

# Postmortem: Muse Games' Guns of Icarus Alliance

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*Howard Tsao is the founder and team lead of Muse Games, an independent game studio located in New York City that exclusively uses Unity3D to develop across desktop, mobile, and console platforms. Our projects include Guns of Icarus, a bad publisher and hurricane survivor, a multiple award winner, and a cross-platform top-seller on Steam, as well as it's PvE successor Guns of Icarus Alliance. Lately, we're also raising a kungfu possessed hamster beating up vermin to rid a city high on pollen of crime. In addition to making games, Howard serves as an advisor at the NYU Game Center and helps lead an indie dev and Unity3D user group in NYC.*

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Putting out fires, facing dark emotionless directors, and conquering ambition. That's not only the description of *Guns of Icarus Alliance*, but the path we had to take to get this game out.

*Guns of Icarus Alliance* was not a project that a development team would ordinarily choose to pursue. It aimed to balance the creation of something new with the preservation and integration of something old. It was a dogmatic pursuit of an artistic and creative vision and the byproduct of persistence, and the fulfillment of a promise to players and community regardless of the cost in time and effort.

Some people said we were foolish dreamers. Some people said we took too much time, and others said we positioned or messaged it all wrong. The one thing nobody could say, though, was that we failed to deliver.

| "We made mistakes, accumulated new knowledge and experiences, and learned a lot."

While cooperative airship combat was something we had been dreaming about for years, *Guns of Icarus Alliance* was officially born from a Kickstarter campaign. We had already delivered the player-vs-player only *Guns of Icarus Online*, but we wanted to take our steampunk airship idea even further. We wanted to explore multiculturalism and cultural diversity across an entire steampunk-flavored world, craft unique and intense co-op experiences, create a worldview, and deliver more on diversity of combat experiences against variable and intelligent AI.

The vision and promise of that Kickstarter campaign ended up taking three long years to fulfill. In that span, we built complex AI flight, combat, and tactical models from scratch with no previous experience. We also built a dynamic AI director to ensure that match experiences are never quite the same and that AI enemies dynamically respond to player tactics and actions.

We created a faction warfare metagame that allowed us to dive pretty deeply into different cultural and aesthetics influences across the world from mid-1800s to the eve of the Great War. We created brand new gameplay experiences while figuring out how to support our loyal legacy community through Steam, which went pretty far outside the scope of Steam's backend and support.

Along the way we made mistakes, accumulated new knowledge and experiences, and learned a lot. Here are the key lessons we learned...



## WHAT WENT RIGHT

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### 1) Focus on teamwork and cooperation

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Yes, *Guns of Icarus* is a co-op game, so listing “cooperation” as something we did right might seem like a bit of a cheap shot. Yet, to actually transition from PvP (player-vs-player) to PvE (player-vs-environment) while maintaining the same level of teamwork for a vastly different playstyle was much harder than we expected.

From the very first word of our design, we knew we wanted a game that didn't just claim teamwork but embodied it in every aspect of gameplay. The pilot can't fly if the engines aren't repaired by the engineers, and the gunners can't shoot if the pilot hasn't positioned the airship correctly. We wanted our players to truly be a cohesive crew, sharing in the glory of every kill and win.

In *Guns of Icarus Online* PvP matches the focus is on smaller engagements, so the tactical teamwork and coordination happens across a maximum of eight ships, with two balanced side fielding two to four ships each.

*Guns of Icarus Alliance* PvE is very different. Apart from the fact that players are now battling against AI-controlled opponents, the balance is also vastly different. PvE engagements are typically asymmetrical to some degree: many weak craft against a few powerful ones, airborne craft against a heavily-fortified defender on the ground, and so on.

Our goal was to create a sense of epic scope – your plucky crew taking on an entire armada to achieve one of a wide variety of objectives – but at the same time we had to preserve that core experience of hyper-teamwork, where everyone is required to work together. We ended up spending a lot of time running countless sessions of player testing; big and small, closed and open.

"The co-op focus in *Guns of Icarus Alliance* gave us more freedom to create varying objectives."

The balance oscillated between a small number of tougher enemies vs a greater number of enemies coming from more directions. We iterated the design of the boss many times, trying to find a level of difficulty that would require coordination between multiple allied ships without being too powerful. Whenever the testers were wiped out, we had to ask ourselves if they had failed to work together adequately or if the challenge really was too high.

Another major change in PvE was tuning the difficulty to accommodate different levels of player mastery, requiring us to not only tune the various enemy combat parameters but the AI director as well. The enemy spawn rate and the trigger for the mission-ending crescendo event had to not only scale with difficulty but also with number of ships and player crew.

