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Publisher											. J.R. Fisher
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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.

IMAGES - Featured Front Page

Top Artist's concept of planets from the Kepler-37 and our solar systems. *Bottom* The handiwork made by tools from Mars missions (left to right) *Opportunity*, *Phoenix*, and *Curiosity*.



A View From the Catbird Seat By J.R. Fisher



Here we are, almost the end of February, and time to get ready for UNC-TV's Festival! This vear we are

answering phones from 6 p.m. to 11:30 p.m. on March 2, the first Saturday of the month and immediately following our ship's meeting at the mall at 4 p.m.

We would very much like for those of you attending to wear a uniform or ship's shirt. If you do not have one, please wear a solid color shirt or top. No stripes, plaids or patterns please. They play havoc with the cameras.

I know most of you have done this many times, so if you have, you do not have to sit through orientation again unless you just want to refresh your memory. I usually do, just in case something has changed.

I would very much appreciate you calling or emailing me if you can attend so that I can have a head count. Remember, 20 people is our goal and we get air time to advertise STARFLEET and Kitty Hawk.

So come on out and let's have some good times and good food. See you Saturday!

Esse Quam Videri

From StarFleet HQ FCapt. Chris Tolbert (recruiting@sfi.org)

Well folks, it is that time of year again.

I am pleased to announce that Retention Month will run

from February 25, 2013, 'til March 31, 2013.

What is Retention Month you ask?

Anyone that renews their membership between this time will be Eligible for one of four 25.00 gift certificates from the quartermaster store. The quartermaster store has lots of neat items and is a great place to shop I might add.

All you have to do is renew your membership during this time frame to be eligible. If your membership is not due until December, you can still renew now and you will be entered in the drawing, plus ensure that your membership is secure for another year.

Retention is a big part of any organization, and we want to keep as many members as we can. With the Pre-First contact events and the new movie, this will also help to maintain our numbers in hope of reaching that 5000 mark.

If you have already renewed between Jan. 1, 2013, and Feb. 25, 2013, Email me your name and SCC# of the head of household. I have the permissions in the database to check so I do not need any receipts or things of that nature.

If your renewal date falls between Feb 25th and Dec 31, 2013, please wait until after the 25th to start renewing. After the 25th, member processing will send me a list on a weekly basis and that is how I will know who is in the drawing. So after the 25th, you will not need to send me your name and SCC#.

Security Report By Spring Brooks

What's the World's Safest, Best PIN?

lt's 8068*.

How easy would it be for someone to guess your PIN -- you know, the four-digit number you use at ATMs and when you make a purchase with a debit card? Researchers at the data-analysis firm DataGenetics scrutinized a database of 3.4 million stolen passwords and uncovered some startling statistics.

For example, a hacker's odds of randomly guessing the correct number is one in 10,000. If he has three tries, odds increase to one in 3,333. If your PIN is your birth date, a year in the 1900s, or an obvious numerical sequence, the odds go way up.

The group found that the three most popular combinations -- 1234, 1111, and 0000 -- account for close to 20 percent of all four-digit passwords. Every four-digit combination that starts with 19 ranks above the 80th percentile in popularity. Month/day combinations -- those in which the first two digits are between 01 and 12 and the last two are between 01 and 31 -- are also popular. So choosing your birthday or your birth year makes your password significantly easier to guess.

On the other hand, the least popular combination, 8068, appears less than 0.001 percent of the time. Probably because it' so random -- it follows no discernible pattern such as a date or repetition of numbers. Other unpopular PINs are 8093, 9629, 6835, and 7637. DataGenetics discovered that the combination 2580 was the 22nd-most-popular PIN (most likely because those four numbers appear in a single column from top to bottom on a phone or ATM keypad), that people prefer even numbers to odd (2468 ranks higher than 1357), and that far more passwords start with 1 than any other number.

*At least it was until we published this story.

From Reader's Digest Magazine (February 2013)

NASA's Kepler Mission Discovers Tiny Planet System By NASA/JPL

[This is the NASA-JPL press release that goes with the top of this month's cover images. The release is available with additional images at <u>http://www.jpl.nasa.gov/news/news.ph</u> <u>p?release=2013-066&cid=release 20</u> <u>13-066.]</u>

NASA's *Kepler* mission scientists have discovered a new planetary system that is home to the smallest planet yet found around a star similar to our sun.

The planets are located in a system called Kepler-37, about 210 light-years from Earth in the constellation Lyra. The smallest planet, Kepler-37b, is slightly larger than our moon, measuring about one-third the size of Earth. It is smaller than Mercury, which made its detection a challenge.

