Gradius (Konami) Multiplayer Narrative Construction

Overview of Gradius:

Gradius is a VR ready, 3D space adventure and combat simulator, for the PS4 and Xbox One. Players take control of the Vic Viper, a trans-dimensional starship, liberating planets in the name of the Planetary Commonwealth of Constellations (PCC) from the evil clutches of the Imperial Kingdom of Suns (IKS). Multiplayer allows players to relive the historical battles mentioned within the single-player portion of Gradius, between the PCC and IKS. It shall feature 16 and 32 player servers, with matches lasting between 10 and 30 minutes. Each map will contain its own storyline for both sides, portraying the experiences of the aggressors and the defenders.

Multiplayer Mechanics:

Lobby & Ship Mechanics

Within the lobby, the player will be placed in their ship. The player will be able to select from different options including:

- **Change Ships** There are several different types of ships allowing for a different combat role:
 - A fast ship that can escape from a fight, however, has very low health
 - A heavy ship that has large weaponry, however, its turning circle is quite slow
- Change Ship Ordinances Once the player has selected their ship they will be able to select different weapons, shields, engine configurations and cosmetic enhancements:



Figure 1 – Example of Changing Ships in Superverse

- Weapons stats: damage, fire rate, accuracy, penetration
- Shield stats: size, re-charge rate
- o Engine stats: speed, boost rate, mobility
- Cosmetics (micro-transactions): Colour, liveries, ornaments
- Vote for next map Player is able to choose between
 2 maps that they can play next
- Players Able to view other player's ships and statistics
- **Leave** Exits multiplayer lobby

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Figure 2 – Example of Changing Ship Ordinances in Rebel Galaxy

Objectives & Map Design

Within each stage of the map, the player will have to complete different objectives to win the match. The objectives will differ depending on the maps, which include:

Ticket Dogfights

- a. One player represents one ticket. Each time,
 a player dies and respawns, a ticket will be
 removed from the ticket counter
- b. Once all the tickets have been used, the players team will have lost

Destroying Objectives

a. Each objective will have a health meter, each time it is hit by an enemy weapon, the meter will decrease



- b. Once the health meter is at zero, the objective will be destroyed
- c. Examples of objectives include:

- Destroying supply ships & space turrets
- Defending shield generators & mothership

Each map will feature a different design that the player will have to navigate. The maps will differ depending on what the historical battle was about; these are a few examples:

- Featured around the surface of a PCC or IKS inhabited planet
- A dynamic asteroid field, where the player can destroy certain rocks to be used as additional debris
- Contained around the limits of a space station PCC & IKS fighting for control

Narrative Device

Each stage will have a different way the story is told to the player. These narrative devices will correlate to the space and futuristic theme that Gradius is based on:

Hologram

- A hologram will appear on the bottom of their screen, placed where the console of the ship is situated
- These holograms can vary from blueprints the player is able to view or military personal speaking to you.
- By activating a button prompt (Press X) the player will be able to enlarge these holograms, that shall fill the screen



Figure 4 - Ship console & display example from Star Citizen

Cut Scenes

 The camera will exit the player's first person view to see an important event at the start or end of stages

o For instance, it will show the ally ships being destroyed, that the player must then aid

Panning Cameras

- A button prompt will appear on the player's screen (Press X); it will then adjust the players gaze to that specific point
- o For example, it will pan the camera over to an objective they must destroy

Video Display (Vid-Doc)

- Within their ship's console, as well as on the top right of their screen (for ease of viewing), there will be a video that shall be important to the story
- These videos can vary from battlefield panoramas, and the aftermath of a battle, to vital military or personal information



