# Pocketship Empires 1936. Starship and Pibt's Compandium No. 1

with tubepunk tale:

Not in New Kansas Anymore





#### **On Roleplaying Games**

Rocketship Empires 1936 is a campaign setting for a pulp - space opera. It is meant to be used with your favorite table top roleplaying game system. Admittedly some games will support the Rocketship Empires setting with less fuss than others. In particular, games written for the science fiction genre which already include a starship combat system and a means for handling psionics and alien technology will require less work on the part of the game director and players.

With that in mind, everything presented in the Rocketship Empires books is meant for use in a table top roleplaying game and not in a war game. This is to say that the ideas presented for starship construction are merely an aid for directors whose table top rules do not include a starship combat and starship building system which can be easily tweaked into the WWII pulp style starfighters and ships featured in RE.

If your rules already include a starship combat system and ship construction guide, simply review what is presented here and dump the unnecessary structure so you can convert the ships into the system you intend to use.

The bottom line is that in a roleplaying game the structure should serve the fun of the game and not restrict it.

When I create starships (like those featured here) I start with the ship construction guide in the back of the core book and then I go wild, writing in broad strokes to achieve the ship I wish to create. I usually base the ships on a historical craft but not always. I do not allow myself to be hemmed in by the location requirements or basic concepts and neither should you.

There is only one wrong way to create ships in Rocket-ship Empires and that is abandoning the setting. Starships in RE have a certain look and they are meant to function in a certain WWII era meets pulp meets space opera style. My hope is that with the ships presented in the core book, the Gunslinger Betty book and now this starship compendium, that readers will have a solid grasp of what fits into the RE setting and what strays into the realms of other genres.

Even abandoning the setting should not be looked at as "wrong" although I would argue that abandoning the look and style of the starships, the technology present, abandoning the campaign maps and history leaves you with something that is not Rocketship Empires.

The ships presented within these pages are meant to speed along your own starship designs and to provide some additional background, equipment and (of course) illustrations to share around the game table.

There is no one right way to approach building starships for Rocketship Empires, just as there is no specific RPG system that must be used with the game. Rocketship Empires hands the game director and players a rich campaign ready for their adventures and does not ham string them by locking them into a particular rules set. Run with your favorites. Take the setting and breathe your own life into it.

The single most important element required within the Rocketship Empires universe...,is you.

e.m kann March, 2008

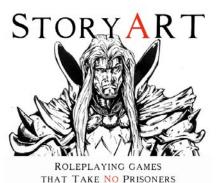
#### **Book Reviews**

The most difficult hurdle to overcome as a new author is getting the word out. The book you have in hand required a significant number of hours to produce.

If you feel that the campaign and the materials presented here were well worth your seven or fourteen dollar investment please help us get the word out by posting a review on one of the fantastic websites listed below:

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If you are looking for a rapidly growing community where you can air your ideas comment on this or future books, watch the rise of hundreds of Rocketship Empires campaigns around the globe and download our free monthly newsletter and other cool stuff...

join our forums at www.rocketshipempires.com

#### **Proof Readers and Editors**

A huge thank you goes out to our new and growing collection of volunteer proof readers and editors!

Valerie (Rocket Girl) Eakes-Kann Rob (I eat your brains) Perez Dan (The Jedi Man) Kramer Steve (I'll read this in China) Holmes Christopher (Red Pen Packin) Islaub



## Pocketship Empires 1986

## Starship Compendium No. 1

## by **Edward M Kann**

# Artists Mike Doscher and Chris Pickrell

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### **Welcome Aboard...**

Welcome to the Rocketship Empires 1936 starship compendium. This is the first in a line of similar books aimed at expanding the ships available for building Rocketship Empires adventures.

All of the ships featured in this book are common to the space lanes and skies of the Kingdom of Spain. The book dovetails nicely with <u>In Fury Triumphant</u>, our first region book. This book also includes an overview of the author's ideas behind space travel and the Rocketship Empires universe. After the ship book a short story piece set in the RE 1936 universe is included as well.

Without further delay, lets hop right in -shall we?

#### What do you need to use this book?

You will need the Rocketship Empires 1936 core campaign book to make full use of all of the starship stats and sheets presented within these pages. Rocketship is a systemless campaign which describes an alternative 1930's where mankind has reached the stars. You will also need your favorite RPG system with which to run your Rocketship campaign. If you purchased this book as a stand alone resource, the ships contained here can still be incorporated and converted into any pulp or alternative WWII era campaign.

#### **Alternate History**

Many source books, internet sources and a few first hand accounts were used in researching this book. Too many sources to be listed in anything like a decent bibliography without taking up more pages and reader printer ink than seems reasonable. Many students of history will immediately notice the glaring changes made in inception and construction dates, ship performance and descriptions, these were intentional alterations for the setting.

#### Legal

All of the ships, locations and characters within the Rocketship Empires 1936 world, even those loosely based around historic personages, are entirely fictional. Rocketship Empires 1936 was written to be used as a fun, pulp-space opera setting for table top roleplaying games. It is not meant to be a political work in any way shape or form. All of the artwork contained within the pages of this book are used with the permission of the artist or are drawn from sources within the public domain. Rocketship Empires 1936 and its related Rocketship Empires setting, alternative history, characters, maps and merchandise remain the intellectual property of StoryART and Edward M Kann. ©2004-2008 by Edward M Kann, all rights reserved.

#### Rubber Science - Part One

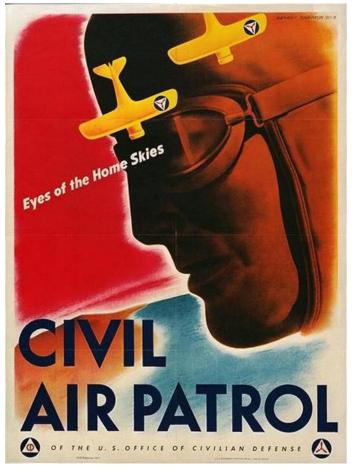
Many readers on our forums appreciated the rubber science behind the technology in Rocketship Empires. The enthusiastic reception by forum members (www.rocketshipempires.com) inspired me to include a much more detailed break down of the material in this book.

A considerable amount of game play, imagination and brain racking has gone into the pseudo science and spurious logic behind the RE 1936 setting. Directors should find the information helpful in explaining space travel and starship operations to their players. The setting material related to Temporal Space and space travel also has a heavy influence on Psi powers as they are explained in the setting and in later books.

#### Human Understanding of Time and Space in 1936...

Human notions about space, our galaxy and the surrounding universe in 1936 remain somewhat off the mark from the true nature of reality. Slowly revealing the nature of Temporal Space, Time, Space Travel and how this all interconnects with Psi can add an additional layer of immersion and fun for both the players and the game Director.

Human understanding of both space and time is curtailed at the start of the campaign by the loss of both Albert Einstein and Niels Bohr from public life. Einstein and Bohr were numbered among many of the best and the brightest of mankind's science and engineering community which volunteered for and were accepted into the Martian arcology based in the Arctic in 1920. Not even Einstein's historic work on quantum mechanics reaches the light of day in the Rocketship Empires universe. Instead, both Einstein and Bohr labor with other scientists on the design and development of hybrid starship engines and ship designs to forward to manufacturing centers scattered across planet Earth and later throughout human occupied space.





Einstein's papers on quantum mechanics (somewhat modified and advanced because of his direct exposure to Hegemony technology) are circulated around his circle of associates but fail altogether to reach wider distribution. Likewise, the writings of Bohr are limited to back and forth "shop talk" between scientists hard at work within the Santa's Workshop environment of the Martian arcology.

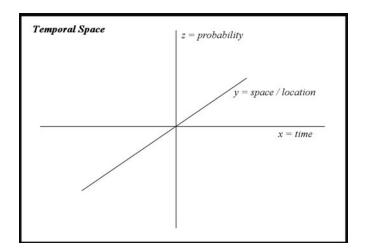
The average human and even many scientists living and working in the world outside of the Martian arcology have never heard of Einstein or Bohr and have no knowledge of, nor exposure to, concepts regarding relativity.

#### **Temporal Space**

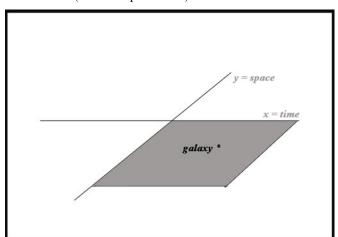
At the heart of Rocketship Empires space flight is the concept of time and space both existing as entwined parts of a greater whole. Time does not move in a linear fashion as humans perceive it. It exists universally, with all points in the past, present and alternative futures existing regardless of the observer's ability to experience these points from their relative vantage point in the here and now.

To understand how this works, it is first helpful to look at time and space as they exist as parts of a greater whole; known to the Hegemony and other alien races as Temporal Space.

Temporal Space can be illustrated using the same simple model used to illustrate three dimensional space, however it should be noted that this model illustrates space as it exists in infinite dimension. In this model the x axis equals time. Our current location in time might be indicated on this line in the usual fashion one imagines, however time does not cease to exist as we pass through it. All previous points in time and points in the future continue to exist. We experience the points we observe as we are pushed through Temporal Space by what the Hegemony defines as Shawanak Tah'ri, which translates loosely to the original creative energy of the universe. Einstein and Bohr would describe this energy as the cosmic pulse, created at the moment of the big bang or the origin of the universe. Instructors within the halls of the Order of the Golden Dawn would refer to the energy as Cosmic Force or The Weave.

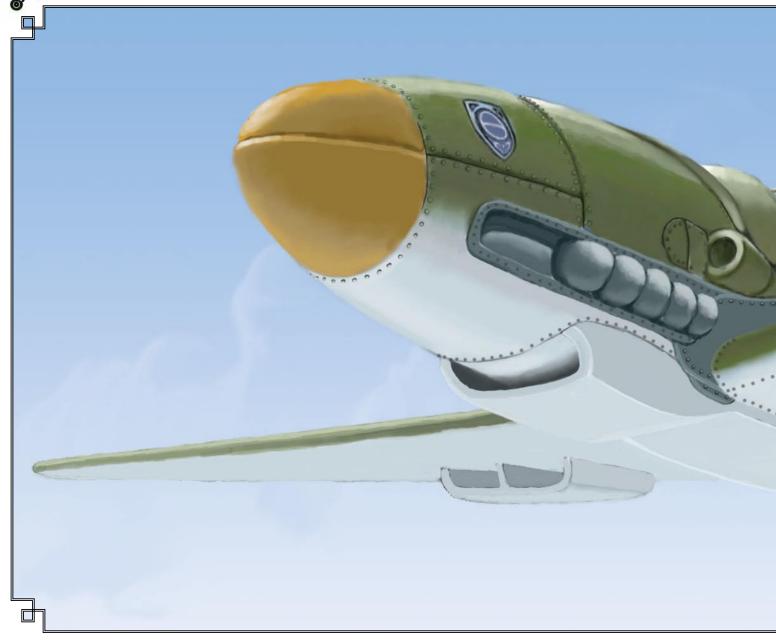


The y axis represents our present location within three dimension space. So any point within the plane of the y axis could be said to exist as a correlation of three relative points. Take a slice of the Temporal Space model which includes the x and the y axis and you have a model showing our own universe. All points within our galaxy both now and in the past and future can be mapped in this fashion. (See example below.)



The z axis relates to probability. It contains all of the alternate dimensions where you zigged when you might have zagged, where you married your first boyfriend or girlfriend instead of waiting until later. All of these possible alternative dimensions also exist, whether the observer experiences them directly or not. Possible potential realities with small alterations from our own (the door is unlocked instead of locked, the dice rolls a six intead of a one) exist close to our own along the z-axis of probability, while extreme variations exist further away. This is not to say that there is an alternate you or an alternate me a mere side step up the z axis. All of the closest layers of potential probability contain only possible alternate realities. There is no other *you* existing at the same time in these nearby realms, only the lingering spectre of what might have been. In fact it is likely that you are the only you in the entire Temporal Universe. On the other hand, the possibility of other human civilizations present far afield within Temporal Space (a human stellar empire which was never defeated, for example) is not only probable. It is likely.

It is critical that you, as a reader, understand that the Hegemony perspective on the nature of the universe is not limited to the little gray pie slice of reality with which humans are familiar. The Martian view encompasses the vastness of Temporal Space as one unified whole. Jump space travel does not merely carry humans across the gulf between star systems by traveling along the y axis of space; this violates certain laws of physics regarding the speed of light and mass. Jump space travel instead, and this is incredibly important, moves starships up and through the Z axis of probability and alternate dimension. In effect, starships which enter jump space take advantage of the warp fields created by large gravity bodies both within our own reality and in neighboring realities to transit from point A to point B while effectively slipping sideways through what we normally consider part of the equation of physical distance altogether.



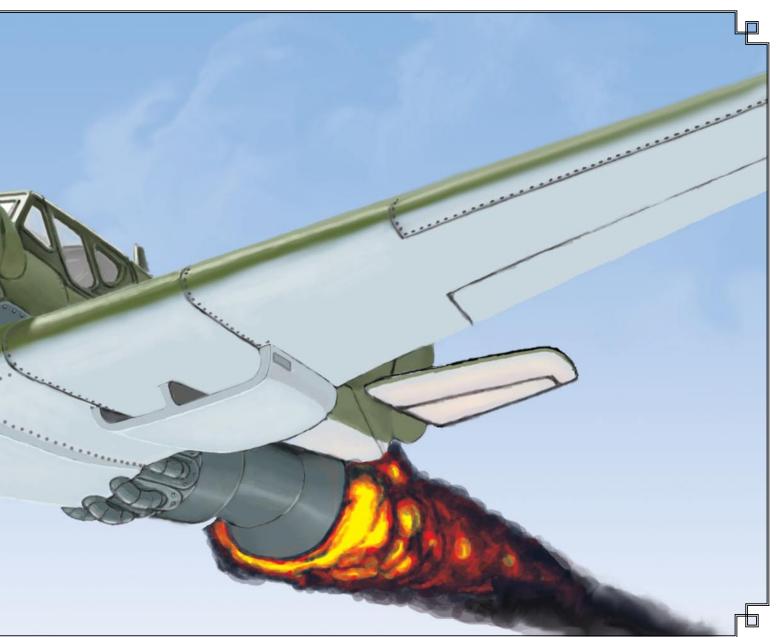
This implies that Martian temporal navigators and astrogators have a direct knowledge of star systems existing outside of the galactic reality of our own planet Earth, and that would be absolutely correct. A map of the Hegemony therefore can only be accurately portrayed in the x,y,z axis model of Temporal Space. Routine jump routes shoot starships up and down the z-axis of probability space, linking stars in different alternate dimensions into one great super galactic / extra-dimensional empire. Does this mean that human pilots, when they emerge out of jump, emerge in a star system in a different dimension? The answer is yes! What does it matter, from the Martian perspective, if the habitable planet in the Alpha Centauri star system exists in an alternate dimension along the z axis of Temporal Space? The inhabitants are still separated by a distance of vast light years and without a direct means of communication between star systems, who is going to be the wiser? After a certain distance it hardly matters that the Alpha Centauri in our own galactic reality is an unoccupied and uninhabited pile of space debris.

#### **Bf 109 A-E and V**

The Reichsluftfahrtministerium (RLM) began serious investigations into a complete redesign of German starfighter technology as early as 1933. The laboratory advances produced by Willy Messerschmitt while working in the Hegemony propulsion laboratory in Antarctica, gained significant attention by both his peers and his sponsoring government. In 1934 the Germans managed to recall him from his placement after significant feather ruffling of Sept diplomatic contacts. Messerschmitt was officially called back to Germany for reasons related to his Father's declining health but within six months he was off world with orders to apply first hand input on upgrades to manufacturing and ship building practices throughout Reich space.

Both the Heinkel 112 (not featured in this book) and the Bf 109 A model went straight into production after RLM testing in November of 1934, with only forty of the 109 A types being built





before a redesign to the 109 B model early in 1935. Fully 304 of the 109 B model starfighters were built over the course of 1935. The type B or Bruno model featured an additional reserve of ammunition for the twin MG 17 guns mounted in the nose, however combat experience in Spain early in 1936 would prove that these starfighters were not sufficiently armed to score the kill ratios the RLM demanded of the otherwise frighteningly effective starfighter

#### **Campaign Time Line**

This brings into question the roll out of the Bf 109 series over the course of the director's campaign. Prior to 1936 only a handful of Bf 109 A (Anton) types exist along with a main force of Bf 109 B (Bruno) types. At the start of the war, the Legion Condore bring one hundred and twenty five of the Brunos into action with great success. The Bruno starfighters show such advantages in speed, climb and agility that despite their short range and ten-

dency to blow through fuel the Brunos experience surprisingly few combat defeats. Unfortunately the twin MG 17 guns in the nose, not so affectionately nicknamed potato guns by pilots, did not result in the massive record of combat victories or kills that the RLM had expected.

By March of 1936 the RLM was moving forward with production on what would be a short lived run of Bf 109 C ("Caesar") starfighters with two additional MG 17's, one in each wing for a total of four. The Caesar also featured the latest Jumo 210 series drive (for greater power), unfortunately the redesign also included an increased capacity to guzzle fuel and the Caesar did nothing to expand the fuel tank capacity of the fighter. Pilots of the Caesar series complained loudly to the RLM that the three hour window for combat flight operations in the model was woefully insufficient for organizing effective combat patrols in space. As a result, the Caesar series was limited to in-atmo air combat operations with brief sorties into orbital patrol but was useless in sup-



porting fleet operations in the Legion Condore blockade.

As a stop gap measure the first experimental Bf 109 V series was introduced in October of 1936. The V series introduced short runs of experimental models for the combat testing of a wide variety of Bf 109 designs. Perhaps the most common and successful experiments were in the arena of redesigns of the starfighter's wing to increase fuel storage and improve wing located weapon mounts.

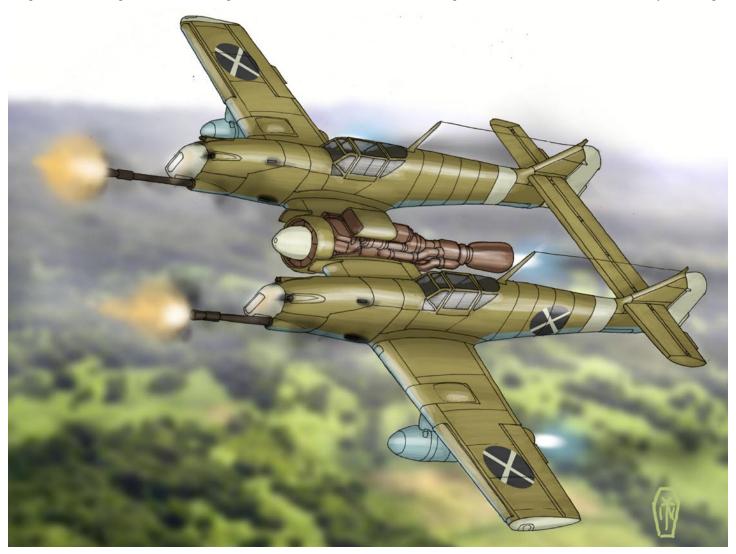
Experiments were also conducted in the application of a nose mounted weapon both in a third MG 17 and a 20 mm cannon which ran down the interior of the nose. Insufficient structural strength in the nose to support weapon recoil for the nose mounted cannon produced problems with the weapon jumping out of its bracket. This rendered the weapon useless at inconvenient moments during combat trials. This problem was not overcome until the upgrade from Astrosteel to the heavier and more durable Rocketanium alloy in Bf 109 frame construction in January of 1937. The change over from Astrosteel to Rocketanium alloys increased the cost of Bf 109 construction to some degree but more importantly increased the weight of the fighter each time more Rocketanium was introduced. Experiments in strengthening the wing weapon mounts using Rocketanium met good success in 1937 but

again, increased the mass of the starfighter, increasing drag and reducing the 109's agile performance and legendary combat speed even further.

The most successful Bf 109 V series was the Bf 109 V2 placed into limited production in November of 1936. Between November of 1936 and February of 1937 a surprising forty eight of these quirky experimental starfighters were produced while the RLM debated whether the new direction it introduced should be adopted into main production channels.

The Bf 109 V2 series (shown below), introduced a twin cockpit design that very nearly doubled the weight and size of the starfighter. This increase in tonnage allowed the installation of a high performance, fully operational Daimler Benz type B gravity drive. The Bf 109 V2 series was the only Bf 109 prior to the Emil capable of independent jump travel. The larger engine insured excellent speeds in atmo combat and the twin fuselage, quirky as it appeared, created an agile and sturdy starfighter.

The V2 (nicknamed the Viktor by its crews) also sported the longest operational range of any Bf 109 starfighter. During the course of the war, four squadrons with twelve fighters each were formed although for various mechanical reasons only six to eight



## Rockdslifp Empfres 1986



Viktors or three to four wing pairs would operate in patrols.

The Viktor is the most aggressive weapons platform of any Bf 109 to see action in the Legion Condore. With its impressive two nose mounted 20 mm cannon and four nose mounted MG 17's the fighter is heavily armed and its pilot teams earn some of the best kill records in the civil war.

The Viktor's most radical element remains the introduction of a two crew, pilot and co-pilot arrangement with redundant controls in both cockpits, the sensor package in the right cockpit (facing the craft from the front) and the ship's jammer and long range radio package in the left cockpit. The two crew approach makes the Viktor a superior combat trainner. Inexperienced pilots can gain valuable first hand experience with an old hand who can readily take the controls should a rookie get themselves in over their heads.

Ultimately the nails that seal the coffin of the Viktor series from achieving more than experimental status is their cost and the desire by the RLM to see pilot crews occupying as many individual starfighters in the air as possible.

After 1937, the V2 was temporarily abandoned until its reintroduction in 1939, when it was again placed into short runs for evaluation by the RLM. Over the course of WWII limited runs will keep a half dozen Viktor squadrons in supply but this amazing and innovative design will never see mainstream RLM production.

In Spain and later, the Viktor squadrons are largely assigned to patrol duties associated with the blockade however, German air command in the planetary combat zone soon adopts a policy of cycling in one squadron of these tough fighters planet side to add an added punch to planetary military operations and CAP.

The Bf 109 D or Dora arrives on the scene in June of 1937 and becomes the replacement configuration of the Bf 109 B for the remainder of Legion Condore actions in Spain, right through to the end of the war. The Bf 109 D-1 still features the Jumo stripped type B drive and a limited patrol range. It possesses a modest armor improvement, better protection for the pilot in the cockpit and sports an MG 17 in each wing and two in the nose. The Bf 109 D-2 is an experimental version which attempts to mount the larger Daimler Benz Type B gravity drive on the fighter but engine mounts and heat sink technology remain inadequate and this design fails before it is brought into combat testing. The D-3 series replaces the MG 17 mounts in the wing with a pair of 20 mm cannon and becomes the fighter of choice for many pilots right through to the end of the war. Additional Rocketanium incorporated into the D-3 wing mounts again pushes agility down a notch from previous designs at a trade off of speed and agility for raw firepower.

In all, more than six hundred of the Dora are produced prior to the end of 1939. Many of these are limited to planetary and orbital combat operations while the main fighter of the RLM is switched over rapidly to the Bf 109 E or Emil. At the start of WWII the Dora is restricted to night fighter operations.

The Bf 109 E or Emil enters action in the Legion Condore late in the Spanish civil war. Only fifty of these fighters, which represent a vast technical leap forward in human starfigher design, are dispatched to Spain for use in the Legion Condore.

