



Crew Meetings & Activities 2018

March 24 crew mtg

April 28 crew mtg

Scottish Highland Games in Decatur May 12

May 26 crew mtg

June 22-24 Summit 2018 in Irving

All above meeting are subject to change. Normally we meet at Shady Oaks BBQ at 3:00 p.m. on the dates above (unless otherwise mentioned.)

COMMAND DIVISION (GOLD)

CO REPORT

In attendance: Tank Clark, Liz Goulet, Tracy Clark, Cynthia Crouch, Roon Marchant, Alan Goulet

Tracy was Officer of the Deck; Roon won the quiz, which was focused on the Next Generation.

The Captain reported on the Ship's Status:

a. 18 International Members (added Aleksandr Farwell, Rikki Umanzor {new, no contact data};

subtracted Nick Mason {transfer}), 1 local member

b. \$99.00 in ship's funds (Tank & Tracy, Cynthia, Roon, Karen, Alan, Michelle, Liz paid dues)

c. BOCP – I earned one, still working on three others, and Roon is nearly done with his first one.

Our original idea for a BOCP badge proved unsatisfactory, but AFROTC's "Navigator" wings,

worn upside down, looks like a good replacement. Badge approved by all hands present,

including the three Leadership Committee members at the meeting.

We discussed the ship's upcoming Landing Party to the Texas Scottish Festival and Highland Games in Decatur, TX on 12 May 2018.

Tank wants to have the ship wearing matching T-shirts. This idea was approved by all hands; Tracy and I will buy for the ship members, using mostly ship funds with some of our own thrown in, with hope that someone will donate extra money for the ship (and I) to recover costs.

Early bird tickets (before Apr 25): Fri \$10, Sat \$16, Sun \$10. These can be purchased online at www.texasscots.com. If you choose to buy at the gate, the prices go up. Fri \$13, Sat \$19, Sun \$13. Also, check Groupon: \$25 for two on Fri or Sun \$15, four for \$25, "any day" two for \$25.

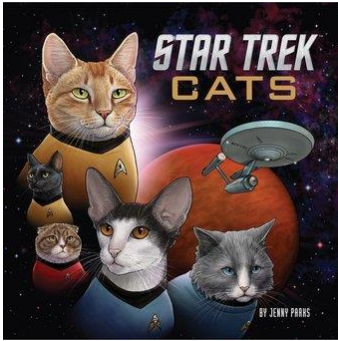
Rangers -- Discussed (briefly) RPGs going on in my wheelhouse. In my personal RPGing, trying out Pathfinder -- and it's going great! Also, looking at FATE system... interesting

Marines -- Second Intelligence Gathering mission ongoing, but there's been no participation yet.

Other discussion occurred, regarding movies (including *12 Strong* and *Black Panther* and some current 2nd Amendment issues going on in the US.

The Meeting was adjourned, after verifying that we are scheduled for meeting on 24 Mar, at our regular time and place.

Respectfully,
Commodore Tank Clark
Captain, USS *Sea Tiger* NCC-2009



XO REPORT/Communications Report

Well, we're into through the second month of this year and I'm still behind. I was hoping by now to have a few more things done around the house and start working on some projects. Oh, well, the faster I go the behinder I get. For those of you who haven't been at our meetings (for whatever reason) you are missing out on some great conversations. A reminder of our Summit that will be held this year in our neck of the woods. It's being held in Irving and it will be the end of June when we normally have our monthly meetings. Just go to Region 3 website and look for Summit 2018. These are always interesting and fun events to go to. Hope to see more of you next month.

Respectfully,
R. Admiral Liz Goulet
First Officer, USS *Sea Tiger*, NCC-2009

Articles for next month need to be in by April 6,

SCIENCE DIVISION (BLUE)

Ship's Services

Report on Human Senses part one: Hearing

For persons hearing loss or deafness, hearing aids or cochlear implant devices can restore hearing to a limited degree of normalcy. One with perfect hearing should never use one of these devices to "improve" ones hearing. Essentially a hearing aid turns up the volume by over and around 30 decibels; amplifying sound to a degree that it could damage your ears. For example a running vacuum cleaner typically measures 70 – 80 decibels (the hearing damage danger zone is 90 – 100 decibels); thus a person with normal hearing wearing a hearing aid boosts the sound of the vacuum cleaner to 110 – 120 decibels. These levels can irrevocably damage hearing by bending, shearing, or breaking the minute hair cells in a persons ear that conduct nerve impulses from the ear to the brain.