The moon-size planet and its two companion planets were found by scientists with NASA's *Kepler* mission, which is designed to find Earth-sized planets in or near the "habitable zone," the region in a planetary system where liquid water might exist on the surface of an orbiting planet. However, while the star in Kepler-37 may be similar to our sun, the system appears quite unlike the solar system in which we live.

Astronomers think Kepler-37b does not have an atmosphere and cannot support life as we know it. The tiny planet almost certainly is rocky in composition. Kepler-37c, the closer neighboring planet, is slightly smaller than Venus, measuring almost three-quarters the size of Earth. Kepler-37d, the farther planet, is twice the size of Earth.

The first exoplanets found to orbit a normal star were giants. As technologies have advanced, smaller and smaller planets have been found, and *Kepler* has shown that even Earth-size exoplanets are common.

"Even *Kepler* can only detect such a tiny world around the brightest stars it observes," said Jack Lissauer, a planetary scientist at NASA's Ames Research Center in Moffett Field, Calif. "The fact we've discovered tiny Kepler-37b suggests such little planets are common, and more planetary wonders await as we continue to gather and analyze additional data."

Kepler-37's host star belongs to the same class as our sun, although it is slightly cooler and smaller. All three planets orbit the star at less than the distance Mercury is to the sun, suggesting they are very hot. inhospitable worlds. Kepler-37b orbits every 13 days at less than one-third Mercury's distance from the sun. The estimated surface temperature of this smoldering planet, at more than 800 degrees Fahrenheit (700 degrees Kelvin), would be hot enough to melt the zinc in a penny. Kepler-37c and Kepler-37d, orbit every 21 days and 40 days, respectively.

"We uncovered a planet smaller than any in our solar system orbiting one of the few stars that is both bright and quiet, where signal detection was possible," said Thomas Barclay, Kepler scientist at the Bay Area Environmental Research Institute in Sonoma, Calif., and lead author of the new study published in the journal Nature. "This discoverv shows close-in planets can be smaller, as well as much larger, than planets orbiting our sun."

The research team used data from NASA's *Kepler* space telescope, which simultaneously and continuously measures the brightness of more than 150,000 stars every 30 minutes. When a planet candidate transits, or passes, in front of the star from the spacecraft's vantage point, a percentage of light from the star is blocked. This causes a dip in the brightness of the starlight that reveals the transiting planet's size relative to its star.

The size of the star must be known in order to measure the planet's size accurately. To learn more about the properties of the star Kepler-37, scientists examined sound waves generated by the boiling motion beneath the surface of the star. They probed the interior structure of Kepler-37's star just as geologists use seismic waves generated by earthquakes to probe the interior structure of Earth. The science is called asteroseismology.

The sound waves travel into the star and bring information back up to the surface. The waves cause oscillations that Kepler observes as a flickering rapid of the star's brightness. Like bells in a steeple, small stars ring at high tones while larger stars boom in lower tones. The barely discernible, high-frequency oscillations in the brightness of small stars are the most difficult to measure. This is why most objects previously subjected to asteroseismic analysis are larger than the sun.

With the very high precision of the Kepler instrument, astronomers have reached a new milestone. The star with radius Kepler-37. а iust three-quarters of the sun, now is the smallest bell in the asteroseismology steeple. The radius of the star is known to three percent accuracy, which translates to exceptional accuracy in the planet's size.

Ames is responsible for Kepler's ground system development, mission operations, and science data analysis. NASA's Jet Propulsion Laboratory in Pasadena, Calif., managed *Kepler* mission development.

Ball Aerospace & Technologies Corp. in Boulder, Colo., developed the Kepler flight system and supports mission operations with the Laboratory for Atmospheric and Space Physics at the University of Colorado in Boulder.

The Space Telescope Science Institute in Baltimore archives, hosts and distributes *Kepler* science data. *Kepler* is NASA's tenth Discovery Mission and was funded by NASA's Science Mission Directorate at the agency's headquarters in Washington.

For more information about the *Kepler* mission, visit: <u>http://www.nasa.gov/kepler</u>.

NASA Rover Confirms First Drilled Rock Sample By NASA/JPL

[This is the NASA-JPL press release that goes with the bottom of this month's cover images. The release is available with additional images at <u>http://www.jpl.nasa.gov/</u> <u>news/news.php?release=2013</u> <u>-067&cid=release 2013-067</u>.]

NASA's Mars rover *Curiosity* has relayed new images that confirm it has successfully obtained the first sample ever collected from the interior of a rock on another planet. No rover has ever drilled into a rock beyond Earth and collected a sample from its interior.

Transfer of the powdered-rock sample into an open scoop was visible for the first time in images received Wednesday at NASA's Jet Propulsion Laboratory in Pasadena, Calif.