The Emil solves many of the problems dogging early incarnations of the 109. It has a solid operational range. Problems with mounts and heat are overcome and the Daimler Benz type B gravity drive is successfully incorporated into the fighter. The early Emils feature four MG 17 guns, two in the nose and two in the wings with a 20 mm cannon with limited ammunition successfully mounted in a reinforced nose compartment. With the successful incorporation of the new drive, the Emil is not only blazing fast it is also a sturdy jump capable starfighter capable of independent strikes on neighboring star systems (and the return trip home); exactly the design the RLM was looking to produce.

Early in 1938 the Emil is slated to be the number one starfighter in production in the Reich. While only a limited number see action in Spain, the Emil is produced in large numbers for distribution to naval and military bases throughout Reich space. The RLM push is so assertive on the adoption of the Emil that Daimler Benz drives slated for other starships become difficult to obtain, to the point where some ships, like the Do-17 face a significant redesign and the incorporation of a less suitable engine so that these projects do not die on the production floor for lack of parts.

#### Starship Sheets

I will outline only the Bf 109 B (Bruno) here along with the Bf 109 V-2 (Viktor) as these two types of 109 are operational in Spain during the first three months of the war through the first year. A game director could certainly introduce the Viktor type earlier if they felt the need to mix up the types of fighters encountered early in the campaign.

#### The Bf 109 B (Bruno) Starfighter

Starfighter Class / Slots and Locations

Cockpit 5 slots
Nose Hardpoint 4 slots
Left Wing 3 slots
Right Wing 3 slots
Fuselage 5 slots

Bf 109 B / Slots and Locations

Cockpit 1 slot FuG 7 Hybrid Radio

1 slot FuG 125 Hermine beacon receiver

1 slot Pilot Ejection System
1 slot Seetakt II Active Sensor
1 slot Fire Control System





Nose Hardpoint	1 slot	MG 17
	1 slot	MG 17
	1 slot	Expanded Ammo Reserve

Left Wing	1 slot	MG 17
	2 slots	Rocket Rack
		R-3 Lion Tamer

Right Wing 1 slot MG 17 2 slots Rocket Rack R-3 Lion Tamer

Fuselage 1 slot 1000 Liters of Fuel 1 slot Ship swamping equipment

1 slot

1 slot Light - Rolled Plate Armor 2 slot Type B Jumo 210D

Available for Expansion

(Stripped)

Additional 8mm Armored Plate

Armored Rings / Engine Cowling 20mm Armored Windscreen (Hybrid)

Airframe Light

Engine Performance Jump Travel = NA

System Travel = 20 Hours per AU

Tactical Speed = Blazing

Fuel Performance Jump Travel = NA

System Speed = 50 Liters per Hour Tactical Speed = 100 Liters per Hour

Tonnage 15 Tons

Manufacturing Notes: Messerschmitt

HullGoodEnginesExceptionalWeaponsGoodArmorAverageSystemsGood

Price High (military only)

The Bruno's single Type B Jumo 210 D engine while technically a "stripped" engine, meaning it does not include a gravity drive and is only capable of system and tactical travel, was manufactured in this design rather than having the component removed. The engine is of exceptional quality and this bonus raises the vessels tactical combat speed from a Fast two ratings to Blazing.

In order to compensate for modifications in the engine to increase thrust, the design is a tremendous fuel hog. Fuel is consumed at an incredible 50 Liters per hour when traveling using the system drive and 100 Liters per hour using the tactical drive. The massive boost in tactical fuel consumption results in a two step increase in ship speed from merely Fast to Blazing.

Fuel and range are such a problem that any Brunos arriving in Spain are outfitted with a scaled down starship swamping set-up, allowing the pilot and ground crew to refuel the fighter

even when available stores are running low.

The Bf 109 historically suffered from a narrow wheel base on its landing gear causing the ship to tilt or tip over in the hands of a novice pilot. The hybrid Bruno faces none of these challenges as it settles onto a cushion similar to that generated by a hover vehicle. Upon landing the Bf 109 cushion is active and allows the fighter to float effortlessly approximately two feet above the surfaces of the ground. The fighter bobs a bit when a pilot climbs in or out of her but otherwise remains stable in this position until take off. The hover feature on these starfighters is nearly silent and is set into idle mode when the vessel is parked. If the ship requires service or its power system is deactivated the starfighter can settle onto the ground. With the hover feature active the vessel is very easy to push around by a technician. The starship can literally be pushed or moved by hand on its repulser field making service on these craft significantly easier than on most other starfighters.

The most common type of Bruno listed here is armed with four MG 17s and a rack for attaching rockets under either wing. Later versions trade out the rocket rack for the 20mm FF/M Minny cannon on either wing. Guns on the wings have sufficient ammunition for ten pulls of the trigger or bursts. Guns in the nose have an additional ammo reserve which allows for twenty pulls of the trigger or bursts. The nose and wing guns can be fired together or independently although most pilots prefer to enter combat with all four guns linked for faster kills.

The FuG 7 short range hybrid radio system installed in the cockpit has an effective range of .5 AU. The Bruno is also outfitted with a FuG 125 beacon receiver with a range of 250 kilometers. This beacon receiver can pick up radio transponder signals from spotters on the ground. It can also be used to detect active sensors within a range of .25 AU but at a disadvantage to the detection roll of -2.

The Bruno is one of the first starfighters to feature the new and expensive rolled plate armor application. This provides an additional bonus to the armor value of the fighter. Where most other starfighters in the air in Spain use older armor techniques, providing a bonus to critical hits against them, the Bruno has no such vulnerability and indeed has an armor bonus above and beyond standard.

#### The Bf 109 V-2 (Viktor) Starfighter

Heavy Fighter Class / (24) Slots and Locations

Cockpit6 slotsNose Hardpoint8 slotsLeft Wing2 slotsRight Wing2 slotsFuselage6 slots

Bf 109 V-2 / Slots and Locations

Cockpit 1 slot FuG 7 Hybrid Radio



	1 slot 2 slots 1 slot 1 slot	FuG 125 Hermine beacon receiver Pilot Ejection System x2 Seetakt II Active Sensor Fire Control System
Nose Hardpoint	2 slot 2 slot 2 slot 2 slot	MG 17 x 2 MG 17 x 2 20 mm MG FF/M Minny 20 mm MG FF/M Minny
Left Wing	1 slot 1 slot	1,000 Liters of Fuel Solid Rocket Booster
Right Wing	1 slot 1 slot	1,000 Liters of Fuel Solid Rocket Booster

Fuselage 1 slot 1,000 Liters of Fuel
1 slot Ship swamping equipment
1 slot Light - Rolled Plate Armor
2 slots Daimler Benz Type B
Gravity drive
1 slot Medium Airframe

Additional 10mm Armored Plate

Armored Rings / Engine Cowling 20mm Armored Windscreen (Hybrid)

Airframe Medium

Engine Performance Jump Travel = 24 hours per LY

System Travel = 22 hours per 1 AU

Tactical Speed = Fast (Fast +)
Jump Activation = 200 Liters

System Transit = 10 Liters per Hour

Tactical Speed = 10 Liters per Hour

Tonnage 10.5 Tons

Manufacturing Notes: Messerschmitt

Hull Good

Fuel Performance

Engines Manufactured by Dornier (Good)

Weapons Good Armor Average Systems Good

Price High (military only)

The Viktor is equipped with two pod style solid rocket boosters mounted under each wing. These provide the ship with short bursts of additional speed for up to 1d6+2 combat rounds before sputtering empty. Once emptied these disposable pods must be replaced. The Viktor can be vulnerable to a direct hit on one of the rocket boosters while it is firing. In certain instances an activated booster hit with enemy weapons fire has been known to explode (as though a small but effective bomb had been placed on the wing of the starfighter).

The Daimler Benz Type B gravity drive installed in the Viktor is manufactured by the Dornier company. These engines possess a good quality rating. While the Jumo engines manufactured by Messerschmidt possess a quality rating of excellent they

are only manufactured at the present time in the type A variety.

The Viktor is a heavy fighter class starship with a mass of 10.5 tons. Placed side by side with the Bruno, the Viktor is slightly more than twice its size.

While the weapons mounted in the nose of this heavy fighter are extremely formidable they can not be used together to effectively target a small and agile craft like an enemy snubfighter or starfighter. Only the piloting character has the ability to line up their guns for a shot. It is possible for both pilots to fire at larger targets. Capital vessels, star bases and large ground targets can easily be engaged by both pilots in the Viktor simultaneously. The ability to unleash both 20mm cannons and four MG 17s into a freighter or military vessel makes the Viktor a dangerous and a favored ship for space combat. The Viktor performs well both as a patrolling vessel and as a commerce raider.

As a jump capable fighter with an exceptional range the Viktor is a natural choice as a fast courier vessel or transport for commanding officers in need of a quick and well armed lift to or from the front. The Viktor makes a handy platform in other roles as well. The design is so flexible that Messerschmidt tries several times to push it through the RLM into main stream construction but this is defeated by political rivals, time and time again.

Only in the Hegemony war does the Viktor achieve the status of a front line heavy fighter. Fully three hundred Viktors are produced for International squadrons fighting on the Hegemony battle front from 1938 until late in 1940, most are destroyed.

Remember that the radio set, receiver and fire control system are located in one cockpit and the active sensor is located in the other cockpit. Both cockpits are equipped with pilot ejection systems which launch the pilot, seat and a parachute out of the craft for a safe bailout in atmosphere. In space, the system cannot be activated unless the crew member is wearing their life support suit. Both cockpits have an emergency toggle for the emergency eject of the other pilot's seat. This can only be activated by going through a routine of hitting four widely separated controls located in different parts of the control panel. It is impossible to "accidently" eject a partner into space with this system. It is meant to be used when a partner wounded and unable to eject themselves.

The largest drawback to the Viktor, among its many impressive advantages is its limited ammunition supply. The guns can be fired either as a linked pair of MG 17s, or the cannon or all three together. There is only sufficient ammunition for ten trigger pulls or ten bursts of weapons fire.

The Viktor's guns can not be reloaded in flight. It does not possess any significant cargo space. At best there is sufficient space for small military style pack behind each seat. The cargo spot does not have room for fitting anything of significant size. A rifle will not fit behind the seat. A stubby SMG or machine pistol would fit nicely or a service pistol and holster. The Viktor uses the same repulser field as the Bruno and can manage a smooth VTOL take off or landing.



#### **Rubber Science - Part Two**

In part two of rocketship rubber science we will take a look at the gravity drive, different varieties of alien starship drive systems and how they function and the Hegemony outlook on the navigation of Temporal Space.

First. We should focus in on the properties of *Time* as they relate to the Rocketship Empires setting so as to eliminate confusion about what direction this is all going.

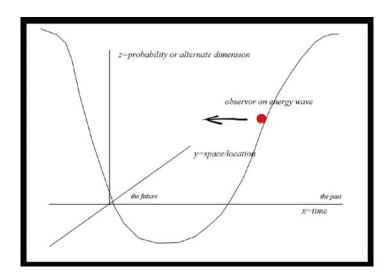
#### Time

It would seem with all this talk about time and space, that logically, the setting would present opportunities for time travel. While this remains a viable part of any pulp science fiction story the ability to travel through time is absent from the Rocketship Empires universe.

In the context of Temporal Space the past, present and future exist independently from the experience of the individual. Usually we think of time as passing us, not the reverse. We discuss how time has flown by or how time is dragging. From our perspective it is time and not we who are moving when in fact this is absolutely the reverse of the truth.

In Temporal Space, time is geography. It is a landscape made up of physical location, individual point of view and choice, or in our model, probability. We are pushed through this geography as we ride a wave of energy that the Martians consider to be linked to the origin of the Universe.

At the beginning of everything, or at least in the beginning of Temporal Space, a vast cosmic force sparked our current universe out of the void that existed prior to that. This moment of creation or explosion of energy echoes through Temporal Space and, like any form of energy, can be modeled as an energy wave.



This wave form pulses through Temporal Space carrying experience and observation forward through the geography of

time. Humans and other life forms have no real control over the rate that this massive energy pulse pushes us forward through time, nor can we change the direction which we are being carried. In a way, humans and all life forms and the galaxy in general are carried forward on this great wave, or wall of energy through time; like boats riding the forward edge of a great ocean tidal wave.

We can sail back and forth across this moving wall of energy and determine our course by walking through physical locations (we drive to work, walk to school) on the y axis and through our decisions, choices and sheer luck (we guess correctly on our latest lottery ticket) navigate our way up and down the z axis of probability. In a sense, every human being is a navigator making their way through the vastness of Temporal Space. We are all riding one of many great pulses of energy sent through Temporal Space. We surf the echoes of the big bang as creation appears to pass us by when, in fact -it is we who are passing through it.

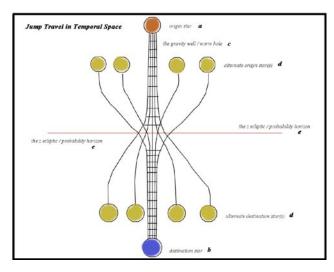
With that explained it should now be more apparent that time travel in the sense of hurtling forward beyond the pulse carrying us through time or somehow overcoming the energy field which is carrying us along, is well beyond the scope of any known technology or supernatural power, at least within the grasp of the science of the Hegemony. This situation does however present an interesting opportunity to the character with psi talent and that is in slipping sideways along the face of the cosmic wave.

#### **Jump Travel and Temporal Space**

In Temporal Space a starship preps for its stardive in the origin star system; a. It uses its navigational computer and sensors to vector a dive towards the destination star system; b. Generally the initial target to achieve a lock is the star present in the same y axis or dimension of space. Diving into the star slingshots the ship around the origin star and when the ship is positioned correctly, the gravity drive activates, introducing a powerful anti-gravity field to hurtle the ship down the lines of gravitational force of the gravity well (c) between the origin and destination star. The effect is not unlike a bullet fired down the barrel of a gun.

What makes up the gravity well is the lines of gravitational force that not only link the two distant stars but also cross the z axis and link stars located up and down the z axis of probability space. This tunnel of intersecting lines of gravity form the tunnel or worm hole which exists between every star in the surrounding galaxy. Not only that, these same corridors merge together where the lines of gravity cross over the z axis at a location within the worm hole called the probability horizon. It is at the probability horizon that a starship can plot a course to a range of alternate dimensions.

Human ships receive Hegemony navigational computers with pre-programmed courses of travel through the probability horizon. Entering the probability horizon briefly exposes a Martian ship and other more advanced alien craft to the possibility of hurtling up and down the z-axis ecliptic, opening the pandora's box of exploring Temporal Space more completely.



#### Psi

Psi is in some respects an individual's extra sensitivity and awareness of their forward movement through time. In some respects it is like closing one's eyes and knowing whether one is riding down the road in a smooth riding automobile or not. Not everyone is aware of the feeling of movement in a vehicle. Certainly there can be distractions and other inputs which cause us to ignore the sensation of movement, of being carried along at terrific speeds over the asphalt down our local super highway.

In this same way some people are more prone to noticing the background energy pushing us through time and to which every living thing and object is connected. They might be described as that friend prone to car sickness in our journey through Temporal Space.

One of the earliest techniques a psion is introduced to is the practice of visualizing the model presented here, their current place within the realm of potential, the presence of other possibilities up and down the Z axis and making attempts to slide into them.

Imagine a Psi as someone with a very quick and agile vessel compared to the average person, navigating back and forth on the energy wave. The pilot of that vessel is trained to spot a destination further up or further down along the wave and zip themselves into that spot by grabbing hold of the fabric of Temporal Space with their mind, and having it carry them across the face of the wave to their intended destination.

The basic point being that the Psi individual is merely more sensitive and practiced than other humans in reaching out and grabbing a hold of a vast energy which is always present. This explains how a Psi can detect the presence of another Psi by experiencing that someone else nearby is "tapped in" to the ambient energy of the surrounding area. It explains how a Psi can heal a wound or disease rapidly by shifting either themselves or their patient (or both) into an alternate state where the wound is greatly reduced or never occurred in the first place. The Psi is not literally healing the subject's body. They are shifting themselves through the Z axis of Temporal space through the range of probable reali-

ties to one where the wounded person was not shot but was missed by their opponent. From the perspective of the injured party it certainly feels very much like they were healed and repaired perfectly. It feels as though the gunshot never happened...because it never did.

This opens up questions about the ramifications of using psi to skip back and forth between nearby alternate realities. How much control does the psi character have? Even a minor change in the surroundings of the psi might result in an otherwise excellent friendship turning sour or a potential windfall in the character's future never being experienced, because they happened to be standing in a different reality just a few marks off of where they began when the windfall would have otherwise occurred.

A normal person alters their course through the z axis of probability and alternate dimension merely by deciding whether they get out of bed in the morning or not. The psi is simply more aware of their choices and more willing to be responsible for experiencing the outcome.

Does this mean that a psi character immediately vanishes from our reality and appears in another whenever they use their ability? No it does not. Reality has a way of reinforcing itself and the layers of probability space above and below our own are only very slightly and almost imperceptibly different. We all move up and down through them as we are pushed through the experience of time routinely and none of us vanish in a puff of smoke for choosing to go to the store or open a can of beer. The same is true of the psychic, although they still may manifest an unwanted outcome. Such an outcome is usually the result of a botched or critically failed psi ability roll and catches up with the character in the not too distant future where they experience something quite different than what they would logically have expected in their day to day relationships, career or experiences.

A psi may also apply the cosmic power available to them in a less elegant sense. Instead of reaching out to take a hold of it to travel, they may grasp a piece of it and hurl it.

The ability to grasp a hold of the energy wave underlying our ride through the realm of Temporal Space is at the core of the power available to the psychic become Warlock. The Warlock's use of this power can manifest as telekinetic power, the focus of gravitational forces in the surrounding area or their temporary reduction, the throwing of manifestations of super heated cosmic plasma and other fearful abilities. Like the slightly more subtle Psi Witch, the Warlock faces the repercussions of seizing hold of this power and critically failing or botching their attempt.

In the case of the Warlock they may release the energy in an unbalanced or premature fashion and cause damage to themselves or unintended targets surrounding them. Worse still they may expose themselves directly to raw cosmic energy and become physically mutated. Over time the unlucky among the ranks of the Warlocks face a twisted utterly inhuman metamorphosis which ends with pain, terror and insanity.





#### Polikarpov I-16 Type 10 (Rata)

In 1928 Nikolai Polikarpov was one of a dozen Soviet aircraft designers turned starship experts tasked with the development of the first high speed, long range and fully jump capable starfighter for the Soviet navy. The design called for a fighter which was both sturdy, well armed and capable of extended independent operations away from the support of the Soviet navy.

Even with the existing Hegemony technology to draw upon the project (ill conceived for 1928) was doomed to failure. Human experts at the time were barely capable of building what passed for the standard starfighter and medium class starships at the time. The entire project was a wash out and in 1929 when it fell apart, Polikarpov and his team mates were placed under arrest and sent to a Soviet labor farm to await their execution.

After two years awaiting execution, Polikarpov was transferred to the asteroid mining colony on Butyrka and sentenced to ten years of forced labor working in the top secret Special Design Bureau naval laboratory. Fortunately Polikarpov was successful in kit bashing together a ground breaking new starfighter design with retractable landing gear, the use of the powerful Wright Cyclone type B engine allowing for both speed and jump capability, and a sort of modified engine cowling designed to force air through the tactical drive to cool the engine during in-atmo flight operations.

One accidental discovery of Polikarpov's new cowling was that the force of air through the front mounted narcele of the drive reduced drag on the body of the starfighter during flight by as much as sixty percent.

Early designs of the Rata were dispatched to the arena of the civil war almost immediately in 1936. Several Republican fighter wings outfitted with Rata were fully supplied before the Nationalist blockade came full effect in March of 1936. The Republicans wisely keep the bases of their Rata fighter squadrons carefully concealed, launching them in pouncing surprise attacks whenever possible and then fading back to their concealed bases.

Early in 1936 the seizure of a Spanish shipment of gold meant for the King in the Valencia system provides the Republicans with some cold hard currency. A portion of this gold is sent to the Soviet Union and later in 1936 the Soviets perform a major surprise break-out through the blockade. Several Italian vessels are totally destroyed along with a Reich destroyer. The Soviets also lose several vessels, among them a transport carrying half of the new Rata purchased with the seized Kingdom gold.

Even so, a shipment of one hundred additional Rata in three surviving cargo vessels make it to the Republicans. This is the one and only major reinforcement of the Republican naval force throughout the course of the war. The arrival of the new



Rata may have well turned the tide of the war altogether if the Republicans had managed to train sufficient numbers of pilots to fly them.

Instead the resupply is metered out in dribs and drabs. The Republicans manage to field four squadrons of Rata at the height of the power of their naval forces. This is insufficient and the presence of the squadrons of experimental Viktors in the area more than counter balance the Republican starfighters.

From January of 1936 through June of 1936 the Rata has a significant edge against the majority of the older bi-plane style fighters flown by the Royalists and by the Italians. The arrival of Reich troops in March outfitted with the first Bf 109 Bruno allows the Legion to slowly turn this advantage around, however the Soviet built Rata remains at least an equal threat in the air to the 109 A and B models through to the end of June, when the uneven numbers in starfighters between the two sides begins to tell.

An even greater domination by the Rata in starfighter combat is sidetracked by the tendency of the fighter's ShKas machine guns to jam, the result of whole runs of them being installed upside down in order to fit them into their wing brackets at the factory. This problem is eventually worked out but not until August of 1936 when reinforcements of new Rata and pilots trained to fly them is reduced to the equivalent of a single replacement squadron once every six to eight weeks.

It should be pointed out that the botched installation of Rata guns is one in a long line of such blunders stemming out of the "make your production quota or be shot" policy dominating factories throughout Soviet space.

The Polikarpov was nicknamed the Rata or rat by the Nationalists due to its stubby design. The Republicans refer to the starfighter as the Mosca or Fly. Later designs of the fighter include additional guns mounted below the engine. The four gun version of the Mosca earns the nickname Super Mosca or merely as the "Super" (super fly). Nationalist pilots grudgingly call the heavy gun version of the Super Mosca the Mighty Mouse.

In the national press the British and American media scoff at the Polikarpov as a hopeless design by the Soviets whom they portray as somehow deficient in building anything effective either as a starship or vehicle of any sort. Articles betray an open, almost politically based racism against the Russians, describing them as hopelessly backwards. It is interesting to note that until the Bf 109 Bravo and the Viktor arrives on the scene that this same deficient Russian Rata fighter is dominating in almost every dogfight against Western build starfighters from every nation.

The Rata remains a stable snubfighter of the Soviet navy well into 1944 although it experiences a number of modifications and rebuilds. Thousands of these starfighters are built between 1935 and their retirement in 1944. They remain a major item of export for the Soviets to favored trade allies and puppet regimes well beyond that period.