While researchers are actively seeking ways to limit or reverse this sort of damage, the proven way to avoid hearing loss is to protect yourself from extended exposure to excessively loud noises. Protective headsets should be worn during limited exposures. The recommended measure to protect your ears is to wear foam earplug inserts. Worn correctly, the plugs should be flush with the opening of the ear canal. Protective gear shouldn't block all sounds; but allow you to clearly discern the outward noises.

Commander Tracy "Gleek" Clark, SFMD
Blue Division Leader & Chief Medical Officer,
USS *Sea Tiger*, NCC-2009



Birthdays for next month:

March Birthdays

Movies Upcoming

- A Wrinkle in Time Mar 9
- Tomb Raider Mar 16
- Pacific Uprising Mar 23
- Avengers Infinity May 4
- Incredibles 2 Jun 15
- Jurassic Park: Incredible Kingdom Jun 27
- Mission Impossible VI Jul 27
- Nutcracker and the Four Realms Nov 2
- Fantastic Beasts the Curse of Grindelwald Nov 16

**ENGINEERING DIVISION (RED)
ENGINEERING**

Red Division

Nothing to report at this time. All engines are doing fine and red division is humming along.
Byron Flynt, Brig. General

BOSUN (Chief in Charge)

Things have been slow this year for the ship. We have only two families participating so far. It's not too late to get involved in the flip top challenge for the ship. Please bring your fliptops to the next ship's meeting. Get your friends and family to help collect them.

Special Note: Please put your name and what group you want your flip tops to be counted for on your bag with the tops. If you **do not** put your name on it, you won't get credit- I will.

Alan Goulet, MCPO

333rd

Military Intelligence Group:

Intelligence Center
Greetings, Marines!



Operation: Icon Quest 2018!

Timeframe: Mission starts 0001hrs
 01JAN2018 (Stardate 11801.01/0001)
 Mission ends 2359hrs
 31MAR2018 (Stardate 11803.31/2359)

Mission Overview:

Using a digital camera (like the one on most cell phones), capture an image of as many different **"Icons"** that you can, and send them to usseatiger@gmail.com. You may email them one at a time, or in a big bunch. (I'd prefer you *not* wait until the end of the mission to send in the data.)

For this mission, we define **"Icon"** as a *statue of a business' or organization's mascot* – for example, those Ronald McDonald statues (like the one of him sitting on a bench with his arm out, so people can sit with Ronald), or the Buc-ee's Beaver that's in front of their stores. High schools and colleges also often have statues of their mascots out in public. (Standees count, but only if they are approximately life sized and in a public place! See below for examples.)

A participant must be next to the Icon, preferably in uniform. Yes, this means you should work as a team – or have the ability to talk someone into taking your photo.

Points:

- Points will be awarded as follows:
- o One point per unique photo. (a "unique photo" is defined as a photo with a target – an Icon – not otherwise submitted by the person in the photo. See example below.)
 - o Two points per Star Trek uniform worn by someone in the photo. (Group shots are worth more points!)
 - o One point for having a sign that includes the text "333rd Military Intelligence Group", "We Know Better," and "Operation: Icon Quest 2018." I'll post a PDF of a sign you can use on the Marines page of our website -- click [here](#). Feel free to make your own sign – be creative!
 - o One point per person visibly wearing a "comm-badge" in the picture, unless that person is wearing it as part of a uniform. This would include pins like those worn in TNG, VOY, DS9, and Discovery, patches as worn in the Original Series, or pins as in Wrath of Khan and other Trek movies, or special badges like from "Future Imperfect" (TNG episode) or "Future's End" (VOY episode). Embroidered or silk-screened comm-badges count for this

purpose.

o Additional points for extra awesomeness, as judged solely by the proctor for this operation. This is somewhere from zero points (for just meeting the criteria set forth), to up to three bonus points (for William Shatner kissing your forehead in the picture). Things that might earn extra awesomeness points include:

§ having a famous person join you in the picture (If you run into Burt Ward at McDonalds, for example)

§ Funny poses that amuse the proctor

§ Funny or interesting additions to the sign

Prize

Prize is to be determined.

