



THE ENGINEERING LINK

"ANVIL OF ASGARD"

ISSUE: #029
SD: 202403

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



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



Welcome to the March 2024 edition of T.E.L. " "

Heimdal Engineering is and has been my STARFLEET home for nearly 40 years, even with my several year hiatus in early 2000's and my time with the USS Zavala (R3) as an Ambassador from both R1 and the USS Heimdal this has always been my fandom home. I've never seriously given consideration of moving to another department, certainly not another vessel, and if zoom was not an option there would be a lot of postage reaching out to the crew. This chapter and organization has been the corner stone to decades of exploration, education, personal growth and friendship and I am humbled to be accepted as a member of this family. Other than with my wonderful wife and family there's no place I'd rather be.

Maybe you find that strange, but its a real reality check for me. Employment changes several times over the years, home locations changed, friends by association and ventures – the same, but knowing this group is here has meant so much to me. It is why I pour what I do into this small piece of of the puzzle that is Heimdal Engineering. What an anniversary this is coming up for the chapter, what amazing leadership. CO Linda Smith (our James T Kirk) continues to lead us into that great expanse of adventure, community support, and the dream of "The Great Bird of the Galaxy". With the thin lines that connect us all, XO Willy Smith, 2nd Officer Chief C. Davis, Comm Chief G. Blanks, Chief Medical T. White, and our very own Chaplin / Counselor T. Hazlett and myself as Chief of Engineering. Just want to take a moment to acknowledge this stellar support staff that keeps us on course and work so hard to make it a smooth ride.

So as we warp into March I thank the entire crew of the USS Heimdal NCC-1793 from Virginia to Scotland to Middle Georgia for who you are, what you choose to do, and sticking around for the journey. Stay Adventurous, stay positive, and put a little TREK in your day. - Millner Out



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STARFLEET BY THE NUMBERS

As of SD:202403.01



STARFLEET

- 5420 Members, 208 Chapters

REGION 01

- 944 Members, 42 Chapters

USS HEIMDAL - 58

HEIMDAL ENGINEERING - 6*

Online Resources

Heimdal's Home Page

ussheimdal.com

The Engineering Link

trek.millnet.com/eng-link/

Region One / SFI Corp of ENG

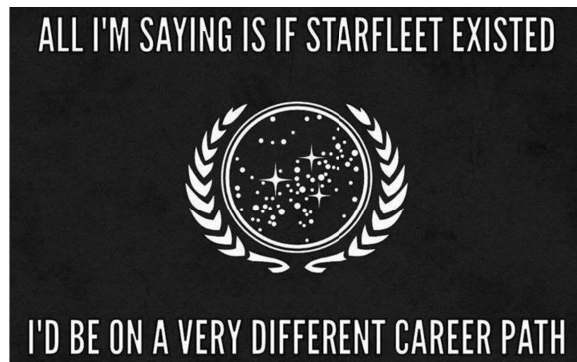
R1.SFI.org coe.sfi.org/

STARFLEET International

SFI.org

STARFLEET Academy

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



Awarded 2022 & 2023 USS Heimdal "Department of the Year"
Region 01 "Communications Excellence" Best Departmental Newsletter 2021 & 2022



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

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2024 - MARCH

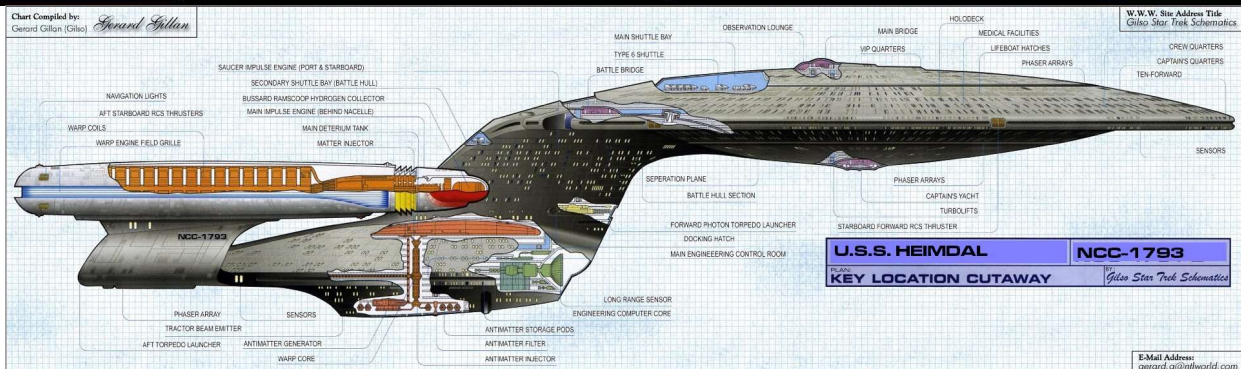
- 14 MAR - ROLE PLAY MEETING -
- 16 MAR - HEIMDAL MEETING AND ZOOM
- 18 MAR - **ENGINEERING DEPARTMENTAL ZOOM**
- 25 MAR - SUBMISSIONS FOR THE ENGINEERING LINK

