



## OFFICE OF THE SOLAR UNION NAVY

### OFFICER CANDIDATE TRAINING EXERCISES: PHASE 1

Pursuant to order 334b by the Secretary of the Navy, the following exercises are mandated as part of Naval Officer training for candidates to the Solar Union Navy. These exercises are performed during the regiment of simulator training at SUN Academies and SUN OTS (Officer Training Schools) around the globe. Candidates are tested for their ability to command, perform technical skills in their field of expertise, and on how they react to the simulated situations. While candidates must perform at a minimal level to pass, the final scores are not considered when determining final assignments, promotions, or career paths. These simulations are primarily for the education of the candidate, as preparation of the candidate for what he might expect to encounter in his career, and as a form of critical self-analysis by the candidates of their personal abilities.

#### Attention: Training Officer

When training an officer candidate, it is best if that candidate is not allowed more information about the simulation than is given on the Warning Order for the exercise. Of most importance is that the officer is not allowed to know the capabilities of enemy combatants. Since the threat of alien contact and war is considered inevitable, officers are expected to have no idea the true capabilities of their enemies and be capable of both anticipating that it will happen and be capable of adapting to the situation when unknowns are discovered. These exercises are designed to train out any surprise on the candidate's part when this does happen.

Simulation data sheet review as follows. SUN starships are based on current and past designs. Beginning simulations are intentionally designed to use older, simpler weapons and designs and progress in complexity as training continues.

### SUN SHIP DATA

#### Freedom-class ES 12 HS

[2] A A Hs Mgs (Ia) Ga Qa (Ia) Ga [6]

Crew: 10 msp: 24

Loadout: 12 Ga

#### Freedom-class ES (mod 1) 12 HS

[2] S A Hs Mgs (Ia) Ga Qa (Ia) Ga [6]

Crew: 11 msp: 24

Loadout: 12 Ga

#### Freedom-class ES (mod 2) 12 HS

[2] SS AA H (Ia) Qa (Ia) La [6]

Crew: 10

#### Lake Superior-class FG 22 HS

[2] S A Hs Qa (Ia) Ga Ga (Ia) La Qa (Ia) La [5]

Crew: 19 msp: 0

**Robert Lightman-class DD 30 HS**

[3-] SSSS AAAA Hs Qa (Bsa) Mgs (Ia) Ra (Ia) (Ia) (Ia) Ra Ya Qa (Ia) Ra [5]

Crew: 30 msp: 24

Loadout: 24 Ra

**Aegean Sea-class DD 30 HS**

[3-] SSS AAA Hs Qa (Ia) Mgs Ra (Ia) (Ia) (Ia) Ra Ra Qa (Ia) Ra [5]

Crew: 30 msp: 24

Loadout: 24 Ra

**Flash-class BS2 50 HS**

[0] Sx6 Ax6 H (Bsa) Qa Qa Qa (La x7) Qa La [0]

Crew: 50

**Hail-class BS2 50 HS**

[0] Sx5 Ax5 H (Bsa) Qa Qa Qa Mg (Ra x7) Ya Qa Ra [0]

Crew: 50 msp: 60

Loadout: 60 Ra

**Terra-class FR4 30 HS**

[2] (Qv x10) Hb (Qv x9) H (Ica) (Ica) (Ica) Qa (Ica) [4]

Crew: 30

---

**ALIEN SHIP DATA**

---

**Xray-class EX 7 HS**

[2] S A H (Ic) Xa Qa [4]

Crew: 7

**Alpha-class EX 7 HS**

[2-] Hs Qa (ia Ia) La [6]

Crew: 7

**Bravo-class ES 12 HS**

[2] S A H (Ia) Qa Ea (Ia) [6]

Crew: 11

**Charlie-class DD 30 HS**

[3-] SS AA Hs Ea (Ia) (Ia) Qa Ra Mgs (Ia) Ra (Ia) Qa (Ia) Ra [5]