Examples

o Five members in uniform stand next to a Colonel Sanders standee at a KFC. This picture counts as 11 points (12 if they have the sign displayed, see above), and EACH person in the photo can submit it.

o Three members wearing t-shirts with comm-badges attached stand next to a Spock standee at a comic-book store, and they have the sign. No points, as Spock is not a business' mascot

o One member, in uniform, hugging the Buc-ee Beaver statue in front of the Buc-ees at TX-114 and I-35W, without a sign. Two points.

This month, we continue our look at what STARFLEET Marine Intelligence calls "Signals Intelligence" or SIGINT.

Our Table of Organization for the 333rd Military Intelligence Group has SIGINT (and ELINT, and Cryptographic analysis) assigned to 1st Platoon.

This brief is UNCLASSIFIED, from an open source. (Wikipedia -- https://en.wikipedia.org/wiki/Signals_intelligence)

Definitions:

The United States Department of Defense has defined the term "signals intelligence" as:

- A category of intelligence comprising either individually or in combination all communications intelligence (COMINT), electronic intelligence (ELINT), and foreign instrumentation signals intelligence, however transmitted.
- Intelligence derived from communications, electronic, and foreign instrumentation signals.

Being a broad field, SIGINT has many sub-disciplines. The two main ones are communications intelligence (COMINT) and electronic intelligence (ELINT).

Targeting:

A collection system has to know to look for a particular signal. "System", in this context, has several nuances. Targeting is an output of the process of developing *collection requirements*:

- An intelligence need considered in the allocation of intelligence resources. Within the Department of Defense, these collection requirements fulfill the essential elements of information and other intelligence needs of a commander, or an agency.
- An established intelligence need, validated against the appropriate allocation of intelligence resources (as a requirement) to fulfill the essential elements of information and other intelligence needs of an intelligence consumer."

Need for multiple, coordinated receivers:

First, atmospheric conditions, sunspots, the target's transmission schedule and antenna characteristics, and other factors create uncertainty that a given signal intercept sensor will be able to "hear" the signal of interest, even with a geographically fixed target and an opponent making no attempt to evade interception. Basic countermeasures against interception include frequent changing of radio frequency, polarization, and other transmission characteristics. An intercept aircraft could not get off the ground if it had to carry antennas and receivers for every possible frequency and signal type to deal with such countermeasures.

Second, locating the transmitter's position is usually part of SIGINT. Triangulation and more sophisticated radio location techniques, such as time of arrival methods, require multiple receiving points at different locations. These receivers send location-relevant information to a central point, or perhaps to a distributed system in which all participate, such that the information can be correlated, and a location computed.

Intercept management:

Modern SIGINT systems, therefore, have substantial communications among intercept platforms. Even if some platforms are clandestine, there is still a broadcast of information telling them where and how to look for signals. A United States targeting system under development in the late 1990s, PSTS, constantly sends out information that helps the interceptors properly aim their antennas and tune their receivers. Larger intercept aircraft, such as the EP-3 or RC-135, have the on-board capability to do some target analysis and planning, but others, such as the RC-12 GUARDRAIL, are completely under ground direction. GUARDRAIL aircraft are fairly small, and usually work in units of three to cover a tactical SIGINT requirement, where the larger aircraft tend to be assigned strategic/national missions.

Before the detailed process of targeting begins, someone has to decide there is a value in collecting information about something. While it would be possible to direct signals intelligence collection at a major sports event, the systems would capture a great deal of noise, news signals, and perhaps announcements in the stadium. If, however, an anti-terrorist organization believed that a small group would be trying to coordinate their efforts, using short-range unlicensed radios, at the event, SIGINT targeting of radios of that type would be reasonable. Targeting would not know where in the stadium the radios might be located, or the exact frequency they are using; those are the

functions of subsequent steps such as signal detection and direction finding.