Figure 5 - Vid-Doc on player HUDs

Radio

 An audio device that shall communicate objectives or messages to the player

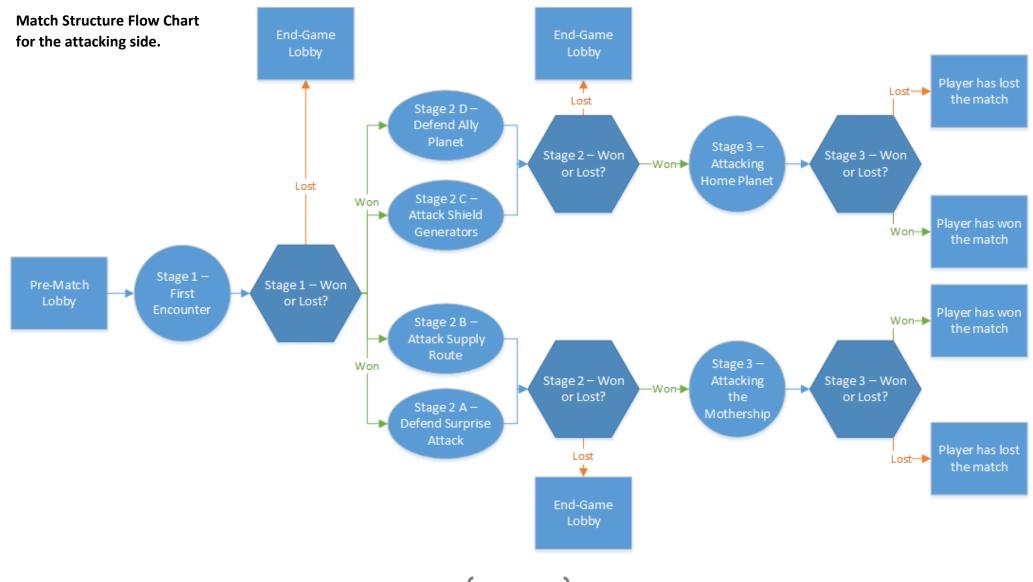
 On their ship's console, a light will notify the player that there will an incoming radio message, indicating they should listen to the information given to them

• Heads-Up Display

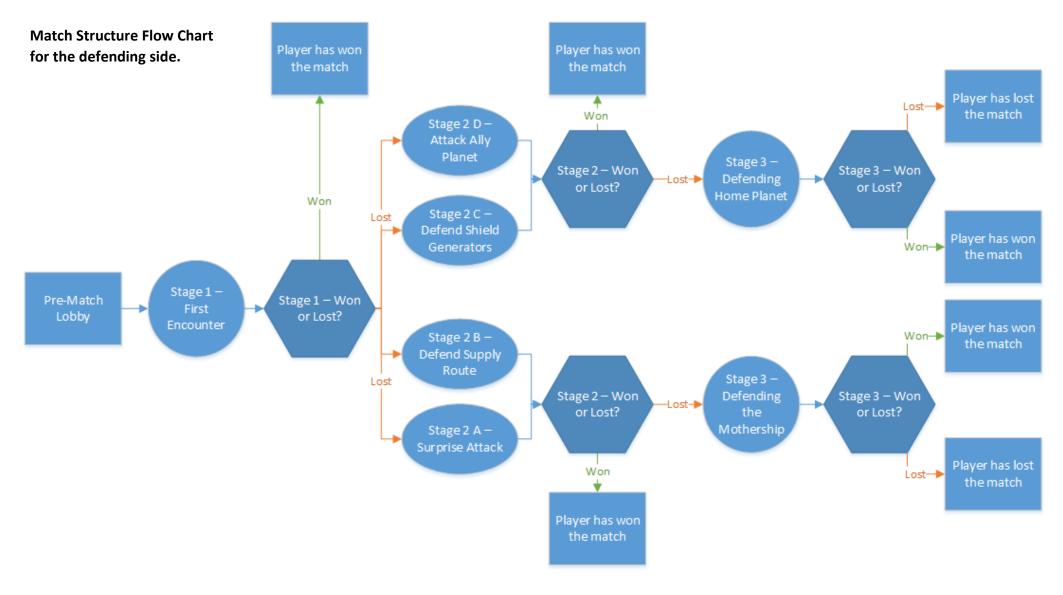
- On the ship's displays, there will be different markers that will appear indicating the objectives they
 must complete
- These markers might appear for objectives they must destroy or opponents they must kill that are 'dominating' the battlefield (Domination entails a certain amount of kills without dying)

Match Progression

The following flow chart exhibits the outcomes of each stage that the player will play through. There are different win and loss states with regards to each stage, and this is mirrored in both the attacker's and defender's charts. The second stage is split into two different routes, depending on the focus of the map. If the story of the battle revolves around a planet, then in the second stage the player shall be defending the ally planet or attacking the enemy shield generators. In contrast, if the story of the battle focuses on destroying the opponent's fleet, then the second stage will have the player attacking the supply route or defending from a surprise attack.