#### The Polikarpov I-16 Type 10 (Rata) Snubfighter

Snubfighter Class / Slots and Locations

Cockpit 5 slots Nose Hardpoint 4 slots Left Wing 2 slots Right Wing 2 slots Fuselage 2 slots

Polikarpov I-16 slots and locations

Cockpit 2 slots October Victory Sensor

1 slot 60 mhz standard radio (human)

1 slot Life Support Cartridge1 slot Ammunition Reserve1 slot Fire Control System

Nose Hardpoint 2 slot SHKAS

2 slot Type B Wright Cyclone

**Gravity Drive** 

Left Wing 2 slot SHKAS Right Wing 2 slot SHKAS

Fuselage 1 slot Light / Joint Welded Armor

2 slots 2,0000 Liter Fuel

Additional 8mm Armored Plate

Armored Rings / Engine Cowling 20mm Armored Windscreen (Hybrid)

Airframe Light

Engine Performance Jump Transit = 24 hours per LY

System Transit = 24 hours per AU

Tactical Speed = Fast

with boosters fired = Blazing (-)

Fuel Performance Jump Transit = 150 Liters

System Transit = 10 Liters per Hour Tactical Speed = 5 Liters per Hour

Tonnage 5 Tons

Manufacturing Notes: Soviet

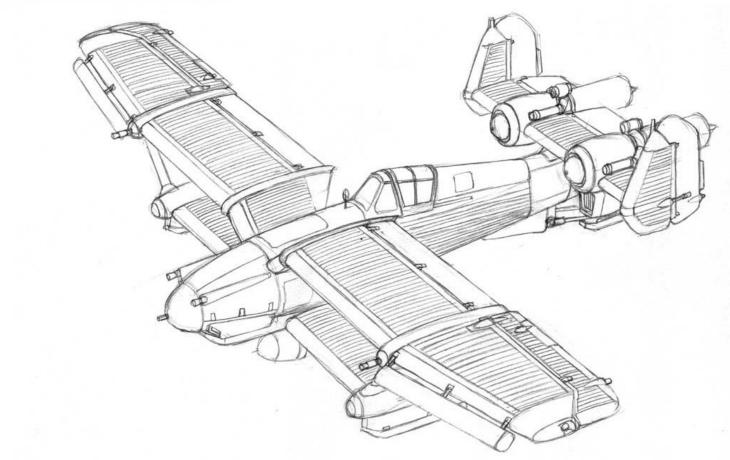
Hull Poor
Engines Average
Weapons Good
Armor Excellent
Systems Good

Price Average (Available for Purchase)

The Rata is equipped with a standard (human gear) short range radio. The radio has an effective range of fifty kilometers in good weather. The radio can receive transmissions from more powerful hybrid units set to send to its frequency, but it is quickly beyond the range where it can reply. The radio is usually restricted to chatter among pilots flying together in formation.

The Rata, while space worthy, has a minimal life support unit. This protects the pilot from the effects of g-forces and radiation but has reduced ability to recycle oxygen. A pilot can count on their life support normally for about ten days before it begins to run out. Recharge requires a cartridge replacement.





#### The Fiat CR 23 (Stilleto)

The Fiat CR 23 is an Italian manufactured fighter built along the bi-plane style evident in most human fighter models built between 1922 and 1930.

The Stilleto was designed by Celestino Rosatelli for the Regia Aeronautica in 1926. The uneven wing design with a longer upper wing and shorter lower wing was noted as somewhat unconventional. Rosatelli incorporated a Warren style strut that eliminated the need to place further supports between the wings. This feature was incorporated into several different Italian designs and greatly aided in eliminating the visual obstacles presented by multiple supports. In addition Rosatelli moved the wing mounted engines to the tail which further improved pilot visibility to the front and sides of the craft.

Unfortunately the twin engine placement and double fin tail design blocked pilot visibility into the starfighter's critical six o'clock position. A pilot caught unaware could be approached from below and behind by a stealthy and patient foe and pounced upon before

the pilot even became aware that they were in trouble.

The Stilleto is armed with two Breda SOFAT light guns in the nose and one in either wing. The very short range of these guns and the lack of any sort of sophisticated targeting equipment beyond a simple iron site makes the successful application of the Stilleto in combat restricted to eyes on combat at extreme close range in space and dogfighting in atmosphere.

One could easily argue that the Stiletto's stripped type B engines are meant only to allow the ship to travel from one planetary combat zone to another and that the starfighter was never conceived for combat in the black of space.

This is true of many of the starfighters built between 1922 and 1928, whose designers could not imagine a ship intercepting and engaging an enemy in the vastness of open space. Combat was thought to be something that would largely be restricted to in-atmo engagements or encounters in high orbit. The idea of unrestricted warfare developing between nations in space was still somewhat shocking to designers on the



heels of the Great War and ran contrary to the spirit of cooperation evoked in the early days of space exploration. In fact, many starfighters were designed to be merchant escorts whose primary mission was the protection of civilian freighters and colonial transports from pirates. Few of the starfighters build prior to 1927 were conceived as full blown military craft.

Fiat began experiments with design changes to the standard Type B drives in 1924 with the earlier Fiat CR 20. Most of the testing on these engines was performed at the Fiat plant on the island of Sardinia. Few, if any trials were conducted away from Earth or in climates varied from that found in the pleasant Mediterranean. In addition the engines were never tested with changes in the quality and composition of fuels available in the colonies.

The result of this is a reputation among mechanics that the engines of the Fiat line are troublesome and require frequent cleaning and adjustment. Actual mechanical replacements and failures do not seem to occur significantly above those encountered in other engines but without regular attention the engines can loose performance, shake and spew out a contrail of black soot that can scar the sky for miles.

Of course most of these problems stem from the use of sub-standard fuel, which is common in the colonies and more widely used the further one travels from Earth. With the proper fuel and a reasonable schedule of mechanical attention the Fiat engine operates in a very reliable fashion.

With its engines running correctly, the Fiat can punch through the atmosphere at Blazing (-) speeds. Unfortunately, this is almost never the case. On most days the engines will be pushing Fast to Fast (+) speeds. The Fiat has sufficient fuel to patrol a wide area. It is equipped with a basic communication jammer in the nose. The jammer has a range of 10 kilometers.

Despite its shortcomings, the Fiat CR 23 is one of the better 1920's era bi-wing starfighters in space. Its greatest drawback continues to be the short range of its guns and strictly eyes on targeting. This makes an otherwise decent starfighter a poor match for the sensor enhanced gunnery of ships like the Viktor and the Bf 109 Bruno. The Italians have sold Fiat CR 23's to a

wide variety of buyers over the years. They are flown by pilots on both sides of the civil war, by mercenaries, escort pilots and pirates. Despite their higher than average price they remain popular with a devoted following of flyers in 1936.

#### The Fiat CR 23 (Stilleto)

Snubfighter Class / Slots and Locations

Cockpit	5 slots
Nose Hardpoint	4 slots
Left Wing	1 slots
Right Wing	1 slots
Fuselage	4 slots

The Fiat CR 23 (Stilleto) / Slots and Locations

Cockpit	1 slot 1 slot 1 slot 1 slot 1 slot	Hybrid Radio FuG 125 Hermine beacon receiver Pilot Ejection System Seetakt II Active Sensor Fire Control System
Nose Hardpoint	1 slot	Breda SOFAT

1 slot	Breda SOFAT
1 slot	Expanded Ammo Reserve
1 slot	Communication Iammer

1 slot	Expanded Ammo Reserve
1 slot	Communication Jammer

Left Wing	l slot	Breda	SOFAT
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NIGHT WING I SIOT DIEGA SOFAT	Right Wing	1 slot	Breda SOFAT
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Fuselage 1 slot	1,000 Liters of Fuel
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1 slot	Fiat CR 20 (stripped Type B)
1 slot	Fiat CR 20 (stripped Type B)

1.000 Liters of Fuel

Additional 8mm Armored Plate

Armored Rings / Engine Cowling 20mm Armored Windscreen (Hybrid)

Engine Performance: Jump Transit = NA

System Transit = 19 Hours per AU

Tactical Speed = Blazing (-)

Fuel Performance: Jump Transit = NA

> System Transit = 20 Liters Per Hour Tactical Speed = 10 Liters Per Hour

Airframe Light Tonnage 4 Tons

Manufacturing Notes: Fiat Good

**Engines** Good (Average)

Weapons Average Armor Average Systems Average Price High



## **Rocketship Rubber Science: Part 3**Gravity Wells and Space Travel

The force of gravity is one key to understanding the details of space travel in the Temporal universe. In Rocketship Empires, the force of gravity is measured not only in g-force but also in valstroms.

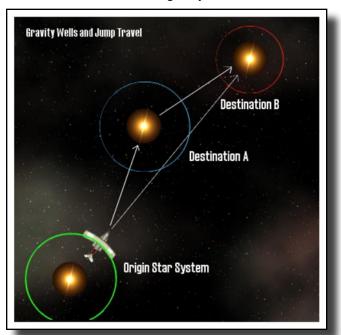
A valstrom is a unit of force applied by one body in space towards another. A single valstrom is a very small but present force considered to be one hundredth of the pull of a single g. The measurement of gravity in valstroms is important because this is how gravitational energy fields between two stars in different dimensions, influence one another.

Two stars occupying the same dimension on the z axis will tend to exert a higher pull of valstroms on one another than two stars in different dimensions. One might measure two stars in the same dimension exerting a five valstrom pull upon one another while the same two stars, one in our own dimension and the other star in a nearby dimension may only exert .25 valstroms upon one another. The important point being that the connection still exists despite their being in different dimensions.

These weak lines of gravity between stars in different regions of Temporal Space are known to the Hegemony as threads or more accurately as "Thread" and it is thread which the Martian navigation computer sorts through and uses for plotting a course through Temporal Space.

#### **Jump Routes and Drives**

Gravity drives follow specific routes or hops from star system to neighboring star system instead of vanishing into jump space and simply appearing on the far side of the galaxy. This is because of the interference that gravity wells from other stars or



objects can have upon a ship traveling in jump space. When the valstrom (gravity) influence of a star is too high a vessel traveling in jump space will be pulled into that star's gravity well instead of its intended destination. Ships traveling in jump space rely strictly on inertia and the velocity gained from surfing the edge of the cosmic wave of time. Jump engines play no significant role once a vessel enters jump space other than making subtle course adjustments when following thread. Imagine a ship as a skateboard riding the surface of the cosmic skateboard park. A gravity well of a star is a bit like a steep embankment, a big dip in the park. If the velstrom influence is low enough a ship can slip through. If the grade of the gravity well is too steep (a high enough valstrom pull) the ship will complete its jump in that gravity well no matter how advanced the starship engine.

A starship can jump directly from the origin star to a destination star so long as no other stars and their surrounding gravity well intersect the jump. Jumps always run along the thread of gravity connecting two stars and for the most part this means that jump travel runs in a straight line (even if that line angles up the z axis of probability space to a system in an alternate reality). If the ship's course is crossed by the gravity well of a nearby star at a high enough rating of valstroms the ship's course will be skewed and it will be pulled into the star system of the intervening body. The disruption of jump travel by nearby star systems requires that vessels travel in a leap frog fashion from one star system to another throughout space.

Even the most advanced starship drive is bound by these laws of starship travel in the Rocketship Empires universe. A more advanced version of the gravity drive provided to humans is the stutter drive. A stutter drive is faster than a human gravity drive. By faster I mean that the vessel moves through jump space from one star system to the next at greater speeds. A jump travel route that takes three days for a standard gravity drive might only require two or three hours with a stutter drive. When the stutter drive vessel emerges from jump space at the immersion point in the destination system, it immediately vectors a dive towards the next star system along its route. In this fashion the stutter drive jumps in a stuttering fashion from star system to star system. A three day trip aboard a stutter drive vessel may find it dozens of jumps away from its origin. A standard gravity drive will have made the trip to one or perhaps two star systems in the same amount of time. The route a ship with a stutter drive must take does not change from the route traveled by the standard gravity drive. The ship merely covers the distance between each star along the route in a much shorter period of time.

#### **Gravity Drive Evolution**

In this section I will list the evolution of the gravity drive so Directors can have a handy reference for determining the technology level and ship drive technology of the alien races they design for Rocketship Empires 1936. Those aliens which have already been introduced in the Spanish region book have their drive drives discussed here as well.



#### **Experimental**

A race with an experimental gravity drive has likely developed it on their own. If they dwell within the Hegemony it is likely that the Martians have not considered them worthy trading partners. The main reason for this would be a lack of valuable trade goods or no real potential in the eyes of the Hegemony as a race worth exploiting either for labor or military purposes. Typically an experimental gravity drive can perform a single jump. Travel time for that single jump usually ranges into a period of weeks and mandates that a humanoid crew enter cold sleep to survive the journey.

#### Standard (Mark I)

This is the gravity drive usually traded for by the Hegemony in exchange for natural resources, labor or mercenary services. Humans are not the first race the Martians have developed a trade relationship with, they are merely the last on a list of potential warrior races chosen to fight on behalf of the Empire.

Because the alien races receiving this drive did not develop a gravity drive technology on their own, most are not swift to push past this level of technology. An example of an alien race which still operates with the standard gravity driveis the alien race known as the Vreed. Out of the two dozen or so alien races scattered within the borders of Hegemony space perhaps a half dozen of them use the same gravity drive technology as mankind.

#### Mark II

The Mark II gravity drive shows a marked increase in jump speed and a significant reduction in fuel use. The Mark II gravity drive will reduce transit times between star systems by half that of standard drives. Fuel use will be reduced by twenty five percent.

The Purvyans are an example of an alien race that utilizes the Mark II gravity drive. Purvyan transits between star systems still take several days to accomplish and they are still prone to extended stop overs after each jump to rest and refuel. The Mark II gravity drive is the drive technology currently in the hands of ten of the two dozen alien races dwelling within the Hegemony borders and it is likely the most common gravity drive used by alien cultures in surrounding Temporal Space.

#### **Mark III**

The Mark III gravity drive further reduces the speed of the jump transit. This is an entry level stutter drive. A transit between star systems is likely to take a day or two. The trip is short enough to allow for a second jump as a routine part of ship operations. Four of the alien races within the Hegemony possess the Mark III gravity drive, leaving three other alien races and the Martians themselves to discuss.

#### **Stutter Drive**

The full fledged Stutter Drive transits a light year in a matter of hours. Most single jumps from star system to star system require eight to ten hours. The Stutter Drive allows a ship to rou-

tinely perform three, four or even five jumps before the crew will desire rest, refueling and a bit of time before the next stretch of the journey.

As discussed previously, stutter drive ships use the same routes, jump and immersion points as other ships. They merely move along these routes at a faster rate of speed. When a stutter drive ship hops into a system their drive still requires an hour to recycle and prep before entering stardive. During this period neither the vessels system drives or jump drive is operational and the ship can only move at combat speed. This makes even stutter drive vessels vulnerable to confrontation and combat during this period to hostile ships guarding a system's immersion point.

#### The Abyssal Drive

The abyssal drive improves the navigation technology and warp bubble technology to the point where a gravity drive can activate using the much smaller gravity drive of a nearby planet.

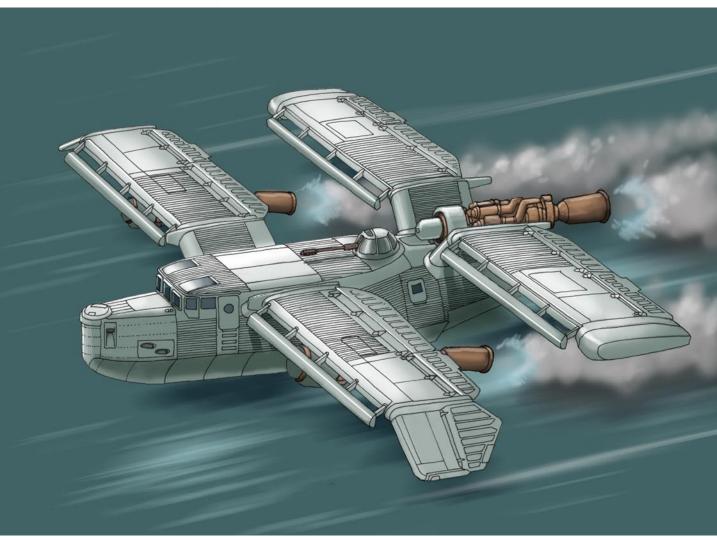
The abyssal drive allows a ship to vanish while leaving orbit, emerge at a lesser immersion point at the system's star within minutes and after the usual hour prep time follow the stutter drive routes. The Abyssal Drive is incredibly fast and can easily follow lesser gravity threads in jump space. It is the drive technology necessary for mapping significant regions of Temporal Space. The abbysal drive and knowledge regarding thread and how to explore using it are the holy grails of Temporal Space travel.

The Hegemony has the abyssal drive system but only in a limited number of its ships. The stutter drive is a much more economical drive system to produce and the Martians are not keen to see the abyssal drive falling into the hands of any of the alien races currently under their thumb.

Only two other alien races outside of the Hegemony are known to possess the Abyssal Drive. It is said that the abyssal drive technology was originally in the hands of the humans and was one of a number of high tech items seized from them after their defeat. The Martians got their hands on the technology after they managed to defeat the aliens responsible for the human exile many thousands of years ago. The Hegemony is not at all interested in this small detail falling into the hands of their human allies.

The Abyssal Drive can cross a light year in a matter of minutes, allowing a crew to perform dozens of jumps before requiring a rest and refueling. The largest sink is waiting for the drive to recycle and navigation to prep for the next jump. This can make an abyssal drive vessel vulnerable to attack, just like any other ship. Hegemony abyssal drive vessels tend to be command vessels, usually carriers with a large crew and hundreds of Hegemony snub and starfighters on board for protection. They are heavily armed and their shields are so powerful as to make a direct attack by anything short of a human battleship a complete joke. A 16" gun might be able to exceed the shield strength and therefore throw a solid shot through the shield into a Hegemony carrier. Whether a human battleship could withstand the pounding it would receive is another question altogether.





#### Martin M 130 Clipper

The Martin M-130 Clipper was conceived as a civilian courier whose purpose was the carrying of mail and recorded broadcasts of news and sports programs from Earth out into the colonies. The first Martin M-130 was built in 1930 by a team of private engineers under a firm that would later become Martin Spacecraft Industries.

The M-130 incorporated a design allowing both airfield and water landings, making it one of the most versatile fast transport craft available. The ships clean lines, solid construction and comfortable crew compartment soon made her a favorite among small merchants and sales of the bird soared from 1930 through 1936. The design has changed little in the past six years.

In addition to building the Martin for sale both to governments and to private buyers MSI has pursued its goal of providing fast and reliable news and courier services up and down the major transportation routes within human occupied space.

Individual clippers have become a familiar site at starports and were dubbed with names like the China Clipper, the Yankee Clipper, the Madrid Clipper, the Paris Clipper and so forth. Private owners tend to apply more creative names to their birds like Lucky Gambler, Vixen, The Last Word and Yangtze Blues.

In 1934 the Martin began to gain notoriety as a solid choice as a search and rescue craft. Over the last six years the vessel has been seen in a variety of roles although it has rarely been adopted for anything like an offensive military vessel.

The Martin is powered by three Pratt and Whitney Wasp Type A gravity drives. Only the drive in the rear is fully operational. The other two drives are lighter versions (stripped) meant to provide speed during system and tactical flight.

The interior of the ship is wide and spacious compared to other fast transport vessels. The ship can be left with a cargo bay or have the interior changed over for passenger suites, troop transport style bunks and even several labs. The interior arrangement of the ship all depends on her role and the goals of her Captain.

The vessel is designed with two decks. The lower deck can be left as a cargo hold even if the upper rear area is turned into quarters to allow for some cargo hauling capacity. In many Martin's the forward cargo compartment beneath the cockpit is turned into a modest galley where meals are prepared and the crew can gather for meetings or rest in a comfortable environment.



The Madrid Clipper featured here is equipped with a hybrid radio system and pilot ejection seats for all three posts in her main cabin (pilot, co-pilot and navigator). The cockpit is protected by a 20mm armored bathtub in addition to its 8mm armored Astrosteel plate in the rear and 20mm glass steel windows.

In the nose she is fitted with a CXAM sensor allowing the operators (sensor and radio operator in the lab) to scan for enemy vessels out to a range of 1 AU. The nose is also equipped with swamping gear for the vessel, a communication's jammer and a single FAST drone. The drone is usually reserved as an emergency beacon in the event the ship is damaged, engines fail or is otherwise stranded.

The single Pratt & Whitney Wasp in the rear allows the vessel to travel at moderate speeds through jump space. The two additional stripped wing engines boost system and tactical speeds up to fast when she is unloaded and fast (-) when her cargo is filled by fifty percent or more.

The ship featured in the illustration to the left has a 360 degree rotating dorsal turret and is armed with a French built 20mm S-9 Cannon. The cannon only has sufficient rounds for ten bursts. It takes two full combat turns to reload. Additional ammunition is usually stored in a nearby arms locker.

Fuel is carried in her belly. In the front of the lower deck is the common crew area and galley and a steerage quarters area with lockers and hammock space for four crew. The remainder of the lower deck is made up of cargo space and cargo nets.

The upper deck is made up of the cockpit, two first class cabins large enough to accommodate four passengers or senior crew members, the CXAM sensor lab and radio room, a small locker and shower area where the ship's head is located and finally the ship's small medical bay.

The Clipper is designed to take-off and land in all but the roughest oceans. Her double wing design front to back provides good stability in bad weather conditions and allows her to remain aloft even when flying at dog slow speeds. Her near hovering capability makes her a fantastic search and rescue craft. All this additional stability has an impact on combat maneuvering. She is something of a cow when it comes to trying to bob and weave in a dogfight. Pilots experience at least a -1 initiative penalty and a -1 penalty to their defense or dodge ability to avoid being hit during combat. (It is up to the Director to interpret the appropriate modifiers based upon their game system of choice.)

As far as civilian small transports are concerned she is decently fast but she is no fighter. She will not be able to outrun the majority of the starfighters that she encounters and this makes her somewhat vulnerable to attack. The 20mm cannon provides at least some discouragement to potential raiders. The rest depends on the sheer moxy and creativity of her Captain and crew.

#### The Martin M-130 (Madrid Clipper)

Fast Transport Class / Slots and Locations

Cockpit	4 slots
Nose Hardpoint	7 slots
Tail Hardpoint	2 slots
Dorsal Hardpoint	3 slots
Ventral Hardpoint	2 slots
Left Wing	2 slots
Right Wing	2 slots
Fuselage	7 slots

The Martin M-13	0 Clippe	r / Slots and Locations
Cockpit	1 slot 1 slot 1 slot 1 slot	Hybrid Radio Pilot Ejection System 20 mm Armored Bathtub Fire Control System
Nose Hardpoint	3 slots 1 slot 1 slot 2 slots	CXAM Sensor (1 AU) Ship Swamping Gear Communication Jammer FAST drone
Tail Hardpoint	2 slots	Pratt & Whitney "Wasp" Type A Gravity Drive
Dorsal Hardpoint	1 slot 2 slots	Dorsal Turret (360) 20 mm S-9 Cannon
Ventral	2 slots	2,000 Liters of Fuel
Left Wing	2 slots	Pratt & Whitney "Wasp" (stripped)
Right Wing	2 slots	Pratt & Whitney "Wasp" (stripped)
Fuselage	1 slots 2 slots 1 slot 2 slots 1 slot	Steerage Crew Quarters (4) (Lower) First Class Cabins (4) (Upper Deck) CXAM Sensor Lab (Upper Deck) Medical Bay (Upper Deck) 100 Ton Cargo Hold (Lower Deck)
Additional		8mm Armored Plate Armored Rings / Engine Cowling 20mm Armored Windscreen (Hybrid)
Airframe Engine Performan	nce	Medium Jump Transit = 42 Hours per LY System Transit = 19 Hours per AU Tactical Speed = Fast / Fast (-)
Fuel Performance	•	Jump Activation = 150 Liters System Transit = 26 Liters per Hour Tactical Speed = 10 Liters per Hour

150 Tons

Tonnage







#### Nieuport-Delage NiD 52

The original Nieuport bi-plane fairly dominated the allied fighter industry during the Great War. The first pilot to fire a shot at an enemy pilot did so from the cockpit of a Nieuport bi-plane. The highest scoring French ace of the war flew a Nieuport.

