



THE ENGINEERING LINK

"ANVIL OF ASGARD"

ISSUE: #026
SD: 202312.01

SFI * REGION 01 USS HEIMDAL NCC-1793 * ENGINEERING NEWSLETTER



"Howdy" Engineering Team
of the USS Heimdal NCC-1793 – Region 01



Welcome to the T.E.L. December 2023, " "

This issue is dedicated to former RDC of Engineering Cmdr. NCC-1793 Henderson, former Heimdal Chief Engineer and Legacy member of our SFI chapter the USS Heimdal NCC-1793. He was Chief Engineer when I boarded in November of 1984, he set the standard, was the first RDC of Engineering for Region One (as I recall), and was a man of strength. As stated in his obituary "Dennis was that quiet, thoughtful, strong and dependable pillar, May Dennis join the constellation of heroes above us and be forever at peace." *Dennis, this Engineering Link is for you sir.*



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STARFLEET BY THE NUMBERS

As of SD 202312.01

STARFLEET

- 5421 Members, 217 Chapters

REGION 01

- 958 Members, 43 Chapters

USS HEIMDAL - 55

HEIMDAL ENGINEERING - 6*

Online Resources

Heimdal's Home Page

ussheimdal.com

The Engineering Link

trek.millnernet.com/eng-link/

Region One / SFI Corp of ENG

R1.SFI.org coe.sfi.org/

STARFLEET International

SFI.org

STARFLEET Academy

es.sfi.org/academy/login/index.php



Awarded 2022 USS Heimdal "Department of the Year"
Region 01 "Communications Excellence" Best Departmental Newsletter 2021 & 2022

Reminder achieves of the "The Engineering Link" can be found via
<https://trek.millnernet.com/home/eng-link/>
and the current Heimdal's Newsletter "Rainbow Connection" via
<https://www.ussheimdal.com/rainbow-connection-newsletter>



FCAPT Darrell Millner
CHIEF ENGINEER



ENS Larry Whately
Duty Engineer
Quartermaster (Sr)



CMDR Zak Lyon
Helm Officer
Technology Specialist



CMDR Bud Walker
Operations Officer
Quartermaster 2



LT Jody Lyon
Dilithium Maintenance
Chief Recreation Officer



PO3 Gary Burley
Maintenance Engineer
Ship Fitter

202309.19

2023 - DECEMBER

- 02 DEC - RAINCON SUBMISSIONS DUE - Noon
- 09 DEC - SING A LONG - FINAL SUBMISSIONS
- 14 DEC - ROLE PLAY MEETING -
- 16 DEC - HEIMDAL MEETING AND ZOOM
- 18 DEC - **ENGINEERING DEPARTMENTAL ZOOM**
- 27 DEC - SUBMISSIONS FOR THE ENGINEERING LINK

