

THE WRIGHT STUFF



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THE WRIGHT STUFF

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IMAGES - Title Banner

Wright Flyer from NASA/Ames PAO photo archive; *U.S.S. Kitty Hawk* (USN CV-63) from navicp.navy.mil; *Constitution* class cruiser from gwu.edu/~rljones/khawk.

IMAGE - Featured Front Page

Launching Rockets to Study Auroras.
NASA successfully launched the Auroral Zone Upwelling Rocket Experiment or AZURE mission on April 5, 2019, from the Andoya Space Center in Norway.
<https://www.nasa.gov/image-feature/launching-rockets-to-study-auroras>

The Center Seat

By John Troan

I missed another “deadline” for getting my articles to Elaine.... again.... but it does give me a chance to give a *review* of [Artsposure](#), instead of a *preview*.

I’m still pulling together photos from everyone who was there, and it looks like it was a great weekend for all! I was there for the bulk of Sunday, with four different assignments as they shuffled me around where I was most needed. (I had already said on my original sign-up that I was happy to help however and wherever, so it fit in well. ☺)

The food vendors they had were widely varied and the food I got (from three different locations) was all delicious. I just wish I could have sampled something from *every* place, but I was there for only two meals (plus a mid-afternoon snack). I also learned a very valuable lesson – peel back the aluminum foil *before* chomping down close to it. (I bit through the foil around my dinner *twice* before I learned this lesson.)

I got there very much before my chosen-and-assigned shift times so I could have lunch before starting. This also turned into a great opportunity to chat with the Artsposure volunteer coordinator about the *Kitty Hawk* and our mission of community service. In addition to Artsposure and First Night, the organization has multiple events throughout the year and is always in need of volunteers.... wink, wink....

On the business side, [STARFLEET International](#) has an election this year for the Commander, STARFLEET position and the ‘FLEET executive committee. (This vote is held every three years.) Everyone who is an active STARFLEET member

as of Aug 1 will get a ballot from STARFLEET. Active ‘FLEET members can also join the Facebook page and Google discussion forum set up for the election.

In the near future, I’ll be updating the Promotion Points Schedules to add new activities and how to handle Academy courses, enlisted ranks, and non-STARFLEET members who should be recognized for their service. Once completed, I’ll be posting the tables on our web site as an early part of the future on-line *Kitty Hawk* handbook.

I’m also (finally!) catching up on the promotion point tracking spreadsheet – and it looks like there will be some promotions coming soon! I’ve been keeping up with the points earned by everyone, so there will also likely be some (retroactive) promotions granted for non-officers as I catch up with those, too. (As I’ve mentioned before, promotions take effect when they’re earned – not when the paperwork is final or when I see the points have been earned. One promotion last year was awarded retroactively about six weeks.)

Looking ahead, we have the history museum’s [One Giant Leap Festival](#) on July 20, [GalaxyCon Raleigh](#) (the former Raleigh Supercon), and Artsposure’s [Live & Local Spring Fest](#) on June 8.

I hope everyone had a chance to go see the *DS9: What We Left Behind* documentary. I just saw notice that it’ll be available for the general public to purchase in late summer. My copy (as one of the crowdsource backers) will arrive sometime in July.

Esse Quam Videri

Computer Operations Report

By John Troan

Comp Ops has been mostly quiet for the last couple of months – until I realize it’s the end of the month and it’s time to prep another installment of [Final Mission](#) on the [web site](#). We’ve changed the publishing schedule to go monthly, which also shortened up the duration of the story to April 2020.

A [\(very\) recent story](#) on [StarTrek.com](#) gave us the official title for the new Picard series – “Star Trek: Picard” – and a look at the show’s logo (*below*). [A teaser trailer](#) for the series has also just been posted. Another [recent StarTrek.com story](#) featured a member of the *Kitty Hawk* crew.



Elsewhere on-line, NASA has a [new animation](#) that “shows what it would be like to soar over Mount Sharp, which NASA’s [Curiosity](#) rover has been climbing since 2014.”

On the Martian surface, [Insight](#) has had time to do a little “landscape photography,” [capturing a sunrise and sunset](#) – but not before doing some “actual work” as [it made the first recording of a likely “marsquake.”](#)

The [Mars 2020](#) mission has started [coming together](#) following a [test stacking](#). Over the last few weeks, the rover has also been [wired for sound](#), [equipped to phone home](#), and [now has its motion control system](#).

The mission is currently scheduled to launch in July or August of 2020 – and there’s now a way for [members of the public to ride along](#)” by having their name

added to a chip that will be installed on the rover. (I signed up the day I saw the press release!)

When it gets there in February 2021, it'll be greeted by the small network of orbiting missions that continue to circle the planet. (One of them, the [Mars Reconnaissance Orbiter \(MRO\)](#) just [completed its 60,000th orbit](#) of Mars, but [Mars Odyssey](#) is the current veteran with an extra four-plus years in orbit.) Each orbiter pulls double duty, doing both research of its own and acting as a data relay for the surface missions.