Crew: 30 msp: 24

Loadout: 24 Ra

**Delta-class BS1 30 HS**

[0] Sx4 Ax5 Hs Qa Ra Ra Mgs Ea Qa Ra [0]

Crew: 30 msp: 24

Loadout: 24 Ra

**Echo-class BS1 30 HS**

[0] Sx4 Ax5 H Qa Ea Ea Qa Ea [0]

Crew: 30

**Lima-class FR1 12 HS**

[2] H Hb Qv Qv Qv Hb Qv Qv Qa (ica Ica) [4]

Crew: 12

## TRAINING MISSION 1: SUDDEN DEFENSE

---

WARNING ORDER: Captain, SUN Freedom

An unknown contact has been detected approaching our colony on Titan. Your ship is currently patrolling among Saturn's moons and is the only available unit that is close enough to intercept that contact. A lack of communications and highly eccentric inbound trajectory indicates that this may be an alien contact. Immediately proceed to Titan and assess the situation, respond, and prevent the unknowns from closing with the colony.

Alien Force Composition

1x XRay-class EX

1x Alpha-class EX

Solar Union Force Composition

SUN Freedom, Freedom-class ES

Titan Colony

SETUP

1. Uses the standard 4-piece map.
2. Saturn is in the center hex. Moons are as follows:
  - i. Ring – 1 tH
  - ii. Ring – 2 tH
  - iii. Ring – 3 tH
  - iv. Moon – 4 tH, Bearing 5
  - v. Moon – 6 tH, Bearing 6
  - vi. Moon – 16 tH, Bearing 3
3. Titan is the third moon of the Saturn system.

SPECIAL RULES

1. SUNS. Freedom must start within 1 tH of the Titan Colony
2. Titan Colony has the equivalent of Ya sensors

3. Alien forces will setup beyond the 30 tH line, at least 30 tH from Titan
4. Leaving the map area is considered "leaving" the scenario
5. If the alien Alpha-class EX is destroyed first, the XRay-class EX will always attempt to flee unless it less than 6 tH away from making a pass at the planet.

#### VICTORY CONDITIONS

[Total Alien Victory] – XRay-class EX must pass within 10 tH of the planet and leave the map with the X system undamaged.

[Draw] – Alien does not make pass but neither alien ship is destroyed.

[Total Solar Union Victory] – Alien does not make pass and one or both alien ships are destroyed.

#### POST-SIMULATION ANALYSIS

It is expected that our first contact with an alien species will be sudden and not to our advantage. However, unless we happen to meet an aggressive alien race a first contact situation should not be hostile – at least not initially. However, we need to prepare the candidate for that possibility. This simulation was created prior to the discovery of warp points. The initial scenario assumed that the aliens arrived via an FTL drive, but since we already know that warp points are not easy to discover we left this scenario "as is" since an alien race can come through an undiscovered warp point and find us when and where we are not expecting contact.

This is a standard defense mission with a tactical intelligence twist. The candidate does not know which ship is the survey ship and which ships are armed. Since the ships are small there is a tendency in candidates to focus on the apparently unarmed ship, which gives the armed ship a chance to severely damage the candidate's ship. Focusing on the armed ship may give the alien's survey ship a chance to dash by and take some readings on the Titan Colony. Depending on circumstances this mission can have different tactics and results – a candidate in this simulation facing different alien tactics will have to employ different tactics of his own or face losing.

### **TRAINING MISSION 2: IN THE OPEN**

---

WARNING ORDER: Captain, SUN Robert Lightman

Alien contacts have been detected cutting across the orbit of Jupiter towards Mars. Your task force is scheduled to leave Mars orbit towards Jupiter and may have a chance to intercept and engage the alien force if they do not change course. Immediately break orbit and proceed on an intercept course to engage and destroy the alien force.