This specific flow charts illustrates the outcomes of each stage from the defending side. Similar to the attackers above, the key differences are the win and loss conditions, as well as whether they are attacking or defending certain objectives. These flow charts can be referenced in the next section when I discuss the specific details of each stage found within the match structure.



Match Structure

The following tables consists of specific details as to how each match will be experienced by the player. Each match will have its own story, referenced from the historical battles made by the single player portion of the game. This table specifies 5 important categories of each match. Every match will be split into different stages that must be successfully completed in order to win the match. For the attackers, they must complete all 3 stages to win the match, compared to defenders that only need 1. Every stage has a different set of objectives the player must meet to win the stage; these have been described previously under the heading 'Objectives & Map Design'. The story for each of the stages will be told through a different narrative device that the player will experience. In addition, the player must feel they are undertaking a journey within the match. Within this category, it highlights the emotions or implied meanings the story might have on the player. Finally, the 'Multiplayer Components' category focuses on either details about the specific objectives the player must complete, or the mechanical element that goes alongside the narrative device.

In addition, the different routes are highlighted in their respective colours, blue representing the battle focusing on destroying the opponent's fleet and green representing the battle revolving around a planet.

Attackers:

Stage	Objective	How is the story told	Journey for the player	Multiplayer Components
Pre-match -	The player is able to choose from	Hologram Video: Player is strapped	Informs the player of the objectives	Lobby functionality – while other
Lobby	changing their ship and ship	into their chosen ship and is	for the match, as well as connecting	players are loading in, you are
	ordinances before the match	communicated the 3 objectives of	the motivations of the story.	engaged with a story instead of a
	begins.	the match by their military captain.		loading screen.
Stage 1 –	Ticket Dogfights (100 Tickets):	Cut-Scene: As soon as the players	Immediately the player is shown	Dynamic environment - (Asteroid
First	Each team must destroy each	are warped into the battlefield, an	explosions and conflict – Shall initiate	fields, Space Station) the players will
Encounter	other's ships until all their tickets	ally scouting party is shot down in	the desire for combat and the	use to their advantages (Hiding
	are depleted.	front of their eyes.	beginning of the match.	behind asteroids).
Stage 1 –	All the opponents' tickets have	Panning Camera: A wave of	The player will travel through the	Once the player has won, they will
Won?	been depleted– players have won	friendly reinforcements have	battlefield seeing the aftermath of	be re-armed by friendly NPCs. The
	the stage.	warped in behind the player	stage 1 – Debris of broken ships and	player must then reach a designated
		indicating the battle has won.	bodies floating in space.	point on the map to advance to the
				next stage.
Stage 1 –	All the player team's tickets have	Cut-Scene: Player will witness the	The player will be shown the	Cut-scene will be used as a transition
Lost?	been depleted – players have lost	conclusion of future battles, as told	consequences of not winning this	sequence from this match back into
	the match.	by the tales found within the	battle (conquering other planets,	the lobby.
		single-player.	destroying ally ships).	
Stage 2 A –	Ticket Dogfights: Player's team	Panning Camera: While travelling	Emphasis on the under-handed tactics	Instead of being 100 tickets, like
Defend	must defend themselves from the	to the next objective, the camera	of war. Tactics such as surprise attacks	Stage 1, there will be less - between
Surprise	surprise attack.	will pan to see additional enemy	are effective in winning battles.	50-75 tickets.
Attack		ships warping on their location.		