In orbit around our own planet, the [International Space Station](#) just received two commercial cargo deliveries – a [Cygnus](#) from Northrup Grumman and a [Dragon](#) from SpaceX. Both deliveries include crew supplies and a variety of scientific research. Any materials that need to return to the surface will be put into the Dragon capsule before it undocks and is recovered after splashdown in the Pacific.

Kira's Korner

By Babs Freeman

My name is Kira and I am not a Bajoran but a female domestic cat on Earth. I came to live in my furever home on the Saturday night a snow storm hit here in Raleigh, NC, last December. For my own safety, I was put in a covered, enclosed condo with necessities and then after a few days the cage door was left open so I could explore. I was only limited to a few spaces initially and I located multiple hidey-holes but was discovered each time. As more rooms opened up, I explored more and found some other hidey-holes with my most-used one being under the bed.

After a few weeks, I finally decided I wanted some attention and I let my hoomin pet me. Needless to say, I liked that and have asked for more. I also like getting brushed and getting treats. My hoomin was advised to cut down my food supply a bit by a veterinarian who deemed that I needed to lose some weight. I was really mad at my hoomin after the vet visit and found a new hidey-hole, but she thought for a while that I had escaped. Being an indoor cat has some nice perks so she can relax.

As time has gone by, I have joined my hoomin on her bed at night but she is initially a tosser/turner so I will go away for a while until she chooses one position and then I go back. I am getting more used to her overall and we even have some play time. Sometimes my favorite toy temporarily disappears and then all of a sudden, it shows up again. How does that happen? My hoomin even bought me a six-foot tall regular cat condo with multiple levels that I like to climb, and she is grateful that I am now using it, in lieu of furniture, to hone my claws.

My hoomin is a bit fastidious with cleaning and smells, so she recently changed my litter filler. I find it easier to dig into, so she has to vacuum more but my hoomin likes that it is lighter and smells better.

Translated from cat language for hoomins to understand by Babs Freeman.

Babs's household tip. If you haven't tried microfiber cloths for cleaning, I recommend them. They do a great job on the inside of your home with windows, mirrors, glass covered pictures, tv/computer screens, and other similar objects plus they reduce the amount of chemicals used in your home and can be re-used.

NC Dedicates State Historical Marker to NASA Leader Who Helped Launch Apollo Program

By T. Keung Hui

The NASA that James Webb inherited in 1961 when he became its second administrator was a space agency that was desperately trying to catch up to the Soviet space program.

By the time that Webb left in 1968, NASA was well on its way to fulfilling President John F. Kennedy's call to land a man on the Moon by the end of the decade. Webb's accomplishments leading NASA were recognized on April 6 when North Carolina dedicated a state highway historical marker in Oxford to the former Granville County native.

"We know what Mr. Webb accomplished: Landing on the moon," said Mark Pace, North Carolina Room specialist at the Thornton Library in Oxford. "I submit to you he did something that might be even more significant than that, as significant as that is. He laid the foundations for NASA. He created NASA."

"Through its ups and downs, successes and failures, scrutiny and criticism for over six decades, NASA was and is the most innovative, technological and scientific institution for the improvement of the human condition and Mr. Webb can be thanked for that."

The state historical marker is located in front of C.G. Credle Elementary School at 223 College Street in Oxford, a block from Webb's boyhood home. You can find out more about the marker at <http://ncmarkers.com/Markers.aspx?MarkerId=G-137>.

The community pride in honoring a “national hero” who was one of their own was a repeated theme at the dedication ceremony.

“I don’t mean for one moment to suggest that Granville County made James E. Webb,” Pace said. “James E. Webb made James E. Webb. But it is nice to think that our community had something to do with it.”

Webb was born in 1906 in the community of Tally Ho in Granville County. Several members of his family were present at the dedication ceremony.

“We continue to have that wonderful space race, space exploration, where will we go next in large part thanks to your dad,” said Ramona Bartos, director of the Division of Historical Resources at the N.C. Department of Cultural Resources. “It’s very appropriate that he came from a place called Tally Ho, North Carolina. Tally Ho is a call to action, we’re about to do something.”

Pace, a historian, took the crowd back to 1961, a time when Americans were fearful of losing the space race to the Russians. The Soviet Union had launched Sputnik in 1957 and was successfully sending rockets into space while Americans watched U.S. rockets blow up on launch pads.

Kennedy needed a special person to run NASA and Webb fit that resume, Pace said. Webb had been a U.S. Marine Corps pilot, director of the federal Bureau of the Budget, U.S. Undersecretary of State and served in leadership positions at various aviation companies.

“You need somebody who can work the halls of Congress, that could deal with the egos of astronauts and scientists, someone who could stand in front

of the media and has the fortitude to tell the most powerful person in the world, the president, ‘No, you’re wrong. This is not the way it needs to be done,’” Pace said. “That’s all you need.

“Is there a person like that who even existed in the world? Yes there was. Where would you even go to look for a person like that? Where would a person like that even come from? How about Granville County, North Carolina?”

Pace quoted from Tom Wolfe’s book “The Right Stuff,” where Webb was described as “the ablest and most distinguished of the off-ballot politicians.” Wolfe said Webb was the sort of man who congressmen said spoke their language and could make bureaucracies run.