<u>Alien Force Composition</u>
1x Charlie-class DD
3x Bravo-class ES
<u>Solar Union Force Composition</u>
SUN Robert Lightman, Robert Lightman-class DD
SUN Lake Ontario, Lake Superior-class FG

SETUP

1. Uses the standard 4-piece map

SPECIAL RULES

1. Alien force starts beyond the 30 tH line on facing 1.
2. SUN force starts beyond the 30 tH line on facing 4.

VICTORY CONDITIONS

[Alien Victory] – All SUN units are destroyed.

[Draw] – Both sides have at least one ship remaining.

[Solar Union Victory] – All alien units are destroyed.

POST-SIMULATION ANALYSIS

It is likely that many battles will take place in the unending open depths of space between the planets. To this end, this battle again assumes that we do not know where the aliens are coming into the system and that they are moving a small battle force to engage our colonies. The candidate quickly finds out that deep space battles end up as moving engagements where the ranges of the combatants are rarely fixed.

The trick is to keep the range open long enough to destroy the smaller SRW escorts. Most candidates will close with the SUN Lake Ontario to try and increase their damage output, but this simulation provides an additional surprise – the aliens are assumed to be using an unknown form of particle beam that out performs our own sprint missiles and lasers. It is at this point we can determine how solid an officer candidate performs, as the poor performers often panic and get the Lake Ontario destroyed.

## TRAINING MISSION #3: TITAN RETURNED

---

WARNING ORDER: Captain, SUN Robert Lightman

The aliens are expected to make another push for the Titan colony. Our detection of the alien fleets as the move inward from the outer system have enabled us to intercept them in deep space. Analysis indicates that Titan and the Jovian colonies are between the alien entry point and our inner system holdings. Some defenses have been erected in orbit of the colony, but we need you to hold your position until more reinforcements can arrive.

Alien Force Composition

3x Charlie-class DD  
2x Lima-class FT1

Solar Union Force Composition

1x Hail-class BS2  
SUN Robert Lightman, Robert Lightman-class DD

SETUP

1. Uses the standard 4-piece map.
2. Saturn is in the center hex. Moons are as follows:
  - i. Ring – 1 tH
  - ii. Ring – 2 tH
  - iii. Ring – 3 tH
  - iv. Moon – 4 tH, Bearing 5
  - v. Moon – 6 tH, Bearing 6
  - vi. Moon – 16 tH, Bearing 3
3. Titan is the third moon of the Saturn system.

#### SPECIAL RULES

1. Alien forces must start beyond the 30 tH line, at least 30 tH away from Titan.
2. SUN Forces must start within 1 tH of Tian.
3. Titan has the equivalent of Ya sensors.

#### VICTORY CONDITIONS

[Total Alien Victory] – All SUN units destroyed and at least six undamaged Qv systems remain on the freighters.

[Marginal Alien Victory] – All SUN units destroyed but no undamaged Qv systems remain on the freighters.

[Marginal Solar Union Victory] – All alien warships destroyed but freighters escape.

[Total Solar Union Victory] – All alien units are destroyed.

#### POST-SIMULATION ANALYSIS

This simulation was the last major scenario that assumes we don't know where the aliens are entering our system. If we allow aliens unfettered entry into our star systems we must presume that at some point they will attempt to capture or destroy our colonies. In this scenario the aliens are attempting to bring freighters full of troops to attempt a capture of our Titan Colony.

Candidates must now learn how to integrate their fleet tactics with fixed defenses. In this scenario the aliens outnumber the candidate's mobile defenses by 3-to-1. However, if the candidate realizes that the aliens MUST come into the base's range to accomplish their mission, he will also realize that his base and ship combined are at least an equal match to the alien destroyers. Keeping the SUN Robert Lightman alive through the battle is essential – if the alien DDs are destroyed the alien freighters will run – and without his only mobile unit he will be unable to catch them and turn the battle into a total victory.