Once the decision to target is made, the various interception points need to cooperate, since resources are limited. Knowing what interception equipment to use becomes easier when a target country buys its radars and radios from known manufacturers or is given them as military aid. National intelligence services keep libraries of devices manufactured by their own country and others, and then use a variety of techniques to learn what equipment is acquired by a given country. Knowledge of physics and electronic engineering further narrows the problem of what types of equipment might be in use. An intelligence aircraft flying well outside the borders of another country will listen for long-range search radars, not short-range fire control radars that would be used by a mobile air defense. Soldiers scouting the front lines of another army know that the other side will be using radios that must be portable and not have huge antennas.

Signal detection:

Even if a signal is human communications (e.g., a radio), the intelligence collection specialists have to know it exists. If the targeting function described above learns that a country has a radar that operates in a certain frequency range, the first step is to use a sensitive receiver, with one or more antennas that listen in every direction, to find an area where such a radar is operating. Once the radar is known to be in the area, the next step is to find its location.

If operators know the probable frequencies of transmissions of interest, they may use a set of receivers, preset to the frequencies of interest. These are the frequency (horizontal axis) versus power (vertical axis) produced at the transmitter, before any filtering of signals that do not add to the information being transmitted. Received energy on a particular frequency may start a recorder and alert a human to listen to the signals if they are intelligible (i.e., COMINT). If the frequency is not known, the operators may look for power on primary or

sideband frequencies using a spectrum analyzer. Information from the spectrum analyzer is then used to tune receivers to signals of interest. Real-world transmitters and receivers usually are directional.

Spread-spectrum communications is an electronic counter-countermeasures (ECCM) technique to defeat looking for particular frequencies. Spectrum analysis can be used in a different ECCM way to identify frequencies not being jammed or not in use.

Direction finding:

The earliest, and still common, means of direction finding is to use directional antennas as goniometers, so that a line can be drawn from the receiver through the position of the signal of interest. Knowing the compass bearing, from a single point, to the transmitter does not locate it. Where the bearings from multiple points, using goniometry, are plotted on a map, the transmitter will be located at the point where the bearings intersect. This is the simplest case; a target may try to confuse listeners by having multiple transmitters, giving the same signal from different locations, switching on and off in a pattern known to their user but apparently random to the listener.

Individual directional antennas have to be manually or automatically turned to find the signal direction, which may be too slow when the signal is of short duration. One alternative is the Wullenweber array technique. In this method, several concentric rings of antenna elements simultaneously receive the signal, so that the best bearing will ideally be clearly on a single antenna or a small set. Wullenweber arrays for high-frequency signals are enormous, referred to as "elephant cages" by their users.

An alternative to tunable directional antennas, or large omnidirectional arrays such as the Wullenweber, is to measure the time of arrival of the signal at multiple points, using GPS or a similar method to have precise time synchronization. Receivers can be on ground stations, ships, aircraft, or satellites, giving great flexibility.

Modern anti-radiation missiles can home in on and attack transmitters; military antennas are rarely a safe distance from the user of the transmitter.

Traffic analysis

When locations are known, usage patterns may emerge, from which inferences may be drawn. Traffic analysis is the discipline of drawing patterns from information flow among a set of senders and receivers, whether those senders and receivers are designated by location determined through direction finding, by addressee and sender identifications in the message, or even MASINT techniques for "fingerprinting" transmitters or operators. Message content, other than the sender and receiver, is not necessary to do traffic analysis, although more information can be helpful.

For example, if a certain type of radio is known to be used only by tank units, even if the position is not precisely determined by direction finding, it may be assumed that a tank unit is in the general area of the signal. The owner of the transmitter can assume someone is listening, so might set up tank radios in an area where he wants the other side to believe he has actual tanks. As part of Operation Quicksilver, part of the deception plan for the invasion of Europe at the Battle of Normandy, radio transmissions simulated the headquarters and subordinate units of the fictitious First United States Army Group (FUSAG), commanded by George S. Patton, to make the German defense think that the main invasion was to come at another location. In like manner, fake radio transmissions from Japanese aircraft carriers, before the Battle of Pearl Harbor, were made from Japanese local waters, while the attacking ships moved under strict radio silence.

