

Welcome to the December 13th, 2017 Edition of THE REVENGE HUMP DAY!

Last weekend, Jason came over to the house to assemble my Christmas Gift. I had bought a Big and Tall Man's leather chair for my office and it came in from Amazon in a cube shaped box. Well, I had a great time just talking to Jason and supervising while he skillfully assembled the chair. When he go through, he was looking at it with that look in his eye that it would fit great in his house.

I said, 'No way Jose!'

SHE WHO MUST BE OBEY finally got the new Christmas Tree decorated. We bought a new PreLit LED 7' Christmas Tree and is really neat. It has a control switch on it that changes the color of the LED lights and turns them on and off. We have enjoyed having a multicolor tree one night and a white lit tree the next. Minor things like that keep old people amused for days.

I am starting my third week of sulfa—antibiotics for my chest infection and I think it is starting to work. At least, when I walked up the stairs today I was only a little out of breath. If this works to clear up my chest infection, it will be well worth the side affects.

Weird thought of the week: I was bouncing around the channels on TV and I saw one of the channels apparently was holding a James Bond Marathon. I have not been a great fan of the latest James Bond, Daniel Craig. He's OK, but he's not Sean Connery. Then it hit me who would be a great person to be the next James Bond. Henry Cavill, the actor who is the latest to play Superman. But he would have to play James Bond in the mold of Sean Connery. A bit of cruelty with a chip on his shoulder and a warped sense of humor. Like I said, this is my weird thought for the week. Which Actor would you think would be able to be a great James Bond?

The new Star Wars Movie, The Last Jedi, starts this week and I am looking forward to seeing. It reminds me when I got to see the first Star Wars, Episode 4, in May of 1977. Yes, I mean May because I won some tickets for a sneak preview of the original Star Wars. One of the high points of my fannish life.

So on that "thoughtful memory", 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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From: "Tim Bolgeo" tbolgeo@comcast.net

'I ACCIDENTALLY OPENED THE NUCLEAR REACTOR WHEN I WANTED THE TOOTHBRUSH': REVIEWERS RIDICULE £7,000 SWISS ARMY KNIFE THAT IS ONE FOOT LONG AND HAS 87 DIFFERENT IMPLEMENTS

<http://www.dailymail.co.uk/femail/article-5157835/There-one-foot-9-000-Swiss-Army-Knife-Amazon.html>

The listing for the seven-pound Wenger 16999 Swiss Army Knife Giant has attracted the attention of online jokers making up stories about the product

Some reviews praise the contraption for fixing nearby engines and performing minor surgery, while others lament it for performing unwanted amputations

By Valerie Siebert For Dailymail.com, PUBLISHED: 22:52 EST, 7 December 2017 | UPDATED: 05:55 EST, 9 December 2017

<http://www.dailymail.co.uk/femail/article-5157835/There-one-foot-9-000-Swiss-Army-Knife-Amazon.html#ixzz50miTj4rO>

The Amazon listing for a Swiss Army Knife with a whopping 87 implements has become the target of jokesters, who have left multiple hilarious fake reviews.

The Wenger 16999 Swiss Army Knife Giant is quite the sight. Weighing in at seven pounds and measuring 11.8 inches in length, the contraption promises to help users with everything from scaling a fish to opening tin cans.

The device looks more like it belongs in a horror house than in a tool box, packed with implements including various screwdrivers, a wood saw, a cigar cutter, a laser pointer, a flashlight and even a selection of tools dedicated to watch repairs.



© Wenger

A real monster: The Amazon page for the Wenger 16999 Swiss Army Knife Giant has attracted hundreds of joking reviews



Ooops

By [Owenlong](#) on May 27, 2014

I forgot the knife in the front pocket of my Swiss Army shorts and when my wife washed them it completely disassembled our washing machine.

An extra feature: The \$9,000 device is said by some users to have taken apart their household appliances



Be careful when using

By [Carlos](#) on June 4, 2014

Accidentally opened the nuclear warhead implement instead of the toothbrush, now I am charged with terrorism, genocide and ethnic cleansing. Best. Product. Ever.

A little much: Amazon users took to poking fun at the knife's unnecessary 81 implements and 141 functions

Its 141 functions come at a price however, with the whole thing costing \$9,000 plus shipping.

The comical size of the knife as well as its eye-watering price tag has attracted more than 600 reviews on Amazon - almost all of them being silly send-ups of the over-the-top product.

'I tried to file my nails, but in the process I accidentally fixed a small engine that was nearby. Which was nice,' wrote one happy customer.

Another explained: 'I forgot the knife in the front pocket of my Swiss Army shorts and when my wife washed them it completely disassembled our washing machine.'

Everything under the sun: According to Amazon, the huge device weighs seven pounds and is nearly a full foot long



★★★★★ **This 2 pound beauty can do the impossible!**

By [Gwillikers](#) on February 9, 2015

Of all the amazing things Wenger 16999 can do, the greatest by far is the removal of that bloody U2 album of my itunes playlist. Thanks Wenger 16999!!!!

Joking around: Reviews like this have been coming in on the product for years

★★★★★ **Wenger 16999, the ultimate partner.**

By [Pie](#) on February 15, 2015

I bought this knife as a gift for my friend Gibbs so that she could use it to attract a mate and not die alone. Due to its many attachments Gibbs has given up on love with a person and I recently received an invitation to her up coming nuptials with the 16999. I have no problem with this wedding but what am I supposed to give them as a gift, the knife already has everything.

Some other attention: The more than 600 reviews range from one star to five stars

★★★★★ **Swiss boson.**

By [Amazon Customer](#) on October 20, 2015

Excellent product. I found the large hadron collider to be particularly useful on long hikes.

Quite the turn-around: This customer claims that the knife gave her a speedy sex change

★★★☆☆ **If you have limbs you're okay with replacing...**

By [Alison Seng](#) on February 14, 2015

I was honestly a little turned off by this knife when it performed the "amputation" function on my arm instead of filing my nails. The saving grace was that it immediately assembled a robotic arm for me and performed all of the reattachment surgery, so I guess that's worth something. 3 stars.

boredpanda.com

Short and sweet: This user likes to collide his or her particles on the go



Swiss army tripe!

By [G.Mckee](#) on January 2, 2015

Awful! The corkscrew attachment is at the extreme edge of the tool, meaning that whenever I open a bottle of wine (3-5 times of an evening) I have to wildly swing the entire tool around causing utter havoc. Last time I uncorked a bottle I performed minor surgery on my wife who was standing in the next room. I also started a small fire, caught a rabbit in a snare and managed to signal the coast guard that I was in danger. And when I came to remove the cork I jerked upwardsley and as I did so I removed a stone from a horses shoe and shaped some nearby branches into rudimentary defensive spears. Every new bottle brings more elaborate shenanigans into our lives. Some have suggested I stop drinking corked wine but that is just the talk of a psychopath. I shall be returning this for a full refund and say the only people with use for this tool are Boy Scouts with exceptionally long pockets.

Over-the-top: It still got three stars from this user despite taking off her arm

A clever reviewer even referenced Terminator in another comment, writing: 'It asked me if I knew where Sarah Connor was, and when I said no it took off out the front door. I feel lucky to be alive.'

The reviews range from one star to five, with one customer lamenting that the purchase 'didn't work' because 'like everything else they've tried, this device is not capable of fixing the Cleveland Browns.'

More complaints pointed out that 'the toaster oven is barely big enough for a small frozen pizza,' that the 'nuclear warhead implement' could get you accused of war crimes and that 'the unicorn toothbrush does not operate properly when used at the same time with the parachute.'

★★★★☆ I'm hurrying to get this review submitted...

By [Patrick Patterson](#) on June 11, 2014

But I accidently activated the "Self-Activator" tool and this otherwise fabulous Wenger Swiss Army multifunction knife is currently dismantling my compu

Too much: Some of the reviews were a bit more detailed than others

★★★★★ It's perfect, but...

By [Yuri B](#) on January 20, 2016

I let my son use the scoop attachment to dig some sand while playing in a sandbox. Had to leave him for just under a minute to get some lemonade, and came back to this...



Another argued that the knife was simply an 'excellent product,' adding: 'I found the large hadron collider to be particularly useful on long hikes.'

Some of the reviews were extremely detailed, such as one wine lover lamenting that when he tried to get the corkscrew out to open a bottle, the knife 'performed minor surgery on my wife,' 'caught a rabbit in a snare' and 'managed to signal the coast guard.'