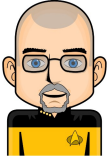
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SD: 202402.25 - Monthly Engineering Report - CEO/FCAPT Darrell Millner

/Computer begin recording /

Let's start with some [IRL] comments, "in real life, well sort of. One of the challenges and or blessings of being in a command staff position, at a departmental, chapter, and regional level is hearing the scuttlebutt of so many channels of conversation throughout the fleet[s]. and I can say easily that most of the chatter I hear has little impact on us as individual members of this amazing organization we are apart of. But every now and then I wish I could provide a broader perspective on issues and advise. Unfortunately that could potentially put me in the position of extending too much 'influence'.

So this part is COMMENTARY, [[This morning for example I also received the an email that on its surface sounded logical, official and very much 'common sense'. Mind you broadly worded, easily abuse-able, and very "Karen-ish" from my perspective but sounded soo very reasonable. "I just wish sometimes the broader implications would be more deeply reviewed". Let me be absolutely clear, meaning NO disrespect, I honor and appreciate the responsibilities taken on by every level of leadership in this organization and trust that what they do is in good faith and best intentions for the membership, but forest for the trees folks. My vote lets them know where I stand,- message ends]]

Getting back to the reason we are here, and thank you for your patience, February was an amazing month, as I stated in my Rainbow Connection report "Houston we have a first in a very long time, make sure to enter this in the log, for the SD:202402 Heimdal Chapter and Engineering Departmental meetings (as Kathy Whately stood in for Larry Whately), all six members of Engineering were represented for BOTH sessions. Four members participated in SFA (a total of 16 courses and 1 BOCP Award), and reports/items for The Engineering Link were received from Four members. Have I mentioned how very proud I am of this team?" Folks for such a small group I implore you to keep up the excellent work, be the example we can be, if we can do what we do and many of us are remote - oh look out because 'you ain't seen nothing yet' as they say.

Please keep an eye out for emails regarding photo request for the upcoming 40th Anniversary - our own CMDR Walker is playing a key role in the preparation and needs all the material we can supply.



Speaking of materials here's a request from your CEO. Partially as we discussed on the Engineering Monthly Zoom session I am collecting photographs of our pets. We seem to have such a number of furry friends joining on our sessions, or in our memories, ideally if you could send copies of shots with you and your pets, or by themselves (past or present) with names the idea being to create not only a full page for the T.E.L. but perhaps in support of Petfleet too.

I also spoke with Zack and if you have photos of yourself in Star Trek, or other fandoms (Firefly, BSG, SW, 1999 etc) it would help to highlight some upcoming articles that are in the works and provide that 'personal' edge that clip art cannot.

Well crew, this issue is days late, and I still have RDC reporting to wrap up, remember the door is always open, yes even as it is now as 01:30 hrs. Thank you for what you do!!!



**Fleet Captain D. Millner, CEO
USS Heimdal Chief Engineer
R1 RDC of Engineering
STARFLEET Marine Corps Reserves
SFA Red Squad**


SD: 202402.26 – Monthly Engineering Report – CMDR. Zak Lyon

/begin/

Captain, Galaxy Class starships like the Heimdal are, in reality, small towns, with all the needs that entails. Athletics, education, parks, fine arts, etc. All that is here.

So... An idea for the top brass. Maybe theater tech should be a specific job category on star ships rather than just grabbing a hapless engineer when their mission critical tasks, issues, etc. have been completed. Don't get me wrong, I enjoy the theater. And I do have the general engineering skills necessary to meet the needs of the performance and its creative staff. But theater engineering is a specific talent with a unique set of skills. And a little stressful.

Guess you can tell, I am having trouble with the production needs of *Chitty Chitty Bang Bang*. As you will remember, our upper-class school principal, Gorcon Sakai, is a stickler for combining practical effects with state-of-the-art technology. It worked for the last production. And I want to help out as I have really gotten to know many of the students involved in this play.

