

Phoenix Rising



April 2017

Table of Contents

Monthly Status Report by RADM Ralph Planthold	2
Second Officer's Report by LCDR John Bevan	4
Marine Unit Status Report by ADM Sunnie Planthold	9
Marine Unit Report by ADM Sunnie Planthold	10
Chief Engineer's Report by LT Rezty Felty	12
Hohmann's Tyranny by Dr. Sten Odenwald	14
Chief Medical Officer's Report by LT Laura Felty	16
Astronomer's Report by LTJG Carolyn Kaberline	19
No Big Bang? Quantum Equation Predicts Universe Has No Beginning by Lisa Zyga, Phys.org	20
Something Funny... by LCDR John Bevan	22

MSR REPORT

CHAPTER:	USS Dark Phoenix
REPORT FOR:	March, 2017
SUBMITTED:	04/04/2017
SUBMITTER:	RADM Ralph Planthold
ADDRESS:	2200 W 26th St #C-15
CITY:	Lawrence
STATE:	Kansas
ZIP/POSTAL:	66047
COUNTRY:	United States
PHONE:	813-244-9733
CHAPTER TYPE:	MEETING
REGISTRATION:	NCC 74920
CLASS:	Prometheus
CO:	RADM Ralph Planthold
XO:	ADM Sunnie Planthold
NEWSLETTER:	Phoenix Rising
PUBLICATION DT:	03/19/2017

FLEET MEMBERS

SCC	EXPIRE DT	RANK	NAME
44342	04/13/2018	ADM	Sunnie Planthold
46072	06/23/2017	COL	Patrick Malone
49691	04/13/2018	RADM	Ralph Planthold
55881	06/23/2017	CRMN	Michael Malone
61751	06/09/2017	PO3	Teague Banister
61754	06/09/2017	CDT	Ethan Banister
64850	06/09/2017	CDT	Emma Banister
70978	05/10/2017	LT	Rianna Melton
71621	03/03/2018	LT	Jeremy Schroeder
73140	01/26/2018	LCDR	John Bevan
73240	02/27/2018	LTJG	Carolyn Kaberline
73257	03/04/2018	CRMN	Ruth Lichtwardt
73697	09/26/2017	ENSJg	Jean Martin
73886	08/02/2017	LT	KLar Batt
73954	08/20/2017	LT	Brent Barbee Mr
74062	09/19/2017	ENS	Josh Levering
74085	09/27/2017	LT	Rezty Felty
74086	09/27/2017	LT	Laura Felty
74087	09/27/2017	CDT	Tesla Felty
74088	09/27/2017	CDT	Sagan Felty
74089	09/27/2017	CDT2C	Dyson Felty
74487	08/02/2017	CDT	Hannah Batt
74509	02/05/2018	CRMN	Carol Jean Walker
74775	04/18/2017	CRMN	Lisa Brown
74796	04/24/2017	CRMN	Tim Burns
74802	04/29/2018	ENS	Sara Fisher
74803	04/29/2018	CRMN	William Fisher
74804	04/29/2018	ENS	Troy Fisher
74805	04/29/2018	CDT	Lacy Fisher
74821	01/26/2018	CRMN	Natasha Maklakova
74822	01/26/2018	CRMN	Charles Hays
74823	01/26/2018	CRMN	Judith Bevan
74824	01/26/2018	CRMN	JoAnn Hays
74825	01/26/2018	CRMN	E Dean Bevan
74856	05/13/2017	CRMN	Robert R Planthold
74869	05/13/2017	CRMN	David Planthold
74870	05/13/2017	CRMN	Josie Thompson
74871	05/13/2017	CDT	Kira Thompson
74872	05/13/2017	CDT	Lea Thompson
74873	05/13/2017	CDT	Corbin Thompson
74874	05/13/2017	CDT	Flynn Planthold
74910	05/21/2017	CRMN	Shelby Peek
74918	05/21/2017	CRMN	Alton Ben Girdner III
74919	05/21/2017	CRMN	Melissa McCandless-Girdner
75110	06/22/2017	CRMN	Kyrstin Talley
75212	07/20/2017	CRMN	John Antons
75656	09/26/2017	LTJG	Tracy Mengel

75789 10/23/2017 CRMN John Eppich
 75790 10/23/2017 CRMN Connie Arensman
 75972 12/21/2017 ENS Mark Sarver
 76016 12/29/2017 ENS Brenda Smith
 76263 09/26/2018 CRMN Mary Everly
 76264 09/26/2018 CRMN Tara Olsen

ACADEMY :

John Bevan

IOMS - College of SpecOps Units (CSOU)
WWSO 108 - Scandinavian Special Forces
DISTINCTION 03/23/2017
WWSO 109 - French SpecOps
DISTINCTION 03/23/2017

Carolyn Kaberline

IOAS - Ferengi Orientation College
FOC 102 - Rules of Acquisition Pt. 1
DISTINCTION 03/22/2017
FOC 103 - Rules of Acquisition Pt. 2
DISTINCTION 03/22/2017

IOAS - The Gorn Academy (IOAS:TGA)
TGA 101 - Gorns in TOS
HONORS 03/22/2017

IOSC - College of Chemistry
CC 101 Periodic Table Part 1
DISTINCTION 03/27/2017
CC 102 Periodic Table Part 2
HONORS 03/27/2017

Tracy Mengel

IOMS - College of SpecOps Resources
WPN 101 - Small Arms Identification Pt. 1
DISTINCTION 03/21/2017
WPN 110S - Weapons Safety Pt 1
DISTINCTION 03/21/2017
 IOMS - College of SpecOps Training (CSOT)
DMS 104P - Parachute Training Pt 1
DISTINCTION 03/21/2017
DMS 106P - Parachute Equipment
DISTINCTION 03/21/2017

Brenda Smith

IOAS - Romulan Orientation College
IOAS - ROC 101 Romulan People and Tal Shiar
HONORS 03/14/2017
 IOAS - Vulcan Orientation College
VOC-102 - Culture and Military
HONORS 03/09/2017

IOMA - College of Abnormal Psychology
PST 101 Psychology and Star Trek 1
DISTINCTION 03/23/2017
PST 103 Psychology and Star Trek 3
DISTINCTION 03/25/2017

IOSTS - College of Starship Operations (IOMS:COSO)
CSO-107 - Bridge Operations
HONORS 03/17/2017

IOTA - College of Communications (IOTA:COC)
COC 101 - Interspecies Interaction
HONORS 03/14/2017

OTHER INFO

MEETING DATE : 03/25/2017

PROMOTIONS :

SCC	NAME	NEW	EFFECT DT
-----	------	-----	-----------

		RANK	
75656	Tracy Mengel	LTJG	03/11/2017
76016	Brenda Smith	LTJG	03/11/2017

ACTIVITIES :

03/03 SO hosted Game Night at his home. Those who attended were ENS Mengel and CRMN Olsen. Olsen has been interested in our ship for the past few months and has made it to the past several Game Nights. She and CRMN Mary Everly finally decided to enlist in Starfleet and have graced us with their service. Their shuttle reached us while we were on patrol on Stardate 201702.27. At this Game Night, three rounds of Epic Munchkin were played and Olsen won all three rounds. (Hmmm, we might have to see where she was hiding those cards that gave her the wins!) For the first time in a long while, the fun continued long into the night: until about 3 AM!

03/04 SO and ENS Mengel met at SO's home for completion of Academy courses.

03/04 Command Staff and ENS Mengel met over dinner at SO's home.

03/05 SO and ENS Mengel departed the local patrol area in Shuttle Coulomb for stores retrieval in Valley Falls. Those who ordered Girl Scout cookies will soon be receiving their desired Thin Mints or S'mores. :-)

03/05 Command Staff met briefly at SO's home to discuss ship issues.

03/11 SO hosted the 2nd Annual Spring Academy Night event at his home. Those who participated were ADM S. Planthold, LTJG Kaberline, and ENS Mengel and Smith. Planthold was continuing her studies in regard to her role as Ship's Chaplain while the other three officers were working toward their Bridge Officer certifications relevant to their positions on the ship: Kaberline--Chief Science Officer, Mengel--Chief Communications Officer, and Smith--Counselor. Well done, ladies!