At the end of the war and with the arrival of the Martians the Nieuport factory worked to make the transition from standard aircraft over to starfighters. The famous name of the company attracted sufficient investment capital to make the transition and even to expand production to some degree.

From 1923 until 1929 the Nieuport company built a wide range of starfighter craft all built around the same principles of the bi-plane fighters with which it had experienced such success during the Great War.

The Nieuport-Delage NiD 52 is the last in a long production run of different Nieuport designs. During the 1920's almost every government in space had fighter squadrons equipped with Nieuport starfighters. By 1930 much of the edge the company had was vanishing. Fighters were more modern and innovative. By 1932 company had experienced a number of financial setbacks and had failed to adopt most of the significant advances in snub and starfighter design.

By 1935 the Nieuport-Delage NiD 52 was simply outmatched by most starfighters built after 1930. The French Star Republic equipped several of its fighter wings with the NiD 52 in 1931 and 1932 but by 1933 had moved on to other starfighter designs. After flying the more modern starfighters, French pilots simply did not like the way the NiD 52 handled. Despite her initial speed advantage in a flat, straight run when was released in 1931, the fighter did not handle very well in the sort of tight turning dogfight for which she was designed. By 1935 almost every other starfighter in production was faster and the poorly armed, poorly armored 1920's era fighter, the last hurrah of the Nieuport Starfighter company had lost even that advantage.

The NiD 52 starfighter might not have been of significant note at all except that the Spanish government had ordered one hundred and fifty of the fighters in July of 1935, just months before the outbreak of the civil war. Perhaps sixty of the fighters were seized by the Republicans during the initial revolt while the remainder were kept secure at Royalist airfields scattered throughout Spain. During the first year of the war the NiD 52 would be one of the main starfighters put into the air by the Royalists. It was no match for the Rata of the Republicans or the Bf 109 of the Legion Condore.

Despite regular losses the Royalists carefully protect their fighter squadrons as much as possible. It is likely that there will be a few squadrons of NiD 52's flying right through to the end of the civil war.

The Nieuport-Delage NiD 52 was never designed to perform as a jump capable fighter (except in a few personal vari-

ants). It retains its human built French R1/537 Radio which has a range of 50 kilometers in good weather. A hybrid morris code sender was added in 1929 and allows morris code signal messages to ships in orbit and out to half an AU. Engine nacelles providing thrust from the Hispano Suiza Type A drive are located on either wing. The ship is equipped with a small coach cabin for a pilot and passenger or relief pilot and a small cargo space in the tail. The tail cargo compartment can hold up to three tons of equipment if packed carefully. Plenty of room for personal clothing, gear, emergency food supplies and even a small personal vehicle like a BMW motorcycle. Large items can be lowered or raised using a hydraulic lift inside of the compartment through a door in the under side of the tail.

#### The Nieuport Delage NiD 52

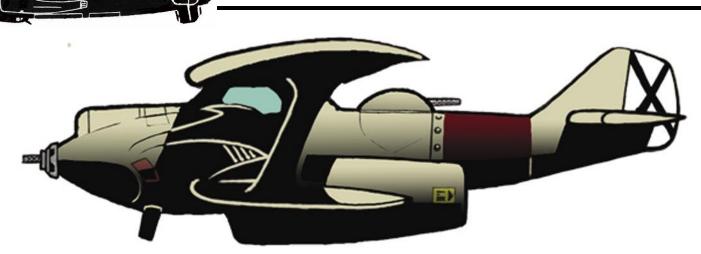
Starfighter Class / Slots and Locations

Cockpit	5 slots	
Nose Hardpoint	4 slots	
Tail Hardpoint	1 slots	
Left Wing	1 slots	
Right Wing	1 slots	
Fuselage	2 slots	
The Nieuport De	lage NiD	52 / Slots and Locations
Cockpit	1 slot	French R1/537 VHF Radio (50 Km) with Hybrid Receiver (.5 AU)
	1 slot	French Hybrid Morris Sender (.5 AU)
	1 slot	Pilot Ejection System (Added 1930)
	2 slots	Rapier Sensor (50 Kilometers)
Nose Hardpoint	1 slot	Darne Light (Medium -)
	1 slot	Darne Light (Medium -)
	1 slot	Expanded Ammo Reserve
	1 slot	Hispano Suiza Type A Drive (stripped)
Tail Hardpoint	1 slot	3 Ton Cargo Space
Left Wing	1 slot	Engine Nacelle
Right Wing	1 slot	Engine Nacelle
Fuselage	1 slot	1,000 Liters of Fuel
	1 slot	Cramped Quarters
		2 Hammocks / writing area / lockers
		shelves for clothing or personal items.
Additional		8mm Armored Plate
		10mm Armored Windscreen (Hybrid)
Airframe		Light
Engine Performa	nce	Not Jump Capable
		24 Hours per AU
		Tactical = Fast (-)
Fuel		System Flight 5 Liters / Hour
		Tactical Flight 1 Liter / Hour

7 Tons

Tonnage





#### **Breguet Br XIX**

The French built Breguet Br XIX is one in a line-up of successful bi-plane style starships developed by the Breguet Space Corporation between 1924 and 1936. Breguet designs are well known for their quality and durability. They were perhaps some of the most rigorously tested starfighters and fast transports developed by a human starship manufacturer between 1922 to 1929.

The Breguet Br XIX model is known for its capabilities as a distance runner. Its engine modifications play more towards an even distribution of fuel efficiency, speed and mechanical reliability than all out combat power. While this makes the craft more of a middle performer in combat the low maintenance and range of this starfighter make it a favorite with both its air and ground crews and the Br-19 has found its way into the fleets of most of the major human governments operating in space.

Officially the Breguet Br XIX was designated as a light bomber / transport and recon vessel. It has a larger fuselage than what is typically found in a starfighter and a greater tonnage. This places the ship somewhere between a fighter and a fast transport / assault vessel. For our purposes the Breguet Br XIX is designated as a variant on the heavy starfighter.

The larger fuselage comes both with a great fuel capacity for extended range and a confined area where up to six passengers or crew can be carried. The compartment is hardly comfortable but functional. For short hops within a single star system the Breguet is fine for service as an armed commercial shuttle. For jumps between star systems the quarters are a bit too cramped to attract all but the most determined passengers and so the ship is usually confined to carrying an extended crew of six off on whatever missions they might have at hand.

Explorers, small survey teams, recon patrols and small bounty hunter outfits find the Breguet 19 suits their needs very well. At team of four or five can travel in her in some measure of comfort and still retain sufficient room for hauling one or two passengers (or prisoners) if the crew does not mind sharing their quarters with said individuals.

The craft is designed with a pair of Renault Type A grav-

ity drives. These are fully functioning drives which work in tandem to make for decent speeds both in jump, in system transit and combat. The twin Renault's are tuned for optimum fuel efficiency and the Breguet Br XIX enjoys a 20% bonus to range when running on quality fuel and a 10% bonus to range when running on swamped fuel.

The ship is designed around an operational crew of two. One pilot and one observer who doubles as sensor operator and turret gunner. During space operations only the dorsal turret is operational. It can manage a 270 degree arc of fire covering the rear and sides of the ship. The gun can be raised to traverse nearly straight up. During atmospheric operations under sufficiently decent conditions a hatch in the floor can be popped open and a belly gun can be deployed. The ship's belly gun is a standard, human technology Vicker's machine gun. It is useful in discouraging attacks my human aircraft and for targeting vehicles and targets on the ground. The belly gun can cover nearly a 360 degree arc with only the immediate direction of the nose outside of its firing area. While the ship is on the ground it can be used effectively to help cover the ship from ground assault. In a pinch the Vickers gun can be removed from its swivel bracket and carried as a bi-pod mounted, portable machine gun by a crew member.

Because of its reputation for reliability and its range the Breguet is a favorite among entry level crews seeking to make their fortune. She is also a decent ship as a replacement should a crew experience the loss of a more expensive vessel.

The Breguet is one of the most heavily tested vessels in its class. It is extremely stable and pilots enjoy a one point bonus when flying it through rough atmospheric conditions. The supports in the belly have been reinforced, allowing the vessel to resist damage very well when forced to make a belly landing. Owners of this vessel benefit from the fact that it is so widely used. Replacement parts for a Breguet can be found at nearly any starport or airfield of decent size.

#### Br XIX - hover

This craft incorporates the repulser drive found in hover autos. It allows the ship to float on a cushion generated by the ship's repulser field between two and three feet off the ground.



The repulser field can remain active even when the ship is parked, so long as there is at least a small bit of fuel to keep the ship's drive generating power.

The down side of the Br 19 hover is the price. The added repulser engine ads an additional \$1,000 US to the sticker price which may take an affordable vessel out of the wallet range of many buyers.

#### Br XIX - hydro

The Br 19 hydro incorporates a pair of pontoons to the craft making it capable of both landings at paved airfields and water landings. The added pontoons make a rough landing on a dirt field a difficult proposition, one likely to tear a large hole in one of the expensive pontoons. Even so, there is almost always a river, lake or body of water to be found on a habitable colony world, even when a paved airfield is absent.

The addition of the pontoons and water craft capability adds \$250.00 US to the purchase price of this starship.

#### The Brequet Br XIX and Spain

The Spanish Royal Navy purchased a license to produce the Br XIX directly at their fleet facility on New Madrid in 1928. Some one hundred and seventy of these starfighters were produced locally by the Spanish Navy under British technical supervision between 1928 and the start of the war in 1936. Fifty of these were produced with a single Hispano Suiza engine instead of the standard imported Renault engines. Br-19s have been seized by all sides in the conflict. They are flown by Royalist, Republican and Nationalist pilots.

#### Plot Point

A mixture of the heavy fighter Breguet Br XIX's in two full squadrons and two squadrons of the light NiD 52's with several in reserve make up the fighter force available to the starbase at Puerto Angeles.

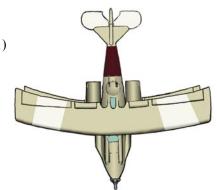
These craft face a challenge when put up against the more modern Rata and 109 starfighters. Commander Navaro is careful to keep her aged squadrons under the protection of her station's formidable guns unless a juicy opportunity presents itself. She seems to have a sixth sense regarding ambushes and is not suckered into them easily. There may be some truth to the rumors that Commander Navaro is either psi active herself or may have the aid of a psi talent among her station staff officers which accounts for her ability to sniff out a trap.



#### The Brequet BR XIX

Heavy Fighter Class / (21)

Cockpit	5	slots
Nose Hardpoint	5	slots
Tail Hardpoint	1	slot
Dorsal Hardpoint	2	slots
Left Wing	1	slots
Right Wing	1	slots
Fuselage	6	slots



The Breguet BR XIX / Slots and Locations

The Bregaet Bit	21121 / 51	ots and Boothons
Cockpit	1 slot	French R1/537 VHF Radio (50 Km) with Hybrid Receiver (.5 AU)
	1 slot	French Hybrid Morris Sender (.5 AU)
	1 slot	Pilot Ejection System
	2 slots	Rapier Sensor (50 Kilometers)
Nose Hardpoint	1 slot	Fire Control System
-	1 slot	MAC 1934 (Medium)
	1 slot	MAC 1934 (Medium)
	1 slot	Expanded Ammunition Reserve
Tail Hardpoint	1 slot	5 tons cargo in tail compartment
Dorsal	1 slot	Dorsal Turret (270 Degree)
	1 slot	7.5 MAC 1934 (Medium +)
Left Wing	1 slot	500 Liters of Fuel
Right Wing	1 slot	500 Liters of Fuel
Fuselage	2 slots	Crew Quarters (6)
C	1 slot	Nose / Lab Area
	1 slot	5 tons cargo below deck
	1 slot	1,000 Liters of Fuel
	1 slot	Light Armor / Bolted
Additional		8mm Armored Plate
		4 1D: /E : C 1:

Armored Rings / Engine Cowling 20mm Armored Windscreen (Hybrid)

Airframe Light

**Engine Performance** 43 Hours per LY 19 Hours per AU Tactical = Fast

Jump Activation 200 Liters

Fuel System Flight 10 Liters / Hour

> Tactical Flight 2 Liters / Hour

Tonnage 8.5 Tons

**Breguet Spacecraft** Manufacturing Notes:

Excellent Hull Engines Good Weapons Average Average Armor Systems Average

Price Average (Common)



## Rubber Science: Part 4 The Golden Dawn

"Don't forget to breathe Phoebe, or your next out of body experience in this exercise will be your passing out cold."

I would like to see *you* knocked out cold, Lewis -Phoebe thought to herself. The second hour into her tenth session standing in front of the tall dressing mirror in her chambers at Whiteforth Hall was beginning to wear on her.

She took a careful breathe slowly and focused on the in and out of air for a moment. After a time she was able to concentrate on her pale, mousy reflection in the room's single piece of furniture, the antique mirror.

She was attempting to flip.

Not physically flip, metaphysically. Part of this involved visualization. The mirror was meant to help with that. She also had a small hand mirror. If she held up the hand mirror it would reflect her petite frame back at her dozens upon dozens of times. Some students found this added illusion helpful, or so Lewis had explained to her before locking her in.

Phoebe felt the extra mirror to be a bit much. The single image of herself was sufficient to wrap her mind around the notion of another her, a potential her gazing back. She noted that the potential her looked even more grumpy, exhausted and unhappy with each new attempt.

Her goal was to effect a switch. The trick was that for the switch to count she had to find her mirror self whose door in Whiteforth was unlocked. Effecting the flip would find her in the room with the unlocked door while almost everything else about her and associated with her in that new place remained stable.

It was tricky. The act of isolating the potential lock and flipping without accidently shifting something else required a sort of detached super concentration which was slowly wearing her down. Of course the odds of her impacting something significantly greater than the lock was almost nil. It was all she could manage to effect a flip in one small thing, let alone flip to a major change.

The exercise would seem to be an impossible task to someone who was not psi. For Phoebe it was merely, nearly impossible. She had spent the last four days locked in her room at the Order of the Golden Dawn's mansion at Whiteforth. Food and drink were passed to her through a small space installed beneath the door.

Technically she was not a prisoner and had embarked on this training of her own free will. Still, she knew there was no being released unless she failed or gave up. She could call out to Lewis that she was quitting at any time.

Quitting meant leaving the Order forever. Giving up on her psi talent, never developing it and remaining always odd Phoebe, the strange girl who got impressions about things from time to time but to whom nothing extraordinary was likely to occur for the rest of her natural life.

She had no intention of failing.

Phoebe knitted her eyebrows as her eyes stared holes into her image in the mirror. This was getting her nowhere.

"Breathe. You're trying too hard. Remember, Lewis said it would seem easy once I finally managed to do it once," she said this out loud to her reflection and closed her eyes. She opened them again only after she was ready to work at it while she meditated. After a few minutes of relaxing her reflected features began to shift and wobble. Eventually she found herself staring into the face of Lewis Trewsbridge, a student senior to her and her proctor in the exercise.

Lewis raised an eyebrow and frowned.

"Everyone knows what a gifted seer you are Phoebe, that isn't what this training is about. You have to try and focus a bit more otherwise you'll keep slipping into what comes naturally to you," he said.

Lewis' voice floated to Phoebe over the intercom installed in the room. No one used direct telepathic contact in Whiteforth if they could avoid it. Telepathy was always intrusive and somehow intimate. Use of it even at the school was considered to be rather rude, even for those to whom it came easily.

She was tired and impatient and sick of being locked indoors. She was also aware that she was missing something. Some little nagging detail lurked at the back of her thoughts, her intuition told her the answer was skirting artfully past the tips of her fingers.

She considered an attempt at cheating and unlocking the door telekinetically but grasping a handful of the cosmos and wielding it like a Warlock had never been among her talents. If it had, she suspected her tests would have been rather different.

She closed her eyes and cleared her mind once again opening them to find the pale, exhausted gaze of her other self gazing back at her. The other Phoebe yawned and gave her a dirty, -well, get on with it look.

What if she'd only imagined that she'd checked the handle on the door and found it locked, Phoebe thought. What if she'd fooled herself into never even trying the door and Lewis had forgotten to lock it in the first place.

That was it. What if the door had never been locked. Part of the trick involved making herself believe that she was mistaken about trying the lock earlier. Clearly, she reasoned, she had just imagined she had. She made this her inner mantra, working to convince herself of this truth. She had to feel the latch as unlocked in her own mind's eye before she could manage to find it outside of

## Podledship Impires 1986

herself.

Phoebe smiled. She imagined the other self sitting in her room, foolishly having failed to even try the door handle, which would be altogether like her. She could just make out the door and the handle in the background of the mirror.

Phoebe imagined a tunnel connecting the center of herself and the center of her mirror self. Two polarized parts of a greater whole. Both her and one outside of herself. Into this tunnel connecting Phoebe to her double she imagined a vastly powerful force. She grasped a hold of the surging power she could feel just behind the passage of the moments, pushing everything forward and imagined a powerful magnet, positive and negative between herself and the other Phoebe.

Phoebe gazed into the eyes of the other her. She had the vision solidly in her mind now. She reached out pale fingers and grasped a hold of the weave. In her very center she flipped over the imagined magnet and felt a sudden but distinct momentary vertigo.

Phoebe knew immediately that she had flipped.

Opening her eyes she realized she was a bit tired and drained like, the way she sometimes felt after a successful bit of seer work where all of the energy she'd sent out seeking answers had come tumbling back in. She pushed

The house was quiet.

Phoebe rose and walked over to the door. She felt the cool metal of the oval knob under her fingertips and then turned it. The door handle twisted in her fingers and the door popped open with a soft click. Phoebe stood and stared at the open doorway for a long moment.

Slowly the cold realization sank into her that she was no longer standing in the same Whiteforth where she'd been just a few moments before. Technically she was but the potential was there that other things had changed besides the lock. Somehow Phoebe knew that something else was out of place. She wondered if she could leave the door open and go back. The House seemed somehow just slightly strange, like walking on the surface of the moon.

"You can never go back Phoebe."

It was Lewis. He was standing at the end of the hallway. She'd been so distracted in her thoughts that she'd not even noticed his steps carrying him up the carpeted stairway leading to the second floor. He looked tired. Very likely he had not slept much over the course of the last four days. The bookish middle aged writer, journalist and fellow student stopped just a few paces down the hall and pulled his round wire rim glasses off of his hook of a nose, fishing a handkerchief out of one pocket to clean them.

"Why can't I?" Phoebe leaned against the door and closed it behind herself with a click, standing in the hall facing Lewis.



"The past is the past. You can't go back to it any more than you can take back opening up that door," Lewis pushed his glasses back onto his nose. He had the common sense not to labor on and on about the experience or its meaning. Phoebe would be left to seek out her own answers. Answers which were meaningful to her on the road she could sense already opening up before her.

"Every moment is a combination of location, time and.."

"..decision" Phoebe finished the phrase for Lewis. She had heard it spoken before in her lessons, but now the lesson seemed somehow more poignant. "The manner of reaching the next moment is not only a conscious decision of location and time it can also be a conscious decision of location and decision...or..."

"Probability." Lewis finished the phrase for her in return. He pushed the hankerchef back into his pocket.

Phoebe smiled. She liked Lewis. She might like him quite a bit if he was not so many years older. Despite his bookish appearance and lack of hair, Phoebe felt that he was one of the few truly genuine people she had met.

Lewis stuffed his hands into his vest pockets looking muddled and after a moment fished out his pocket watch. "Well then, its high time you had a few days to yourself. I've lessons of my own to attend to," he said. "Just remember..."

"Be back by Monday for class, keep my wits about me and my talent to myself." Phoebe recited.

"...and if you sense another psi in the area...," Lewis asked?

"Leave immediately and come back to the school straight away," Phoebe answered. Lewis smiled and left Phoebe standing alone in the hall with a nod. She listened as his familiar steps carried him back down the stairs and through the hall towards the senior student's rooms.

I forgot to ask him if he'd neglected to lock the door, she thought to herself. Somehow she suspected that he would not have a clear answer for her which was altogether normal for Whiteforth.

What was important was that Phoebe knew that she could accomplish it she set her mind to it.

As Lewis watched young Phoebe leave the school, triumphant in her new found life and future in the Order of the Golden Dawn he plucked up the brass telephone next to him and dialed.

"Herr Director, yes. I apologize for disturbing you at this late hour but I have another one to add to the disposal list. Yes. Just this evening." He unconsciously traced his fingers over his bicep where the red and black shield and all seeing eye tatoo showing his membership within the secret cabal of the Barvarian Illuminati was concealed.



#### Junkers JU 87

Dive bombing as an approach to precision attacks against tanks, structures, mecha and other ground targets crossed onto the radar of the RLM as early as the 1920's. During the early days the Junkers Starship Company manufactured an early variant designated the K-47. The K-47 was tested extensively as a dive bombing starship / starfighter combination craft until 1934.

Unfortunately the early K-47 model handled poorly and too often experienced sluggish control features resulting in inaccurate placement of munitions. In addition the K-47 starfighter / bomber was both slow and lightly armed. The craft was experimental more than practical although a hundred or so reached production and were sold off to the naval forces of Japan, China and Kingdom of Holland after the design was abandoned as worthless.

In 1935 manufacture began in earnest on the JU 87-A. Prototypes of this model were distributed throughout the forward naval bases of the Reich. The type A still experienced sluggish response and early in 1936 was scheduled for replacement by the JU 87-B.

In 1936 the RLM saw in the civil war in Spain an opportunity to experiment with the JU 87 in both the type A and type B varieties in combat operations.

In February of 1936 two squadrons of JU 87 A fighter / bombers were dispatched with Legion Condore forces to Spain. One additional squadron was sent to the front in June of 1936. Finally early in 1937 two squadrons of JU 87 B starfighter / bombers were sent to the front.

The JU 87 is powered by an experimental Jumo 110 type A drive that is constructed from the ground up minus the attachment of a jump drive. The core of this drive is installed in the fuse-lage of the starfighter with a trio of exhaust ports providing thrust, one under each wing and one in the tail.

The JU 87 A is equipped with a bomb carriage designed to carry a 250 pound bomb. Keep in mind that this is a hybrid ordinance and designed for busting hybrid ships and installations. Versus a normal human installation or ground vehicle the bomb gains a x5 bonus for scale between ship and vehicle damage.

The ship has an automated recovery system which pulls the JU 87 out of its dive and into straight and level flight, in the event the pilot is wounded and can not recover the ship after a bombing run. Pilot blackouts in dive bombers are a thing of the past with the artificial gravity aboard all ships. Even small vessels like the snub and starfighter class vessels are protected from the effects of g-forces by their Hegemony supplied life support and artificial gravity systems.