I was roped into being an assistant director for his *On The Town* adaptation. I stood my ground this time. Just engineering. Well...Sakai says the car actually has to drive and to fly...practically! Also in his adaptation, the car must be able to project holograms. And we must program holograms of the car when the car needs to do things that "are impossible." I know Sakai has a vision for Ian Fleming's story. I know it will be great. But there are times where, if I had Mr. Fleming right in front of me, I would not be responsible for what happens. And, at night, I am dreaming that this car is gaining sentience.

In a moment of crisis like this I seek calm and wisdom. So, I do what has become a source of both for me. I offer to walk Lassie around the ship to the dog park in the arboretum. I always enjoy doing this for Gary and when I'm done, I'm calm. Then we visit and he always tells such interesting stories. And I get such great advice. I have said it over and over again. One of the coolest things about life in the 24th century is that it is easy to be influenced by so many different places and worlds. PO3 Burley is one of the best examples of this. Scotland, Liverpool, Mars – they all shaped him. In fact, wouldn't be surprised if there wasn't a little El-Aurian blood in him the way he listens and knows just what I need to hear. I think I have found a kindred spirit. There is a love of storytelling in both of us.

And now to my special assignment to Sciences. Botany has a secondary mission while the Heimdal is in this sector investigating a celestial event due to occur in a couple of days. Everything has gone well with my collaboration with Botany. I love working with Commander Davis. And I love piloting the Shuttle Gaiman. We have spent one on one time onboard the shuttle as she scans and collects information about several of the pre-warp planets nearby. She has a wealth of knowledge and is passionate about sharing it. We have one last outing to complete her mission. I will miss spending time with her. She has explained so much about botanical ecology and how everything must work together in harmony for a planet to operate efficiently. Just like us – on Heimdal. /end/

(photo from CEO Millner)



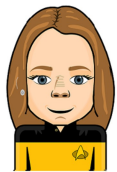
**SD: 202402.25 – Monthly Engineering Report – CDR Bud Walker**

/begin/ Captain, there nothing of significance to report from Operations, and happily all systems are running smoothly. Reporting for myself, this past month has been quite a busy one for me. Admiral Linda Smith tasked me with two projects: a presentation for the crew and the creation of a data-log. The presentation involved research in arcane traditions of various member planets of the Federation. The C.O. wanted me to do an orientation on some of the necessary etiquette and cultural habits that the crew may encounter. While I was happy to do this work, I was expecting to do this presentation next month. However, the C.O. moved up the date and so I had to scramble to get everything prepared in time. Fortunately, I was able to finish, literally the night before, and I feel the session was received well by the crew. As you were present, you can judge for yourself.

I am now beginning work on the second “command” project given me by Admiral Smith. I am creating a data log to capture certain subjects and information regarding the ship and the crew. This will involve not only collecting data but doing interviews of selected crew members. Fortunately, I have been able to solicit some assistance from Commander Zak Lyon and Lieutenant Jody Lyon, so I am not having to shoulder the entire burden myself. This project will keep me busy in the coming month and should be complete in mid-April.

Despite the two projects I mentioned above, I was able to squeeze in some studies with StarFleet Academy. However, the number of courses completed is a bit diminished from prior months. But I did receive certification as a bridge medical officer in the Bridge Officer Certification Program, so my progress in the program continues.

On the personal front, Stok and I are meeting with T’Ploth on a weekly basis where we study selected chapters of “Draw Me Into Your Logic, the Keethera Exercises.” We have been doing that for some time. Recently, T’Ploth has introduced Vulcan artwork into our weekly sessions, as a way of experiencing logic in a different way. I admit I pride myself on my knowledge of Vulcans and their ways, but Vulcan art is an area that I am very ignorant about. So, I have been fascinated by this and have found it helpful to see many Vulcan concepts interpreted as art. Stok has found it more challenging as I suspect my human mind is better able to “think outside the box.” T’Ploth plans to continue using artwork for the next several weeks and I look forward to it /end/

**SD: 202402.26 – Monthly Engineering Report – LT Lyon Jody**

/begin/ Just when I thought I had met everyone in Engineering, someone new is introduced. Last week when we needed a new pair of eyes on a situation in the dilithium room, in walked Crewman 3rd Class G. Burley. I can’t believe I never ran into him before. Of course, he was able to diagnose and come up with a creative solution – one that was more efficient and able to be implemented much sooner. We have a great team, but it is amazing what can be accomplished by adding a new element to the team. Burley has spent his time in other sections of Engineering, being exposed to areas that provided growth. But because of his experience and knowledge in this discipline, I would love to be able to work with him regularly. He brings so much to the table and has in a short time given me new insights and perspectives into the job. So, Captain Millner, should this come up in conversation with PO3 Burley, please keep my opinion in mind. I think he would be a great addition to the dilithium team. Of course, if it seems to be of interest to him. /end/



INTUITIVE MACHINES IS ATTEMPTING TO BECOME ONE OF THE FIRST COMMERCIAL COMPANIES TO LAND SOFTLY ON THE LUNAR SURFACE.