The co-op focus in *Guns of Icarus Alliance* gave us more freedom to create varying objectives, ranging from base defense to convoy pursuit and search-and-destroy. We also had more freedom to create and design more imaginative and wild weaponry, airships, and abilities. In addition to the stock machine guns and rockets, we now had light beams, Tesla coils, and cavitation weapons, and we added abilities that allow pilots to drift, engineers to deploy drones, and gunners to massively buff weapons. All these elements enabled us to craft a different teamwork experience that is more about achieving disparate objectives and giving crews the opportunity to be heroic during well-planned opportunities and openings.

Finally, we were able to support our more casual players by adding support for single ships, providing an entry point for those who aren't attracted to highly-competitive play.



## 2) Honesty and openness with our community

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Between weekly posts on development and three streams a week playing with the community and answering questions, we take great pride on being available for players. This effort has been richly rewarded, with players helping us at conventions, donating computers, helping out with a pretty grueling hardcore testing regime, and even writing 11,000 word dissertations of detailed feedback.

We know many of our best players on a first name basis, and quite a few of them have even dropped by our work space. We often spend so much time obsessing about what can be improved or what we did wrong that the simple joy of sitting down with a passionate gamer and hearing how they love the changes to the war system or their reasons one ship is the favorite help keep us sane.

Our openness and dedication also earned us forgiveness for mistakes. Every process would inevitably hit road bumps because we have different constituencies with varying perspectives, interests, and playstyles. Despite these mishaps, our players learned that we really were listening to them, so they would stay with us through server breakdowns and mistakes, trusting that we were working hard to resolve any issues. In fact, we have 1,500 examples of player feedback leading directly to fixes and features. We've never had a big player base, so being engaged with our community is that much more important. For an online-only game, player base is life. It makes sense to look after them.



### 3) Our exploration of multiculturalism

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If it isn't obvious, we love steampunk. It's an aesthetic that doesn't get the love it deserves, and when it gets explored (including *Guns of Icarus Online*) it rarely, if ever, ventures outside Victorian England.

With *Guns of Icarus Alliance* we had the opportunity to create an entire steampunk world, complete with starkly different factions. In order to realize that vision, we researched and sampled cultures around the world within the Victorian time period leading up to the Great War, and imagined what they might have evolved into in a post-apocalyptic world with steam technology.

From the northern wastes of the Anglean Republic to the desert nomads of the Arashi, we created cultural identities within the game by deeply referencing cultures and aesthetics around the world during that time period, and it's been an amazing learning experience for us as well.

Beyond aesthetics and attire, we wanted to imbue each the faction with their own value system, ethos, and set of beliefs. Players responded to this instantly: the Republic, for example, is the home of our Russian player base, as its power, style, and tech focus resonated with them. Getting to explore everything from a dynastic worldview to an industrial statesman merchant fleet injected our world with color, life, and substance that are missing from many other works in the steampunk genre.





## 4) Kickstarter community

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Beyond incremental funding, the value of Kickstarter for us lies in community building and getting the word out. It provides an early platform to put our hopes and dreams out there for prospective players to share, validate, refine, and give feedback.

We learned a lot during the Kickstarter campaign for *Guns of Icarus Alliance*, and incorporated a lot of the feedback that would be featured in the game. We put our early adopters through the wringer in terms of testing. They suffered through server breakdowns, maniacal incarnations of the AI director, planes that crashed into mountains, and horrible frame drops. They stuck with us through thick and thin, and for that we are incredibly grateful.



## 5) Legacy support

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*Guns of Icarus Online* is our over four years old and a PvP game, but despite its age it has had players in it 24/7 since its release. We wanted to reward this player loyalty by continuing to support this title while working on *Guns of Icarus Alliance* as a full new experience focused entirely on PvE.

This decision added a lot of work and complexity, and presented very unique challenges (unfortunately, I'll be getting to those in the "What went wrong?" part of this article). We had to ensure that the PvP arsenal and ships would all work with PvE objectives and maps and revamp the UI and match system to integrate everything,. All the while we had to ensure that social and communication systems worked not only between both versions, but also between players who owned *Guns of Icarus Alliance* and those who only had *Guns of Icarus Online*.

Working with the Steam API was incredibly difficult, for instance, as there were no precedents or earlier use cases that we could draw from. We ended up finding creative solutions to ensure that voice communications, Steam Achievements, player data, and game time could all be shared between two disparate games seamlessly. We decided to do this out of the dogged or even dogmatic commitment we'd made as a team to support our existing player base, no matter what the cost was. I definitely think that it was worth it to build a foundation for the *Guns of Icarus Alliance* player base, and it's especially important given our small indie community.