03/17 Happy St. Patrick's Day!

03/17 SO hosted Game Night at his home. The only crewmember in attendance was ENS Mengel. Instead of playing games, we watched KU handily defeat UC Davis.

03/18 Command Staff and ENS Mengel met at SO's home to discuss the upcoming Region 12 Summit. Prior to this time, SO had declined attendance due to business schedule conflicts but he rearranged his schedule so as to be present for Saturday's activities.

03/25 SO hosted the ship meeting and potluck dinner at his home due to conflicts at local restaurants on account of NCAA Basketball's March Madness.



L-R: ENS Mengel; SO; CO; ENS Smith; guest Mark Smith; CRMN Eppich. Not pictured: LTJG Kaberline; CRMN Arensman.

Behind the camera: XO/OIC 269th MSG.



L-R: CRMN Everly; ENS Mengel; SO.



CO issues comm badge to CRMN Everly as SO looks on.



CO issues comm badge to CRMN Eppich as SO looks on.

At this meeting, both ENS Mengel and Smith received their promotions to LTJG due to passing OCC in the Spring 2017 Academy Night graduating class. Congratulations, Lieutenants!



CO issues comm badge to CRMN Eppich as SO looks on.



CO issues comm badge to CRMN Arensman as SO looks on.



CO issues comm badge to CRMN Everly as SO looks on. Crew ID photos were taken for LTJG Mengel and Smith and CRMN Eppich and Arensman.

During this meeting, both LTJG Kaberline and CRMN Eppich hosted discussions in their respective fields: Kaberline discussed the Drake Equation (which speculates how many intelligent and communicative life-bearing planets may exist). Eppich discussed the various fossils that one can find in our local area and throughout different parts of Kansas and the US as well as the various legalities that surround fossil collection, whether as a hobbyist or professional.

XO/OIC 269th MSG spoke of the desire for the Ballard Center Food Bank to be added to the charities to which the Dark Phoenix lends a helping hand. SO started the ball rolling with a donation of five cans of food and a box of cereal. CRMN Arensman and Eppich assisted XO/OIC 269th MSG in her collection of toilet paper and paper towel dispenser rolls by providing her a three-month collection of said rolls upon their arrival at the meeting.

- 03/26 Command Staff, LTJG Mengel, and CRMN Everly met for dinner at SO's home. SO provided another five cans of food for the food bank.
- 03/29 SO provided shuttle services to LTJG Mengel while her shuttle is unavailable for her personal use. Errands were run in the KC Metro area.
- 03/31 SO hosted Game Night at his home. Only LTJG Mengel attended. Given this, Mengel and SO watched episodes of Torchwood and enjoyed a home-cooked dinner.

FUTURE PLANS

- 04/01 FANCON 47 Comic Book & Toy Show at Douglas County Fairgrounds 10 AM - 5 PM. \$5 adult admission, children 12 & under FREE.
- 04/14 SO to host Game Night at his home. **RSVP required.**



Region 12 Summit at Callaway Senior Center in Fulton MO. CO, XO/OIC 269th

MSG, SO, LT R. Felty, and LT L. Felty will attend. Since this event conflicts with the **chapter's normal April** meeting date, that **meeting is delayed by one week to 04/29.**

- 04/28 SO to host Game Night at his home. **RSVP required.**
- 04/28 Planet Comicon at Bartle Hall in Kansas -30 City MO.
- 04/29 Monthly chapter meeting at Perkins Restaurant in Lawrence KS. **RSVP required.**
- 06/17 R12 Kansas Sector Picnic at Shawnee Mission Park shelter #1 in Shawnee KS. **RSVP to ISSKatana77003@gmail.com required.**
- 08/18 CO, XO/OIC 269th MSG will attend -20 STARFLEET International Conference 2017 in Kenner (New Orleans) LA. SO will have the conn.

COMMENTS :

- A belated "Welcome Aboard!" to the following:

SCC	RANK	NAME	JOIN DT
75789	CRMN	John Eppich	10/23/2016
75790	CRMN	Connie Arensman	10/23/2016
75972	ENS	Mark Sarver	12/21/2016
76016	LTJG	Brenda Smith	12/29/2016
76263	CRMN	Mary Everly	02/27/2017
76264	CRMN	Tara Olsen	02/27/2017

- The following crewmembers are reminded that their memberships are now **APPROACHING** expiration date, and that they should renew **NOW**:

SCC	RANK	NAME	EXPIRE DT
74775	CRMN	Lisa Brown	04/18/2017
74796	CRMN	Timothy Burns	04/24/2017
74856	CRMN	Robert Planthold	05/13/2017
74869	CRMN	David Planthold	05/13/2017
74870	CRMN	Josie Thompson	05/13/2017
74871	CDT	Kira Thompson	05/13/2017
74872	CDT	Lea Thompson	05/13/2017
74873	CDT	Corbin Thompson	05/13/2017
74874	CDT	Flynn Planthold	05/13/2017
74910	CRMN	Shelby Peek	05/21/2017
74918	CRMN	Alton Girdner III	05/21/2017
74919	CRMN	Melissa McCandless-Girdner	05/21/2017

- The following crewmembers are reminded that their memberships have **EXCEEDED** expiration date, and that they should renew **NOW** to retain their positions on the ship, in the region, and at the Fleet level:

SCC	RANK	NAME	EXPIRE DT
74246	CRMN	Nicole Blackburn	11/13/2016
74365	CRMN	Jim Robinson	12/23/2016
74366	CRMN	Mary Robinson	12/23/2016
74503	ENS	Reuben Juarez	02/03/2017
74504	ENS	Selena Juarez	02/03/2017
73223	CRMN	David Morton	02/22/2017
74601	ENS	Fahad Far	02/23/2017
74613	CRMN	Brian Cervantez	03/01/2017
74659	LTJG	Martin Peterson	03/12/2017

SO's Report
By Lieutenant
Commander John
"Sparky" Bevan



Greetings everyone! By the way, did you hear that our skipper will soon be the Starfleet International liaison to the US Government? April Fools! ☺

Promotions

To start, we have a couple of promotions that--by request of our Commanding Officer--were not mentioned in the last newsletter. Both Ensigns Tracy Mengel and Brenda Smith, having completed Officer Command College prior to the Spring Academy Night event earned their promotions to Lieutenant (Junior Grade) and were awarded such as part of the Academy Night graduating class as of March 11th. Their promotions were formally presented to them at the March Ship Meeting on March 25th. Congratulations, Lieutenants!

Crew Changes

Earlier this month, Lieutenant (Junior Grade) Tracy Mengel made the difficult decision to step down as our Chief of Communications. She remains with the ship, returns to her former posts of Communications Officer and Ship Historian, and will continue to be active with the crew but she decided to vacate the Senior Officer post due to conflicts for her time in her real-world life. As such, anyone who

wishes to be considered for this post, let me know.

Also, while on the subject, other posts that still remain open are Security Chief, Ambassador, Senior Teacher, Senior Cadet Instructor, and Intelligence Officer. We are also always looking for a few good Starfleet Marines and Special Operations, er Strategic Operations team members. For information about Starfleet Marines, please get in touch with our XO at sunniejap@bdcusa.com and for Strategic Operations, drop me a line at sosparky@bdcusa.com.

Creativity Corner

Something that I have wanted to do for a long while is have a part of the newsletter dedicated to creative writing. I started this long ago with the inclusion of the fictional biographies of various crewmembers but the idea faded with lack of submissions. However, we now have a member who has stepped forward and expressed interest in having the poetry the person has written published for all to read. So, starting with next month's newsletter, we will be graced with such talent.

If anyone else wishes to submit original works of their own, whether under one's real name, a nom de plume, or anonymously, please let me know. Unlike our regular articles, there is no minimum length for such

submissions but we do ask that the maximum length be five pages. All contributions, just like all articles, must be received no later than 11pm on the 8th of the month to be included in the edition published just one week later.

Starfleet Special Operations

As I so lightly hinted at a moment ago, Special Operations has recently had a name change to Strategic Operations. The organization is the same, the units are the same, everything pretty much remains the same except for the name and the new shield logo that will eventually replace the Special Operations logo used for our lapel pins. All of us who have the Special Operations lapel pins will continue to wear them until such time that Strategic Operations pins are available and ready for distribution.

