Salvation: Into the Cosmos: Board Game Project Blending 4X and Eurogame Styles

A Senior Project

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# Table of Contents

**Introduction**......................................................................................................................... 2  
**How to Play**......................................................................................................................... 3  
**Blending Eurogames and 4X** ................................................................................................. 3  
  *Eurogames* ................................................................................................................................. 3  
  *4X Strategy* ................................................................................................................................. 4  
  *Putting it All Together* ............................................................................................................. 4  
**Influences** ................................................................................................................................. 4  
**The Game Design Process** ..................................................................................................... 7  
  *Concept* ..................................................................................................................................... 7  
  *Prototyping* ............................................................................................................................... 8  
  *Test, Analyze, Revise, Repeat* ................................................................................................. 9  
**How to Sell** ............................................................................................................................ 20  
  *Marketing* .............................................................................................................................. 20  
  *Construction/Manufacturing* ................................................................................................... 20  
**Conclusion** ............................................................................................................................. 21  
**Works Cited** .......................................................................................................................... 23
I. Introduction

The year is 2217. Earth is overpopulated, highly polluted, running out of resources. Virtually all governmental structure across the globe has collapsed. Future for humanity on Earth appears non-existent; many predict Earth will no longer be habitable in fifteen years. Fortunately, scientists have discovered a way to travel faster than the speed of light, allowing humanity to take advantage of the dozens of potentially habitable worlds discovered by astronomers in recent years. However, this technology is expensive, costing more than the economic production of what little countries remain. Thus, the players, the few corporations wealthy enough to produce star-faring ships, have each individually decided to set off into space and each create an empire a set of colonies from which to exploit and control humanity forge a new home for the entire human race.

However, like today, humanity has insatiable desires, and will only settle in the territory that meets the most of these needs, abandoning the rest. The people of Earth want abundant resources of all types, an industrial infrastructure to support their daily needs and wants, a wide breadth of planets to explore and settle, and a strong military to protect them from aliens (if they exist). Thus, the players must compete to build, or take, the territory that will make humanity the happiest. She who accomplishes this will have complete control of humanity and its future.

Salvation: Into the Cosmos is a competitive colonization game. Players take control of Corporations that are tasked with creating a new home for humanity among the stars. Players will colonize uninhabited systems and use the natural resources in these systems to construct buildings for gathering or storing more resources, and ships to settle or conquer more systems. The player with the “best” collection of systems wins the game.
II. How to Play

Each system produces a certain amount of each resource type, gathered by the owning player (if there is one). There are four resources that each colony can produce: Metals, Food, Exotic, and Labor. Players may trade resources with a centralized bank at any time at a set ratio. The corporation a player controls adjusts this ratio and provides a bonus to the corporation’s specified resource(s). Buildings allow a player to gain more of a resource on the colony they are built. Starships are a means of expanding territory that a player controls (Colony Ships) or blockading another player’s planet to slow progress (Warships).

The game consists of six rounds. Each round consists of two phases: the Building Phase and the Actions Phase. During the building phase, players gather resources from colonies, buildings, and their Corporate bonus and then may use those resources to build buildings and/or ships. During the Actions phase, players may move their Colony Ships to take new colonies and their Warships to blockade other players or take colonies from aliens.

After six rounds, the game stops. All stored resources, buildings, Warships, and Colonies are counted for each player and scored accordingly.

III. Blending Eurogames and 4X

A. Eurogames

*Salvation: Into the Cosmos* would, categorically, fall into the Eurogame genre. Eurogames are named such as many originate from Europe, mainly Germany. Specifically, many are winners of the Spiel des Jahres, a major German award for board games. Narratively, they are mainly non-violent and feature peaceful competition. In terms of gameplay, Eurogames are characterized by having simple rules, complex strategic decision-making (Chabris),
“information-rich environment[s],” and little, if any, chance-based mechanics (Hendrickson, 20). Eurogames reward players who make the better decisions (Chang, 17).

B. 4X Strategy

Salvation would also fall under the category of the 4X genre of games. Coined by Alan Emrich in a preview of Master of Orion in Computer Gaming World in the September 1993 issue, 4X is a type of strategy game in which players “eXplore, eXpand, eXploit, and eXterminate.” In other words, players start out as a small city, settlement, or empire, venture into the world around them, grow their territory, gather the natural resources of their surroundings, and fight other players in a bid to become the largest and most powerful empire (Emrich, 92). A common example of this genre is the Civilization series of videogames (Habib).

