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CRIMSON SKIES™

NATIONAL AIR RACES

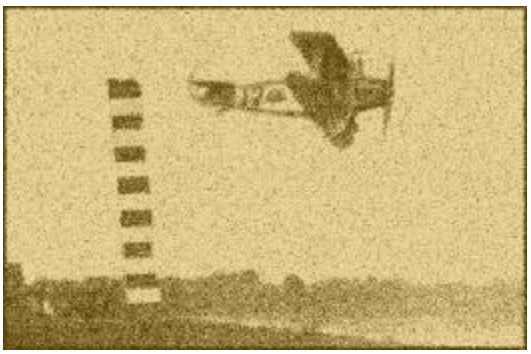
JASON TUDOR MEDIA

A CRIMSON SKIES SUPPLEMENT

NATIONAL AIR RACES

JASON TUDOR MEDIA

CONTENTS



Contents 2
Credits 3
Introduction 4
History 8

PILOTS

Lowell Bayles 13
Blaine Daring 16
Jackie Cochran 19
Horatio Hellstrae 21
Henry Red Eagle 23
Rains Racing Security 25

AIR RACE COURSES

Introduction 27
Zeppelin Run 27
Canyon Run 29
Open Skies 30
Bendix Long Distance 30

MANUFACTURERS & AIRCRAFT

Introduction 33
Hayman Aerospace 35
Hughes Racing 36
Dawson Airplanes 36
Osage Aviation Company 37
Bendix Aviation Company 37

OTHER ORGANIZATIONS

National Air Racing Group 39
National Air Racing Pilots Association 39
New Orleans Air Pirates 40
The Ninety-Nines 40

SPECTATOR'S GUIDE TO AIR RACING

Air Racing Rules 41
- General Rules - Aircraft 41
- General Rules - Races 41
- Movement 42
- Experience Points 42

Racing Devices 42
- Drogue Chutes 42
- Oil Sprayers 42
- Modified Harpoon Rockets 43
- Modified Aerial Mines 43

Collisions and "Rubbin'" 43
Placing Flak During Races 43
Tethered Aerostats 44
Pylons 44
Sky High Cafe 44
Tow Cable Use 44

RACING PLANES

RP-1 Dasher 47
RP-2 Stripe 49
RP-3 Streak 51
Hughes Hummingbird 53
Hughes Charger 55
Dawson Dagger 57
Osage Black Dog 2 59

Conceptualized and written
by Jason Tudor

Cover, inside cover and rear cover art
by Jason Tudor

Original Art on Pages 4, 9, 25, 26, 35, 35, 36, 37 (top left), and 39
by Jason Tudor

Photo and image manipulations
by Jason Tudor

Some manipulated images courtesy of the U.S. Air Force.

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The author wishes to acknowledge the following people in the making of this manual:

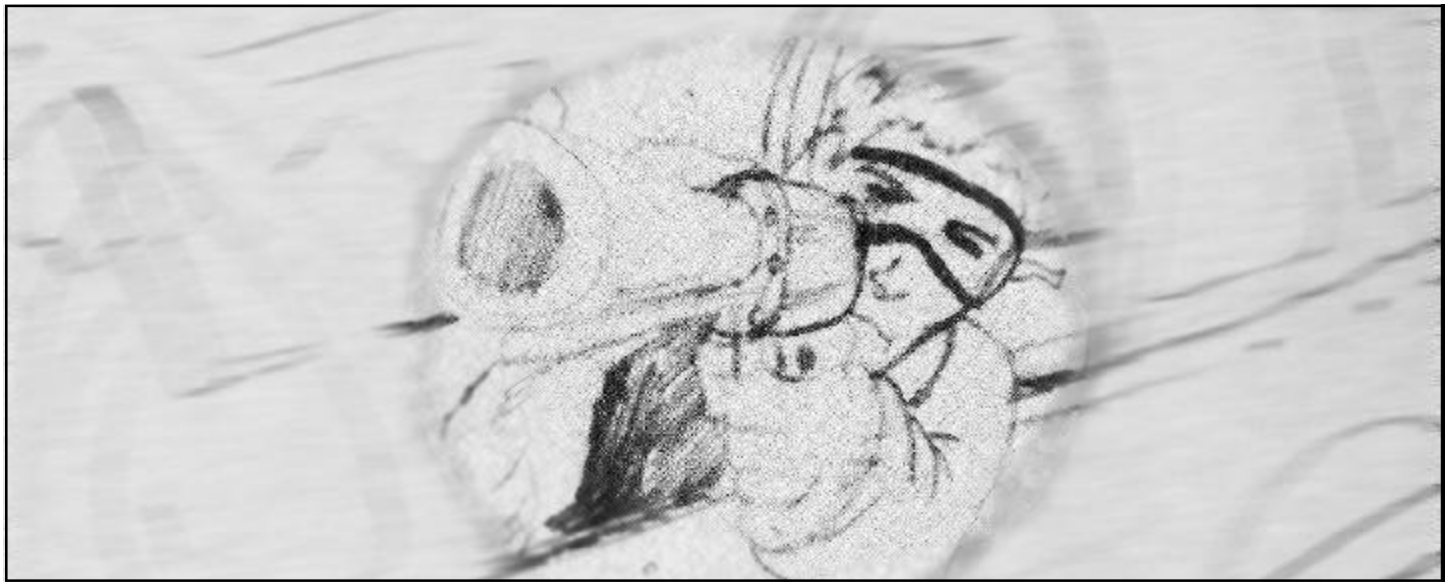
Daniel Rains	Brian Strye
Jeramie Brown	Blake Radetsky
Mark Kinkade	James Hayman Sr.
James Hayman Jr.	Shawn Prosser
Chip Aaron	Patrick Long
Eric Trautmann	Mark Kinkade
Mike Blanton	Scott Towers