Starfleet Department of Technical Services

Attention all artists! DTS wants YOU! Admiral Alex Rosenzweig, Director, Director of Technical Services, Office of Technical Information, has just announced opportunities to help with various projects of drawing schematics for various ship types. The commitment can be for a single project, on an "on-call" basis, or whatever else works for your schedule. To indicate your interest, please contact DTS with the following information:

- A brief description of your abilities and experience relevant to creating schematics. This can be real-life of Starfleet experience.
- An estimate of how quickly you can produce detailed and accurate drawings.
- An example of your work. If you've never drawn a ship previously and would like to try something, do a top plan and side elevation drawing of any one of the following starships:

- Constitution-class heavy Cruiser (TOS Enterprise)
- Enterprise-class heavy Cruiser (Refit 1701/1701A from "Classic Trek" feature films)
- Galaxy-class large exploratory cruiser (1701D)
- Sovereign-class heavy Cruiser (1701E)

These are well-enough known ships that there are lots of sources with which to compare while practicing.

Drawings may be submitted in either electronic or hard copy format but if submitting electronic files, please be sure they can be printed out in black-and-white. In general, BMP, GIF, PNG, and JPG formats are preferred. Please check with Admiral Rosenzweig if you wish to use a different file format.

All submissions should go to:

Admiral Alex Rosenzweig
 Director
 Department of Technical Services
 Starfleet
 980 Linwood Place North
 Brunswick, New Jersey 08902

or by email to either shoc-dts@sfi.org or alexr1860@optimum.net

Current projects needing attention include:

- Aurora-Class Science Scout
- Bonaventure-Class (as created by Meni for the 2006 Ships of the Line Calendar)
- Byrd-Class Exploratory Cruiser
- Centaur-Class Frigate
- Champion-Class Space Control Ship
- Conquest-Class Dreadnought
- Dahlgren-Class Strike Cruiser
- Darwin-Class Scout
- Edinburgh-Class Space Control Ship
- Excalibur-Class Cruiser
- Falcon-Class Exploratory Cruiser
- Frontier-Class Station (aka, "New Deep Space Nine")
- Kestral-Class Superscout
- Komsomolsk-Class Dreadnought
- Kresta-Class Heavy Frigate
- Midway-Class Shuttlecarrier
- Mitannic-Class Battlecruiser
- Navras-Class Star Cruiser (aka Emissary-Class from "Star Trek Online")

- Odyssey-Class Star Cruiser (e.g., Enterprise-F from "Star Trek Online")
- Oslo-Class Heavy Escort (from "Star Trek Online")
- Palomar-Class Command Cruiser
- Saladin-Class, Siva-Subclass Destroyer
- Utopia Planitia Station
- Large Valor-Class Exploratory Cruiser
- Vesta-Class Cruiser
- (Others to follow.)

Region 12 Summit

The Summit is this month. If you have not yet made a decision to attend, time is running out to do so. If you have decided but have not yet registered, make sure you do so soon. You can learn about the Summit and register your attendance at <http://r12summit2017.org/index.html>.

If there is anyone who wishes either to attend only on Saturday (the day when the lion's share of the activities will be scheduled) or come back early after arriving there by other means on Friday, get in touch with me. Originally I decided not to attend due to conflicts with my business schedule. (After all, this is a hobby, a fictional fan association, and therefore receives lower priority than the operation of my full-time business, agreed?) However, I was informed that my presence had been requested, so I have rearranged my schedule to make it to the Summit for the

activities and festivities on Saturday. I will leave no later than 5am so as to be on site by 8am, just in time for the "Breakfast with the RC" meetup. My return will be the same day, just after the conclusion of the dinner and auction, which is scheduled to finish about 6pm. That will have the shuttle returning to its launch site about 9pm. The new shuttle can handle up to four passengers in addition to me as the pilot. So, if you wish to fill one of the extra seats, just say the word. If you need to be dropped off somewhere along the way back to Lawrence (such as Leavenworth, Tonganoxie, Eudora, etc.), I can do that for you.

Summer Activities

Our elected Fleet Admiral Robert Westfall has announced the date of the Kansas Sector Picnic. It is scheduled for Saturday, June 17th, at the same location as last year: Shelter #1 at Shawnee Mission Park (Shawnee KS). The fun will commence about 10:30am and run until everyone decides it is time to head indoors to the after-picnic camaraderie (read: dinner and drinks at a nearby restaurant) in the company of our Regional Coordinator, Commodore Chris Tolbert.

Unlike last year, there is no requested amount to pay for the meats for the cookout. (Those who attended last year will remember that he grilled steaks and chicken for everyone. This

year, he is keeping it more simple with hamburgers, hot dogs, and brats.) Robert does request that everyone bring a side item or dessert of some sort. I would expect that everyone will probably need to bring their preferred soft beverages, as was the rule last year. No alcohol is allowed in accordance with County laws and Parks and Recreation Department regulations.

Robert has requested that all who wish to attend send him an email at isskatana77003@gmail.com. There is not yet a deadline for RSVPs but he has said that there will be more details announced about this event as time continues.

We are already looking at our annual picnic and the annual Region 12 Away Mission that we organize each year. July 15th will be the date for the ship picnic. Just like the previous two years, it will be at the shelter in the southeast corner of Centennial Park, starting at 11am. Last year's picnic was a great success not in small part because of our Lieutenant Rezty Felty volunteering for the role of Grillmaster. We hope for as good of results this year and thank Rezty for accepting the special assignment of Grillmaster once again. I will see if I can find some better-trained (hot) dogs that will not jump through the spaces of the grill and directly into the coals. ☺

The Region 12 Away Mission this year will be to the

Museum of World Treasures in Wichita, Kansas. The date for this event will be August 12th. We are switching venues from the Hutchinson Cosmosphere since the displays have not changed between the two times we have gone to the Cosmosphere and the ticket prices were a bit higher than we preferred. Tickets for the Museum of World Treasures are only \$8.95 for adults, \$7.95 for Seniors (aged 60 or older), and \$6.95 for children ages 4 through 12. Children under the age of 4 are free. The hours for the museum are 10am to 5pm and to get through the three floors of the museum, it seems that it will take most of that time, so we will meet up at the site at 9:30 and enter at 10am, breaking for lunch at a nearby restaurant at 12 noon and then returning to the museum at 1pm to finish off our exploration.

Traditionally we gather at some other restaurant after we finish the Away Mission so as to socialize with our fellow Region 12 members, so plan on eating two meals out this day if you are so inclined.

The Command Shuttle may have one seat available for travel to and from the event but be aware that if you want to travel with the Command Staff, we will leave before the crack of dawn--about 6:30am--so be sure that you are ready for such an early departure. We will meet at my home and take off promptly so as to arrive at the site for the meetup on time. Return of the

shuttle to the initial launch site will probably be between 9 and 11pm, so it will be a long day. Please keep this in mind if you are considering riding along with us.

Events

March 25th was the ship meeting for the month and it was well-attended by the Command Staff; Lieutenants (Junior Grade) Carolyn Kaberline, Tracy Mengel, and Brenda Smith; Crewmen Connie Arensman, John Eppich, and Mary Everly; and guest Mark Smith.

As this was a potluck dinner at my crew quarters, we had a good selection of foods: fried chicken, pasta salad, fettucine Alfredo, sloppy joes, deviled eggs, chips and dips, cookies, and a Star Trek-themed cake (chocolate, of course!). Oh, and we cannot forget the Gagh, though there was a mix-up in regard to it: rather than sending fresh, live Gagh, what we received was candied Gagh, something usually given to children as a sweet treat. I'm not sure if this was an honest error made by the folks at the shipping plant or a joke played on us Earthers by the folks back on Qo'noS but what arrived was not quite what I had ordered and expected. We may need our Klingon Ambassador, Admiral Sunnie Planthold, to look into this. ☺

Those who were unable to attend missed out on a good meeting with excellent presentations by both Carolyn and

John. Carolyn's presentation was on the Drake Equation, a "though experiment" that combines known facts about the universe with conjecture of what we might expect to find as we continue to explore and use that amalgamation to predict the number of intelligent and communicative forms of life with which we might share this vast, dark expanse. John's presentation discussed the various types of fossils that one may find in the local area and in other parts of the state and even beyond that into various parts of the US. He also touched on the applicable laws that govern when, where, how, and by whom fossils may be hunted. As a general rule, the more specialized, the less chance that amateurs are able to go a-hunting with legal backing.