Traffic analysis need not focus on human communications. For example, if the sequence of a radar signal, followed by an exchange of targeting data and a confirmation, followed by observation of artillery fire, this may identify an automated counterbattery system. A radio signal that triggers navigational beacons could

be a landing aid system for an airstrip or helicopter pad that is intended to be low-profile.

Patterns do emerge. Knowing a radio signal, with certain characteristics, originating from a fixed headquarters may be strongly suggestive that a particular unit will soon move out of its regular base. The contents of the message need not be known to infer the movement.

There is an art as well as science of traffic analysis. Expert analysts develop a sense for what is real and what is deceptive. Harry Kidder, for example, was one of the star cryptanalysts of World War II, a star hidden behind the secret curtain of SIGINT.

Electronic Order-of-Battle:

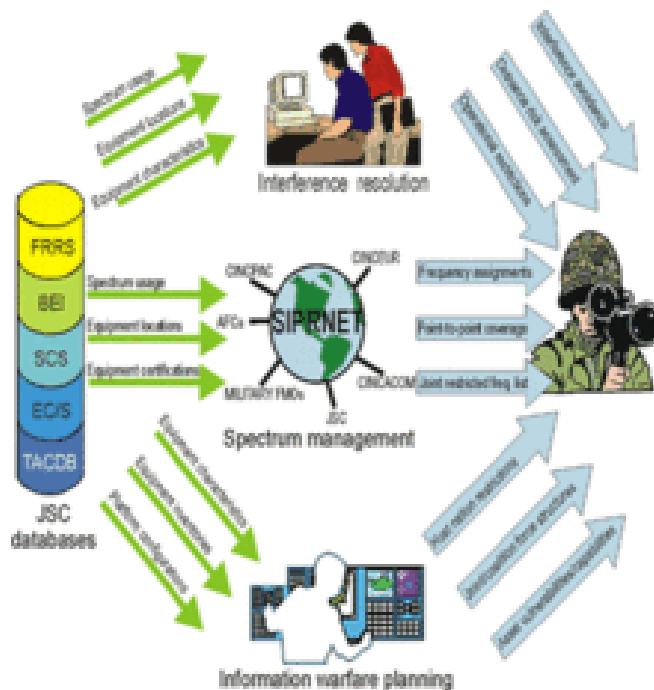
Generating an **electronic order of battle** (EOB) requires identifying SIGINT emitters in an area of interest, determining their geographic location or range of mobility, characterizing their signals, and, where possible, determining their role in the broader organizational order of battle. EOB covers both COMINT and ELINT. The Defense Intelligence Agency maintains an EOB by location. The Joint Spectrum Center (JSC) of the Defense Information Systems Agency supplements this location database with five more technical databases:

- FRRS: Frequency Resource Record System
- BEI: Background Environment Information
- SCS: Spectrum Certification System
- EC/S: Equipment Characteristics/Space
- TACDB: platform lists, sorted by nomenclature, which contain links to the C-E equipment complement of each platform, with links to the parametric data for each piece of equipment, military unit lists and their subordinate units with equipment used by each unit.

For example, several voice transmitters might be identified as the command net (i.e., top commander and direct reports) in a tank battalion or tank-heavy task force. Another set of transmitters might identify the logistic net for that same unit. An inventory of ELINT sources

might identify the medium- and long-range counter-artillery radars in a given area.

Signals intelligence units will identify changes in the EOB, which might indicate enemy unit movement, changes in command relationships, and increases or decreases in capability.



Using the COMINT gathering method enables the intelligence officer to produce an electronic order of battle by traffic analysis and content analysis among several enemy units. For example, if the following messages were intercepted:

- U1 to U2, requesting permission to proceed to checkpoint X.
- U2 to U1, approved. please report at arrival.
- (20 minutes later) U1 to U2, all vehicles have arrived to checkpoint X.