## WHAT WENT WRONG

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### 1) Kickstarter scope and communications

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Kickstarter was one of the first steps for us as we started our development journey for *Guns of Icarus Alliance*. With the lessons learned from that experience, I doubt I would launch another Kickstarter campaign at such an early stages of conception and design.

"The primary lessons: First, establish tight, clear communication of your project's scope and vision. Second, consider bootstrapping more in the earlier stages of development and try to run any Kickstarter campaign only after a solid design has been finalized."

Our intent with the Kickstarter was to convey our grand and ambitious vision, an ultimate pie-in-the-sky goal. We knew it was a risk: if we didn't get enough funding, and if *Guns of Icarus Online* sales declined, we would have a very hard time realizing our vision. To mitigate that risk we broke features up, tying different milestones to various funding tiers and goals. This would ensure that, at a minimum, we would deliver a solid co-op airship combat experience, even if it was missing some of our wishlist features.

The problem was expectations. While *Guns of Icarus Alliance* actually delivered more than was promised based on the achieved Kickstarter stretch goals, some people definitely felt we under delivered. The negative feelings springing from this confusion and belief they had been let down were carried forward into the development process and through to release. We tried our best to make peace with the people who were disappointed, offering refunds and extra rewards, and tried to be as diligent as possible in responding to their messages.

I think the primary lessons to take from this are twofold. First, establish tight, clear communication of your project's scope and vision. Second, consider bootstrapping more in the earlier stages of development and try to run any Kickstarter campaign only after a solid design has been finalized. Some backers form a very fixed idea of what they are backing and will refuse to allow any slack or flexibility during the development process for the developer to adjust the project.





## 2) Launch day crisis management tradition

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We released *Guns of Icarus Online* literally in the eye of Hurricane Sandy, and as much as we tried to avoid it, it seems like the entire series is fated to suffer through launch crises.

We released *Guns of Icarus Alliance* on Steam in a way that has never been done before (gulp...) allowing players in two games (*Guns of Icarus Online* and *Guns of Icarus Alliance*) to contact each other in-game and share data, communications, and achievements across two Steam App IDs.

This allowed us to support both the PvP and PvE experiences, look after the legacy community, and make sure we were keeping the community together and not splitting our player base.

Unfortunately, since nobody had ever been foolish enough to attempt this before, nobody else had gone through the same experience to map out the territory. This was exacerbated by the fact that there was only do so much testing we could do on our own pre-release, so we went live on launch day and plowed straight into unknown waters.

We ran into massive problems with Steam's backend configurations (with our new, previously untried communications system - go figure!) with the main issue being that Alliance appeared to have nobody playing. This caused a chain reaction: nobody was able to review the game for the first three days, which in turn led to it appearing to be completely dead on arrival with no one owning or playing it, and this then led to Steam not featuring it on the front page of the store despite it being a top seller.

We also did not do a good enough job explaining this to our players, which resulted in accusations of us trying to squeeze money out of players, so dismay and confusion were voluminous in our player base on launch day.

This was disappointing and painful for us, because the long hours we had spent trying to bridge the legacy product ended up being a source of confusion and negativity. We received criticism about packaging ("Why are you launch DLC as a separate game?") and pricing ("I'm been a loyal player for years, so why do I have to pay for new content?"). In our excitement about Alliance we simply failed to consider how all the things we thought were exciting new features and content might be interpreted differently by some of our players.

In an effort to smooth this over, I drafted an open letter to the community addressing all of the major criticisms, as well as replying personally to every complaint. These efforts helped to a degree, but there is still a lot of work to do. Moving forward we will need to demonstrate our continued support for the legacy game and its dedicated players, and generate cost-effective content to win these players back.

We were also forced to ban several well-known trolls for toxic behavior over the course of the last few years for hacking the steam client, leaving negative reviews without actually playing the game, and simply making things up in the Steam forums. With legitimate players and

voices largely absent at launch, that added to our pain. What was supposed to be a day of glory and celebration turned into a weekend of putting out fires and stressing out about missed opportunities. (What else is new?)

Thankfully, the strength of our community shone through and we were able to get quite a bit of organic traffic to overcome the headwind and salvage our launch. With everything taken into account, all in all the launch went pretty decently, but we definitely could have done better. Some of the problems were unavoidable, the result of unforeseen complications, but a lot of it was squarely on us in terms of presenting better messaging to existing players. This is something we definitely need to do a better job of now and in the future.