02-85214

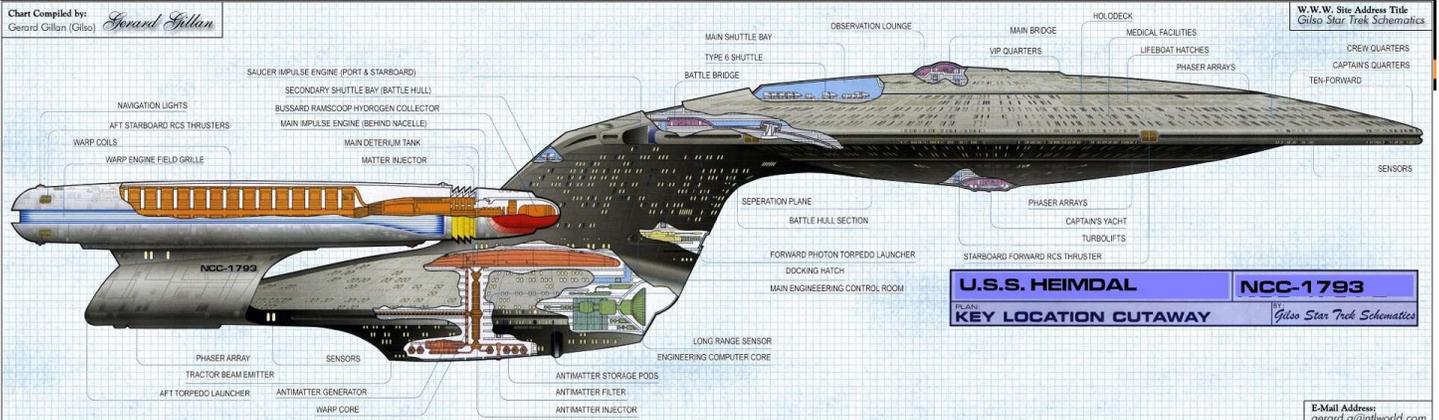
03-85412

04-85413

05-74125

Chart Compiled by:
Gerard Gillan (Gilsa) *Gerard Gillan*

W.W.W. Site Address Title
Gilsa Star Trek Schematics



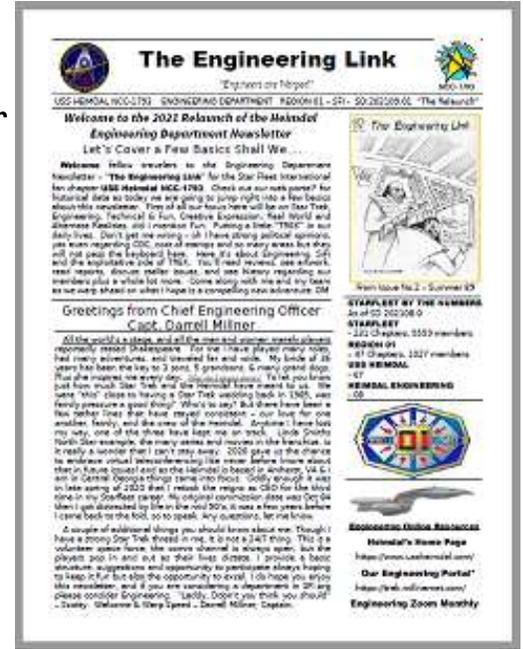
E-Mail Address:
gerard.g@ntlworld.com



SD 202312.01 - Engineering Report - CEO D. Millner

/begin/ I've begun reading back over our original newsletters (well the reboot of The Engineering Link) and I am excited, encouraged and disappointed to a point. Certainly not disappointed in my staff, they are supportive, run with the ball, and some of the most creative people I know here inside of STARFLEET, R1, and more. What I have lost track of is all the exciting avenues that we began but without follow through. Storylines that included Gary and Larry R. working on a new shuttlecraft, Engineers working on Cetatation OPS - leaks - and more, "The Shuttlebay Project" (a page in itself), Secret Craft, Redesigning the shuttle observation deck, Engineering Handbook for the Heimdal, and more. Bout time the chief developed a proper game plan wouldn't you say.

Please don't get me wrong, as a team Engineering has excelled by leaps and bounds, we are NOT lacking things to do, but we do set a different standard. See you in 2024 /end/



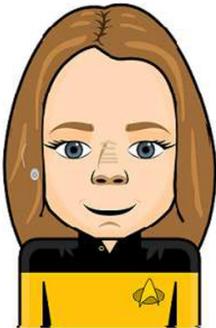
How about a 'FLASHBACKS' this issue

(also from the issue image above)

SD 202 108.30 - Monthly Engineering Report - PO3 Jody Lyon

Captain Millner,

I cannot express how impressed I have been with the Engineering Department here on the Heimdal. Being older than the typical starship newbie and a Bajoran could have resulted in me feeling marginalized or at best make it difficult to fit in. And that couldn't be farther from the truth. Your department has welcomed me, included me, and reached out when I need assistance. As a civilian engineer for many years on my home planet, I am anxious to learn what it means to be a member of a new type of team. I am starting to get my "space legs" and am settling into routine. On Bajor, my work was in re-building, now I am looking forward to "building." I will keep you posted on my progress toward getting my final Starfleet Academy documentation and requesting a permanent post. - PO3 Lyon Out.



PO3 Jody Lyon



SD 202311.25 - Monthly Engineering Report - LT Lyon Jody

/begin/ Sir,, My Recreation Officer duties kept me extremely busy this last couple of weeks as all celebration activities fall under this category. A large number of crew members with Earth heritage have a tradition of giving thanks for a successful year with a large feast. I worked with the group planning the event as engineering support. I was grateful that Cmdr. Walker was able to allocate the amount of power all the replicators would be utilizing. Several crew wanted to recreate family favorite dishes so there was also a certain amount of food prepared the old fashioned way. The event was offered over all three shifts enabling anyone to participate. We expected mostly those with Earth American ancestry, however they all invited friends and we were overwhelmed with guests. Clean up is continuing and the cargo bay is almost back to normal.

