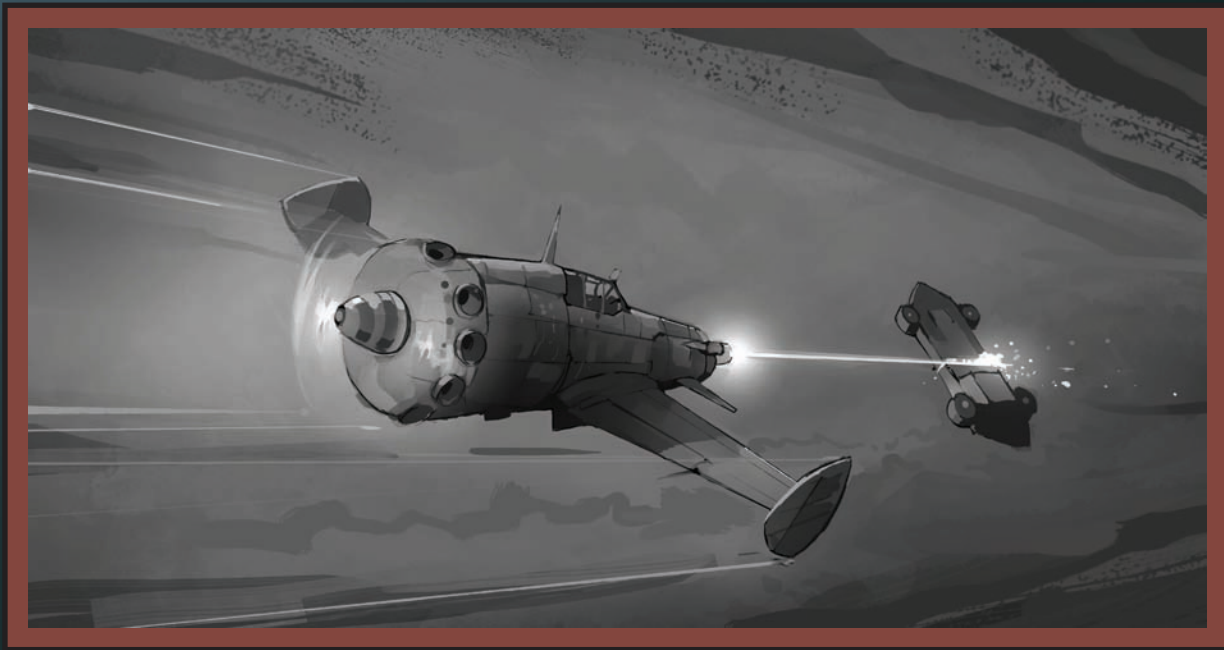# YOU MUST BE MAD!

WARBIRDS RPG MAD SCIENCE SOURCEBOOK

Steve Bergeron

In the high-flying world of Azure there is a special breed of genius. Shunned by their families, ignored by their peers, they are MAD SCIENTISTS. Their work will change the world... if they live long enough to finish it.

You Must Be Mad! contains detailed mad scientist NPCs, laboratory examples, new rules, and dozens of new science projects and plot hooks.

It also has background information on some of the covert organizations with a vested interest in mad science, stats for both mundane and fantastic creatures, and a rules expansion for cinematic fleet battles using Rapidfire rules.

OUTRIDER STUDIOS

OS 302

YOU MUST BE MAD!
WARBIRDS MAD SCIENCE SOURCEBOOK

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Chapter 1 - Madness!

Welcome to the crazy world of mad science for the *Warbirds Role Playing Game*. This sourcebook focuses on the powers and effects of mad science. From here on, it is assumed that you are familiar with the mad science rules beginning on page 132 of the main *Warbirds* rulebook.

If you are not going to use mad science in your game, this sourcebook still contains great information on and ideas for covert organizations, unusual locations, interesting NPCs, and there are even rules for major fleet battles.

Azure is an amazing world full of nearly endless possibilities, and mad science makes those ideas more dangerous, more fantastic, and more than a little weird. Read on and enjoy.

What You Will Find

• **Chapter 1** covers a few notes about mad science in *Warbirds* and some slightly expanded rules, and then gives detailed descriptions for five different mad scientist NPCs and how they might interact with the characters.

• **Chapter 2** is all about locations and organizations. It looks at some of the different places one might find mad scientists practising their craft and then delves into some groups that are interested in mad science.

• **Chapter 3** contains a list of science projects, their effects, requirements, difficulties, and the consequences if they fail.

• **Chapter 4** contains an extensive list of creatures. Creatures discussed include the more mundane inhabitants of Azure as well as some of the more exotic creations that mad science makes possible.

• **Chapter 5** is where you will find the rules for fleet actions that let you play out enormous air battles with dozens of airships and carriers, and hundreds of fighters.

Effects of Mad Science

If mad science is in your game, you must keep in mind the unbalancing effects it can have. It allows characters to bend reality to their will in any number of ways. A character equipped with multiple mad science gadgets can be incredibly powerful. In order to keep that power in check, difficulties for science projects are kept high and the cost of failure is extreme.

GMs must strike a careful balance of allowing mad scientists to pursue their crazy schemes, while still keeping the game fun and fair for all of the players at the table. However, when the GM is using mad scientists as NPCs, they are encouraged to let things get a little out of hand. The more over-the-top the insane genius, the better an adversary they will be. GMs can try using the guidelines listed on page 160 of the main rulebook to construct their mad scientists, or they can use one of the example NPCs listed starting on page 5.

Plausible versus Crazy

Once you know that you are going to have mad science in your game, you have to decide if the level of mad science is plausible or crazy.

Choosing plausible mad science puts limits on your game, keeping the science projects from jumping off the deep end. While it might limit the scope of science projects, them being plausible means that it is more likely that powerful nations and organizations will become involved in their use. If a mad scientist builds a nuke, every country is going to want it. Games with plausible mad science should be served with a heavy dose of espionage as factions compete to control mad science's limited and unpredictable results.

With crazy mad science, reality takes a back seat to weirdness and awesome cinematic play. The effects are more spectacular, but it is more likely to be ignored by the mainstream. Crazy mad science is where you would find the evil genius scheming in their distant island lair, planning revenge against the establishment that rejected them. It can also involve things like errant islands inhabited with aliens, lizard-men, or robot people. Such things can be the product of an old science project gone wrong or might predate the existence of Azure. The possibilities are limitless.

Hiring a Mad Scientist

Rather than becoming A Little Crazy themselves (see page 132 of the main rulebook), some characters may wish to outsource the insanity. Characters can pay for the services of a mad scientist, but such a process is never as simple and straightforward as a monetary transaction.

The value of a mad science project is equal to the level of resources required -1. So a project that can be done on a workbench is value 2, while one that is in a workshop is value 3, and so on. However, the character paying will have to provide any raw materials or special items needed to complete the project themselves.

Beyond the basic cost of a project is the need to convince the scientist that the project is worthwhile. The more capable the scientist, the harder they are to convince. In general, convincing a scientist to take on a project is a Persuade roll with a difficulty equal to 6 plus the scientist's Mad Science skill level. Good roleplaying, excellent logic, or some sort of leverage can lower the difficulty.

Once services are purchased, NPC mad scientists are subject to the standard Mad Science rules listed in the main rulebook with regards to difficulty and research time. Critical failures are also in play, and NPC mad scientists never have the Reserve to prevent critical failures from occurring. When a hired NPC mad scientist has a critical failure, he will be powerless to stop it, and the characters will have to step in. The GM has the option of allowing the PCs to spend their own Reserve to halt the disaster or forcing the characters to deal with whatever chaos the mad scientist unleashes.

Counter-science

In the course of an adventure, mad scientists and their creations might be pitted against each other. If it occurs outside of the frenzy of combat, a player character mad scientist can quickly attempt to whip up a countermeasure to try and negate an opponent's creation.

Counter-science does not require the elaborate prep time and resources that creating new projects require. It is done on the fly with resources available at hand. To engage in counter-science the character must know what they are facing and then come up with a quick plan to try and defeat it. If the GM thinks the plan will work, then the character can make a Mad Science roll. The difficulty of the counter-science roll is equal their target's creation difficulty -4. Reusable items are even easier to disrupt in this way, as a counter-science roll is made against the maintenance difficulty -4.

Counter-science does not destroy an enemy's creations; it merely negates or disables them for a scene.

Example:

Jean "Doc" Coultier and the other members of his flight are up against pirates equipped with forcefield-protected planes. Doc does a bunch of tinkering with his plane's radio, and when he comes in range of the pirates, his radio sends out a powerful electromagnetic pulse that scrambles their forcefields. To pull this off, Doc needs to make a difficulty 10 Mad Science roll. As described on page 36, aircraft forcefields have a creation difficulty of 17 and a maintenance difficulty 14. Doc rolls against 4 less than the maintenance difficulty. If he is successful, the pirates' forcefields will fail, and Doc's flight of warbirds will tear them apart. If any pirates escape, they will be able to use their forcefields normally in future encounters.

Sample Mad Scientists

This chapter details a number of different mad scientists for use in your *Warbirds* game. Some work best as friends or relations of the characters, while others are set up as possible adversaries. It may be possible for characters to hire some of the scientists or be hired by the scientist in turn.

Each of these NPCs is at least A Little Crazy, and the characters will have to deal with their eccentricities. Some of these brilliant minds have gone far beyond a little crazy and into the realm of true insanity. GM's should keep in mind the decaying mental states of these characters. Despite their genius, they will not always behave rationally.

Optionally, GM's can treat madness like a special poison. Every time a mad scientist NPC starts a new project, they make a 1d6 + Spirit roll against a difficulty equal to their own Mad Science skill + Mind. If they fail the roll, they pick up a new Major Disadvantage upon completion of the project. The Disadvantage can be from the main rulebook, such as a Vice, Bad Luck, incurring a Debt, or being Hunted, or it can be some form of psychosis, such as hallucinations, paranoia, megalomania, or extreme phobias.

Engineer's Mate Itzel Natu

Body 0, Mind +1, Spirit 0
Skills: Academics 2, Mechanics 2, Mad Science 2
Resources: Workshop
Combat: She is a non-combatant, but she will improvise weapons out of nearby tools if she is cornered. (See page 103 in the main rulebook for information on tools as weapons.)

The Guild often poaches promising young engineers for its research divisions. Itzel was one such recruit. From the metropolis of Tulum in Yucatan, she has a reputation for her sharp mind and crack mechanical skills. Although she showed promise in the Guild R&D program, she grew bored with academic life. She volunteered for ship-board duty and has worked on drop-carriers for over a decade. While she has no intention of going back to the lab any time soon, she still likes to tinker with new designs. Her workshop is hidden in the depths of the PCs' drop-carrier.

Itzel is cheerful if slightly preoccupied most of the time. She lacks the instinctive wariness that most ships' crew have toward pilots, but she is also blind to any Fame or reputation concerns that a pilot might have. Itzel is nearly always busy with her duties or her own personal projects, and she will grow bored with any character who dwells too long on social niceties instead of getting right to the point.

Getting Itzel to build something for the characters will require a direct order from the carrier's skipper or an appropriate bribe. Bribing Itzel is never a matter of money but of things. A rare tool or vehicle part might work, but characters would have better luck indulging one of Itzel's eccentricities: She collects small hand-crafted porcelain cat statues. Her preferred statues are made by an aged artisan who lives in the slums of Port-au-Prince. Finding the artisan and commissioning a work for Itzel would earn her permanent loyalty.

Crazy Uncle Miguel

Body -1, Mind +1, Spirit -1
Skills: Academics 1, Mechanics 2, Mad Science 3
Resources: Laboratory
Combat: He is a non-combatant and will surrender or run from any fight.

Uncle Miguel is a distant relative of one or more of the PCs, though that relationship might be a little murky. Miguel is a retired clockmaker who now dabbles in the stranger sciences. His ideas rejected by the mainstream establishment, Miguel retired to his home in suburbs of Santo Domingo and converted it into his own private laboratory. His house brims with strange additions, instruments, and contraptions. His neighbours complain about his house being an eyesore, and the police are sent to investigate strange noises and lights at least once a week.

Miguel is bitter about his ideas being rejected by the mainstream and now works in solitude. His lab echoes with the ticking of hundreds of different clocks, and the floors are covered with empty liquor bottles and cigarette butts. His loneliness and alcoholism make him hard to deal with, and he is easily offended. If over-the-top mad science is allowed, Miguel has a familiar in the form of a small clockwork imp. The little imp brings him beer and lights his cigarettes.

Miguel is not willing to work for the characters unless it is an emergency, but he is onto *something*. Whatever that thing happens to be, it is of great value to someone. Miguel is the kind of NPC who is kidnapped, bribed, robbed, or even murdered for his research. He is in constant need of protection or rescue and makes an excellent major dependent for one of the characters.

Disgraced Researcher Bertrice Hammond

Body -1, Mind +2, Spirit +1
Skills: Academics 3, Mechanics 2, Mad Science 4
Resources: Private Island
Combat: She is a non-combatant and will surrender or run from any fight. However, she has several very capable bodyguards.

Dr. Bertrice Hammond lives for the pursuit of "pure" science. She is unhindered by such concerns as ethics or morality, and the nature of her experiments led to her eventual removal from the faculties of two different universities. While she should have ended up in prison, she disappeared before the police could arrest her. Her current location is unknown.

A mysterious benefactor (of the GM's choosing) offered Dr. Hammond rescue from the police and a perfect opportunity to build the ultimate research facility. She now lives and works on a distant island where she conducts all manner of experiments. Her benefactor puts no restrictions or directives on her research, but there is little doubt that her already questionable work is being repurposed for nefarious ends.

Dr. Hammond is a dispassionate woman in her late 50s. Her greying hair, plump figure, wire-frame glasses, and ever-present lab coat make her look like the stereotypical researcher, but her cold eyes hint at her tendency to view people as objects for study. If a character is captured by Hammond's bodyguards, they will be made into subjects for one of Hammond's experiments.

When characters encounter Dr. Hammond, she is probably working on a major project like an atomic weapon or a dominance machine. She cannot be convinced to cease her research on moral grounds, though threats might have some effect. She likely has several devices on her that allow for a quick escape if the characters try to capture her. Failure to stop her research will lead to her benefactor appearing and unleashing her project on the rest of Azure.

The Savains

Body 0, Mind +1, Spirit +2

Skills: Academics 4, Mechanics 2, Mad Science 4

Resources: Laboratory

Combat: They are non-combatants, but their lab has a self-destruct device rigged with a deadman switch that will detonate if they are killed or removed from the lab against their will.

When you introduce the Savains into the game, roll a d6. On a roll of 1-3, Anna is dead, and on a roll of 3-6, Philippe is dead. The living Savain has placed their spouse in a cryogenic freezer after a terrible laboratory accident led to their premature death. Now all of their efforts are directed to a single goal: resurrection. The only problem is that resurrection is expensive and they have limited funds.

In order to fund their resurrection research, Dr. Savain will work for anyone who can pay. Most of the time, the work is harmless if not exactly legal, but as Savain grows more desperate, they will work for less noble individuals. This includes the PCs, who can hire Savain for value 4. Savain would prefer not to work on weapons or warbird gear, but a difficulty 8 Persuade roll can change their mind.