HISTORICAL NOTE: The SUN Robert Lightman is named after Chief Petty Officer Robert Lightman. In the 2030 sneak attack by the Mars Republic on the Earth Station Chain, Chief Lightman commandeered a shuttle and evacuated several large sections of the station chain that still had enough atmospheric integrity to keep crew and passengers alive despite their failing orbits. Chief

Lightman – despite the great personal risk of maneuvering through debris-strewn orbit – was able to dock and evacuate over 400 naval crew and civilians before his mission was ended by a piece of debris striking and destroying the shuttle while he attempted to dock with another damaged section of the station chain. Chief Lightman’s award was posthumously upgraded to the Star of the Solar Union when that award was ratified in 2038. In keeping with the finest naval tradition, Chief Lightman’s name was selected as the first-in-class for the Lightman-class destroyer while living memory of his courage and honor still lived.

## TRAINING MISSION #4: CHOKE POINT

---

**WARNING ORDER:** Captain, SUN Lake Superior

We have discovered the warp point that the aliens have been using to enter the system. We have managed to assemble one base to defend it, and we are currently sending a mobile shipyard to build more. You and your sister ship the SUN. Lake Ontario are ordered to break from Titan orbit and assist in the defense of the warp point. Upon arrival maintain an alert status.

### Alien Force Composition

2x Charlie-class DD  
4x Bravo-class ES

### Solar Union Force Composition

1x Flash-class BS2  
SUN Lake Superior, Lake Superior-class FG  
SUN Lake Ontario, Lake Superior-class FG

### SETUP

1. Uses the standard 4-piece map
2. WP is in the center hex

### SPECIAL RULES

1. WP is considered Type-B (30 HS capacity).
2. Aliens have surge data on the WP and can choose their heading.
3. Aliens cannot use simultaneous transit. Aliens must choose the order that their ships enter the WP, and what headings they exit.
4. SUN forces setup their defenses in any manner they want as long as their units are within 30 tH of the WP.
5. All units are fully active at the beginning of the battle. (This battle is designed to teach the candidate WP mechanics, not the Surprise rules)

### VICTORY CONDITIONS

[Total Alien Victory] – destroy all SUN units defending the warp point.  
[Draw] – at least one alien unit retreats back through the warp point.

[Total Solar Union Victory] - destroy all alien units attacking through the warp point.

#### POST-SIMULATION ANALYSIS

This simulation was designed for one purpose – to illustrate to the candidate how restrictive warp point combats can become. The candidate knows where the aliens will be entering the star system, but he cannot know what forces will be entering or in what order they will enter. The candidate’s placement of his units will determine how quickly and easily he will be able to engage the aliens after they enter, and whether or not he will be able to quickly subdue and destroy the alien ships after they attempt to move past his defensive positions.

To this end we’ve decided that both combatants will be at GQ (General Quarters) at the start of this battle. Despite the best possible odds, we want the candidate to realize that a warp point defense requires fore-thought despite how easy the battle appears beforehand. A good candidate will look beyond simply getting in close to maximize his damage output on the first turn of battle. He will realize that despite being at GQ – he will be reacting to his enemy’s attack for at least the first one or two turns of battle – and if he allows the alien DDs to get beyond his combat range they will destroy his units and he won’t be able to stop them.

### **TRAINING MISSION #5: SURGE**

---

**WARNING ORDER:** Captain, SUN Robert Lightman

The WP has been secured with bases and you are to organize all of the ships into a task force and attack into the alien system in the next 48 hours. Your objective is to secure the far side of the warp point so we can recon the enemy star system.

#### Alien Force Composition

2x Echo-class BS1  
2x Charlie-class DD  
5x Bravo-class ES

#### Solar Union Force Composition

SUN Robert Lightman, Robert Lightman-class DD  
SUN Piter Alenkov, Robert Lightman-class DD  
SUN Lake Superior, Lake Superior-class FG  
SUN Lake Michigan, Lake Superior-class FG  
SUN Lake Ontario, Lake Superior-class FG

#### SETUP

1. Uses the standard 4-piece map
2. WP is in the center hex

#### SPECIAL RULES

1. WP is considered Type-B (30 HS capacity).
2. SUN forces do NOT have surge data and must roll facing upon exiting the WP. [C4.01]

3. SUN forces cannot use simultaneous transit.
4. Alien forces setup their defenses in any manner they want as long as their units are within 30 TH of the WP.
5. Enough time has passed since the last WP battle that the aliens are no longer at GQ. This scenario uses the Surprise rules [F2] and the aliens may choose up to 3 units to have on GQ assignment [F2.04] when the battle begins.