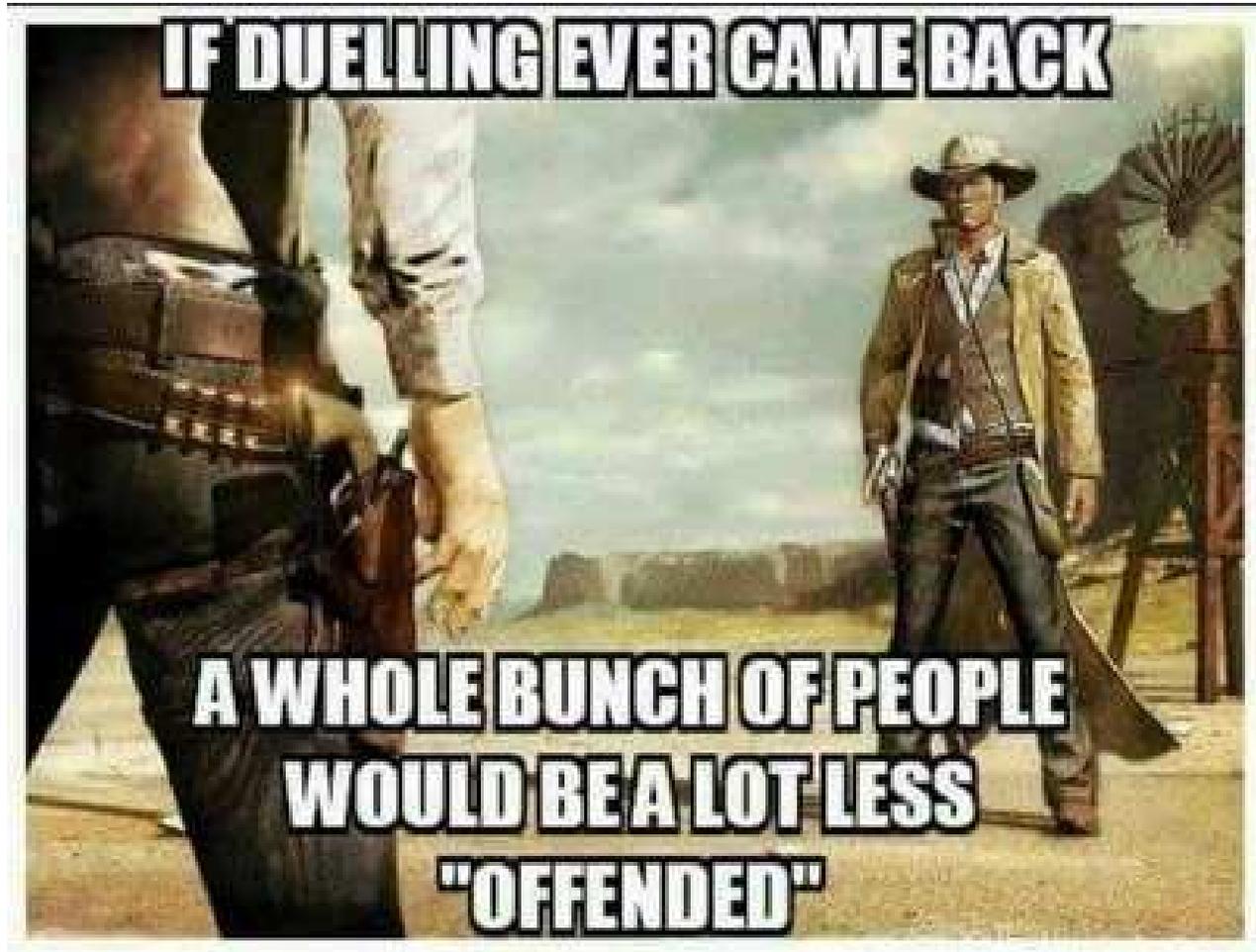
One woman claiming she left her husband for buying the contraption wrote how she lived to regret that decision, saying: 'It represented him at the divorce hearing. I now pay \$10,000 a month in alimony.'

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From: "Jim Woosley" jimwoosley@aol.com



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From: "Bob Bolgeo" bbolgeo@aol.com

AN OLDIE BUT A GOODIE

JUST A BIT OF LITTLE KNOWN HISTORY TO START OFF THE CHRISTMAS SEASON!.....

When four of Santa's elves got sick, the trainee elves did not produce toys as fast as the regular ones, and Santa began to feel the Pre-Christmas pressure.

Then Mrs. Claus told Santa her Mother was coming to visit, which stressed Santa even more.

When he went to harness the reindeer, he found that three of them were about to give birth and two others had jumped the fence and were out, Heaven knows where.

Then when he began to load the sleigh, one of the floorboards cracked, the toy bag fell to the ground and all the toys were scattered.

Frustrated, Santa went in the house for a cup of apple cider and a shot of rum.

When he went to the cupboard, he discovered the elves had drunk all the cider and hidden the liquor.. In his frustration, he accidentally dropped the cider jug, and it broke into hundreds of little glass pieces all over the kitchen floor. He went to get the broom and found the mice had eaten all the straw off the end of the broom.

Just then the doorbell rang, and an irritated Santa marched to the door, yanked it open, and there stood a little angel with a great big Christmas tree.

The angel said very cheerfully, 'Merry Christmas, Santa. Isn't this a lovely day? I have a beautiful tree for you. Where would you like me to stick it?'

And so began the tradition of the little angel on top of the Christmas tree.

Not a lot of people know this.

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

HOW DO YOU FIRE SUCH DISIREABLE EMPLOYEE? A NEVER ENDING QUANDARY FOR MANAGEMENT.

All the members of the company's Board of Directors were called into the Chairman's office, one after another, until only Ted, the junior member, was left sitting outside.

Finally it was his turn to be summoned.

Ted entered the office to find the Chairman and the other four Directors seated at the far end of the boardroom table.

Ted was instructed to stand at the other end of the table, which he did.

The Chairman looked Ted squarely in the eye, and with a stern voice, he asked:

"Have you ever had sex with my secretary, Miss Floyd?"

"Oh, no, sir, positively not...!" Ted replied.

"Are you absolutely sure...?" asked the chairman.

"Honest, I've never been close enough to even touch her...!"

"You'd swear to that...?"

"Yes, I swear I've never had sex with Miss Floyd, anytime, anywhere..." insisted Ted

"Good. Then YOU fire her."



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AN OLDIE BUT A GOODIE

Are you a Democrat, a Republican, or a Southerner?

Here is a little test that will help you decide.

The answer can be found by posing the following question:

You're walking down a deserted street with your wife And two small children.

Suddenly, a terrorist with a huge knife comes around the corner, locks eyes with you, screams "Allah ho akhbar!", raises the knife, and charges at you...

You are carrying a Kimber 1911 .45 ACP, and you are an expert shot. You have mere seconds before he reaches you and your family.

What do you do?

THINK CAREFULLY AND THEN SCROLL DOWN:

Democrat's Answer:

- ? Well, that's not enough information to answer the question!
- ? What is a Kimber 1911.45 ACP?
- ? Does the man look poor or oppressed?
- ? Is he really a terrorist? Am I guilty of profiling?
- ? Have I ever done anything to him that would inspire him to attack?
- ? Could we run away?
- ? What does my wife think?
- ? What about the kids?
- ? Could I possibly swing the gun like a club and knock the knife out of his hand?
- ? What does the law say about this situation?
- ? Does the pistol have appropriate safety built into it?
- ? Why am I carrying a loaded gun anyway, and what kind of message does this send to society and to my children?
- ? Is it possible he'd be happy with just killing me?
- ? Does he definitely want to kill me, or would he be content just to wound me?
- ? If I were to grab his knees and hold on, could my family get away while he was stabbing me?
- ? Should I call 9-1-1?
- ? Why is this street so deserted?
- ? We need to raise taxes, have paint & weed day.
- ? Can we make this a happier, healthier street that would discourage such behavior.
- ? I need to debate this with some friends for a few days and try to come to a consensus.
- ? This is all so confusing!

~~~~~

**Republican's Answer:**

**BANG!**

~~~~~

Southerner's Answer:

BANG! BANG! BANG!
Click..... (Sounds of reloading)

BANG! BANG! BANG! BANG! BANG! BANG! BANG! BANG! BANG! Click

Daughter: 'Nice grouping, Daddy! Were those the Winchester Silver Tips or Hollow Points?!

