



THE ENGINEERING LINK

"ANVIL OF ASGARD"

ISSUE: #030
SD: 202404

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



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



Welcome to the April 2024 edition of T.E.L. “ ”

Forty Years Ago in April 1984 the USS Heimdal NCC-1793 was launched with the boarding of her initial crew of the Shuttlecraft Asgard. This vessel, from Region One, the USS Jamestown NCC-1843, of Hampton Roads, VA, USA, Earth. The Heimdal began it's journey as a Constitution Class (Refit), with Chief Engineer Dennis Henderson* in charge of the Engineering Department. Take a moment to consider that, *Four Decades Ago*. Many of our crew and those in associated programs were not yet born at the time, others of us are simply glad to have made it this far ha ha. *Mind you, speaking of making it this far, some of these details are as I recall, and possible errors will occur, so keep that in mind please. A few years later after the launching of Star Trek The Next Generation a an Engineer helped, with the command staff approval, have our vessel retroactively modified to Galaxy Class and official blueprints were submitted and approved by Region One and STARFLEET International. Thus we grew from 302M – 641m length overnight and always with a minimal crew to keep things in check. Engineering has had amazing and lean years but always the underlying vision has been there.

Later this month the USS HEIMDAL will celebrate by having a special party thrown by our own - CO Linda Smith & XO Willy Smith - , I feel personally honored, blessed, and inspired by this leadership team and the Department chiefs of this proud ship. I'm betting the next decade will be stellar as well, and I hope to see you at our 50th Anniversary extravaganza.

Barbara and I "Raise our glass to you all", - Millner Out



INDEX

- 2 Roster & Calendar
- 3 / 5 Engineering Reports
- 6 Crew Articles
- 7 / 8 STARFLEET Academy
- 9 Zoom, Closing
- 10 "The Recruitment Flyer"

STARFLEET BY THE NUMBERS

As of SD:202404.01



STARFLEET

- 5452 Members, 208 Chapters

REGION 01

- 953 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

202309.19

SD: 202404 - APRIL

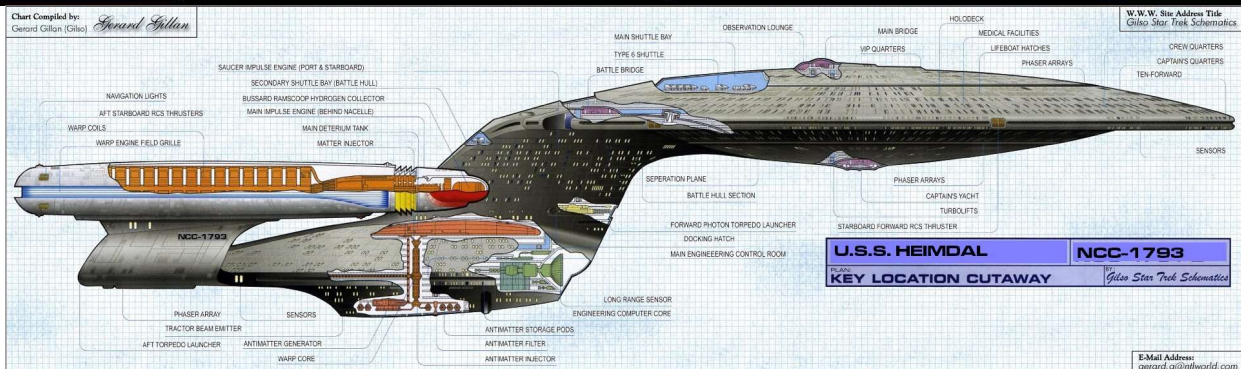
- 11 APR - ROLE PLAY MEETING -
- 13 APR - HEIMDAL 40th ANNIVERSARY PARTY
- 14 APR - PHASER SIM / PAINTBALL - check email
- 14 APR - HEIMDAL NEWSLETTER SUBMISSIONS APR
- 15 APR - **ENGINEERING DEPARTMENTAL ZOOM**
- 25 APR - SUBMISSIONS FOR THE ENGINEERING LINK
- 01 MAY - HEIMDAL NEWSLETTER SUBMISSIONS MAY