At this meeting, our XO, Admiral Sunnie Planthold, commented that she would like to add the Ballard Center's Food Bank to the charitable organizations with which we work. So as to get the ball rolling, I donated five cans of food and a box of cereal right on the spot and followed that up with five more cans the next day.

The next day, March 26th, the Command Staff, Lieutenant (Junior Grade) Tracy Mengel, and Crewman Mary Everly met for dinner at my home. The upcoming Summit was a primary topic of discussion.

On March 29th, I assisted Lieutenant (Junior Grade) Tracy

Mengel by providing shuttle services as she needed to run errands in Kansas City while her personal shuttle was not currently available.

Game Night on March 31st was the last event of the month. This was attended by only Lieutenant (Junior Grade) Tracy Mengel. Rather than play games, Tracy and I decided instead to watch episodes of Torchwood and enjoy the pleasures of a home-cooked meal.

Future Events

Per standing ship policy, all members of our crew who live within a 50-mile radius of Lawrence are required to send RSVPs for all events, whether they are intending to attend or not. Those outside of the 50-mile radius are required to send RSVPs only if they plan to attend. All RSVPs should be emailed to dpcommand@bdcusa.com.

April 21st through 23rd will be the Region 12 Summit in Fulton, Missouri. For details, please see the section titled Region 12 Summit earlier in this report.

April 28th will be the next Game Night. As always, it will be at my home at 7pm. Please send your RSVP by April 27th.

April 29th will be the date of the next ship meeting. Normally it would be scheduled for April 22nd since that is the fourth Saturday of the month.

However, since that conflicts with the Summit and the entire Command Staff will be at said Summit, the meeting has been delayed by a week. This meeting will be held at Perkins located at 1711 West 23rd Street (southeast corner of 23rd and Ousdahl). The meeting time will be the usual 6pm. Please RSVP by noon on the day of the meeting.

May 12th will be the next Game Night. As always, it will be at my home at 7pm. Please send your RSVP by May 11th.

May 20th will be the P⁴ (Pizza, Pop, Phlicks, and People) event. We shall start at 4pm and run until everyone departs for the evening. (The latest this event has run previously is 4am.) We will order pizza about 6pm, so those who are here at that time will get the chance to ask for what they want. The expense of the pizza will be divided among all those who wish to partake, so bring a small amount of cash to chip in for the cost of the delivered delicacies. Soft drinks and light snacks (chips and dip) will be provided.

May 26th will be the next Game Night. As always, it will be at my home at 7pm. Please send your RSVP by May 25th.

May 27th will be the date of the next ship meeting. It will be held at McAlister's Deli located at 2108 West 27th Street (northwest corner of 27th and Iowa). The meeting will be at the

usual time of 6pm. Please RSVP by noon on the day of the meeting.

June 9th will be the next Game Night. As always, it will be at my home at 7pm. Please send your RSVP by June 8th.

June 17th will be the Kansas Sector Picnic, hosted by the ISS Katana and its CO who also happens to be our recently-elected Commander, Starfleet, Fleet Admiral Robert Westfall. Please see the information about this event and where to send your RSVP earlier in this article under the heading of Summer Activities.

June 23rd will be the next Game Night. As always, it will be at my home at 7pm. Please send your RSVP by June 22nd.

June 24th will be the date of the next ship meeting. It will be held at Jin Shan Chinese Buffet located at 1800 East 23rd Street (in the shopping center on the northeast corner of 23rd and Harper). The meeting will be at the usual time of 6pm. Please RSVP by noon on the day of the meeting.

July 7th will be the next Game Night. As always, it will be at my home at 7pm. Please send your RSVP by July 6th.

July 15th will be the ship picnic at Centennial Park. We will use the shelter at the southeast corner of the park, the same that we have used the past two years. The Command Staff will arrive to

start setting up at 10am and those who wish to assist are welcome to arrive at the same time. The event will start officially at 11am. Please send your RSVP by July 13th.

July 21st will be the next Game Night. As always, it will be at my home at 7pm. Please send your RSVP by July 20th.

July 22nd will be the date of the next ship meeting. It will be held at Conroy's Pub located at 3115 West 6th Street (in the strip mall just east of Sonic Drive-In near 6th and Lawrence Avenue). The meeting will be at the usual time of 6pm. Please RSVP by noon on the day of the meeting.

As always, if anyone has any questions about the contents of this article, suggestions for future events, or wishes to submit articles or announcements for publication, please feel free to contact me by email at sosparky@bdcusa.com or give me a call at (785) 727-1355. Be aware this is a regular phone, so don't try to send it text messages.

John Bevan is the Second Officer of the USS Dark Phoenix and the Team Leader of the Special Operations Unit 666--The Dark Devils--and has been a member of Starfleet International since January 2015. When not honoring our ship with his dedication, he owns and operates a computer sales and service firm he founded back in June 1989. The motto by which he lives is "Nothing changes until something changes."

STARFLEET Marine Corps Unit Report Form v3

Date and time submitted: **Fri Mar 31**
10:03:32 PST

Unit: **MSG 269**
Battalion: **3**
Brigade: **12**
Reporting month: **April**

REPORTING OFFICER

Reporting officer: **ADM Sunnie J Planthold**
E-mail: **sunniejap@bdcusa.com**

BASIC UNIT INFORMATION

Type: **MSG**
Branch: **Special Ops**
Nickname: **The Black Bettys**
Motto:

OFFICER-IN-CHARGE INFORMATION

Unit OIC
name and rank: **ADM Sunnie J Planthold**
e-mail: **sunniejap@bdcusa.com**
phone: **813-244-9666**
Private: **Yes**

Unit DOIC
name and rank: **COL Patrick Malone**
e-mail: **cowboypm@gmail.com**
phone: **816-721-2492**
Private: **Yes**

CHAPTER DATA

NCC Number: **74920**
Name: **USS Dark Phoenix**
CO: **RADM Ralph F Planthold**

UNIT PERSONNEL DATA

Unit strength: Active/Reserve: **1/2**

Unit roster:

Name: **Sunnie J Planthold**
Rank: **ADM**
SCC Number: **44342**
Active/Reserve: **Reserve**
Expiration Date: **04/13/2018**

Name: **Patrick Malone**
Rank: **COL**
SCC Number: **46072**
Active/Reserve: **Active**
Expiration Date: **06/22/2017**

Name: **Morgan Hahn**
Rank: **CAPT**
SCC Number: **32367**
Active/Reserve: **Reserve**
Expiration Date: **03/15/2018**

Changes to roster:

Recruits/Discharges: **0/0**

Changes in leadership:

Type the changes to Strike Group/Battalion leadership here. **N/A**

Awards issued:

Type award name and recipient.

Awards requested:

Type award and nominee.

UNIT MISSION DATA

Unit activities:

SUMMARIZE BDE, BN, and unit activities for the past 60 days.

Volunteered hair care for clients at local Hospice.

Donated items of clothing to the Willow Domestic Violence Center.

Collected/delivered cardboard cores from paper towel and toilet paper rolls for Lawrence-Douglas County Humane Society use in making chew toys for dogs.

Contributing monthly article to chapter newsletter.

SFMC Challenge Data:

Please place any data regarding SFMC challenges here. Please list BDE, BN, and unit.

COMMENTS/PROBLEMS/SUGGESTIONS

Comments/Problems/Suggestions: **N/A**

Actions taken to rectify: **N/A**

Marine Unit Report
By Admiral Sunnie
Planthold



A History of
Starfleet: Mid-24th
Century
(2365-2366)

42000 (imprecise) Geordi La Forge is promoted to the rank of Lieutenant and assigned as *Enterprise* chief engineer.

Lieutenant Worf is promoted to Chief of Security, replacing the late Tasha Yar.