Son: 'Can I shoot the next one?!

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There is more truth to this joke than most of you would believe. UT

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From: "Mike Waldrip" waldripk@gmail.com

CHRISTMAS TRADITIONS

The teacher asked young Malcolm: "What do you do at Christmas time?"

Malcolm addressed the class: "Well Miss Jones, my twelve brothers and sisters and I go to midnight mass and we sing hymns; then we come home very late and we put mince pies by the back door and hang up our stockings. Then all excited, we go to bed and wait for Santa Claus to come with all our toys."

"Very nice Malcolm," she said. "Now Jimmy, what do you do at Christmas?"

"Well, Miss Jones, my sister and I also go to church with Mom and Dad and we sing carols and we get home ever so late. We put cookies and milk by the chimney and we hang up our stockings. We hardly sleep, waiting for Santa Claus to bring our presents."

Realizing there were Jewish boys in the class and not wanting to leave them out of the discussion, she asked, "Now, Isaac, what do you do at Christmas?"

Isaac said, "Well, Miss Jones, it's the same thing every year - Dad comes home from the office, we all pile into the Rolls Royce and drive to Dad's toy factory. When we get inside, we look at all the empty shelves and begin to sing 'What A Friend We Have in Jesus.'"

"Then we all get on Dad's jet and fly to the Bahamas."

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

LESSONS FROM NOAH'S ARK

Everything we need to know about life, we can learn from Noah's Ark...

One: Don't miss the boat.

Two: Remember that we are all in the same boat.

Three: Plan ahead. It wasn't raining when Noah built the Ark.

Four: Stay fit. When you're 600 years old, someone may ask you to do something really big.

Five: Don't listen to critics; just get on with the job that needs to be done.

Six: Build your future on high ground.

Seven: For safety sake, travel in pairs.

Eight: Speed isn't always an advantage. The snails were on board with the cheetahs.

Nine: When you're stressed, float a while.

Ten: Remember, the Ark was built by amateurs; the Titanic by professionals.

Eleven: No matter the storm, when you are with God, there's always a rainbow waiting.

Twelve: Not everybody is always welcome. In Noah's case, the woodpecker might have to go!

.....Author Unknown

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

NEW BABY

A young couple have their first baby. After a couple of months the young mother is worn out.

She asks her hubby, "Can you watch the baby while I go to my mother's house to relax for a week??".

"Sure", he says, "No problem, have fun".

Two days later the guy and baby are in the local ER.....

"Doc, you have to help, this baby won't stop crying".

"Let's take a look," says the doc, and peels back the baby's blanket.

"Holy cow, when is the last time you changed this baby's diaper", demanded the doc.

"What's the problem", says the guy, reaching into the diaper bag for the package of diapers.

"Says right here on the package they're good for 12-15 pounds....."

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

CAN I BUY YOU A DRINK

I got chatting to a girl in a club. "Can I buy you a drink?" I asked.

"Have you not got a girlfriend?" she replied, "Guys like you always have girlfriends."

"No, sadly we broke up just over a month ago," I assured her.

"Oh I'm sorry to hear that," she said, "Go on then, I'll have a white wine please."

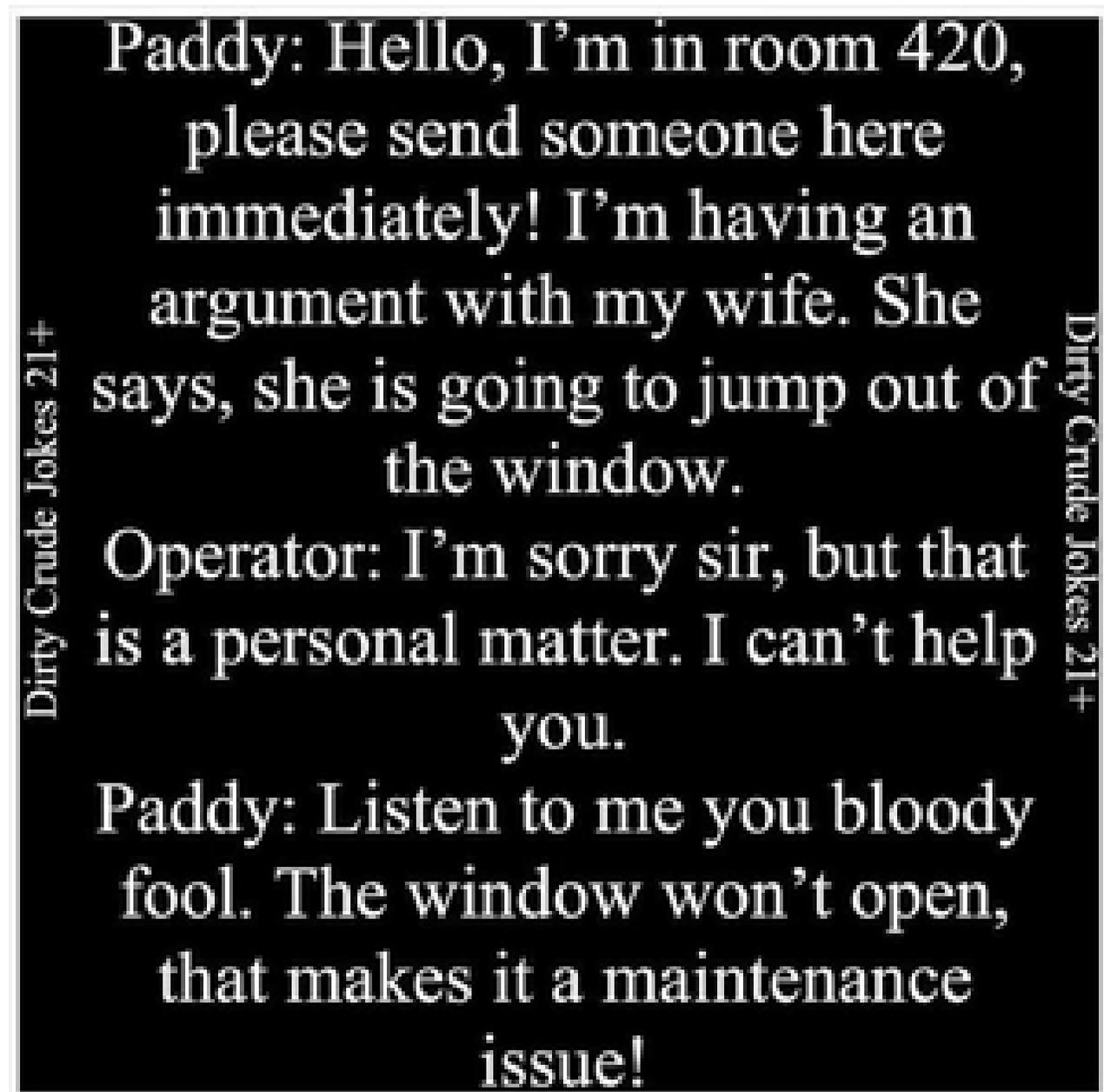
A few drinks later after a kiss and a cuddle we headed off back to her place and made passionate love.

While I was putting my clothes back on she said, "So, you're good looking, a nice guy and

amazing in bed. Can I ask why on earth you split with your girlfriend?"

I said, "My wife found out."

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YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Tim Bolgeo" tbolgeo@epbfi.com

BIG CITY DEM WANTS BULLETPROOF GLASS BANNED FOR BEING RACIST

BY STEVEN BEYER, DECEMBER 7, 2017 AT 8:54PM

https://conservativetribune.com/dem-bulproof-windows-racist/?utm_source=Email&utm_medium=newsletter&utm_campaign=dailypm&utm_content=conservative-tribune

We now live in a world where almost anyone and everything can and will be labelled “racist.” Some store owners in Philadelphia are the latest victims of the PC police.

Cindy Bass, a councilwoman from Philadelphia’s 8th District, has filed a bill which would make store owners take down Plexiglas in certain areas of town. According to Bass, having thick, safe Plexiglas up in a store is an insult and “an indignity.”

Essentially, Plexiglass is racist, or you’re a racist if you have Plexiglas installed.

Zero Hedge reports that Yale sociology professor Elijah Anderson says that having Plexiglas up is a “symbol of distrust” in neighborhoods that are predominantly African-American. In other words, African-Americans are suffering from “microaggressions” when they enter one of these stores.

What this councilwoman is missing, though, is that the Plexiglas has nothing to do with race and everything to do with the crime rates in certain neighborhoods.