The author also thanks the many CS board game players who supported the idea and have downloaded this manual.

Published by Jason Tudor Media
7454 Rimhurst Drive
San Antonio TX 78250

E-mail: webmaster@jasontudor.com. No list server subscriptions, please.
Visit our Web site at: **http://www.jasontudor.com**

INTRODUCTION



The Pasadena Incident

Blazing guns, high-wire flying set off crowds, carry Bayles to first

It was my father who introduced me to the spectacle. I was only 11 years old, but I remember the moment as though it was yesterday. There was the thunderous roar of the massive engines, the circus-like colors, the dashing heroes astride their speeding steeds, and the airplanes soaring by screaming to another thrilling finish.

Those were the National Air Races to me. In the days before the great schism of the United States, my father and I would travel from the California town of Stockton into Pasadena, then world famous for its aerodrome in 1929. The planes would gather from all around the country usually fresh from a race in Reno or Cleveland, at that time the biggest of them all.

Dad and I would always go the day before a race, when the planes were on display. They were all there. The Gee Bee racers, all polished and shining. The Curtiss P-1, looking agile and smooth, ready to leap and dance in the sky. And, oh those crowds.

Sometimes, the Pasadena air show would gather as many as 400,000 people from the surrounding towns. The people lined up to see the acrobatics and, the grand finale, the *Shell Speed Dash*, four times around the airfield.

It was during the 1929 show that I met Lowell Bayles. Confident, brash and gregarious, Bayles was a tall man with a smile as wide as the San Fernando Valley and a pencil-thin mustache. A former Navy war hero, Bayles wore a worn brown bomber jacket, its sheepskin collar yellowed from age and cigarette smoke. What caught me most was the skull-and-crossbones on the left sleeve, and the words "Jolly Rogers" stenciled on the back. He was a conversationalist, striking up talks with anyone who would walk by his race plane.

A slender machine with a fat, yellow nose and curves like a belly dancer, the Charming Charlesie was a racer's plane. Its silver body seemed to run down the entire tarmac, glass cockpit glinting noon sunlight and blue skies. The Pratt and Whitney Wasp engine gleamed, freshly cleaned and not a speck of oil on or near it, giving it the appearance of

a showroom appliance or a new toy at Christmas. It was in this plane that Bayles had broken the speed record at just over 367 mph on the Shell qualifying course. He'd flown from Ohio to Texas in record time on a bet with millionaire Howard Hughes. And to think he'd shot down a slew of fighters over Germany just years before.