Acting Ensign Wesley Crusher is assigned regular bridge duty, serving as Flight Controller (conn).

Captain Picard recruits an old friend, Guinan, to serve as hostess of the Ten Forward lounge.¹

42073.1 Dr. Beverly Crusher accepts a position as head of Starfleet Medical and departs the *Enterprise*.

Dr. Katherine Pulaski arrives from the USS *Repulse* via shuttlecraft as her replacement.²

42286.3 User error on the part of a holodeck participant results in the accidental creation of a computer software-based sentient intelligence within a simulation

¹ *STAR TREK CHRONOLOGY: The History of the Future* (Okuda, 1993) p. 105.

² *Ibid.*

program. To avoid the destruction of what is apparently a self-aware life form named "Moriarty." Captain Picard orders the simulation program saved until a way can be found to give physical form to the synthetic intelligence.³

42523.7 After refusing to accept a transfer to have his positronic neural systems studied to further the manufacturing of additional androids for Starfleet service, Lieutenant Commander Data is ruled by Starfleet Judge Advocate Phillipa Louvois to be a life form with full civil rights and therefore free to make his own decisions.⁴

42679.2 A duplicate of *Enterprise* shuttlepod 5, containing a duplicate of Captain Jean-Luc Picard, is discovered drifting in space. Both had apparently come backward in time six hours, during which the *Enterprise* had evidently been lost with all hands except the Captain. The time loop is determined to have been caused by a temporal distortion which is disrupted when Captain Picard orders the *Enterprise* into the center of the phenomenon, thus preventing the ship's impending destruction.⁵

42686.4 Commander William Riker is offered command of Starship *Aries*, a small scout ship serving in frontier areas but he declines the promotion in favor of continued service aboard the *Enterprise*. This is the second

³ *Op. cit.* (Okuda, 1993) p. 106.

⁴ *Op. cit.* (Okuda, 1993) p. 108.

⁵ *Op. cit.* (Okuda, 1993) p. 109.

time Riker declines the opportunity to command a starship.⁶

42761.3 Q expresses a desire to become a member of Starfleet. When Picard declines to accept, Q sends the *Enterprise* some 7,000 light-years across the galaxy. At the previously uncharted star system J-25, a Class-M planet is found which exhibits massive surface scarring similar to that found at outposts Delta Zero Five and Tarod IX near the Romulan Neutral Zone on stardate 41986. The *Enterprise* shortly thereafter makes first contact with a Borg spacecraft: a Borg incursion on the *Enterprise* resulting in severe damage, the loss of shuttle 06, and the death of eighteen *Enterprise* personnel. Q, apparently satisfied with the demonstration of the hostile and powerful nature of the Borg, later returns the *Enterprise* to Federation space.⁷

42823.2 Starfleet Command begins advance planning to develop a means to defend against a possible Borg attack, based on evidence that the Borg are approaching Federation space. The project is given high priority but little of use is forthcoming due to the extraordinary power of the Borg.⁸

43000 (imprecise) Dr. Katherine Pulaski completes her assignment on the USS *Enterprise* and is replaced by Dr. Beverly Crusher,

⁶ *Op. cit.* (Okuda, 1993) pp. 109-110.

⁷ *Op. cit.* (Okuda, 1993) p. 110.

⁸ *Op. cit.* (Okuda, 1993) p. 111.

who returns after a year at Starfleet Medical.

Geordi La Forge is promoted to Lieutenant Commander.

Worf is promoted to Lieutenant.⁹

43510.7 The United Federation of Planets signs a peace treaty with the planet Cardassia, concluding a long and bloody conflict with the Cardassians.¹⁰

43625.2 USS *Enterprise-C*, under the command of Captain Rachel Garrett, emerges from a temporal rift, creating an alternate timeline in which the Federation is embroiled in an extended war with the Klingon Empire and Security Chief Tasha Yar did not die on planet Vagra II. Guinan is the only one who suspects this is an alternate timeline. Tasha transfers to the *Enterprise-C* when she learns of her pointless death in the original timeline, determined to make her all but certain death meaningful. The alternate timeline vanishes as the *Enterprise-C* re-enters the rift.¹¹

43930.7 Acting Ensign Wesley Crusher is accepted at Starfleet Academy but misses his opportunity for transport due to his assistance in the search for a Ferengi vessel. Although Admiral Hahn at the Academy indicates that Crusher is welcome to apply

again next year, Picard recognizes Crusher's sacrifice by granting him a field promotion to full Ensign.¹²

43957.2 Starfleet Command offers *Enterprise* executive officer William Riker a promotion to captain of the Starship *Melbourne*. This is the third command offer made to Riker, who eventually declines the promotion.¹³

43989.1 USS *Enterprise* at Joutet IV finds the New Providence colony to have been totally destroyed with no sign of the colony's 900 inhabitants. Surface conditions are almost identical to those found at System J-25 on stardate 42761.3, suggesting that the New Providence colony had been attacked by the Borg.

Sensor readings indicate that the Borg vessel is headed to Sector 001 at high warp. Admiral J. P. Hanson orders every available Starfleet ship to rendezvous at Wolf 359 to mount a defense.

Diverted to engage the Borg in advance of the fleet, USS *Enterprise* is unsuccessful in preventing the abduction of Captain Picard by the Borg. Picard is subjected to extensive surgical modification to incorporate him into the Borg collective consciousness.¹⁴

Sunnie Planthold has been a member of Starfleet International since February 1995. She holds the billets of Executive Officer and Officer in Charge of the 269th Marine Strike Group--The Black Bettys. When pursuing civilian life, she is an independent sales consultant for LegalShield (alongside her husband Ralph), performs community service for the Lawrence Humane Society and the Willow Domestic Violence Center, and interprets church services into American Sign Language each Sunday. The quickest way to befriend her is to offer her a bite of chocolate.

⁹ *Op. cit.* (Okuda, 1993) p. 113.

¹⁰ *Op. cit.* (Okuda, 1993) p. 117.

¹¹ *Op. cit.* (Okuda, 1993) p. 118.

¹² *Op. cit.* (Okuda, 1993) p. 123.

¹³ *Ibid.*

¹⁴ *Op. cit.* (Okuda, 1993) p. 124.

Chief Engineer's
Report
By Lieutenant Rezty
Felty



The Race to Mars,
Part II

I promised Part II this month, covering Boeing's plan to beat SpaceX to Mars. I will give you what information I have been able to find (and informed speculation) but at this point, it appears that despite their brag that the first humans on Mars would arrive in Boeing rockets, their plans do not appear to be nearly as fully realized or as far along as those of SpaceX.

Boeing continues to state they will be the first to Mars and still have a 2022 date set. Let's look at their effort.

Boeing's plans are big on promise and short on details or functioning spacecraft.

The Spacecraft: SLS



Boeing has not stated which craft they will use nor has their launch vehicle been depicted in any of the videos they've

released about their Mars effort but tech insiders and websites have stated it will most likely be the as-yet unbuilt SLS, or Space Launch System. This makes Boeing's claims dubious, as the SLS is still in the design phase for several major components: some parts have been built and tested but no fully-functional craft has been assembled yet. Here is where the designs stand now, and this may well change before it is built.

The SLS uses a core and booster system, similar to the Falcon Heavy discussed last month, but the SLS uses four recycled Space Shuttle engines in its core and the same solid rocket boosters as the Space shuttle on either side. Compared to the 9-engine Falcon Heavy core with two additional 9-engine boosters on the sides, you can see the SLS has less redundancy and reliability than the SpaceX design. In addition, the SpaceX engines are modern engines designed from the ground up for this job. The Space Shuttle Engines and boosters are 1960s-era technology which we have already seen fail catastrophically. NASA has stated the design goal is for the SLS to have a 70-ton lifting capacity but they have released no thrust specifications as of yet.

However, since they are using leftover R25 engines and leftover SRBs from the Space Shuttle, we can look at the numbers from those and make a pretty good ball-park estimate.

Each SRB is rated at 3 million pounds of thrust. Each RS-25 engine is rated at 400,000 pounds of thrust, so the total for a completed SLS first stage, assuming it is built as planned now with 2 SRBs and 4 RS-25s, would be about 7.2 million pounds of thrust, significantly more than the claimed 5 million pounds of thrust for the Falcon Heavy.