Webb died in 1992. But his legacy will live on through the Next Generation Space Telescope that will bear his name. The [James Webb Space Telescope](#) is scheduled to be launched in 2021.

“It’s really fitting that the successor to the Hubble Telescope will be called the Webb Telescope,” Pace said. “Here we are 50 years after the moon landing and 25 years after Mr. Webb’s passing and the name Webb is still associated with cutting-edge space exploration. That is appropriate.”

But Pace said that Webb’s greatest legacy could be in showing how a “positive can-do attitude” can help us solve even our most pressing problems.

“We face some problems, issues with regards to the environment, medicine, health, heck even the simple ability to try to sit down and solve a problem without rancor, hatred or vitriol,” Pace said. “And this is where Webb becomes really, really, really important.

“We face these problems. We ask ourselves can we solve these

problems? And the answer is with time, with the resources, with fortitude and with someone of the caliber of Mr. Webb leading the charge.”

NASA Flight Director Recalls the Thrill and Terror of the Apollo Program

By T. Keung Hui

Gerry Griffin had a long and distinguished career at NASA, but nothing will top the time that he spent as one of the flight directors at Mission Control during the Apollo manned missions.

Griffin had a front-row seat on history, including being a lead flight director for three lunar landings. Griffin, now 84, shared his experiences in NASA while also looking at the future of manned spaceflight at an April 4 talk at the N.C. Museum of History in Raleigh.

Griffin was director of the Johnson Space Center in Houston when he retired from NASA in 1986. But Griffin said the best job he ever had was being a flight director during Apollo, as shown by the flight director’s pin he proudly wore at the lecture.

“It was a hoot,” Griffin said. “It was so much fun. It was a heck of a challenge. But we were all young and felt a little bit bulletproof and invincible.”

Griffin was in Raleigh as part of the N.C. Museum of History’s celebration of the 50th anniversary of the Apollo 11 landing on the Moon. The North Carolina and the Space Race exhibit will be on display at the museum to Jan. 5, 2020. Go to <https://www.ncmuseumofhistory.org/exhibits/one-giant-leap> for more details.

The Apollo program started amid tragedy with the fatal Apollo 1 fire in 1967 that killed three astronauts during a test. Griffin said that if an accident like that happened nowadays it could lead to a program being shut down. But with Apollo, he said there was a commitment to continue despite setbacks that may occur. Griffin said that NASA learned from its mistakes, making several changes that made the spacecraft safer. But Griffin recalled a conversation he had with the sister of Mike Smith, one of the astronauts killed in the 1986 Challenger space shuttle accident.

"Every one of these accidents, you learn something," Griffin said. "It's a terrible way to learn, but if you're going to push the envelope with humans it's going to happen. You've also got humans in the loop trying to figure out how to do it as safely as they can, but you can't manage the risk to zero. There's no way."

By the time of Apollo 11, Griffin had become good friends with astronaut Neil Armstrong. That's one of the reasons that Griffin says he doesn't agree with how Armstrong was portrayed in the 2018 movie "First Man." Griffin said that "Neil was quiet, but he was not wimpy" as he appeared in the movie. Griffin also shared some insight into the crew dynamics between Armstrong and fellow Apollo 11 astronaut Buzz Aldrin. Griffin said there's a reason why one of the best pictures of Armstrong on the Moon is when he appears as a reflection in a photo of Aldrin.

"There are almost no pictures of Neil Armstrong on the Moon," Griffin said. "He took a zillion of Buzz. But Buzz only took one or two."

Four months later in 1969, Griffin was the lead flight director when Apollo 12 was struck by

lightning shortly after take off. The lightning discharge triggered malfunction warnings in the spacecraft and a loss of much of the instrumentation data at Mission Control. The question of aborting the mission was on Griffin's mind when 24-year-old John Aaron at Electrical, Environmental and Consumables Manager (EECOM) suggested they tell the crew "Try SCE to Aux."

"I said what?" Griffin recalled him answering Aaron. "CAPCOM was this guy named Gerry Carr so I turned to him and said, 'CAPCOM, SCE to Aux.' Gerry said, 'What?'"

Carr relayed the message to astronaut Pete Conrad, the mission commander. But Griffin said that Conrad replied "NCE to auxiliary. What the hell is that?"

Fortunately, astronaut Alan Bean, sitting on Conrad's right, recalled that SCE was an obscure switch. Once it was flipped to auxiliary, the instrumentation data came back. Apollo 12 was able to enter into low-earth orbit where they had to decide if it was safe to continue the mission. That's when Chris Kraft, director of flight operations, approached Griffin. What happened next is an example of the strong leadership that Griffin said NASA showed as it extended trust down to the ranks in making key decisions.

"Young man, we don't have to go to the Moon today," Griffin recalled Kraft telling him. "That's all he said. I knew what he was telling me was it's your call to do what you think is right. If you call it off, we won't be second-guessing you."

After finishing checking everything out, Griffin made the call to continue. From that point on, Griffin said it was the cleanest of the Apollo missions they ever had.