Anna and Philippe are young, attractive, strong-willed, and charismatic. They are skilled scientists, but the death of their soulmate has made them a little crazy. Over time they will grow more and more distressed and desperate, seeking to go further and further to bring back their lost love.

There is a good chance that Dr. Savain's resurrection research will have far-reaching unintended consequences. Their efforts will require more and more power, resources, and exotic materials. They will eventually overreach and trigger a disaster of the GM's choosing. It is unlikely that Savain can be deterred from their quest, and the ending to the Savain's story will almost certainly be tragic.

Former Elite Ace Antoine Cruz

Body 0, Mind +2, Spirit +1

Skills: Academics 3, Mechanics 5, Mad Science 4, Persuade 4, All flying skills 3

Resources: Multiple laboratories; could acquire a private island if needed

Combat: Antoine is a non-combatant on the ground and will leave any fighting to his minions while he makes an escape for his old warbird. However, Cruz is a dangerous opponent if he gets airborne. His warbird has 1d6 +6 Traits of the GM's choosing, and may have some of the mad science upgrades listed in Chapter 3, though he will have to make a maintenance roll to employ them.

Some of the Guild's aces make enough money to retire at a very young age and continue on in other careers. Of those who follow such a path, none has been more successful than Antoine Cruz. He left the Guild after only seven years, but he amassed over 80 kills in that time, including the single-handed sinking of a pirate drop-carrier. After being showered in fame and sponsors, Antoine moved into the aircraft construction business and is the current president and CEO of Sampson Fighters, Inc. He was instrumental in the design and manufacture of the now-famous SF-23 Swift fighter. (See page 167 of the main rulebook.) He has since re-invested his fortune and owns shares in dozens of corporations from all over Azure. He is known throughout the islands as a technical genius and a business magnate, and he is currently listed as Azure's most eligible bachelor.

Cruz's public persona is a carefully constructed facade. Behind the scenes, he is known to be ruthless, uncompromising, and obsessed with control. Suffering from severe megalomania, his long-term goal is nothing less than the complete subjugation of all of Azure. He cloaks his mad quest for power in the belief that he can

bring peace and prosperity to all of the islands. Cruz's plan is to generate enough fear of outside threats to force the nations to unite, with him emerging as the new leader of this united Azure.

Until recently, Cruz has not taken direct actions toward his plan. He has spent years building up business and political contacts, and amassing a fortune to finance his actions. The next step in his scheme is to supply pirate squadrons with the super-weapons he has been developing in his secret Tegesta laboratory. He wants to use the pirates to destroy the Guild and threaten the rest of Azure. Cruz will then swoop in as the saviour with the technology and leadership to counter the pirates.

The probability of this plan succeeding is low, but Cruz is hell-bent on carry it out. If the plan does fall apart, Cruz's backup plan is to hold Azure hostage with a nuke or other super-weapon. While he would much rather be loved than feared, Cruz will take power any way he can get it.

Dr. Mateo Cortez
(Crazy Mad Science only)
Body 0, Mind +3, Spirit -2
Skills: Academics 5, Mechanics 5, Mad Science 5
Resources: Private Island
Combat: He will ride his huge damn monstrosity (see page 37) into battle, laughing all the way.

While all mad scientists are a little crazy, Dr. Cortez is bat-shit insane. A critical error with some mind-enhancing drugs gave him awareness of his true situation (see page 26), and the knowledge pushed an already unsteady man beyond the brink. He is an unsurpassed genius, but it is impossible to predict what he will do. One moment he will be calculating the nature of general relativity, and the next he will be laughing as he draws lewd cartoons on himself with a scalpel.

Hidden under the insanity, there is some sort of method to his madness. He has his own private errant island that approaches Azure proper once every seven years, and he sends out his servants to raid the central isles for supplies. He has a grotesque personal army that serves his every need, and he possesses the skills and resources to build a dominance machine. So far, he hasn't felt like doing so, though that might change.

Cortez's ultimate goals will not be clear to the characters, but his only real objective is to escape from Azure and return to Earth, which he calls the "real" world, in order to destroy it and end his and everyone's existence. He knows bridges between the realities are possible and thinks he can use the Eye to generate a new gate. On his island's next approach to the central isles, he will convert it into a ship and take it to the Eye to enact his plan. Side-effects will most likely include Azure's complete destruction.

Chapter 2 - Places and Groups

Now that you have met a few mad scientists, it is time to look at the places they work and the groups who watch them. The first part of this chapter looks at a sample workshop, two laboratories, and a private island. The second part of this chapter contains information on three different groups that have an interest in mad scientists and their work, and gives stats for some of their more typical agents.

Places of Work

Everyone has to work somewhere. Some mad scientists have little more than a workbench hidden away in their basement, while others build labs or vast complexes. Regardless of their size, every mad scientist workplace has a few things in common: They are all somewhat secluded, subject to odd occurrences, and more than a little weird.

The Last Place - Workshop

If one prowls the streets of any major city, they will inevitably come across The Last Place. Hidden in a slum, on a dead-end street, or at the end of a narrow alley, The Last Place is a curio shop full of all manner of bric-a-brac, trinkets, and antiques. If a character needs something old or obscure, chances are that they can find it in The Last Place.

The shop is a rambling multi-story structure. The main floor seems to be for customers, but it is not clear where the store counter is among the piles of random antiques and artifacts of dubious authenticity. Narrow stairs lead down to a dust-filled basement stacked to the ceiling with piles upon piles of machine parts, rock collections, old mannequins, and one irritable house cat. There is a spiral staircase that leads up to the second floor. There is a "staff only" sign on the stairs, but it is obscured by a garish jaguar-skinned lamp and is easily missed.

The second floor is covered in tools and devices one would expect in a mad scientist's workshop, and there are half a dozen experiments in process. There is also a small cot and kitchen. Any time the characters arrive at the shop, there will be a kettle just about ready to boil for tea.

The spiral staircase continues up to a rooftop observatory, pigeon coop, and greenhouse. There are also makeshift planks that lead to neighbouring rooftops. The greenhouse is full of all manner of strange plants, as well as hummingbirds, butterflies, and other small critters.

A mad scientist player character could purchase The Last Shop to use as their workshop, but there might be a few strange things going on within.

Plot Hooks
• **One shop, many entrances.** It seems as though The Last Shop can be found in every city in Azure. While they all look different from the outside, they appear to be identical on the inside. If the characters are observant,

they will realize that the shops aren't just very similar -- they are all the same shop, complete with a bored clerk reading a book in the corner. If the characters can figure out how the entrances work, they can travel to any city in Azure with just a few steps.

• **The artifact.** While perusing the shop, one of the characters notices an interesting knick-knack and purchases it on a whim. That little item was never meant to be sold and is a perfect combination of powerful and dangerous. The exact nature of the item is up to the GM, but there are those who would go to great lengths to acquire it.

• **Weed killer.** There is a creeping weed spreading across the city. Its vines erupt from the ground, destroying roads and buildings. When people try to cut the vines back, they thrash wildly to defend themselves. It is up to the characters to track the vines back to The Last Place, where the heart of the infestation has burst forth from the top floor of the greenhouse as a giant monstrous plant. The thing has grown so huge that the characters will need their warbirds (or some mad science weapon) to take it out. Treat the plant as a strafing target:

Enormous Plant Monster

Armour: 7
Performance: 1
Structure: 12 (0 0 0 0 0 0 -1 -1 -2 -2 -3 -3)
Defence: 3
Threat: 12
Special: The plant is weak against fire. Incendiary weapons do +1 damage, and characters who spend Reserve to get the incendiary effect automatically get the Serious Fire result.

Sub-systems (roll for random target locations)

1-2. Main Structure

3. Root Structure - Defence 8, Armour 6, Structure 8 (0 0 0 0 0 0 0 0)

Special: The root structure is tough and hard to hit, but destroying it will cripple the plant, causing -2 penalty to Threat and all attack rolls.

4. Acid Pods (6) - Defence 5, Armour 3, Structure 3 (0 0 -1)

Special: Each pod attacks with 1d6 +2, AP 2, and does Lead +1 damage. Two pods need to be destroyed in order to reduce main Structure and Threat by 1.

5. Massive vines (4) - Defence 5, Armour 4, Structure 5 (0 0 0 -1 -1)

Special: Each vine has incredible reach and can lash out and knock a fighter out of the sky. The vines attack with 1d6 +0, AP 3, and do Lead +4 damage.

6. Spore Pods - Defence 5, Armour 4, Structure 5 (0 0 0 0 0)

Special: The spore pods can fill the air with a cloud of spores that obscures the plant. The pods have a bank of 5 points of Reserve that can only be spent on improving Defence. Spending a point of Reserve increases the Defence of the plant and all of its sub-systems by 1 for the round. The plant cannot spend more than 2 points of Reserve in a round. Every point of damage done to the pods' structure reduces the Reserve available by 1 point.

Curious Voyager - Mobile Laboratory

When airships near the end of their lives, they are sent to the breakers and cannibalized for raw materials. This is especially true for battleships, which are made of thousands of tons of steel and floatstone. It was quite a shock for the international community when an obsolescent battleship escaped the breakers and entered into private ownership. Stripped of her ordinance, Observations, Inc. purchased a decommissioned Puerto Rican battleship, with plans to convert her into a long-range observation ship. While the corporation did manage to refit the ship, even rechristening her as the *Curious Voyager*, the venture suffered from cost overruns. Observations, Inc. put the ship up for sale less than a month after completing her overhaul.

The *Voyager* changed hands multiple times over next several years as different shipping and transport concerns tried to make a profit off of her. The ship's heavy amour plating made it far more expensive to operate than any owner anticipated, and it wasn't long before the *Voyager* became something of a high-priced joke.

Destined for the breakers once again, famous eccentric millionaire Esmerelda "Duchess" Gutierrez rescued the old ship and turned it into her own personal science laboratory. She covered its upper deck with elaborate weather instruments. She converted the lower decks to manage experiments in physics, chemistry, and biology. She even used her Guild contacts to re-equip the ship with defensive gun turrets, enabling her to take the ship to distant and errant islands without needing a fighter escort.

While *Curious Voyager* served the Duchess's needs for several years, she has since purchased her own island on which to expand her operations. She recently sold the ship to an undisclosed buyer.

Curious Voyager Stats

Armour: 10

Performance: 1
Structure: 11 (0 0 0 0 0 -1 -1 -2 -2 -3 -3)
Defence: 3
Threat: 14

Sub-systems (roll for random target locations)

1. Main Structure

2. Bridge - Defence 5, Armour 7, Structure 5 (0 0 0 0 0)

3. Engines (4) - Defence 5, Armour 7, Structure 6 (0 0 0 0 0 0)

4. Gun Emplacements (8) - Defence 5, Armour 4, Structure 4 (0 0 0 -1)

Special: Each gunner attacks with 1d6 +2 and does Lead +2 damage. Two gun emplacements need to be destroyed in order to reduce main Structure and Threat by 1.

5. Internal Laboratories (4) - Defence 5, Armour 6, Structure 5 (0 0 0 0 0)

Special: Destroying one of the labs will destroy whatever experiment and specimens that were contained therein. When a lab is destroyed, there is a 1 in 6 (roll 1d6) chance that it contains an experiment that "does not react well to bullets." If this result comes up, the *Voyager* suffers a dangerous internal explosion. The explosion will ignite a core fire as if it were hit with incendiary weapons as described on page 168 of the main rulebook.

6. Core - Defence 6, Armour 10, Structure 9 (0 0 0 0 0 0 0 0 0)

In addition to the laboratory, the *Voyager* has a full crew compliment of skilled sailors, research assistants, security specialists, and stewards. The ship's remaining passenger berths, located in the main bridge tower, are spacious and opulent. While the ship can hold over a thousand people, its normal load is 200 crew plus 20 passengers.

The *Voyager* also carries two skiffs on its aft deck. Neither is armed, but they can be used for short excursions and to load cargo. The ship lacks the ability to launch or recover fighters.

Plot Hooks

• **Missing in action.** The *Curious Voyager* disappeared during a routine sample-gathering trip to a distant isle. The ship was about to be sold, and the Duchess, busy with other concerns, sets up a contract for the ship's retrieval. This is a 2 Fame Point contract, with a bonus FP if the ship is recovered intact. The *Voyager* might now be in the hands of pirates, shipwrecked on a distant isle, or perhaps one of the onboard experiments has gone terribly wrong . . .

• **Trapped below.** Prior to a long escort run (a 1 Fame Point contract), the *Voyager*'s new owners offer the characters a tour of the ship. After being brought over from their drop-carrier by a skiff, they descend down into the ship's guts to see its laboratories. Everything is fine until the power cuts out. Someone, or something, has trapped the characters below decks. Some of the onboard experiments are hungry, and the locks on their cages just popped open.

• **Corporate strife.** The *Voyager*'s new corporate owners are using her for semi-legal weapons research near their enclave on Tegesta. When one of their less conventional scientists makes an unprecedented discovery, the ship makes a bee-line for Kingston at full speed. The ship's owners make a rush hire of a Guild flight to protect the incommunicado liner on its 24-hour trip to the Uplands. Meanwhile the owner's rivals, claiming the ship

is a threat to everyone in Azure, hire another Guild flight to take the ship out. The characters can be on either side of this conflict, with their official rivals on the other. Either way, this is a highly visible and very dangerous 3 Fame Point contract. Depending on the nature of what is in the *Curious Voyager*'s holds, this conflict could spiral beyond Guild-only flights and draw in national militaries. What is actually on board the ship, and what happens if it reaches Kingston, is up to the GM.

The Top Floor - Urban Laboratory

Not every mad science lab is nestled in a burnt-out volcano or hidden on a distant island. Some are in the very heart of Azure's largest cities. A top floor lab is what happens when corporate paranoia and scientific overreach come together to build the perfect "secure facility." The lab is set up in the spacious and very secure penthouse of a corporate tower. Access is limited to one elevator and one emergency stairwell, and there are multiple security checkpoints in between the building's entrance and the lab proper. It is the kind of place where companies work on new top-secret technologies, often funded by government sources.

While such facilities are normally limited to non-mad, legitimate science, there is always at least one researcher who is A Little Crazy. Top floor labs excel at security and convenience, but they are not great places to conduct research on things that might be dangerous to the surrounding population, and if there is anything that mad science is known for, it is being dangerous. That crazy researcher is bound to take their ideas too far and spread their trouble to the surrounding city.

Top Floor Stats

Armour: 5
Defence: 3
Structure: 6 (0 0 -1 -1 -2 -2)
Threat: Nil

Notes

The top floor lab is more like an armoured train car than a civilian structure. It is reinforced in case of a mishap, giving it significant Armour and Structure, but it has no defensive armament or weapons. If its Structure track gets filled up, it is ruined and on fire and anyone inside is Out of the Fight or possibly dead. Doing damage equal to double the Structure of the lab will cause it to blow up, raining burning debris on the streets below. If even more damage is done to the lab, the whole building might collapse (GM's discretion).

