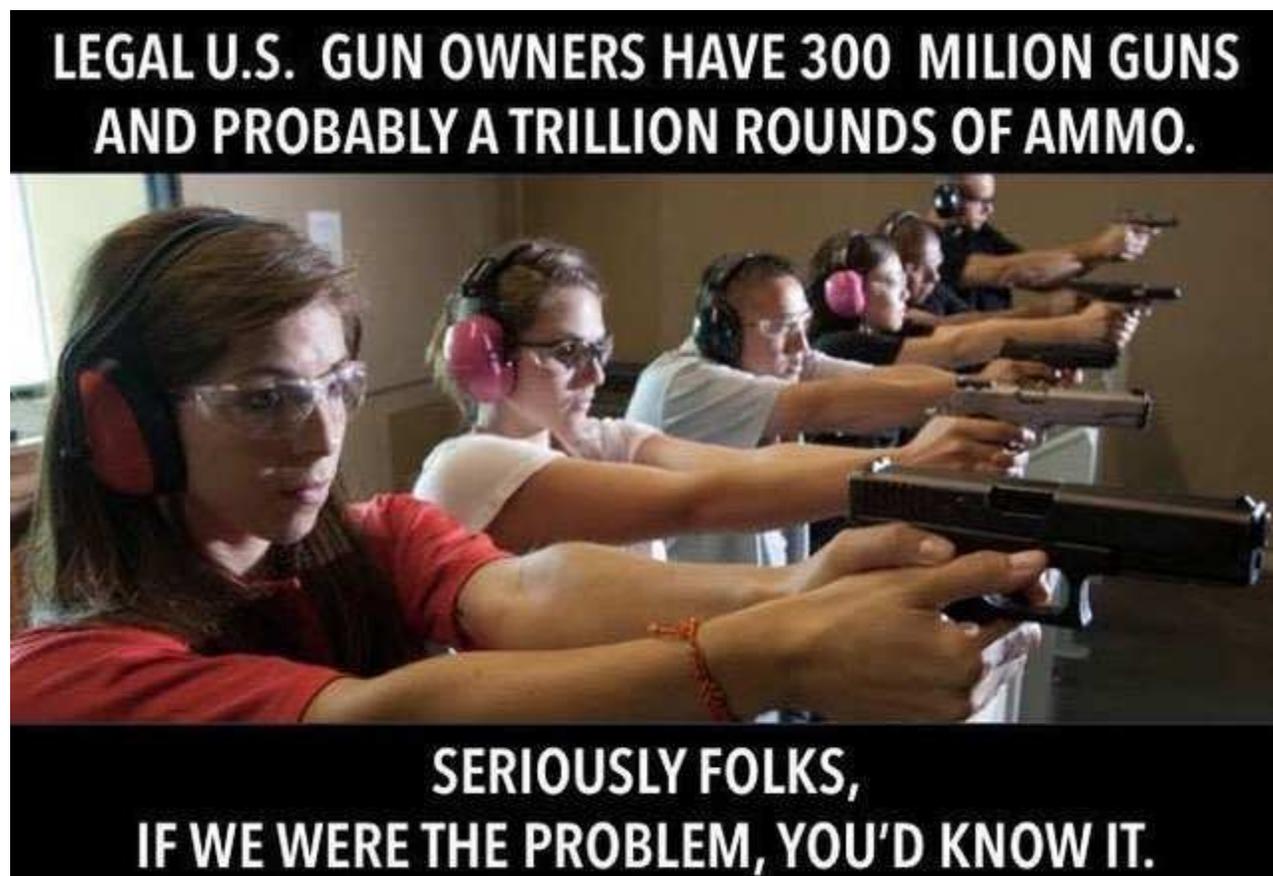
Yes, if the irony wasn't thick enough already, that press release is directly from the office of Representative Frederica Wilson. Additionally, Mrs. Wilson goes on to demand the U.S. take every possible action against Boko Haram to include their pursuit.

That means Representative Frederica “wacky” Wilson was a key and central figure in establishing congressional policy that directed the Department of Defense to carry out the very mission that killed her constituent Myeshia Johnson's husband, Sergeant La David Johnson.

Sad and pathetic irony.

Enough said.

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



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



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

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Bob Bolgeo" bbolgeo@aol.com

THIS IS AN EXCELLENT Prayer. AMEN

Read this one from a 15 year old.

Lord's Prayer

By a 15-year-old school kid who got an A+ for this entry (TOTALLY AWESOME)!

The Lord's Prayer is not allowed in most U..S. Public schools any more.

A kid in Minnesota wrote the following NEW School Prayer:-

~~~~~

Now I sit me down in school  
Where praying is against the rule  
For this great nation under God  
Finds mention of Him very odd.

If scripture now the class recites,  
It violates the Bill of Rights.  
And anytime my head I bow  
Becomes a Federal matter now.

Our hair can be purple, orange or green,  
That's no offense; it's a freedom scene.  
The law is specific, the law is precise.  
Prayers spoken aloud are a serious vice.

For praying in a public hall  
Might offend someone with no faith at all.  
In silence alone we must meditate,  
God's name is prohibited by the State.

We're allowed to cuss and dress like freaks,

And pierce our noses, tongues and cheeks.  
They've outlawed guns, but FIRST the Bible.  
To quote the Good Book makes me liable.

We can elect a pregnant Senior Queen,  
And the 'unwed daddy,' our Senior King.  
It's 'inappropriate' to teach right from wrong.  
We're taught that such 'judgments' do not belong.

We can get our condoms and birth controls,  
Study witchcraft, vampires and totem poles.  
But the Ten Commandments are not allowed,  
No word of God must reach this crowd.

It's scary here I must confess,  
When chaos reigns the school's a mess.  
So, Lord, this silent plea I make:  
Should I be shot; My soul please take!

Amen

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

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

## SCOTLAND IS NOW GETTING ELECTRICITY FROM THE WORLD'S FIRST FLOATING WIND FARM

Located just over 15 miles off Scotland's coast, the 30 Megawatt (MW) wind farm is expected to power around 20,000 households.