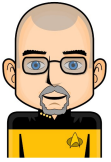
02-85214

03-85412

04-85413

05-74125





SD: 202404.01 – Monthly Engineering Report – CEO/FCAPT Darrell Millner

/Computer begin recording /

It’s been a mixed bag of tribbles this month, but as always things continue to move forward and members are in good spirits with projects continuing. Between video conferencing, emails, snail mail there’s been contact with all members of our Engineering team from the ‘Common Wealth to across the Pond’ and I must say – it’s a blessing to work with such an amazing and creative crew. From Interdepartmental Role Play (I.D.R.P.), the Heimdal Monthly Meeting, Engineering Department Monthly, The Engineering Link, and STARFLEET Academy this team continues to excel. Don’t get me wrong, the ebb and flow of the individuals, the department, and more keeps us on our toes – but it is with that momentum that we show our consistency. As I record these notes our team has completed (reported) 32 SFA Courses for March, plus **SFA (ADP) Bachelor of Intelligence Operations Studies** by our very own CMDR William “Bud” Walker, all while pulling double shifts preparing media for the upcoming Anniversary Celebration. I think someone is bucking for extra leave time when we finally get to Starbase 19. With Lt. Lyon Jody’s leadership and juggling of the I.D.R.P. we are months ahead and the quality of the story line improves every single step of the way. Just to be clear, each member of the team brings something special to the table – so Thank You Kathy, Larry, Jody, Zak, Bud, Gary (and Lassie) – and I look forward to some of the changes that will be coming in the near future.

Speaking of STARFLEET Academy: I have been personally running a bit behind on my performance these past 4 months. Thus in order to encourage more participation and growth in the Academy and in recognition of the incredible anniversary of NCC-1793 - I have set an ambitious **personal goal for myself** for the month of April 2024.

“As CEO I will complete a minimum of 40 courses this month in SFA”, and with a bit of a stretch a few more as my aim is to complete my 400th course this month.” - Millner

It’s been said that putting the “goal out there” makes one more accountable, and I know it can also be a stress point for me and others, but I chose to put it out there, and here we go.



I find myself thinking back to a favorite movie of mine, yes there are many, but for today.....



“Brothers*, What We Do In Life Echoes In Eternity”- Maximus

And on that note, here’s to a stellar April Engineering.....

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

“I’ll try not to rely on so many graphics next month - lol” - DWM

**SD: 202403.27 – Monthly Engineering Report – CMDR. Zak Lyon**

/begin/

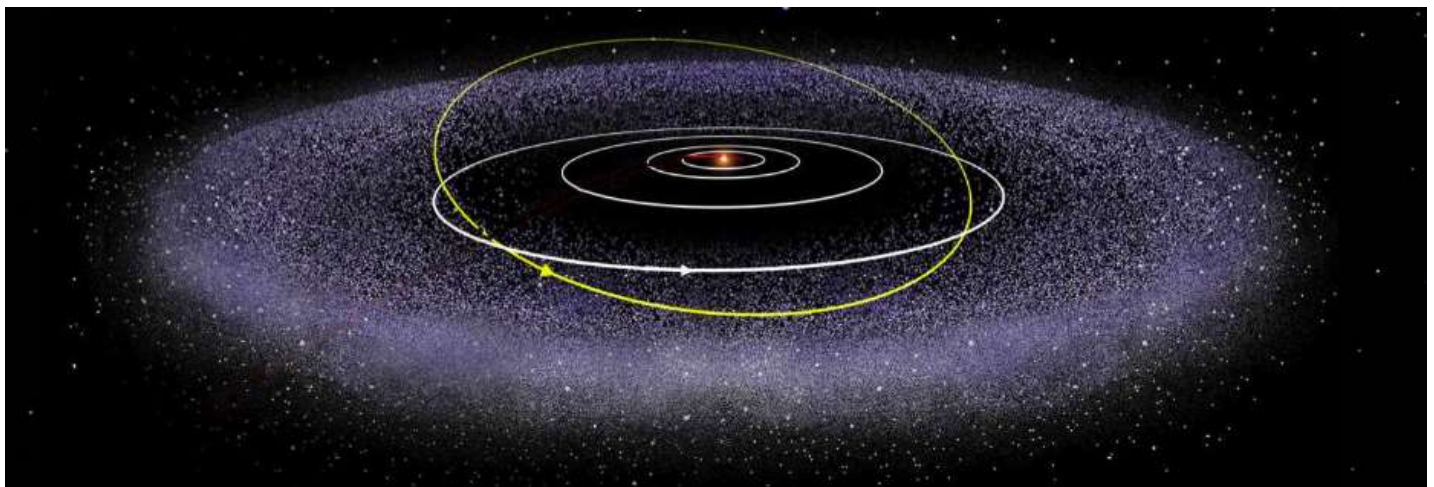
Captain, You never know what you are going to find when you are digging around somewhere. That's true of old tool chests, old attics, and especially old holodeck programs.