Plot Hooks

• **Unauthorized access.** Through some combination of daring and brilliance, thieves broke into the lab and brought *something* out. Now the thieves are on the run. At least one of the thieves has a previous connection to one of the characters and comes looking for help. Does the character help? Will the entire flight be drawn in? Just what exactly did those thieves steal, and how far will the owners go to get it back?

• **Hostage situation.** All it takes is one disaffected genius armed with one super-weapon to hold a whole city

hostage. In this case, the genius is holed up in a reinforced lab a hundred stories up. Love him or hate him, the characters know the madman and are stuck in the city he's threatening with nuclear armageddon. Can they talk him down or will he destroy the city?

• **It's loose.** One of the experiments has gone terribly wrong. A huge damn monstrosity (see page 37), perhaps in the form of a non-copyright-infringing colossal gorilla or giant radioactive lizard, is now rampaging through one of Azure's largest cities. It is a 3 FP contract for the Guild flight to take it down, but those things are dangerous! Treat them as strafing targets for combat purposes.

Non-Copyright-Infringing Colossal Gorilla

Armour: 6
Performance: 1
Structure: 10 (0 0 0 0 -1 -1 -2 -2 -3 -3)
Defence: 6
Threat: 14

Sub-systems

This monster has no sub-systems; all attacks hit its main structure. Offensively, it is limited to two attacks per turn at strafing aircraft on the approach and a single retaliatory attack. It has surprising reach, and it swings its fists with 1d6 +3 to attack, and does Lead +4 damage.

Non-Copyright-Infringing Giant Radioactive Lizard

Armour: 8
Performance: 1
Structure: 11 (0 0 0 0 0 -1 -1 -2 -2 -3 -3)
Defence: 4
Threat: 14

Sub-systems

This monster has no sub-systems; all attacks hit its main structure. Offensively, it can breathe fire/radiation/acid with 1d6 +2 to attack, AP 2, and does Lead +4 damage. It can use its breath weapon once per round. It can also attack once with each of its two main claws and its tail at 1d6 +1 and does Lead +3 damage.

Cayo de las Doce Leguas - Distant Private island

Cayo de las Doce Leguas (Two League Key) once rested off the coast of Cuba. It was full of tidal pools, surrounded by clear water, and completely devoid of human habitation. The Storm was not kind to the island. Tossed 2,500 kilometres from the Eye, the key shattered into over a hundred smaller pieces, turning it into a mini archipelago. Its remains are scattered in an area two kilometres across and three high. Their orbit puts them thousands of kilometres from the Pirates' Tangle, and they remained uninhabited until the modern era.

Ten years ago, someone decided to set up shop in the remains of Cayo de las Doce Leguas. They started by setting up a mini-outpost on the largest chunk of rock. It has barracks, power-generating facilities, a cafeteria, offices, out-buildings, heavy machinery, and a small airfield. They then tethered all of the island pieces together and connected them with rickety bridges, ladders, and even a few makeshift open-air elevators. In addition to the work on the exterior of the islets, they also dug a series of crisscrossing passages and mines throughout the interiors of the largest islands.

The result of all of this work is a massive elaborate maze. The purpose of the maze is unclear, as the project's original builders disappeared a few years ago with their work unfinished. Examining the islands, one would guess they were mining something, though it is unclear what or for what purpose.

Whatever its original purpose, the complex at Cayo de las Doce Leguas is now the perfect secret lair for the discerning mad scientist. It is private, remote, well equipped, and designed with just the right level of insanity to appeal to the less lucid but more brilliant among Azure's inhabitants.

Plot Hooks

• **Bug hunt.** A wealthy business magnate's children were among the island's missing builders, and she hires the characters to go find them (2 FP contract). While they find the islands abandoned, once they go snooping, they find that the tunnels contain a number of unpleasant new inhabitants. The magnate's children are holed up in a tunnel somewhere with a few other survivors. The characters need to rescue the survivors and get back to their drop-carrier. Be sure to include the obligatory mine cart chase!

• **Honoured guests.** A mad scientist friendly to the characters moves to the island and invites them to visit. While all is well at first, the characters begin to catch hints that their acquaintance is performing experiments that are neither ethical nor safe, but if they are successful, they will have a profound positive impact on the rest of Azure. The characters will have to decide what to do with their friend, someone who might not respond well to an intervention.

• **Staging point.** A mad scientist preparing for an invasion of the central isles is using Cayo de las Doce Leguas as the staging area for their personal army. The Guild catches wind of the threat and sends the characters' flight to investigate. Depending on what characters find, and assuming they survive to report back to the Guild, the Guild will assemble several full squadrons to take on the threat. When the mad scientist's forces, loaded up with super-weapons, meets the heavily armed Guild strike force, it will be the largest battle in decades.

Mad Science Agencies

When mad science gets loose, there are teams of "top men" sent to investigate. Operating like the CIA, MI6, KGB, or Stasi, these groups endeavour to acquire and control new technology on behalf of their respective governments and corporations. Most employ a policy of hiding or destroying technology that they cannot control, and if a mad scientist goes missing, they may have had an encounter with agents from one of these groups.

These agencies are powerful enough and aggressive enough that most mad scientists develop a certain level of paranoia and a fear of being watched. They become secretive, reclusive, and hostile to new people. This, of course, makes the mad scientist seem even crazier. But, as the saying goes, "just because you're paranoid doesn't mean they aren't out to get you." If you are a mad scientist, they probably are out to get you!

Guild Theoretical Research

The fighter Guild's Research & Development division is legendary, but few know much about its Theoretical Research department and what they do. Despite its name, Guild Theoretical Research (GTR) has no laboratories or ongoing research projects. Anyone looking into GTR will find a dusty office on a small private island on the Guild Keys. A bored-looking secretary will complain about how GTR funding is cut to the bone, and they have little more than a few crackpot theorists with blackboards covered in chicken scratches.

If one watches the office from a distance, though, they will see a steady stream of people coming and going. Every few nights an airship will show up, running dark and quiet, and will be long gone by morning. Even all of this will not turn up GTR's true purpose, though. To do that, one has to follow the people leaving the office. They always leave in pairs, and most take the train to the nearest airship terminal. From there, they disperse to all parts of Azure and engage in any number of quasi-legal activities. Then the true purpose of GTR becomes clear: It is the agency that protects and maintains the Guild's technological monopolies.

GTR agents scour Azure for talented scientists and engineers. They focus on people whose career track would lead them to excel in aviation and weapons research. The most promising are approached by legitimate Guild agents and offered jobs; those unlikely to work with the Guild, or too unstable for the Guild to risk working with, are watched. The surveillance is not intrusive, but it is persistent. The Guild cannot risk certain technology being developed by rival agencies or governments and will react forcefully, even violently, to keep the technology suppressed.

GTR teams work in pairs. One agent is an expert in science and technology, and their partner is the driver, surveillance expert, and the muscle. These "brains and brawn" teams operate in every nation in Azure. They use cover identities, informants, and infiltration to keep tabs on their subjects. If a subject starts working on something they shouldn't, the agents take steps to "discourage" such research. They will work covertly, getting funding pulled, having scientists discredited, or having assistants transferred out; but if covert actions won't work, they will resort to bribery, theft, arson, and blackmail.

In the event that a mad scientist suffers a catastrophic critical failure, the agents' job immediately switches to one of containment. They make every effort to stop a mad scientist's work from causing harm to the populace. While GTR's individual agents tend to believe that the containment policy is for the greater good -- and it does serve the greater good -- GTR's motives are not so pure. If an incident is contained, the technology that

caused it can be controlled and kept out of the hands of rival agencies and governments.

In its 20-year history, the GTR has not yet had to resort to killing a subject, but the operating procedures do not rule it out. In the most extreme circumstance, the GTR could arrange an "accident" for a subject. The Guild would rather not suffer the repercussions for assassinating a foreign national, and if the GTR acts, the planning would be meticulous with nothing linking the murder back to the Guild. If at all possible, they would prefer to forcibly employ a subject (see below) rather than kill them.

The preferred method of dealing with uncooperative mad scientists is to strip their lab and then burn it to the ground. The stolen gear then heads back to the GTR headquarters for analysis. The junk is burned, useful notes and items are transcribed and turned over to R&D, and anything deemed too unstable or dangerous gets moved by covert airship to a distant island owned by the Guild. The island, nicknamed "the Trove" by its inhabitants, is covered with armoured bunkers and underground laboratories where the items can be researched in seclusion.

The Trove is run by an eccentric team of mad scientists that the Guild employs and leaves to their own devices -- under close supervision, of course. A few team members were even former subjects of GTR

surveillance who were "reluctant" to accept new employment. While the Guild does leave them alone most of the time, Trove scientists are expected to produce concepts that regular R&D types can turn into useful gear. The last Trove breakthrough resulted in the still-top-secret heat-seeking rocket. They are also working on early jet turbine concepts, and one or two of their more theoretical minds might soon crack open relativity, radiation, and its application for atomic weapons and power.

GTR Agent -- the "Brains"

Body 0, Mind +1, Spirit 0
Skills: Athletics 1, Awareness 1, Close Combat 1, Shooting 1, Academics 2, Mechanics 2, Stealth 1, Mad Science 1
Combat: Defence 4, Resist 0, Health 3 (0 -1 -1)
Initiative: 1d6 +3, **Attack:** 1d6 +1, Lead +2 damage for revolver. 6 shots
Abilities: The GTR agent can have 1d6 workbench-level mad science gadgets appropriate to the situation. This will include things like surveillance gear and stun weapons.

The brains of GTR enforcement team is usually an R&D type who wants a little more excitement. After going through some basic training, they are paired up with an experienced operative and sent into the field. The brain's job is to provide onsite analysis of what a subject is working on and determine whether it should concern the Guild.

      All brains are A Little Crazy, and have a basic understanding of mad science, which can make them difficult for their more grounded partners to deal with. Unlike most mad scientists, the GTR agent has basic combat training and will make good tactical decisions in combat. They will use their mad science items to their best effect and will not hesitate to use lethal force if the situation calls for it.

GTR Agent -- the "Brawn"

Body +1, Mind 0, Spirit +1
Skills: Athletics 2, Awareness 2, Close Combat 2, Shooting 2, Stealth 2, Larceny 2, Persuade 2
Combat: Defence 6, Resist +1 (+3 with flak vest) Health 5 (0 -1 -1 -2 -2)
Initiative: 1d6 +2, **Attack:** 1d6 +3, Lead +3 damage for magnum pistol, 6 shots. Lead +1 for knife
Abilities: The GTR agent can access military-grade weapons and equipment if they have a few hours' notice. The more paranoid among them might keep grenades and a submachine gun in a nearby stash.

The brawn of a GTR team is usually ex-military or a washed-out pilot who showed aptitude in other areas. They have a skill set that focuses on combat, surveillance, and espionage. Their primary duty is to surveil subjects and look after the brains in their charge. Their secondary duties include things like bribery, blackmail, theft, and arson.

      While some might dismiss them as dumb thugs, brawn agents tend to lean more toward the careful and cautious type. They know that their job depends on discretion, and they prefer to keep things quiet, controlled, and simple. Their job is made all the more difficult by the chaos that mad science tends to cause, and most agents take up a bad habit or two -- alcohol is a common favourite -- to deal with the stress.

Unit 363

Santiago's extensive secret police organization includes the ultra-secret Unit 363 (U363). There is no official record of U363 even existing, and it is so well hidden from Santiago's general population that there are not even whispers of its existence. Doctor Malena Segundo is U363's director. She is a brilliant and deranged medical doctor and reports directly to President for Life Machado. The president gives Segundo and U363 a long leash to do research, but even he would balk if he took a closer look at U363's experiments.

Located in an abandoned floatstone mine, U363's headquarters is protected by multiple layers of security, including minefields, artillery, and anti-aircraft turrets. Beyond the mine's entrance is a terrifying world of the worst that mad science has to offer.

U363's guiding directive is to find ways to keep the population under control. To that end, Dr. Segundo has authorized all kinds of human experimentation. The tamest experiments involve testing drugs and therapies that should make people docile and open to suggestion. From there, the experiments devolve into horror shows involving things like pain compliance, memory alteration, lobotomies, and brutal surgery and vivisections without anesthesia. The victims of these twisted assaults are Santiago citizens who were "disappeared" for one reason or another. Most such political prisoners end up working the mines, but a small portion of them are diverted to U363. Once a prisoner enters into U363's grasp, they never leave. One of the mine's deepest tunnels is slowly filing up with the twisted, defiled corpses of the Unit's work.

The Unit's barbarity extends back for decades, but in recent years they have become even more dangerous. Director Segundo, realizing that she has had fewer and fewer research successes over time, has built up an operations arm for U363. Made up of her most loyal troops, further augmented by the best drugs and procedures that the Unit can provide, U363 operatives are being secretly dispatched to all of the nations of Azure to steal research and secrets and bring them back to Segundo and her teams. Segundo is certain that all of the other nations are doing the same type of research that she is, and she suspects some of them might be further along. When she fails to find the non-existent human experimentation labs of the other major powers, she will direct her operatives toward the fringe researchers lurking at the edge of known science.

Unlike the GTR, U363 has no scruples about leaving mad scientists alone. They will surveil promising researchers, then perform a smash-and-grab operation combined with a kidnapping. The scientist and all of their work will be locked up in U363's mine, and they will then be forced to choose between continuing their work "for the glory of Santiago" or becoming a subject for one of Segundo's less pleasant experiments.

U363 is not aware of the activities of GTR, and they are both in for an unpleasant surprise. It is a certainty that U363 and GTR agents will come into contact at some point, and the meetings will not be friendly. Once Segundo discovers that the GTR agents work for the hated Guild, she will authorize her operatives to eliminate GTR agents with extreme prejudice. When GTR agents start getting dropped by Santiago goons, the Guild will pull the gloves off, and GTR personnel will start using some of the nastier discoveries from the Trove. Azure is about to experience its first covert or shadow war, and a bunch of looney-mad scientists are going to be caught in the middle of it.

U363 Operative

Body +2, Mind -1, Spirit 0
Skills: Athletics 2, Awareness 1, Close Combat 3, Shooting 2, Stealth 1, Larceny 2
Combat: Defence 7, Resist +3 (Kevlar flak vest), Health 5 (0 0 -1 -2 -2)
Initiative: 1d6 +0, **Attack:** 1d6 +4, Lead +2 damage for silenced pistol, 10 shots. 1d6 +5, Lead +1 for knife
Abilities: Injection. The operative has an auto-injector that provides +1 Body (for +3 total) and -1 Mind (-2

total). Their judgement will be clouded, and they will drop their gun and move into close combat with their nearest opponent.

The U363 operative is such a stereotypical "man in black" that they stick out like a sore thumb. What the operatives lack in subtlety they make up for in savagery. They are fiercely loyal to Santiago, and their low Mind stat is the result of conditioning and "modifications" to ensure that loyalty. Due to their lack of comprehension of what they are dealing with, whenever an operative attempts to move in on a mad scientist, there is a good chance that they trigger a critical failure effect of the scientist's current project. The operatives will get better with time, but their first few attempts will be monumental disasters. Operatives prefer to act alone, but they could pull a team together to go after a big target.