C. Putting it All Together

Salvation: Into the Cosmos is a blend of the “Eurogame” and 4X traditions. It is a competitive colonization game with simple rules and multiple paths to winning, promoting planning and decision making. It follows the Eurogame tradition of being able to win without violence (Hendrickson, 20), as players can gain enough points from resources, colonies, and structures to outmatch points gained from building Warships. However, due to the nature of starting small, growing outward, and competing with other players to get bigger, this game is also naturally a 4X style of game.

IV. Influences

The primary influence for this game is Settlers of Catan. Set in a fictional version of the Medieval period, players represent settlements on a newly discovered resource rich island of Catan. Each settlement uses the natural resources on Catan to expand its infrastructure. However,
the island is not large enough to support the expansion of every settlement, and thus the settlements are in a race to grow the largest fastest.

Created by Klaus Teuber, Settlers of Catan is a famous game in which players compete for resources and infrastructure on an island. It is considered the first game of the so-called “Eurogame” genre. Each turn, two dice are rolled and compared with the numbers on the tiles. Players with settlements adjacent to each tile with a number matching the total die roll collects those tiles’ corresponding resource (Chaslot et al., 22-23). Players can then use those resources to build infrastructure and/or trade with other players (Siders). At the end of the game, players get points for infrastructure and bonuses for certain feats (Pfeiffer, 3).

First, Settlers of Catan has a simple design that allows for complex gameplay. While Salvation: Into the Cosmos does not have the same rules as Settlers of Catan, it attempts to capture the spirit of the design (simple rules and layout, but complex gameplay). Next, Settlers has a hex tile layout that is randomized each game to ensure that each game is a unique experience for the players. To create a similar effect, Salvation: Into the Cosmos has a similar mechanic, the main difference being that each player starts on a colony that is designed to make initial expansion easier. Finally, Settlers of Catan, at the end of the game, gives specific bonuses for players who have achieved certain feats (Pfeiffer, 3). Salvation: Into the Cosmos employs a similar system, rewarding the player with the most colonies, the player with the largest number of Warships, the player with the most buildings on any one planet, and the player with the most resources that could be carried over for another turn. This is done to promote different playstyles and diversify gameplay.

The game narrative of Salvation: Into the Cosmos is also loosely based upon, and expands upon, the narrative of Settlers of Catan. The main narrative of Settlers of Catan is
imperialism and expansion up to the point of conflict, stopping when real civilizations would begin fighting (Veracini, 131). Salvation: Into the Cosmos is about imperialistic expansion and colonization including conflict. Players are in full competition to build the biggest, richest empire possible and can use Warships to hinder other player’s progress. In this competition, players may encounter Aliens, and are encouraged to wipe out any that appear in their path, like how many European civilizations treated the indigenous populations of the territories they took. This narrative combined with the dark, but slightly humorous, background text highlights and warns of the dark actions humans can, and still, take.

The second main influence comes from the free-to-play online video game Shattered Plans by Jagex Ltd. Shattered Plans takes place in the far future, where a failed wormhole experiment destroyed Earth. Humanity escaped onto other worlds where it now thrives. However, now that humanity has fully recovered, different nations embroil themselves in conflict with one another. The players represent different (randomly generated) factions, each vying for control of known space.

Shattered Plans is a competitive empire-building strategy game in which players take control of a spacefaring empire and build fleets to conquer neutral and opposing player’s systems. Each turn, players collect resources and use them to construct fleets. They then plan movements of those fleets to either attack or reinforce a system. Then, at the end of the turn, the fleets move and engage any enemy fleets in their designated system. Any leftover resources go into a pool for each respective resource that, once filled, gives a temporary or permanent effect on one or more desired systems (OrbFu et al).

The main influences this game had on Salvation: Into the Cosmos were the Warship and initial attack mechanics, as well as the general resource layout. The most obvious influence was
the ability to construct ships to attack other players. While this is the main gameplay in *Shattered Plans*, constructing Warships and taking other players’ colonies by force is only one possible mode of gameplay in *Salvation: Into the Cosmos*. In *Shattered Plans*, each system owned by a player supplies resources to that player, with the amount of each resource varying system by system. When designing *Salvation: Into the Cosmos*, this system seemed natural for a game where players took space colonies. Like *Settlers of Catan*, *Shattered Plans* also has a small number of different resource types. This correlation is the key reason I decided to have four resource types in *Salvation: Into the Cosmos*.