As you know, each month as part of our routine diagnostic, we go through the holo-cloud to see what kinds of programs are in there taking up space. To be clear, we encourage the crew not to upload programs of too personal a nature and we give them fair warning (in case they did) before our diagnostic!

In all this digging and editing, I found a real gem.

We all know that warp flight is prohibited within a solar system. Which, of course makes every pilot wonder "what does my home turf look like at warp?" Well, this program, auspiciously named The Erica Trials, is set up to have teams fly shuttles (from any era of construction) through any solar system. The program I am enjoying now along with as many flight con and ops officers as I can get interested in it is called the Kuiper Challenge. It is a simulation where all teams go up against the asteroid belt just outside of the Sol System. The competitors must have the kind of precision and split-second calculations of the best pilots around. Some of these races were really close. But I must admit I did win a few! I have said it before and I'll say it again, the Heimdal is in good hands with any of my fellow pilots at the controls if the dodging and diving I witnessed is any indication. Couldn't be prouder.

Time sure does go by fast on these big ships, I was going to say fly by fast, but the accidental avian reference might seem like a bad pun to some in engineering. Chief L'ttr'R has a good sense of humor, but why get on the Transporter Chief's bad side. Since L'ttr'R has been off world for some time, his mate has been attempting to integrate their children to life on earth without his day-to-day input. And she discovered Scouting. I just want to congratulate their family on their completion of his Eagle Scout rank. We'on moved through the ranks quickly compiling an aerial orienteering program for "the flighted." I want to convey how proud the chief is to finally be associated with an earthling tradition as he calls it. Usually a man of few words, this is something he speaks of frequently. I quote: "Finally, a ceremony with real sense, encouraging my chick to soar. He will truly be one of the leaders of the future. Now, how may I talk to the young guardians of this mystical arrow of light - for truly that is a warrior's weapon." Should I tell him. /end/



(Image: Overview | Kuiper Belt - NASA Solar System Exploration - clonehub.org)

**SD: 202403.25 - Monthly Engineering Report - LT Lyon Jody**

/begin/ Something has been on my mind this month.

I am becoming more skilled in my primary assignment, Dilithium Maintenance, over the last year. It was something new for me when I came on board, but something I was passionate about becoming proficient in. The officers and crewman that I have been fortunate enough to work with have so much knowledge and experience.

As I have related before, I loved the beauty and power of the element in the abstract. As a child I saw an image of the crystal used in jewelry. And felt a connection to the color and its glimmering facets - it seemed holy to my innocent eyes. I only saw its potential as I matured. I didn't have the opportunity to see it in the concrete until after the Cardassians left Bajor.