"It was a little bit of the 'Right Stuff,' a little bit of luck and a young man named John Aaron who knew what he was doing," Griffin said.

Aaron was indicative of the young crew that worked in Mission Control. Griffin said that all the flight directors were in their 30s and were likely the oldest people in the building. He said that was a deliberate decision made by NASA to bring in young people who could think in new ways. Griffin equated his job of flight director with being a conductor leading a symphony. One of the things that's been unfair with the history of Apollo, according to Griffin, is that the astronauts, the flight directors and the flight controllers have gotten too much ink at the expense of "this giant pyramid below us of people" who also worked on the program.

That teamwork was exhibited in April 1970 when everyone worked to rescue the crew of Apollo 13. Griffin was scheduled to be the lead flight director for the lunar landing when the mission changed to how to safely get the crew home. Griffin said the rescue efforts were complicated by the communications technology limits that weren't solved until the space shuttle when they could uplink commands via a printer. Back during Apollo, redoing a checklist meant reading it out to the crew, which had to write it down on paper. Griffin said the new re-entry checklist for Apollo 13 was pages long.

"We had to read that up to him and Jack Swigert, the command module pilot, ran out of paper to write on," Griffin said. "At one point he said 'Stop. I've got to find something else to write on.'"

Many years later, Griffin would serve as a technical advisor to the "Apollo 13" movie. But Griffin said he didn't think the movie would

happen after director Ron Howard met with him, former astronaut Jim Lovell and several other people who had been on the Mission Control team. Griffin said that Howard told him he wasn't making a documentary so he wanted to make sure there was enough emotion in the movie to make it entertaining. Howard kept asking them if they were scared during the mission.

"No, we were concerned but the training paid off," Griffin recalled them telling Howard. "It's the training that got us through all those things."

By the time of Apollo 14 in January 1971, Griffin was the lead flight director during the almost aborted lunar descent. The lunar module was descending when the abort light came on. After a revolution around the moon, they determined that a tiny solder ball had likely come loose and was floating between the switch and the contact, closing the circuit.

"We told the commander, who was Alan Shepard, tap on it," Griffin said, drawing laughter from the crowd. "He tapped on it and it went out."

But Griffin said they weren't out of the woods yet. If the abort light came back on again after the descent engine fired, the computer would think the signal was real and would automatically abort the landing and cause the module to climb back into orbit. That's when Griffin said another one of the "unsung heroes" emerged when "a young guy from MIT" came up with a patch for the flight computer software. They read off the numbers, which was written in octal, to lunar module pilot Ed Mitchell. He slowly and carefully reprogrammed the computer to ignore if the abort light came on again. They made the decision to continue and the abort light came on again.

"It's a good thing we had that patch in there or they would have aborted and not made it," Griffin said.

Apollo 14 would experience yet another problem before touching down on the surface of the Moon. The lunar module landing radar wouldn't lock onto the surface to tell them how high they were. Griffin said another young guy said they should have them cycle the circuit breaker on the landing radar, which did the trick and allowed them to go ahead with the landing.

"That was an exciting landing," Griffin said to more laughter. "Fourteen was fun. It's like a fighter pilot says: 'It's hours of boredom interrupted by a few minutes of stark terror.' That's kind of the way it was."

Overall, Griffin said the Apollo program benefited from a combination of factors that rarely come together at the same time. Griffin cited the example given by Neil Armstrong of how big government projects are often based on four factors: a threat, bold leadership, resources and public support. During Apollo, Armstrong told Griffin that NASA enjoyed a balanced federal budget, the bold leadership of President John F. Kennedy, public support and motivation from the Cold War threat of the Soviet Union. Griffin said that as NASA attempts new manned flights to the Moon and to Mars, it will need those four factors to once again come together.

"The people in NASA, they're as good today as we were, maybe better educated," Griffin said. "They've got the can-do spirit. But they've got to have the leadership to do and the stability to do what's next."

Engineering Report By Brad McDonald

I recently saw a report concerning a new propulsion system under development called a reaction engine. Supposedly, it is capable of speeds up to 25 times the speed of sound. An early version of this engine could give commercial air remarkable travel times, such as London to New York in one hour or London to Australia in four hours! It's still in early stages but very promising. Unfortunately, Russia has chosen to use the system to power a new type of cruise missile, which currently is incapable of being intercepted due to its incredible speed.

The space program suffered a setback as the recent tests concerning the new manned spacecraft failed. The Space X launch craft, along with the test crew capsule, exploded. Elon Musk insists the system will be ready for a test flight with astronauts, by August. However, NASA is not convinced. As I noted earlier this year, they had doubts even before the accident. The *Challenger* accident hasn't been forgotten. That was a direct result of rushing launches and NASA does not want a repeat performance.

Speaking of failures, Israel's moon lander was lost during the final moments. Since the spacecraft was built on a limited budget, there were no back-up systems, so the failure wasn't totally unexpected as last minute corrections weren't possible.