### 3) Getting the Word Out

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With *Guns of Icarus Alliance*, we felt that with PvE, co-op gameplay, and the huge amount of content we were prepping it was going to be something very new and original. Based on that, we decided very early in the development process that it would work best being released as a new game rather than an expansion. The scope, effort, and time we put into Alliance made it deserving of its own full release, and it was our job to convince players, press, and anyone who'd listen that this was a full and real experience.

This presented us with two distinct challenges. One was our communication on Kickstarter, where we clearly defined it as an expansion. The other was making this work on Steam while still supporting our legacy player base, as detailed above. We also wanted to reward our Kickstarter backers' early testing by offering a DLC with pre-order, which in itself was novel with Steam's back-end systems.

In the months leading up to release we explored different possibilities through Steam, ranging from relaunching the existing *Guns of Icarus Online* store page to creating a new store page

connected from the old. Each had advantages but also significant risks and drawbacks. Following Steam's recommendation about a month before release, we finally arrived at our current solution: release Alliance on its own store page with links from the old Online store page that tempt owners of the older game to visit the new page with a loyalty discount, and also putting the old game on sale.

This meandering route of new creations and adjustments to old assets created confusion in people who thought this was going to be a DLC. Quirks of the Steam system also meant that people who were entitled to a discount could only see it on the Alliance store page itself, which led to even more confusion.

Because Guns of Icarus is a continuing series, many people would read the title in the subject line or headline of an email or newsletter and make assumptions about what Alliance would be. Many assumed it was just a minor expansion, like a map pack, and even today we face a lot of headwind. Yet, it's also a great opportunity and a fresh challenge for us. With the new content that we're planning, we'll continue to have chances to re-engage with the players who owned *Guns of Icarus Online*. Each new content update will also present an opportunity to explore fresh ideas about how to reach out to players and the media.

As usual, we cherish every opportunity that comes our way, and we pour our heart and soul into every piece of writing, correspondence, or marketing material to share this game we're so proud of. Rough stretches, challenges, and mistakes keep us humble, creative, and open to explore and cherish new opportunities.



#### 4) The lack of language regionalization

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*Guns of Icarus Online* has a sizable international audience with concentrations of players in Japan and in Russia. Both of these surprised us initially with video casters we'd never heard of checking out the game and bringing in audiences we never targeted or anticipated. They became amazing supporters of our ideas and great members of the community. It was a huge and completely unexpected disappointment for us that we could not give them adequate language support.

With the scale and ambition of our project and the small size of our team, we failed to allocate adequate resources for localization, meaning that localization is now a near-impossibility within the existing game framework. It pains us to know that there are many players who had a difficult playing experience, and others who missed out on the game altogether, all because it only provides support for English-speaking players.

Any project we take on in future will have localization factored into the design at a very early stage, and we will make sure we have the resources to do it well.



## 5) The tutorial was never quite right

One last mechanical issue is the game's teaching systems. Running an airship is a complex experience, and every crew member needs to be doing their job well, because their mistakes aren't just frustrating for them but for the entire team. With that in mind, we built a complete tutorial system that can teach anyone how to be a valuable crew member.

That tutorial has never been perfect, though. It's gone through many iterations and tweaks, and even today we could go back and touch places where it's probably too heavy handed or could be made more engaging.



We love our game and stand by what we've made, but it is very hardcore and has a very steep learning curve, even with a supportive, cooperative team. Based on player feedback, we've gone back and improved the flow of the tutorial immensely. We sought feedback not only from players or would-be players, but also from our wives, boyfriends, and even a few siblings who have never gamed before, asking them to run through it and highlight any deficiencies.

The lesson, really, is that a tutorial system for a game this complicated is always going to be a massive design challenge, so give it the time and resources it needs.



## CONCLUSION

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We will never stop being dreamers, nor lose the ambition to try and push ourselves to create something new and different. Every mistake we have made became a lesson that was seared into our minds, and throughout the development and release of *Guns of Icarus Alliance*, we've made plenty of them.

Our goals now revolve around content releases that we've already prepped for, in addition to getting the word out to even more people. Coming up next is the impending release of two brand new factions, each equipped with all-new weapons and airships, alongside a shiny new game mode where players ambush unsuspecting AI targets. We're also working hard on taking *Guns of Icarus Alliance* to the PlayStation 4, which is exciting because it's our first experience with a console release. It's also one more commitment we get to fulfill after a long odyssey.

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