Stage 2 B –	Destroying Supply Ships (10	Vid-Doc: Informs the player about	Destroying a supply chain is seen to be	Heads-Up Display – Markers will
Attack	Minutes): The player will have a	the location of the supply route.	one of the turning points in battle and	appear to indicate which ships the
Supply	limited amount of time to destroy	Each time a supply ship is	wars. Increases the determination to	player must destroy.
Route	4 different supply ships.	destroyed the display will reappear	win the battle.	
		to show it being destroyed.		
Stage 2 C –	Destroying Shield Generators (10	Hologram: The blueprints of the	The importance of destroying the	There will be no markers on the
Attack	Minutes): Players must destroy a	space station is shown, and is able	generators will be emphasised as an	map, therefore the player will have
Shield	set of generators (2) within either a	to be enlarged for additional detail.	important turning point. If the player	to use the blueprints to navigate the
Generators	space station or a ground base.		wins this, it will enable them to attack	space station – more advantageous
			the opponent's planet.	for veteran players
Stage 2 D –	Defend Space Turrets (10	Radio: The players will be notified	The home planet shall differ	Players have to defend 4 different
Defend Ally	Minutes): Players have to defend	that their home planet is being	depending on the race of your pilot –	space turrets from being destroyed,
Planet	their home planet from the	attacked. This shall trigger a warp	this develops a relationship between	after successfully defending them
	opponents attack.	sequence for the player arriving at	pilot and the objectives.	for 10 minutes, they will have won
		the outskirts of the planet.		the 2 nd stage.
Stage 2 –	Either all the opponent's tickets are	Vid-Doc: Rallying speech	After winning 2 battles so far, their	The players regroup in a single
Won?	depleted or the player has	conducted by the captain. An	moral and resources are low,	location, before moving out to the
	successfully destroyed a set of	inspiring dialogue sequence,	however, due to the speech, moral is	final objective – leaderboards are
	objectives.	motivating the pilots to never give	boosted and cheers are heard from	shown to see who is currently the
		up as they are so close to winning	the other pilots in the squadron.	best pilot.
C1 2	All the element to a Colored have	such a historical battle.	The second by the Period of the	As the element of the element
Stage 2 –	All the players' team tickets have	Cut-Scene: The player will be	This scene highlights the	As the player sees the missiles
Lost?	been used or have been unable to	drifting in space with their crashed	overwhelming power of the	coming towards their ship, their eyes
	destroy an objective in the allotted time.	ship. They shall be found by an enemy ship and be destroyed	opponents - even after surviving they experience their inevitable death.	will close. This is a transition from a screen fading to black to
	time.	enemy ship and be destroyed	experience their mevitable death.	leaderboards appearing highlighting
				the team's efforts within the match.
Stage 3 A-	Destroying Mothership (15	Radio: Each time the shields of the	The final battle will feel like it is on a	The player must focus their attacks
Attacking	Minutes): Players' will have a	mothership are deactivated the	grand scale – Larger map, more visual	when the shield is deactivated. This
the	limited amount of time to destroy	player shall be told over the radio	elements such as sporadic explosions	will happen at intervals of every
Mothership	the opponents mothership.	that this is the time to attack.	of NPC's ships.	minute.
Stage 3 B-	Destroying Space Turrets (15	Hologram & Radio: Several	The story to save the ground forces	The turrets will have two states:
Attacking	Minutes): Players must attack and	different blueprints of the turrets	from death is the crucial motivation to	Armed – Turrets will fire back at the
Enemy	destroy the 6 different space	will appear on their HUD before	defeat your opponents – with this last	player and be harder to damage
Planet	turrets situated around the planet.	battle. They will be radioed by	effort you will be able to win this	Deactivated – Turrets shields and
		ground forces that the only way for	historical battle.	weapons will be disabled

		reinforcements to come help them is to destroy these turrets.		
Stage 3 – Won?	Players have destroyed the mothership or the space turrets in the allotted time.	Vid-Doc: Will show the aftermath of the battle - either the ground troops conquering the planet or the mothership in a massive explosion.	The player will feel triumphant they have won the battle with scenes of victory of their side winning.	While the vid-doc is playing, the player will be heading back to their fleet. Once they are near, they will engage auto-pilot mode with the scoreboard and rewards being shown as the ship proceeds to enter the ship bay.
Stage 3 – Lost?	All the player team's tickets have been used or have been unable to destroy an objective in the allotted time.	Cut Scene: Ripple effect of losing the battle – Slaughtering of lives and failure of other battles.	After losing the battle, the player will realise the consequences of not winning – witnessing what happens when the opponents win	Once the cut scene finishes – the player will be sent back to the lobby, with the leaderboards being presented.