However, there are several key differences between *Salvation: Into the Cosmos* and *Shattered Plans*. First, through the inclusion of Colony Ships, it is possible for players to get new colonies without attacking other players. Next, resources can be spent constructing buildings, which either provide more resources or allows some unused resources to carry over between turns. Finally, players are rewarded for investing in more Colony Ships and Buildings, as the player with the most colonies, the player with the most unused resources that could be carried over to another turn, and the player with the most buildings on a single planet all get bonus points at the end of the game.

V. The Game Design Process

A. Concept

The initial concept for this game was a starter set for a potential miniatures game. It would have been a spaceship combat game focused on maneuvering, positioning, and distance. However, testing for balance for that type of game would have been lengthy enough to halt all development of the graphics of the game. Thus, the project was changed to a board game.
The goal of this project is to create a 4X style strategy game that adds elements of “Eurogames” in order to shrink the game time to within a 1-2 hour timespan.

B. Prototyping

To make this game work, and to develop the core mechanics of the game, I had to make a simple prototype and test the game continuously throughout the quarter. I used paper cut outs for my prototype. I first made and cut out sixty-one equal sized hexagons for the planet tiles. I then drew some basic graphics for the resources, printed a bunch out at a decent size to represent the resource tokens, and made a final graphic for each of the tiles to represent the natural resources of that tile. Finally, I made some basic drawings of each building and ship in Paint.net, scaled them relative to the tiles, and printed them each in six different colors and in great quantity.
C. Test, Analyze, Revise, Repeat

All tests during the first quarter were run during Captain Nemo’s Tuesday board game nights. For the first test, I had brought my paper cut-out prototype, unsorted, and attempted to set up the game. However, by the time I had the game set up, the game night time was over and everyone already left.

Due to my inability to get the game started in the first place, I deduced that my game was too large and had too many moving parts. Thus, I removed a third, or one layer, of the planet
tiles, cut the game time in half from twelve turns to six turns, and removed a third of the building markers for ease of sorting/gaming for the next test.

The second test started late during the next game night. I finally had a chance to enlist some testers to test my game. However, time was limited as they were only able to test after finishing another game. The testers only played for three rounds. However, after the third round, not a single player had a colony.

Among the testers who volunteered was a man who had experience in developing games, and so I took careful notes of his advice and added all of it to the game. He and I both concluded that the game as taking too long to play, and that having to plan for expansion on turn five was not fun. He suggested removing the buildings that specifically store resources and instead build that into the mechanics of the planet tiles themselves, making the stored resources scale with the number of colonies someone owns rather than the amount of certain building types. He also suggested that I cut the cost of the remaining buildings, allowing faster growth.

I then asked all the testers if adding playable corporations with unique bonuses would both improve the speed of gameplay and add a little narrative and roleplay to the game; they unanimously agreed. Thus, I also added on the corporations as well.

The third test took place the Tuesday the week before Thanksgiving. I had some new testers this time, and we played a full game as we started early. During the third turn, I built several Warships and, exploiting a hole in my rules regarding leapfrogging taken colonies to see the effect, snatched much of one tester’s territory. This started a back and forth chain reaction between him and I, ending with the third player building up a large fleet and taking us both out.
The first issue found was the turn order. I had it where the player who moved first one turn would move last the next turn. This was an attempt to solve the first turn advantage problem, where the player who goes first gains an inherent advantage by being able to set up what the second player must react to (Extra Credits). However, this caused confusion among the testers as to who would move first in each round. It also allowed someone to plan for moving first next round and possibly take advantage of moving before an opponent twice. This caused what the testers called “swing turns”, where someone takes advantage of this and drastically changes the balance of power for the rest of the game. Thus, to make turn order less confusing and fix balance, I changed both the round and turn order. The round was changed from everyone taking turns building and moving to everyone building and then everyone moving. The turn
order was changed so that the person with the least number of colonies moves first, allowing smaller players to gang up on a player who is far ahead of them.

The biggest and most obvious issue to both myself and the testers was attacking. The ability to take away colonies from other players was too powerful. Even with fixing the “leapfrog” issue by only being able to send Warships to only one adjacent colony at a time, it was still too easy to knock another player of equal or lesser standing out of the game. Thus, attacking was replaced with blockading, where a player could blockade a colony and force that opponent to neither build on that colony nor gain the natural resources from that colony until the blockade is removed.