#### The Junkers JU 87 A (Stuka)

Starfighter Class / Slots and Locations

Cockpit 5 slots
Nose Hardpoint 4 slots
Tail Hardpoint 2 slots
Left Wing 1 slots
Right Wing 1 slots
Fuselage 6 slots

The Junkers JU 87 A / Slots and Locations

Cockpit 1 slot Hybrid Radio

1 slot FuG 125 Hermine beacon receiver

1 slot Pilot Ejection System1 slot Seetakt II Active Sensor1 slot Fire Control System

Nose Hardpoint 1 slot MG 17 (Medium)

1 slot MG 131 Lightning (Heavy -)
1 slot Expanded Ammo Reserve (nose)
1 slot Auto Pilot / Dive Recovery

Tail Hardpoint 1 slot MG 81 (Medium +)

1 slot Expanded Ammo Reserve (tailgun)

Left Wing 1 slot Engine Nacelle

Right Wing 1 slot Engine Nacelle

Fuselage 1 slot 1,000 Liters of Fuel

1 slot Jumo 110 Type A (stripped)

3 slots 250 lb bomb rack 1 slot Light Armor / Cast

Additional 8mm Armored Plate

Armored Rings / Engine Cowling 20mm Armored Windscreen (Hybrid)

Airframe Light

Engine Performance Not Jump Capable

24 Hours per AU Tactical = Fast (-)

Fuel Jump Activation 100 Liters

System Flight 5 Liters / Hour Tactical Flight 1 Liters / Hour

Tonnage 5.5 Tons

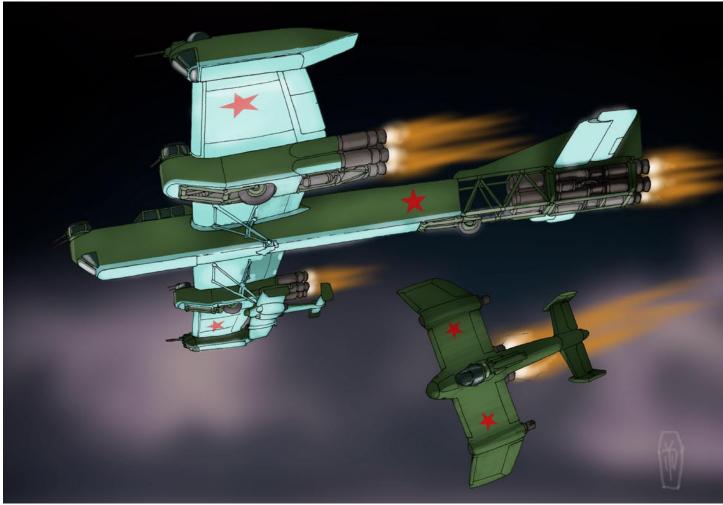
Manufacturing Notes: Junkers

Hull Average
Engines Average
Weapons Average
Armor Good
Systems Good
Price Average









#### Tupolov ANT-20 (Maxim Gorky)

The Tupolov ANT-20 was the largest aircraft inspired, atmosphere capable starship built during the 1920's and 1930's. Only a limited number of these vessels were ever built within Soviet space. The exact number remains a well guarded mystery. Largely an instrument of propoganda, the Maxim Gorky was dispatched successfully on a half dozen occasions as part of the heavily guarded raids designed to punch through the Reich's blockade. Filled with troops, munitions and medical supplies the Republicans could not ask for a larger, more heavily armed or more famous symbol of sheer Soviet power than the ANT-20.

The ANT-20 is so large that it carries its own under carriage mounted fighter catapults. The wings are so tremendous that the interiors are fitted with bunk beds.

The Maxim Gorky is fitted with one of the most impressive public broadcast systems ever devised in order to play revolutionary music and inspirational speeches by Stalin and other revolutionary leaders as the vessel passes overhead.

The ships were designed with an eye for scoring as many firsts as possible on behalf of mother Russia. The ANT-20 is the first vessel to incorporate a small printing press for the production of communist literature. The vessel can pour out a seemingly

never ending number of communist leaflets as she circles the globe on account of the fact that she manufactures these on board. When she is not fitted for combat duty she features a salon, a public telephone service (wireless), a small movie theatre and a recreation room.

Obviously the ANT-20 was not built for dogfighting. In good weather she can navigate reasonably well, but pilots avoid taking her down into an atmosphere when a storm is present as much as possible; crashing a symbol of Soviet prosperity and power not being a very excellent means for advancing one's career in the Soviet navy.

Outside of the civil war, the Maxim Gorky(s) stage themselves like enormous carrion birds, poised to pick at the bones of the faltering Kingdom of Spain . Accompanying them are squads of hand picked troops, Soviet fighter and military escort vessels and Soviet commisars and political experts. It is clearly no accident that incidents of communist inspired partisan revolts have sprung up all up and down the Madrid Run, stretching from the border of the Kingdom of Spain back through League Space and up into Soviet territory.

So far local troops and police have managed to contain these problems but not without the French, British and Italian governments voicing their frustrations over them on the floor of the League of nations.



#### **Tupolov ANT-20 (Maxim Gorky)**

Atmo-Capable / Slots and Locations

Cockpit/Bridge	6 slots
Nose Hardpoint	6 slots
Tail Hardpoint	2 slots
Dorsal Hardpoint	3 slots
Ventral Hardpoint	4 slots
Left Wing	9 slots
Right Wing	9 slots
Fuselage	9 slots

Tupolov ANT-20 Maxim Gorky / Slots and Locations

Соскри	1 SIOU	Hybria Kadio
	4 slot	Martian Hybri

d Cockpit Escape Pod

Fire Control System 1 slot

Nose Hardpoint 2 slots Type 282 Sensor (1 AU)

1 slot Ship Swamping Gear 1 slot Nose Turret (270 degree) 2 slots ShKAS (Medium ++)

Tail Hardpoint 2 slots Mikulin AM-34 - Quad Nacelle

Type B Gravity Drive

Laboratory: Printing Press (2 Crew) Dorsal Hardpoint 1 slot

Quarters: Comrade Theatre (12) 2 slots

\*doubles as storage or troop quarters

Ventral 2,000 Liters of Fuel 2 slots

2 slots x 2 Fighter racks

Left Wing 2 slots Mikulin AM-34 - Quad Nacelle

> Type B Gravity Drive 2 slots x 2 Turrets (360 degree) 4 slots x 2 ShKAS (Medium ++)

1 slots Quarters / Steerage (4)

Right Wing Mikulin AM-34 - Quad Nacelle 2 slots

> Type B Gravity Drive 2 slots x 2 Turrets (360 degree)

4 slots x 2 ShKAS (Medium ++) 1 slots Quarters / Steerage (4)

Fuselage 1 slots Steerage Crew Quarters (4)

2 slots First Class Cabins (4) Sensor Lab (2 Crew) 1 slot

2 slots Medical Bay

150 Ton Cargo Hold (Lower Deck) 1 slot

2 slots Heavy Airframe

Additional 8mm Armored Plate

20mm Armored Windscreen (Hybrid)

Airframe Heavy Engine Performance Jump Transit = 14 Hours per LY

System Transit = 14 Hours per AU

Tactical Speed = Moderate / Mod. (-)

Jump Activation = 450 Liters Fuel Performance

System Transit = 30 Liters per Hour

Tactical Speed = 6 Liters per Hour

Tonnage 1100 Tons

The Gorky is not built to be a primary combatant. It relies heavily on its fighter cover and the presence of other ships along with its own guns, to discourage attacks from enemy ships. Much of the tonnage available for the installation of critical combat components (like armor) were sacrificed for the propoganda aspects of the vessel.

The ship's guns, while impressive, do not provide sufficient coverage of the craft from all lines of attack. The Gorky is especially vulnerable to attacks from below and to the rear where she is completely unarmed.

The ship's 1100 tons pushes the Mikulin AM-34 Quad Nacelle engines beyond their performance ratings, resulting in a slower ship speed (particularly slow when loaded) during tactical flight. When she is fully loaded pilots face a -2 to their control rolls for special manuevers as though the craft were loaded beyond its weight rating. (Because it is.)

The ship's draw on fuel limits it operationally to single jumps and destinations which are within 1 AU of the system's star. In some instances one of the Gorky's tender ships or fighters can be dispatched for additional fuel so that it might reach ports of call just beyond its range.

Outside of these limitations the Gorky is an amazing vessel. These ships are not seen outside of the Soviet navy during 1936 but begin to show up in the hands of private parties with good connections with the Soviet government early in 1937. Stripped of some of their guns or with the fighter platforms or tonnage for the printing press removed, these vessel can handle the installation of suitable armor. Post manufacture armor installations are usually limited to bolted or joint welded armor applications on a ship of this size.

The mounts for the Mikulin AM-34 Quads are so unusual as to mandate any engine replacement as a similar engine or at least one of Soviet manufacture. Other engines simply do not mount correctly onto the vessel and will cause such a disruption in the atmo-capabilities of the vessel as to render it no longer capable of making a safe flight in atmosphere.

The ship's medical bay is located in the nose of the fuselage in the forward deck and features a wide observation port. The observation window is constructed of 20mm hybrid glass steel.

During landings the Gorky's fighters will launch and follow the vessel in. The brackets for the fighters retract flush with the wing and the ship's landing gear can descend into position.





#### Mitsubishi G4M (Betty)

The Mitsubishi G4M is the most common armed merchantman in operation on behalf of Imperial Japan. Since 1932 the Empire of Japan has adopted an interesting new direction in their quest to build an effective and expansive merchant trade capable of competition with the British, Dutch and others. Private Japanese firms apply for shipping contracts directly from the Japanese Ministry of the Interior which in return supplies the ships necessary for import and export. A significant portion of the export or import taxes paid by private Japanese manufacturing firms are funneled directly into the expansion of the IJN.

Successful applicants to the Ministry of the Interior do not need to build and support their own network of merchant vessels. The IJN (Imperial Japanese Navy) provides this service for them. Japanese merchants are therefore primarily military vessels flying the colors of Imperial Japan. They travel in military style convoys with fighter escorts and IJN marines on board to insure the protection of goods, as well as the crews both in space and on the ground.

This also means that Japanese merchantmen are hard nuts to crack. They are heavily armed and armored. Direct attacks upon them are considered attacks against the IJN. Over the last

four years Japanese commerce lost to pirate attacks and problems with privateers (some suspected to be hired by the Dutch East India Company) have fallen to nothing.

As the war continues to progress in Spain the Japanese have an interest in turning a profit transporting "non war" materials to the Nationalists. Manifests list food and medical supplies as the primary components filling their cargo holds.

The only major faction known to gleefully target IJN merchant fleets are the Cossacks. They humerously dub the Mitsubishi G4M "the pocket lighter" because of the vulnerability of its wing fuel storage tanks and their tendancy to explode into spectacular flame when they receive a direct hit. Despite this vulnerability one should not consider the G4M an easy target. The ship is bristling with heavy weapons and the 20 mm cannon mounted in the tail and both independent wing turrets makes it one of the most heavily armed Fast Transports in space. Attack approaches from the rear of the vessel are spectacularly dangerous and IJN vessels flying in convoy provide covering fire for one another.

The early versions of the G4M depend on sheer firepower as a deterent to attacks over armor. By 1938 this approach is viewed as a mistake and half of the guns are dumped in exchange for a heavier airframe and significant layers of armor.



#### The Mitsubishi G4M (Betty)

Fast Transport Class / Slots and Locations

Cockpit 4 slots Nose Hardpoint 6 slots Tail Hardpoint 4 slots **Dorsal Hardpoint** 2 slots Ventral Hardpoint 2 slots Left Wing 3 slots Right Wing 3 slots Fuselage 6 slots

The Mitsubishi G4M / Slots and Locations

Cockpit 1 slot Hybrid Radio

1 slot Pilot Ejection System
1 slot 20 mm Armored Bathtub
1 slot Fire Control System

Nose Hardpoint 4 slots Type 13 Sensor (2 AU)

2 slots Ho 103 Typhoon (Heavy)

Tail Hardpoint 2 slots Mitsubishi Kasei Model 21

Type B Gravity Drive

2 slots Ho 103 Typhoon (Heavy)

Dorsal Hardpoint 1 slot Dorsal Turret (360)

1 slot Type 89 (Medium)

Ventral 2 slots 2,000 Liters of Fuel

Left Wing 2 slots Mitsubishi Kasei Model 15

Type B Gravity Drive

(stripped)

1 slot Type 89 (Medium)

Right Wing 2 slots Mitsubishi Kasei Model 15

Type B Gravity Drive

(stripped)

1 slot Type 89 (Medium)

Fuselage 2 slots Steerage Crew Quarters (6)

1 slot Laboratory: Sensor and Radio Room

1 slots 100 Ton Cargo Hold (Lower Deck)

1 slot Type 89 (Medium)

1 slot Medium Airframe / Amphibian

Additional 8mm Armored Plate

Armored Rings / Engine Cowling

20mm Armored Windscreen (Hybrid)

Airframe Medium

Engine Performance Jump Transit = 24 Hours per LY

System Transit = 18 Hours per AU Tactical Speed = Fast / Fast (-) Fuel Performance Jump Activation = 150 Liters

System Transit = 30 Liters per Hour

Tactical Speed = 12 Liters per Hour

Tonnage 175 Tons

Like many of the engines modified during the manufacturing process, the IJN's engines perform slightly better in a few areas and suffer in several others. Perhaps the most glaring and fairly normal result of human tinkering with Hegemony technology is a loss in fuel efficiency.

The G4M is equipped with the newest IJN sensor system, the Type 13, with a range of 2 AU's and a greatly improved ability to detect human and hybrid vessels and even a major improvement in the ability to detect Hegemony ships.

None of the ship's guns are fitted with an expanded ammo capacity. Additional rounds are carried in the ship's lockers and require at least two to three combat rounds to retrieve and load.

All IJN spacecraft are required to be engineered with the ability to land in water and operate as surface vessels. The G4M is no exception to this and its fins are set up to provide the ship with stability in a water environment. The G4M can remain afloat in moderate seas but must take off in heavy weather to avoid being swamped or capsized. The G4M is not designed for underwater operations. While its engines can fire even while submerged they do not withstand the positive water pressure the ship experiences as it sinks. Seams and joints will pop beyond a certain depth and the ship will fill with water. If the ship becomes filled with water it will not be able to lift off or manuever. Any G4M that sinks below a depth of 150 feet should be considered lost.

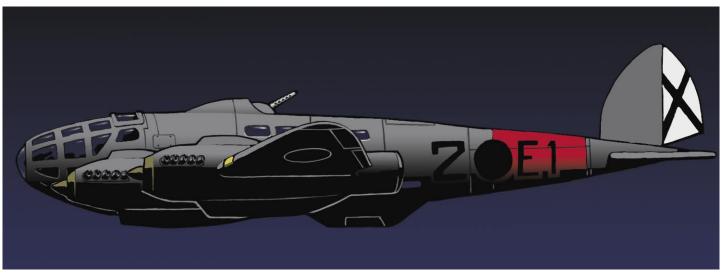
The amphibean nature of the G4M makes it a great supply vessel for remote colonies. The IJN is particularly adroit at the operation of small isolated outposts and these they have quietly scattered in a surprising number of locations throughout League space and the Nationalized corridors.

The Type 89 gun mounted in the Fuselage can be deployed on either the starboard or port fixed gun mounts located on either side of the vessel. These are usually positioned based on the ship's location within the larger convoy and the fuselage gunner is tasked with covering a neighboring ship against starfighter attacks.

The G4M is designed to operate with a crew of eight, two of which rotate in and out of the six available bunks during the off shift. During combat all eight crew members are available to fill the vital duties for the vessel. The sensor and radio operator's position is usually manned by a single person during combat.

With its well designed one hundred ton cargo hold and hydraulic pallet lift the G4M is an excellent and quick cargo hauler. Operating in a flight of five the G4M convoy can carry 500 tons of supplies and equipment to customers or one of the IJN outposts scattered throughout space.





#### Heinkel He III

The Heinkel He III was first developed through civilian investment as a passenger and cargo craft. It was converted into a military transport, bomber and torpedo bomber by the RLM starting in 1932.

The He III is the primary troop transport utilized by the Legion Condore to support its activities in Spain. Sixty of the craft function in the capacity of a troop and supply transport with two squadrons of fourteen each outfitted as strategic bombers. While the He III is armed and armored it is not designed like the Do-17 to operate as a front line assault transport. The He III is intended to carry troops and supplies to a protected airfield in the rear of a combat zone. The slow He III travels in a flight of similar transports where turret guns can provide a curtain of cover fire and with fighter escort whenever possible.

One flight of He III transports in Spain have had their dorsal turret removed to make room for additional troops. These craft possess a sliding airlock door in the side and are used to deploy experimental paratroopers and rocket pack assault teams.

The He III is powered by two Jumo 210 type A gravity drives. This makes the Heinkel a jump capable but fairly slow transport for star system to star system travel. In 1936 the He III is covered in a layer of light, joint welded armor. The starship does not receive an armor upgrade until 1939. By 1940 the Heinkel He III has aged to the point of being abandoned but pressures from the wartime economy forces the Reich to retain the design as a front line bomber and transport right through to the end of the war.

Tactically the Heinkel never receives only limited upgrades in the weapons installed in its turrets. Heavier weapons are reserved for ships with a primary combat role and the RLM continues to postulate that the He III is fast enough to out distance fighters. As early as 1938 this position is a serious error on the part of the RLM, but that does not change the position of German High Command which approves almost no upgrades in the craft's design right through to 1944.

The He III is protected by a nose gun operated by the ship's navigator and bombardier, a dorsal turret capable of covering the rear and sides of the craft and a ventral, fixed gun positioned to cover the rear and below of the craft.

All three of the ship's guns are MG 17s. A few variants between 1938 and 1942 introduce a 20 mm cannon in the nose and heavier MGs in other positions but no gun is ever placed in the tail or in the wings. Starting in 1940 the twin engine design is replaced with the final four engine model.

The He-III is a slow turner with solid dive and climb capabilities. It is not designed to participate in the bobbing and weaving maneuvers of a dogfight and is not armored heavily enough to withstand a pounding for long.

In 1942 the He III is further impacted by the replacement of its twin Jumo 210 type A gravity drives with a less powerful Jumo 90. The replacement in engine types is mandated to allow the RLM to have sufficient numbers of Jumo 210's for front line heavy fighters and assault transport spacecraft. The introduction of the lighter Jumo 90 slows the speed of the He III even further, making its usefulness anywhere near to the combat zone extremely limited.

By 1943 the He III is almost completely restricted to use as a cargo and troop transport deep inside of Reich controlled regions of space.

#### **Exports**

From 1937 through 1944 the He III is exported both to Roma and to Imperial Japan. Within the Roma navy the He III fills a similar role although the Italians never have enough of the transports and therefore push the ones that they do have, stuffing troops into them like sardines. Only a hundred of the He III's are exported to Japan. From the beginning these are limited to cargo transport and two squadrons of space, torpedo bombers. The IJN's torpedo bomber variant carries a single torpedo weapon in a launcher positioned under the ship's fuselage.



#### The Heinkel He III (Bomber) The Heinkel He III (Paratroop Transport)

Fast Transport Class / Slots and Locations Fast Transport Class / Slots and Locations

Cockpit	5 slots	Cockpit	5 slots
Nose Hardpoint	4 slots	Nose Hardpoint	4 slots
Tail Hardpoint	2 slots	Tail Hardpoint	2 slots
Dorsal Hardpoint	2 slots	Ventral Hardpoint	2 slots
Ventral Hardpoint	2 slots	Left Wing	3 slots
Left Wing	3 slots	Right Wing	3 slots
Right Wing	3 slots	Fuselage	10 slots

Fuselage 10 slots

The	Heinke	I He III	/ Slots and	Locations
I ne	пешке	пеш	/ Siois and	Locations

			Cockpit	1 slot	Hybrid Radio
Cockpit	1 slot	Hybrid Radio		1 slot	FuG 125 Hermine beacon receiver
	1 slot	FuG 125 Hermine beacon receiver		1 slot	Pilot Ejection System
	1 slot	Pilot Ejection System		1 slot	Seetakt II Active Sensor
	1 slot	Seetakt II Active Sensor		1 slot	Fire Control System
	1 slot	Fire Control System			
		10. 7/	Nose Hardpoint	t 1 slot	Laboratory: Bombardier / Navigator

		1 tose Harapoint	1 5100	Edoordiory. Domodrator / Travigat
Nose Hardpoint 1 slot	Laboratory: Bombardier / Navigator		1 slot	MG 17 (Medium)
1 slot	MG 17 (Medium)		1 slot	Communications Jammer

Communications Jammer Crew Ejection System 1 slot 1 slot 1 slot Crew Ejection System

The Heinkel He III / Slots and Locations

Tail Hardpoint 1 slot 10 Ton Crew Cargo Pod 10 Ton Crew Cargo Pod 1 slot Quarters / Steerage (3 Crew) Tail Hardpoint 1 slot 1 slot Quarters / Steerage (3 Crew)

Ventral 1.000 Liters of Fuel 1 slot Dorsal Turret (360) Fixed Rear MG 17 (Medium) Dorsal Hardpoint 1 slot 1 slot

1 slot MG 17 (Medium)

Left Wing 2 slots Jumo 210 Type A Gravity Drive 500 Liters of Fuel (Advanced) Ventral 1 slot 1,000 Liters of Fuel 1 slot

1 slot Fixed Rear MG 17 (Medium) Jumo 210 Type A Gravity Drive Right Wing 2 slots

Left Wing Jumo 210 Type A Gravity Drive 1 slot 500 Liters of Fuel (Advanced) 2 slots 500 Liters of Fuel (Advanced) 1 slot

1 slot Fuselage Forward steerage Crew Quarters (3) Jumo 210 Type A Gravity Drive Right Wing 2 slots 1 slot Laboratory: Sensor and Radio Room 1 slot 500 Liters of Fuel (Advanced) 5 slots Troop Births (24 Troops)

2 slots Medium Airframe

Fuselage 1 slot Forward steerage Crew Quarters (3) 1 slot Light Armor / Joint Welded 1 slot Laboratory: Sensor and Radio Room

Additional 5 slots 2,000 pound bomb capacity\* 8mm Armored Plate

2 slots Medium Airframe 30mm Armored Windscreen (Hybrid) 1 slot Light Armor / Joint Welded Airframe Medium

**Engine Performance** Jump Transit = 43 Hours per LY Additional

8mm Armored Plate System Transit = 19 Hours per AU 30mm Armored Windscreen (Hybrid) Tactical Speed=Medium/Medium(-)

Airframe Medium Fuel Performance Jump Activation = 200 Liters **Engine Performance** 

Jump Transit = 43 Hours per LY System Transit = 15 Liters per Hour System Transit = 19 Hours per AU Tactical Speed = 10 Liters per Hour

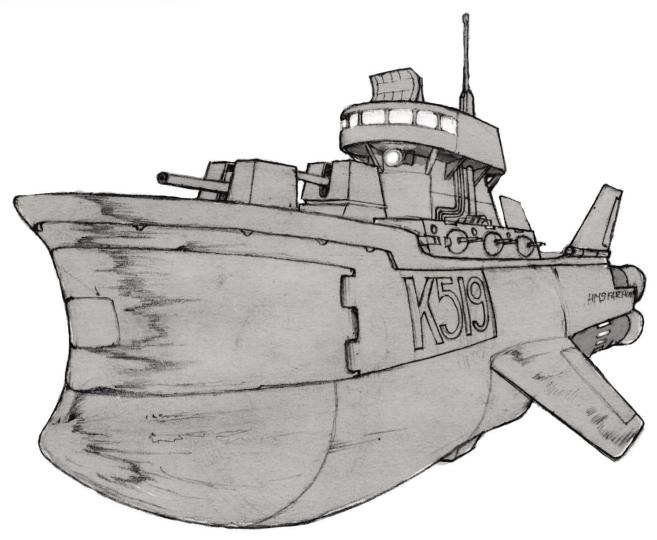
Tactical Speed=Medium/Medium(-) Tonnage 150 Tons **Fuel Performance** Jump Activation = 200 Liters

System Transit = 15 Liters per Hour The Paratroop version of the He III has the dorsal turret Tactical Speed = 10 Liters per Hour stripped to make more room in the troop birth compartment. The paratroop version retains its fixed ventral gun. It relies heavily on 150 Tons starfighter protection.