A CAPTIVATING PRESENCE

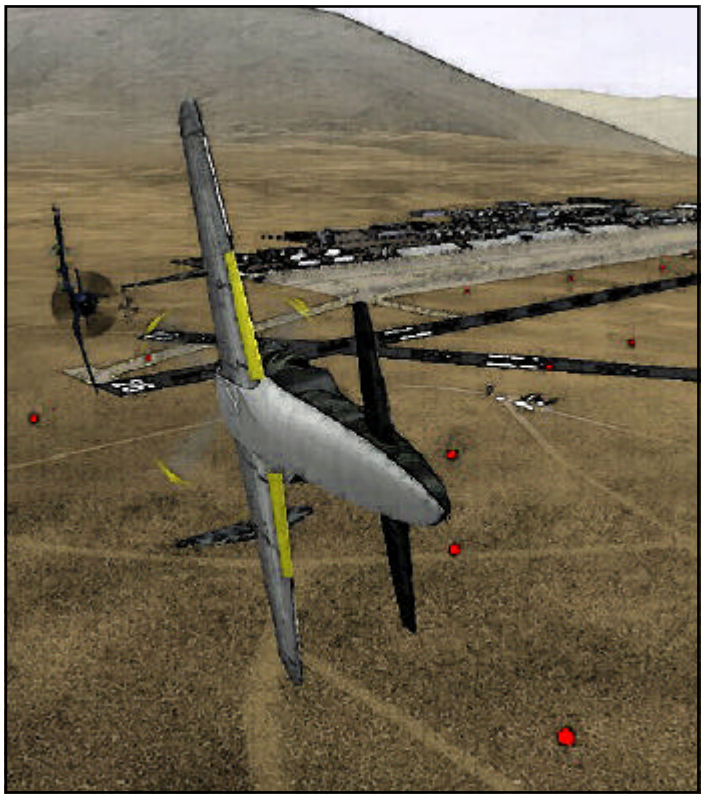
Bayles captivated audiences with his war stories. I remember him talking about shooting down three German fighters on four of 12 cylinders, using only two of his eight .30-caliber weapons, and a shattered cockpit. He would gab about his flaming finish in Boston; the time he bailed out in Cleveland; the dashes at Reno, Dallas, and San Diego. I stood and listened, a young man glued to every word, awestruck and captivated by his pure charisma and charm.

Compared to Bayles, the other racers didn't come close in performance or sheer charisma.. And on the day before the race, while acrobatic planes dipped and dived in the sky, leaving whispy trails of white smoke and writing names of advertisers among the clouds, it was Bayles who brought marquee status to the show.

The day of the race was electric. The usher tore my ticket and I crammed the stub on my pants pocket, never looking back to thank him. I ran toward the stands, my father pacing behind yelling my name. I reached my seat just in time to hear the announcer click on he PA system and begin the day's events.

"Good afternoon, race fans!" he said, and the crowd cheered. I yelled as loud as could, so the announcer, Bayles and my mother back home in Stockton would hear me. I could see the planes — there must have been 100 of them — with their checkered tails, girls painted on their noses. I looked and looked for Bayles' plane, and there it was, near the front of the pack. I could see him giving the aircraft the once over; a white scarf billowing in the breeze, goggles perched atop his head.

"… And they are ready to start their engines, folks. So let's get 'em goin'!" I heard the announcer say. The first one to start his motor was in a Seversky P-35. I watched the propeller spin around slowly, then a "POP!" blasted from the exhausts, followed by black, oily smoke. After a hiccup or two, the motor whirred to life and it was up and running. Almost in succession, I watched the others fire to life on the



flight line, each a similar dance to awaken the racing day.

I looked over just in time to see Bayles lower the goggles over his eyes and raise an arm into the air. It was as if he were waving to me, so I waved back nervously, thinking he might see. Then, the prop spun around and his P-1 croaked to life. The noise of the dozen or so aircraft drowned out most of the normal sounds. The warm wind of the engines blew in our faces, and the smell of burnt fuel filling our noses.

The planes started to move toward the runway and I looked at my dad. He smiled down at me, patting me on the back of the head. "This oughta be a good one, huh son?"

"Yeah, Pop. Real good!" I shouted over the growling motors of the first few aircraft leaping into the air. I watched them soar out past the first red-checkered tower, and cruise into the distance, preparing for their warm-up laps.

THE RACE BEGINS

It wasn't too long before they all gathered, 12 airplanes humming along like massive, angry bees in a cluster almost two miles away. The marshal stood up in the tower, holding a large, green flag as the planes approach. I could see Bayles' plane in the middle of the pack, but I knew it wouldn't

be there for long. I stood in anticipation as the marshal waved the flag, and at top speed, the race was on!

The noise was so loud, and the wave of sound so low and powerful, it knocked me back down on the bleacher and into my seat. I yelled again, waving my fist in the air, watching as Bayles jerked and moved his airplane through the fray of planes for the first of five laps. He'd gone down low as the others swirled around. My head followed him around as they sped off into the distance.

By the third lap, the jockeying for position had gone back and forth., breaking into four groups: a group of three leaders, a second place pack of four planes, and stragglers trailing way behind.

By lap four, there were only five planes remaining. Bayles, a then unknown Loyle "Showstopper" Crawford, and an Army fellow named Jimmy Doolittle, were in front.