Sae Kim, a small business owner in the heart of North Philadelphia says, “The most important thing is our safety and the public’s safety.”

Mr. Kim would know. His business has been threatened “numerous times,” according to a report by Philly.com, but has never been successfully robbed thanks to the strong Plexiglas.

Another business owner, Bill Chow, recalls how Plexiglas saved his eyesight.

One day, a thug claimed that Chow had shorted him on change. As a result, the criminal threw bleach at him through an opening in the Plexiglass.

“Without (the window), it’s going to be right in my face or right in my eyes. Luckily, I wasn’t hurt,” Chow said.

Bass, however, claims her bill doesn’t hurt anyone. “I would never want to be part of a bill that would put somebody in jeopardy,” she said.

She doesn’t seem to realize that we already have enough government overreach into small businesses as it is.

Watch some of the story below:

Adam Xu, the chairman of the Asian American Licensed Beverage Association, says that the decision to leave the Plexiglas up should be left to the owner. He’s absolutely right. The government has no right to force business owners to make themselves defenseless in the face of bad crime.

There's a bigger issue here though, than just the Plexiglas.

Instead of giving facts or figures, or even presenting a half-decent reason for getting rid of the glass, this leftist has to fall back on a classic liberal tactic of crying racism. This happens all the time when liberals can't get their way.

Here's a thought, councilwoman: Go after the crime in your district instead of targeting hardworking Americans paying for your salary.

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LOYOLA UNIVERSITY STUDENTS QUESTION CATHOLIC SCHOOL'S EMPHASIS ON CHRISTMAS

by [TOM CICCOTTA](#) 8 Dec 2017 [3,551](#)

<http://www.breitbart.com/tech/2017/12/08/loyola-university-students-question-schools-emphasis-on-christmas/>



Students at Loyola University, a Catholic university in Chicago, are questioning why administrators are placing a greater emphasis on Christmas than on other religious holidays.

In an [article](#) in the school's student newspaper entitled, "Religious Holidays Aren't Represented Equally on Campus," students argue that Loyola fails to honor other religious holidays, such as Eid al-Fitr, a Muslim holiday that marks the end of Ramadan.

"So far, in honor of the Christmas season, Loyola has put up lights and trees in various campus buildings," student Sajedah Al-khzaleh wrote. "The university participated in its Annual Tree Lighting Ceremony Nov. 28 in the Damen Student Center, which included Santa Claus, an ice rink, hot chocolate and art decorations."

"But the Eid is celebrated only among Loyola Muslim students themselves, which includes a morning prayer service and a dinner, according to Ahmed. Decorations aren't hung on campus buildings nor activities hosted by the university," she continued.

Student Sajid Ahmed also lamented the fact that Loyola doesn't deck out the campus in decorations to celebrate Eid. "Eid [at Loyola] is a bit dampened just because you have to go about your normal routine along with Eid," Ahmed explained. "At home it'd be a big family thing, dress up and go to the mosque. We'd spend the day together and celebrate ... compared to that, college Eid has been less."

"For someone who lives far away and doesn't have the opportunity to meet up with family, I would say making Loyola's Eid as festive as possible would be great so that [Muslim students] can feel connected with their heritage and with their religion," Ahmed added.

The article admits that students who celebrate the Muslim holiday are granted time off from their classes to celebrate with friends and family. Of the 16,437 students enrolled at Loyola University Chicago, approximately 800 are Muslim.

Bruce Goodwin, the associate director of the student complex, argued that the institution's religious affiliation directs the types of decorations that are hung around campus during the holidays. "I don't think [demographics] ever come to our minds in terms of the decisions that we make with Christmas," Goodwin explained. "I think what guides it ... doesn't have to do with faith, it has to do with that most common sort of feeling [of the season]."

"We feel that we do a good job at the student center of allowing other faiths to [join the holiday season]," Goodwin added. "We pride ourselves on wanting to make sure we're aware. We always lend ourselves the conversation."

Goodwin also added that the university attempts to use religiously-neutral decorations when possible, including banners that read "Happy Holidays" instead of "Merry Christmas."

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I can remember when I attended Christian Brother's College that some of the Jewish students who stayed in the dorms would put Menorah's in their windows to celebrate Hanukkah. I always thought it was nice and never thought a thing about it other than to make sure that if I knew a student was Jewish to wish them a Happy

Hanukkah and they would inevitably say "Merry Christmas" back to me. With regard to the Muslim student in the article, LOYOLA IS A CATHOLIC COLLEGE, GET OVER IT OR LEAVE. NO ONE IS FORCING YOU TO STAY AT A CATHOLIC COLLEGE AND GET A SUPERIOR EDUCATION. UT

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

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Mike Waldrip" waldripk@gmail.com

Every Christmas season, John Lewis, the English department store, runs a tear-jerking ad. This one does not disappoint.

THE BBC CHRISTMAS AD WILL MAKE YOU BURST INTO TEARS AT YOUR DESK

Every year, at the beginning of November, John Lewis starts the Christmas ad season with a tearjerker that leaves an entire country sobbing at their desk at work on a chilly Thursday morning.

But this year, BBC One has stolen the crown for the most emotional, human, heart-warming advert that humbly promises to make you well up and bring a lump to your throat.

The clip, a mix of CGI and stop motion called "The Supporting Act", features a 10-year-old determined girl who practices everywhere — at home, in the shopping mall, in the streets, at the grocery store — night and day, for her school's Christmas talent show.

Unfortunately, her dad seems too occupied by his job or daily chores to pay attention to her sick dance moves, and he's distracted right up until the day of the performance.

Peeking the crowd from behind the stage curtains, the girl gets stage fright and starts panicking when she appears alone for the show. It is up to the dad now to help her overcome her fears with a touching gesture that will leave you in tears. Guaranteed. Just watch it.

http://mashable.com/2017/12/04/bbc-christmas-ad-tears-john-lewis-heartwarming/?utm_source=feedly&utm_medium=webfeeds#9OhGZmozJaqWtch

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YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Bob Bolgeo" bbolgeo@aol.com

CHIEFS FLYOVER..AWESOM

As you know, Obama cuts have eliminated the military flyovers at large events. Well, there's a group of guys in Kansas City who do some formation flying, in their own planes, and decided they'd volunteer to pick up the slack. They invited a couple of other groups to

join them and before they knew it they had 48 guys with their own airplanes signing up to join in. If they had more time, they probably would have gotten an even larger group as people kept joining and a 49th was added near the event.

One additional feature of the flyover was the use of pink smoke for cancer awareness. I remain disgusted with the NFL but this is awesome.

The folks from the Guinness Book were there and are expected to confirm it as the largest formation flight ever. Be sure your speakers are turned up... best if watch at 'full screen.

<https://www.youtube.com/embed/VImNBuJW3sQ?rel=0>

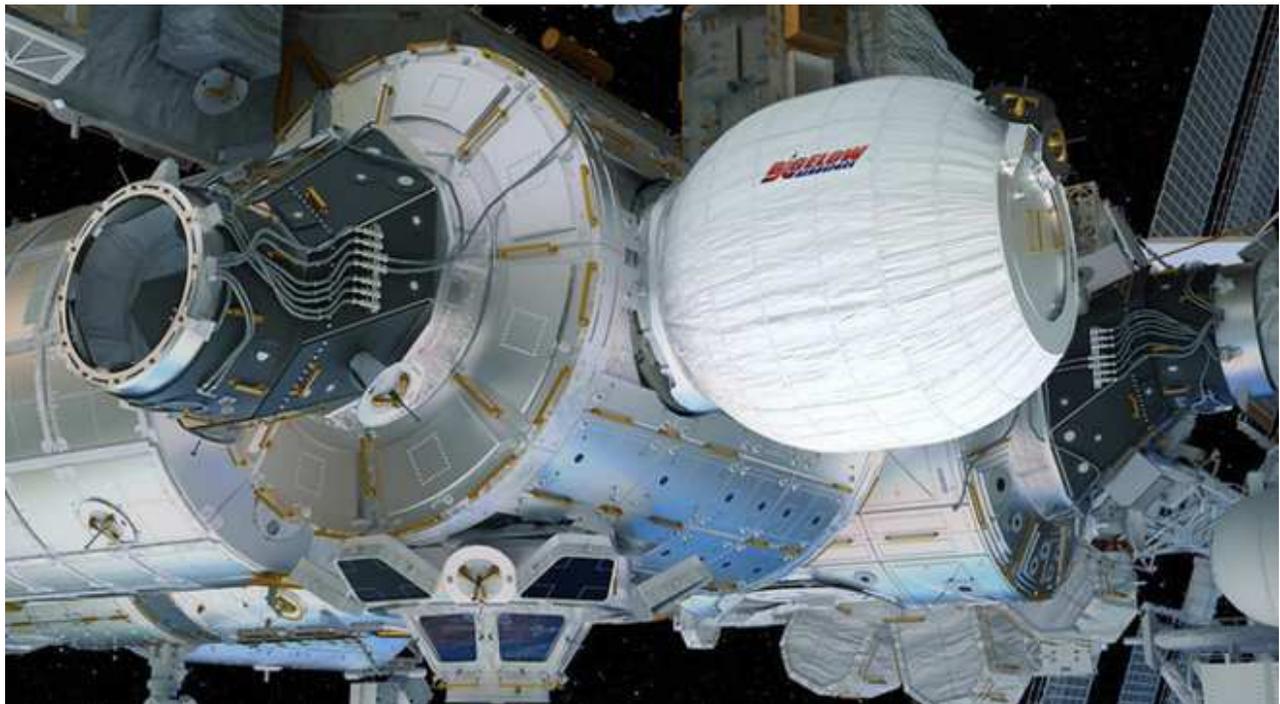
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From: "Tim Bolgeo" tbolgeo@epbfi.com