Balance has always been important to me. That's what dilithium means to me today. No longer beauty or power. Its importance in the practical and philosophical is balance. It doesn't power the ship...it keeps it from blowing. Its beauty is destroyed as it is utilized, and it cannot be replicated or easily regenerated. The worlds of the Federation and other confederations/empires spend a great deal of time mining, hoarding and experimenting for greater efficiency. Our way of life is dependent upon it. Maintaining it is of utmost importance. I am honored to be working in this department and position.

Given all these thoughts, I wonder what would happen to our society, to our galaxy and the delicate balance that makes all that we know possible if this ore could not be mined, became too rare to meet the needs of all, or, the unthinkable, it simply was gone. Would there be an alternative method to achieve the balance between matter and antimatter that enables societies to interact, grow and discover. Would we devolve, become xenophobic, or simply stuck? Would we believe that we are better off at home? Would we ultimately replace optimism with fear?

I believe that travelling the stars is the destiny of all sentient beings. Yes, there are challenges that come along with every first contact, every ongoing treaty and every foray into the unknown. There are also innumerable rewards. The mission is finding balance.

So...we must not take this resource for granted. We must acknowledge what is at risk without it.

Sir, I hope you can appreciate my noobie insights, though they may seem obvious to those who have been in this field longer and pondered for many more hours than myself. /end/

**SD: 202403.26 - Monthly Engineering Report - CMDR Bud Walker**

/begin/ Captain, my "command" project given me by Admiral Smith as taken up almost all my time this month. I am still in the process of conducting the needed interviews. I have gathered most of the logs and data that will be required but I still come across items that can be included. Commander Zak Lyon and Lieutenant Jody Lyon have completed their contribution and that has aided me to a degree that I can not adequately express! Nevertheless, there are many pieces and parts that still need to come together, and my anxiety level will remain until that happens.

Despite having this project, I am happy to report continued progress with StarFleet Academy. Having completed all the coursework, and having submitted the required application, I have been granted a *Bachelor's degree in Intelligence Operations Studies* /end/



NASA's Artemis IV: Building First Lunar Space Station



Inspiring Article, source: <https://www.nasa.gov/general/nasas-artemis-iv-building-first-lunar-space-station/>

NASA and its partners are developing the foundational systems needed for long-term exploration at the Moon for the benefit of all with NASA's Artemis campaign. Following the Artemis III mission that will land the first people near the Moon's South Pole, astronauts on Artemis IV will live and work in humanity's first lunar space station, Gateway, which will enable new opportunities for science and preparation for human missions to Mars. The mission will bring together an intricate choreography of multiple launches and spacecraft dockings in lunar orbit, and will feature the debut of NASA's larger, more powerful version of its SLS (Space Launch System) rocket and new mobile launcher.

Artemis Generation Science

Artemis missions are accelerating scientific research on the surface of the Moon, and soon, in lunar orbit aboard Gateway. Built with international and commercial partnerships, Gateway will include docking ports for a variety of visiting spacecraft, space for crew to live, work, and prepare for lunar surface missions, and instruments for science investigations to study heliophysics, human health, and life sciences, among other areas.

Gateway's oval-shaped orbit passes over both the North and South Pole areas of the Moon, and it provides unparalleled opportunities for science and access to the lunar surface. The orbit combines the benefits of surface access from low lunar orbit with the fuel efficiency of distant retrograde orbit, all while offering unique views of the Earth, Moon, Sun, and deep space for scientific study.

Mission prelude

Gateway is taking shape on the ground, and engineers will connect its first two modules — the Power and Propulsion Element (PPE) built by Maxar, and the Habitation and Logistics Outpost (HALO) built by Northrop Grumman — for launch aboard a SpaceX Falcon Heavy rocket. The elements will spend about a year traveling to lunar orbit, taking advantage of highly efficient solar-electric propulsion and the gravity of the Earth, Moon, and Sun to reach its destination. Multiple scientific instruments on and in HALO and PPE will provide scientific data on radiation during transit and while Gateway is in lunar orbit.