NASA has many accomplishments to its credit, but a number of them found their way into our everyday life as part of the 'trickle-down effect' without fanfare or announcement. A partial list of

them was published not long ago and I'm passing it on to you: air purification systems, artificial limbs, camera phones, CT scan and MRI's, cordless tools, deicing systems, ear thermometers, GPS navigation, freeze dried foods, mylar, scratch resistant lenses, solar panels and memory foam. We've come a long way since Teflon and Tang!

The flooding in the Midwest sent a scare throughout my family. In Nebraska, Offutt Air Force Base houses the lab which performs DNA testing to identify military personnel. My family donated our own DNA samples in an effort to locate the remains of my uncle who was lost at Pearl Harbor on December 7, 1941. I made several efforts to find out if the lab and samples had survived the flooding. I finally got through and was informed that while Nebraska only had one hill, the lab was on it, high and dry! It was a major relief to my family.

As I write this, I am 'confined to quarters' with a case of pneumonia. I had been feeling tired for some time with minor symptoms that made me think I had no more than a cold. But after several weeks of no progress, I went to the doctor. Once there, I was given the once over and a set of x-rays, just to be sure. My cold turned out to be pneumonia. Moral of the story, be sure and get checked up by a doctor. I was lucky it hadn't developed into something more serious.

Science Tidbits By Mohamed floor

Star Trek: Discovery and Mitochondrial DNA

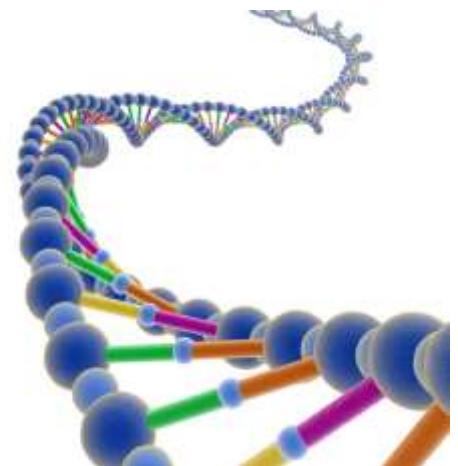
Star Trek: Discovery introduced an interesting genetic concept this season. (I'll be somewhat vague to avoid too many spoilers.) A device was identified that was tailored to the bearer's DNA. However, interestingly, rather than their overall DNA or the DNA from one particular gene, this device was tailored to the bearer's mitochondrial DNA". We are used to thinking of inheriting half of our DNA from each parent. We get one copy of all of our genes from our mother and one copy of all of our genes from our father. Strictly speaking, that's not exactly true. For biological men, we inherit our Y-chromosome (and all the genes on it) just from our father, and we inherit our X-chromosome (and all the genes on it) just from our mother. Since biological women typically have two X-chromosomes, the traditional thinking of "one copy from each parent" still applies.

However, there is an exception for everyone. In addition to all the DNA we keep in the nucleus of our cell, we also inherit DNA that resides in mitochondria (the "powerhouses of the cell"). The mitochondria and their DNA come just from the egg, so these genes are inherited just from mom. Sorry dad! As such, if one were to look at the DNA sequence of one of my mitochondrial genes, my DNA sequence should be virtually identical to my mother's (barring a mutation or two). This inheritance comes up a bit in the news: you may have heard of so-called "three-parent babies". In that case, the nucleus from one egg

(from "mom1") is moved into a donor's egg (from "mom2") that had its original nucleus removed. When that egg is fertilized by sperm (from dad), the offspring inherits one copy of nuclear genes from mom1, one copy of nuclear genes from dad, and mitochondrial genes from mom2.

However, the title "three-parent baby" is dramatically overstated, since it seems to imply the contributions are similar. The nuclear genome has literally over 100,000 times more DNA than the mitochondrial one. To make a liquid analogy, it's less than a drop relative to a full-gallon jug. Hence, in terms of number of genes, you get a way, way, way bigger contribution from the parents who gave the nuclear genes.

Could a device be designed to test for one's mitochondrial DNA? Yes—in fact, mitochondrial DNA is somewhat easier to work with than nuclear DNA overall despite the smaller number of genes. The reason is that each cell has one nucleus but many mitochondria, so it's easy to access their DNA. So, kudos to *Star Trek: Discovery* and their writers for doing their genetics homework. And be sure to thank mom for her unique contributions to you.



Science Report

By Diane Ripollone

“Endurance” Scott Kelly

My recent attendance at the National Science Teachers Association Conference in St. Louis allowed me an opportunity I would have never thought possible. I got to meet Astronaut Scott Kelly. Mr. Kelly appeared as one of the keynote speakers at the conference. He did a great job, talking about his year on the space station and how he became an astronaut. His talk was one of the most inspiring talks I had listened to in a long time. When he was 18 years old, he read the book [The Right Stuff by Tom Wolfe](#). This changed his life, he was not a good student, he really didn't care about school and he wasn't good at studying but when he read the book, he knew what he wanted to be. Talking about the change in his attitude, especially towards his studies, Mr. Kelly talked about his road to becoming a naval pilot and then astronaut.