PRIVATE INFLATABLE HABITAT WILL STAY AT SPACE STATION FOR AT LEAST 3 MORE YEARS

By Mike Wall, Space.com Senior Writer | December 5, 2017 04:07pm ET

<https://www.space.com/38983-nasa-extends-beam-inflatable-habitat-space-station.html>



The private Bigelow Expandable Activity Module is shown in its expanded configuration in this computer rendering. Credit: NASA/Bigelow

The Bigelow Expandable Activity Module (BEAM) will stay attached to the International Space Station through at least 2020, NASA announced yesterday (Dec. 4).

BEAM, which is owned by the Las Vegas-based company Bigelow Aerospace, launched toward the orbiting lab in compact form aboard a SpaceX Dragon cargo capsule in April 2016. It was attached and expanded shortly thereafter, to test the performance of such inflatable habitats — which can provide more internal volume per unit launch mass than traditional metallic modules — in the space environment.



ABOVE: ARTIST'S RENDERING OF BEAM ATTACHED TO THE INTERNATIONAL SPACE STATION

Inflatable Space Stations

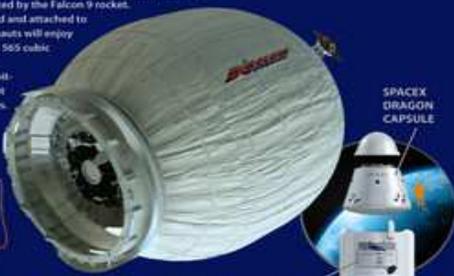
Bigelow Aerospace will provide a plug-in module to enlarge the internal habitable volume of the International Space Station. Later, larger expandable modules could become free-flying space stations themselves.

BEAM

The Bigelow Expandable Activity Module (BEAM) is carried into orbit in the cargo compartment of SpaceX's Dragon capsule, boosted by the Falcon 9 rocket.

Once deployed and attached to the ISS, astronauts will enjoy the additional 565 cubic feet (16 cubic meters) of habitable space that BEAM provides.

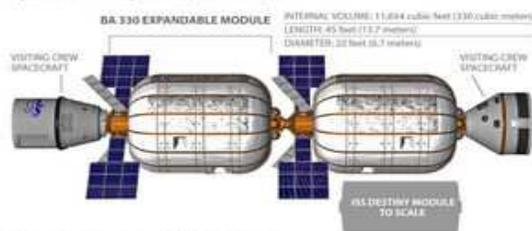
WEIGHT: 8,600 pounds (3,900 kilograms)
LENGTH: 13 feet (4 meters)
DIAMETER: 10.5 feet (3.2 meters)



DEFLATED BEAM CARRIED IN UNPRESSURIZED CARGO SECTION

The Future: Space Station Alpha

The BA 330 module is being developed for use as a starlink space station, larger than ISS's existing Destiny habitation module, the BA 330 can house up to six astronauts. Two BA 330s could be docked together to form what Bigelow calls Space Station Alpha.



Moonbase Bigelow

Further in the future, inflatable modules could enhance the living volumes of deep space stations, lunar bases or even Mars expeditions. (PHOTO: BIGELOW AEROSPACE)



SOURCES: BIGELOW AEROSPACE, NASA

SPACEI

KARL TATE / © SPACE.COM

That work was originally supposed to last for two years, after which BEAM would be jettisoned and, eventually, fall back to Earth and die a fiery death in the atmosphere. But NASA has now signed a new contract with Bigelow to support BEAM's stay at the station for at least three more years, with two additional one-year extension options beyond that. [An Inflatable Space Room: BEAM in Pictures]

Bigelow Aerospace's BEAM expandable module will enhance the living area of the International Space Station. See how the BEAM module works in our full infographic. Credit: Karl Tate, SPACE.com contributor

"Since the initial expansion, a suite of sensors installed by the crew automatically take measurements and monitor BEAM's performance to help inform designs for future habitat systems," NASA officials wrote in a statement yesterday. "This extension will deepen NASA's understanding of expandable space systems by making the BEAM a more operational element of the space station to be actively used in storage and crew operations."

The new contract began last month, NASA officials said.

Bigelow Aerospace is getting something out of this partnership as well — the chance to showcase expandable habitats' capabilities for future commercial use. The company aims to help establish outposts in Earth orbit and in deep space, such as the surface of the moon.

NASA also plans to take advantage of the BEAM extension for a more prosaic use: storage. Space station crewmembers have already removed some of the hardware used for the habitat's expansion, freeing up more space. BEAM can now hold up to 130 "cargo transfer bags," NASA officials said.

In its expanded form, BEAM measures 13.16 feet long by 10.5 feet wide (4.0 by 3.2 meters) and provides 565 cubic feet (16 cubic m) of internal

volume. (In its launch configuration, the habitat was 7.09 feet long by 7.75 feet, or 2.2 by 2.4 m.)

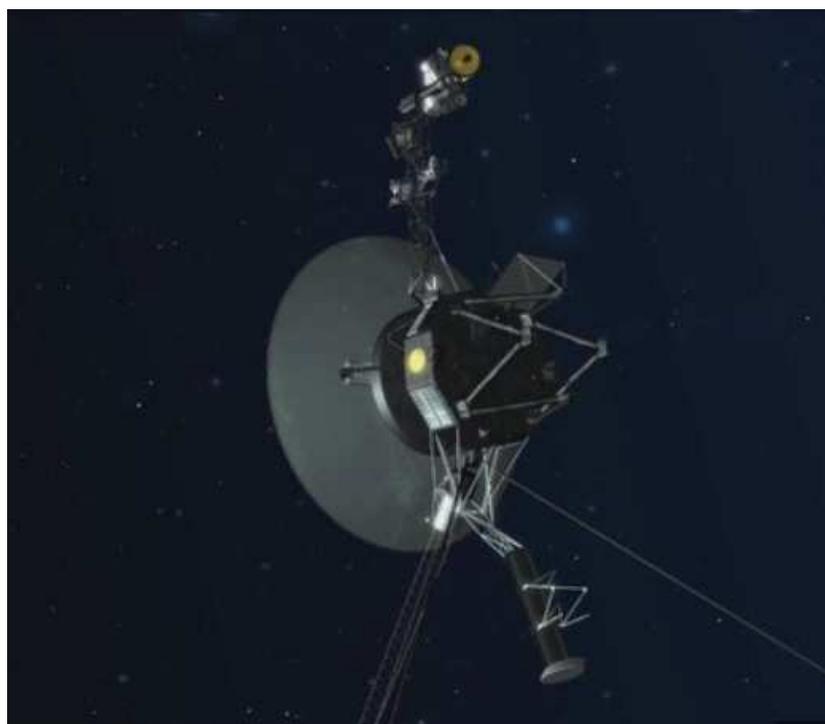
BEAM isn't the first Bigelow habitat to get an in-space test. The company launched two free-flying expandables, known as Genesis I and Genesis II, to Earth orbit in 2006 and 2007, respectively. Both habitats performed very well, company representatives have said.