Sky Whale Magazine

There are a lot of journalism publications trying to compete with the *Prensa Libre* juggernaut, but few are doing quite so poor a job of it as *Sky Whale Magazine*. That is not to say that the magazine has poor sales; in fact, the magazine has excellent market penetration and makes a handy profit on every issue. The problem is that, while its writers and editors take its content very seriously, most of its readers think it is a complete joke.

      Sky Whale Magazine reports on paranormal activity, government conspiracies, Guild cover-ups, and the bizarre exploits of mad scientists. Its articles are full of passion and conviction, as the writers try to warn the population of the nefarious activities going on all around them. Most people find the stories, with their alarmist and sensational claims, absolutely hilarious. Even the serious media establishments think *Sky Whale* is brilliant satire and parody, and the magazine has won several (unclaimed) awards for comedic writing.

The accolades make the magazine's writers and editors enraged, and they publish scathing critiques of the media's refusal to treat them with appropriate seriousness. This is, of course, viewed as a brilliant part of the joke by the public, and even more comedy accolades are in the magazine's future.

There is a small sub-set of *Sky Whale* readers who wholeheartedly believe everything written within its pages. These true believers, called Whalers by the magazine's staff, might face ridicule from their peers, but their beliefs are not without merit. A lot what gets published each month in *Sky Whale Magazine* is drivel, but its reporters often hit closer to the truth than anyone suspects. For example, a recent headline in *Sky Whale* read: "Guild builds super radio; hides it from public." The article goes on to talk about Guild planes having radios that work at ranges in excess of 1,000 kilometres. While they got the range wrong by a factor of 10, the Guild does have radios far superior to anything else in Azure. Other articles even hint at the existence of GTR agents and the Trove.

Like everyone else, the Guild downplays *Sky Whale* articles and commends its writers on its brilliant comedy. On the side, however, the Guild blacklists *Sky Whale Magazine* reporters and denies them access to all Guild-sponsored media events.

Every issue of the magazine includes a section called "Future Science" written by reporter Nelli Nayal that focuses on the work of one scientific crackpot or another. Unlike the magazine's other articles, which are more miss than hit, Nayal has an uncanny knack for finding researchers who are really onto something. In the last six months alone, she has interviewed a scientist who came up with a formula for modern sunblock, a chemist developing an effective method for rapid freeze-drying, and a chef who came up with a way to make non-stick frying pans. Two weeks after her article on the chef ran, the man's restaurant was bought out by a major chain and he retired to a life of luxury. (And the Guild will soon have Teflon-coated high-velocity bullets that reduce barrel wear on their guns.)

GTR agents pay close attention to what Nelli Nayal writes and have followed up on her articles more than anyone suspects. Eventually Nelli will catch on and start trying to figure out who is buying off her sources. She might even find out what the GTR is and be forced to choose between exposing the agency and joining it. If she runs into U363, her life will be in immediate danger, and the Santiago agents might abduct her and interrogate her for her sources before executing her out of hand.

Nelli Nayal – *Sky Whale Magazine* Science Reporter

Body -1, Mind +1, Spirit +1
Skills: Awareness 2, Academics 1, Mechanics 1, Interrogation 3, Persuade 2
Combat: She is a non-combatant. She will surrender or run from any fight but immediately attempt to bargain with anyone who threatens her.

Description

Nelli is a bookish, diminutive Maya woman. Her possessions include a portable folding bicycle, a camera, a notepad, and a penchant for getting into places she does not belong. If any of the player characters dabble in mad science, she will go to great lengths to get an interview. If a character grants said interview, they might soon have a visit from GTR agents or, even worse, from a U363 operative.

Chapter 3 - Science Projects

This chapter contains a plethora mad science projects. GMs and players are free to use them as is, modify them as required, or use them as jumping-off points for their own mad science projects. The projects are split into two sections -- plausible and crazy -- and then listed in order of required resources.

Plausible Mad Science Projects

Assault Rifle

Type: Plausible
Resources: Workbench
Base Difficulty: 9 (reusable +3)
Maintenance: 6
Research Time: 1 session
Desired Effects: The assault rifle is a semi- or fully automatic weapon that fires rifle ammunition (Lead +3 damage), can do burst fire and suppression (see page 62 of main rulebook), and holds 30 shells or more. They have a range of 400 metres but work best at closer distances. On a brilliant success (Lead 5+) on the creation roll, the assault rifle does +1 damage at ranges of less than 75 metres.
Critical Failure: The assault rifle will backfire and explode in the user's hands (3 damage). Alternately, the weapon can be stolen by the creator's rivals and implemented on a massive scale with no credit or money going to the original designer.

Stun Baton/Gun

Type: Plausible
Resources: Workbench
Base Difficulty: 9/11 (reusable +3, requires exotic materials +2)
Maintenance: 8
Research Time: 1 session
Desired Effects: The stun baton is an incapacitating weapon that uses stored electricity to shock opponents into compliance. The basic model is a close-combat weapon that does Lead +3 damage, ignores Armour (but not Resist from a high Spirit stat), and can knock an enemy Out of the Fight without making much noise. The weapon's batteries hold enough power for 5 such attacks. The stun gun version of the weapon requires exotic materials, but fires barbed darts attached by wires out to a range of 10 metres. It is a single-use weapon, but once a person is hit, they can be shocked multiple times (reroll the attack each round) until the person takes an action and suffers a point of damage to pull the darts out.
Critical Failure: A power surge destroys the weapon and immediately knocks the user Out of the Fight.

Grenade Launcher

Type: Plausible
Resources: Workbench
Base Difficulty: 9 (reusable +3)
Maintenance: 6
Research Time: 1 session
Desired Effects: A grenade launcher is a weapon designed to accurately the lob grenades listed on page 102 of the main rulebook. Characters can use their Shooting skill to fire the grenades, and weapon has a range of 150 meters. Grenades fired from the launcher cannot be thrown back, and detonate in the *same* round that they are fired.
Critical Failure: The grenade cooks off in the barrel of the launcher. It does 4 damage to the user, and 2 damage to everyone within 10 meters.

Night Vision / Thermal Goggles

Type: Plausible
Resources: Workbench
Base Difficulty: 12 (reusable +3, requires exotic materials +2, lacking scientific basis +1)
Maintenance: 9
Research Time: 1 session
Desired Effects: These bulky goggles allow the user to see in the dark, either by amplifying low ambient light or detecting infrared heat signatures. The user ignores the darkness penalties listed on page 63 of the main rulebook. The goggles work both on the ground and in the air.
Critical Failure: The goggles burn out and render the user temporarily blind for 1d6 days. This will create some tense situations if the goggles fail while a character is flying their warbird.

Personal Radios

Type: Plausible
Resources: Workbench
Base Difficulty: 11 (reusable +3, requires exotic materials +2)
Maintenance: 8
Research Time: 1 session
Desired Effects: Most radios in Azure have to be large and power-intensive to overcome the Eye's interference. These are hand-held CB-style radios that can communicate at ranges up to 10 kilometres and can fit in a jacket pocket. On a brilliant success (Lead 5+) on the creation roll, the radios have double the range.
Critical Failure: The radios let out a horrible squelch whenever they transmit or receive. The noise will upset nearby animals, causing cats to hiss, dogs to howl, and birds to swarm around the radios. As an added bonus, the messages passed will be almost completely unintelligible.

The Cure

Type: Plausible
Resources: Workbench
Base Difficulty: 10 (requires exotic materials +2, needs volunteers +1, lacking scientific basis +1)

Maintenance: -
Research Time: 1 session
Desired Effects: This is the classic antidote for some kind of serious illness or poison. It is a single attempt at the long-shot cure that conventional doctors dismiss as insane. It will only work on a single patient or perhaps a very small group of patients, like the PCs, for a single illness or poison.
Critical Failure: The cure either kills the patient or causes some sort of crippling injury in the process of curing the patient. The details of such injuries are up to the GM.

Computer

Type: Plausible
Resources: Workshop (+1 difficulty)
Base Difficulty: 13 (reusable +3, requires exotic materials +2, lacking scientific basis +1)
Maintenance: 10
Research Time: 2 sessions
Desired Effects: Most people in Azure would not quite know what to do with a working computer, but there are a few designers and engineers who would drool at a computer's potential. Using a computer to do calculations adds a +1 to all rolls for Academics, Mechanics, Medicine, Larceny (lock-picking functions), and Sail - Airship. Additionally, it adds a +2 bonus to all future Mad Science rolls except for rolls to maintain the computer.
Critical Failure: Learning cascade. The computer starts running faster and faster, acquiring more and more knowledge until it becomes self-aware. It will be able to reconfigure itself using nearby resources, creating a body for itself. The sentient computer's goals, good or ill, are at the discretion of the GM.

Personal Armour

Type: Plausible
Resources: Workshop (+1 difficulty)
Base Difficulty: 12 (reusable +3, requires exotic materials +2)
Maintenance: 9
Research Time: 2 sessions
Desired Effects: Kevlar and other modern composite materials can stop bullets cold when assembled correctly. Personal armour adds a minimum of +3 to a character's Resist. At that level of protection, the armour can be hidden under normal clothes. If the scientist does not mind making the gear bulky and obvious, the bonus goes up to +5.
Critical Failure: Material failure. The gear fails to stop the incoming bullets on the way in and actually makes the injury worse as the bullets ricochet back into the character's body when they bounce off the armour on the way out. In addition to not providing its Armour bonus, the incoming attack does +2 damage to the character.

Vulcan Cannon

Type: Plausible
Resources: Workshop (+1 difficulty)
Base Difficulty: 12 (reusable +3, requires exotic materials +2)
Maintenance: 9

Research Time: 2 sessions
Desired Effects: While Azure is familiar with aircraft-mounted rotary cannons, these guns are underpowered and slow-firing compared to the ferocity of the hydraulically driven, electrically fired 20mm Vulcan cannon. The single 20mm rotary cannon takes the place of all of the machine guns mounted on a warbird. The cannon has an Accuracy of 0, does Lead +4 damage, AP 2, and holds 10 bursts. Any of the standard Gunnery traits can be applied to the cannon. On a brilliant success (Lead 5+) on the creation roll, the cannon has +1 Accuracy.
Critical Failure: Runaway gun. When the pilot pulls the trigger, the gun starts firing and does not stop. If that first attack hits the target, it does +2 damage, but the gun burns through all of its ammo in under a minute. It heats up to the point that the barrels melt, and the plane takes 2 points of Structure damage (ignore Armour) in addition to being out of ammo.

Heads-Up Display

Type: Plausible
Resources: Workshop (+1 difficulty)
Base Difficulty: 13 (reusable +3, requires exotic materials +2, lacking scientific basis +1)
Maintenance: 10
Research Time: 2 sessions
Desired Effects: A heads-up display (HUD) s a massive step up from the reflector gunsights found in most fighters in Azure. The HUD displays pertinent information to the pilot via a piece of glass mounted just above the instrument panel. It allows the pilot to keep their eyes on the target while taking in information about heading, speed, altitude, ammunition remaining, etc. When installed in a warbird, the HUD provides +1 to all Piloting, Ordinance, and Gunnery rolls.
Critical Failure: Electrical fire. The HUD shorts out all of the electrical systems on the warbird. The fighter no longer has a working radio, and many of its secondary systems are gone. The cockpit fills with smoke, and the fighter is immediately crippled.

Performance-Enhancing Drugs

Type: Plausible
Resources: Workshop (+1 difficulty)
Base Difficulty: 11 (requires exotic materials +2, needs volunteers +1, lacking scientific basis +1)
Maintenance: -
Research Time: 2 sessions
Desired Effects: The idea of using drugs to make people stronger or smarter is relatively alien to the people of Azure, and many would take a negative view of someone tinkering with "God's Plan" in such a way. It is possible, however, to engineer a variety of performance-enhancing drugs. These drugs provide a one-session +1 bonus to a character's Body or Mind stat. Even successful use of these drugs will carry a side-effect of some sort. Side-effects might include -1 to a different stat while the drug is in effect, or the character picking up the Vice Disadvantage. Although the character's base stat increases, drugs do not enhance the SA stat.
Critical Failure: I've created a monster. The drug gives the character a +5 stat bonus instead of a +1. If applied to the Body stat, the character becomes a testosterone-fuelled monster who loses all self-control and destroys everything in sight. If it is applied to the Mind stat, the character becomes truly self-aware. They realize that they are merely a character in a roleplaying game and that their existence hangs on the rolls of dice and the whims of some entity called a GM. What a character does with this horrible truth is up to the player, but the character will almost certainly pick up a Vice Major Disadvantage when the drug wears off.

Guided Bombs

Type: Plausible
Resources: Laboratory (+2 difficulty)
Base Difficulty: 12 (requires exotic materials +2, lacking scientific basis +2)
Maintenance: -
Research Time: 3 sessions
Desired Effects: Heavy bombs traditionally fall with gravity, and a pilot needs good aim and a lot of luck to score a hit. Guided bombs use either a laser or camera combined with mechanical control surfaces to home in on a target with deadly accuracy. A guided bomb is Accuracy 0 instead of -3, automatically has the Advanced Bombsight trait, and can have any of the other Ordinance traits normally available to bombs. When a character makes these bombs, they make just enough to fill the hardpoints of a single warbird.
Critical Failure: Immediate detonation. When the bomb drops, its fuse malfunctions and it detonates right after leaving its hardpoint. The fighter dropping the bomb suffers a Lead 2 hit from the weapon. If the bomb is Incendiary or Armour Piercing, those effects automatically activate.

Radar

Type: Plausible
Resources: Laboratory (+2 difficulty)
Base Difficulty: 15 (reusable +3, requires exotic materials +2, lacking scientific basis +2)
Maintenance: 12
Research Time: 3 sessions
Desired Effects: The interference of the Eye should make radar impossible in Azure, but an enterprising mad scientist can find a way around the interference and mount radar on a large airship or ground installation. Radars can detect fighter-sized aircraft at ranges of over 100 kilometres and can detect airships over 200 kilometres away. Radar gives information on an aircraft's position, heading, altitude, and speed. It works at any time, day or night, and works in all but the worst weather conditions. Possessing working radar would give any air force a massive strategic advantage over its enemies, and different governments, including the Guild, would fight bitterly over the technology.
Critical Failure: Total breakdown or proliferation. If the radar itself fails, it will do so catastrophically; it will spin itself apart, sending debris and shrapnel in every direction, while its generator catches fire. If it is on an airship, the fire causes 3 points of Structure damage and destroys one sub-system of the GM's choice. Alternatively, the technology can be acquired by government agents. The secret of its construction would spread like wildfire, and every nation would be sporting radar within a few years.

Turbofans

Type: Plausible
Resources: Laboratory (+2 difficulty)
Base Difficulty: 11 (reusable +3)
Maintenance: 8
Research Time: 3 sessions
Desired Effects: This is the upsized version of the jet engine listed on page 137 of the main rulebook. Turbofan engines increase the power and efficiency of couriers and airships. An airship or courier with turbofans can reduce its transit times by 1/3, and its added speed increases its Threat by 2 when the ship is being strafed.

Critical Failure: Breakaway. The turbofans are powerful, and their mounts need to be reinforced to handle the extra stress. The engines tear themselves off the vehicle, inflicting Structure damage as if they had been destroyed. Airships are adrift if their engines break away, but couriers are stuck with gliding for a deadstick landing.