Once in its orbit around the Moon, Gateway's computers will run through a checklist of items to prepare for the arrival of a second habitation element with the Artemis IV crew — the International Habitation module, or I-Hab, provided by ESA (European Space Agency). I-Hab will expand where Gateway's astronauts will live, work, conduct groundbreaking science, and prepare for their lunar surface missions. I-Hab also includes the critical life support systems provided by JAXA (Japanese Space Agency) to enable longer stays aboard Gateway.

Prior to launching the crew and I-Hab with the SLS rocket, NASA and its partners will pre-position two additional spacecraft for the mission: SpaceX's Starship Human Landing System that will carry the next-generation spacesuits for moonwalks, and the SpaceX Dragon XL logistics module carrying science experiments and other supplies for the mission. An upgraded Starship will support Artemis IV with expanded capabilities for long-term exploration and future missions, including docking with Gateway.

Four Artemis IV crew members will lift off from Launch Pad 39B at NASA's Kennedy Space Center in Florida aboard the agency's Orion spacecraft on NASA's upgraded SLS rocket.

You are encouraged to read the full article at...

<https://www.nasa.gov/general/nasas-artemis-iv-building-first-lunar-space-station/>



"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



Heimdal Engineers at Starfleet Academy

LT Lyon Jody [2 Courses, Award]

IOSS - School of Planetary Identification & Discovery

DISTINCTION for SPID 103 - A Planet Pt. 1 on Mar 18, 2024

DISTINCTION for SPID 104 - A Planet Pt. 2 on Mar 18, 2024

CMDR Zachary Lyon [1 Courses, Award]

IOTK - College of Plasma Technology

DISTINCTION for CPT 101 - States of Matter on Mar 18, 2024

CMDR William Walker Jr [7 Courses, 1 Award]

SFA Awards

Awarded **(ADP) Bachelor of Intelligence Operations Studies** on Mar 14, 2024

IOSTS - College of Parallel Studies

HONORS for CoPS 103 - The Mirror Universe ST:ENT on Mar 6, 2024

DISTINCTION for CoPS 200 - History Mirror Universe Part 1 on Mar 7, 2024

IOSTS - College of Security in Trek

DISTINCTION for CST 017 - Security Orders Part 1 on Mar 6, 2024

DISTINCTION for CST 018 - Security Orders Part 2 on Mar 7, 2024

DISTINCTION for CST 020 - Transponder signals & Prefix codes on Mar 8, 2024

IOSTS - College of Starship Design

DISTINCTION for COSD 121 - NX-01 Schematics on Mar 7, 2024

DISTINCTION for COSD 121A - NX-01 Schematics on Mar 7, 2024

FCPT Darrell Millner [22 Courses, Award]

IOTK - College of Aerodynamics

DISTINCTION for AERO 109 Aerodynamics part 9 on Mar 21, 2024

DISTINCTION for AERO 110 Aerodynamics part 10 on Mar 21, 2024

DISTINCTION for AERO 111 Helicopter Aerodynamics part 1 on Mar 25, 2024

IOSS - College of Astronomy

HONORS for AST 209 - Supernovas and Supernova remnants part 2 on Mar 24, 2024

DISTINCTION for AST 210 - Supernovas and Supernova remnants part 3 on Mar 24, 2024

DISTINCTION for AST 211 - Black Holes Pt 1 on Mar 24, 2024

DISTINCTION for AST 212 - Black Holes part 2 on Mar 29, 2024

DISTINCTION for AST 213 - Black Holes part 3 on Mar 29, 2024

DISTINCTION for AST 214 - Black Hole part 4 on Mar 29, 2024

DISTINCTION for AST 215 - Space Dust part 1 on Mar 31, 2024

IOSS - School of Planetary Identification & Discovery

DISTINCTION for SPID 113 - What is a Circumbinary Planet part 1 on Mar 24, 2024

DISTINCTION for SPID 114 - What is a Circumbinary Planet part 2 on Mar 24, 2024

DISTINCTION for SPID 115 - Coreless, Desert, Double planets pt 1 on Mar 30, 2024

IOSTS - College of Treknology (IOSF:COT)