By Melissa C. Lott on October 22, 2017

[https://blogs.scientificamerican.com/plugged-in/scotland-is-now-getting-electricity-from-the-worlds-first-floating-wind-farm/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=tech&utm\\_content=link&utm\\_term=2017-10-24 more-stories](https://blogs.scientificamerican.com/plugged-in/scotland-is-now-getting-electricity-from-the-worlds-first-floating-wind-farm/?utm_source=newsletter&utm_medium=email&utm_campaign=tech&utm_content=link&utm_term=2017-10-24%20more-stories)



**Assembly of the wind turbines installed at the Hywind Pilot Park. Credit: Statoil**

**The world's first floating wind farm is now delivering electricity to Scotland's grid. Located just over 15 miles off the coast from Peterhead in Aberdeenshire, the 30 Megawatt (MW) wind farm is expected to power around 20,000 households.**

**Called the "Hywind Scotland Pilot Park", the new windfarm includes five large (6 MW) wind turbines and is operated by Statoil in partnership with Masdar. Each of these turbines is attached to the ocean floor using "suction anchors" that are more than 50 feet tall and weigh more than 110 tons. As with anchors on any ship, these devices prevent the turbines from straying too far from their original position as they bob with the waves.**

**Check out the video at the [WEBSITE](#) (with its epic background music) for a quick run-through of the wind farm's construction:**

**In order to smooth the flow of electricity into the Scottish grid, Statoil has also installed one of its "Batwind" lithium batteries. Capable of storing 1 megawatt-hour of electricity, this battery can help smooth the flow of power from Hywind to the grid.**

**According to Statoil, this project is 16 years in the making. After initially sketching their concept on a napkin, engineers developed technical designs and subsequently built a single full-scale demonstration turbine. This demo was installed off the Norwegian west coast. Learnings from the full-scale demo were then applied to updated designs for the Hywind project.**

In Scotland, construction of the pilot park began in June 2016. According to Bloomberg, the 30 Megawatt project came with a quite high price tag of £200 million (\$263 million). However, according to Statoil executive vice president, Irene Rummelhoff:

“Statoil has an ambition to reduce the costs of energy from the Hywind floating wind farm to € 40-60 € per MWh [\$47-40] by 2030. Knowing that up to 80% of the offshore wind resources are in deep waters (+60 meters) where traditional bottom fixed installations are not suitable, floating offshore wind is expected to play a significant role in the growth of offshore wind going forward.”

Given the rapid declines that have been seen in the cost of other windpower technologies, these ambitions might turn into reality. For now, the windfarm will receive a \$185 per MWh subsidy from the British government. This amount is in addition to the \$65 per MWh that the wind farm will receive from the wholesale market for the electricity that it generates.



The five floating wind turbines at the Hywind Pilot Park. Credit: Statoil

The views expressed are those of the author(s) and are not necessarily those of Scientific American.

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## SCIENTIST DEVISES A SOLAR REACTOR TO MAKE WATER AND OXYGEN FROM MOON ROCKS

by Staff Writers, ashington DC (SPX) Oct 30, 2017

[http://www.spacedaily.com/reports/Scientist\\_devises\\_a\\_solar\\_reactor\\_to\\_make\\_water\\_and\\_oxygen\\_from\\_moon\\_rocks\\_999.html](http://www.spacedaily.com/reports/Scientist_devises_a_solar_reactor_to_make_water_and_oxygen_from_moon_rocks_999.html)



**An aerospace engineer has built a device to make water and oxygen from the lunar regolith, powered by solar energy.**

**Working over a ten year period at the Plataforma Solar de Almeria (CIEMAT) Denk has designed and built a device to make enough oxygen and water for 6 to 8 astronauts, powered by a thermal solar reactor. In 2017 it completed a six-month test run.**

**The idea is not new; just the implementation.**

**"From the beginning people were thinking this probably has to be done with a solar furnace, because on the Moon there is not very much to heat a system that you can use; photovoltaics with electricity or a nuclear reactor or concentrated solar radiation," said Denk, who has experience in concentrating solar and in particles engineering.**

**"After the Apollo missions, scientists had a lot of ideas of how to make oxygen on the Moon, because every material that you bring from Earth costs money. For every kilogram of payload you need hundreds of kilograms of fuel.**

**"**

Denk's simple solar reactor could chemically split water from lunar soil, and electrolysis could then split the H<sub>2</sub>O into oxygen and hydrogen. But few other attempts used solar reactors, and ones that did had flawed designs, due to undersizing the solar concentrator to heat the reactor - and none exceeded bench scale.

"Mine is the real size you would build on the Moon to make oxygen for a crew of six or eight, so there's no upscaling needed later. I have also extended my use of fluidized beds. It's not only the reactor itself, but it is also the supply lines and the removal pipe for the particles," said Denk of his fluidized bed solar reactor design. In a fluidized bed reactor, particles behave like liquid.

"It looks just like boiling liquid. If you look up close you see it move very wildly and the same thing happens with fluidized particles. So you have very good mixing and very good contact between the particles and the gas. The result is a very homogeneous temperature and efficient chemistry," he explained.

The regolith would need pre-treatment to smooth the particles out, because unlike rounded particles weathered by atmosphere and water on Earth, lunar regolith particles are strange shapes with sharp edges, as there's no atmosphere on the Moon to wear them down. Pretreating them "round" then sieving for the correct fraction of the grain size would be critical for the safe operation of the fluidized bed reactor.

Denk was initially inspired by a NASA Centennial challenge in 2008 for oxygen from Moon rock. "They put all the questions that they have but they have no money to answer them to the public and if you succeed you can win \$2 million."

The weight limit was so low, 50 kg, that NASA's challenge expired with no takers. Denk's can process 25 kg of particle load in less than an hour and currently weighs 400 kg. He thinks he can reduce the weight.

But, ten years later, he has met the two other conditions: that it could produce 2.5 kg of oxygen in four hours, and that electricity use should not surpass 10 kW. The chemical reaction is mostly powered by the solar reactor, and would use less than 5 kW of electricity, mostly for the second step; splitting oxygen from hydrogen with electrolysis.

He has demonstrated the first step, making 700 g of water in one hour - which would enable making 2.5 g of oxygen in 4 hours using electrolysis, a proven technology, but that will need additional funding.

Water produced in a solar reactor for the Moon With the successful test of this solar reactor design, Denk has achieved the first step, creating H<sub>2</sub>O on the Moon using solar thermal energy. For the second step, solar electrolysis would break the H<sub>2</sub>O into hydrogen and oxygen.

His process uses ilmenite (TiO<sub>3</sub>), an iron oxide found in the "dark" areas of the Moon. It would be dug up by a small robot and carried to the reactor. Denk likes the Rassor digging robot, with opposing rotating drums that prevent it from propelling off-surface by the force of digging in lunar gravity (one-sixth Earth gravity).

How this would split H<sub>2</sub>O and oxygen from lunar soil:

The chemical reactions to make oxygen and water would involve one import from Earth, hydrogen; but just initially.

"The hydrogen would be just for the first few hours. Then that would be recycled with the electrolyzer," he explained. "Even if you bring hydrogen from Earth and get oxygen from the Moon for making rocket fuel, you save nearly 90% of the weight. Hydrogen is the lightest element. Oxygen is much heavier."