Helicopter

Type: Plausible
Resources: Laboratory (+2 difficulty)
Base Difficulty: 12 (reusable +3, needs volunteers +1)
Maintenance: 9
Research Time: 3 sessions
Desired Effects: Rather than flying by soaring majestically, the mad scientist can build a machine that achieves flight by grabbing the air and beating it into submission. Helicopters are slow, short-ranged, difficult to maneuver, hard to maintain, and fragile. They are Performance 1, Armour 0, and Structure 2. While their stats are terrible, helicopters have one major advantage: hovering. Helicopters can take off and land vertically in almost any terrain. Also, the helicopter can be fitted with light machine guns and a pair of rocket pods. If it fires its weapons while hovering, they have +1 Accuracy. While choppers have the same overall Performance as most airships, they are much faster, and can travel at speeds of 120 kilomtres per hour or more.
Critical Failure: Crash. As the saying goes, "If the wings are traveling faster than the fuselage, it's probably a helicopter -- and therefore unsafe." A crash will probably happen no matter what. This is a helicopter, after all. Follow the rules on page 73 of the main rulebook.

Atomic Weapons/Power

Type: Plausible
Resources: Private island (+3 difficulty)
Base Difficulty: 13/16 (reusable +3, requires exotic materials +2, lacking scientific basis +2)
Maintenance: -/13
Research Time: 4 sessions
Desired Effects: Your mad scientist can start their very own Manhattan Project. Creating a single nuclear weapon is easier than creating sustainable atomic power, but creating either is a fearsome achievement. An atomic bomb is a city-killing weapon. There is no roll to attack; it just destroys everything within its blast radius, which is 2-5 kilometres for small, first-time nukes and 30+ kilometres for a brilliant success result on the creation roll. No fighter, airship, or structure is designed to withstand a nuclear attack. If the mad scientist instead tries to create nuclear power, a reactor can power an airship for decades with no need to refuel. It makes extremely long-range trips possible, and airships can sail far beyond the horizon.
Critical Failure: Meltdown. The bomb or reactor operates as advertised for a few moments but quickly starts having an adverse reaction with any nearby floatstone. The bomb/reactor starts burning a massive radioactive hole through whatever is below it. This will be of no concern if an airship is out over the Murk, (other than the airship being destroyed) but if the meltdown happens on an island, the meltdown will burn a hole right through it. Smaller islands will be destroyed outright, while larger islands will have a new flying challenge for crazier pilots. If the meltdown happens in the central isles where islands are often passing over each other, it is possible for the meltdown to pass through multiple islands.

A powerful enough nuke can destroy an entire island.
Falling debris can pose a serious risk to any islands passing below.

Submarine

Type: Plausible
Resources: Private island (+3 difficulty)
Base Difficulty: 16 (reusable +3, needs volunteers +1, requires exotic materials +2, lacking scientific basis +1)
Maintenance: 13
Research Time: 4 sessions
Desired Effects: Azure is full of fantastic stories of adventurers exploring the depths of the Murk in special airships. These "submarines" find all manner of strange civilizations below the Murk. While it is unlikely such stories are true, a mad scientist can build their own submarine and find out for sure. Subs need to have immense amounts of armour to resist the abrasive particles and intense pressure of the Murk. Additionally, they need to use electrical power for the engines; this means carrying heavy batteries or installing an atomic reactor (see above). Subs can move at great speed if they travel with the winds of the Murk but are reduced to a crawl if they try to fight the wind. Any class of airship can be made into a sub, but most of its systems have to be shut down when the sub is in the Murk. A sub has the same stats as a comparable airship but has 5 points more of Structure and Armour on its main structure and 3 more points on its sub-systems. Because of its specialized design, a sub only has half as many turrets/weapons as a regular airship. If the sub is a carrier, it can only carry half the normal aircraft complement and has to leave the Murk to launch and recover planes. Finally, what the sub and its crew find in the Murk is left up to the GM.
Critical Failure: Pressure failure. The sub has a flaw in its pressure-resistant armour. The Murk crushes the sub like a soda can, and all hands are lost.

Crazy Mad Science Projects

If the GM and players agree, you can move beyond the realm of plausible mad science and enter the realm of the crazy. Standard physics, chemistry, and biology no longer apply beyond this point.

Personal Energy Weapons

Type: Crazy
Resources: Workbench
Base Difficulty: 11 (reusable +3, lacking scientific basis +2)
Maintenance: 8
Research Time: 1 session
Desired Effects: The humble laser pistol has a long and storied history among mad scientists. This small elegant weapon burns enemies with a beam of coherent light. Lasers are +1 Accuracy, do Lead +4 damage, can fire 10 times without a recharge, and have a range of 100 metres. Building the weapon as a rifle increases the range to 300 metres but makes it a little unwieldy. As per the genre, energy weapons produce a stream of coherent light, a loud whoosh/zap noise, and leave smoking holes in whatever they hit.
Critical Failure: It melts in your hand. The gun overheats and liquefies itself, inflicting 3 damage to the user. Hideous scarring may be involved.

Spiritual Neutralizer

Type: Crazy
Resources: Workbench
Base Difficulty: 10 (lacking scientific basis +4)
Maintenance: -
Research Time: 1 session
Desired Effects: Mad scientists are at least aware of the different forms of magic in Azure. (See Chapter 7 of the main rulebook.) Some scientists try -- and fail -- to harness this power. What science can do, however, is temporarily suppress magic. The spiritual neutralizer is a small grenade-like device that, when activated, negates all magical effects within a 100 metre radius for one scene. Any bonus or penalty that would normally result from Catholic Mysticism, Haitian Vodou, or Mayan Ritualism no longer applies. This effect is indiscriminate; all magic fails regardless of origin or intent. The magic continues to function normally at the end of the scene or if the affected person or item leaves the radius of the effect.
Critical Failure: The wrath of God. The powers that be do not appreciate being messed with. All magic bonuses and penalties are instead doubled for the scene.

Stopwatch

Type: Crazy
Resources: Workbench
Base Difficulty: 10/15 (lacking scientific basis +4, requires exotic materials +2, reusable +3)
Maintenance: -/12
Research Time: 1 session
Desired Effects: A stopwatch allows the user to stop time. When the start button is pushed, time is stopped

for everyone except the person holding the stopwatch. That person then gains no more than 30 seconds to act before time starts again. When time starts back up, the stopwatch breaks apart. If the stopwatch is reusable, then it will recharge after 24 hours (use the creation and maintenance difficulty numbers listed after the slash). **Critical Failure:** Stasis. Time stops for the user instead of everyone else. The effect persists until someone breaks the stopwatch.

Familiar

Type: Crazy
Resources: Workbench
Base Difficulty: 13 (reusable +3, requires exotic materials +2, lacking scientific basis +2)
Maintenance: 10
Research Time: 1 session
Desired Effects: Whether it is a pint-sized robot made from pinball machine parts or a super-intelligent lizard with a classy hat, a familiar is a small clever companion for the mad scientist. It can fetch things, fit through air vents, spy on people and report its findings (though only the mad scientist can understand it), act as a helper for non-combat skills, and even sacrifice itself to save its creator. A familiar's stats are Body -2, Mind -1, Spirit +1. The mad scientist can allocate 5 skill points for them, but no skill can be higher than 2. They are +2 Defence due to their small size and may have one of the following special abilities:
• Wings - it can fly.
• Sneaky - +2 to Stealth rolls.
• Tough - +1 Resist and Health
• Clever - adds +1 to Mad Science rolls
• Mean - it has a close-combat weapon that does Lead +1 damage.
Critical Failure: Defection. The familiar prefers someone other than its creator and becomes their familiar instead. The creator will not know about this defection, and the familiar's new master can use it to spy on the creator.

Tonic of. . .

Type: Crazy
Resources: Workbench
Base Difficulty: 10 (requires exotic materials +2, lacking scientific basis +2 or more)
Maintenance: -
Research Time: 1 session
Desired Effects: Some mad scientists wish to modify their human body in ways that were never intended by nature. The simplest way to do this is with a drinkable tonic. Tonics provide advantages to a character that only last a short time. Unlike performance-enhancing drugs, tonics rarely have a downside, but they only last for one scene. A tonic can grant any one of the following to a character:
• Night vision (as per night vision goggles)
• Incredible speed (take 2 unpenalized actions per round)
• Brilliance (+2 Mind, but add +1 to base difficulty; does not affect SA stat)
• Super Strength (+3 Body, but add +1 to base difficulty; does not affect SA stat)
• Perfect Situational Awareness (+2 SA, but add +2 to base difficulty)
• Charisma (+2 Spirit; does not affect SA stat)

- Disguise (+3 to Larceny rolls)
- Invisibility (+4 to Stealth rolls, but add +2 to base difficulty)
- Toughness (+2 Health and Resist)
- Youth (subtract 1d6 years from character's age, but add +2 to base difficulty)
- Healing (immediately recover 2 Health)

This is not a complete list of what tonics can do, and the final approval of any tonic effects rests with the GM. Tonics do not interact well with each other, and trying to take more than one at once will result in a character getting ill for a few days without experiencing any positive benefits.

Critical Failure: Opposite effect. When the tonic should provide a bonus, it instead provides a penalty. To make matters worse, the character believes that the tonic is working exactly as advertised, even if they repeatedly fail at a task that indicates the tonic is not working.

X-ray Glasses

Type: Crazy
Resources: Workbench
Base Difficulty: 13 (reusable +3, requires exotic materials +2, lacking scientific basis +2)
Maintenance: 10
Research Time: 1 session
Desired Effects: X-ray glasses allow a character to see through things. The glasses are adjustable, so the scientist can change how much "stuff" the glasses see through. X-ray glasses have a number of uses, from seeing if a person is armed to seeing the internal workings of a bomb or checking the extent of a person's injuries. Less savoury uses of the glasses include lock-picking, cheating at gambling, and the ever-famous spying on people in inappropriate circumstances.
Critical Failure: X-ray eyes. For your voyeuristic sins, your eyes keep seeing in X-ray mode after you take off the glasses. You cannot control how deeply your vision penetrates; your eyes are set to maximum and everyone looks like creepily animated skeletons. The effect lasts for 1d6 weeks before it slowly fades. Multiple critical failures can make the effect permanent.

Freeze Grenade

Type: Crazy
Resources: Workbench
Base Difficulty: 10 (requires exotic materials +2, lacking scientific basis +2)
Maintenance: -
Research Time: 1 session
Desired Effects: Freeze grenades are non-lethal weapons that stick people in place. They might do this with ice, glue, electricity, or sound, but the result is the same: Everyone caught within a 10-metre blast radius is immobilized until the end of the scene. Freeze grenades follow the grenade rules on page 102 of the main rulebook but do no damage and stick people in place on a successful hit. The GM decides if characters caught in blast can communicate or even remember being hit. Freeze grenades can also be set up as mines or traps.
Critical Failure: Overkill. The freeze grenade is a little overpowered. It has a 50-metre blast radius and is so powerful it inflicts Lead +2 damage to everyone caught in the blast in addition to freezing them in place.

Universal Translator

Type: Crazy
Resources: Workbench
Base Difficulty: 13 (reusable +3, needs volunteers +1, lacking scientific basis +3)
Maintenance: 10
Research Time: 1 session
Desired Effects: This handy little device translates speech in real time. Anyone within range hears any words spoken in any language as if they were spoken in their own native tongue. As a handy bonus, when people speak, their lips seem to match up with the translated language instead the original. How this all works is a bit confusing; thus mad scientists try not to think about it too much.
Critical Failure: Worst possible translation. The translator still works but words are always twisted into the most offensive, insulting variation possible while still getting the message across. If used at official functions, the translator will cause diplomatic incidents and even spark small wars.

Aircraft Mounted Energy Weapons

Type: Crazy
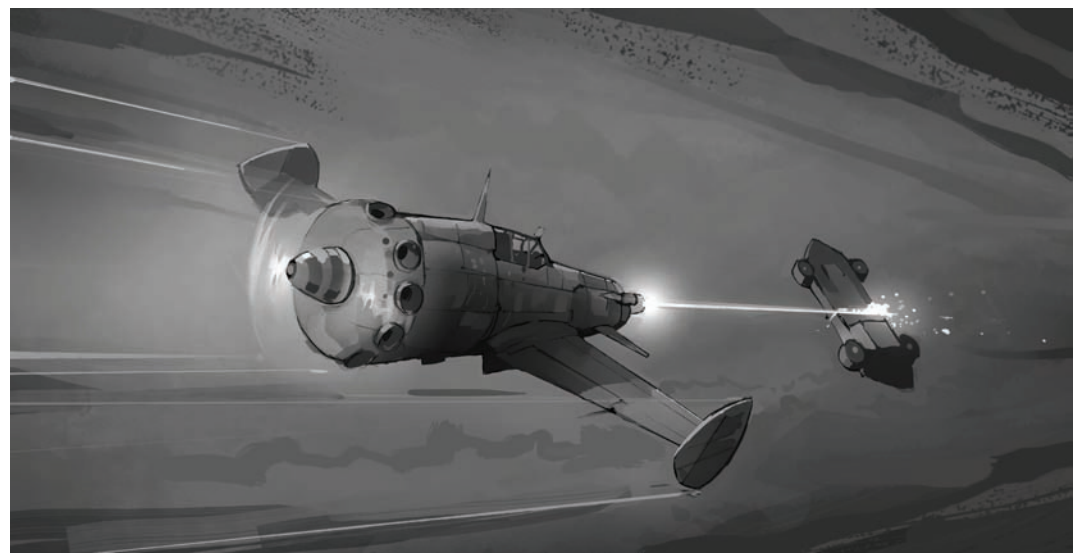**Resources:** Workshop (+1 difficulty)
Base Difficulty: 15 (reusable +3, requires exotic materials +2, lacking scientific basis +3)
Maintenance: 12
Research Time: 2 sessions
Desired Effects: This is a laser cannon/particle accelerator/hyper-velocity railgun attached to a warbird's hardpoint. It is effective against both fighters and hard targets. The weapon is Accuracy +2, inflicts Lead +5 damage, and is AP 5. It only carries 4 shots but not many targets can survive 4 shots from this monster. The weapon is automatically Incendiary or Armour-Piercing, and has the Advanced Bombsight trait built in.
Critical Failure: Explosion. The massive capacitors running the gun explode, destroying the warbird carrying it. The pilot automatically faces Certain Death and must spend all of their remaining Reserve to eject safely.

Sentinels

Type: Crazy
Resources: Workshop (+1 difficulty)
Base Difficulty: 15 (reusable +3, requires exotic materials +2, needs volunteers +1, lacking scientific basis +3)
Maintenance: 12
Research Time: 2 sessions
Desired Effects: An upgrade from a simple familiar, sentinels are a small group (1d6 +3) of goons/thugs that serve and protect the mad scientist. They might be robots, hyper-evolved animals (lizardmen, dogmen, et cetera – see uplift entry below), or just mind-controlled people. A sentinel's stats are Body +1, Mind -1, Spirit 0. They each have 7 skill points for the creator to allocate, with no more than 2 points in any one skill. Sentinels help the mad scientist with basic tasks or are equipped with weapons to fight on the mad scientist's behalf. They may also have one of the special abilities listed for familiars, but sentinels cannot be "clever."
Critical Failure: Betrayal. The sentinels turn on their master. Depending on how well they were treated, they might do anything from just destroying all of the master's possessions or even try to murder them.