Interwoven in his talk were inspirational stories, such as when he decided early on in his career to “focus only on the things you can control” and sitting atop a 1 million pounds of thrust to head into space was one of them. You must take a small positive direction constantly while doing things. His discussion followed his book. It started off with the launch for the year in space. Mr. Kelly takes us through his launch and his mission on the ISS. During his story he turns back the clock to talk about his childhood, parents and years in the Navy. The most important part of his mission in space was the medical tests he underwent. NASA wanted to see how staying in space affects humans. The results and all the work being done with his twin brother are being posted as they come in. [Check out the website](#) where you can get more information. According to Mr. Kelly, his chromosomes got better, but his gene expression changed about 7%. Other results are

coming in and they are finding some surprises.

Mr. Kelly wrapped up his talk by discussing how NASA and manned space travel depends on Teamwork and Diversity. Diversity because of the different ideas and solutions everyone can come up with. “Teamwork makes a dream work!” - Scott Kelly’s Fiancée, Amiko.

Yeoman/Quartermaster Report

By Larry Cox

As always, thanks to all who have made donations to our treasury; all donations are welcome and appreciated.

As of 05/17/19, we have received \$175.00 in donations toward our Region 1 space camp fund drive. Thanks! I will be forwarding these funds to the Region 1 rep shortly so there's still time to contribute.

Ship' stores still has a nice inventory of wonderful, colorful, comfortable customized tee shirts for sell at \$20.00 each (what a bargain!):

- 1 black med
- 1 white large
- 1 red xl
- 2 black xl
- 1 black xl monochrome \$17.00

I also have 1 insulated custom STARFLEET/USS *Kitty Hawk* travel mug for \$24.00.

As we quickly approach mid-year, please keep in mind that before you know it, it'll be Food Bank and Toys for Tots time again. I plan to begin collections and more reminders in September.

It's been nice seeing the size of the turnouts we're having for our monthly meetings; good conversation, fellowship and food all around. Remember to invite your friends; if they're not Trekkies yet, we might be able to convert them.

Looking forward to seeing everyone in June!

ST:TOS – “Hades”

By Brad McDonald

PART II - ACT THREE

FADE IN:

EXT. SPACE – OLIN AND ENTERPRISE

Enterprise is in orbit around the planet.

EXT. OLIN – DESERT – EARLY MORNING – ON TEAM

All are present around a small fire. Spock is visible in B.G., asleep on his back.

UDVAL

(enthusiastic)

With the seeds and roots we found, plus the animal that attacked Mr. Spock, we might just make it to the finish.

MONTALVA

(concerned)

Food is welcomed, but it makes the need for water more critical.

ZANA

(nodding)

She's right. We need water, soon. There is none in this area, so we need to move ahead.

UDVAL

(worried)

And leave Mr. Spock?

COLORADAS

We're not to that point... yet.

NEW ANGLE

Lingari is watching Spock closely.

LINGARI

It may not be necessary.

LINGARI'S P.O.V.

Spock is moving; restless and disoriented.

TWO SHOT – SPOCK AND LINGARI

Lingari moves quickly to Spock and slaps him several times, very hard.

WIDE ANGLE

The others are about to protest when Spock awakens and faces Lingari.

SPOCK

Thank you, Miss Lingari.

Spock studies the area and the sun for a beat.

SPOCK

(continuing)

How long have I been here?

Coloradas is surprised by Spock's sudden recovery.

COLORADAS

About thirty hours by my estimate, sir.

Spock begins to sit up slowly.

SPOCK

(to Coloradas)

Were you able to locate water?

COLORADAS

No sir, but we do have limited food.

Zana offers some to Spock. He hesitates at the selections, then chooses and eats slowly.

ZANA

Sorry, sir, some of it is meat. We know you're a vegetarian...

SPOCK

No apology is necessary, it is a matter survival.

Spock eats slowly then tries to stand; Coloradas moves to help him.

SPOCK

(continuing;
to Coloradas)

Thank you, Commander.

(to team)

Let us continue the challenge.

The others are astonished at Spock's recovery, but collect their tools and weapons.

SPOCK

(continuing)

Mr. Zana and Miss Lingari, take advanced scout positions, please.

Zana and Lingari nod and move off as Montalva helps Udval to his feet and begin following Spock.

TWO SHOT – MONTALVA AND UDVAL

UDVAL

(moving)

Sometimes I think Mr. Spock may be a bit... crazy.

Montalva admires Spock and smiles at the comment.

MONTALVA

(moving)

No, just dedicated and very determined.

Udval is thinking and studies his injured leg.

UDVAL

(moving)

If he can make it, so can I.

MONTALVA
(moving)

I'm sure we all can!

EXT. SPACE – ENTERPRISE
AND OLIN

Enterprise is in orbit around Olin.

INT. ENTERPRISE –
ENGINEERING – TWO SHOT –
KIRK AND SCOTT

Conversation is in progress near
the control panel.

KIRK

What you're saying, Scotty,
not only is the crew
overdue for a leave, so is
Enterprise.

SCOTT

(exasperated)

Aye, sir; that's about it.

KIRK

We can finish our mission,
right?