BRINGING IT HOME

As they passed the finishing pylon for the final lap, Crawford held a small lead. As I watched them soar off to make the first turn, Crawford started moving closer toward Bayles, and lifting his plane up and down. It was as though he was attempting to get the wing of his Curtiss P-3 to whack that of Bayles' plane. Bayles' moved away from Crawford, whose reckless style was well known on the racing circuit. Doolittle trailed only by a plane length, seemingly watching the action as it happened.

This wing bashing continued as they rounded the first turn. Bayles, who had at first avoided the confrontation, began to move closer to Crawford. They were now very far from my bleacher seat, but I could see that Bayles' had moved in to try and put a mark or two on Crawford's plane. You could hear the engines rev up and down as the pilots adjusted speed. Now, Doolittle had moved over the two men's heads, directly above, his racer whining and yowling as the solider pushed the throttle to its limits.

No one had ever seen anything like this before! Planes bashing one another like pro wrestlers, yet winding around the racecourse at top speeds. As they prepared to round turn three, I could see the marshal readying the checked flag, the planes headed directly toward us. I couldn't tell who was in the lead, but Bayles was still bashing the side of Crawford plane, and vice versa. At one point, Crawford's left wing smashed into the hull of Bayles' plane, and the silver bird jolted to the side. I heard Bayles' engine hiccup, and watched as the plane sipped down and came back up. Bayles' fell behind Crawford's plane and it appeared as though after the crashing and buffeting in the air, he would emerge as victory.

GUNSHOTS RING OUT!

"It was then we all heard the gunshots. Pow! Pow! Pow! I thought the shots had come from the crowd, looking around frantically at my dad and others. "Bayles is firing shots at Crawford's plane! Holy cow!" I looked up and saw the war hero leaning out of the left side of his plane, pistol in hand, firing three bullets at Crawford's racer.

Two shots found their marks, cutting into the engine cowling and tearing into the works. Crawford's engine sputtered and croaked from the injury, losing speed. Crawford plane slowed drastically from the wounds, and the navy blue Curtiss was forced to peel off and allow the remaining two contenders to complete the race. As he peeled, I watched Crawford try to dive at Bayles' silver rocket. Unfortunately, Crawford didn't have the air space and nearly plowed into the ground, coming to an abbreviated, thumping landing in a nearby field.

The planes weren't more than 250 feet from the line, as the crowd went into a wild cheer. We heard Bayles' engine wind higher as Doolittle came along side. Bayles' had straightened out his path, and, as the marshal waved the flag, the two planes crossed the line, too close to call.

"It's a photo finish folks!" the announcer said. "Let's see if we can get a winner here at the OK Corral today." The remark made us all laugh, although we all sat stunned by the display of bravado by both men. As Bayles and Doolittle landed, the announcer clicked his microphone back on.

"And the winner of the Shell Speed Dash, in tremendous fashion is — Lowell Bayles, but not by much!" the PA announcer said. I cheered in victory, hugging my father, whose face had turned sour after seeing the display of pyrotechnics and demolition.

A SOCK IN THE MOUTH!

Bayles wheeled his plane around to the great expanse of black-and-white checkers that was the winner's circle. As the crowd moved off the bleachers to surround him, I saw a figure make its way through into the circle. I watched as

Crawford, who had waited for Bayles to land, storm toward the plane. Bayles' opened his cockpit and Bayles stormed onto the wing. Bayles leapt out of the cockpit and met the angry Crawford on the wing. Crawford socked first, clipping my hero in the cheek with a hearty right cross. Bayles punched the lithe Crawford in the guts, and then smashed a leathered glove into his face. Crawford stumbled off the wing and fell onto the checkered surface.

Bayles' leapt down to meet him and the fight continued for another minute. Eventually, the two were separated with Crawford vowing revenge for the shooting act. Bayles would eventually say if Crawford hadn't started pounding the Charming Charlesie with a wing, calling the New Yorker's tactics dirty, he wouldn't have fired the shots.

And, less than a year later, the National Air Races were reborn.

Since then, the planes have grown faster and the game has changed. Planes shoot one another. Tow cables around pylons. Drogue parachutes to slow opponents down. Longer courses. Spectators who pay $1,000 to fire flak blasts at racers from hovering zeppelins. Enemies who fire from canyons. I'd never seen anything like this when I was a kid — and it's only grown bigger.

With the separation of the United States starting with Texas in 1930, the lines have been drawn, but two lines have never changed with racers across the 13 nations. The starting line and the finish line continue to bring racers together, despite nationality.