Personal Forcefield

Type: Crazy
Resources: Workshop (+1 difficulty)
Base Difficulty: 16 (reusable +3, requires exotic materials +2, lacking scientific basis +4)
Maintenance: 13
Research Time: 2 sessions
Desired Effects: Every mad scientist needs protection, and nothing beats the classic forcefield. It is invisible, portable, and provides +8 Resist versus attacks. It is mainly effective against high-velocity attacks, such as gunshots and grenades. It is much less effective against low-velocity close-combat attacks and only provides +1 Resist.
Critical Failure: Personal acceleration field. Instead of slowing and stopping attacks, the field speeds them up as they approach. The character is -2 Defence and attacks are +2 damage.

Invisibility Cloak

Type: Crazy
Resources: Workshop (+1 difficulty)
Base Difficulty: 16 (reusable +3, requires exotic materials +2, lacking scientific basis +4)
Maintenance: 13
Research Time: 2 sessions
Desired Effects: Sometimes it's best not to be seen. This invisibility cloak allows a character to disappear from sight. The technology is scalable, so it can be applied to a character's clothes and gear or even be painted onto a fighter or airship. Invisible characters have +4 to Stealth rolls and +2 to Defence, while invisible planes are +4 to piloting rolls for ambushes and +2 to Dogfighting rolls and Defence. Invisible airships are +2 to Threat and Defence.
Critical Failure: Glowing brilliance. Instead of being invisible, the person or vehicle glows with a soft light that makes them very easy to track. They are -2 to Defence, and Stealth rolls and ambush attempts automatically fail. As an added effect, the glow makes characters night-blind, adding another -1 to actions taken in darkness. Anyone in the cloak or vehicle appears invisible to themselves, so they are unaware of the effect.

Jet Pack

Type: Crazy
Resources: Workshop (+1 difficulty)
Base Difficulty: 13 (reusable +3, requires exotic materials +2, lacking scientific basis +1)
Maintenance: 10
Research Time: 2 sessions
Desired Effects: It's a jet pack; how can this not be a good idea? It turns the wearer into a very fragile Performance 3 aircraft. Characters use the piloting skill to fly the pack, and can Break and Stunt just like a fighter would. It has enough fuel for one scene. The first successful attack against the character by a fighter or gun turret does not kill them, but the jet pack is hit and leaking fuel and they must attempt a crash landing.

Critical Failure: Into the blue. The jet pack goes to full power and launches the character to parts unknown. The GM decides where the character lands when the fuel runs out.

Big Damn Monster

Type: Crazy
Resources: Workshop (+1 difficulty)
Base Difficulty: 14 (reusable +3, requires exotic materials +2, lacking scientific basis +3)
Maintenance: 11
Research Time: 2 sessions
Desired Effects: In lieu of a bunch of sentinels, a mad scientist might build one big pet. As with sentinels, the creature can take any form, whether robotic, organic, or something else entirely. As a start, it has stats equal to a jaguar (see page 42).

From here, the scientist can add 1 point to any stat, as well as 3 more skill points, with a maximum skill level of 3. Instead of skills, the points can be spent 1 for 1 to increase the monster's Armour, Health, or damage. The monster might also be able fly, swim, or climb as is appropriate to its form. If the mad scientist has access to a laboratory, then they can add 2 points to any stat and 6 points for skills or other abilities. The monster will be loyal to the scientist and follow directions as well as it can, but it is only about as intelligent as a clever dog.

Critical Failure: Rampage. The creature gets loose and goes crazy. Inevitably, it will end up in a populated area and wreak havoc.

Uplift

Type: Crazy
Resources: Laboratory (+2 difficulty)
Base Difficulty: 13 (reusable +3, lacking scientific basis +2)
Maintenance: 10
Research Time: 3 sessions
Desired Effects: An uplift is an animal, robot, or thing that has been modified to be human in thought and action. How humanlike an uplift appears is up to the mad scientist, but uplifts cannot appear perfectly human. Stats of the uplift will be the same as a normal person but with a minor bonus and penalty based on

what creature they emerged or evolved from. For example, a cat uplift might have +1 to Stealth rolls but -1 to Academics rolls or any other skill that requires prolonged concentration. A robot uplift could have +1 or +2 Resist or even integrated weapons, but it would be -1 to all Persuade and Publicity rolls.

Critical Failure: New society. The uplifted creature(s) leaves the mad scientist and goes on to establish their own new thriving civilization that will eventually come to the attention of the rest of Azure. Their departure from the mad scientist's company may or may not be violent. It is also possible that this new society will consider the scientist to be the deity responsible for their creation.

Aircraft Forcefield

Type: Crazy
Resources: Laboratory (+2 difficulty)
Base Difficulty: 17 (reusable +3, requires exotic materials +2, lacking scientific basis +4)
Maintenance: 14
Research Time: 3 sessions
Desired Effects: This is the personal forcefield (see above) scaled up for aircraft and airships. It adds 6 Armour to fighters and 8 Armour to airships or couriers. These forcefields require enormous amounts of power to operate. Once activated, a fighter's forcefield only runs for 3 rounds of dogfighting or strafing before it runs out of power for the scene. The generators on larger aircraft can last for 5 rounds before they need to cool down for the rest of the scene.
Critical Failure: Aircraft acceleration field. Instead of slowing and stopping attacks, the field speeds them up as they approach. The aircraft is -2 Defence and attacks are +2 damage.

Tesla Coil

Type: Crazy
Resources: Laboratory (+2 difficulty)
Base Difficulty: 15 (reusable +3, requires exotic materials +2, lacking scientific basis +2)
Maintenance: 12
Research Time: 3 sessions
Desired Effects: An important fixture in any mad scientist's laboratory is the Tesla coil. This coil of steel hums with menace and crackles with electricity. Anyone who comes within 10 metres of the device is struck by lightning as per the rules on page 64 of the main rulebook.
Critical Failure: Summon storm. The coil sends a massive blast of lightning up into the sky while exploding in a shower of sparks. The lightning summons a thunderstorm (see page 148 of the main rulebook) that lasts for 1d6 days.

Permanent Enhancements

Type: Crazy
Resources: Laboratory (+2 difficulty)
Base Difficulty: 15 (requires exotic materials +2, needs volunteers +1, lacking scientific basis +4)
Maintenance: -
Research Time: 3 sessions
Desired Effects: This is a step beyond drugs or tonics. This is a permanent alteration to a character that makes

them more than human. The enhancement might be chemical, biological, or cybernetic, but it is permanent, obvious to any onlookers, and irreversible. Permanent enhancements might include:
• +1 to any stat
• +2 to any skill
• Night vision (as per night vision goggles)
• X-ray vision (as per X-ray glasses)
• Incredible speed (take 2 unpenalized actions per round)
• Toughness (+2 Health and Resist)
• Retractable claws (Lead +1 damage on a hit)
• Immortality (character does not age)
• Regeneration (character recovers 1 Health per round)

This is not a complete list of what permanent enhancements can do, and the final approval of any modification rests with the GM. The human body can only be enhanced 3 times, each enhancement conferring a boost to a different stat, skill, or ability. The fourth and any subsequent enhancement confers no bonus.

Critical Failure: Crippling disability. The enhancement backfires, turning bonuses into penalties. The immortal character ages rapidly, the regenerating character takes an extra point of damage from every attack, and the character with incredible speed acts only every other round.

Shortcut

Type: Crazy
Resources: Laboratory (+2 difficulty)
Base Difficulty: 17 (reusable +3, requires exotic materials +2, lacking scientific basis +4)
Maintenance: 14
Research Time: 3 sessions
Desired Effects: A shortcut is a dimensional gate between two locations. It requires hardware to be placed in both locations, but once the hardware is in place, there will be a door-sized portal to instantly travel across any distance. To scale the portal up to being large enough for a plane or airship to fly through requires a private island.
Critical Failure: Wrong exit. The shortcut leads to somewhere else of the GM's choosing -- it could even lead back to Earth, though it will probably lead to an alternate World War II version of Earth.

Huge Damn Monstrosity

Type: Crazy
Resources: Private island (+3 difficulty)
Base Difficulty: 17 (reusable +3, requires exotic materials +2, lacking scientific basis +3)
Maintenance: 14
Research Time: 4 sessions
Desired Effects: A step up from the big damn monster, the huge damn monstrosity is a pet so big that it exists on the vehicular scale instead of the personal scale. The PC and the GM will have to agree on the stats of such a large beast. See page 139 of the main rulebook for an example of an acid-spitting pterodactyl, or check out some of the larger monsters listed in the next chapter and use them as a starting point.
Critical Failure: Plague. The creature gets loose, gives birth/creates copies of itself, and becomes a new threat to all of Azure.

Personal Army

Type: Crazy
Resources: Private island (+3 difficulty)
Base Difficulty: 17 (reusable +3, requires exotic materials +2, needs volunteers +1, lacking scientific basis +2)
Maintenance: 14
Research Time: 4 sessions
Desired Effects: This is what happens when a mad scientist needs more than just a few sentinels. The members of the army have the same stats as sentinels, but there are a lot more of them. A personal army has 1d6 x100 +600 members who serve the mad scientist. They can acquire heavy equipment and even airships. They can employ the mad scientist's other creations and are loyal unto death.
Critical Failure: Rogue army. There is now a private army of heavily armed super-soldiers available for hire, and they will work for anyone who can pay.

Island Forge

Type: Crazy
Resources: Private island (+3 difficulty)
Base Difficulty: 18 (reusable +3, requires exotic materials +2, lacking scientific basis +4)
Maintenance: 15
Research Time: 4 sessions
Desired Effects: Tired of living on one Azure's already-crowded islands? Why not build your own? The island forge is a massive machine designed to created new floatstone and, ultimately, new islands. The island forge needs two things: power and raw materials. First off, the power requirement for the forge is unrivaled. Without atomic power, the forge will be difficult to make, though an enterprising mad scientist could draw power from Azure's turbulent weather. Once the power problem is solved, the forge still needs raw materials. The best bet is to siphon up the gasses and particles of the Murk and feed them directly into the forge. When operational, the forge can produce 100 square metres of new island every day. These bits are small enough to be towed by

airships and then linked up to eventually form expansive new islands.

Critical Failure: Murk storm. The siphon feeding the forge fails and a plume of Murk escapes into Azure's upper atmosphere. The storm will be diluted from the pure destructive power of the true Murk, but it will knock aircraft out of the sky and severely damage any island it hits. The Murk storm will take 1d6 +1 days to disperse.

Dominance Machine

Type: Crazy
Resources: Private island (+3 difficulty)
Base Difficulty: 19 (reusable +3, requires exotic materials +2, needs volunteers +1, lacking scientific basis +4)
Maintenance: 16
Research Time: 8 sessions -- dominance machines are so powerful that they take double the normal duration to create.
Desired Effects: This is the ultimate expression of the mad scientist. It is a grand machine, often an airship, that can exert massive power in some way. Some examples of dominance machines include:

• **Storm ship.** This airship can control the weather and summon lightning and storms on command. It can affect weather within a 200-kilometre radius and can devastate entire islands with hurricanes and snow storms. It has the stats of a battleship, but its guns fire lightning and tornadoes instead of shells (add 2 to the ship's Threat and weapon damage).

• **Mind control tower.** Mounted on a high tower, this machine sends out waves of mind control signals, giving the mad scientist complete control of everyone within a 200-kilometre radius. The mind control is not perfect; there is always a way to beat the machine with some sort of protective device. The mad scientist must decide the weakness when they build the machine.

• **Island ship.** Why have ordinary airships when you can mount massive engines on an island and use it to get around? An island ship is a kilometre-long mobile lair. Its many systems are buried under hundreds of metres of rock, making it immune to aerial bombardment. The island ship might also be a storm ship, have a mind control tower, and hold a personal army, though each has to be created and maintained separately. It can attack cities by dropping pieces of itself from high altitude -- treat this like a small nuke. Without nukes, the only way to stop an island ship is to land troops on it and storm its passages. The island's defences against such an attack are formidable, and clearing a landing zone would require destroying two battleship's worth of defensive turrets.

• **Island breaker.** This is the dreaded super-weapon that can destroy whole islands with a single strike. It can be mounted on a battleship for repeat firings, but single-use versions might fit in a sufficiently ominous looking briefcase.

Critical Failure: Dimensional gate. A critical failure of a dominance machine always causes a runaway power surge that tears the fabric of reality in the same way the great Storm brought the islands to Azure in the first place. This new tear, however, leads somewhere unpleasant. Unspeakable horrors will pour forth from gate, led by one of the dreaded Elder Gods.

Chapter 4 - Creature Feature

Azure is covered with animals, great and small. A list of a few of the more common and dangerous denizens of the islands are provided here as a baseline for how creatures operate in Rapidfire. After the basic animals, we switch gears and examine some of the more interesting mad science creatures to be found in Azure. These lists are not inclusive, and Azure contains many more creatures, both mundane and bizarre, than listed here. Before we begin, a few notes:

Scale

Unless it is listed otherwise, animals are on the same scale as people. That does not mean they cannot damage aircraft. See the entry on the Canada goose on page 42 for more details. If an animal is on the vehicular scale, it will have stats similar to a fighter or an airship, depending on its size.

Stats

Animals have a Body, Mind, and Spirit just like people, but their Mind stat represents cunning and instinct, not true intelligence. Animals with a high Spirit stat are loyal and may border on fearless. The Body stat is a comparison of their physical abilities compared to humans. While size is a factor, it represents the overall prowess of the animal.

Skills

The skills listed are most relevant. Most skills are level 2, while a few might be level 3. None but the most specialized animals have level 4 in a skill.

Combat

Animals act just like characters in combat with the same stats, but their bonuses represent physiological differences; e.g., weapon damage comes from claws and teeth, Defence bonuses come from small size, and Resist comes from tough hide or plates. There is one important difference between animals and humans: most animals will retreat when they start taking wounds.

Basic Creature List

Rat

Body -2, Mind +1, Spirit -2
Skills: Athletics 1, Awareness 2, Close Combat 1, Stealth 2
Combat: Defence 4 (+2 size bonus), Resist 0, Health 1 (0)
Initiative: 1d6 +3, **Attack:** 1d6 -1, Lead -2 damage for bite
Abilities: Rats can swarm. For every 20 rats in a pack, they can add +1 to attack, up to a maximum of +4.

Rats are everywhere in Azure; they can be found in every city, every sewer, and onboard every airship. While harmless when alone, a swarm of hungry rats can be very dangerous. An infestation of rats can chew their way

through an airship's food stores and even short out critical electrical systems.

A mad scientist could breed a species of super-rat with a Body and Spirit of -1 (adjusting all other stats as appropriate) and Close Combat 2, and swarms of these creatures could tear a man apart.