ON SCOTT

SCOTT

(confident)

Aye, sir, she'll do that, but
if command gives us
another assignment...

His voice trails off and Kirk
presses.

KIRK (O.C.)

What's wrong, engineer?

SCOTT

We're overdue for a visit to
a repair facility. I have a
list of Fleet Directives for
upgrades, modifications
and changes, all on hold
for lack of time and proper
facilities, and now our
mission here is taking a
long time...

ON KIRK

He nods in understanding and
puts his hand on Scott's shoulder
in assurance.

KIRK

It's okay Scotty, I'm not
holding you responsible if
the ship is not 100 percent.
I've seen those directives
too and we'll get to them
soon, I promise.

(beat)

And, Scotty, I'm worried
about our team, too.

He finishes with a smile.

TWO SHOT – KIRK AND SCOTT

Scott relaxes and smiles back.

SCOTT

Aye, sir. I'm sure they'll be
fine, it's just taking so long.

Kirk turns to leave, exiting through
doors, thinking about Scott's
words.

CORRIDOR – ON KIRK –
CAMERA FOLLOWS ACTION

Kirk takes a few steps when an
intercom whistles.

CHEKOV (V.O.)

Bridge to Captain Kirk.

Kirk stops at nearby intercom,
activating it.

KIRK

Kirk here; report, Ensign.

BRIDGE – ON CHEKOV

CHEKOV

The team has just emerged
from a sensor dead zone,
sir. They're moving in the
same general direction, but
there's a problem.

KIRK (V.O.)

What is it, Chekov?

CHEKOV

There's only four of them,
sir.

AS BEFORE – ON KIRK

He's visibly affected by the news.

KIRK

Any indications where the
other two went?

AS BEFORE – ON CHEKOV

CHEKOV

(apologetic)

No, sir. Readings are
spotty. I'm barely able to
detect any team member,
continued interference.

CLOSE ON KIRK

We see him deep in thought,
concerned.

KIRK

Probably looking for water.

EXT. OLIN – DESERT – LATE
AFTERNOON – ON TEAM

They are moving slowly, Spock is
being helped by Montalva, Udval
is moving slowly on his own and
Zana follows, carrying weapons
and supplies. In B.G. we see
Coloradas catching up at a trot.

ON COLORADAS

He's tired and in distress, comes
to a stop in front of Spock, out of
breath.

TWO SHOT – SPOCK AND
COLORADAS

Spock recognizes Coloradas'
stress and is concerned.

SPOCK

Where is Miss Lingari,
Commander?

COLORADAS

(winded)

That's why I returned, sir,
to report her capture.

CLOSE ON SPOCK

His right eyebrow rises significantly.

SPOCK

Captured? Are you quite sure?

ON COLORADAS

COLORADAS
(less winded)

Absolutely sir, multiple tracks which someone tried to conceal and signs of a brief struggle.

(pointing)

They moved off in that direction, towards the rock formation.

AS BEFORE – ON SPOCK

SPOCK
(thoughtfully)

Someone does not want us to complete our current endeavor.

SPOCK’S P.O.V.

He surveys the team, frustrated.

SPOCK (O.C.)

Neither I nor Mr. Udval are capable of a prolonged search and we must complete the challenge in order to successfully conclude our mission.

ON TEAM

Udval shifts uneasily; the others look worried.

UDVAL

Sir, are you suggesting we leave Lingari behind?

ON SPOCK

SPOCK

Not at all, Mr. Udval. I was merely restating our objectives. However, I would welcome suggestions.

ON MONTALVA

MONTALVA
(determined)

Let Ensign Zana and myself go with Commander Coloradas. We’ll bring Lingari back safely.

(beat)

As for her captors...

ON ZANA

ZANA
(enthusiastic)

Absolutely! Count me in.

ON COLORADAS

He is now rested and speaks calmly.

COLORADAS

If we split up now, who’s to say they won’t come after Udval and Mr. Spock? Both still require assistance.

ON SPOCK

SPOCK

The team must keep going. We don’t know how much further we have to go and we have not had much food and no water in the last few days.

ON UDVAL

UDVAL
(angry)

So we just give up on Lingari?

ON COLORADAS

COLORADAS
(smiling)

Not at all. You four continue, I’ll take care of Lingari. I just came back to report to and to get the rest of the arrows.

NEW ANGLE

Coloradas moves to Zana and takes arrows.

SPOCK

Will you require anything else?

COLORADAS

No, sir. I’ll see you at the finish line with Lingari, I promise.

ON SPOCK

He nods in agreement and approval.

SPOCK

I can think of no one better qualified, Commander.

ANOTHER ANGLE

Coloradas puts arrows in his waist band.

COLORADAS

Thank you, sir.

He turns and trots off towards rock formation.

ON TEAM

SPOCK

I suggest we continue at our best possible speed. I would hate to disappoint Mr. Coloradas by not being at the finish line when he arrives or, worse yet, arrive after he does.

EXT. SPACE – OLIN AND ENTERPRISE

Enterprise is in orbit around Olin.