The fourth test took place two weeks later, and included a new third tester. We only played for five rounds as I had gotten ahead early, though the combination of my first colony with my corporation allowing me to get my first new colony turn one, and thus had a guaranteed win.

The obvious issue from this test was how to balance more strategies of play. The only strategy players have is to expand the number of colonies they have, and that the one who gets biggest, fastest wins. To fix this, I increased the number of resources each building provides, removed the need to discard resources at the end of each round, added the ability to exchange resources with a central bank, with the rates changing depending on which corporation the player has, and disallowed gaining resources on a new colony without constructing a building.

Turn order was still confusing, and we often lost track of whose turn it was. I thus reverted the turn order back to what it was, but this time using a marker to keep track of the first player.
Players were unhappy that they couldn’t make informed decisions regarding making new colonies. They wanted to be able to see what systems they could possibly colonize so they could choose a system that best suited their needs. Thus, I created a rule that made players reveal all systems adjacent to their own.

For this and all prior tests, I used card-like markers to represent individual resources that a player owned. However, I realized during this test that much of the time spent playing the game was spent counting out those resources. Thus, I decided to cut those cards and replace them with a resource tracker for each player. These trackers could be marked for the current amount of each resource that a player owned, shortening resource management time.

Warships were irrelevant during this test, as people found it more worthwhile to construct buildings than to blockade each other’s colonies. I did not know how to make Warships relevant without making them overpowered, so I decided to wait for another playtest for a final decision.

People have also asked for aliens to show up in the game as Salvation: Into the Cosmos is a space game and aliens are also hinted at in the story text. I came up with several ideas for how to implement them, and, after taking a quick break and mulling over the ideas, I decided to have a kind of passive Alien presence. I added special tokens to be placed on the outer ring of systems, some blank, some with a drawing of an Alien. When a Colony Ship enters a system with one of these tokens, they reveal it. If it has an Alien, the Colony Ship is lost and no one may colonize it without first sending in a Warship to remove the Aliens. This adds an element of the “unknown” and adds risk into the exploration element of the game.

During the second quarter, I ran two tests at two different Cal Poly Game Design club meetings, and a final test at Captain Nemo’s Saturday free game night. Each of these tests
included new people separate from the Captain Nemo’s Tuesday night group, and each test always included at least one person unfamiliar with the game.

The first test took three turns due to time constraints. The game itself had mainly uneventful slow growth. However, as I was looking for a way to balance Warships, I decided to build one and attack the player closest to me. While this expenditure of resources kept me from winning the game, the effect of the blockade also kept the person I attacked from winning the game as well.

This result was surprising considering no one built Warships during the last test. However, this test showed that a Warship blockading a player’s planet could cripple said player, as that player would need to build a Warship in return to end the blockade. Thus, the easiest solution was to create a special building that was cheaper to build than a Warship and, while unable to generate resources, could destroy attacking Warships or destroy a Warship that’s blockading the planet it’s built on.

I gave up on trying to fight simple initiative turn order. The alternating first player idea, when introduced to the new set of testers, was shot down immediately due to it breaking the natural game flow. Thus, this and all future game versions utilized a standard initiative turn order.

While informed decisions about where to place new colonies were beneficial, the players for this test found that revealing adjacent uncolonized systems made the game boring. They felt that these reveals created informed, but easy decisions and removed the exploration element of the game. I noticed, during the game, that one of the players really wanted to move his colony ship around and seek out a good colony before using his Colony Ship. The rules regarding Colony Ship movement and settlement were unclear at this point. Thus, a simple fix was made:
keep untouched, uncolonized systems hidden, but allow players to decide not to colonize a system their Colony Ship enters and let it seek out better systems.

One issue that popped up was that with the center-most tile, Earth, as an empty system that cannot be traveled through, an effective “invisible wall” was placed between players, forcing each player to only react to their two nearest neighbors and not someone on the opposite side of the game board who may be in the lead. Thus, I made Earth a free move tile where players can move their ships and settle otherwise out of reach areas or attack, or threaten to attack, a player on the opposite side of the game table.

I went back a couple of weeks later to test again. We played for a bit longer than last time, going for five turns instead of three. None of us really engaged in conflict, we just focused on expanding our territories for this game. This time, I brought surveys for people to fill out after the game. Three people in total took the survey. All were Cal Poly students, two of whom had experience in 4X style games.