Tonnage

<sup>\*</sup>Bombers require a greater capacity for bombs over fighters.





#### **Destroyer Escort Class Vessels**

The Destroyer Escort class vessel was introduced in 1928. By 1928 it was clear that commerce raiding by independent groups with no respect for International Law (specifically the Qin Shadow Empire and the Cossacks) would remain a clear and present danger to civilian shipping everywhere.

The Destroyer Escort is a lightly armed, lightly armored military vessel which need only be faster than the slow moving convoys of civilian haulers and transport ships she is dispatched to protect. These vessels were never intended to confront or engage in battle against a full fledged Cruiser or Battleship Class ship of war.

Destroyer Escorts built between 1928 through 1935 were specifically designed to counter attacks made by agile snubfighter and starfighters and the occasional fast transport class assault vessel. (The usual types of vessels used by pirates in striking against a civilian convoy.)

In surface ship terms think of the early Destroyer Escorts as a sort of heavy duty anti-aircraft platform bristling with small but effective anti-aircraft guns and a few larger cannon to handle

anything up to an including vessels of the same size. It is not until 1936 that the British, Americans, French and to a lesser extent the Dutch and Japanese begin to construct a new generation of Destroyer Escorts specifically designed to detect, isolate and destroy the German S-Boat.

These new Destroyer Escorts do not see production in significant numbers until 1939. Prior to that perhaps one in every ten of the standard Destroy Escorts leaving naval yards is equipped with a heavier load of sensor gear and fewer but more powerful and longer range weapons including various types of torpedo or missile weapons.

Starting in 1936 the British develop a counter S-Boat tactic that involves a Destroyer Escort as a listening post for detection and a squadron of space capable British mecha armed with racks of magnetic space mines as a counter. The Destroy Escort / Mecha concept provided that the Destroyer detect the location of the S-Boat and dispatch its mecha to the location where they fast deploy a hundred or so magnetic mines into the immediate area. This implies pin point targeting capabilities on the part of the RN for detecting the wormhole signature of a Reich S-Boat, which is skirts the practicle edge of their sensor capabilities until at least 1941.



### **Destroyer Escort Classes by Nation**

Because the situation facing the space born navies of all nations is radically different between 1924 and 1936 (and beyond) when compared to that of the historic surface fleets on Earth, almost every major government in space has at least one DE Class vessel in its fleet. The designs vary from class to class and from nation to nation and there is not sufficient room in a single forty page book to present them all (nor would I care to try). Here is a reference list for game directors to use when designing the Destroyer Escorts in their own fleets.

### **British Star Empire**

The Captain Class

Destroyer Escorts in the RN are named after Captains who fought during the Napoleanic Wars.

### French Star Republic

The Colony Class

Colony Class Destroyer Escorts are named after French colonies in space.

### The Kingdom of Spain

The Hound Class (British built Captain Class / Converted)

Only four exist. Two fall into the hands of the Republicans during the rebellion. One is seized by the Nationalists. One remains in the hands of the Alphonsine Royalists and remains as a part of the main Kingdom fleet along with the Battleship Espana.

### The Kingdom of Holland

The Tiger Class

Dutch Tiger Class Destroyer Escorts receive the names of large hunting cats from Earth and the colonies. "Sabretooth, Leopard, Bengal and so forth."

### The United States

Evarts Class Buckley Class

### **Roma and The Reich**

In the Roma fleet the task of the Destroyer Escort falls to the somewhat larger and never numerous Italian Frigate Class warship. The Reich never develops a Destroyer Escort.

### Imperial Japan

Fubuki Class Destroyer Escorts

### **Destroyer Escort (HMS Bellingham)**

	Atmo-Capable	Water	Landing)	/ Slots a	ind Loc	cations	(68	Slots'
--	--------------	-------	----------	-----------	---------	---------	-----	--------

Cockpit/Bridge	05 slots
Nose Hardpoint	13 slots
Tail Hardpoint	12 slots
Dorsal Hardpoint	08 slots
Ventral Hardpoint	09 slots
Left Wing	04 slots
Right Wing	04 slots
Fuselage	13 slots

Bridge	1 slot	Hybrid Radio

4 slot Martian Hybrid Bridge Escape Pod1 slot Fire Control System

Nose Hardpoint 2 slots Type 282 Sensor (1 AU)

1 slot Ship Swamping Gear
1 slot Nose Turret (270 degree)
4 slots 5" Naval Gun (Heavy)
1 slot Nose Turret (270 degree)
4 slots 5" Naval Gun (Heavy)

Tail Hardpoint 8 slots x2 Type C RN Naval Drives (Mains)

Type C Gravity Drives

4 slots x2 Type C RN Naval Drives (Second)

(Stripped) Type C Gravity Drives

Dorsal Hardpoint 6 slot Browning .303 in fixed turrets

3 starboard / 3 port

2 slots Quarters: Steerage (8)
Upper Deck Crew Quarters

Ventral 3 slots HVAR Yankee Rocket Launcher

1 slot

Internal Tube Launch Bay (Lab) (Heavy Damage / Medium Range)

2 slots x 2 Fighter racks

1 slot Internal Launch Bay (Lab)

2 slots Light Armor / Joint Welded (20f9) 2 slots 2,000 Liters Fuel (Advanced)

Left Wing 2 slots 2,000 Liters Fuel (Advanced) 2 slots Light Armor / Joint Welded (2of9)

Right Wing 2 slots 2,000 Liters Fuel (Advanced)

2 slots Light Armor / Joint Welded (2of9)

Fuselage 2 slots Steerage Crew Quarters (8)

2 slots First Class Cabins (4) 1 slot Sensor Lab (2 Crew)

2 slots Medical Bay

1 slot 150 Ton Cargo Hold (Lower Deck)

2 slots Heavy Airframe

3 slots Light Armor / Joint Welded (3of9)

Additional 10mm Armored Plate

30mm Armored Windscreen (Hybrid)

Airframe Heavy

Engine Performance Jump Transit = 09 Hours per LY

System Transit = 09 Hours per AU Tactical Speed = Moderate

Fuel Performance Jump Activation = 400 Liters

System Transit = 54 Liters per Hour Tactical Speed = 10 Liters per Hour

Tonnage 2250 Tons



### **Soviet FAST Transport (Mule)**

The Soviet FAST Transport or "Mule" is a super scale version of the standard unmanned FAST Transport. It is designed to perform long range jumps via stand-off vessels carrying weapons and supplies to communist insurgencies throughout space.

The Mule is straight forward, if not simple in design. It is small. Approximately the size of a heavy fighter. By stripping off normal essentials like most weapons, ammunition, life support and armor, the engines on the Mule can be small and present a weak signature for sensor detection while performing with sufficient speed.

A Mule is designed for one purpose. Getting from point A to point B in one piece. Once it arrives at its destination it moves into orbit and homes in on a beacon placed on the surface of the planet. When the proper beacon signal is detected the mule drops its cargo which is contained in an atmospheric re-entry pod equipped with a parachute.

If undamaged the pod is designed to fire solid fuel thrusters to adjust its flight to reach the target location.

Of course all of this in 1936 is rather experimental.

In reality, while the mules are fairly successful in reaching orbit, their pods can only be expected to drop within 25 to 100 kilometers of the drop zone. After losing a number of drops the Soviets installed a 72 hour radio beacon in the pod. This transmits a location beacon which can be used by insurgents to zero in on the pod, so long as they manage to reach it before the battery wears out.

Once the mule has dropped its load it activates a single proximity mine attached to its engine and then shuts down all of its systems. The mule drifts in orbit as a somewhat bulky space mine and will explode if any ship moves close enough to activate the mine.

The mines rarely encounter ships. Space is big. Most likely the mines will function as a self destruct feature or booby trap for anyone looking to board Soviet mules searching for unreleased pods.

Did we mention the unreleased pods? Perhaps one pod in five jams in the release rack and fails to deploy. This is especially true of mules which are damaged by impacts with micro meteors or a near miss by an enemy ship.

Every once in a while the Soviets will equip a mule with a radio broadcasting unit capable of broadcasting a radio signal from orbit. These mules will operate like a Soviet propaganda satelight repeating a twenty four hour program of music, news and the wonders of the communist life day after day until they are located and destroyed.

### **Soviet FAST Transport [Mule]**

FAST Drone Class / Slots and Locations

Cockpit 3 slots Fuselage 9 slots

Soviet FAST Drone / slots and locations (12)

Cockpit 1 slots October Victory Sensor

(stripped / guidance only)

1 slot 60 mhz standard radio (human)

(beacon and locator with recorded Soviet propaganda transmission)

1 slot R-1 Soviet Proximity Mine (V. Heavy)

(Explosion and +2 chance to Criticals)

Fuselage 2 slots Type A Gravity Drive

1 slot 1,0000 Liter Fuel3 slots Deployable Cargo Bay

3 slots 30 Ton "soft landing" cargo bay with

shielding, thrusters and parachute.

Airframe Capital Vessel / Non-Atmo

Engine Performance Jump Transit = 48 hours per LY

System Transit = 24 hours per AU

Tactical Speed = Fast (-)

Fuel Performance Jump Transit = 150 Liters

System Transit = 5 Liters per Hour Tactical Speed = 1 Liters per Hour

Tonnage 35 Tons

5 Ton Vehicle

30 Ton Deployable Bay

Cost Per Drone: \$5,000 US + Payload (\$2,100.00 Refurbished)

The major cost involved in a mule is the type A gravity drive. New, the drive has a cost of \$3,500.00 US. The Soviets are fond of cannibalizing drives from wrecked starfighters and repairing them sufficiently to provide a disposable drive for a mule. A refurbished drive of that nature has a dollar value more in the range of \$900.00 US.





### **Supply Vessels (Overview)**

Despite the blockade, Spanish space is surprisingly active with transport. Dozens of supply ships arrive to support troops from Roma, troops from the Reich and Nationalist troops under the support of both the Roma and the Reich.

In addition there are Republican blockade runners. Fast ships which rely on speed and an ability to disappear running weapons and supplies to the rebels.

The Qin Shadow Empire and other syndicate vessels operate in the region for reasons completely removed from the civil war. A fair number of these bribe their way past the blockade or have intelligence agents in the destination system reporting the most likely spot to slip past Legion ships.

Then there are the Soviet blockade runners. These are more rare and usually employ an organized attack to punch through the blockade in force, causing as much havoc and damage as possible during a delivery of supplies. Sometimes a Soviet move into the region is massive. It may involve strikes by multiple flights of fighters, attacks by assault transports and larger vessels to cover the supply vessels carrying troops, tanks and gear.

Finally you have independent merchants arriving in the area. These fly any number of national flags and hope to carry non war materials to the civilian markets in Spain. Dozens of these come and go in the systems of Spain despite the blockade.

At any given time there are between fifty and seventy fast transport and supply vessels operating in the main systems of the Kingdom of Spain. With the Legion Condore already spread thin, the chances of them intercepting even half of these vessels is very small.

Below is a simple table showing shipping activity in the New Madrid system and the total percentage of ships intercepted and destroyed over the course of 1936.

### Blockade Activity - New Madrid System 1936

Date	Arriving	Departing	Intercepted	Destroyed
January	67	135	0	23
February	119	64	5	31
March	56	44	25	9
April	62	56	34	7
May	68	52	38	5
June	55	41	31	8
July	79	47	39	11
August	88	61	41	17
September	58	36	30	6
October	82	51	34	12
November	45	27	31	5
December	44	24	35	8

### **Supply Vessels [Confederate Blockade Runner]**

Atmo-Capable / Slots and Locations

Cockpit/Bridge	06 slots
Nose Hardpoint	06 slots
Tail Hardpoint	06 slots
Dorsal Hardpoint	03 slots
Ventral Hardpoint	04 slots
Left Wing	06 slots
Right Wing	06 slots
Fuselage	20 slots

The Texas Star (Freighter) / Slots and Locations

`	,			
Bridge	1 slot	Hybrid Radio		
	4 slot	Martian Hybrid Cockpit Escape Pod		
	1 slot	Emergency Hatch System		
	1 slot	Fire Control System		
Nose Hardpoint	2 slots	Type 282 Sensor (1 AU)		
•	1 slot	Ship Swamping Gear		
	1 slot	Nose Turret (360 degree)		
	2 slots	ShKAS (Medium ++)		
Tail Hardpoint	4 slots	Mark I Mercury		
1		Type C Gravity Drive		
	2 slots	Engine Room / Lab (4 Crew)		
Dorsal Hardpoint	1 slot	Lab (Forward Crane)		
•	1 slot	Lab (Aft Crane)		
	1 slot	Lab (Wardroom)		
Ventral	1 slots	1,000 Liters of Fuel (Advanced)		
	3 slots	Confederation Marauder Bay		
Left Wing	2 slots	VTOL Stabilizers		
_	1 slot	500 Liters of Fuel (Advanced)		
	3 slots	Light Armor / Bolted (3of12)		
Right Wing	2 slots	VTOL Stabilizers		
	1 slot	500 Liters of Fuel (Advanced)		
	3 slots	Light Armor / Bolted (3of12)		
Fuselage	2 slots	Steerage Crew Quarters (8)		
	2 slots	First Class Cabins (4)		
	1 slot	Sensor Lab (2 Crew)		
	3 slot	300 Ton Cargo Hold		
	4 slots	x2 Type A Renault Drives in concealed		
		ports. (stripped) *Overclocked		
	6 slots	Light Armor / Bolted (6of12)		
	2 slots	Heavy Airframe		
Additional	8mm Ar	Armored Plate (Bridge)		
	20mm A	n Armored Windscreen (Hybrid)		
Airframe	Heavy			
Engine Performance		Jump Transit = 24 Hours per LY		

System Transit = 40 Hours per AU Tactical Speed = Dogslow / Moderate

Jump Activation = 200 Liters Fuel Performance

System Transit = 15 Liters per Hour Tactical Speed = 10 Liters per Hour

Tonnage **3000 Tons** 

\*Capable of powerful bursts using its concealed engines. Risks burnout of an overclocked engine at Director's option.





## National Flagship and Battleship The Espana

The Espana is an example of a battleship built during the mid-1920's era. The design of the Espana was influenced heavily by the surface going battleships of the terrestrial navies of the early 20th century.

As his majesty's flagship for the Kingdom of Spain, the Espana is both beautifully appointed and heavily armed and armored. While its guns and bolted armor make it vulnerable versus any battleship produced after 1930 it remains a significant force versus lighter vessels.

Her 10" gun provides a long reach compared to most other vessels operating in Spain. Her batteries of 5" guns provide broadside coverage out to medium range. A broadside from the Espana at medium range will maul most destroyers and turn them into drifting hulks, while her heavy armor will bounce the damage from the typical destroyer's 5" guns in most instances.

Her bridge is fitted with polished mahogany, silver and polished brass. The officer's seats are upholstered in cheetah hide. Even the interior passages are not the drafty metal tunnels aboard most other military vessels. The rows of pipes and electrical wiring are hidden behind removable panels of polished oak.

All of this extra luxury makes the Espana a proud vessel. It also makes her more vulnerable than most to internal damage and fires. The Espana was designed to be a symbol of rising Spanish power in space. It was meant to be a place where the King might receive the ambassadors of other nations, even the representatives of alien cultures.

Now that Spain is engulfed in a civil war, the Espana serves as the backbone of the surviving Alphonsine fleet. The King is not interested in risking her or the rest of his vessels in extended combat against the rebels. He hopes to achieve a number of strategic victories on the ground and have the war swaying in his favor before applying the hammer of the Espana to rout the ships of the enemy from Spanish space. Only with a victory on the ground and in space can the King be certain that he will not have to risk the Espana and his other ships in a second major battle. The King has no delusions of the Espana coming through a direct encounter with the ships of the Reich and Roma fleet unscathed. He is of the opinion that forcing the Espana to face a second major naval action after she is damaged and several of her current supporting vessels are lost would seal the vessel's fate.

During any major naval action involving the Espana the King plans to be aboard her. She serves as his second base and her officers and crew are completely loyal. The King holds the Espana near and dear to his own heart. To him she is a vision of the might of the Kingdom that should have been. If the vessel faces her fate in the face of battle against the rebels or the Nationalists, he would prefer to be aboard and make her fate, his own.



National Flagshi	p: Battle:	ship (The Espana)	Fuselage	9 slots	Steerage Crew Quarters (36)		
			9 slots	Steerage Crew Quarters (36)			
Battleship / Slots and Locations (200-250 Slots)			4 slots	Flak Turrets (180 degrees)			
200 200 200 200 200 200 200 200 200 200			6 slots	x2 20mm twin guns (port)			
Cockpit/Bridge 14 slots		14 slots		6 slots	x2 20mm twin guns (starboard)		
Nose Hardpoint		17 slots	8 slots		First Class Cabins (16)		
Tail Hardpoint		34 slots		1 slot	Sensor Lab (2 Crew)		
Dorsal Hardpoin	t	31 slots		1 slot	Metal Shop (Lab)		
Ventral Hardpoir		41 slots		1 slot	Electronics Shop (Lab)		
Left Wing		07 slots		1 slot	Science Lab (Lab)		
Right Wing		07 slots		3 slots	Starfighter and Launch Repair Bay		
Fuselage		80 slots		4 slots	Medical Bay (Expanded)		
Ü				2 slots	300 Ton Cargo Hold (Lower Deck)		
Bridge	1 slot	Hybrid Radio		5 slots	5,000 liters of fuel in main tank		
C	4 slot	Martian Hybrid Bridge Escape Pod		20 slots	Heavy Armor / Bolted (20of60)		
	1 slot	Fire Control System					
	3 slots	Type 281 Sensor (1 AU)	Additional		10mm Armored Plate		
	5 slots	Heavy Armor / Bolted (5of60)			30mm Windscreen (Hybrid)		
			Airframe		Capital Vessel / Non-Atmo		
Nose Hardpoint	3 slots	Starboard Ship's Launch Tube	Armor		Heavy Armor / Bolted		
Trobe Time apoint	3 slots	Port Ship's Launch Tube	Engine Perform	ance	Jump Transit = 33 Hours per LY		
	5 slots	Forward 10" Gun	_		System Transit = 33 Hours per AU		
	1 slot	Forward Turret (270 degree)			Tactical Speed = Slow (+)		
5 slots		Heavy Armor / Bolted (5of60)	Fuel Performance		Jump Activation = 4000 Liters		
	S SIOLS	Tieuvy Tillion / Bollett (30100)			System Transit = 120 Liters per Hour		
Tail Hardpoint	24 slots	x4 Type D RN Naval Drives (Mains)			Tactical Speed = 32 Liters per Hour		
run marapoint	21 51015	Type D Gravity Drives					
	10 slots	Heavy Armor / Bolted (10of60)					
	10 51045	Tieary Timier / Bonea (Tooloo)	Captain's Tour				
Dorsal Hardpoin	t 4 slot	x2 Cargo Cranes	oup cum o roui				
		Quarters: Steerage (16)	The Espana is a fairly large and complex vessel. W		Pairly large and compley vessel What		
4 SIOLS		Upper Deck Crew Quarters	follows is a bow to stern and top to bottom tour.				
	2 slots	x2 Turrets (180 degree)	follows is a bow to stern and top to bottom tour.		ind top to bottom tour.		
	8 slots	Twin 5" Starboard Guns	The Duidge				
	8 slots	Twin 5" Port Guns	The Bridge				
		Heavy Armor / Bolted (5of60)		. 1 0.1			
	0 51015	riouty riminor, Bonou (coros)		-	e Espana is fitted as a Martian escape		
Ventral	2 slots	x2 Turrets (180 degree)	vessel. In the event that the ship is being destroyed the				
Volitiai	8 slots	Twin 5" Starboard Guns	bridge can separate from the ship and make a r				
	8 slots	Twin 5" Port Guns	1932 the bridge received an upgrade with its type 281				
	1 slot	Internal Launch Bay (Lab)	sensor system. The sensor is linked into all of the				
	1 3100	loader for Nose ship's launch tubes			xcellent firing solutions for targets		
	2 slots	Expanded Munitions Magazines	in space. The sensor tends to run bright and makes it easier detect when in operation.				
	3 slots	Galley Area and Small Cafeteria					
	4 slots	Exercise Room / Gym	Nose				
	4 slots	, , , , , , , , , , , , , , , , , , ,					
		Swimming Pool and Lockers					
	2 slots	Officer's Dining Area	The Es	pana is eq	uipped with a pair of launch tubes		
	2 slots	300 Ton Cargo Bay (Ship Supplies)	which eject starfighters or ship's cutters out of the front of vessel. Both tubes connect to a loading crane in the interior				
	5 slots	Heavy Armor / Bolted (5of60)					
I of Win a	1 -1-4	1 000 Litara Eal (A da			onnected to the fighter hanger portion		
Left Wing	1 slot	1,000 Liters Fuel (Advanced) in Fin	•		50 tons out of 300 tons of the fuselage		

unch tubes e front of the the interior of hanger portion of the ship's cargo bay. 150 tons out of 300 tons of the fuselage cargo area is dedicated to starfighter and a ship's boat hanger area. Adjoining the hanger deck is a six man starfighter repair bay. The Espana is not a carrier. It does not have a functional flight deck and can not receive landing craft quickly. Incoming fighters must stage near a crane and have a crane hook onto them and then load them into the large airlock located behind the bridge.

1,000 Liters Fuel (Advanced) in Fin

1,000 Liters Fuel (Advanced) in Fin

1,000 Liters Fuel (Advanced) in Fin

Heavy Armor / Bolted (5of60)

Heavy Armor / Bolted (5of60)

1 slot

5 slots

1 slot

1 slot

5 slots

Right Wing



Given sufficient time the Espana can deploy two wings of five starfighter's each. With fighters deployed she retains one passenger and one cargo cutter on board to assist in getting crew members to safety should the ship need to utilize these as escape boats.

The nose is also the location of the Espana's 10" gun turret. This formidable weapon can fire for shred damage at long range. Should the weapon score a hit it is likely to inflict tremendous damage on any target from a destroyer on down. Provided that the Spanish gunners aboard her can score hits, the Espana might easily disable a destroyer before it comes close enough to fire its own guns. Considering that the crew aboard her should be highly rated, hand picked experts from the Spanish fleet, her gun crews are not likely to miss.

### Plot Point

The destruction of the Espana is not a foregone conclusion. If the player characters side with the King this magnificient ship, along with the bulk of the Royalist fleet may follow the King into exile. If the player's become key members in the royal household they may well have their personal quarters aboard the Espana and use her as a base between adventures.

### Wings / Fins

The Espana does not have wings. She does have several fins which both serve as additional fuel storage and simple solar collectors used for heating water and providing limited electrical back-up power when the ship is operating in-system. The solar system is a Martian addition introduced for a variety of the larger class vessels, even those built as early as the Espana.

### Interior

The Espana is built to maintain a healthy crew and officer staff during extended operations in space. She has an expanded medical bay, a large exercise room, a locker area, a full equipped galley with a private cafeteria area for both the enlisted men and officers. She even has a swimming pool with a glass steel ceiling that allows a view of the stars or nearby planet overhead. During official visits the exercise room can be modified to serve as a small ball room.

### **Ouarters**

Conditions aboard the Espana are excellent for both the Officers and the crew. This stands out in stark contrast to conditions aboard much of the rest of the navy which has been purposely neglected over the years by commanders and nobles loyal to the Carlists who hope to forment unrest.