INT. ENTERPRISE – BRIDGE – ANGLE ON SCIENCE AND COMMAND SECTIONS

CHEKOV
(excited)

Captain, looks like the team is going to finish! They just cleared another sensor dead zone.

Kirk stands quickly and approaches Chekov at railing.

KIRK
(moving)
How soon?

CHEKOV
(off console)
They're still moving slowly, but no more than an hour or so, sir.

Kirk heads to the turbolift. Chekov changes attitude and turns to Kirk.

CHEKOV
(continuing)
Captain, there's still only four of them.

ON KIRK

He freezes, visibly shaken, then:

KIRK
(to Uhura)
Have McCoy and a security team meet me in the transporter room, on the double!

Kirk disappears into the turbolift and doors close.

MAIN TRANSPORTER ROOM - WIDE ANGLE

Scott is at control console and four N.D. security are waiting in B.G.

NEW ANGLE - CAMERA FOLLOWS ACTION

Kirk enters, agitated and focused, motions security to transporter platform. They move quickly and take positions as Kirk steps up.

ON DOOR

McCoy enters with tricorder in hand and an over the shoulder medical kit.

MCCOY
(moving)
What's going on, Jim?

McCoy takes a few quick steps to platform next to Kirk.

ON KIRK

KIRK
(to McCoy)
Our team is arriving at the finish, but two are missing and the others will probably need your assistance.
(to Scott)
Once we've beamed down, get a lock on the team.

ON SCOTT

SCOTT
Aye, sir. Transporting now.
He activates controls.

NEW ANGLE

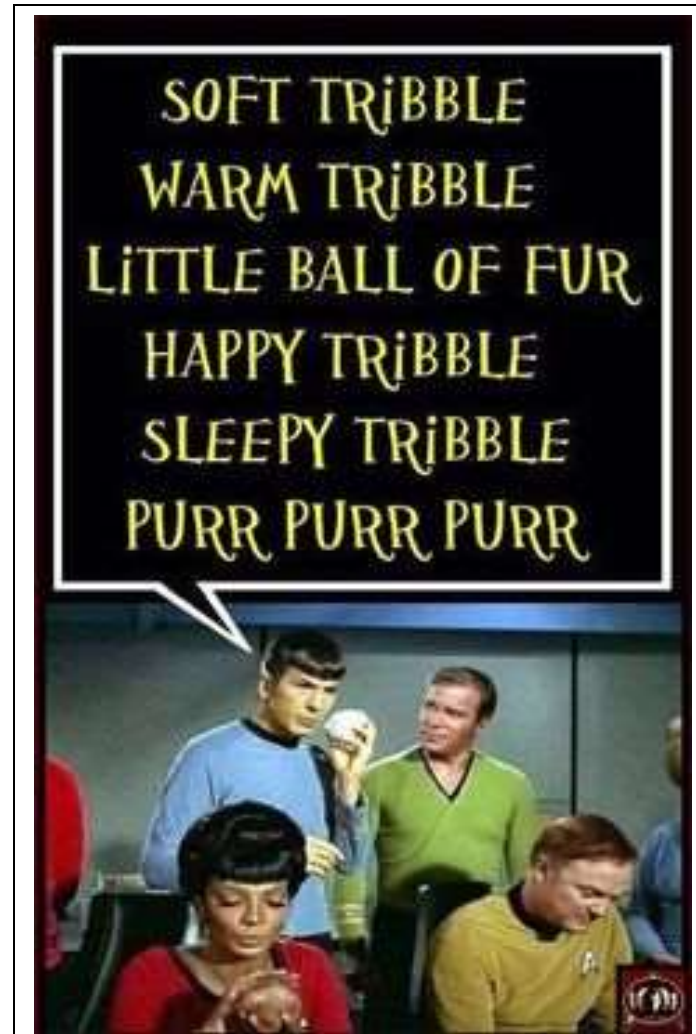
The group disappears in the transporter effect.

OLIN - EARLY MORNING - ON COLORADAS

He is moving slowly, following tracks with bow and arrow at the ready. In B.G. we can hear faint voices. Coloradas now brings the bow and arrow to bear, ready for anything.

NEW ANGLE

He moves around a rock formation where fire light is now visible. Cautiously, he moves to a point where he can see what is ahead.



CLOSE ON COLORADAS

He's shocked.

Off his reaction...
FADE OUT.

END OF PART 2
- ACT THREE

Upcoming Events

Jun	1	4 p.m. Ship Meeting Texas Steakhouse, Morrisville
	8	Artspllosure Live & Local Spring Fest Hillsborough Street, Raleigh
Jul	6	4 p.m. Ship Meeting Texas Steakhouse, Morrisville
	20	One Giant Leap Festival NC Museum of History, Raleigh
	25-28	Raleigh GalaxyCon (Supercon) Raleigh Convention Center
Aug	3	4 p.m. Ship Meeting Texas Steakhouse, Morrisville

DON'T FORGET TO CHECK YOUR STARFLEET STATUS

THE WRIGHT STUFF
U.S.S. KITTY HAWK5017
Glen Forest Dr.
RALEIGH NC 27612