Per the IM-1 Press Packet and Summary;

IM-1 is a trailblazing mission aimed at creating a commercial lunar economy, delivering commercial payloads and NASA science and technology payloads that will pave the way for a sustainable human presence on and around the Moon. The mission aims to be the first U.S. vehicle to softly land on the lunar surface since Apollo 17 in 1972.

Intuitive Machines selected SpaceX to launch the Company's Nova-C class lunar lander, named Odysseus, on a SpaceX Falcon 9 rocket from NASA Kennedy Space Center's Pad 39A. After launch, Odysseus is planned to separate from the Falcon 9 rocket on a direct trajectory to the Moon.

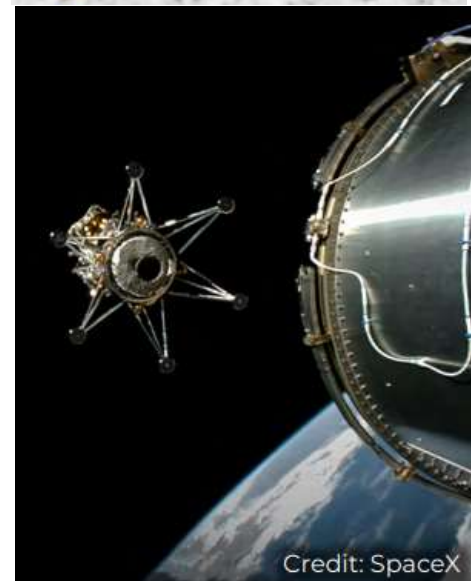
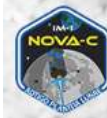
Intuitive Machines flight controllers working from Nova Control in Houston, Texas, expect Odysseus to land on the Moon approximately nine days after liftoff.

After touchdown, Intuitive Machines and its customers expect to operate payloads on the lunar surface for roughly seven days before the lunar night sets on the south pole of the Moon, rendering Odysseus inoperable

MISSION UPDATE: 26 FEB 2024 Houston, TX

Odysseus continues to communicate with flight controllers in Nova Control from the lunar surface. After understanding the end-to-end communication requirements, Odysseus sent images from the lunar surface of its vertical descent to its Malapert A landing site, representing the furthest south any vehicle has been able to land on the Moon and establish communication with ground controllers.

Images from NASA's Lunar Reconnaissance Orbiter Camera team confirmed Odysseus completed its landing at 80.13°S and 1.44°E at a 2579 m elevation. After traveling more than 600,000 miles, Odysseus landed within 1.5 km of its intended Malapert A landing site, using a contingent laser range-finding system patched hours before landing.



For The Latest Updates Visit:
www.intuitivemachines.com/



“As I explore with internet via websites, FB, Youtube, NASA, and more ‘ENGINEERING’ takes on such a prominent role in the feeds. Its my hope that current Engineering will also inspire us from a STARFLEET Engineering perspective”

- Millner, Darrell



Working in Favor of Life - *Cmdr Zachary Lyon*

Sir, I know the Shuttle Gaiman took a little longer getting back from our scanning, cataloging of botanical webs, and setting up observation protocols for the planet Rei'therAn. This was the Botany Dept's last mission to gain information about this system which includes two M class planets - both pre-warp societies. Bonnie is so efficient and focused while she is working. It gave me time to tinker with a few of my "just for fun" projects while in orbit. I always like to stow a few activities to give me something to fill my time while the scientists do their jobs.

Cmdr. Davis and I in hindsight may have slightly bent the rules on this mission. And that is what I need to discuss with you. I wanted to put down the things I pondered while and after making the decision to act.

Well, when you come right down to it, we do have "worker bees" on the ship. How was this idea not going to come to me! Let me explain.