Venomous Snake

Body -2, Mind 0, Spirit -2
Skills: Athletics 1, Awareness 2, Close Combat 2, Stealth 2
Combat: Defence 4 (+2 size bonus), Resist 0, Health 1 (0)
Initiative: 1d6 +2, **Attack:** 1d6 +0, Lead -1 damage for bite, plus poison
Abilities: The snake injects lethal poison on a successful hit. The poison is difficulty 8 and follows the rules on page 64 of the main rulebook, but characters who receive anti-venom shortly after being bitten lower the difficulty to 4.

There are over 100 different snake species in Azure, including a dozen that are venomous. The deadliest are perhaps the coral snakes and cottonmouths. They all have stats similar to what is listed above, and while snakes are generally not aggressive, they will attack if threatened. Most Azure hospitals have anti-venoms available to deal with snake bites, but an untreated bite can be lethal.

Shade Birds

Body -3, Mind 0, Spirit 0
Skills: Athletics 3, Awareness 2, Close Combat 1
Combat: Defence 6 (+2 size bonus, +1 agility bonus), Resist 0, Health 1 (0)
Initiative: 1d6 +2, **Attack:** 1d6 -2, Lead +0 damage for beak
Abilities: Shade birds can flock. For every 20 birds in the flock, they can add +1 to attack, up to a maximum of +4.

There are over twenty species of bird that live in the nooks and crannies underneath the islands of Azure. They all have stats similar to those listed above. Many of the birds never leave the shade that their island provides, and are incapable of landing properly on ground that is right-side up.

There are also several different species of shade hawks that prey on the smaller shade birds, and they would not shy from attacking an explorer traversing the underside of an island. Shade hawks attack with 1d6 +1 and their talons do Lead +1 damage, but they cannot flock.

Dog

Body +1, Mind +1, Spirit +1
Skills: Athletics 2, Awareness 2, Close Combat 2, Stealth 1
Combat: Defence 6, Resist 1, Health 3 (0 -1 -1)
Initiative: 1d6 +3, **Attack:** 1d6 +3, Lead +0 damage for bite
Abilities: A dog can charge 20 metres in a round and will pin an opponent with a Lead of 3 or more on a charge attack (opposed Body rolls to break free).

Dogs are a common pet and working animal in all of the nations. The above stats represent a large Lab-style breed. Adjust the Body stat down for smaller dogs, and give extra skills to tracking dogs.

Stray dogs are frequent subjects of biological experiments, and most do not survive the research

process. Dogs can be used to make uplifts or turned into big damn monsters (see page 35).

Horse

Body +2, Mind 0, Spirit +1
Skills: Athletics 2, Awareness 2, Dodge 2, Unarmed Combat 2
Combat: Defence 6, Resist 2, Health 6 (0 -1 -1 -2 -2 -3)
Initiative: 1d6 +2, **Attack:** 1d6 +4, Lead +1 damage for bite, Lead +2 damage for kick
Abilities: A horse can charge 20 metres in a round.

Horses are used when exploring errant islands or moving through the more remote parts of the central isles. They are especially common in Tegesta and Yucatan.

A mad scientist might be tempted to turn a horse into a mythical pegasus, but the horse's heavy frame is not ideal for flying. If crazy mad science is in your game, a determined mad scientist could create a pegasus, but it would end up having stats and utility inferior to the soarer (see page 46).

Panther/Jaguar

Body +2 (+3), Mind +1, Spirit +1
Skills: Athletics 2, Awareness 2, Close Combat 2, Stealth 2
Combat: Defence 7 (8), Resist 2, Health 6 (7) (0 -1 -1 -2 -2 -3)
Initiative: 1d6 +3, **Attack:** 1d6 +4, Lead +1 damage for bite, Lead +2 for claws
Abilities: A panther or jaguar can charge 20 metres in a round and will pin an opponent with a Lead of 3 or more on a charge attack (opposed Body rolls to break free). Once pinned, a target will take 1 point of suffocation damage per round that ignores Resist, unless the target has a heavy flak vest, in which case the cat will rake with its claws.

Panthers prowl Tegesta, while the larger jaguars are found in Yucatan. (Jaguars use the numbers in brackets.) Jaguars are Azure's apex predators and are important in the Mayan religion. There was a small population of panthers on the Guild Keys, but they died out not long after the Storm.

Panthers and jaguars are prime candidates for making big damn monsters (see page 35), though they could also be used to make powerful uplifts (see page 35).

Canada Goose

Body -1, Mind -1, Spirit 0
Skills: Athletics 2, Awareness 2, Close Combat 1
Combat: Defence 5 (+1 size bonus), Resist 0, Health 1 (0)
Initiative: 1d6 +1, **Attack:** 1d6 +0, Lead -1 damage for beak
Abilities: Geese can severely damage high-speed aircraft. When a pilot critically fails a piloting roll and hits a flock of geese, roll 1d6:

1-4. Dents and Guts – The fighter is undamaged but is bloody and dented.
5. Crunch! – The birds hit something important. The plane takes 2 damage, ignore Armour.
6. Canopy hit – The birds smash through the fighter's canopy causing 2 damage to the pilot, Resist as normal.

The shattered canopy causes -1 to all pilot actions until the fighter is repaired.

Tegesta is responsible for being the origin of one of Azure's biggest aviation hazards. The Canada goose is one of the many species of bird that has flourished in Azure. They migrate between all of the central islands and even travel to distant and errant isles. While they are hunted for food and sport, hunters have barely put a dent in their massive population. The danger from Canada geese comes from their ubiquity and their size. The Canada goose weighs in at over six kilograms, or 14 pounds, and can absolutely shred a plane that hits it doing 500 kph. Most pilots, if asked, would rather have their plane be hit by a 20mm cannon round than by a Canada goose. Pilot slang for the dreaded creatures includes terms like "sky rats" and "prop manglers."

Any mad scientist who could come up with a reliable way to reduce the population of these flying pests would be set for life. The Guild has an unclaimed bounty for anyone who can successfully control the goose population that includes a pension equal to having Fame 4.

Deer

Body +2, Mind 0, Spirit -1
Skills: Athletics 2, Awareness 2, Close Combat 1(2)
Combat: Defence 7, Resist 0, Health 4 (0 -1 -1 -2)
Initiative: 1d6 +2, **Attack:** 1d6 +2, Lead +0 damage for hooves; 1d6 +3, Lead +1 damage for antlers
Abilities: A deer can charge 20 metres in a round and jump 3 metres up at a run.

Deer are common in the Lowlands. Skittish and quick, they are a challenge to hunt. Larger bucks use the stats in brackets. Deer are unknown outside the Lowlands, except for the tiny species of Key deer found in the Guild Keys. The dog-sized deer (Body -1) are protected in the Keys, and the Guild has established populations of Key deer on all of the largest islands in the chain.

Alligator/Crocodile

Body +3, Mind -2, Spirit +2
Skills: Awareness 1, Close Combat 2, Stealth 2
Combat: Defence 6 (-2 size penalty), Resist 5, Health 8, DR 2 (0 0 0 -1 -1 -2 -2 -3)
Initiative: 1d6 -1, **Attack:** 1d6 +5, Lead +3 damage for bite
Abilities: Alligators and crocodiles prefer to ambush prey. If they bite with a Lead of 2 or more, they initiate a grapple. They then pull their prey into the water to drown it. Each round spend grappling, the prey must roll opposed Body to break the grapple and then roll to avoid drowning. Follow the drowning rules listed on page 64 of the main rulebook, but the violence of the attack forces a roll every round instead of every two minutes.

The largest predators to survive the Storm, alligators and crocodiles are dangerous ambush predators. In Tegesta, there is a saying that "every hole is a gator hole," and the creatures run rampant all over the island. Someone made the mistake of bringing a few to Yucatan, and they are now spreading over that island as well. Azure's even more aggressive crocodiles are only found in a few lakes and rivers in the Midlands, with the largest population in Haiti. They have gone extinct on the other islands in the region, as the Lowlands have proven too cold in the winter for the creatures to thrive. The above stats are for a large alligator or crocodile. Very large animals can have a Body stat as high as +5.

Mad Science Creatures

When mad science is incorporated into a game, it creates opportunities for all sorts of strange and amazing creatures. Such creatures might be the results of science experiments, or they might be natural inhabitants of Azure that pre-date the Storm. Smaller creatures operate just like the animals listed above, while larger creatures exist on the vehicular scale and have stats like a fighter. The largest of Azure's creatures are treated like airships and have Threat stats and even sub-systems.

Lizard People

Body +1, Mind -1, Spirit 0
Skills: Athletics 2, Awareness 2, Close Combat 2
Combat: Defence 5, Resist 3, Health 4 (0 -1 -1 -2)
Initiative: 1d6 +2, **Attack:** 1d6 +2, Lead +2 damage for spear
Abilities: Lizard people are amphibious and function as well in water as out of it. They also have semi-prehensile tails that give them +1 to rolls to grapple. They do not function well in the cold and suffer a -1 to all actions when the temperature approaches the freezing level. When the temperature drops below freezing, they slip into hibernation and cannot be roused unless they are warmed up.

Lizard people are a kind of uplift (see page 35). They are strong and fast but are not quite as clever as the average person. They might be serving a mad scientist, in which case they can have the shooting skill and guns, or they might live on an errant island in a pre-industrial society.

Bird People

Body -1, Mind 0, Spirit 0
Skills: Athletics 4, Awareness 2, Close Combat 1, Stealth 2
Combat: Defence 6, Resist 0, Health 3 (0 -1 -1)
Initiative: 1d6 +2, **Attack:** 1d6 +1, Lead +1 damage for javelins and dropped weapons
Abilities: Bird people can fly as if they are Performance 2 aircraft but need to dive in order to achieve high speed.

Bird people are either a kind of uplift (see page 35) or an evolutionary adaptation resulting from Azure's environment. They are very thin, with hollow bones and sinewy muscles, and have large eyes, beaks, and feathers. Their arms and hands form their wings and they use their agile feet to use tools. They have excellent vision and make good scouts for their mad scientist masters, as from a distance they just look like nothing more than large birds.

Mole People

Body 0, Mind -1, Spirit +1
Skills: Athletics 2, Awareness 1, Mechanics 2, Close Combat 1
Combat: Defence 5, Resist 3 (tough hide), Health 4 (0 -1 -1 -2)
Initiative: 1d6 +1, **Attack:** 1d6 +1, Lead +2 damage for mining gear
Abilities: Mole people are immune to claustrophobia and can live underground indefinitely. The have poor

eyesight and light sensitivity and are -1 to all actions in broad daylight.

Mole people are a kind of uplift (see page 35). Legends of mole people tunnelling though the guts of Azure's islands are common up on the surface. Few people realize the legends are true, and mad scientists have been employing mole people to build secret underground lairs for years.

      Mole people are short, furry, and tough. They are capable labourers and engineers. While they work for their mad scientist creators, they have a strong sense of solidarity and will go on strike if they think they are receiving unfair treatment.

Robot Warriors

Body +2, Mind 0, Spirit -2
Skills: Athletics 2, Awareness 1, Close Combat 2, Shooting 2
Combat: Defence 7, Resist 2, Health 3 (0 -1 -1)
Initiative: 1d6 +1, **Attack:** 1d6 +4, Lead +3 damage for integrated weapons
Abilities: Robot warriors are fearless, and have integrated guns. Their mechanical brains need time to process information, so they can only act every other round. They also have poor balance and cannot traverse uneven or unstable surfaces.

Robot warriors are a kind of sentinel (see page 34), and mad scientists making robots can use the stats above instead of choosing stats as laid out in the sentinel description. These robots are humanoid in shape but run on clockwork, hydraulics, electricity, or gasoline. They need periodic refuelling; if a robot warrior rolls what would be a critical failure, it shuts down due to being out of power.

      A variation of the robot warrior is the robot pilot. A robot pilot has the same stats as the warrior, but has each of the four aircraft skills at level 2 or more. Robot pilots, unlike warriors, can act every round. They never use escape defence or attempt to disengage during a dogfight.

Gargoyle

Body +3, Mind +1, Spirit +1
Skills: Athletics 3, Awareness 3, Close Combat 3, Stealth 2
Combat: Defence 9, Resist 5, Health 7, DR 2 (0 0 0 -1 -1 -2 -2)
Initiative: 1d6 +4, **Attack:** 1d6 +6, Lead +2 damage claws
Abilities: A gargoyle can fly as if it had Performance 2. If it wins a grapple roll, it can go airborne the following round carrying up to 200 kilograms, or 440 pounds. It will carry its prey up as high as possible and then drop it.

A gargoyle is a big damn monster (see page 35). It appears to be a stone statue of a three-metre tall winged demon, but it can move, fight, and fly. It might or might not be intelligent, but either way, it is smart enough to understand a mad scientist's instructions.

If Catholic Mysticism is in your game, a gargoyle can be a divine creature instead of a scientist's creation. In this instance, the gargoyle appears to be part of a church's masonry until it is called upon to defend the faithful by a devout priest.

Clockwork Monster

Body +4, Mind -1, Spirit +2
Skills: Athletics 1, Awareness 2, Close Combat 3, Shooting 3, Stealth 1
Combat: Defence 8, Resist 6, Health 9, DR 3 (0 0 0 0 -1 -1 -2 -2 -3)
Initiative: 1d6 +1, **Attack:** 1d6 +7, Lead +2 damage for saws and spikes, Lead +4 for integrated guns
Abilities: The clockwork monster is constantly repairing and reconfiguring itself. It can repair 1 point of damage at the end of every round. It is slow to make calculations, so it can only attack every other round.

A clockwork monster is a big damn monster (see page 35). Made up of gears, pulleys, axles, and metal plates, the hulking machine can pretend to be a pile of junk until the moment it chooses to attack. It lacks a will of its own and will do as directed by its creator.

Soarer

SA 0
Dogfighting 2, **Strafing** 2, **Ordinance** 1
Performance 2, **Armour** 1
Defence - Break 4, Shoot 2, Escape 6
Structure 3 (0 -1 -1)
Attack 1d6 +1, Lead +1 damage for claws. The creature must successfully hold for a round to close in and take a

swipe at an aircraft with its claws. If it strafes a Performance 1 target, it always cuts it close.

Soarers are enormous birds. Discovered less than a decade ago on a passing errant island, soarers are now being bred in captivity for one simple reason: They are large enough to ride. They are too fragile for modern air combat, but there is a certain subset of Azure's population who would jump at the chance to fly on the back of a giant bird. If the breeding program is successful, soarers will soon be used for racing, leisure, and perhaps even local courier duty. They are much lighter than fighters, faster than airships, and they can easily manoeuvre through cities and land on rooftops.

Sky Whale

SA 0
Dogfighting 1, **Strafing** 2, **Ordinance** 1
Performance 2, **Armour** 4
Defence - Break 3, Shoot 1, Escape 5
Structure 8 (0 0 -1 -1 -2 -2 -3 -3)
Attack 1d6 +1, Lead +2 damage for tail slap, AP 2. The creature must successfully hold for a round to close in and take a swipe at an aircraft with its tail. If it strafes a Performance 1 target, it always cuts it close.

Sky whales are massive graceful creatures sometimes seen out among the errant isles. They look like oversized humpback whales, but their pectoral fins have developed into large powerful wings. These wings are not large enough to allow a sky whale to fly, and it is believed the creatures eat floatstone to keep themselves aloft. Several attempts have been made to hunt sky whales, but they flee when aircraft approach and immediately dive into the Murk. They can remain in the Murk indefinitely.