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VOYAGER 1 JUST FIRED UP ITS BACKUP THRUSTERS FOR THE 1ST TIME IN 37 YEARS

By Mike Wall, Space.com Senior Writer | December 1, 2017 10:42pm ET

<https://www.space.com/38967-voyager-1-fires-backup-thrusters-after-37-years.html>



Artist's illustration of NASA's Voyager 1 probe in interstellar space. Credit: NASA/JPL-Caltech

NASA's far-flung Voyager 1 spacecraft has taken its backup thrusters out of mothballs.

Voyager 1 hadn't used its four "trajectory correction maneuver" (TCM) thrusters since November 1980, during the spacecraft's last planetary flyby — an epic encounter with Saturn. But mission team members fired them up again Tuesday (Nov. 28), to see whether the TCM thrusters were still ready for primetime.

The little engines passed the test with flying colors, NASA officials said.

"The Voyager team got more excited each time with each milestone in the thruster test," Todd Barber, a propulsion engineer at NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California, said in a statement. "The mood was one of relief, joy and incredulity after witnessing these well-rested thrusters pick up the baton as if no time had passed at all."

As Barber's words suggest, the mission team didn't do this out of idle curiosity. Voyager 1 — which in August 2012 became the first human-made object ever to enter interstellar space — has long been using its standard attitude-control thrusters to orient itself into the proper position to communicate with Earth. But the performance of these thrusters has been flagging for at least three years, so mission team members wanted to find an alternative option.

A successful test was far from guaranteed. Not only was the long layoff a potential issue, but the TCM thrusters were designed to burn continuously for relatively long stretches; they had never been fired in the very short bursts employed for attitude control, NASA officials said.

"The Voyager flight team dug up decades-old data and examined the software that was coded in an outdated assembler language, to make sure we could safely test the thrusters," Chris Jones, chief engineer at JPL, said in the same statement.

The plan is now to press the TCM engines into service in the attitude-control role, beginning in January. This should make a big difference for the mission, team members said.

"With these thrusters that are still functional after 37 years without use, we will be able to extend the life of the Voyager 1 spacecraft by two to three years," Voyager project manager Suzanne Dodd, also of JPL, said in the same statement.

But the four TCM thrusters will likely be retired again at some point in the future. Each one requires a heater to operate, which in turn uses power. When Voyager 1's power supply gets too low, the probe's handlers will switch back to the attitude-control thrusters, NASA officials said. (Voyager 1 is powered by a radioisotope thermoelectric generator, or RTG. RTGs convert to electricity the heat generated by the radioactive decay of plutonium-238.)

Voyager 1 and its twin, Voyager 2, launched a few weeks apart in 1977 to conduct an unprecedented "grand tour" of the solar system's giant planets — Jupiter, Saturn, Uranus and Neptune. The spacecraft accomplished this goal, and then kept on flying. Voyager 2 is expected to join its sibling in interstellar space in the next few years, NASA officials said.

The mission team will probably do a similar TCM test on Voyager 2 at some point, but that spacecraft's attitude-control thrusters are in better shape than those of Voyager 1, NASA officials said.

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THE MOST PRECIOUS BRONZE AGE ARTEFACTS WERE MADE WITH COSMIC MATERIALS

Space daggers!

DAVID NIELD, 6 DEC 2017

<https://www.sciencealert.com/bronze-age-artefacts-have-meteorite-iron>

According to a new study, it's possible that all iron-based weapons and tools of the Bronze Age were forged using metal salvaged from meteorites. The finding has given experts a better insight into how these tools were created before humans worked out how to produce iron from its ore.

While previous studies had found specific Bronze Age objects to be made from meteoric metal – like one of the daggers buried with King Tutankhamun – this latest research answers the question of just how widespread the practice was.



King Tut Dagger

Albert Jambon, from the National Centre for Scientific Research (CNRS) in France, studied museum artefacts from Egypt, Turkey, Syria, and China, analysing them using an X-Ray Fluorescence Spectrometer to discover they all shared the same off-world origins.

"The present results complementing high quality analyses from the literature suggest that most or all irons from the Bronze Age are derived from meteoritic iron," writes Jambon in his published paper.

"The next step will be to determine where and when terrestrial iron smelting appeared for the first time."

Bronze was the metal of choice for tools, weapons, and jewellery during the Bronze Age – hence the era's name – which began around 3300 BCE. The alloy was durable and easily available, made by smelting copper and mixing it with tin and other metals.

The Iron Age that started some 2,000 years later gets its title because that's when we first learned to smelt iron from its ore, after discovering how to reach the very high temperatures needed for the process.

Historians have therefore always been puzzled by the presence of some iron weapons and tools dating back to the Bronze Age, which were highly valued as rarities at the time. Where was this iron coming from?

Key to answering that question is the fact that iron from meteorites falling to Earth contains a lot of nickel, whereas iron ore on the surface doesn't, because of the way nickel drifted towards the molten iron core of our planet during its formation.

With the help of the X-Ray Fluorescence Spectrometer, which uses X-rays to analyse the chemical composition of objects without touching them, Jambon studied museum exhibits including beads, a dagger, and a headrest.

Sure enough, meteoric iron high in nickel was found across the board. Iron deposited by meteorites would've been in a ready-to-use form for metalworkers, no smelting necessary.

This is more than just a cool story from the Bronze Age though – it's evidence that this kind of analysis can help narrow down just when and where we developed the technological know-how to start producing our own iron goods.

No one's quite sure when iron was smelted by human hand for the first time, but further research using these techniques and tools could be a big help in pinpointing the switch from meteoric iron to iron ore.

"The study emphasises the importance of analytical methods for properly studying the evolution of the use of metals and metal working technologies in our past cultures," writes Jambon.

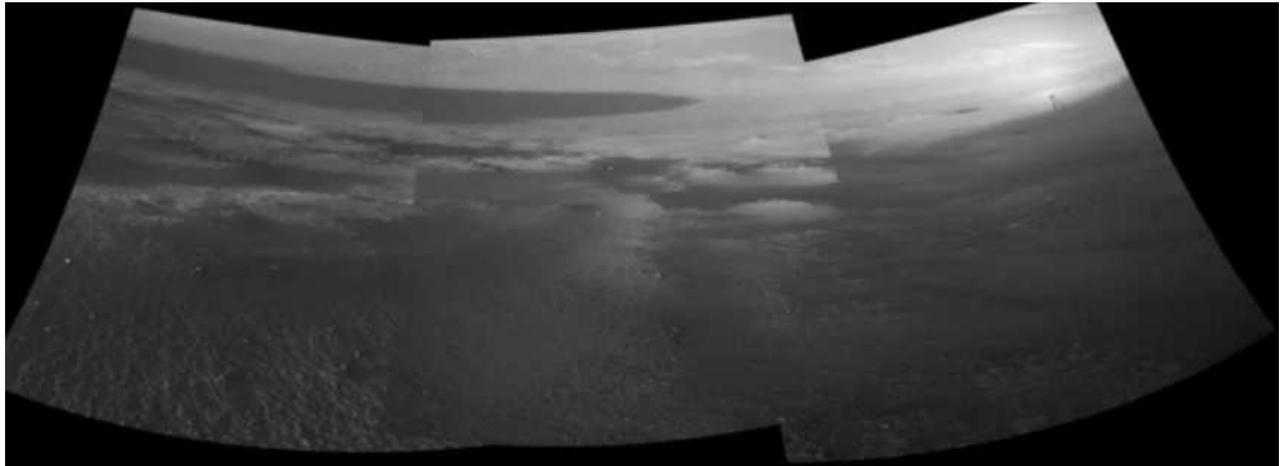
The research has been published in the Journal of Archaeological Science

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OPPORTUNITY ROVER MAKES IT THROUGH DEPTHS OF 8TH MARTIAN WINTER

By Mike Wall, Space.com Senior Writer | December 8, 2017 07:30am ET

https://www.space.com/39013-mars-rover-opportunity-eighth-martian-winter.html?utm_source=sdsc-newsletter&utm_medium=email&utm_campaign=20171209-sdc



NASA's Mars rover Opportunity captured this view of late-afternoon shadows, including one cast by the rover itself, stretching toward the floor of Endeavour Crater. Opportunity's navigation camera recorded the three component images on Nov. 11, 2017, about a week before Opportunity's eighth Martian winter solstice.