What I found most interesting was how everyone shared their successes and what they were grateful for. The Heimdal crew is amazing in their ability to focus on the positive and build community even in the midst of hardship and challenges of all nature. I am proud to be a member of this community. My next report will be more typical. Once I recover. /end/





SD: 202311.25 – Monthly Engineering Report – CMDR. Zak Lyon

/begin/

Sir, I have had some very interesting experiences this past month. Some unique and some not so unique – starting with my inclusion on an away team taking a geological survey on Milani XII.

People don't usually think about geology when it comes to the adventures of a Galaxy Class starship. Thank you for assigning me as engineering support to this secondary mission. As you are aware, Federation Geological Institute's Dr. Young organized the expedition to survey the mineral resources on this uninhabited planet, checking all the while for signs of any life forms that may not have been detected in the remote scans. It is felt that Milani XII could be home to a plethora of minerals vital to the functioning of many medical devices. The data and samples have been collected and I am anxious to hear the FGI's findings. This all got me to thinking about caves since I spent a good deal of time surrounded by them on this mission - as do most SF officers at some point in their career. Everyone I meet has a story about being in a cave. Of course, I have mine. Maybe for a time outside this report.

Speaking of things that people are surprised to learn about Galaxy Class life, I should probably bring up the chorus. Yes, I have joined "The Classics." You know that choir made up of anyone serving on board a Galaxy Class ship? All concerts over subspace. Some live, but most recorded. No experience necessary. No transporter fatigue for rehearsals. No interference with duty. No species excluded. In fact, Vinaya is rapidly becoming a star. Anyway, I have gotten to meet a lot of interesting officers all over the fleet. Especially the android from Enterprise. I spent some time with him after the last rehearsal. He should have a better name...just "information" doesn't fit him. He is so much more. And may I say, it reflects badly on fiction that his estranged brother is named after mythology.

I feel like I may have opened up a can of gag here. Because the director, Fahima, seems to have her eye on the Heimdal. We are on her recruitment list now. It seems she didn't get any takers from her last Classwide announcement. Or someone may have turned her down once. Anyway, she is focused on the Heimdal. It is almost like she is planning something big coming up because she has asked me to pitch this to my crewmates. Hint hint, sir.

As far as internal systems are concerned, everything seems fine, but there is a chill in the air. The source cannot be located. Something is kind of nipping at my nose. This is a kind way of saying, if I find who has been causing these temperature controls to fluctuate we might have words. But I am on it, sir. Although...maybe I shouldn't jump to conclusions, after all we could have picked up something from that cave. /end/





Engineering Articles

Home to Roost: A Cave Story*

CMDR Z. LYON

Every Starfleet officer who is worth their salt spends some time in caves. So, it is important to know how to survive in a cave. They are always around for emergency shelter. They are always involved in the pursuit of fugitives. For some reason, many shuttle crashes take place in proximity to a cave. I have never been able to work out the probability of this continuing to happen. Perhaps someone will investigate it. As I said...Nothing can keep a Starfleet officer away from a cave. And we all have our stories. This is mine.

When I was piloting our resident civilian minerologist, Dr. T'Naal, around for his annual spelunking trek, we encountered some weird psionic waves. Which of course interfered with the shuttlecraft. Long story short, we had to make an unexpected landing. And you guessed it, it was right next to a new cave. One that wasn't on his itinerary. He was excited, for a Vulcan. But I was just focused on checking out the shuttle. Then I felt a low subsonic vibration. Something drew me inside the cave. And wouldn't you know it, sentient bats!

T'Naal was already in conversation with them as I reached his location. It was an almost comical scene. The tall thin Vulcan surrounded by hundreds of small batlike creatures. Turns out they took an interest in both of us. T'Naal explained that they had scanned the shuttle with their psionic waves, a form of echolocation. The largest being quipped that they thought that we were a form of sentient mosquitos. I hoped they were just joking. They seemed to speak with one voice, but not one mind. Not in that creepy Borg way. I can't stand that. I can kind of feel the original being individuality. This was different. They were individuals acting in unison.

But soon the Chirop Roost, as they are called, gave me more to reflect upon. They told me I was ill-suited for the terrain in which I found myself and that my technological enhancements would not serve me. I told them that there was once a time in the dim past where expeditions like this would exclude people like me with mobility issues, but many worlds have advanced beyond such narrow margins and restrictions.