Defenders:

Stage	Objective	How is the story told	Journey for the player	Multiplayer Components
Pre-match -	The player is able to choose from	Hologram Video: Player is strapped	Informs the player of the objectives	Lobby functionality – while other
Lobby	changing their ship and ship	into their chosen ship and is	for the match, as well as connecting	players are loading in, you are
	ordinances before the match	communicated the 3 objectives of	the motivations of the story.	engaged with a story instead of a
	begins.	the match by their military captain.		loading screen.
Stage 1 –	Ticket Dogfights (100 Tickets):	Radio: Your commander tells the	The player will have to wait in	Dynamic environment - (Asteroid
First	Each team must destroy each	pilots to prepare for an attack	anticipation for the opponents to	fields, Space Station) the players will
Encounter	other's ships till all their tickets	against the opponents.	come close to them – 'The predator	use to their advantages (Hiding
	are depleted.		hunting their prey'.	behind asteroids).
Stage 1 –	All the opponent's tickets have	Radio & Cut Scene: Cheers of	Winning the battle in the first stage	During the radio sequence, the
Won?	been depleted- players have won	victory over the radio and a	will make the player feel powerful –	scoreboard and rewards will appear
	the match.	congratulatory message from the	able to see what happens in the future	on the HUD in their cockpit. As soon
		commander – player will also see	timeline will show them the meaning	as the cutscene ends there will be a
		what this battle has meant in the	of the battle.	transition back to the lobby.
		historical timeline.		
Stage 1 –	All the player team's tickets have	Radio: The commander will shout	The player will feel dejected after	Players' will warp and it shall
Lost?	been depleted – players have lost	abuse down the radio, for the	losing, but they prepare for the next	transition into the next set of
	the stage.	player not winning the battle.	stage to come.	objectives.
Stage 2 A –	Ticket Dogfights: Players must	Radio & Panning Camera: On route	Emphasis on the under-handed tactics	Instead of being 100 tickets like
Surprise	launch an attack on the	to the next objective the camera	of war. Tactics such as surprise attacks	Stage 1, there will be less, between
Attack	opponent's team.	will pan to see opponent's ships in	are effective in winning battles.	50-75 tickets.
		the distance. The commander will		
		order your squadron to attack the		
		enemy when they least expect it.		
Stage 2 B –	Defend Supply Ships (10	Vid-Doc: The player will be	After just losing a battle, they will	Heads-Up Display – Markers will
Defend	Minutes): The player will have a	refuelling at an ally supply ship. A	have low morale and with a surprise	appear to indicate which ships the
Supply Route	limited amount of time to defend	vid-doc will appear showing one of	attack in the heart of their supply	player must defend. A Vid-Doc will
	4 different ally supply ships.	the supply ships in the fleet	route, it is a decisive battle.	also appear every time a supply ship
		exploding.		is destroyed or under heavy fire.
Stage 2 C –	Defend Shield Generators (10	Hologram & Radio: The blueprints	The importance of the generators are	There will be no markers on the
Defend	Minutes): Players must defend a	of the space station is shown, and	stressed by the commander as	map, therefore the player will have
Shield	set of generators (2) within either	is able to be enlarged for additional	otherwise defending their home	to use the blueprints to navigate the
Generators	a space station or a ground base.	detail. Intelligence will also radio in	planet will be even more difficult.	space station – more advantageous
		that an attack will commence soon.		for veteran players.