Credit: NASA/JPL-Caltech

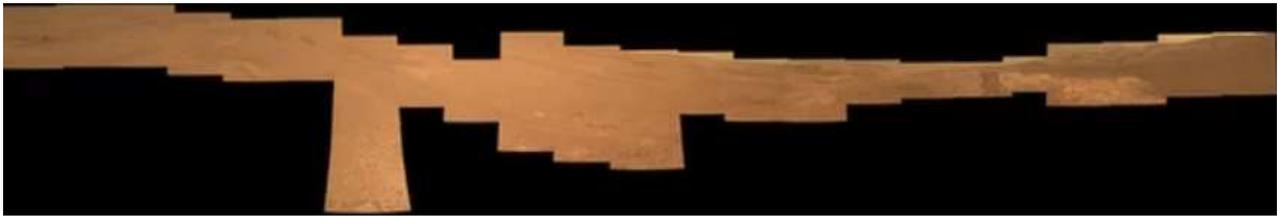
The harsh Martian elements still haven't broken NASA's long-lived Opportunity rover.

The solar-powered Opportunity has rolled through the coldest and darkest parts of the Martian winter in good nick, NASA officials said. The lowest-light period of the current Red Planet year, which lasts 687 Earth days, came in October and November, they added.

The rover is therefore well on its way to surviving this winter, the eighth the craft has endured since touching down in January 2004, a few weeks after its twin, Spirit, landed. Both six-wheeled robots were tasked with searching for signs of past water activity on Mars, in missions designed to last just three months.

"I didn't start working on this project until about Sol 300," Jennifer Herman, power subsystem operations team lead for Opportunity at NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California, said in a statement. (A sol is a Martian day, which lasts about 24 hours and 40 minutes.) "I was told not to get too settled in, because Spirit and Opportunity probably wouldn't make it through that first Martian winter. Now, Opportunity has made it through the worst part of its eighth Martian winter."

The rover's solar panels are quite free of dust at the moment, she added.



This view from within Perseverance Valley, on the rim of Endeavour Crater, includes wheel tracks from the Opportunity Mars rover's descent of the valley. The rover's panoramic camera took component images in September and October of 2017 for this approximately true-color scene. Credit: NASA/JPL-Caltech/Cornell University/Arizona State University

"If Opportunity's solar arrays keep getting cleaned [by wind] as they have recently, she'll be in a good position to survive a major dust storm," Herman said. "It's been more than 10 Earth years since the last one, and we need to be vigilant."

Spirit also far outlasted its warranty, but that rover is no longer with us. After losing the use of two wheels, Spirit got bogged down in soft Martian dirt in 2009. The rover's handlers couldn't reorient it to catch enough sun during the ensuing winter, and the rover essentially froze to death in 2010.

The crucial winter orientation, which Spirit's handlers were striving for, is to face the rover northward. Both Spirit and Opportunity landed (at separate sites) in Mars' southern hemisphere, so they've needed to find north-facing slopes to stay warm and powered up during the coldest months.

The impact of the season on the rovers' science work has varied widely, depending on the nature of the terrain they were exploring when winter hit. For example, Opportunity spent its first winter on the north-facing slopes of a crater, so it was able to stay quite active. But the rover had to camp out for 19 weeks in a single spot during its fourth winter, in 2009 and 2010, NASA officials said.

Opportunity has managed to work through much of this year's late fall and early winter. It's been exploring the water-carved Perseverance Valley, which runs down the inner slope of the western rim of the 14-mile-wide (22 kilometers) Endeavour Crater.



This enhanced-color image, captured by Opportunity in October 2017, of ground sloping downward to the right in Perseverance Valley shows textures that may be due to abrasion by wind-driven sand. Credit: NASA/JPL-Caltech/Cornell University/Arizona State University

As Opportunity drives through the valley, the rover has been stopping at north-facing sites to catch some rays, a strategy the team likens to a frog hopping from lily pad to lily pad. The team plans to continue its exploration of Perseverance over the next few months, searching for clues about how the valley was carved into the crater rim.

"We have not been seeing anything screamingly diagnostic in the valley itself about how much water was involved in the flow," Opportunity project scientist Matt Golombek, also of JPL, said in the same statement. "We may get good diagnostic clues from the deposits at the bottom of the valley, but we don't want to be there yet, because that's level ground with no more lily pads."

The other active rover on the Martian surface, NASA's car-size Curiosity, doesn't have to worry about angling itself toward the sun to make it through the winter. That rover is powered by a radioisotope thermoelectric generator, which converts the heat generated by the radioactive decay of plutonium-238 into electricity.

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TESLA TURNS ON WORLD'S LARGEST LITHIUM-ION BATTERY

By: [Nidhi Goyal](#) | December 9th, 2017

http://www.industrytap.com/tesla-turns-worlds-largest-lithium-ion-battery/44369?utm_source=Industry+Tap&utm_campaign=11ab038e70-Industry_Tap_Volume_44212_11_2017&utm_medium=email&utm_term=0_05d6224fe0-11ab038e70-44103165

On Dec. 1, 2017, just a week after completing construction of the world's largest lithium-ion battery, Tesla switched on the enormous device near the South Australian town of Jamestown.



Image by TomoNews US on Youtube

Tesla signed a grid connection agreement on Sept. 29, according to which Tesla had 100 days to finish building South Australia's 100-megawatt energy storage facility or give it to the state for free.

Tesla met its 100-day deadline to switch on world's largest battery

Tesla built the system to help ease energy shortages in South Australia. Tesla's 100-megawatt battery can provide electricity to more than 30,000 homes and can offer stability during peak demand period and grid failures.

The site of construction is a wind farm operated by French renewable energy company Neoen, which partnered with Tesla to build the battery. The battery stores energy generated by the wind farm.

According to the state's premier, Jay Weatherill, "While others are just talking, we are delivering our energy plan, making South Australia more self-sufficient, and providing backup power and more affordable energy for South Australians this summer."

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From: "Jim Woosley" jimwoosley@aol.com

* RESEARCH, * NOV 13, 2017, SPACE: INVESTING IN THE FINAL FRONTIER

https://www.morganstanley.com/ideas/investing-in-space?cid=sm_smsp_TWITTER_MorganStanley_20171207&linkId=45623826

Could a new era of space exploration mean satellite broadband internet, rocket-fueled package delivery and manned space travel?

It's been nearly half a century since humans left footprints on the moon and during that time, human space exploration has largely centered on manned low-Earth orbit missions and unmanned scientific exploration. But now, falling launch costs, improvements in technology and high levels of private funding are making space exploration another industry ripe for disruption.

In the last fifteen years, the business of space exploration has changed substantially, with private corporations joining governments in creating and launching rockets and satellites. The recent advent of reusable rockets is drastically cutting the cost of sending satellites into space, and the potential for mass production of satellites could slash those costs further.

The revenue generated by the global space industry may increase to \$1.1 trillion or more by 2040.

In fact, as data demand surges—a trend driven particularly by autonomous vehicles—Morgan Stanley estimates that the per-megabyte cost of wireless data will be less than 1% of today's levels.

While reusable rockets will help drive those costs down, so too will the mass-production of satellites and the maturation of satellite technology. Currently, the cost to launch a satellite has declined to about \$60 million from \$200 million via the use of reusable rockets, with the potential to fall to as low as \$5 million. And satellite mass production could decrease that cost from \$500 million per satellite to \$500,000.

The investment implications for a more accessible, less expensive reach into outer space could be plentiful and significant, with potential opportunities in fields such as satellite broadband, high-speed product delivery and perhaps even human space travel. While the most recent space exploration efforts have been driven by handful of private companies, what is now a small step for private companies may someday be a giant leap forward for investors.

In a new report, "Investment Implications of the Final Frontier," Morgan Stanley Research examines these fast-moving developments and paints a coming picture of opportunities in space.

New eras of modernization are often sparked by a single transformative technology shift, followed by a flurry of complimentary innovations. In 1854, when Elisha Otis demonstrated the safety elevator, the public likely struggled to comprehend the impact it would have on architecture and city design. But roughly 20 years later, every multi-story building in New York, Boston, and Chicago was constructed around a central elevator shaft.

Today, development of reusable rockets may provide a similar turning point. "We think of reusable rockets as an elevator to low Earth orbit," says Morgan Stanley Equity Analyst Adam Jonas. "Just as further innovation in elevator construction was required before today's skyscrapers could dot the skyline, so too will opportunities in space mature because of access and falling launch costs."