"Yes, even with my force fields and mobility tech, I cannot not depend on it consistently working in cave environments. The minerals or substances in its make-up can play havoc with tech. And not just mine. Communication and other equipment can malfunction. That's why an engineer is needed on the team. So, you are correct, I could require assistance..."

"Assistance that we on the Heimdal, are willing to provide," chimed in Dr. T'Naal. "I have often functioned as the Commander's spotter. And may I suggest, that as we are open to the wonders at our feet and before us, the Chirop Roost could stand to be open to the wonders of IDIC."

"What is this?" The Roost chorused.

"This is the Vulcan philosophy of infinite diversity in infinite combinations. One aspect being that the whole is diminished without the participation and the views of all. Now any being can be in error - as I was in not noting your existence on this planet. I suggest now that the Roost may grow from this error. And begin to reach out to us."

"The Roost agree. And yet, be glad that this is only a secondary home, used for adventuring and guano storage. To encounter our primary would require more of this reaching out. We are new to the diversity of the wider caverns of our galaxy. We were approached by your Federation and did not deem it necessary to form a bond. But you have given us something to consider.

And hopefully, they are.

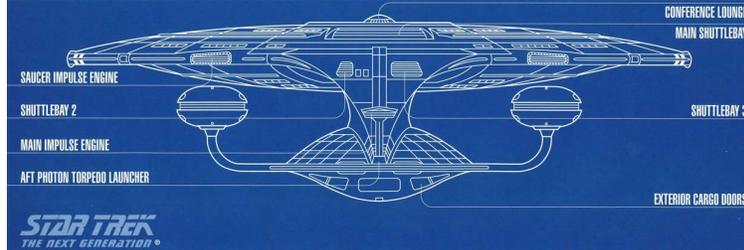
That's my cave story.

*Thanks to *Star Trek: Lower Decks* for the idea that everyone has a cave story to share.

** Image in header is from STAR TREK : WRATH of KHAN, the Genesis Cave. // memory-alpha

Engineering Articles

What Do We Need To Do As Engineers?



Last month I started off this section with the following.....

"I found myself contemplating the next steps, meaning what technology are we short on that is most vital to creating a similar ship, ok not warp capable per se, but fundamentally what you see here."

And I invited the crew to "share your thoughts in the next issue" Here's where we begin

- **ENG. Zak:** We would need inertial dampeners!
- **ENG. Jody:** We would need a less dangerous way to leave earth's gravity or at least a large construction platform/ space station type facility..
- **ENG. Darrell:** I agree a space platform for construction is key, a storage platform for fuel and supplies. 90 % standard fuel is uses to get items into orbit. If you could refuel – your options increase exponentially. But these are only the initial steps.

Next Question: (Wish I could get Dennis's input)

Are we putting too much focus on MARS, vs Moon, Titan, or other options? Where should establish our presence in space? email trek1793@millnet.com with subject matter ENGINEERS Whats Next?



FLASHBACK TO OUR FIRST* ISSUE: SD202109 – So, How are we doing??

Heimdal Engineering: A few basics regarding Reporting, Continuity, and Cannon

It's said that "The Devil is in the details" and I agree so the following is for the curious, the detailed oriented, and for anyone stepping through the doors here in Engineering as insight into our alternate reality. First it's good to understand a few basics. This is not a strict, monthly demands, "you spelled that wrong mister", "I'm putting you on report" sort of ship or department. We hope to be an "inviting to all team". Some members only show up for the yearly Anniversary Party, others will cycle through and be active every few years, others submit to the RainbowCon, and a couple send reports to the CEO. ALL are welcome with open arms on the Heimdal. From that mix, there were many questions about when I write when are we? Who are the other members of the crew that I might encounter in my writings and artwork? So we've laid out a few basic thoughts to help –which it has. So I thought the thought process might help here. And Please note, none of this is written in stone, never allow anything to dampen your creative inclinations.

The general consensus with my fellow department heads shows us to be "in the Next Generation time frame, doing our thing and recently doing it in a pandemic". So we expanded on this....

When are we ? About the spring of 1994 from and ST:TNG & DS9 perspective. That's post Wolf359, a short time before the loss of the Enterprise -D (in Generations), also pre- Voyager, and well before the start of the Dominion war. From a Cannon perspective about SD:47800.0 and no not in the Kelvin timeline.

Time Passes : TNG was a weekly program, moving along quickly though time in the galaxy. We on the other hand are more of a monthly progression, thus our time clock slows down. Our month, would be more like a week passing in TNG time, so that's how I elected to go here in Engineering.