Two of three felt the rules were confusing. This made sense because the rulebook was a bit long and repetitive and the third person, who wasn’t confused, took part in the last test and ended up helping me explain the rules. Thus, the first major change I made to the game was to revise and shorten the rules to two pages, removing many needless detail, examples, and repetitions.

Two of us exploited a loophole that went unnoticed until this game: I had given some corporations a bonus where they could, at any time, exchange one their preferred resource for one of any other resource. What this meant was they could just keep producing that resource and use it for everything, allowing them to expand at a far faster rate than the other corporations. Because of this issue, no one felt that they were making complex decisions, and one person
thought they lost due to chance. Everyone also felt this exploit broke the game balance. Thus, I flipped the ratios, so that the corporation bonus allowed them to trade for their preferred resource one for one.

The resource sheets proved very fiddly during the game, and players said they would rather try using cards as it felt more natural to use. So, I decided for the next test to try the cards again and compare how people liked or disliked them.

The testers also felt that the game was a bit too small for a possible six player game, and that the board would get crowded quickly. One of the testers suggested an idea that I ended up taking: a variable sized board. Basically, the idea is that the number of players should determine the size of the game board. One ring of systems would be placed around the starting area of the board for a two-player game, two rings for a three- or four-player game, and three rings for a five- or six-player game. This variable size would allow for players in each game to interact and interfere with each other at around the same time, regardless of how many people play the game.

One of the testers noticed that the numbers I used were random. This was true; as I was focused entirely on testing gameplay mechanics, I semi-randomized the resources on all except the starting colonies and made very arbitrary end game point values. So, after that game, I knew I would at most get one more playtest session during the quarter, so I made those numbers a little less random. I evened out the number of resources throughout the collection of systems, and made sure that, for each resource, there were nine systems for every number of that resource (one through six), while still ensuring each system had no more than eighteen resources total. For the end game points, I scaled them based on the relative costs of each point-scoring item, except for Warships which were scaled slightly lower. I then scaled the bonus points based off the level of difficulty of achievement.
When asked whether they felt the game I had was a 4X game, on a scale of one to five, the testers all marked three, based on the above needed fixes. They also said that they would be interested in a more complete version.

The final playtest was held during Captain Nemo’s Saturday Free Game Night. This time, I had four testers, so we tried a larger, five-player game. All the testers were new to the game. While the game took far longer than two hours, this was only because we were having fun with each other’s company as well as with the game itself. We all enjoyed ourselves, taking turns building, attacking, and jokingly insulting each other. There were several points where we would spend twenty minutes chatting with and teasing each other forgetting that someone’s turn had long since ended. Two of the players ended up fighting each other for the entire game because they were good friends. I attacked one of the players next to me midway through the game as he was ahead of me, and I promptly was attacked in return. In the end, both that player and another were nearly tied; I decided who was the winner on my final turn.

There were only two minor changes that people recommended. First, people wanted an incentive to go to the outer ring of systems that had Alien tokens. The testers never ventured out to these outer planets seeing that the other planets had similar resources. Thus, I decided the best option would be to mark the top twenty-four systems as outer systems that would be specifically used for the outer ring systems in any game.

Next, while people liked having cards in their hands to keep track of the resources, they didn’t like having to count out the resources. Upon this revelation, I immediately thought of combining the resource cards and resource counters into a single combined system: the cards would be used as normal, but the counters would keep track of total resources gained each turn, which players could adjust for each new colony and building.
D. Final Analysis

After the game, I conducted a survey of the testers. This was the survey I used:

Part 1:
1) Are you a student at Cal Poly?
2) How old are you?
3) How long have you been playing board games?
4) What specific board games or board game genres have you played? Did you like these games? Why?
5) What is your idea of what a 4X game is? What are the basic components?
6) What is your experience with 4X games? What do you like/dislike?
7) Would you be interested in buying/playing a 4X game that could be played in a shorter span of time?
8) Just by looking at the game and its pieces, what are your initial impressions?