"Seeing the powder from the drill in the scoop allows us to verify for the first time the drill collected a sample as it bore into the rock," said JPL's Scott McCloskey, drill systems engineer for Curiosity. "Many of us have been working toward this day for years. Getting final confirmation of successful drilling is incredibly gratifying. For the sampling team, this is the equivalent of the landing team going crazy after the successful touchdown."

The drill on *Curiosity*'s robotic arm took in the powder as it bored a 2.5-inch (6.4-centimeter) hole into a target on flat Martian bedrock on Feb. 8. The rover team

plans to have Curiosity sieve the sample and deliver portions of it to analytical instruments inside the rover.

The scoop now holding the precious sample is part of *Curiosity*'s Collection and Handling for In-Situ Martian Analysis (CHIMRA) Rock device. During the next steps of processing, the powder will be enclosed inside CHIMRA and shaken once or twice over a sieve that screens out particles larger than 0.006 inch (150 microns) across.

Small portions of the sieved sample later will be delivered through inlet ports on top of the rover deck into the Chemistry and Mineralogy (CheMin) instrument and Sample Analysis at Mars (SAM) instrument.

In response to information gained during testing at JPL, the processing and delivery plan has been adjusted to reduce use of mechanical vibration. The 150-micron screen in one of the two test versions of CHIMRA became partially detached after extensive use, although it remained usable. The team has added precautions for use of Curiosity's sampling system while continuing to study the cause and ramifications of the separation.

The sample comes from a fine-grained, veiny sedimentary rock called "John Klein," named in memory of a Mars Science Laboratory deputy project manager who died in 2011. The

rock was selected for the first sample drilling because it may hold evidence of wet environmental conditions long ago. The rover's laboratory analysis of the powder may provide information about those conditions.

NASA's Mars Science Laboratory Project is using the *Curiosity* rover with its 10 science instruments to investigate whether an area within Mars' Gale Crater ever has offered an environment favorable for microbial life. JPL, a division of the California Institute of Technology. Pasadena, manages the project for NASA's Science Mission Directorate in Washington.

An image of the drill's rock powder held in the scoop is online at: <u>http://photojournal.</u> jpl.nasa.gov/catalog/PIA16729.

For more about the mission, visit: <u>http://www.jpl.nasa.</u> <u>gov/msl</u>, <u>http://www.nasa.</u> <u>gov/msl</u>. You can follow the mission on Facebook and Twitter at: <u>http://www.facebook.</u> <u>com/marscuriosity</u> and <u>http://</u> <u>www.twitter.com/marscuriosity</u>.

Voyager - *The Seven* By Brad McDonald

I wrote this shortly after the doctor became a major player in several stories. I was fascinated with the "hologram with a heart" and the many possibilities of the character. Seven isn't used much in this story, as she hadn't been introduced yet and the part here was originally written for Kes. I did a very basic rewrite to include Seven, but it's obvious that I hadn't begun to explore her character as of yet. I hope you enjoy it.

> STAR TREK: VOYAGER "The Seven"

Written by Brad McDonald

TEASER

FADE IN:

EXT. SPACE - VOYAGER

Voyager is traveling at sublight speed.

INT. BRIDGE - ANGLE ON MAIN VIEWER

Present are JANEWAY, PARIS, CHAKOTAY, KIM and TUVOK. There is an ALIEN image on the viewer and Janeway is in the middle of a conversation.

ALIEN

We've heard of your incredible journey. I wish you could visit my home world and relate some stories of your quest.

JANEWAY

We'd love to, but our schedule prohibits it. Your information on the space ahead of us will be most valuable, now what would you like?

The alien seems a bit anxious and is about to speak when Janeway makes an offer to cut him off.

JANEWAY

(continuing) Why don't I return the favor and do the same for you.

The alien seems a bit confused and disappointed.

ALIEN

You want to give us, information?

JANEWAY

All the information on the sectors we have traveled in the past year or so. Would that be helpful to you and your people?

The alien suddenly realizes the importance and is delighted.

ALIEN

My yes! As merchants and traders, it would be invaluable. You are truly wonderful beings. JANEWAY Not at all. Call it an even trade.

The alien acts as if he's just remembered something.

ALIEN

I almost forgot. In our charts, you'll find an area marked as the Alayan Expanse. Do not enter it.

JANEWAY Why not? Is it unusually dangerous?

The alien becomes very serious and reverent.

ALIEN

In a way. It's haunted.

Janeway is a bit amused and tries to suppress her reaction.

JANEWAY

How so? Spirits? Ghosts?

ALIEN

(dead serious) All who enter, never return.

JANEWAY

I see. Well, thanks for the warning. Prepare to receive our data.

ALIEN

Yes of course, and thank you again.

The screen goes blank and Janeway turns to face Chakotay.