Stage 2 D – Attack Enemy Planet	Destroying Space Turrets (10 Minutes): Players have to defend their home planet from the opponents attack.	Radio & Panning Camera: Through analysing the opponents warp sequences, intelligence have found where their home planet is. The players' warp to their opponent's planet and the camera shall pan and focus on the planet.	The enemy planet shall differ depending on the race of your pilot, it shall be the mortal enemies of your pilot's race - develops a relationship between pilot and the objectives.	Players' have to destroy 4 different space turrets. These will be heavily guarded by A.I ships as well as player controlled ships.
Stage 2 – Won?	Either all the opponent's tickets are depleted or the player has successfully destroyed a set of objectives.	Radio & Cut Scene: Cheers of victory over the radio and a message from the commander - will also see what this battle has meant in the historical timeline.	The battle is over, however, through the cut-scene, it will show how the war is not yet over and there are other battles they must fight.	During the radio sequence, the scoreboard and rewards will appear on the HUD in their cockpit. As soon as the cute scene ends there will be a transition back to the lobby.
Stage 2 – Lost?	All the player's team tickets have been used or have been unable to destroy an objective in the allotted time.	Radio & Panning Camera: A radio transmission will announce the defeat of this stage. A panning camera over the battlefield highlighting the destruction.	Highlights the overwhelming destruction that war can create, will make the player question whether it is all worth it in the end.	There will be a transition of the player being revived by medics and being sent right back into their ship to fight yet again.
Stage 3 A— Defending the Mothership	Defend Mothership (15 Minutes): Players will have a limited amount of time to defend their ally's mothership.	Radio: Each time the shields of the mothership are deactivated the player shall be told over the radio that this is the time to defend the ship.	The final battle will feel like it is on a grand scale – Larger map, more visual elements such as sporadic explosions of NPC's ships.	The player must focus their defence when the shield is deactivated. This will happen at intervals of every minute. Use the mothership, to your advantage with its turrets.
Stage 3 B— Defending Home Planet	Defend Space Turrets (15 Minutes): Players must defend the 6 different space turrets situated around the planet.	Hologram & Vid-Doc: Several different blueprints of the turrets will appear on their HUD before battle. Each time the space turrets are destroyed, you will witness your ground forces dying	Having to save your home planet, is the key motivation to defeat the opponent. Each time a turret is destroyed, you will witness your home cities being destroyed and your allies dying.	The turrets will have two states: Armed – Turrets will fire back at the opponents (lure opponents in) Deactivated – Turrets shields and weapons will be disabled (Defend at this time)
Stage 3 – Won?	Players have defended the mothership or the space turrets in the allotted time.	Cut Scene: An Award ceremony decorating the best pilots in the winning team (links to leaderboards function)	The player will feel triumphant they have won the battle with scenes of victory of their side winning.	Award ceremony is mirrored as a scoreboard – Stats such as most killed, most objective time/damage will be shown for the team
Stage 3 – Lost?	All the player's team tickets have been used or have been unable to destroy an objective in the allotted time.	Cut Scene: Ripple effect of losing the battle – Slaughtering of lives and failure of other battles.	After losing the battle, the player will realise the consequences of not winning – witnessing what happens when the opponents win	Once the cut scene finishes – the player will be sent back to the lobby, with the leaderboards on being presented.

Match Walkthrough

This walkthrough example highlights how a match of Gradius will use its' narrative devices to depict a story. As a multi-player match has a high degree of agency and player driven narrative, it is hard to account for what can happen during a match. However, the approach that I shall demonstrate will emphasise the importance in the story throughout the match.

In this specific match, the player shall be on the attacking side and the battle shall revolve around the destruction of the opponent's mothership.

Lobby:

- 1. The player selected their agile 'Astral Alacrity' as the ship they will be piloting. They also changed some of the ships ordinances including a more accurate weapon system and a quicker engine.
- 2. Once their selections were locked in, a hologram of the captain for the PCC fleet appeared, detailing what the player will be doing:
 - a. "Pilots we shall be striking the heart of the IKS fleet, destroying their mothership, the 'Stellar Empress. Before we can attack the fleet, we have to whittle down their resources by destroying their fighter ships and disrupting their supply train. Failure is not an option; we must win and defeat the IKS in this decisive battle."