Stardate Format : This discussion has gone on since the beginning of Star Trek TOS when it comes to writing and fan club discussions. We elected to go with the simple format.

SD:(year)(month).(date) for example 17July2021 SD:202107.17

Our Magnificent Crew : Most of our engineering senior staff have served as CEO, some as Regional CE, and all with distinction. Currently we have eight of us trying to keep up with engineering on a Galaxy Class Starship, yes we are struggling haha. Good news is most take on several positions (at least on the roster) and respect each others efforts.

I do hope you have found this information helpful, it's a lot like Hogwarts, day one you need to know where to sleep, eat, work, relax and when you least expect it – **Red Alert** – and its all out the airlock.

USS Heimdal NCC-1793 Engineering Team – Article Ends

"The Engineering Link" will not only detail Educational Records for courses completed by its Engineers via STARFLEET Academy, we will also make special note of any Awards received from the same.



CMDR Zachary Lyon
Bridge Officer Certification Program
- Chief Science Officer
 SD: 202311



FCAPT Darrell Millner
DILITHIUM Boothby O300
 SD: 202311



The Bridge Officer Certification Program (BOCP) is a program for STARFLEET Officers who wish to qualify themselves as command-ready in the department of their choice. This opportunity is not one to be taken lightly. The BOCP was created for members of STARFLEET to become "certified" in their chapter department(s) as a command-level officer. --- It is awarded in the STARFLEET Database as an Academy award. --- This award is earned by successful completion of the program requirements. This involves earning credits in a specific set of courses from the STARFLEET Academy. You must complete and send in the application in order to earn the certification. You may certify in one or more of thirteen (13) different positions, ranging from Flight Control Officer to Commanding Officer. - Participation in this program is entirely voluntary, and is not required to hold any position in STARFLEET. For More specifics visit <https://es.sfi.org/academy/course/index.php?categoryid=30>

Academy Degree Program (ADP) Here is where you gather all the certificates you have earned over the years and earn Academy-wide degrees. Currently there are 17 degree categories from Alien Studies, Intelligence Operations, Space Studies, Science Fiction Studies, and much much more. **Degrees range from Associate (60 courses)**, Bachelor (120 courses), Master (180 courses), Doctorate (240 courses) in each of the categories. For More specifics visit <https://es.sfi.org/academy/course/index.php?categoryid=29>

Boothby Award - Based on the number of successfully completed courses in both STARFLEET ACADEMY and STARFLEET MARINE CORPS ACADEMY. Program re-initiated in 2023.



INSTITUTE OF SPACE STUDIES [8][196]
College of Space Equipment (19)
School of Escape Pods

- [] EPS 101 - Escape Pod Users Guide
- [] EPS 102 - Planetary Survival
- [] EPS 103 - Escape Pod Identification
- [] EPS 201.1 - Escape Pod Tech I
- [] EPS 201.2 - Escape Pod Tech II
- [] EPS 201.3 - Escape Pod Tech III

EDITORS NOTE: Using available space to highlight SFA Courses Engineers might wish to consider

Heimdal Engineers at Starfleet Academy : November 2023

CDMR William Walker, JR. (8 Courses)

IOIE - School of Intel Gathering (SIG)

HONORS for SIG 208 Canadian/ Australian on Oct 19, 2023
DISTINCTION for SIG 209 Japanese intel on Oct 20, 2023
HONORS for SIG 210 China/ N.Korea on Oct 31, 2023
DISTINCTION for SIG 211 French / German on Nov 1, 2023
DISTINCTION for SIG 212 NSA on Nov 1, 2023

IOIE - College of Bond, James Bond (CBBJ)

DISTINCTION for BJB 113 - Octopussy on Oct 19, 2023

IOSC - College of Evidence

DISTINCTION for SEC 103 - Measurements on Oct 25, 2023
HONORS for SEC 104 - Body Fluid on Oct 27, 2023

CDMR Zachary Lyon (7 Courses)

Awarded BOCP Chief Science Officer on Nov 03, 2023

IOTK - STARFLEET Officers Radio School (IOST:SORS)

DISTINCTION for SORS 101 - Radio in TOS on Oct 30, 2023
DISTINCTION for SORS 102 - Radio in TAS on Oct 30, 2023
DISTINCTION for SORS 106 - Radio in ENT on Nov 11, 2023