Now we come to a section where NASA says one thing and Boeing says another. In fact, according to NASA, the only part of the craft going to Mars made by Boeing will be the main engines, with other parts farmed out to other manufacturers, including the crew module. NASA says the crew module, pictured above, will be the Orion Crew Module, being built by Lockheed Martin and Airbus Space. Boeing doesn't make any specific claims about the crew vehicle but in their videos, which they've put out showing how they'll beat SpaceX to Mars, they show a craft strangely reminiscent of the old SkyLab station heading for Mars, seen below.



NASA also disagrees with Boeing about the time table: they show the first flight of the SLS scheduled for November 2018, the second in 2021, and no flights scheduled for Mars until after 2030. NASA's plans also show a straight trip from Earth to Mars.

Boeing's plans are different and also happen to be one area where I think they are taking the right approach. They plan to fly to the moon first, then establish a lunar orbiting space station and stage their Mars mission from there. Whether you believe NASA's plans or Boeing's, there is one area where they agree: this is to be a Moonshot-type program, meaning they fly a few people to Mars who take pictures and gather rocks, maybe do some basic research, and then fly home. Compared to SpaceX's plans to send 80,000 people to Mars to establish a permanent colony, this is quite disappointing. They also plan for it to cost way more than SpaceX's efforts. Budget through the end of 2017 is up to \$18 billion and it is estimated that NASA will have spent more than \$30 billion on the mission before they get to Mars.

Boeing's planned Lunar Space Station



That is all I have for Boeing's efforts to beat SpaceX to Mars at this time. I realize my article is a little shorter than normal but to make up for that I am submitting a second article, used with permission by the author, and one final tidbit:



Since last month, SpaceX has made an additional announcement. They will start sending craft to Mars next year and continue to send two each year to Mars until the first manned vehicle. They will be sending unmanned Dragon vehicles to stockpile supplies in the coming years. So that when the colonists arrive, they will find what they need to establish a colony!

Until next month . . .

Rezty Felty insures the safety and security of the USS Dark Phoenix and engages in Warp Core research, has been a Trek fan since the '60s, and has been a member of Starfleet International

since September 2015. In real life, he is owned by the CMO of the USS Dark Phoenix, 5 kids, and a variety of dogs, cats, and rats when not performing Linux Engineering.

Hohmann's Tyranny
By Dr. Sten Odenwald

[Chief Engineer's Note: The following article, reprinted with permission from the author, is an explanation of Hohmann Transfer Orbits and why they are not an ideal solution for the current and future goals of our space program as well as information on other proposed propulsion technologies.]

[Editor's Note: This is an opinion article, which is not normally what we publish, but this article also exposes the readers to different propulsion technologies that have been considered in the past and, as the author indicates, deserve consideration once again. We thank Lieutenant Rezty Felty for bringing this to our attention and for obtaining permission from the author to include it in our newsletter.]

It really is a shame. When all you have is a hammer, everything else looks like a nail. This also applies to our current, international space programs.

We have been using chemical rockets for centuries but since the advent of V2s and the modern space age, these brute-force and cheap work horses have been the main propulsion technology we use to go just about everywhere in the solar system. But this amounts to thinking that one technology can span all of our needs and the trillions of cubic

miles that encompass interplanetary space.

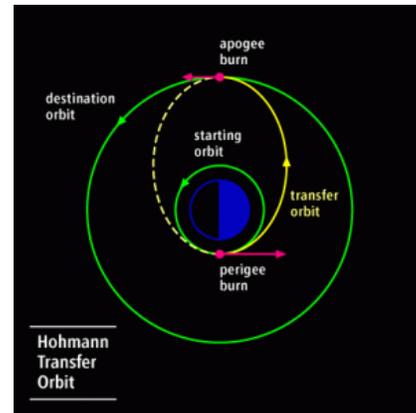
We pay a huge price for this belief.



Chemical rockets have their place in space travel. They are fantastic ways of delivering huge thrusts quickly; the method par excellence for getting us off this planet and paying the admission ticket to space. No other known propulsion technology is as cheap, simple, and technologically elegant as chemical propulsion in this setting. Applying this same technology to interplanetary travel beyond the moon is quite another thing and sets in motion an escalating series of difficult problems.

Every interplanetary spacecraft launched so far to travel to each of the planets in our solar system works on the exact same principle. Give the spacecraft a huge boost to get it off the launch pad and enough velocity to reach the distant planet, then cut the engines off after a few minutes so the spacecraft can literally coast the whole way. With a few more "delta-v" changes, this is called

the minimum-energy trajectory or, for rocket scientists, the Hohmann Transfer Orbit. It is designed to get you there, not in the shortest time but using the least amount of energy. In propulsion, energy is money. We use souped-up Atlas rockets at a few hundred million dollars a pop to launch spacecraft to the outer planets. We don't use even larger and expensive Saturn V rockets that deliver even more energy for a dramatically-shorter ride.



If you bank on taking the slow boat to Mars rather than a more energetic ride, this leads to all sorts of problems. The biggest of these is that the inexpensive 220-day journeys let humans build up all sorts of nasty medical problems that short 2-week trips would completely eliminate. In fact, the entire edifice of the \$150 billion International Space Station is there to explore the extended human stays in space that are demanded by Hohmann Transfer Orbits and chemical propulsion. We pay a costly price to keep using cheap chemical rockets that deliver long stays in space and cause major problems that are

expensive to patch up afterward. The entire investment in the ISS could have been eliminated if we focused on getting the travel times in space down to a few weeks.

You do not need Star Trek warp technology to do this!

Since the 1960s, NASA engineers and academic think tanks have designed nuclear rocket engines and ion rocket engines, both showing enormous promise in breaking the hegemony of chemical transportation. The NASA nuclear rocket program began in the early 1960s and built several operational prototypes but the program was abandoned in the late 1960s because nuclear rockets were extremely messy, heavy, and had a nasty habit of slowly vaporizing the nuclear reactor and blowing it out the rocket engine! Yet, Wernher Von Braun designed a Mars expedition for the 1970s in which several heavy 100-ton nuclear motors would be placed in orbit by a Saturn V and then incorporated into a set of three interplanetary transports. This program was cancelled when the Apollo program was ended and there was no longer a conventional need for the massive Saturn V rockets. But ion rockets continued to be developed and today several of these have already been used on interplanetary spacecraft like Deep Space 1 and Dawn. The plans for humans on Mars in 2030s rely on ion rocket propulsion powered by massive solar panels.

Unlike chemical rockets, which limit spacecraft speeds to a few kilometers per second, ion rockets can be developed with speeds up to several thousand kilometers per second. All that they need is more thrust and to get that they need low-mass power plants in the gigawatt range. Rocket scientists gauge engine designs based on their Specific Impulse, which is the exhaust speed divided by the acceleration due to gravity on Earth. Chemical rockets can provide SIs of only 300 but ion engine designs can reach 30,000 or more! With these engine designs, you can travel to Mars in six days and a jaunt to Pluto can take a neat two months! Under these conditions, most of the problems and hazards of prolonged human travel in space are eliminated.



But instead of putting our money into perfecting these engine designs, we keep building chemical rockets and investing billions of dollars trying to keep our long-term passengers alive.

Go figure!!!

[Source:
<http://sten.astronomycafe.net/hohmanns-tyrany/>]

Chief Medical
Officer's Report
By Lieutenant
Laura Felty, SFMD



Hi Everyone! I was torn about what to write about this month. I still have a lot going on at home. We move my parents to their senior living towards the end of this month. We are going down in a week to get a truck load of furniture to help them downsize. As a result the Feltys will be downsizing or just replacing some furniture.

I am not sure that everyone is aware that there is a whole group of medical officers in Starfleet. They give us recommendations and ideas and generally give an education goal for the whole group. Of course, these are suggested and are not required. The head of this group is called the Surgeon General of Starfleet. Several few months back, our leader Oliver Savander passed away. I believe it was October. We now have a new Surgeon General and her name is Denise Lynn Rush (De Rush to her friends). This month's education goal is nutrition. Therefore I am going to give you some information to help you learn how to eat more healthy. We have touched on this briefly previously but this article will have a small overview about eating healthy and what that means. Later articles will be giving everyone tips on how to change your eating habits and eat more healthy.