He described the two-step process:

+ The main component is the iron-titanium oxide - ilmenite ( $\text{FeTiO}_3$ ). To remove the oxygen, you add hydrogen so it becomes water.  $\text{H}_2\text{O}$  comes out of the first step.  $\text{FeTiO}_3 + \text{H}_2 + \text{solar heat} \rightarrow \text{Fe} + \text{TiO}_2 + \text{H}_2\text{O}$

+ The second step is in an electrolyzer using the product water from the reactor. The water is split to produce hydrogen and oxygen.  $\text{H}_2\text{O} + \text{electric power} \rightarrow \text{H}_2 + 0.5\text{O}_2$

The oxygen is the product and the hydrogen gets returned to the process.

The Moon's ideal solar resource

The Moon has ideal conditions for making solar fuels, because chemical reactions to split oxygen and hydrogen require very high temperatures, and work best when they are continuous. The Moon's annual normal solar irradiation is nearly 6,000 kWh per square meter per year, and lunar days are 14 earth-days long; 354 hours.

"Daylight is 2 weeks without interruption, and then you have the same half-month of dark as night. So if you need three hours to turn it on, it's not a big problem. There is no atmosphere on the Moon, and there is no weather, no clouds, so you really can operate from sunrise to sunset at full power for each half-month," Denk said.

Concentrated solar furnaces (see Task II), are able to achieve very high temperatures. But at above 1050 C, the Moon's regolith particles tended to gum up the works by glueing together; a process called sintering.

"The chemical reaction starts to be working from 800 C but sintering starts to be a problem at 1,050 C degrees, so my goal was not to surpass the 1000 C," he explained. "I achieved a bit more than 970 C and the maximum was hardly above 1000 C. So I had a temperature in the bed of not more than 30 up and down, for the highest possible average temperature without sintering."

With the successful test of this solar reactor design, Denk has achieved the first step, creating  $\text{H}_2\text{O}$  on the Moon using solar thermal energy. For the second step, solar electrolysis would break the  $\text{H}_2\text{O}$  into hydrogen and oxygen.

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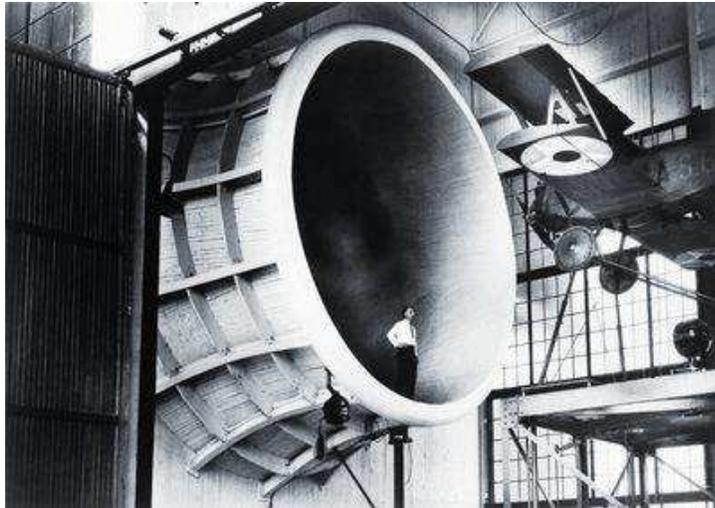
From: "Chris Cowan" [cowanc1028@earthlink.net](mailto:cowanc1028@earthlink.net)

100 YEARS OF ROCKETRY AND RESEARCH AT NASA'S LANGLEY FACILITY

See pioneering mathematicians, giant wind tunnels powered by submarine engines, and hypersonic rocket models.

BY ANIKA BURGESS, OCTOBER 20, 2017

[https://www.atlasobscura.com/articles/100-years-nasa-innovation-photos-wind-tunnel-space-math?utm\\_source=Atlas+Obscura+Daily+Newsletter&utm\\_campaign=2404332db9-EMAIL\\_CAMPAIGN\\_2017\\_10\\_25&utm\\_medium=email&utm\\_term=0\\_f36db9c480-2404332db9-63378349&ct=t\(\)&mc\\_cid=2404332db9&mc\\_eid=4c73fa18f4](https://www.atlasobscura.com/articles/100-years-nasa-innovation-photos-wind-tunnel-space-math?utm_source=Atlas+Obscura+Daily+Newsletter&utm_campaign=2404332db9-EMAIL_CAMPAIGN_2017_10_25&utm_medium=email&utm_term=0_f36db9c480-2404332db9-63378349&ct=t()&mc_cid=2404332db9&mc_eid=4c73fa18f4)



Langley researcher Elton W. Miller in Langley's Propeller Research Tunnel, 1927. ALL IMAGES: COURTESY NASA LANGLEY RESEARCH CENTER

In July 1927, NACA—the National Advisory Committee for Aeronautics, the precursor to NASA—opened the Langley Propeller Research Tunnel. Compared with earlier wind tunnels, which had measured a measly five feet in diameter, it was a behemoth. It housed a 28-foot propeller with eight blades, each weighing 600 pounds, and was powered by two 1,000-

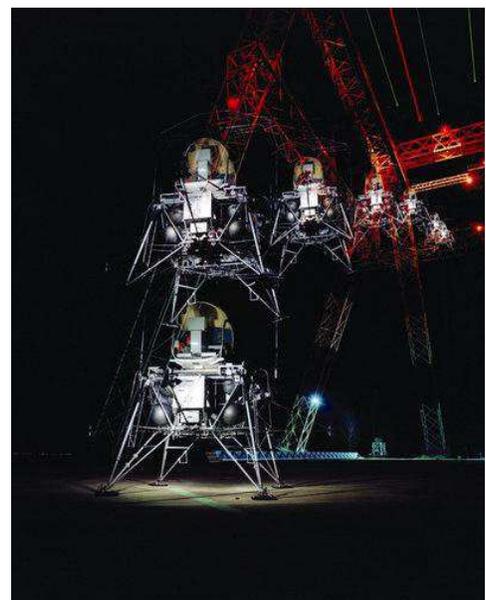
horsepower diesel submarine engines. The result was a 20-foot stream of air that could reach 110 miles per hour, for testing aircraft components.

The tunnel was located at the Langley Research Center in Virginia, a place where, since 1917, engineers and mathematicians have researched and tested the knottiest of aerodynamic problems. In 1958, NACA's focus shifted to space technology, and changed its name to NASA.

All through this time, the research facility at Langley has been home to a notable number of achievements. Four years after building the Propeller Research Tunnel, Langley opened the world's first full-scale wind tunnel, which tested most high-performance aircraft used in World War II. Langley also constructed a Lunar Landing Facility to simulate the Moon landing, which was used by astronauts Buzz Aldrin and Neil Armstrong, among others.