Part 2:
1) Please rate your experiences. Feel free to explain your choices:
   I felt the rules were intuitive and made sense: Strongly Disagree 1 2 3 4 5 Agree
   I felt the rules were simple and easy to understand: Strongly Disagree 1 2 3 4 5 Agree
   I felt I had a lot of choices and decisions to make: Strongly Disagree 1 2 3 4 5 Agree
   I felt the choices I made were difficult: Strongly Disagree 1 2 3 4 5 Agree
   I felt I could have made better choices: Strongly Disagree 1 2 3 4 5 Agree
   I won/lost based on my decisions: Strongly Disagree 1 2 3 4 5 Agree
   I felt the game was balanced: Strongly Disagree 1 2 3 4 5 Agree
   There is a single strategy to winning this game: Strongly Disagree 1 2 3 4 5 Agree
   This game is a 4X game: Strongly Disagree 1 2 3 4 5 Agree
   I want to play this game with friends: Strongly Disagree 1 2 3 4 5 Agree
   I would buy this game: Strongly Disagree 1 2 3 4 5 Agree

2) What is your favorite aspect of this game? Least favorite?
3) Was there any part of this game that was tedious/annoying? Why?
4) What was the most exciting part of the game?
5) Was there a distinctive point where you knew that you won/lost? Was there a distinctive point where there was a clear winner? Explain.
6) Did you feel the game was too short, too long or just right?
7) Looking just at the game play, what would you say is the main story of this game? Does this game have an underlying meaning or message?
8) Do you like the premise of the game? Does it match the gameplay?

The results of the Survey are as follows:
Three of the four studied at Cal Poly. All of them played miniatures games as a hobby, but all had experience with 4X style games. All of them felt the rules were intuitive and easy to understand. They all felt they had a wide range of decisions to make during the game, although they were split on how difficult those decisions were. Everyone except the winner felt they could have made better decisions. The only person who didn’t feel like they won or lost based on their
decisions was a player who was attacked on the second turn of the game. While everyone felt that the game was balanced, everyone disagreed on whether there was a single strategy to winning the game. This stemmed from the fact that everyone who attacked another player early on lost. However, everyone did feel that the game was a 4X game, that it was a good foundation for further additions and expansions, and that they would buy it if it were sold.

VI. Selling the Game

A. Marketing

If the game were to be sold, marketing would be easy. As this game is a faster 4X game, it can be marketed as such to the 4X player demographic as a quicker, simpler 4X game. However, its speed means that the target demographic can be expanded to more casual board gamers as well, and can be marketed to them as a quick to play strategy game. The larger demographic will mean more people will purchase the game and thus the game will make more money.

B. Construction/Manufacturing

As far as constructing the game, I looked online at the boardgamegeek.com forum for information about recommended materials to build the game with. Several form posts recommended using chipboard for game boards (Terry). I found 120 pt 12” x 18” chipboard for $28.71, roughly $1.15 per sheet (http://www.schrafelpaper.com). I estimate four sheets would be the maximum required amount, so chipboard cost would be $4.60. Next, for covering the board with graphics and making the cards, it was recommended to use linen paper and linen cover stock (Hayes). At thepapermartstore.com, 18” x 12” 100lb linen cover stock is $42 for 125 sheets, which is around $0.336 per sheet. For cards and board, I estimate nine sheets worth,
totaling roughly $3.03. Linen paper at thepapermillstore.com sells for $56 for 250 sheets of 18” by 12” paper. As this is roughly $0.224 per sheet, and five sheets should be more than enough to supply the cards necessary if the cards are somewhat small, then the paper would total around $1.13.

As for the buildings, ships, and tokens, another boardgamegeek.com forum post suggested using “Dragon Skin” silicone from reynoldsam.com (Pollari). This silicone sells for $23.70 for two pounds of the fast cure silicone. With an estimate of half of a pound of silicone required, this makes roughly $6 total. Including a high estimate of ink at $2, this brings the total material cost to $16.86. However, this is a high estimate using high quality materials. As I expect the game to sell for somewhere between $25 and $35, I also expect a company producing this game would easily find these materials for cheaper, or different and cheaper materials.

VII. Conclusion

In summary, I set out on this project to create a shorter, simpler 4X game and created Salvation: Into the Cosmos. Inspired by Settlers of Catan and Shattered Plans, it blended elements of these games together, along with many shifts and additions, to achieve this goal. After many playtesting sessions, I managed to succeed in making the 4X style of gameplay
shorter and made a good foundation for future additions and expansions. However, if it were to be sold as is, based on the enjoyment level, expanded demographic, and cost to produce, there is potential for this game to find financial success.
Works Cited:


Habib, J. “Sid Meyer’s Civilization IV: Warlords.” *IGN*, 28 July 2008, 