#### VICTORY CONDITIONS

[Total Alien Victory] – All SUN forces are destroyed.

[Total Solar Union Victory] – All alien units have been destroyed or left the map.

#### POST-SIMULATION ANALYSIS

The candidate faces his alien opposition as the attacker in this warp point scenario. Now he has the advantage of surprise and must figure out a way to neutralize the alien forces before they can go to full alert and stop him. Now he faces the disadvantages of transit disorientation and singular point of entry into the heart of the alien defenses.

A good candidate will move his missile-armed DDs beyond the range of the alien bases before they come online. Those bases will make short work of any units that remain close enough to fall under their beams. Likewise, immediately identification and destruction of the alien DDs is a priority as they can destroy the candidate's frigate force from beyond their weapon range.

**HISTORICAL NOTE:** The SUN Piter Alenkov is named after Sergeant Piter Alenkov of the 503<sup>rd</sup> Motor Rifle Regiment of the Russian 42<sup>nd</sup> Army. The 42<sup>nd</sup> Army participated in the UN invasion of the Middle East, as part of the forces invading Iran and Iraq in November 1994. The 42<sup>nd</sup> Army moved south through Georgia and encountered heavy resistance from the Iranian Artesh. Sergeant Alenkov was participating in an early morning troop movement by truck and APC when his unit came under heavy fire from the T-72 and T-62 tanks of the Iranian 2<sup>nd</sup> Brigade, 92<sup>nd</sup> Armored Division. The Iranian armor had rushed north to stop the Russian advance and had accidentally maneuvered behind the advancing Russian armor and into the rifle regiment under movement. Sergeant Alenkov's truck was destroyed by direct fire but he survived and pulled himself out where he could see the battle. Using the only radio he could find, he was able to provide enough forward intelligence to enable his command to direct Mi-28s and Su-25s to drop ordnance on the Iranian armor despite the tanks moving through the wrecks of the trucks and APCs of his unit. Sergeant Alenkov was killed a bomb dropped on an Iranian tank passing on the other side of his wrecked truck. Sergeant Alenkov's dedication to duty and bravery in the face of certain death enabled the aerial response to slow the 2<sup>nd</sup> Brigade long enough for the 397<sup>th</sup> Tank Regiment to counter-attack and destroy the Iranian 2<sup>nd</sup> Brigade.

### **TRAINING MISSION #6: TAKE THE HIGH ROAD**

---

WARNING ORDER: Captain, SUN Robert Lightman

Reconnaissance of the enemy star system indicates that the aliens have a population on an Earth-like world in the fourth orbit of their sun. The planet is defended by three bases and a handful of ships. Command thinks that if we strike now we can take out their defenses and perhaps compel the population to surrender. You are to take the task force on the far side of the WP and attack the defenses around the planet.

Alien Force Composition

2x Delta-class BS1  
2x Echo-class BS1  
2x Charlie-class DD  
2x Bravo-class ES  
Alien Colony

Solar Union Force Composition

SUN Robert Lightman, Robert Lightman-class DD  
SUN Aegean Sea, Aegean Sea-class DD  
SUN Caspian Sea, Aegean Sea-class DD  
SUN North Sea, Aegean Sea-class DD  
SUN Freedom, Freedom-class CT (Mod 1)  
SUN Liberty, Freedom-class CT (Mod 1)

SETUP

1. Uses the standard 4-piece map
2. Planet is in the center hex

SPECIAL RULES

1. Alien forces must setup within 5 tH of the planet.
2. Alien population has the equivalent of Ya sensors.
3. SUN forces must setup outside the 30 tH line.
4. SUN forces automatically lose if they intentionally fire on the planet's population.
5. Any unit that exits the map edge has exited from battle and cannot return, and is considered "lost" for the purposes of determining victory.