A multiple-exposure image showing a simulated Moon landing of the Lunar Excursion Module at Langley's Lunar Landing Research Facility.

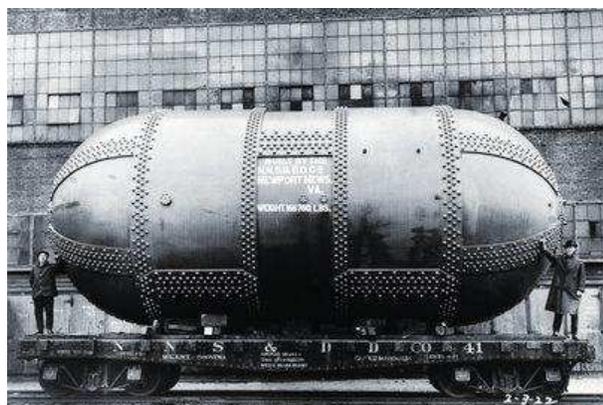
The facility was also home to some extraordinary mathematical minds. Katherine Johnson was originally hired to work at NACA before working on the



calculations for both Alan Shepard's and John Glenn's space flights, and the 1969 Apollo 11 flight. Her achievements, which were recognized in 2015 by President Obama with the Presidential Medal of Freedom, are all the more extraordinary considering the barriers facing African-American women in the mid-20th century.

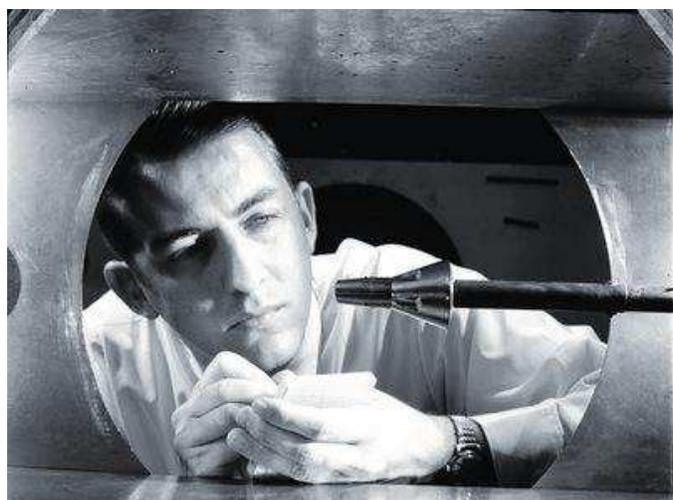
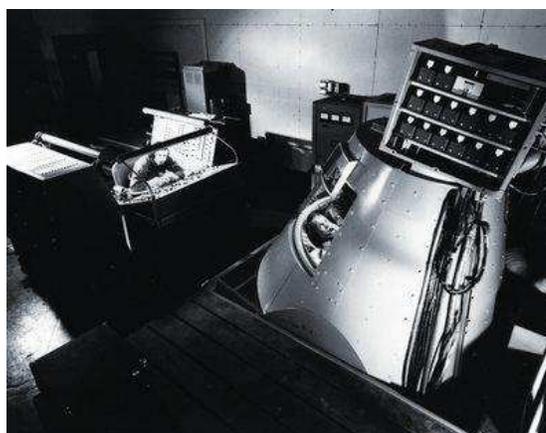
It has been 100 years since the Langley Research Center first opened. To celebrate its centenary, the Chrysler Museum of Art in Norfolk, Virginia, has a new photo exhibition, which runs through to March 11, 2018. Atlas Obscura has a selection of images from the show.

NASA research mathematician Katherine Johnson at her desk at NASA Langley Research Center with a globe, or "Celestial Training Device," 1962.



The Variable Density Tunnel (VDT) on a rail car, 1922. The VDT revolutionized wind tunnel technology, and put Langley and NACA at the forefront of aeronautical research in the 1920s.

John Glenn runs through a training exercise in the Mercury Procedures Trainer at the Space Task Group at Langley Field, 1960.

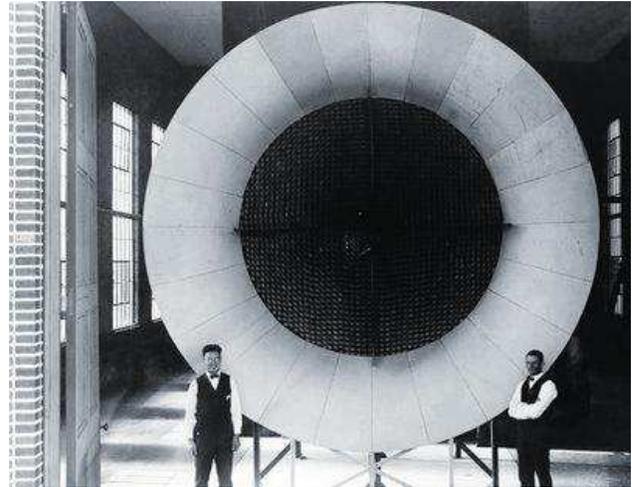


A researcher inspects a mounted Gemini spacecraft model in the 11-inch Hypersonic Tunnel, 1962.

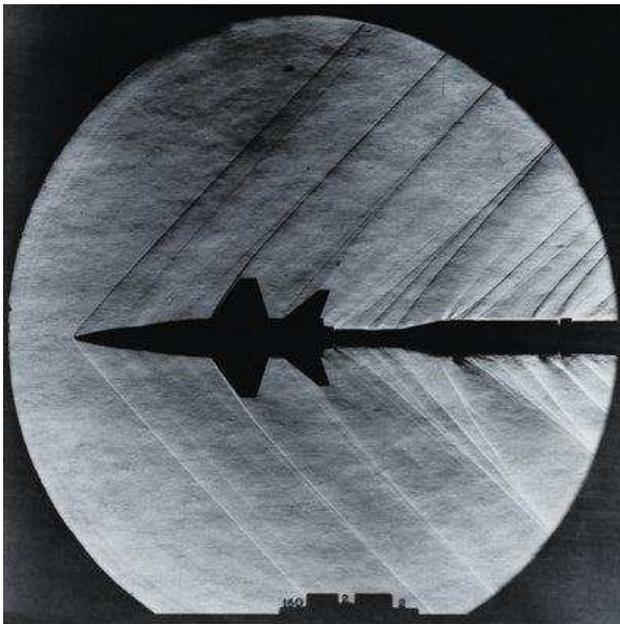
Blades in the Stability Tunnel's swirl test section rotated to impart a helical swirl to the flow. In this test, an experimental Douglas D-558-2 Skyrocket is being studied for roll behavior as it glides to an unpowered, or "dead stick" landing.



Two mechanics pose near the entrance of Langley's first wind tunnel, c. 1920.