IOTK - College of Laser Technology

DISTINCTION for COLT 101 - Lasers part 1 on Oct 30, 2023
DISTINCTION for COLT 102 - Lasers part 2 on Nov 8, 2023
DISTINCTION for COLT 103 -Lasers Part 3 on Nov 8, 2023
DISTINCTION for COLT 104 - Lasers part 4 on Nov 16, 2023

Fleet Captain Darrell Millner (16 Courses, 1 Award)

Awarded for Boothby 0300 - Dilithium (300) on Nov 11, 2023

IOSS - College of Orbital Mechanics

DISTINCTION for COOM 104 Types of Orbits part 2 on Nov 3, 2023
DISTINCTION for COOM 105 Trajectories on Nov 4, 2023
DISTINCTION for COOM 106 Orbital Parameters and elements part 1 on Nov 5, 2023
DISTINCTION for COOM 107 Orbital Parameters and elements part 2 on Nov 8, 2023
DISTINCTION for COOM 108 Orbital Parameters and elements part 3 on Nov 9, 2023
DISTINCTION for COOM 109 Orbital Rendevous on Nov 9, 2023

IOSS - College of Astronomy

DISTINCTION for AST 203 - Quasars part 1 on Nov 5, 2023
HONORS for AST 204 - Quasars part 2 on Nov 4, 2023
DISTINCTION for AST 205 - Galactic Matter part 1 on Nov 8, 2023
DISTINCTION for AST 206 - Galactic Matter part 2 on Nov 8, 2023
HONORS for AST 207 - Galactic Matter part 3 on Nov 10, 2023

IOSTS - College of Treknology (IOSF:COT)

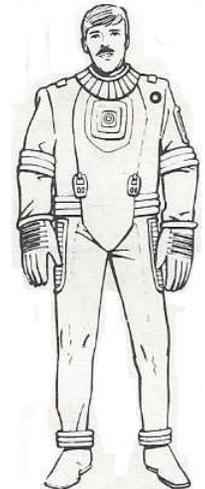
DISTINCTION for ST5-103 - Technology on Nov 17, 2023

IOAE - College of Action and Drama

DISTINCTION for STH 001 - Apollo 13 from the School on Nov 18, 2023

IOSS - School of Planetary Identification & Discovery

HONORS for SPID 110 - Minor Planets part 1 on Nov 20, 2023
DISTINCTION for SPID 111 - Minor Planets part 2 on Nov 20, 2023
DISTINCTION for SPID 112 - What are Carbon and Chthonian Planets on Nov 20, 2023



Heimdal Monthly Engineering Zoom

"COME JOIN IN - ASSIMILATION IS OPTIONAL"

- Borg Queen

"IT'S ONLY LOGICAL"

- Tuvok



SD: 202312.18 ED: **December 18th, 2023** 7:00 pm eastern - Normal Meeting*

THIS SESSION IS FOR CURRENT HEIMDAL ENGINEERING DEPARTMENT MEMBERS

Mark your calendar - **3rd Monday each month** Come join **your** Engineering team in a lively discussion about everything from TNG, WOK, Wolf 359, Strange New Worlds, Picard, SFA, Reports, Stories, Tools, Travel, Weather and more. It's lots of things folks, but **BORING*** IS NOT ONE OF THEM - Money Back Guarantee - Digitally - Face to Face - you may be surprised at how much fun it can be.

Meeting ID: 852 8421 7035 Passcode: antimatter

[Need help with the coordinates, test run, alternatives, email trek1793@millnernet.com](mailto:trek1793@millnernet.com)

STAR TREK Trivia

ST: DISC: "Terra Firma, Part 2" Reno snacked on _____, which both Adira and Cleveland Booker pointed out violated a rule against consuming food in engineering" leading to a very snappy comeback from Reno.



Last Month: **ST: Lower Decks:**

What is this character Lt. Cmdr "Andy's" actual name??

Answer is: Lt CMDR Andarithio "Andy" Billups

Special thanks to all contributors, readers, Some with inspiration, art, reports, articles

Always a work in progress to provide you the best "Engineering Experience"



STAR FLEET
POSTAL
SERVICE

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SD:202312.01 Issue #26

THE FEDERATION NEEDS YOU

N.C.C. - 1793

HEIMDAL ENGINEERING
COME EXPLORE OUR TEAM
VIRTUAL SCONES AND RAKTAJINO
Email: TREK1793@MILLNET.COM

Engineering Department
AT
Anvil of Asgard
U.S.S. Heimdal
N.C.C. 1793



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