This sequence shows that there are two units in the battlefield, unit 1 is mobile, while unit 2 is in a higher hierarchical level, perhaps a command post. One can also understand that unit 1 moved from one point to another which are 20 minutes apart with a vehicle. If these are regular reports over a period of time, they might reveal a patrol pattern. Direction-finding and radiofrequency MASINT could help confirm that the traffic is not deception.

The EOB buildup process is divided as following:

- Signal separation
- Measurements optimization
- Data Fusion
- Networks build-up

Separation of the intercepted spectrum and the signals intercepted from each sensor must take place in an extremely small period of time, in order to separate the deferent signals to different transmitters in the battlefield. The complexity of the separation process depends on the complexity of the transmission methods (e.g., hopping or time division multiple access (TDMA)).

By gathering and clustering data from each sensor, the measurements of the direction of signals can be optimized and get much more accurate than the basic measurements of a standard direction finding sensor. By calculating larger samples of the sensor's output data in near real-time, together with historical information of signals, better results are achieved.

Data fusion correlates data samples from different frequencies from the same sensor, "same" being confirmed by direction finding or radiofrequency MASINT. If an emitter is mobile, direction finding, other than discovering a repetitive pattern of movement, is of limited value in determining if a sensor is unique. MASINT then becomes more informative, as individual transmitters and antennas may have unique side lobes, unintentional radiation, pulse timing, etc.

Network build-up, or analysis of emitters (communication transmitters) in a target region over a sufficient period of time, enables creation of the communications flows of a battlefield.

More next month!

Any questions, or if you just want to chat about stuff, feel free to email me (greenlantern.pirate@gmail.com), call me

(940.255.9445), text me, or find me on Facebook, or whatever.

Thank you all, and Carry on!

Brigadier General Tank Clark, SFMC, SFMD (BFHD, LMAO)
Officer-in-Charge, 333rd Military Intelligence Group, "The Yellowjackets"
"We Know Better"
Greenlantern.pirate@gmail.com

33rd STARFLEET Rangers: Have Phaser, Will Travel!



Here's my monthly nagging: Take courses, have fun, earn ribbons and certifications. (It really is pretty fun.)

Now, on with the game stuff...

Currently available on DriveThruRPG.COM is the *Princess Bride RPG: Quick Start Rules*¹. This game uses the FATE system as a base, and the Princess Bride movie as source material.²

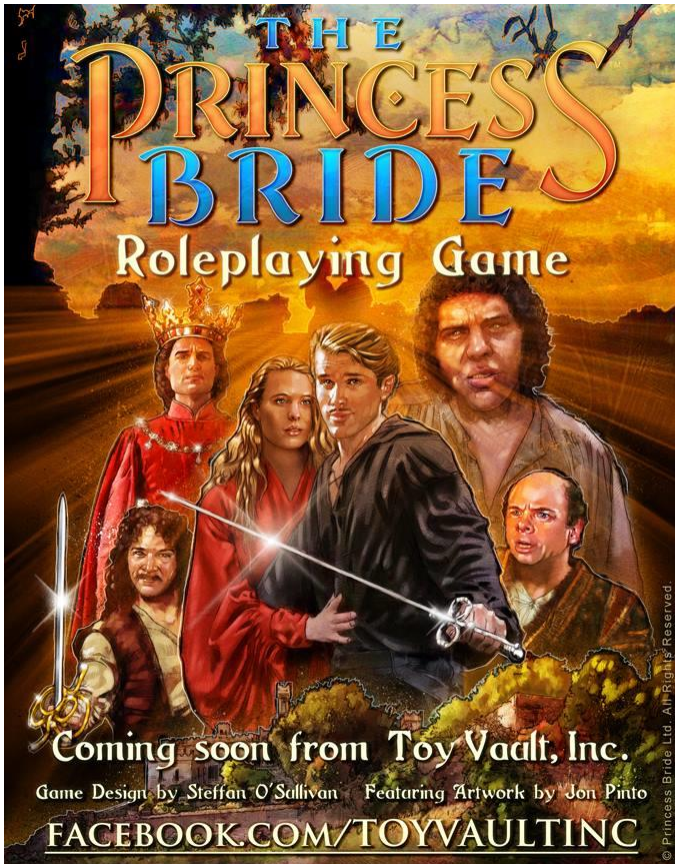
It comes with a brief explanation of the system, five pre-generated characters, and an adventure. The point of these Quick Start rules is to give players and gamemasters a taste of the system and game play.