Shock waves emerge from a small-scale model of the X-15 rocket-powered aircraft in the 4 x 4-Foot Supersonic Pressure Tunnel, 1962.



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## TO STAY YOUNG, KILL ZOMBIE CELLS

An anti-aging strategy that works in mice is about to be tested in humans

By Megan Scudellari, Nature magazine on October 25, 2017

[https://www.scientificamerican.com/article/to-stay-young-kill-zombie-cells/?WT.mc\\_id=send-to-friend](https://www.scientificamerican.com/article/to-stay-young-kill-zombie-cells/?WT.mc_id=send-to-friend)



Credit: Dimitri Otis Getty Images

Jan van Deursen was baffled by the decrepit-looking transgenic mice he created in 2000. Instead of developing tumours as expected, the mice experienced a stranger malady. By the time they were three months old, their fur had grown thin and their eyes were glazed with cataracts. It took him years to work out why: the mice were ageing rapidly, their bodies clogged with a strange type of cell that did not divide, but that wouldn't die.

That gave van Deursen and his colleagues at Mayo Clinic in Rochester, Minnesota, an idea: could killing off these 'zombie' cells in the mice delay their premature descent into old age? The answer was yes. In a 2011 study, the team found that eliminating these 'senescent' cells forestalled many of the ravages of age. The discovery set off a spate of similar findings. In the seven years since, dozens of experiments have confirmed that senescent cells accumulate in ageing organs, and that eliminating them can alleviate, or even prevent, certain illnesses (see 'Becoming undead'). This year alone, clearing the cells in mice has been shown to restore fitness, fur density and kidney function. It has also improved lung disease and even mended damaged cartilage. And in a 2016 study, it seemed to extend the lifespan of normally ageing mice.

“Just by removing senescent cells, you could stimulate new tissue production,” says Jennifer Elisseeff, senior author of the cartilage paper and a biomedical engineer at Johns Hopkins University in Baltimore, Maryland. It jump-starts some of the tissue's natural repair mechanisms, she says.

This anti-ageing phenomenon has been an unexpected twist in the study of senescent cells, a common, non-dividing cell type first described more than five decades ago. When a cell enters senescence—and almost all cells have the potential to do so—it stops producing copies of itself, begins to belch out hundreds of proteins, and cranks up anti-death pathways full blast. A senescent cell is in its twilight: not quite dead, but not dividing as it did at its peak.

Now biotechnology and pharmaceutical companies are keen to test drugs—known as senolytics—that kill senescent cells in the hope of rolling back, or at least forestalling, the

ravages of age. Unity Biotechnology in San Francisco, California, co-founded by van

Deursen, plans to conduct multiple clinical trials over the next two-and-a-half years, treating people with osteoarthritis, eye diseases and pulmonary diseases. At Mayo, gerontologist James Kirkland, who took part in the 2011 study, is cautiously beginning a handful of small, proof-of-concept trials that pit senolytic drugs against a range of age-related ailments. "I lose sleep at night because these things always look good in mice or rats, but when you get to people you hit a brick wall," says Kirkland.

No other anti-ageing elixir has yet cleared that wall, and for a few good reasons. It's next to impossible to get funding for clinical trials that measure an increase in healthy lifespan. And even as a concept, ageing is slippery. The US Food and Drug Administration has not labelled it a condition in need of treatment.

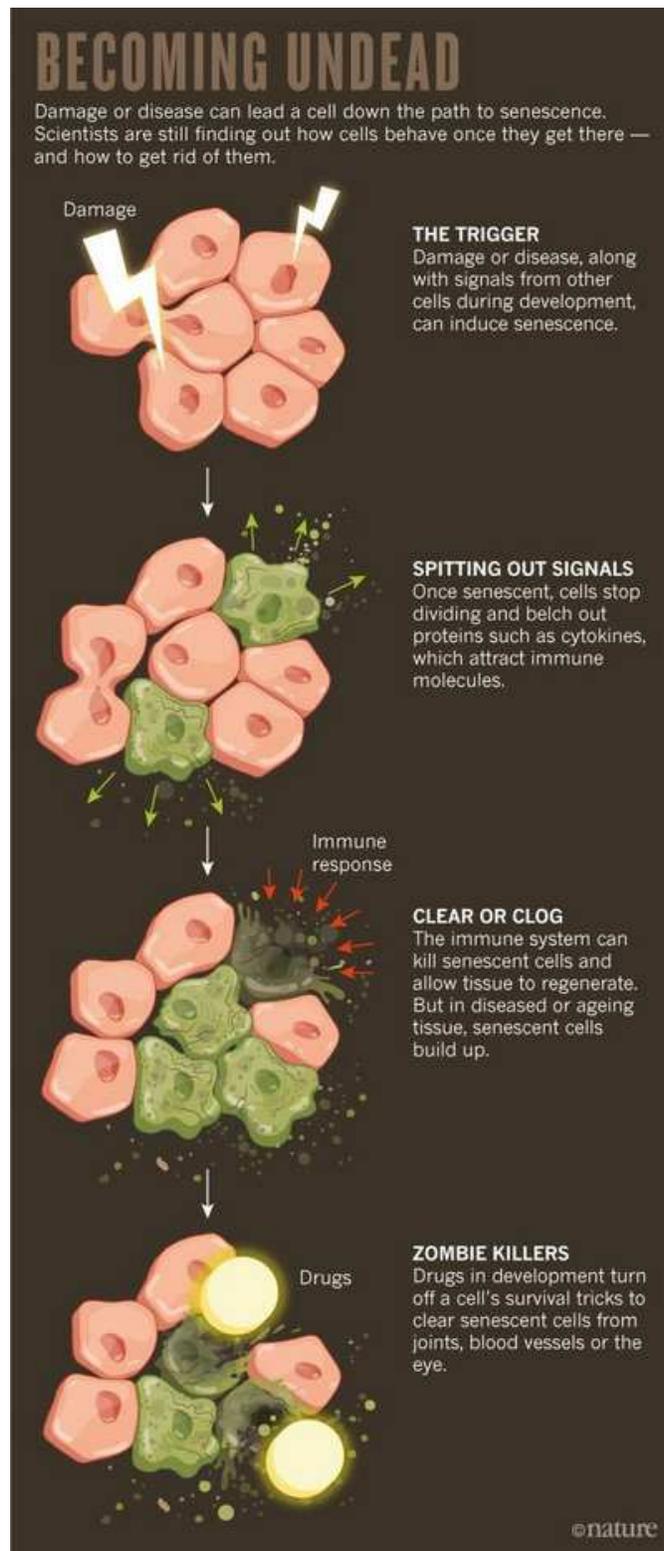
Still, if any of the trials offer "a whiff of human efficacy", says Unity's president, Ned David, there will be a massive push to develop treatments and to better understand the fundamental process of ageing. Other researchers who study the process are watching closely. Senolytics are "absolutely ready" for clinical trials, says Nir Barzilai, director of the Institute for Aging Research at the Albert Einstein College of Medicine in New York City. "I think senolytics are drugs that could come soon and be effective in the elderly now, even in the next few years."