Quarters for rank and file sailors are small but well appointed with wood panelling over the walls, wood coverings over the floors, brass lanterns, plenty of cabinet space for personal effects and uniforms. Four crew share the same space but they do

so in shifts, with no more than two off duty and in occupation of a cabin at any given point in time.

### Officer Ouarters

Three quarters of the first class cabins aboard the Espana are devoted to the ship's senior officers. They enjoy a larger cabin space shared only between two members of the officer staff. Indeed, as with the crew, most of the time an officer can enjoy the privacy of their quarters while their counterpart is on duty.

Crew members work in ten hour shifts while the ship is deployed. Officers work in twelve hour rotations. The rigors of ship operations demand the officers and crew enjoy occasions of shore leave where the ship is only partially manned.

Officer quarters include superior wood furniture, a full writing desk and rooms which are somewhat sound proofed against the day to day operations of the ship.

### **Royal Quarters**

One quarter of the first class cabins are reserved for use by the King and his guests. Any members of the royal family or agents of the King arrive on board with an additional squad of marines, advisors and personal servants.

While they are occupied, the royal cabins are secured behind a locked pressure door under twenty four hour armed guard (on both sides of the hatch). In addition the occupied chambers are placed under guard. The King's personal chambers have two guards on the outer door and two in his chamber or attached to his person at all times. The royal quarters are quite large. They enjoy a large window view of the stars or nearby planet through a curtained green house of heavily reinforced glass steel.

### Servants

The Espana comes with its own ship board laundry. Lower ranking crew provide the labor for the laundry on a rotation. Officers also enjoy having their uniforms cleaned and pressed and all of their boots and leather gear polished. Crew members are well supplied with new uniforms although the shine and polish aboard the Espana will slowly wane over the course of the war.

### **Combat Bunkers**

During combat, certain areas of the ship are secured with pressurized hatches. These areas are not depressurized but they are emptied of crew. In particular the recreation area, locker rooms, pool area and certain access passageways between decks are not occupied during combat. These areas are located immediately below the ship's big guns. During a full broadside and especially in the pool room just below the 10" gun, crew in these areas may experience serious hearing damage and even shell shock from the overhead explosions of their own guns. Sound may not carry in space but it most certainly travels between the decks of the ship.

### **Starfighters**

Both starfighter wings aboard the Espana are equipped with the Nieuport Delage starfighter. The King is well aware that these fighters are somewhat aged and outmatched by both the Rata and the Bf 109. He hopes to protect these assets by keeping them within medium range of the Espana where the ship's guns can provide them with additional cover.

Surrounded with its full compliment of ten covering starfighters, destroyer escort, two cruisers and a dozen fast transports and additional fighters, the Espana and the Royalist fleet remains a force to be reckoned with. Likely the greatest threat to the Espana is a torpedo attack.

In her stationary orbit she depends on the patrol of her Destroyer Escort and fighters to discourage an attempt on her by an S-Boat. In addition the King has cleverly arranged to surround the ship with several mine fields. These provide an anti-torpedo curtain around the ship. As long as the torpedo can be detected a mine field can be detonated remotely when the torpedo passes through it in the hopes that the explosions will either destroy the torpedo or send it off course. (A clever defense which is likely to work at least against one or two initial torpedo attacks.)

Finally the ship's guns can attempt to provide counter battery fire to attempt to destroy incoming torpedos or rockets before the hit.

By June of 1936 the King will require that two starfighters armed with under wing rockets remain in close patrol around the Espana to provide one last line of defense against torpedo attacks. The pilots are instructed to target and destroy incoming torpedoes using their rockets.

### Range

The ship's drives provide sufficient punch to carry this tremendous battleship through jump space at a reasonable speed. Still, each jump drains 4,000 liters of fuel from her storage. This limits the Espana to a single jump in most cases before requiring some attention to her fuel stores.

The ship's cargo launch can be employed to retrieve needed solid fuel stores if the Espana is not meant to put into orbit or dock at an orbital station. She has just enough fuel to usually effect an emergency jump back out the way she came should she run into real trouble in a destination system. She will not have much in the way of fuel remaining after two jumps and must refuel before jumping again or even operating for an extended period of time. In system flight and combat the Espana is a slow moving vessel as are all ships of her size and nature. Battleships built after 1930 tend to be somewhat faster with more improvements to speed, armor and the range and power of guns on the horizon for battleships produced after 1936.

### Crew

The Espana accomodates a crew of between 140 and 175 depending on her operational status. Higher figures reflect the presence of the King or a key member of the royal family on board. The Espana has a small number of marines on board at all times (a single squad) with an additional squad arriving on board with the King or any royal personage. Additional crew members reflect the arrival of servants, translators, a personal physician and advisors which travel with a royal family member at all times.

The marines are hand picked from the Spanish Legion. Some of these individuals may remain loyal to General Franco rather than the King although this will likely be a minority. There is always the possibility that Franco might arrange for a saboteur aboard the Espana but this is also fairly unlikely as Franco would rather see the proud vessel survive the war intact.

### Plot Point

Franco's first motive is the survival of Spain free of a communist government. A close second to that is his own future in the government to come. Even so, Franco remains a supporter of the King on a certain level and would rather see his old friend and commander step down from power rather than be harmed. Franco takes extreme umbrage at actions which destroy symbols of proud Spanish might in space or attacks against buildings such as churches which were imported from Earth brick by brick.

While he is no innocent, the General retains a strong sense of personal honor and is unlikely to stoop to acts of sabotage or double dealing unless he is backed into a corner.

The King is not unaware of the potential for Franco's abandoning his cause and taking a good portion of the Legion with him. Should Franco join the Nationalists, the King will have those soldiers known to be loyal to him sent via transport into New Madrid to join their commander. He will not attempt to imprison or punish them for mutiny. Such an act will only serve to strengthen the iron clad loyalty of those already determined to remain at the King's side.

### **Psi Agents**

The King secretly retains several independent Psi talents on his Officer staff. One remains aboard the Espana at all times. This member of the security team is tasked with sniffing out plots, dangers to the ship and potential attacks.

In addition the King maintains both a Witch and a talented Warlock on his personal staff. When the King is present he may well have both of these with him, surrounding the King with two sensitives capable of detecting dangers and one individual capable of tearing apart enemy boarding parties with direct psionic attack.



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### Note

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MAY

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AUA

This serves as the back cover for the starship compendium. You may stop printing here to create your starship compendium. Begin printing on page 45 if you choose to print a copy of -just- the short story.

Not in New Kansas Anymore...

A Tubepunk Tale

by

Edward M Kann



### Disclaimer

All of the characters presented in this work are fictional. Any similarity between them and any real person or event is purely coincidental.

This work of short fiction includes references to race and slang terms.

This is not intended to support or encourage the use of such terms. Far from it.

The very worst slang and racist banter common in the literature of the 1930's has been removed. That said, the struggle for equality and understanding between humans from all walks of life was a major part of the unfolding history and experience of the 20th century. Excluding it would be as wrong as ignoring the evils of the holocaust or claims that those horrible events of the period did not occur.

The struggle for understanding and a world free of ignorance, hate and violence between our human brothers continues to this day.

e.m. kann

# Not in New Kansas Anymore by e.m. kann

### Chapter One

"So, he's gone." Roy Garvey, Mayor of Drakensburg contemplated the worn edge of his once stunning black bowler hat. He leaned his long lanky form against the wooden podium of the South Veldt one room school house; white shirt sleeves rolled up past his narrow elbows, conservative gray jacket folded over the shaker chair behind him.

To the eyes of Floyd Specktor, his old friend and crony, Garvey made an impression that was almost presidential. Roy certainly looked the part of an Abe Lincoln with his homespun sensibilities and easy going good nature, at least on the surface. It was no wonder that the colonists kept electing him.

"That's right. Heeled and toed it last night on the outbound shuttle to Orvieto." Herman Schott, Drakensburg's one and only law enforcement officer spat a thick black stain of chewing tobacco onto the school room floor.

"God damn it, Herman. The kids have still got to come to school tomorrow." Roy glared and watched as the thickly built policeman stuffed his
hands into his heavy cowhide jacket and scuffed the stain mostly away with
one of his boots.

"Not without a teacher they don't," muttered Herman.

Floyd put down the little globe, a model of planet Earth meant to teach the kids the names and places of countries and cities they might never see. As a kid he'd always loved things like globes and maps. It seemed utterly foreign and strange that none of the kids in attendance at the South Veldt school house could point to a spot on the globe and say that this spot, this little colored square of bumpy land is where I live. In fact none of the kids on the League charter colony of New Kansas could say

that. Earth was more than thirty light years away. The whole notion was mind boggling to Floyd who was thirty years old when the aliens arrived in 1919. Now that he was pushing past fifty he was counted as one of the senior voices on the colony. It helped that he ran the only newspaper on the planet.

"That would be the third teacher we've lost this year." Floyd spun the globe with his fingertips. "Kind of makes you wonder, why it is we can't seem to keep one around."

"I just raised the pay on this last one by fifty cents a day," commented Roy. He placed one polished wingtip on the rail at the bottom of the podium and leaned on his elbows, flipping his bowler in his fingers. "Colony can't afford to pay any more than that. Hell we pay more for teachers than they do in Kingsland and classroom's here have maybe half the kids, maybe a quarter."

"School teachers ain't the only ones to leave in a hurry," said Herman. "Nothing much to do around here besides farm and fight the grass, maybe run a little shop or a little local newspaper like yours Floyd. I mean, what the hell does a young guy like this last teacher..., what was his name again?"

"Warren something," offered Floyd.

"Warren Peach," corrected Roy.

"What's a young guy like this Warren Peach fellow have to look forward to around here?" Herman crossed the floor, his big boots thumping over the boards. He pushed open one of the windows and spat into the curtain of blue grass pressed against the window from outside.

Roy stopped fiddling with his hat and looked around the room at the men. "That isn't why he left and we all know it."

The room was silent for a moment.

"Damn it Roy," Herman began. "You make it sound down right sinister."
"Isn't it?" Roy stared down Herman until he had to break eye contact

and pretend to study something out the window.

"Kids go missing on every colony world Roy," Floyd said. He sat at one of the under sized desks, working his legs around to save his knees from being bruised. "Kids go missing and people get sick or hurt. It happens in any frontier community like this. It happened like that on the frontier back home in the old days."

"This isn't home," said Roy. "Home didn't have the grass."

"God damn grass is part of the problem, at least with the missing kids," offered Herman. "Not only will it drive a feller crazy not being able to see more than two god damn feet past his front porch, kids don't listen and run off into that shit and if they go far enough, never find their way back. Besides there might not be many critters living out there that can do a person any real harm but there are a few. One of them grass cats could go after a kid and drag him off if he was alone."

Roy sat his hat on the table next to him and straightened up to his full six and a half feet. "When was the last time you was feeling poorly Herman?"

His pale blue eyes scanned the room. "When was the last time any one of us felt as much as a sniffle since we left Earth? Five years? Eight?"

"You all are just pissing into the wind on account of your not wanting to admit how god damn scared you all are." Roy pulled a box of cigarettes out of his pocket and lit one, taking a long drag. "Tell me again Floyd what you found out the last time we checked up on death records at other operations like ours."

Floyd frowned. Roy was right and this was the one subject he hated to discuss. "Our adult death rates are about the same and almost all from accidents, only a few from disease. Not many adults going missing. Not many more than any other colony in this region of space."

"What about the kids?" Herman frowned, looking every bit the bull dog. This was all news to him.

"We have about three times the missing rate for children of the next highest colony anywhere in space, at least according to what's been recorded."

"Shit." Herman looked from Roy to Floyd. It was easy to see he was steamed and more than a little appalled at the news.

"I knew it was pretty bad...but not that bad," Herman said.

"Remember, you are new around here too Herman," offered Roy. "School teachers, like you said, aren't the only people that get the hell out of here on a regular basis."

Roy gathered up his coat and hat. "I'll be on the horn to our illustrious League Governor today to discuss our needs regarding a new school teacher." He paused for a moment and added, "Herman, what about that black kid whose Daddy was spraying the Blue for the Quakers from that Spad of his? You think you can look in on him?"

Herman gave a shrug. "Plenty of white kids need the law to watch out for them around here and that little colored is way out on the West edge of the Veldt."

"He's twelve years old Herman, for Christ's sake have a little Christian charity, god damn it. At least those white kids have parents to keep an eye on them. That poor kid hasn't a soul in the world. I think he's probably the only black we have on the whole damn planet."

"Alright, alright," Herman waved his hands in surrender. "I'll do right by him. Damn shame about his Dad. I hear he was one of the first colonists to settle here."

Roy answered with a nod. As the men pushed their way out of the school house into the hard slap of the wind, Floyd had the slightest inkling that more than the usual afternoon thunderstorm was lurking beyond the horizon.

### Chapter Two

"Coffee makes me feel like I'm not a zillion miles away from Yankee Stadium."

This was the sort of line my father would share aloud with the kitchen some mornings. Surprised, -it always surprised me when Dad would suddenly offer his inner monologue by way of commentary, like the announcer at one of the baseball games I'd never seen; I would sit up in my seat and watch him.

He'd stand sipping from a cup of his morning ritual, steam curling in the cold which shouldered its way into our shotgun house of a morning. While I poked at my breakfast he would be standing right there, where dappled sunlight formed a cross on the floor, wearing nothing but his old flannel long johns -squinting out through the slam of the screen door. His deep brown eyes would carry him out over the little strip of the Veldt whose miles and miles of golden rippling waves; all of it Earth imported wheat came to an abrupt halt at the end of our property. There it gave way to a vastly greater ocean of shoulder tall azure blades which quickly climbed up and up; tall as houses, the elephant grass native to New Kansas.

The grass was synonymous with the planet and any hardship we experienced there. Each stalk grew as wide as a man's thigh and rose to a tufted point seven to nine feet tall. I imagined the stalks of blue to be fingers, five spread skyward from the palm where the root was located, and each root ran deep, deep below the surface. The grass was tough, difficult to hack down even with a new machete. The edge of a blade of it could slice through your palm as surely as a razor if you caught a hold of it and pulled.

Residents of New Kansas described daily life in terms of the never ending battle against the scourge of the planet's major life form. The colonists chopped it, poisoned it, plowed it under, but mostly they burned

it. Once a field was cleared, only spraying once a month with the chemical called Blue kept it from springing right back. Blue was one of a dozen such fertilizers supplied to us by our Martian benefactors. It kept human crops from being strangled to death by the malignancy of the grass and had the additional benefit of increasing crop yields. Still, there was a limited supply of the stuff. Enough to keep the fields clear, -barely. That left the towns and homesteads away from the productive fields to attempt to wage war against the ever encroaching invader, with whatever tools were readily at hand.

My father favored a flame thrower from the Great War. Dozens like it were employed for this purpose around the colony. Backpack flamers had been the means for clearing the grass going back to the earliest days of the colony.

One might imagine this would create a problem with raging brush fires, yet this was never a problem on New Kansas. The grass retained a significant amount of moisture and only those stalks kissed directly by the flames of a thrower shriveled and died. A variety of different means for encouraging a large scale prairie fire had been employed during the lifetime of the colony. All had failed. Pumping cheap fuel oil into fields of grass using hoses and hand pumps worked reasonably well but was cost prohibitive for regular use.

Blue was the best solution we had for the plant. After burning down a field spraying down a layer of Blue from a crop duster like my Father's spad or with a tractor kept the grass at bay for weeks, possibly as long as a month during the dry season.

Of course, after a few years of spraying Blue using the Spad, the shed and our yard had absorbed so much of the residue that the grass no longer made the attempt to climb the low hill up to our house.

Elsewhere it could reclaim an entire acre within seventy two hours, pressing in against windows and doors to such an extent that a house could

vanish into it all together if left undefended or unoccupied for longer than a few days.

Father had one rule about the grass, never go into it without him.

Not, never go into it alone or never go into it without an adult, but very clearly, -very specifically, never go into the grass without my him.

To demonstrate how serious he was, my Dad wasted no time in tanning my hide the first time I set foot in it without him. We had, of course, heard the news a neighbor would go missing at one of the farms nearby.

Dad would sit me down and explain. "Now son, I can't tell you the exact reason why, because I don't know the answer myself, -but going off into that grass for anyone and most especially a youngster is damn dangerous."

"What do you think is out there Dad," I'd ask.

He would quiet down and stare out the window at that nine foot tall wall of blue stalks running behind our house and answer quietly. "I can't really say, son. I'm not sure what is out there."

That, was the last I would get out of him on the topic.

My father and I lived like a pair of bachelors. The garden occupying our front lawn was a tangled yet glorious grove of engine parts, gears, and burned out diesel generators. These were all pieces and parts of much larger machines my dad and I had repaired through their exorcism.

I considered myself to be big -meaning nearly twenty five at the age of twelve, and passing tools to my Father's disembodied hand when he thrust it out from where he lay; stretched out beneath his work, -somehow seemed like I'd had an equal share in a dead engine's glorious resurrection.

Our patients were typical for a contract mechanic living well off the artery of the large systems. One of the neighbor's tractors, the occasional truck and a few times a year something big and grand from the space port. These wonders crawled their way down the dust choked road from Drakensburg behind Uncle Vic's beloved 1930 Studebaker Cab-Forward.

The rusting amputated remains of all of these projects were arranged

in a sort of chaotic monument which I imagined to be castle battlements or the vaults of Ming the Merciless. They encircled in a maze of rusted heaps the corrugate steel workshop where Father stored his most prized material possessions, these being in turn his tools and Lucy.

Lucy was my Father's Spad, a relic from the Great War from which he'd returned both decorated and changed, at least according to my Uncle. Uncle Vic once confided that Dad was quieter after the war -much more serious and all business. To me that summed my Father up in a nutshell; all business. Lucy was named after my Mother. Dad said that my Mother had been taken to heaven by Jesus just about a year after I was born. This was while my Father was off flying in the war. What Jesus had to do with the fever in 1918 that passed through Missouri laying whole towns low along with my Mother; whose sole image I only recognized from the picture placed on my bed table, was lost on me.

Father's hand in the Great War was also something of an enigma. In the one photograph I'd seen of Father in his flyer's uniform, I recognized it as that of a Frenchy. Uncle Vic said Dad was a decorated ace. Why Dad became an ace fighting for the French and not the Americans -clearly the good guys in the conflict, was a tremendous disappointment. Somehow this one detail swept the glamour out of it all for me. Dad did not fly in over the hill, bugles blaring like the cavalry to the rescue as I'd imagined. He was about as talkative as a clam about anything to do with the war and most of what passed for life on Earth. Asking always introduced me to a new array of imaginative chores which kept me working until the second sun finally slipped below the horizon.

By the time I was ten I stopped asking.

The nearest neighbors were the Tanvyords whose silos were just visible east of our property. Reflections blinking off the weathered steel of the Tanvyord's grain silo could be spied from the vantage point of our tar and shingle roof, a choice spot which I had thoroughly explored by that time.

Father called the silos Kansas Mountains, a funny sort of reference that passed over my head until I'd the opportunity to see a real mountain off planet. To my eyes growing up as I had amidst the Mennonite colony on New Kansas they looked more like Buck Rogers rocket ships, something gloriously displayed in the nickel comic books I'd spy once in a blue moon on the back shelf of the general store in Drakensberg. Of course the silos looked nothing like a real live starship, -those passed over our place, thrust out on the West end of the Veldt, one or two in a week. The roar of their gravity drives made our windows rattle as they lumbered overhead on their slow approach into Drakensberg like cattle. Starships were common enough in my young world that while they interested me as much as anything with engines, the bullet shaped rockets of Buck Rogers and Ming the Merciless seemed far more compelling.

The word, Veldt; whose border our property straddled had a distinctive Afrikaner quality when pronounced correctly which was perfectly reasonable considering that the earliest settlers to arrive on New Kansas were Boers. The self same Boers whose farms and lands in the regions of Transvaal and the Orange Free State of South Africa had been lost a few decades prior during the Second Boar War.

The Veldt comprised a region now one hundred and seventy odd miles on a side and grew at the pace of about twelve miles a year. It was now just visible from space, or so I had heard -on days when the sky was clear and blue as a robin's egg. A single tiny spot of gold on a landscape quilted in dark blues and exotic purples.

The Afrikaners or the Afri-Oldtimers, as my father called them were few in number, never establishing much beyond the meager town of Drakensberg which they surrounded with a fortification of widely separated ranches and farms. Their dream of creating a purely Afrikaner colony never quite flowered. It was instead consumed by the second wave of space colonization arriving in 1927 when the United States Federal Territories got a strangle

hold on the League charter for the planet. A more numerous landing party of thousands rather than hundreds, primarily comprised of Stauffer Mennonites arrived to settle in and around Drakensberg, much to the chagrin of the Afrikaners. The Mennonites arrived with an entire community. They had chosen to pack up their families, their 19th century tools, black horse and buggy carriages and one entire church taken apart board, nail and bell; to migrate together to a new world far from the modern indulgences of radio and automobile which now plagued them even in the most remote corner of rural Pennsylvania.

Thankfully the Mennonites had no interest in edging anyone off of lands. Despite living in an almost closed community and their oddly 18th century outlook on the world the Mennonites were friendly, kind and accepting of everyone. After a few years of initial grumbling the two communities reached a sort of truce of convenience, existing as separate but occasionally cordial neighbors which otherwise ignored one another.

I liked them. I liked them far more than the ranchers who traveled everywhere with a rifle or shotgun slung under one arm. Uncle Vic, who was not literally my Uncle once explained the "social geography" to me. This came to pass of an afternoon while we were both sitting on the front steps drinking tall glasses of warm lemonade from a pitcher while my Father was off on a work run in the Spad.

"Why does Dad call you Uncle Vic?" I asked. I held up my hand next to his to silently show the evidence to the contrary. He was clearly a white man like everyone else on New Kansas and my Father and I were black.

Uncle Vic laughed and almost choked on his lemonade. "Ja I was won-dering when you would ask me." He set his lemonade down in the tall weeds next to the step and put a grandfatherly hand on my shoulder.

"Its because I am a Jew." Uncle Vic said. He gazed into the middle distance for a moment. "Any friends you have are the Quaker kids, the farm kinder, yes?"

"Sure." I said.

"The farmers here, the Mennonites -are wonderful people. Very accepting of everyone."

"Meaning...they don't care if Dad and I are black or you are a Jew..."

"Exactly correct." Uncle Vic ruffled my hair. I leaned my head against his shoulder and smiled. I loved Uncle Vic. Dad and Victor had a connection going back to Earth, maybe even the war. Victor was a part of my family for as long as I could remember.

"What about the Ranchers, what about the people in Drakensburg or on other planets," I asked.

Uncle Vic was quiet for a moment and refilled our glasses from the pitcher. He raised his and waggled between large fingers. I grinned and clinked mine carefully against his, just like he and Dad did sometimes over dinner.

"To them and most everyone else we might as well be Uncle Victor and Nephew Franklin. To them we are all trouble makers and villains of the worst possible sort," Uncle Vic scowled at me, making a face. I laughed and giggled, favoring him with my brightest smile. He always had the means of making serious topics a bit easier to stomach.

Our discussion was hardly my first exposure to the subject of race. The colony on New Kansas was small and despite the liberal beliefs of our neighbors, who held to the creed that all men were blessed creations of God, no matter the color of their skin, I'd already witnessed Father's occasional encounter with some of the white people living in town.

"Franklin, those people in town that speak out of their ignorance are more of an example of what human planets are like away from New Kansas. You get old enough and leave this place behind you, you'll find out there are some planets where talking back to a white man can get you a beating, or worse. There are some places out there where a black man has to worry about being killed if he speaks his mind or stands up for himself. Even in

places where they brag about the freedoms and equality enjoyed by everyone else."