The system in the PBRPG, as I mentioned, is based on FATE. FATE is an open-sourced

¹ Henceforth called the PBRPG

² Not so much the book. The book is somewhat different from the movie, but the basic story is the same. The Grandpa/sick grandson framework is not in the book; the book has a very different framework. Either way, if you haven't seen the movie or read the book, you should both read it and see it. In either order.

generic RPG, published by Evil Hat Productions. It's a very story heavy RPG, and light on the dice rolling. Speaking of which, FATE uses unique dice, which may also be called FUDGE dice.³ A set consists of four six-sided dice. Each die has two "plus" symbols (+), two "minus" symbols (-), and two blank sides. Rolled together, the dice generate a number between -4 and +4. This number is added to the skill involved (and if the skill isn't specified on that character's sheet, it's at "Mediocre (+0)").



In the FATE Core system, there's many different ways to modify the roll, and the degree of success or failure is also important to ascertain. The story is very cooperative, and your character's aspects are called upon in various ways by you (the player), by the gamemaster ("GM"), and by other characters.

The PBRPG simplifies much of this. Combat is also simplified from FATE Core: each weapon

is its own skill⁴, and each weapon has its own damage rating. Damage is different from FATE Core:⁵ three standard six-sided dice are rolled. The highest die is the "Max" die, the lowest die is the "Min" die, and the other one is the "Mid" die. If your weapon does "Max" damage, you'll take the result of the highest die rolled, and apply it to the damage track on the bottom of your character sheet. Note that the Min, Mid, and Max die rolls may be all the same number. If you rolled three "1"s, then your Max roll is a 1; if you rolled two "6"s and a "5", your "Mid" damage is 6.

There are five pre-generated characters included, all based on character tropes from the movie: there's a Brute, a Pirate, an Agent (think Count Roogan), a Swordsman, and a Wandering Farmhand. The adventure that was included looks like a lot of fun, too, with lots of opportunities for role-play. When the full game becomes available, I'm liable to want to pick it up.

The underlying system fascinated me, and so I already picked up a hardback copy of FATE Core. It's taken me about 10 days to read it, and it looks like fun, too. I just don't know when I'll get a chance to play it – let alone GM a game of it.

"Inconceivable!" Roll some dice!

Sum non Satis?

Commodore Tank Clark, SFMD
Team Leader, 33rd STARFLEET Rangers ("The Paladins")

"Have Phaser, Will Travel"

⁴ Instead of using the skill "Fight" for melee or hand-to-hand combat, and "Shoot" for ranged combat

⁵ In FATE Core, the number of shifts – the degree of success, essentially -- indicate how much the attack affects the character.

³ FUDGE was a RPG system from which FATE developed.



Meetings for the *USS Sea Tiger* are held every month
at 1500hrs at Shady Oaks BBQ at Sand Shell &
Hwy 35. Usually on the fourth Saturday of every month.
For information contact CO Commodore Tank Clark

at

seatiger@region3.org

or visit our web site

<http://ussseatiger.weebly.com/>

Monthly Roar! Newsletter is a monthly publication produced to inform members of upcoming events with the ship, with the region, and with the fleet. As well as things of interest everyone might like to know about. Information in this publication is obtained through emails and internet sites. The *USS Sea Tiger* is a non-profit organization affiliated with STARFLEET. Although we are Star Trek based, this club does enjoy and encourage anything that is SciFi related such as Battlestar Galatica, Stargate, Star Wars, X-Men, Superman, etc. This is an 'on line' publication for all those who have email. If requested a printed copy can be sent to you at your home address.