Credit: Nature, October 24, 2017, doi:10.1038/550448a

### THE DARK SIDE

When microbiologists Leonard Hayflick and Paul Moorhead coined the term senescence in 1961, they suggested that it represented ageing on a cellular level.

But very little research was done on ageing at the time, and Hayflick recalls people calling him an idiot for making the observation. The idea was ignored for decades.



Although many cells do die on their own, all somatic cells (those other than reproductive ones) that divide have the ability to undergo senescence. But, for a long time, these twilight cells were simply a curiosity, says Manuel Serrano of the Institute for Research in Biomedicine in Barcelona, Spain, who has studied senescence for more than 25 years. “We were not sure if they were doing something important.” Despite self-disabling the ability to replicate, senescent cells stay metabolically active, often continuing to perform basic cellular functions.

By the mid-2000s, senescence was chiefly understood as a way of arresting the growth of damaged cells to suppress tumours. Today, researchers continue to study how senescence arises in development and disease. They know that when a cell becomes mutated or injured, it often stops dividing—to avoid passing that damage to daughter cells. Senescent cells have also been identified in the placenta and embryo, where they seem to guide the formation of temporary structures before being cleared out by other cells.

But it wasn't long before researchers discovered what molecular biologist Judith Campisi calls the “dark side” of senescence. In 2008, three research groups, including Campisi's at the Buck Institute for Research on Aging in Novato, California, revealed that senescent cells excrete a glut of molecules—including cytokines, growth factors and proteases—that affect the function of nearby cells and incite local inflammation. Campisi's group described this activity as the cell's senescence-associated secretory phenotype, or SASP. In recent unpublished work, her team identified hundreds of proteins involved in SASPs.

In young, healthy tissue, says Serrano, these secretions are probably part of a restorative process, by which damaged cells stimulate repair in nearby tissues and emit a distress signal prompting the immune system to eliminate them. Yet at some point, senescent cells begin to accumulate—a process linked to problems such as osteoarthritis, a chronic inflammation of the joints, and atherosclerosis, a hardening of the arteries. No one is quite sure when or why that happens. It has been suggested that, over time, the immune system stops responding to the cells.

Surprisingly, senescent cells turn out to be slightly different in each tissue. They secrete different cytokines, express different extracellular proteins and use different tactics to avoid death. That incredible variety has made it a challenge for labs to detect and visualize senescent cells. “There is nothing definitive about a senescent cell. Nothing. Period,” says Campisi.

In fact, even the defining feature of a senescent cell—that it does not divide—is not written in stone. After chemotherapy, for example, cells take up to two weeks to become senescent, before reverting at some later point to a proliferating, cancerous state, says Hayley McDaid, a pharmacologist at Albert Einstein College of Medicine. In support of that idea, a large collaboration of researchers found this year that removing senescent cells right after chemotherapy, in mouse models for skin and breast cancer, makes the cancer less likely to spread.

The lack of universal features makes it hard to take inventory of senescent cells. Researchers have to use a large panel of markers to search for them in tissue, making the work laborious and expensive, says van Deursen. A universal marker for senescence would make the job much easier—but researchers know of no specific protein to label, or process to identify. “My money would be on us never finding a senescent-specific marker,” Campisi adds. “I would bet a good bottle of wine on that.”

Earlier this year, however, one group did develop a way to count these cells in tissue. Valery Krizhanovsky and his colleagues at the Weizmann Institute of Science in Rehovot, Israel, stained tissues for molecular markers of senescence and imaged them to analyse the number of senescent cells in tumours and aged tissues from mice. “There were quite a few more cells than I actually thought that we would find,” says Krizhanovsky. In young mice, no more than 1% of cells in any given organ were senescent. In two-year-old mice, however, up to 20% of cells were senescent in some organs.

But there's a silver lining to these elusive twilight cells: they might be hard to find, but they're easy to kill.

## **OUT WITH THE OLD**

In November 2011, while on a three-hour flight, David read van Deursen and Kirkland's just-published paper about eliminating zombie cells. Then he read it again, and then a third time. The idea “was so simple and beautiful”, recalls David. “It was almost poetic.” When the flight landed, David, a serial biotech entrepreneur, immediately rang van Deursen, and within 72 hours had convinced him to meet to discuss forming an anti-ageing company.

Kirkland, together with collaborators at the Sanford Burnham Medical Research Institute in La Jolla, California, initially attempted a high-throughput screen to quickly identify a compound that would kill senescent cells. But they found it to be “a monumental task” to tell whether a drug was affecting dividing or non-dividing cells, Kirkland recalls. After several failed attempts, he took another tack.

Senescent cells depend on protective mechanisms to survive in their 'undead' state, so Kirkland, in collaboration with Laura Niedernhofer and others from the Scripps Research Institute in Jupiter, Florida, began seeking out those mechanisms. They identified six signalling pathways that prevent cell death, which senescent cells activate to survive.

Then it was just a matter of finding compounds that would disrupt those pathways. In early 2015, the team identified the first senolytics: an FDA-approved chemotherapy drug, dasatinib, which eliminates human fat-cell progenitors that have turned senescent; and a plant-derived health-food supplement, quercetin, which targets senescent human endothelial cells, among other cell types. The combination of the two—which work better together than apart—alleviates a range of age-related disorders in mice.

Ten months later, Daohong Zhou at the University of Arkansas for Medical Sciences in Little Rock and his colleagues identified a senolytic compound now known as navitoclax, which inhibits two proteins in the BCL-2 family that usually help the cells to survive. Similar findings were reported within weeks by Kirkland's lab and Krizhanovsky's lab.

By now, 14 senolytics have been described in the literature, including small molecules, antibodies and, in March this year, a peptide that activates a cell-death pathway and can restore lustrous hair and physical fitness to ageing mice.

So far, each senolytic kills a particular flavour of senescent cell. Targeting the different diseases of ageing, therefore, will require multiple types of senolytics. “That's what's going to make this difficult: each senescent cell might have a different way to protect itself, so we'll have to find combinations of drugs to wipe them all out,” says Niedernhofer. Unity maintains a large atlas documenting which senescent cells are associated with which

disease; any weaknesses unique to given kinds of cell, and how to exploit those flaws; and the chemistry required to build the right drug for a particular tissue. There is no doubt that for different indications, different types of drug will need to be developed, says David. “In a perfect world, you wouldn’t have to. But sadly, biology did not get that memo.”