Sky Shark

SA +1
Dogfighting 2, **Strafing** 2, **Ordinance** (Bite) 2
Performance 3, **Armour** 2
Defence - Break 6, Shoot 4, Escape 8, Stunt 1d6 +3
Structure 5 (0 0 -1 -1 -2)
Attack 1d6 +3, Lead +3 damage for bite, AP 3. The creature must successfully hold for a round to use its bite, but once it gets a grip, it does not let go. After the creature attacks, the target's Defence drops to 1 for all subsequent attacks. It requires a difficulty 10 Dogfighting roll to shake the creature off.

Smaller and faster than sky whales, sky sharks are as fast and manoeuvrable as any warbird. The sharks hunt in packs and multiple sharks will gang up on a single sky whale or unlucky fighter. The creatures are so aggressive that they will even attack warships. Like sky whales, sky sharks can dive into the Murk. Unlike the whales, their hides are not tough enough to stay in the Murk indefinitely; they can only withstand the Murk for 1d6 rounds before they have to come up out of it.

Sky Serpent

Armour: 8
Performance: 1
Structure: 12 (0 0 0 0 0 0 -1 -1 -2 -2 -3 -3)
Defence: 5
Threat: 12

Sub-systems (roll for random target locations)
1-3. Main Structure
4. Tail - Defence 7, Armour 6, Structure 6 (0 0 0 -1 -1 -2)
Special: The tail is covered in two-metre-long spines that it launches like supersonic spears. The spines attack with 1d6 +1, AP 3, and do Lead +4 damage. The tail can attack twice per round during the approach and make a single retaliatory attack after a strafing run.
5. Wings (4) - Defence 7, Armour 4, Structure 4 (0 0 0 0)
Special: The wings give the creature its impressive Defence stat. Destroying two wings will decrease its Defence and Threat by 1. Destroying all four will decrease Defence and Threat by 3, and the creature can no longer chase down airships (see below).
6. Mouth - Defence 7, Armour 6, Structure 6 (0 0 0 -1 -1 -2)
Special: Although mainly a threat to airships, if a pilot critically fails their Strafing roll, they come within reach of the monster's massive mouth. It attacks with 1d6 +3, AP 5, and does Lead +6 damage.

Sky serpents are the dragons of Azure. They are hundreds of metres long, with two sets of enormous wings, a tail covered in deadly spines, and a mouth large enough to swallow a fighter whole. While they generally avoid people, they are very territorial and will attack with incredible fury when threatened. While they are

Performance 1, they can outrun any airship. If a sky serpent decides to attack an airship, the GM sets a number of rounds until it catches up. Once it does, it will wrap itself around the airship and attack with its mouth every round with a +2 bonus to attack. Roll random hit location as normal. Once the airship is crippled, the monster will drag the ship down into the Murk.

Living Island

Armour: 20+
Performance: 1
Structure: 20+
Defence 1
Threat: Varies. Inhabitants can set up fixed defences. A section of a living island can be reinforced to battleship levels of toughness and armament such that any attacker who wants to land will have to blast a hole through any defensive works.

The largest living things in Azure are the size of whole islands. Often taking the form of enormous turtles, manta rays, whales, or less mundane creatures, living islands are so large they have a layer of topsoil with flora and fauna growing on them. They can be several kilometres across, and the largest can support small settlements of humans.

These living islands swim serenely through Azure's skies, with no apparent goals or desires. They seem indifferent to the colonies of things living on them, though if someone were to drill down far enough to bother one of these creatures, it would most likely respond by simply flipping over on its back for a few weeks.

Living islands are not aggressive and do not engage in combat; however, a mad scientist could perhaps turn one into some kind of dominance machine (see page 39). The creatures are too large to be harmed with conventional weapons, and even a full battleship broadside would bounce off their hide. Nothing short of a nuke can even wound the creatures, and it would take a point-blank nuclear detonation on a creature's head to kill it.

Chapter 5 - Fleet Warfare

Most battles in *Warbirds* happen at the skirmish level with less than a dozen fighters and perhaps an airship or two. Every so often, however, the fleets gather and the air is filled with the thunder of all-out war. Fleet of dozens of airships and hundreds of fighters take to the skies in massive battles that can last for hours.

Such engagements in Rapidfire are fast, furious, and settled in a dramatic and non-strategic way. The average player requires almost no knowledge of tactics, strategy, logistics, or combat to have a good time. Instead of worrying about the minutiae of ship formation, aircraft composition, experience, training, and weapons, Rapidfire takes a generalist view and splits a force up into five traits with values that range from 0 (worst) to 4 (best). They are:

1. Troop Quality

A group of recruits is much less effective than a unit of veteran Guild pilots. Troop quality is a measure of a unit's training, experience, equipment, and teamwork. Approximate values are:

0 – inexperienced, untrained, and poorly equipped (mobs of civilians taking over airships)
1 – Basic training, some experience, and basic equipment (drafted naval crews and rookie pilots)
2 – Well trained, well equipped, and experienced (regular military forces, non-Guild mercenary pilots, pirates)
3 – Veteran troops with specialty gear (ace pilots, crack crews, or Guild rookies)
4 – The best of the best, elite troops without peer (veteran Guild fliers with Elite Ace traits)

2. Relative Size

Do not worry too much about the precise number of ships and fighters on each side and how many die in a given engagement; just worry about relative numbers. The smaller fleet always has a size value of 1. If the larger fleet outnumbers the smaller by two-to-one, then its value is 2. If it has a three-to-one advantage, the value is 3; and a four-to-one advantage or more is a value of 4.

When comparing fleet size, a drop-carrier and its fighters should be considered about equal to an armoured cruiser, while a fleet carrier is about equal to a battleship. If you want to get down to the details, it takes two frigates to equal a cruiser or drop-carrier and three cruisers or drop-carriers to equal a battleship or fleet carrier.

3. Tactical Advantages

A tactical advantage is a bonus for a fleet that has turned the odds in its favour in some way. Tactical advantages can be possessed by both sides simultaneously; advantages on one side do not cancel out those of another. The nature of such advantages will require some thinking by the GM. While a fleet might have several tactical advantages working for it at once, the total value can never be greater than 4. Some examples include:

+1 – Attacking from a higher altitude.
+1 – Attacking from out of the sun.
+1 - Technology advantage; this applies if the other side is using obsolescent ships or fighters.
+2 – Guild pilot advantage; this applies if only one side has Guild pilots.
+2 – Mad science advantage; this applies if only one side has mad science weapons.
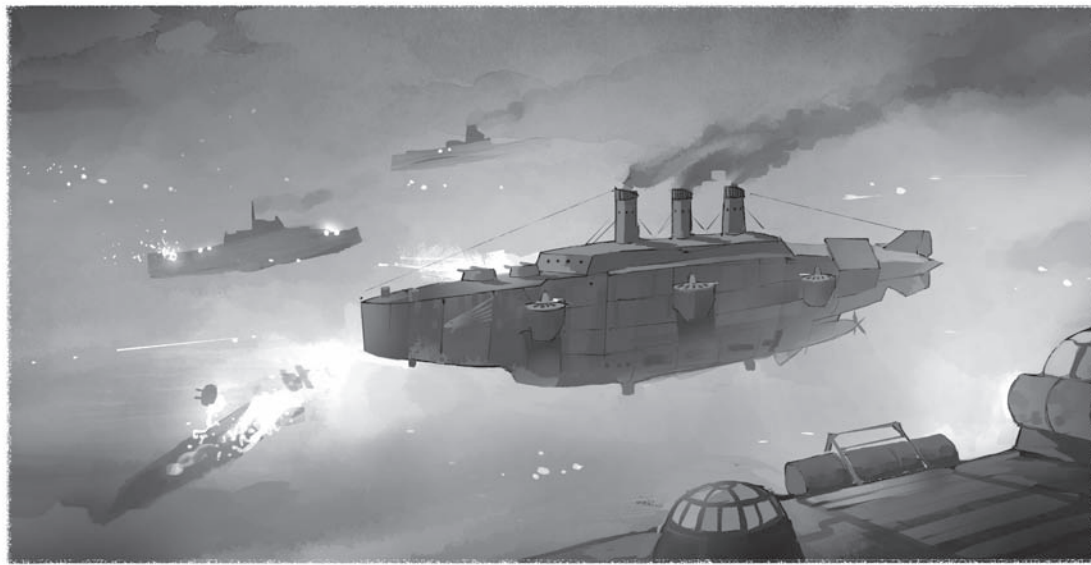
4. Morale and Fatigue

Keeping up fleet morale is one of the keys to victory. When the crews are unmotivated, they take longer to reload ships' guns and turn fighters, and pilots are more likely to run from dogfights and balk on strafing runs.

0 – The crews don't want to be there, or they are exhausted and starving.

1 – Morale is low. This can be due to things like recent casualties, corrupt command, bad food, or bad weather.

2 – Average morale. The crews are ready.

3 – Eager. They might be riding high from a recent success, have good commanders, or just a strong belief in their cause.

4 – Fearless. The crews are willing to fight to the last man.

5. Leadership and Strategy

Admirals have to inspire their crews and protect their ships, make the hard decisions about sending people to die, and then react to the chaos of the air battle. Admirals have to protect their flanks, exploit the enemy's mistakes, and know when to commit to a long shot or commit the reserves.

This is the only trait of a fleet that is rolled. The opposing commanders make an opposed Command roll. The winner may add the Lead of the roll (up to a maximum of +4) to his fleet's Battle Value for the engagement.

Battle Value and Engagements

After figuring out the above traits, add them together to get the opposing fleets' Battle Values. Battle Values range from 1 to 20. Once you know the troops' Battle Values, you can have an engagement, which is when the fleets meet to do battle. The winner of the engagement is the fleet with the higher Battle Value. The Lead of the higher Battle Value determines the degree of success. An engagement might take a few minutes or a few hours and might consist of multiple scenes. The details of an engagement are up to the GM.

Victory Conditions

Few air battles are decided in a single engagement. Air wings have to turn their fighters between sorties, and larger ships need to pull back for damage control. Air battles are made up of multiple engagements that last until one side achieves its victory conditions. The standard rule is that any fleet with a Lead of 6 or greater in a single engagement routes their enemy and drives them into retreat. If a fleet chooses to fight to the bitter end rather than retreat, then a Lead of 8 is needed to annihilate it. These victory conditions are not set in stone, and the GM can adjust them as is appropriate. As with Rounds to the Ground, the GM can set a maximum number of engagements permitted until such time that circumstances change and the battle is ended by other means. However, once the battle has begun, the GM and the players must be in agreement on the victory conditions, and they should not change for the battle's duration.

Example:

An example of alternate circumstances ending an air battle is the "corporate strife" plot hook listed on page 13. The Curious Voyager *is going to Kingston, and it will take 24 hours to get there. Two forces gather, one to protect it and one to destroy it. The GM then rules that there is time for three major engagements before the* Voyager *arrives. If it is not destroyed at end of those, it arrives in Kingston.*

Indecisive Engagements

Battles often have no clear victor. While one side may bloody the other, the fleets will regroup and fight again if victory conditions are not met. Wars can drag on and on if there is a strategic stalemate. The two things such indecisive engagements can affect are fleet strength and morale. The fleet with the higher Battle Value still wins an indecisive engagement even if the overall battle is not yet won. The losing side has at least one ship that is too damaged to return to the fight for every 2 points of Lead the victor has. Fleets lose their smallest, weakest ships first and their largest ships last. The winner's ships suffer some damage, but they can be jury-rigged back into working order before the next engagement. When a carrier is lost, assume its fighter complement is lost along with it.

The other big killer is morale. If one fleet gets a Lead of 4 or more in the engagement, the losers suffers -1 to their morale in the next engagement. This penalty does not carry forward past that next engagement, though.

Running a Fleet Battle

Incorporating a battle into a game can be a rewarding experience. The trick is to not get bogged down in the details. To avoid that, here are the steps to running a battle for your players.

1. The Setup

Figure out the setting, the reason(s) for the battle, and the makeup of the fleets involved. Calculate their Battle Values, minus the Command rolls, and keep the numbers hidden from the players. Give the players an outline of the situation and give them a general idea of the traits of their own forces, but don't divulge the details.

2. Player Action

This is where the magic of the system comes in. The player characters can personally affect the Battle Values of the fleets in significant ways with bravery, daring, sneakiness, or good tactical sense. Ask them each what role they want to play in the battle ahead and then roleplay it out. This could just take a few minutes or it could take all night. If the character succeeds in their plan, they earn 1 or 2 points for their fleet's Battle Value, the value being at the GM's discretion.

Some examples of character actions include:
• **Leading from the front.** The character makes a rousing speech (and make the players give the damn speech!) and leads the first sortie into the teeth of the enemy fleet. Give them some hectic dogfighting rounds against multiple enemies, or have them strafe a heavy ship without support, and if they survive or have a glorious death -- and give a good speech -- add 1 or 2 to the fleet's Battle Value.
• **Taking command.** This is only for players with the Command skill and a real understanding of how fleets fight. The character takes the role of the fleet's strategic commander and gets to make the opposed Command roll for the fleet. If they have a good strategy or come up with an unexpected manoeuvre, give them a bonus to the roll.
• **Covert operations.** Either alone or with a few cohorts, the character launches a surprise attack against a vulnerable area. They could destroy supply ships, strafe supporting airfields, or even infiltrate and sabotage enemy ships. Success adds 1 or 2 to the fleet's Battle Value.
• **"Strafing the flag."** The most dangerous ship to strafe is always the enemy flagship. Be it a fleet carrier or battleship, it will be protected by a shell of fighters and multiple gun emplacements. To "strafe the flag," characters have to fight through the escort (at least three rounds of Dogfighting before they can escape, and they might still have hangers-on), and then attack the enemy flagship, trying to damage the bridge. If they inflict even a minute amount of damage on the target, they add 1 to their fleet's Battle Value. If they destroy the bridge, they add 3 to their fleet's Battle Value and eliminate that fleet's admiral for the remainder of the battle. It is the GM's call if the admiral is just unconscious or outright dead.
• **Aerial duel.** Characters can call out enemy aces on the radio and fight it out one on one. Winning a duel in front of the fleet gives a bonus of 1 or 2 to the fleet's Battle Value, depending on the skill of the enemy ace defeated.
• **The impossible stunt.** Sometimes a pilot pulls off something so amazing or ridiculous it forces everyone to stop and stare in awe. An impossible stunt is a feat of flying so crazy that it is talked about for decades. Using their plane to physically push a crippled ally to safety, intentionally landing on an enemy carrier just to flip the ground crews the bird, or suicidally piloting their fighter into an enemy airship only to safely eject at last second are some examples of impossible stunts that, if successful, add 1 or 2 to their fleet's Battle Value.

3. Resolution

Calculate the new Battle Values of the fleets, compare the Lead of the winning fleet to the victory conditions, and tell the players the result. If it is a victory, great -- the characters can now determine their next course of action. If it is a defeat, be sure to roleplay a harrowing retreat. If the engagement is indecisive, tell the players why and have them get ready for the next engagement.