After Davis showed me this world, I was excited about their evolution to a place where they may choose to become a federation member. This planet has many wonderful things to recommend it. The water is clear, the continents have mostly good relations, the communities appear strong. Their resources are varied and many. And the Rei'ther are now starting down the path that leads to us saying hello more officially. I commented that I hoped their future included being a part of the Federation. She hesitated and said that it may not happen. What I interpreted as her focus was actually her concern. And her concern was warranted. She found that their pollinators are suffering from a condition once known on earth as Colony Collapse Disorder. This is where the workers leave the queen. She is left with plenty of food and a few nurse bees to care for the immature bees. But the colony cannot survive without the workers. Surely the Rei'ther are aware of the importance of pollinators. She agreed, but felt they were centuries away from knowing what to do or even recognizing the tragedy to come. I said that if they don't know, they can't combat it! All of this completely gone in 60 growing seasons? I know we can do something. She was right when she said we couldn't. Oh great, I thought. The prime directive. That's when we discussed this point of federation philosophy. It was insightful and challenging.

I was raised to respect life in all its infinite forms. But that definition of what is the natural development of a civilization keeps expanding and contracting over time. Unlike other governments throughout history, I take pride in knowing that our Council is always striving for the best. There will always be blind spots with any directive. And what are we supposed to do with those. Well, I know one thing? It is true that all planets die, but I do not and never will serve entropy.

Sometimes we can forget that the prime directive was first called General Order One. It was the first thing we put in place to try to stop ourselves from making bad decisions when our ideals were not quite up to scratch. But we have evolved as a spacefaring organization. Hopefully, the long arc of history will ultimately bend toward life. Which to me means that bending it was bound to happen.

So, we made a decision. We rationalized that what we do is for the whole of the planet not a political or technological interference. We would not introduce the native population to what we are going to do, We would be integrating it - very subtly. And we certainly can't say that history doesn't have its fair share of senior staff testing the limits of the directive. Right?

The idea seemed so clear to both of us. We couldn't bring the pollinators back. But the Federation has been in the business of miniaturizing. We could make them worker sized! We could make drone drones! We would need to incorporate the dances and other actions of these worker insects. And all this data has already been collected on this mission. And for a time, our drones could help pick up the slack. And I know this isn't as noble, but there was a small part of me that was as interested in the tinkering possibilities as in the botanical needs of the world. I have a lot of designs started, a lot of bits and pieces, and a replicator. Are these ideas and projects just supposed to sit there? I knew packing all these little projects would one day pay off. (Continued)

Working in Favor of Life (Continued)
- Cmdr Zachary Lyon

[Continued]

... Knowing that this would be our only chance to help as the Heimdal was leaving the system as soon as we returned, we decided to act in favor of life. We replicated and released millions of drones that were indistinguishable from native pollinators with a hope of a future for these people.

Is this a prime directive violation? Not in my opinion. Should we have made the decision to act? We remembered the motto on Davis' ancestor's coat of arms:
Apes Via Sunt. Bees are Life.

I will stand by the decision to act in favor of life.

To any who read my thoughts here, this is what I believe.

Starlink satellites ?

Snippets of Observations from Space.com

How many Starlink satellites are in orbit?

As of March 2024, there are 5,504 Starlink satellites in orbit, of which 5,442 are operational, according to Astronomer Jonathan McDowell who tracks the constellation on his website.
<https://www.space.com/spacex-starlink-satellites.html>

Are Starlink satellites a grand innovation or an astronomical menace?

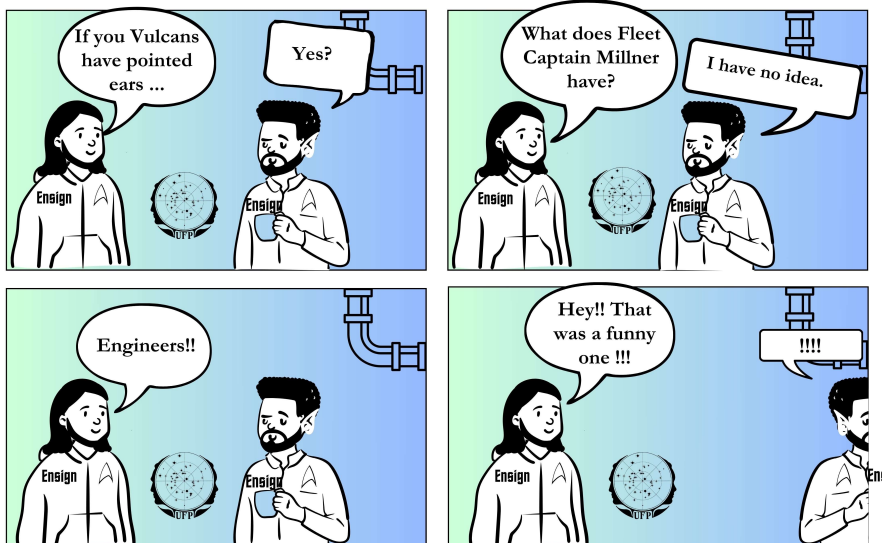
Starlink is the name of a satellite network developed by the private spaceflight company SpaceX to provide low-cost internet to remote locations.