For all the challenges, senolytic drugs have several attractive qualities. Senescent cells will probably need to be cleared only periodically—say, once a year—to prevent or delay disease. So the drug is around for only a short time. This type of ‘hit and run’ delivery could reduce the chance of side effects, and people could take the drugs during periods of good health. Unity plans to inject the compounds directly into diseased tissue, such as a knee joint in the case of osteoarthritis, or the back of the eye for someone with age-related macular degeneration.

And unlike cancer, in which a single remaining cell can spark a new tumour, there’s no need to kill every senescent cell in a tissue: mouse studies suggest that dispatching most of them is enough to make a difference. Finally, senolytic drugs will clear only senescent cells that are already present—they won’t prevent the formation of such cells in the future, which means that senescence can continue to perform its original tumour-suppressing role in the body.

Those perks haven’t convinced everybody of the power of senolytics. Almost 60 years after his initial discovery, Hayflick now believes that ageing is an inexorable biophysical process that cannot be altered by eliminating senescent cells. “Efforts to interfere with the ageing process have been going on since recorded human history,” says Hayflick. “And we know of nothing—nothing—that has demonstrated to interfere with the ageing process.”

Fans of senolytics are much more optimistic, emboldened by recent results. Last year, van Deursen’s lab went beyond its tests on super-aged mice and showed that killing off senescent cells in normally ageing mice delayed the deterioration of organs associated with ageing, including the kidney and heart. And—to the joy of anti-ageing enthusiasts everywhere—it extended the animals’ median lifespan by about 25%.

Successful results from mouse studies have already lured seven or eight companies into the field, Kirkland estimates. At Mayo, one clinical trial has opened, pitting dasatinib and quercetin in combination against chronic kidney disease. Kirkland plans to try other senolytics against different age-related diseases. “We want to use more than one set of agents across the trials and look at more than one condition,” he says.

If eliminating senescent cells in humans does improve age-related illnesses, researchers will aim to create broader anti-ageing therapies, says David. In the meantime, researchers in the field insist that no one should take these drugs until proper safety tests in humans are complete. In rodents, senolytic compounds have been shown to delay wound healing, and there could be additional side effects. “It’s just too dangerous,” says Kirkland.

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From: "Bill Green" [wilgreen@gmail.com](mailto:wilgreen@gmail.com)

Has a faint taste of RENDEZVOUS WITH RAMA. Gentry Lee should have found this news fascinating.

## SCIENTISTS SPOT FIRST ALIEN SPACE ROCK IN OUR SOLAR SYSTEM

NELL GREENFIELD BOYCE, October 26, 2017 5:22 PM ET

<http://www.npr.org/sections/thetwo-way/2017/10/26/560278537/scientists-spot-first-alien-space-rock-in-our-solar-system?sc=tw>

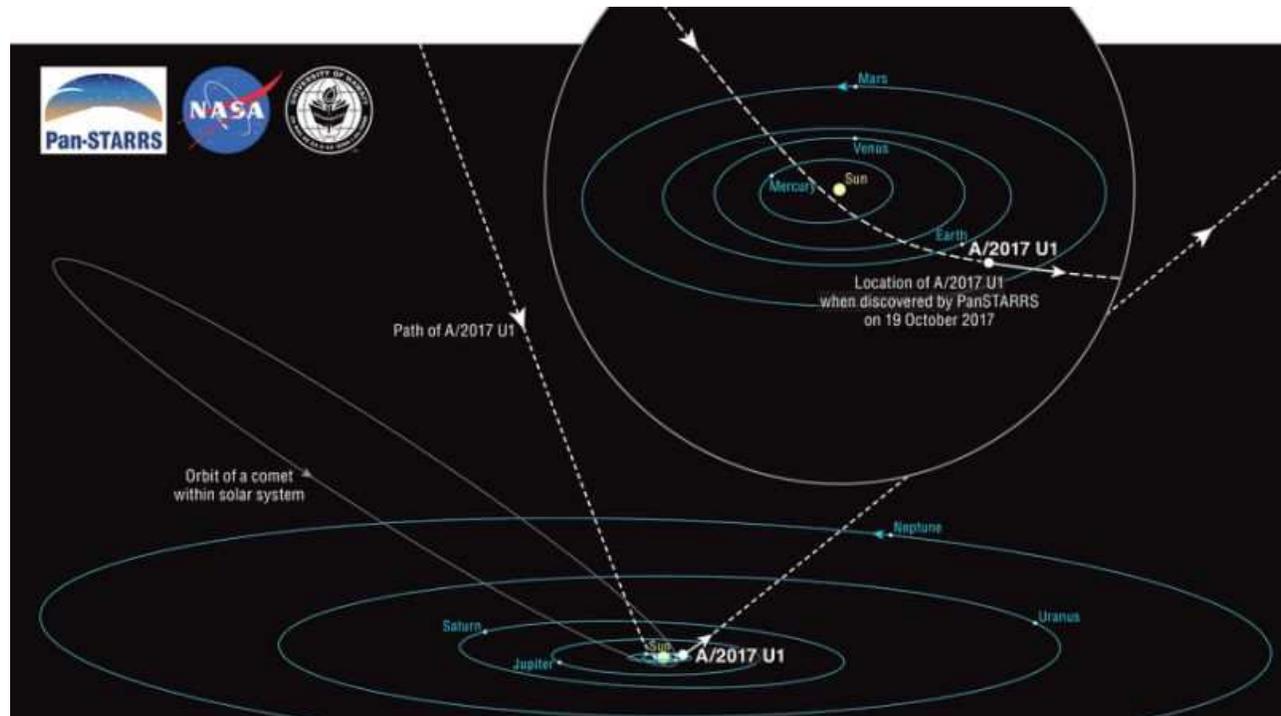


Diagram of the path of a space rock from outside our solar system — the first ever observed.

Brooks Bays / SOEST Publication Services / UH Institute for Astronomy

Astronomers have spotted some kind of outer space rock that's the first visitor from outside of our solar system that they've ever observed.

The discovery has set off a mad scramble to point telescopes at this fast-moving object to try to learn as much as possible before it zips out of sight.

"Now we finally have a sample of something from another solar system, and I think that's really neat," says Karen Meech, an astronomer at the University of Hawaii Institute for Astronomy, "and so you'd love to see if it looks like stuff in our solar system."

It's long been assumed that an interstellar object like this one should be out there, because giant planets in forming solar systems are thought to toss out bits of space crud that haven't yet glommed into anything. But this is the first time scientists have actually found one.

The mysterious object is small — less than a quarter mile in diameter — and seems to have come from the general direction of the constellation Lyra, moving through interstellar space at 15.8 miles per second, or 56,880 miles per hour.