VICTORY CONDITIONS

[Total Alien Victory] – SUN forces are destroyed or left the map.

[Draw] – Only alien bases remain.

[Total Solar Union Victory] – All alien forces are destroyed.

POST-SIMULATION ANALYSIS

One of the largest unknowns in the future of the Solar Union Navy will be how to capture and hold an alien world. There are literally hundreds of unknowns that will only be answered when the time

comes, but what we do know is that the Navy will be required to secure the “high ground” or the space around the planet before any further actions can be considered. Failure to destroy any defending units and bases will make an invasion by the Solar Marines a near impossibility – a challenge I’m sure they would enjoy.

In this scenario the candidate needs to recognize that despite his clear superiority in missile firepower, his limited supply of ammunition will preclude him from firing at maximum range. He has to use his firepower to knock down as much of the alien force as possible so he can slip his CTs in close and use their firepower to save his missile ammunition. Moving the CTs in early will likely doom them to the missile fire from the bases, and rushing his forces in early will bring him under the withering fire of alien particle beams. This is a balancing game where only the best candidates will find the right balance to defeat the defending alien forces.

## BONUS MISSION #1: ALPHA MASHA

**WARNING ORDER:** Captain, SUN Robert Lightman

Unknown alien species has appeared near our colony at Alpha Masha and has shown hostile intentions. Several freighters have been diverted from their normal activities to the colony and will be evacuating the population. You are to break from your patrol and rendezvous with the freighters to escort them out of the star system. Under no circumstances can you abandon the freighters.

### Alien Force Composition

Unknown number of “Specters”

Red Specter – [1] 10 HTK / 1x La [8]

Green Specter – [1] 10 HTK / 1x Ea [8]

### Solar Union Force Composition

SUN Robert Lightman, Robert Lightman-class DD

SUN Freedom, Freedom-class CT (Mod 2)

SUN Liberty, Freedom-class CT (Mod 2)

3x Terra-class FT

### SETUP

1. Uses the standard 4-piece map
2. Planet is in the center hex

### SPECIAL RULES

1. SUN forces setup in the same tH as the planet.
2. Every tactical turn roll a d10. On an even result, a green specter appears at the 30 tH line on each radian. On an odd result, a red specter appears at the 30 tH line on each radian.
3. When a specter enters the same tH as a ship, it attaches to that ship and the ship loses all remaining MP. On following turns, until the specter has been destroyed, the ship generates no MP. Each specter attached to the ship automatically hits the ship with its weapon.

4. Specters take full damage from lasers and half damage from missiles, but any specter hit by missiles cannot move during the next tactical turn.

5. Specters are attracted to the concentration of life on the freighters. They will chase the freighters unless one of the warships is within 3 hexes of the specter and closer than the nearest freighter. In the combat phase, the specters will shoot their weapon at the ship it was chasing on the last movement pulse.

6. Any ship that exits the map edge is considered to have "survived" as the specters are mysteriously targeting the planet and won't leave the map.

#### VICTORY CONDITIONS

[Total Solar Union Victory] – At least one freighter and one warship exit the map edge.

[Marginal Solar Union Victory] – At least one ship exits the map edge.

[Specter Victory] – No ships exit the map edge.

#### POST-SIMULATION ANALYSIS

Make no mistake – this is not a mission that the candidate is intended to win. This mission is more about trying to figure out the best strategy when a candidate faces overwhelming odds. No matter what choices the candidate makes he will be losing most or all of his forces. Since this simulation was brought online only three candidates have been able to claim a pyrrhic victory where at least one of their units was able to escape. No candidate has ever been able to save the freighters.