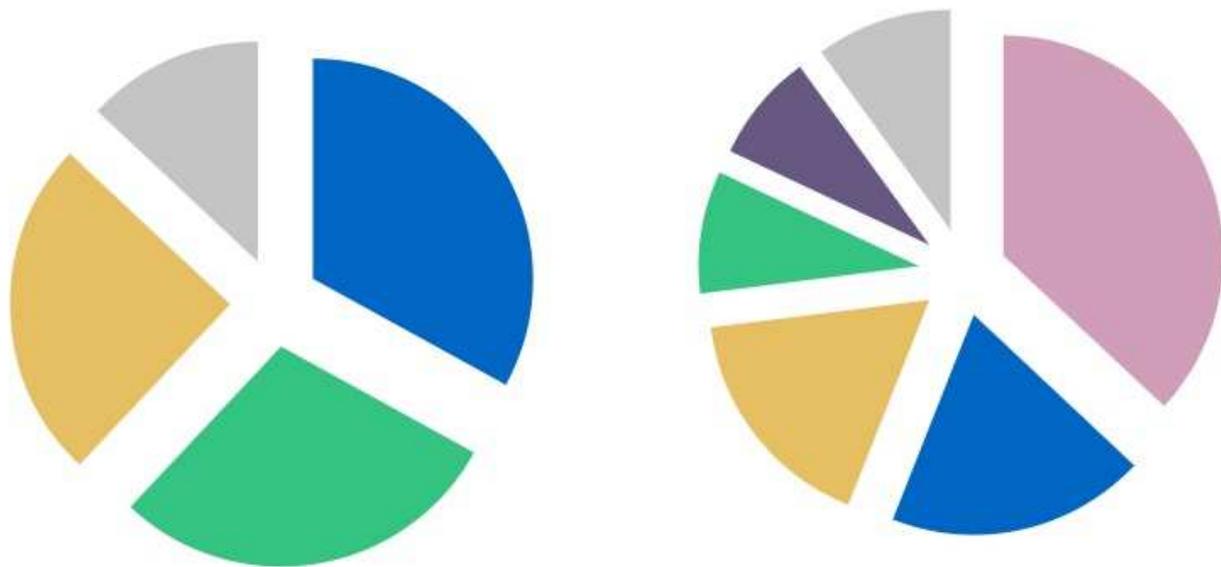
Privately held space exploration firm SpaceX, led by Elon Musk, has been developing these technologies. SpaceX's ambitions include manned landings on the moon and Mars, but it's

the reusable rocketry and the satellites that could be more frequently and cheaply launched into space that offer immediate possibilities for investors.

THE GLOBAL SPACE ECONOMY

Space as an investment theme is likely to impact a number of industries. Morgan Stanley estimates that the revenue generated by the global space industry will increase to \$1.1 trillion or more in 2040, up from \$350 billion in 2016. While the Aerospace & Defense, IT Hardware and Telecom sectors will provide investors a way into the emerging space theme, perhaps the most significant short- and medium-term opportunities will come from satellite broadband Internet access.

Global Satellite Industry Revenue (2016 vs 2040e)



Global Satellite Industry Revenue (2016 vs 2040e)

Ground Equipment Consumer TV Government Other

Source: Satellite Industry Association, Morgan Stanley Research.

Internet Ground Equipment Government Consumer TV Consumer Broadband Other

Source: Satellite Industry Association, Morgan Stanley Research, Thomson Reuters.

Morgan Stanley estimates that satellite broadband will represent 50% of the projected growth of the global space economy by 2040—and as much as 70% in the most bullish scenario. Launching satellites that offer broadband Internet service will help to drive down the cost of data, just as demand for that data explodes.

“The demand for data is growing at an exponential rate, while the cost of access to space (and, by extension, data) is falling by orders of magnitude,” says Jonas. “We believe the largest opportunity comes from providing Internet access to under- and unserved parts of the world, but there also is going to be increased demand for bandwidth from autonomous cars, the Internet of things, artificial intelligence, virtual reality, and video.”

In fact, as data demand surges—a trend driven particularly by autonomous vehicles—Morgan Stanley estimates that the per-megabyte cost of wireless data will be less than 1% of today's levels.

While reusable rockets will help drive those costs down, so too will the mass-production of satellites and the maturation of satellite technology. Currently, the cost to launch a satellite has declined to about \$60 million from \$200 million via the use of reusable rockets, with the potential to fall to as low as \$5 million. And satellite mass production could decrease that cost from \$500 million per satellite to \$500,000.

TO INFINITY AND BEYOND

Beyond the opportunities generated by satellite broadband Internet, the new frontiers in rocketry offer some tantalizing possibilities. Packages today delivered by airplane or truck could be delivered more quickly by rocket. Perhaps private space travel could become commercially available. Mining equipment could even be sent to asteroids to extract minerals—all possible, theoretically, with the recent breakthroughs in rocketry.

Jonas cautions that “history is littered with cautionary tales” of investing in satellite and other space-related companies, noting that stocks have been volatile and several such companies failed in the 1990s. However, this era may be different. This time, high levels of private funding and falling costs of space access may move the topic from skepticism to a dominant investor theme in the coming years.

For Morgan Stanley Research on opportunities in space, ask your Morgan Stanley representative or Financial Advisor for the full report, “Investment Implications of the Final Frontier,” (Oct. 12, 2017). Plus, more Ideas.

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From: "William Green" whgconsulting@gmail.com

'OUMUAMUA, AN INTERSTELLAR SPACE ODDITY, IS BREAKTHROUGH LISTEN'S NEXT CHALLENGE

Jordan Crook, [Tech Crunch](#) December 11, 2017

<https://finance.yahoo.com/news/apos-oumuamua-interstellar-space-oddy-155114511.html>

Right now, an interstellar object dubbed 'Oumuamua is hurtling through space on its way out of our solar system. I say 'interstellar object' because there is a shadow of a doubt about whether or not this object was formed naturally. Moreover, it's the first object to fly through our solar system that is believed to have originated in another star system.

Its shape, about 800 meters long and only 80 wide, is another head-scratcher for astronomers, who are perplexed by the fact that it has no comet-like tail of melting ice. This suggests it may be composed of other material, perhaps solid rock or even metal. Oh, and it's spinning about three times each earth day, leading scientists to believe that it's not some gravitationally bound pack of rocks but a solid object.

Long story short, this thing is bizarre enough to warrant some further exploration.



Right now, an interstellar object dubbed 'Oumuamua is hurtling through space on its way out of our solar system.

If you follow space news, you've surely already heard about 'Oumuamua, which was discovered in [October](#) as it passed by Earth. But today, [Breakthrough Listen](#) confirmed that it will spend 10 hours listening to 'Oumuamua across four radio bands, from 1GHz to 12GHz, using the Robert C. Byrd Green Bank Telescope in West Virginia. Observation will begin on Wednesday, December 13 at 3pm ET.

Why?

Here's what the press release had to say:

Researchers working on long-distance space transportation have previously suggested that a cigar or needle shape is the most likely architecture for an interstellar spacecraft, since this would minimize friction and damage from interstellar gas and dust. While a natural origin is more likely, there is currently no consensus on what that origin might have been, and Breakthrough Listen is well positioned to explore the possibility that 'Oumuamua could be an artifact.

Breakthrough Listen is one facet of Yuri Milner's \$100 million search for intelligent extraterrestrial life.

“With our equipment at Green Bank, we can detect a signal the strength of a mobile phone coming out of this object,” Milner told [Scientific American](#). “We don't want to be

The December 13th, 2017 Edition of THE REVENGE HUMPH DAY!

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sensational in any way, and we are very realistic about the chances this is artificial, but because this is a unique situation we think mankind can afford 10 hours of observing time using the best equipment on the planet to check a low-probability hypothesis.”

Alongside Breakthrough Listen, which uses two of the world's most powerful telescopes to listen to the universe, Breakthrough Initiatives is also working on a more proactive method of finding extraterrestrial intelligent life. [Breakthrough Starshot](#) includes a collection of gram-scale nanocraft space ships, equipped with sensors, a laser to transmit information back to Earth, robotics to steer, and a camera. These space ships won't be propelled by a rocket, but by an ultra-powerful laser and light sails.

In July, the earliest prototypes for Starshot, called Sprites, were sent into low-earth orbit after hitching a ride aboard the Max Valier and Venta satellites.

Unfortunately, that project won't be ready in time to chase 'Oumuamua.

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



Bah, HumBugs!