"The orbit is very convincing. It is going so fast that it clearly came from outside the solar system," says Paul Chodas, manager of NASA's Center for Near-Earth Object Studies at the Jet Propulsion Laboratory in Pasadena, Calif. "It's whipping around the Sun, it has already gone around the Sun, and it has actually gone past the Earth on its way out."

The asteroid was discovered on October 19 by Hawaii's Pan-STARRS 1 telescope, which searches the sky for near-Earth objects.

"It became clear that it didn't move like asteroids and comets normally do," says Robert Weryk of the University of Hawaii, who contacted a colleague to acquire follow-up images using another telescope owned by the European Space Agency. The combined observations made it clear that this was an interstellar visitor.

The asteroid is now speeding toward the constellation Pegasus and is fading out of sight fast. "We might have, for moderately large telescopes, another handful of days, maybe a couple of weeks. So we don't have much time to study it," says Meech, who wants to know what its shape is and what its chemical composition might be. She says the Hubble Space Telescope should spy on this object as well, in the coming weeks.

She notes that different stars have different chemical compositions, so she'd like to know if the solar system this came from produces material similar to the planet-making stuff in our own.

"We've been expecting this for decades, really," says Chodas. "We don't know enough about how much material is floating around between the stars. And so this will give us the first data point. We hope to find more of this stuff."

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

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

It's official: DNC and Clinton campaign paid for research that went into infamous 'Trump Dossier'

October 25, 2017 | Samantha Chang  
<http://www.bizpacreview.com/2017/10/25/official-dnc-clinton-campaign-paid-research-went-infamous-trump-dossier-552808>

Hillary Clinton and the DNC paid over \$9 million to bankroll the 'Trump dossier' that unsuccessfully tried to link the Trump campaign to Russian operatives. The dossier was later discredited by the media. (Image: Twitter)

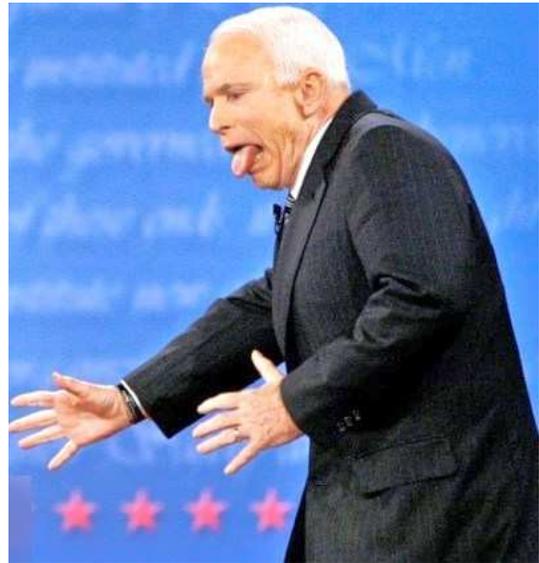


There was collusion during the 2016 presidential election after all! Except it wasn't Donald Trump's camp that colluded with foreign agents, but the Hillary Clinton campaign.

Clinton's campaign and the Democratic National Committee paid opposition-research firm Fusion GPS for the infamous (and now discredited) "Trump dossier" that the Democrats used to promote the narrative that the Trump campaign had colluded with Russia during the 2016 election. To this day, there is still no evidence tying the Trump camp to Russian collusion — after a year of nonstop media and federal investigations.

According to an explosive report by the Washington Post, Fusion GPS hired former British spy Christopher Steele to look into Trump's real-estate activities in Russia in a bid to tie Trump to Russian operatives.

John McCain turned the discredited "Trump dossier" over to the FBI, which then launched an investigation. (Image: screengrab)



The Clinton campaign paid Perkins Coie — the law firm of Clinton campaign lawyer Marc E. Elias — a staggering \$5.6 million for 18 months of "research" (between June 2015 and December 2016) for dirt on Trump. The DNC separately paid Perkins Coie \$3.6 million.

Christopher Steele, who worked in Moscow during his days as an MI6 agent, then compiled the 35-page "Trump dossier" containing inane, salacious allegations whose goal was to smear and embarrass Donald Trump but did not prove he had colluded with Russians.

In January 2017, anti-Trump Senator John McCain turned the dossier over to the FBI despite the fact that it contained no evidence of collusion, but merely smears against President Trump.

The "Trump dossier" was then used by the FBI to launch an investigation into whether the Trump campaign had colluded with Russia during the election.

In January, CNN claimed Russia had a secret "blackmail dossier" on Trump. Leftist website BuzzFeed followed up by publishing the unverified dossier that other media outlets refused to publish because they couldn't verify any of the allegations.

Buzzfeed even admitted that the claims against Trump were erroneous and unconfirmed: "The allegations are unverified, and the report contains errors."

BuzzFeed editor-in-chief Ben Smith confessed "There is serious reason to doubt the allegations." But naturally, the Trump-hating liberal website published the dossier anyway in a cheap bid for page views.

## STATEMENT BY SENATOR JOHN McCAIN ON RECENT REPORTS

*Washington, D.C.* – U.S. Senator John McCain (R-AZ) released the following statement on recent news reports:

“Late last year, I received sensitive information that has since been made public. Upon examination of the contents, and unable to make a judgment about their accuracy, I delivered the information to the Director of the FBI. That has been the extent of my contact with the FBI or any other government agency regarding this issue.”

While the left was hoping these unsubstantiated claims would damage Trump, the opposite happened, with both liberal and conservative journalists blasting CNN and BuzzFeed’s shoddy reporting.

# These Reports Allege Trump Has Deep Ties To Russia

A dossier, compiled by a person who has claimed to be a former British intelligence official, alleges Russia has compromising information on Trump. The allegations are unverified, and the report contains errors.

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Originally posted on Jan. 10, 2017, at 6:20 p.m.

Updated on Jan. 10, 2017, at 9:09 p.m.



**Ken Bensinger**  
BuzzFeed News Reporter



**Miriam Elder**  
BuzzFeed News Reporter



**Mark Schoofs**  
BuzzFeed News Investigations  
Editor

**While this media circus is going on, keep in mind that U.S. taxpayers have already wasted millions of dollars on an investigation that was jumpstarted by an unsubstantiated dossier than even the anti-Trump mainstream press has discredited.**

**And liberals wonder why the president trashes today's "fake news" media.**

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**If you would like to unsubscribe From: THE REVENGE OF HUMP DAY, please send an email message to Tim Bolgeo [tbolgeo@epbfi.com](mailto:tbolgeo@epbfi.com) and say, "QUIT SENDING ME THIS STUPID RAG!"**

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