DISTINCTION for ST8 103 Technology on Mar 26, 2024

HONORS for ENT-101 - Characters on Mar 31, 2024

IOIS - College of US Historical Sites

DISTINCTION for FLHS 101 - St. Augustine Pt 1 on Mar 28, 2024

DISTINCTION for FLHS 102 - St. Augustine Pt 2 on Mar 29, 2024

DISTINCTION for VAHS 102 - Colonial Williamsburg on Mar 28, 2024

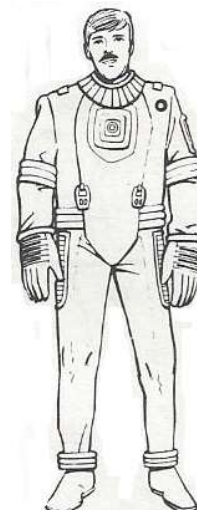
DISTINCTION for TXHS 101 - The Alamo Mission on Mar 28, 2024

DISTINCTION for WVHS 101 - Greenbrier on Mar 29, 2024

DISTINCTION for VAHS 101 - Jamestown on Mar 30, 2024

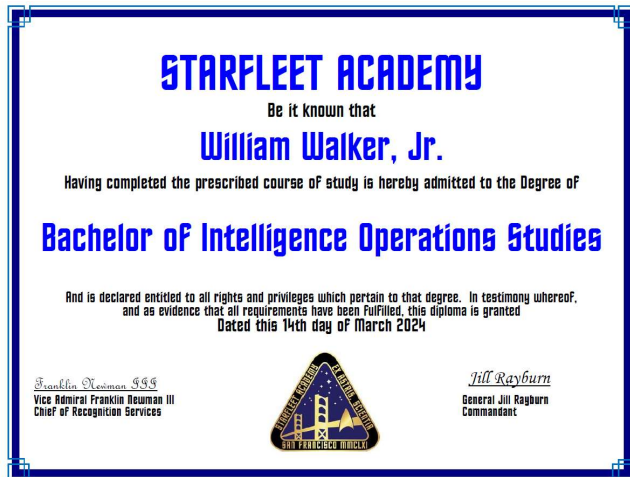
IOMA - College of Emergency Technology Equipment

HONORS for CETE 101 - THE DEFIBRILLATOR PART 1 on Mar 31, 2024



“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.

Academy Degree Program – Bachelor of Intelligence Operations SD: 202403.14.



CMDR William “Bud” Walker

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



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>

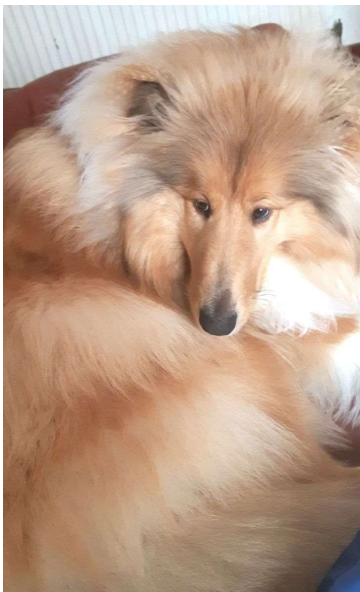
Boothby Award - Based on the number of successfully completed courses in both STARFLEET ACADEMY and STARFLEET MARINE CORPS ACADEMY. Program re-initiated in 2023.

SD: 202404 ZOOM COORDINATES**Heimdal Monthly Engineering Zoom**

SD: 202404.15 ED: APRIL 15TH, 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



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>



STAR FLEET
POSTAL
SERVICE

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SD:202404 Issue #30

THE FEDERATION NEEDS YOU

N.C.C. - 1793

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



WWW.USSHEIMDAL.COM/ENLIST