A Starlink satellite has a lifespan of approximately five years and SpaceX eventually hopes to have as many as 42,000 satellites in this so-called megaconstellation.

The current V2 Starlink satellite version weighs approximately 1,760 lbs (800 kilograms) at launch, almost three times heavier than the older generation satellites (weighing in at 573 lbs or 260 kg), according to Spaceflight Now.

HEIMDAL LOWER DECKS

BY BUD WALKER



Our very own CMDR Walker provides humor and insight in the Heimdal's RainCon, Just had to share this one with the team!



Heimdal Engineers at Starfleet Academy

LT Lyon Jody [4 Courses, Award]

IOTK - College of Engineering

DISTINCTION for CENG 101 - Early Principles and Terms on Jan 29, 2024
HONORS for CENG 102 - Pre-19th Century Pioneers on Jan 30, 2024

School of Planetary Identification & Discovery

DISTINCTION for SPID 101 - Kinds of Planets on Jan 28, 2024
DISTINCTION for SPID 102 - Keplers Laws on Jan 29, 2024

CMDR Zachary Lyon [4 Courses, Award]

IOAS - School of XenoAnthropology (IOAS:COXA)

DISTINCTION for AQ-AND 202 - Analysis of the Aenar on Feb 7, 2024

IOTK - STARFLEET Officers Radio School (IOST:SORS)

HONORS for SORS 104 - Radio in DS9 on Feb 22, 2024

IOTK - College of Laser Technology

HONORS for COLT 106 - Lasers part 6 on Feb 11, 2024
DISTINCTION for COLT 107 - Lasers part 7 on Feb 11, 2024

FCPT Darrell Millner [2 Courses, Award]

IOSTS - College of Treknology (IOSF:COT)

HONORS for ST6-103 - Technology on Feb 25, 2024
DISTINCTION for ST7-103 - Technology on Feb 26, 2024

CMDR William Walker Jr [6 Courses, 1 Award]

SFA Awards

AWARDED for **BOCP** - Chief Medical Officer Certification on Feb 6, 2024

IOSTS - College of Security in Trek

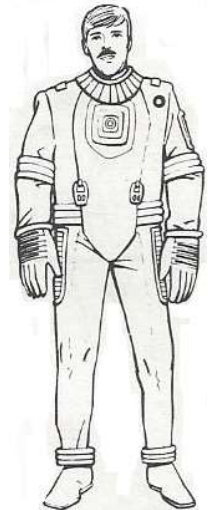
DISTINCTION for CST 016 General Alerts part 7 on Feb 03, 2024

IOIE - School of Intel Gathering (SIG)

HONORS for SIG 307 Intel Commandments on Jan 25, 2024
HONORS for SIG 308 Indicators on Jan 23, 2024
HONORS for SIG 309 Vetting on Jan 24, 2024

IOSTS - College of Security in Trek

DISTINCTION for CST 016 General Alerts part 7 on Feb 3, 2024
DISTINCTION for CST 019 Security Orders Part 3 on Jan 30, 2024



“STARFLEET ACADEMY IS A DOOR TO GREAT KNOWLEDGE, ADVANCEMENT AND FUN HERE IN SFI.org”



SD: 202403 ZOOM COORDINATES**Heimdal Monthly Engineering Zoom**

SD: 202403.18 ED: MARCH 18TH, 2024 7:00 pm eastern - *Normalish Meeting*
FOR CURRENT HEIMDAL ENGINEERING DEPARTMENT MEMBERS

Mark you calendar - 3rd Monday each month come join your Engineering team in a lively discussion about anything Heimdal, STAR TREK, and beyond.

Meeting ID: 852 8421 7035 Passcode: antimatter



STAR FLEET
POSTAL
SERVICE

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SD:202403 Issue #29

THE FEDERATION NEEDS YOU

N.C.C. - 1793

Engineering Department
AT
Anvil of Asgard
N.C.C. 1793

HEIMDAL ENGINEERING
COME EXPLORE OUR TEAM
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