"By everyone else, you mean just the white folks."

"Yes Franklin, that's right."

To my mind those other places didn't sound half as nice as New Kansas.

As long as it was Dad, Uncle Victor and me together, I figured I'd stay there forever.

I hadn't counted on my Dad having a heart attack a few months after we'd had our talk about race and white folk and worlds beyond our home. The doctor said he passed in his sleep.

My life was turned upside down. Just how dramatic a change I reckon I could never have guessed.

### Chapter Three

Herman jostled down the dirt lane leading West out of Drakensburg. Riding out from town meant driving into acres temporarily reclaimed by the grass. Despite the road, which was twice weekly sprayed down with cheap fuel oil and burned, and the occasional productive field, the road was nearly engulfed. There was never enough Blue to keep it cleared, despite promises by the League Governor, a regional puppet who preferred to live at the Italian space station at Orvieto. The League government was in the New Kansas star system, but off planet. You had to radio the aged Italian space station to reach anyone in the League. The Governor might as well live on Mars, Herman thought to himself.

Sections of the road twisted into a series of tunnels where the stalks reaching overhead scuffed and slapped the side of his police cruiser no matter how careful he tried to be. Herman drove a Nash Ambassador Six, one provided to him as a perk of his position as the only law on the planet. With eight out of ten colonists living like Quakers the Federal authority decided that a single Marshal would be sufficient for the task at hand. So

far this certainly seemed to be true. Herman had served in the capacity of Marshal for the better part of a year now and while he'd had a few calls and duties to perform he had not had to effect a single arrest.

It might be a job out of a dream if it had not been for the dullness of the colony and the grass. The stalks were wearing him down little by little, like the paint they scoured off of his black patrol car. Herman frowned as he noticed for the hundredth time that the Nash had been polished and scratched right down to the metal in several spots.

Herman had developed a deep and abiding hate / hate relationship with the grass within weeks of arriving at the colony. New Kansas was an alien planet after all. Who knew what crawled, stalked or slithered here. Herman kept his Colt semi-auto on his hip at all times. He practically slept with it in his hand. While he'd never seen anything bigger than a grass cat, and growing as large as a wild boar they were certainly big enough, he was not about to grow complacent. It was like the missing children. None of them ever showed up hurt or dead. Herman would almost prefer finding some remains gnawed on by an animal, just to remove some of the mystery. The stalks were just too impenetrable, even an alien could be sneaking around out there. One could be standing so close it was breathing right in your face and you'd never see it.

Not that Herman had ever seen an alien. Not in ten years of working colonies and shifting from job to job. That didn't mean they weren't out there, -watching.

Herman scowled out through the scuffed window of the Nash. "I know your out there you green bastards," he muttered. At least the temperature in the car wasn't too bad today. Herman had learned to drive with the windows up, after a blade of the plants had sliced off his pinky finger. This disaster had happened while he was driving like a fool with all the windows rolled down and his arm in the window. Damn stuff is like living on a planet covered with carving knives, he thought to himself.

"God damn forest of carving knives," he echoed to himself.

Up ahead Herman spied the back of a flatbed truck blocking the road. The driver, a Jew that ran one of the groceries in town, Victor somebody, was messing around with a gasoline hand flamer. The road was blocked ahead where stalks tangled together forming a sort of natural road block. Herman rolled to a stop behind the truck. "Leave it to a white man to get the god damn road cleared," he muttered. "I better get out there before you blow yourself up."

### Chapter Four

"Hello!" Victor waved and pushed himself up, straightening out cramps in his legs and lower back as the city constable pulled up. An encounter with someone like Herman was never exactly cordial but the road would be cleared faster with the two of them working at it. He mopped his brow, thinking. As he recalled this would be his first encounter with the new lawman alone, far from the town, far from any friendly person.

"You can put that old hand unit back in your truck, I've got a military thrower in the trunk," Herman called to him and strode around to the back of his Chevy, straightening the seams of his trousers and side stepping a puddle of mud to keep his cowboy boots from getting nasty. He pulled a packet of chew from his pocket and stuffed a few pinches deep into his mouth.

"The work will go faster if we both work together," Victor offered and hefted his hand flamer. He set about trying to clear the ignition port with his pocket knife.

"What?" Herman hefted the military flame thrower out of his trunk with one of the dull gray straps over one shoulder, a German surplus model. His voice and the gaze he settled on Victor communicated annoyance and a little disbelief.

"We might work together...," Victor began, his voice trailing off.

"Just get back in your truck and try not to kill yourself with that antique," Herman snapped.

Why is he angry? Victor thought to himself and Herman pushed past him, shouldering the straps of the heavy army unit and securing it in place before pulling a pair of battered glass-blackened goggles out of a side pocket and settling these over his head.

Victor considered lending a hand anyway. He knew what he was doing with the hand flamer. He'd been living on New Kansas for six years where the constable had been here only one.

### "...damn Jew..."

Victor caught the muttered sentiment. While not exactly surprised he was annoyed and his temper was simmering. He was on his way out to check on Franklin and try to convince the boy to move into town with him. The Tanvyords had promised to look after the boy while Victor settled Franklin's estate for him in town, secured the deed for his property and his Father's other assets.

"What was that? You say you want some help over there?" Victor called out to Herman.

Fwooosh.

The military flame thrower kicked out a six foot fountain of flame. The air was filled with the sharp chemical stink of gasoline and burning grass.

"Nothing and no," Herman yelled back over the hiss of the flame thrower.

Victor returned to his truck and worked at securing the hand flamer back into the tool kit behind the seat. The constable would be busy burning out the over growth for a good thirty minutes. Then the road would be clear and with any luck Victor would be rid of the unpleasant man.

An American, Victor thought as he studied the other man. With a name like Herman he was probably German, maybe one, maybe two generations re-

moved from the old country.

Let the constable indulge his need to kill things on the grass for an hour. White men were always more amiable after they'd spent some time killing something. At least in Victor's experience.

### Chapter Five

My Dad's funeral was attended by more people than I could remember seeing at any time in my young life. Most of the farmers from the surrounding area and their families came. The Mennonite elders offered to bury him in their little church graveyard, and after giving it some thought I agreed. Someone even contributed a few handfuls of soil from Earth, so Dad could go into the ground touching a little piece of home, his real home.

I was a lost through the funeral and the wake afterwards. Uncle Victor was there of course, lending me his strength and deep running comfort. When I cried hot tears, blind with grief, it was Victor who held me close and made me feel like I had, in him, what I discovered to be the most important single thing I'd taken for granted my entire life.

Someone to love me and call me family.

When it was over, I learned that the Tanvyords were more than willing to take me into their home and add me to their family. I preferred to stick close to my Uncle Vic.

There was a great deal of discussion the night after the funeral as to where I should stay. Uncle Victor had to drive back into Drakensburg to file some papers about our land and make sure Dad's property deed was filed in my name. He asked me to come along but the last thing I wanted was to sleep in some strange bed. While I knew that everything had changed and that the days living in our house were numbered, I just wanted a few more days surrounded by the familiar.

I wanted nothing more than to pull my Dad's jacket out of his trunk, the leather one that smelled so much like him, his photograph, the blankets off of his bed and just pile them on my own to feel close to him. To try to ingrain into my mind that Dad smell that only my own Father had. Forge it into my soul before everything was packed away for who knows how long and our place, my only real home, was given back to the grass until I was old enough to reclaim it.

Finally it was agreed that so long as I stuck close to the house and promised not to wander off that it would be alright for me to spend the two days there that it would take Uncle Victor to take care of business in town.

I stood on the front porch, hands thrust into the pockets of my denim coveralls and watched the dust settle after Uncle Victor disappeared on his way to town. I was alone. With my Dad gone the house, the yard; it might as well be the surface of the moon. Nothing felt familiar.

By night fall I had added my Father's bolt action Springfield rifle to the list of things to pile into my room.

I made a point of checking every door and window three times. I even pushed a few heavy piece of furniture in the way of the back door. It was dark outside, so very dark. I had no intention of risking a glance out a window. Thankfully the night sounds were all the normal sort. I indulged myself in my sadness for a few hours and eventually, exhausted to the very bones, collapsed in sleep.

I woke the next morning to the sharp fresh coolness that follows a night's rain. A cool even blue gray of sky was visible through my drifting curtains which were made from old khaki surplus canvas. I listened to the quiet until the morning cold kicked me out of the army cot that served as my bed. For a few moments I played pretend that I had dreamed the whole horrible scenerio. Dad was just sleeping in. It was a pointless fantasy that only made me feel miserable again.

I pulled a clean enough tan muslin shirt over my head, pulled up work overalls by suspenders, wool socks, work boots were wrestled on and laces tied twice for good measure. I hopped, half skipping from toe to toe as quietly as a thirteen year old in work boots might (which is to say not very) out the back door of our house. From there I jumped off the slanted wooden porch in the back and ran clumsily over the gravel to the wash house.

Over my head ranged a broad painted sky with rain laden clouds, gold and rich purple on the tops and gray down the sides all steaming Westward over the towering grass like an armada of battleships. Blades of the endless plain rustled, it made an enormous sound, stroked by the sharp breathe of the morning wind and rose and fell around the little island of our yard—wave after violet wave of it like the surface of an alien sea.

Day bats road the morning currents small and quick as starlings, greeting the rousing morning with their odd mixture of nearly inaudible warbles and the occasional whoop. Father said their clamor reminded him of monkeys in the jungles of the Amazon, another reference I understood only by way of cast off issues of the Galactic Geographic Magazine. The noise they made in that open plain made home sometimes feel a little more exotic and interesting.

Jeeves made static noises at me as I pelted towards the wash house. The broken old bakelight Radiobot was one of my Dad's permanent projects. Jeeves was a first generation robot. He was meant to function as a worker or servant whose bakelite black case was cracked here and there. Dad kept him under the awning of the work shed to keep the rain off of him with other valuable parts or bits and pieces.

I gave him a wave and heard the clank of his one stump of an arm as he return it. All of his limbs, with the exception of that stump were missing when Uncle Vic brought him to us. "Found him in the dump, probably tossed there by someone passing through," he'd said.

Dad had said, "...never heard of anyone throwing out a robot before. They're damned expensive, or used to be -although this one probably bring only a hundred dollars as old as it is. That is if it even works."

The bakelite Radiobot helped. Its presence made me feel a little less alone. I decided that I would haul him down and lug him around with me for the rest of the day for company after I cleaned up.

The door of the wash house had the habit of banging like a rifle shot. Today I made the extra effort to close it quietly behind me. Inside the wood framed walls were covered with layer upon layer of magazine articles and advertisements. The best of the best, placed there by both of us. A stack of catalogs and newspapers served double duty as reading material and bathroom paper which was a luxury only found in three and four star hotels. Nobody we knew or ever had known would waste good money and perfectly good paper on bathroom utility when so much scrap was readily available even in a place as remote as New Kansas.

The walls rustled with scraps of little papers tacked into place with hundreds of finishing nails. They surrounded me with the voices of life far from New Kansas or Drakensberg.

"We arrived in Chicago at midnight...and the Lincoln-Zephyr air car knows all about traffic."

"Gary Cooper in the Adventures of MARCO POLO."

"INVINCIBLE work shirts, BETTER and here's why. Only eighty four cents for the closed front style."

"On the ground or in space, he'll want this new rocket grade fuel, TEXACO Sky Chief...for those who want the best!"

A galaxy of movie stars and color pictures covered the inside of the wash house. Father kept his sports sections out here, carefully preserved inside an old ammo can to keep the water off. I kept my favorite scraps of reading in the container as well. These were mostly black, white and red advertisements for elusive treasures like the Mead Ranger Bike or the new

Pilot "Ace" BB Rifle, or Lionel Electric Trains. Toys with no real utility in the colonies and which I had admittedly outgrown, but refused to abandon the wishing for. Travel articles had begun to take their place and news clippings. These were mostly snippets from books or adventure films I would probably never see but which I might imagine throughout the course of the day.

It was at that moment, when young boys feel the most exposed, caught with my pants down when I heard the noise.

It was a sort of scuffing step, step sound in the gravel of our back yard. Someone or something was out there. I froze and thought a string of curses about leaving the rifle inside the house. Reaching out I hooked the latch to lock the flimsy wooden door and busied myself with getting clean and dressed. I was finished in what must have been record time, all of this accomplished so quietly that I was quite certain I had not made any real noise to give myself away.

That is to say, if whatever was out there didn't already know I was in the out house.

Step, step, step. Whoever it was paced the length of our back yard. Then, step, step, crossed it again headed back in the direction of the grass. I took a slow and cautious breath. If it was just a stray dog I'd kick myself. I mustered up my courage and snuck a peek out through the slats of the wall.

I spied through the crack just in time to catch a glimpse of the back of someone or something about the right height and shape for a man pushing back into the grass at the edge of our property. It struck me that whatever I'd just seen roaming the back yard was human shaped but was -not a man.

I waited for a few minutes too scared to do much else. After enough time passed I decided it was probably best if I got myself back into the semi-security of the house. I did not want to be locked inside alone. If I could just grab Jeeves on the way inside. At least he would provide, in

some odd fashion, a sort of company until Uncle Victor returned.

I grabbed one of my Buck Rogers cut out pictures off the wall, one of my favorites and stuffed it into my coverall pockets for good luck. Opened the door as quietly as a mouse I waited, counting to three before bolting out over the yard. I don't think my feet hit the ground more than a dozen times between leaving the out house, hefting up Jeeves into my arms and high tailing it up the back steps and into the house, locking the door behind me.

Nothing chased me. Nothing came bursting out of the grass as I'd expected attempting to gobble me up. Of that I was absolutely thankful and muttered a little thank you prayer to Jesus and anyone else out there willing to lend an ear.

More furniture was pushed in front of doors, all entrances were double locked and I closed the metal shutters Dad had built inside the house over all the windows. Now home was as fortified as it was likely to become. I had plenty of food, and some water. I would be ok, provided that I took it easy.

Remembering Jeeves, I sat him down in a kitchen chair across the table from me. His unadorned black bakelight head swiveled in my direction. He had no eyes or nose. Nothing to mark the features of a face other than the stamp of the company that had manufactured him. The word "radiobot" was displayed where his mouth would be.

"Did you see that thing in our back yard?" I asked him.

Jeeves nodded its head in the affirmative.

I silently wished my father had taken the time and money to fix the robot's broken speech center.

"Are we in bad trouble?" I asked.

Jeeves swiveled his head in the direction of the grass with the soft grinding of servos and then back towards me.

The robot gave what seemed to be a small and somewhat non commit-

tal nod. I interpreted this as it not being sure what to make of what the creature was either.

The rest of the day crept by at a snail's pace. Ultimately whatever had wandered into the yard did not return. I stayed up until late the next morning when, half falling over and nodding off I heard the familiar rumble of Uncle Victor's truck and the drone of another but unfamiliar sounding automobile rolling up our drive.

### Chapter Six

It turned out that the grocer was headed out to visit the very same kid which Herman had been instructed to check on. Herman considered abandoning the visit all together but realized that this would never be acceptable in the eyes of the Mayor.

So he followed him. His named turned out to be Victor Melburg and Herman supposed he wasn't all that bad, possibly he would even be tolerable so long as he kept his mouth shut and followed Herman's instructions.

Herman was the law here, appointed by the Federal authority. Victor was smart enough to understand the implication. So it was that the two of them rolled up the drive and into the front lot of the deceased colony mechanic's homestead.

Herman stretched and cleared his mouth of its tasteless lump of tobacco. He spat far out into the yard, wiped his lips with the back of his yellow stained fingers and had a look around.

As Victor climbed down from the cab of his Studebaker, the front door of the house squeaked open. Herman wondered why the little colored looked so worried. He was probably nervous because of Herman, which was fine as far as he was concerned. It meant the kid would be less likely to engage in any funny business.

Herman was a little surprised at how close the pair seemed to be. In

fact it made him feel a little, a tiny almost immeasurable bit ashamed of how little he thought of coming out here to check on the kid. He was very clearly a good kid. Thinking too much on it made Herman feel uncomfortable and so he pushed it out of his mind. Herman stepped forward, hands on his hips trying to look official.

"Ah yes, Franklin this is constable...," Victor began.

"Marshal, not constable. Marshal will do." Herman was about to say more but the Jew was too busy listening to the boy whisper to him rapid fire.

"Look, I just came out here to make sure the kid was alright. I can give him ride into town or over to a...I don't suppose you have any relatives around these parts, do you boy?" said Herman.

"Are you sure you saw something?" Victor was gazing in the direction of the grass and only paying half attention to Herman.

The boy said, "Jeeves saw it too." He raised what Herman had assumed was a broken toy in his hands. He now he realized it was the torso and head of a Radiobot. Herman had only seen one or two over the years, always in the company of a high roller. He wondered where the boy had got his hands on it.

Herman glowered. He hated being ignored. He would make it a point to explain this to the Jew later.

Victor turned and addressed him. "Franklin saw someone snooping around the house yesterday."

"Snooping?" Herman scratched the back of his head.

"They came out of the grass and walked around and then went back into the grass," said Franklin.

"Probably gone now," Herman offered.

"The robot doesn't seem to think so," said Victor and pointed at the broken manikin. Herman observed that its attention was focused in the direction of the grass and it kept pointing its one remaining limb in the

same direction.

"Probably just an animal of some kind, you want me to have a look?"

Herman gazed in the direction of the grass eyes following the line indicated by the robot's arm. He sighed and walked in the direction of the grass.

"I suppose it wouldn't hurt to have a little look around."

"If you would," said Victor and followed along behind Herman with one arm around the boy's shoulders. Franklin hefted Jeeves to his chest and kept in step with his Uncle.

Herman stopped at the line of the grass. He wished he'd had the presence of mind to haul along the flame thrower. "Well, I don't see anything," he drummed his fingers reflexively on the pommel of the .45 auto.

"Maybe there are tracks further in?" offered Victor.

"I'm not going in -there," countered Herman, annoyed. How stupid does the Jew think I am, Herman thought to himself.

"I'll look," said Victor and he carefully stepped around Herman and before Herman could stop him pushed his way carefully into the grass, vanishing from immediate view. It was easy to hear that he was right in front of them.

"Uncle Vic, be careful," said the boy.

"I plan to be," answered Victor. The grass rustled and shifted as he pushed his way through. Franklin stepped up and touched the curtain of grass with his hand, wishing he'd stuck next to his Uncle instead of being stuck out in the yard with the Marshal.

As soon as he touched the grass, Franklin realized something was very wrong. Somehow he was everywhere and nowhere for a moment. He had the clear perception that a half dozen beings were standing just beyond Uncle Victor in the grass, in a semi circle facing the trio.

"Uncle Vic, there are men in there with you," said Franklin all in a rush.

The sound of Victor's passage through the grass stopped.

"What? What do you mean Franklin?" asked Victor.

"There are men in there with you, get out now," said Franklin, pulling his hand back to his chest as if the grass had shocked him. He glanced up at the Marshal and realized that the white man was giving him a very hard, very angry look and his face was turning a shade of angry red that made Franklin flinch.

### Chapter Seven

Suddenly Franklin was staring up at the sky and the bulldog white man was shouting down at him. Franklin could barely see, his eyes watered so badly and a sharp, sharp pain radiated out from the back of his skull. Black formed at the edge of his vision but he refused to pass out. Franklin was reasonably sure his head was bleeding.

"...boy you try to scare me again and I'll nail your hide to a barn door!" Herman screamed, hands balled into fists. It slowly dawned on Frank-lin that the big lawman had hit him.

Uncle Victor emerged out of the grass, looked down at Franklin for a moment and then flew at the Marshal punches flying.

Both men went down in a tangle of limbs. As Franklin staggered to his feet, wobbling and still clutching the robot to his chest he heard Victor call out to him.

"Get out of here, go get help!" called out Victor.

The first people to pop into Franklin's head were the Tanvyords. He aimed in the general direction of their silo and without thinking, disappeared into the grass.

Running, holding Jeeves up to ward off the worst cuts from the stalks, Franklin high tailed it in the direction of the neighbors. After a few moments he heard the crashing of the Marshal chasing him down.

"Now you just stop right where you are boy!" Herman shouted from behind him. "Don't make this worse than it already is!"

Franklin pelted through the grass. Arms and legs pumping so hard the blue blades passed to either side of him like quicksilver. His head hurt. He wondered how badly he was bleeding. He felt sick and wobbly and wasn't at all sure he was running straight. As the sounds of Herman began to close the distance behind him, Franklin stooped low, pitched to the side and slipped into the largest tangle that he could spot to hide and catch his breath.

As he knelt in the stalks he whispered softly to Jeeves, "quiet now." The grass formed a perfect hiding place and Franklin kept still, trying to breathe without giving himself away.

Herman pulled up after passing him by a few dozen yards. "Boy!" he shouted. "Boy, I know you are close!" Herman circled the area slowly. He was standing now within a few feet. Franklin could make out the dull chrome gleam of the colt in the big man's hand and see his trousers and cowboy boots from beneath the stalks.

That was when Uncle Victor stumbled. He'd been working his way in behind the Marshal silently after very nearly being knocked senseless.

Hearing the noise, Herman turned and leveled his pistol at the sound.

Both men stopped moving. They seemed to be frozen in the midst of action. Franklin stood up and blinked with eyes round as plates. He slowly emerging from the brush and still neither man moved. He could barely believe it.

That was when he saw the Martian.

The green skinned humanoid was watching Franklin with a level gaze from the grass beyond Uncle Vic and the Marshal. The alien slowly extended its hands and spoke in an odd sing song sound that Franklin did not recognize, but for some strange reason, he felt that he could understand.

"Your Uncle is about to be shot by this man," he said.

"Can you help me? Will you help?" Franklin set the Radiobot at his feet, eyes traveling to his frozen Uncle and the red faced Marshal.

"Yes." answered the alien. "I am sent to collect you, to collect children like you."

Franklin could only stare with is mouth open.

"If you agree to come with me. I will keep your Uncle safe from this other human."

Franklin clumped his mouth shut. His mind raced furiously. He somehow doubted that he would have two chances to make this turn out right.

"Can we take Uncle Vic with us?" he asked.

The Martian stepped out of the brush and walked slowly around Herman. He turned to study Franklin for a long moment.

"Under the circumstances that is an acceptable request." the Martian touched something on his belt and Uncle Victor startled out of his trance. He blinked and looked from the gun in Herman's out stretched hand to the Martian, to Franklin and back. After a moment Uncle Victor stepped next to Franklin, putting a protective arm around his shoulders.

"What's going on?" Victor asked slowly.

"I am here to collect the child," answered the Martian. "The unfolding situation demanded that I intervene before he was damaged."

"I certainly appreciate the rescue," commented Victor, pulling out a handkerchief and mopping at his brow. "Franklin stays with me. I'm not about to let you just take him."

"It is acceptable that you accompany him," answered the Martian. "Under the circumstances leaving with me would be the wisest course of action."

Uncle Victor gave a slow nod as he contemplated the end of Herman's pistol. "I believe you may be right..."

An hour later Herman blinked and shook himself as his awareness returned.

Something was very wrong. The Jew was gone. The kid was gone. Van-

ished into thin air.

Herman did not like it. He did not like it one bit.

An official investigation would have to be made. Reports sent up the chain of command all the way back to Earth. It would be weeks, maybe months before Herman heard something back but he was not about to let this mystery slip through his fingers. He'd find them all right. Herman would find them and haul all this bullshit out into the light of day.

Not even the grass could stand in his way.

more to come...