Before you scroll on to the next article, think about what you eat and drink. Are you drinking a soda while you are perusing this latest edition of the Phoenix Rising? Are you snacking while you read through the articles? Neither of these is a good idea. You lose track of how much you have eaten while you are reading or playing on your computer. Drinking a heavy sugar/corn syrup soda is not only bad for your weight but for your teeth as well. If you insist on drinking while you are on the computer, try an ice cold glass of water. I have to tell you, my city of Tonganoxie has the worst water ever, so I buy bottled water and, boy, do I hear it from my husband! He uses a Brita filter pitcher but it does not take the bad taste of chlorine out of the water. He complains about all the bottles that my water comes in. We do pay extra in Tonganoxie to recycle. (I'm not sure why we have to pay to save the Earth but, hey, we'll do it. It helps to preserve the planet.) I usually mix Crystal Light in my water so that I have citric acid that helps prevent another hospital visit. (As some of you may remember I spent my 50th birthday in the hospital with kidney stones. Yes, the Water-Drinking Queen had kidney stones.) The doctor said the citric acid in Crystal Light will prevent a recurrence. So the next time you are shopping at Dillons or HyVee and picking up a case of soda, just don't! Put it back. Walk down the aisle a bit farther and grab a case of water instead. It is so much better for you.

What about juice, you may ask. Juice is not a good idea either. If you look at a juice label, for instance:

Serving Size 1 bottle
Amount Per Serving
Calories 160
Total Fat 0g (0% DV)
Sodium 0mg (0% DV)
Potassium **640mg** (18% DV)
Total Carb. **37g** (12% DV)
Sugars **33g**
Protein 2g
Vitamin C (120% DV)
Calcium (2% DV)
Thiamin (15% DV)
Niacin (2% DV)
Vitamin B6 (4% DV)
Folate (20% DV)
Magnesium (8% DV)

This is a label from Simply Juice Orange Juice. It has 37 grams of carbohydrates, 33 grams of which are sugar. The recommended daily allowance for nutrients can be found at:

<https://ods.od.nih.gov/HealthInformation/dailyvalues.aspx>

For an adult and children over the age 4, the daily recommended amount of carbohydrate intake is: 300 grams. You would be using ten percent of your daily allowance for that one 8-ounce glass of orange juice. I had to go to another site to find a recommended sugar amount. Really our bodies don't need straight sugar because carbohydrates break down in the

body to sugar. However plain sugar amounts were found on at

<https://authoritynutrition.com/how-much-sugar-per-day/>

Here is what it had to say:

Men: 150 calories per day (37.5 grams or 9 teaspoons)

Women: 100 calories per day (25 grams or 6 teaspoons)

So going back to our glass of orange juice, a female drinking this would not be allowed any more sugar for the rest of the day. The male however has a whole 3.5 grams left. Let me tell you that is not very much. Also, in reality, there is not very much actual real orange juice in these drinks. So let's just say no to soda and juices and grab that glass or bottle of water.

Just for a shocking effect, did you know that Coke (one 12-ounce can) has 39 grams of carbohydrates, all of which is sugar? That is just one can! The reference I used for that information is:

<http://www.newhealthadvisor.com/Coca-Cola-Nutrition-Facts.html>.

Some might say that Diet Coke or another diet cola is a good alternative. These "diet" colas have caffeine and other stimulants in them that cause you to want to eat more. The more you eat, the more you need to drink, right? So,

again, grab that glass of water. It's much better for you.

I found the following information on the same website. It talks about those who may chose Coke over the nice ice cold glass of water.

Diet Coke and Coca Cola Zero Are No Better than Regular Coke

What makes diet drinks worse than regular soda? It comes down to a few ingredients, specifically aspartame and acesulfame potassium. These sweeteners give you a major sugar taste without the calories. The problem is that they are chemicals that have been shown to cause serious problems for the body. Though the United States governmental body that oversees food safety says that these sweeteners are safe, there is evidence from other countries that these things are definitely bad for you.

In addition to the problem of whether the sweeteners are bad for you, keep in mind that many people will choose to drink as much sugar-free soda as they want with the idea that if it has no calories, it can't be harmful. But the more you drink, the more harm can be done in the long run.

My opinion is to just stay away from soda and juice if at all

possible. Milk is a decent alternative for children and most adults. At our house, we drink skim milk. It is the wisest choice with Cadet Lieutenant Dyson Felty having a milk allergy and, yes, he still drinks it despite getting violently ill from it.

So here is the nutritional value of skim milk:

Serving Size: 8 oz.
Calories 80
Protein 8.7 g
Carbohydrates 12.3 g
Calcium 349 mg
Potassium 419 mg
Sodium 130 mg
Fat 0 g
Cholesterol 5 mg

This information was found on:

<http://www.fitday.com/fitness-articles/nutrition/calories/skim-milk-nutritional-facts.html>

It is best to drink skim, 1%, or 2% milk. It is recommended that young children drink whole milk until they are about five years old. It assists in developing their myelin sheaths, a part of the central nervous system. No matter which type of milk you choose, you are still using up your carbohydrates with a drink instead of something more substantial.

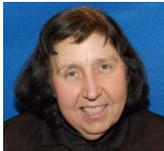
When considering your drinking beverage at dinner or while looking at the internet, make sure that you make the best choice. Are you drinking to

satisfy your thirst or just for something to do? Grab that nice cold glass of water and enjoy!

I will present more in-depth information next month on how to read the nutrition label and how to choose correctly for a healthy you.

Laura Felty doesn't just play in the medical field in Starfleet International: she has been employed in the nursing field for over 30 years and works as a Registered Nurse. She and her husband Rezty have five children and three grandchildren.

Astronomer's
Report
By Lieutenant
(Junior Grade)
Carolyn Kaberline



International Astronomy Day takes place this month. Celebrated on April 29th, the purpose of the day is "to provide a means of interaction between the general public and various astronomy enthusiasts," both amateur and professional. The theme of this year's International Astronomy Day is "Bringing Astronomy to the People;" most astronomy clubs around the world will plan special events to celebrate this day. To find out more about this special day, check the Astronomical League website at <https://www.astroleague.org/>

While it will be a week earlier than International Astronomy Day, all are welcome at Farpoint Observatory for an April public open house on the 22nd of the month. In addition, all are invited to hear Dr. Bharat Ratra speak on "The Accelerating Expanding Universe: Dark Matter, Dark Energy, and Einstein's Cosmological Constant" at the group's general meeting at the Topeka Public Library on April 27th at 7 p.m.

There are two meteor showers of note in the next month. The first of these showers is the Lyrids. Considered an average shower, it will usually produce about 20 meteors an hour at its peak. This shower is produced by

dust particles left over from Comet C/1861 G1 Thatcher. Discovered in 1861, this shower runs from April 16th to the 25th each year. Look for its peak the night of the 22nd and the morning of the 23rd. Meteors from this shower will often produce bright dust trails that will last for several seconds. Even though there will be a crescent moon at this time, it should still be dark enough to see these meteors which will appear to come from the constellation Lyra.

The second meteor shower is the Eta Aquarids which often produce 60 meteors an hour at its peak which will be on the night of May 6th and the morning of May 7th. While these meteors can usually be seen better in the Southern Hemisphere, you should still be able to see at least half as many meteors in the Northern Hemisphere as they appear to radiate from the constellation Aquarius. Produced by dust particles left over from Halley's Comet, which has been known since ancient times, the shower will actually be visible from April 19th to May 28th. The moon will be fairly bright at this time but the brighter meteors should still be visible.

Both meteor showers will best be viewed from a dark location after midnight.

If you have a small telescope, you may be able to catch a glimpse of Asteroid J025 as it passes by Earth on April 19th

at approximately 4 ½ times the distance from Earth to the Moon. Size-wise it's about sixty times the diameter of the asteroid that penetrated the atmosphere over Chelyabinsk, Russia, in 2013. But don't worry—there's no chance of it hitting us.