NEW ANGLE

CHAKOTAY

I wish we could have visited their world, I'd love to hear their ghost stories.

JANEWAY

They remind me of the Ferengi. If we had visited their world, they would have tried to sell us anything they had.

PARIS

And buy everything we have.

JANEWAY

Exactly. Harry, begin a data download for them. We'll remain at sublight until you're finished. In the meantime, let's have a look at their charts.

PARIS

On main viewer, Captain.

AS BEFORE - ANGLE ON MAIN VIEWER

We see an Okudagram of the local sector of space.

TUVOK

It would appear our choices are limited if we are to follow their advice concerning the Alayan Expanse.

CHAKOTAY

I'll say. That's over a third of the area ahead of us. If we go around that, we'll take an extra year to get around it. Maybe longer. I noticed a few problems with the alternate routes. Unusually large pulsar in sector one-four-one and a very radio active nebula in sector two-six-five.

PARIS

(to self) Between a rock and a hard place, once again.

Janeway turns from the screen to face Paris.

JANEWAY

Couldn't have said it better; but, we joined Starfleet to boldly go where no one has gone before.

KIM

It's been a long time since I visited a haunted house.

Tuvok stares at him and Kim explains.

KIM

(simply)

Halloween.

Janeway smiles at Kim's suggestion.

JANEWAY

Tom, when Harry finishes with the data transfer, we'll take the shortest route.

Chakotay teases her a bit.

CHAKOTAY Through the Alayan Expanse?

JANEWAY

Maximum warp and put the 'danger' behind us as quickly as possible.

CHAKOTAY

Isn't that what the captain of the Titanic said about the icebergs?

PARIS

Yes, just before they hit one and sank.

Everyone on the bridge exchanges looks of surprise.

Off their reaction...

FADE OUT.

END OF TEASER

THE WRIGHT STUFF

Puzzle - ST:TNG Mix and Match (Characters & Planets) From U.S.S. Kitty Hawk Puzzle Book

Match the character to the episode:

- 1. ____ Locarno
- 2. ____ Nuria
- 3. ____ Captain Phillipa Louvois
- 4. ____ Kosinki
- 5. ____ Debin
- 6. ____ Nagilum
- 7. ____ Danilo O'Dell
- 8. ____ Grebnedlog
- 9. ____ Ensign Jenna D'Sora
- 10. ____ Sub-Commander Selok
- 11. ____ Keeve Falor
- 12. ____ Captain Dathon
- 13. ____ Jono
- 14. ____ Nayrok
- 15. ____ Jeremy Aster
- 16. ____ Sarjenka
- 17. ____ Captain Kargan
- 18. ____ Devinoni Ral
- 19. ____ Yuta
- 20. ____ Kahlest

Match the planet to the episode:

- 1. ____ Jouret IV
- 2. ____ Rubicun III
- 3. ____ Gamma Hromi II
- 4. ____ Deneb IV
- 5. ____ Ligon II
- 6. ____ Tarchannen III
- 7. ____ Solari V
- 8. ____ Drema IV
- 9. ____ Tau Cygna V
- 10. ____ Turkana IV
- 11. ____ Delta Rana IV
- 12. ____ Mordan IV

- A. The Measure of a Man
- B. Samaritan Snare
- C. The Outrageous Okana
- D. Ensign Ro
- E. The Bonding
- F. In Theory
- G. Sins of the Father
- H. Pen Pals
- I. The Price
- J. The First Duty
- K. Darmok
- L. Where no One has Gone Before
- M. Where Silence has Lease
- N. The Vengeance Factor
- O. Suddenly Human
- P. Data's Day
- Q. Who Watches the Watchers?
- R. A Matter of Honor
- S. The Hunted
- T. Up the Long Ladder
- A. Code of Honor
- B. The Survivors
- C. Pen Pals
- D. Legacy
- E. Loud as a Whisper
- F. Encounter at Farpoint
- G. The Ensigns of Command
- H. Justice
- I. The Best of Both Worlds
- J. Too Short a Season
- K. Identity Crisis
- L. The Vengeance Factor

Upcoming Events

Mar	2	4 p.m. Ship Meeting, Triangle Factory Outlet
		Followed by UNC-TV
Apr	6	4 p.m. Ship Meeting, Triangle Factory Outlet
May	4	4 p.m. Ship Meeting, Triangle Factory Outlet
	17	Theatrical Release of Star Trek Into Darkness

DON'T FORGET TO CHECK YOUR STARFLEET STATUS SEE STARFLEET HQ ALERT AT THE END OF JR'S COLUMN FOR A RENEWAL SPECIAL

THE WRIGHT STUFF U.S.S. KITTY HAWK 5017 Glen Forest Dr. RALEIGH NC 27612