Figure 6 - Hologram example

Stage 1:

- 1. The player had warped away from the comfort of their fleet into the barren wasteland of space. They warp to the location the supply route for the IKS will travel through.
- 2. As soon as they exit the warp sequence, a cut-scene is activated with their scouting squadron being chased down by IKS fighter ships:
 - a. "They are on our tails, we can't disengage. Come in fleet, we need help. We have been made."
 - b. The last thing the player sees is the IKS fighter ships blowing up the ally PCC ships. Parts of the ships are scattered across the vast distance of space.
- Stage 1 began with the player and his team fighting against the IKS fighter ships. The battle is situated in an asteroid field that the player uses to their advantage.
 - a. The player zipped between the asteroids using them as cover against enemy missiles. The asteroids allowed the player to hide and flank an IKS ship, in turn destroying the ship and depleting the enemy ticket meter.
- 4. As the opponent's tickets had depleted to zero, the player had won this stage. While in their ship, the camera pans around to see a wave of ally



Figure 7 - Spaceship battle through an asteroid field

reinforcements warping in. The fleet had come to re-arm the player team's ships before they continue travelling to the enemy supply route. As soon as the NPC ship that is alongside the player's ship detaches, the player travelled to a designated location away from the asteroid field; warping to the supply route.

Stage 2:

- 1. During the warp sequence, a video from the captain appeared detailing the location of the supply ship:
 - a. "Our intelligence has found out that the supply ship will be travelling through 'The Crystalline Colony'. Your objective is to destroy at least 4 supply ships. That should be enough to weaken their fleet enough for us to commence a full on assault."

- 2. Once the warp sequence had finished, markers appeared on the player's heads-up display indicating which ship the player must destroy.
- The player zoomed towards the supply ships, taking them out one by one. Each time a supply ship was destroyed, a vid-doc appeared showing the ships exploding.
- 4. After successfully destroying the supply ships, the players' team regrouped before moving out to the final objective.
- 5. While regrouping an incoming video message was displayed. It is the captain. She had a short speech to motivate our squadron for the final stage, attacking the mothership:



Figure 8 - Spaceship in a warp sequence (No Man's Sky)

- a. "You have come so far! You have overcome many obstacles. Destroyed IKS fighter ships. Obliterated the heart of their supplies. You only have one more hurdle to overcome so the PCC can protect the planets of this galaxy. Many of you have families in this galaxy, and you must protect them in every way you can. Now, onwards towards the IKS fleet! Attack the mothership! We shall drive the IKS from not only this galaxy but the universe! For the glory of the Planetary Commonwealth of Constellations!"
- 6. After the speech had finished, the player reached the meetup point. While warping to the location of the IKS fleet and the start of stage 3, the scoreboard had appeared on their HUD.

Stage 3:

- 1. The player exited their warp sequence and was immediately thrown into the battle. The battle is on a grander scale than the last two, with so many ships occupying the space. This was the final fight.
- 2. The player received a radio transmission, they noticed the radio light blinking on their ship console indicating an incoming message.
 - a. "Fox Squad, you must attack the mothership directly. At regular intervals, the shield will deactivate on the mothership. That is your chance to give it all you got!"
- After hearing the radio transmission, the player flew closer to the mothership, killing an enemy pilot that was on his tail.
- 4. "The shield is deactivated! Fire Fire Fire!". This was the prime opportunity the player was waiting for. They proceed to fire all their missiles at the mothership, damaging it a significant amount.
- 5. The remaining time the player had focused on destroying player IKS and NPC controlled fighter ships, while the rest of his squad focused their fire power on the mothership.



Figure 9 - Example of a large scale space battle

- With effective teamwork and only 30 seconds to spare, they had destroyed the 'Stellar Empress'.
- 6. A video-display had popped up on the HUD of the player showing the massive explosion the 'Empress' had created. Blowing up a space ship that big had created quite the light show. Feeling triumphant the player congratulated the rest of his squad over the radio (through VoIP).
- 7. As the player had finished the match, the ship enters auto-pilot mode. During the flight back to the PCC fleet, the scoreboards are shown and the rewards of the match were given to every pilot on the winning side. As the ship enters the hanger, it transitions back to the lobby.