And finally, I hope everyone had a wonderful First Contact Day on April 5th. If you remember from the movie *First Contact*, that's the day 46 years in the future when the Vulcans will first make contact with us Earthlings. How likely is that to occur? We'll explore Drake's Equation in an upcoming column.

Until next month, happy stargazing.

[Sources:

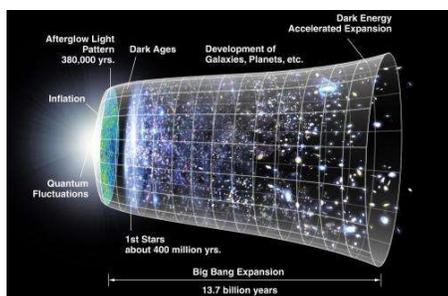
<http://www.seasky.org/astronomy/astronomy-calendar-2017.html>
and <http://earthsky.org/>]

Carolyn Kaberline is a semi-retired public school teacher, having retired from one school district after teaching high school English for 45 years and now is a substitute teacher in another school district. Additionally, she is a script consultant for Project: Potemkin, a fan-created Star Trek-themed web series. In her spare time, she is an amateur astronomer and member of the Northeast Kansas Amateur Astronomers' League (NEKAAL) as well as a freelance journalist.

No Big Bang? Quantum Equation Predicts Universe Has No Beginning

By Lisa Zyga, Phys.org

[Editor's Note: This is an article Lisa wrote a couple years ago but I stumbled across just recently. It speculates that the Big Bang may never have happened and could neatly resolve various problems of modern physics.]



The universe may have existed forever, according to a new model that applies quantum correction terms to complement Einstein's theory of general relativity. The model may also account for dark matter and dark energy, resolving multiple problems at once.

The widely accepted age of the universe, as estimated by general relativity, is 13.8 billion years. In the beginning, everything in existence is thought to have occupied a single infinitely dense point, or singularity. Only after this point began to expand in a "Big Bang" did the universe officially begin.

Although the Big Bang singularity arises directly and unavoidably from the mathematics

of general relativity, some scientists see it as problematic because the math can explain only what happened immediately after--not during or before--the singularity.

"The Big Bang singularity is the most serious problem of general relativity because the laws of physics appear to break down there," Ahmed Farag Ali at Benha University and the Zewail City of Science and Technology, both in Egypt, told Phys.org.

Ali and coauthor Saurya Das at the University of Lethbridge in Alberta, Canada, have shown in a paper published in *Physics Letters B* that the Big Bang singularity can be resolved by their new model in which the universe has no beginning and no end.

Old ideas revisited

The physicists emphasize that their quantum correction terms are not applied ad hoc in an attempt to specifically eliminate the Big Bang singularity. Their work is based on ideas by the theoretical physicist David Bohm, who is also known for his contributions to the philosophy of physics. Starting in the 1950s, Bohm explored replacing classical geodesics (the shortest path between two points on a curved surface) with quantum trajectories.

In their paper, Ali and Das applied these Bohmian trajectories to an equation developed in the

1950s by physicist Amal Kumar Raychaudhuri at Presidency University in Kolkata, India. Raychaudhuri was also Das's teacher when he was an undergraduate student of that institution in the 1990s.

Using the quantum-corrected Raychaudhuri equation, Ali and Das derived quantum-corrected Friedmann equations, which describe the expansion and evolution of universe (including the Big Bang) within the context of general relativity. Although it's not a true theory of quantum gravity, the model does contain elements from both quantum theory and general relativity. Ali and Das also expect their results to hold even if and when a full theory of quantum gravity is formulated.

No singularities nor dark stuff

In addition to not predicting a Big Bang singularity, the new model does not predict a "big crunch" singularity either. In general relativity, one possible fate of the universe is that it starts to shrink until it collapses in on itself in a big crunch and becomes an infinitely dense point once again.

Ali and Das explain in their paper that their model avoids singularities because of a key difference between classical geodesics and Bohmian trajectories. Classical geodesics eventually cross each other and the points at which they converge

are singularities. In contrast, Bohmian trajectories never cross each other, so singularities do not appear in the equations.

In cosmological terms, the scientists explain that the quantum corrections can be thought of as a cosmological constant term (without the need for dark energy) and a radiation term. These terms keep the universe at a finite size and therefore give it an infinite age. The terms also make predictions that agree closely with current observations of the cosmological constant and density of the universe.

New gravity particle

In physical terms, the model describes the universe as being filled with a quantum fluid. The scientists propose that this fluid might be composed of gravitons--hypothetical massless particles that mediate the force of gravity. If they exist, gravitons are thought to play a key role in a theory of quantum gravity.

In a related paper, Das and another collaborator, Rajat Bhaduri of McMaster University, Canada, have lent further credence to this model. They show that gravitons can form a Bose-Einstein condensate (named after Einstein and another Indian physicist, Satyendranath Bose) at temperatures that were present in the universe at all epochs.

Motivated by the model's potential to resolve the Big Bang

singularity and account for dark matter and dark energy, the physicists plan to analyze their model more rigorously in the future. Their future work includes redoing their study while taking into account small inhomogeneous and anisotropic perturbations but they do not expect small perturbations to significantly affect the results.

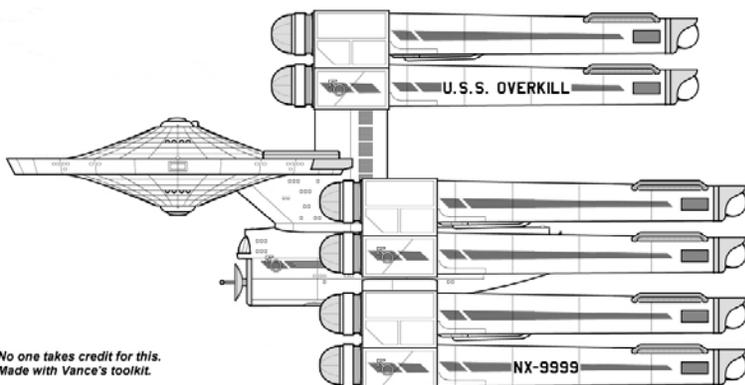
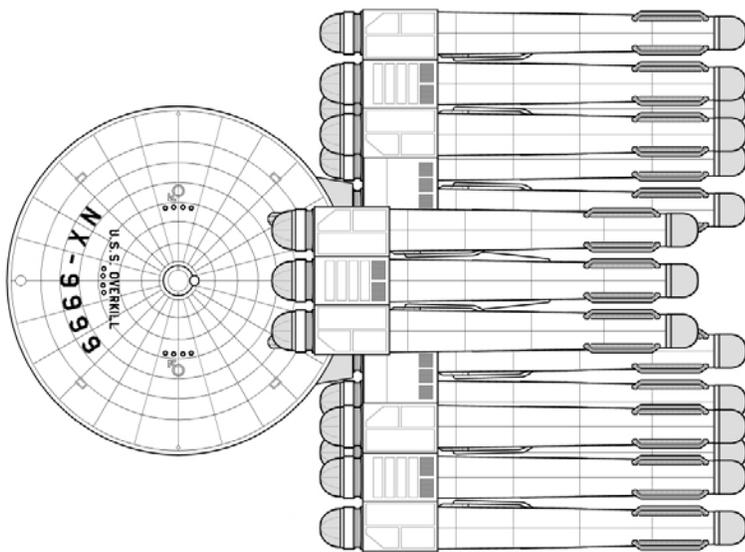
"It is satisfying to note that such straightforward corrections can potentially resolve so many issues at once," Das said.

[Source:

<https://phys.org/news/2015-02-big-quantum-equation-universe.html>]

Something Funny...
By Lieutenant Commander John
"Sparky" Bevan

The other day, I was browsing around in some of my discussion groups related to Star Trek and saw mention of a completely ridiculous starship design. We have all seen the occasional starship class that has more than the traditional two warp nacelles but what about fifteen? Enter what someone (who refuses to take dubious credit for this drawing) has dubbed the HyperDreadnaught-class USS Overkill. Transwarp Drive, eat your heart out!



*No one takes credit for this.
Made with Vance's toolkit.*