I thank my father for the introduction. Now I get the chance to report on one of the Nation of Hollywood's fastest growing businesses — air racing. With weapons blazing, and engines roaring across the sky, I continue to revel in the magic and sporting excitements of the National Air Races. It's going to be an exciting coming few months and I'm looking forward to seeing every bit of it.

HISTORY

To understand the history of the National Air Races, it is important to understand the evolution of the sport from its roots in pure airplane racing before the national schism, to the more combative, aerial dogfighting of today.

The evolution started with crop dusters and modified military planes following the Great War. Daring young men and women saddled up and sped across the sky, racing for anything they could think of, including cattle, land, cars and cash. But no one got the idea to make the aerial dueling a true sport until a small air show in Cleveland, Ohio.

PRE-1930 RACING

In 1920, the idea of an Air Show first came to America from Europe when Joseph Pulitzer, publisher of the *New York World*, put up the money for a race on Long Island's Mitchell Field. Pulitzer's goal was to reawaken interested in aviation, which was suffering from post World War I apathy.

The event circulated to different cities for nine years, even throughout the influenza epidemic that gripped the nation, and was finally brought to Cleveland in 1929 by a group of local businessmen headed by Louis W. Greve and Frederick C. Crawford. Greve was president of the Cleveland Pneumatic Tool Company, which made the hydraulic undercarriages that held the wheels on airplanes. Crawford was general manager and later president of Thompson Products Inc., now a part of TRW Inc. Thompson Products developed the experimental sodium-cooled cylinders, which enabled Charles Lindbergh's Spirit of St. Louis to reach France.

The 1929 Cleveland National Air Races had full civic support not only from the City Manager W. R. Hopkins but from the Cleveland Chamber of Commerce, major industries, the city and the nation's military air arms. Numerous local business and hotels where approached to underwrite the event and purchase entertainment tickets. Companies which made airplane parts were also asked to offer cash prizes for the various races.

The event was a 10-day (August 24 – September 2) sensation setting the highest standard for air shows with amazing demonstrations, size, duration and attendance. The inauguration ceremonies opened with a downtown parade that rivaled the Rose Bowl Tournament parade. An estimated 300,000 spectators from all over the country watched 200 floats, 21 bands and 1,500 marchers strut down Euclid Avenue as three newly created Goodyear zeppelins flew overhead. In conjunction with the Air Show, a $3 million display of planes filled Cleveland's Public Auditorium, 5,000 pigeons were released on Public Square, and aerial acrobatics and fireworks reigned over head. Over 100,000 spectators attended the opening day of the Air Races.

Hopkins (named after the city manager) opened four years earlier as "the first major municipal-owned airport in the world and covered 1,050 acres. Its well-lighted runways and level surface free from hazards made it an ideal location for such races. The city built permanent grandstands and there were hangers available for visiting aircraft. The airport was so large that the Air Races could take place without interfering in normal airport operations.

MORE THAN SCIENCE FICTION

In 1929, airplanes were still considered something of a science fiction fantasy, therefore the exciting flying events were reported in newspapers around the world. The daily flying schedule included "dead stick" landing contests, glider demonstrations, Goodyear zeppelin flights, parachute jumping contests and military demonstrations. The Navy High Hats, created a worldwide sensation by flying with their planes tied together by one-inch ropes from wing-struts to wing struts. Even Charles A. Lindbergh was in the show flying a Boeing

biplane. There were also closed-course pylon races and cross-country races from as far away as Log Angeles, Miami and Toronto; all timed to reach Cleveland on different days of the show. Women pilots, including the already famous Amelia Earhart, raced in a special "Powder Puff Derby" from Santa Monica, California, to Cleveland.

ON THE CLOSED COURSES

But it was the closed-course racing that provided the most thrills for the fans in the stands. The Thompson Race, the first free-for-all closed-course race, was five laps around a 10-mile circuit. "Smiling" Doug Davis, a civilian pilot from Atlanta won the race with an average speed of 194.9 miles per hour. The Thompson Trophy based on the Greek Legend of Icarus, who melted his feathered wings by flying too close to the sun, became equal in stature to the Green Jacket of the Masters Golf Tournament. In turn the world's top aviators competed for the right to keep it for a year.

Six pilots were killed during the 1929 event. All but one died during cross-country trips away from Hopkins Airport. Thomas Reid crashed in nearby Fairview Park trying to set a new solo endurance record.

The Cleveland Air Races' social events glittered each evening, and filled the nation's newspapers with pictures and stories about the glamorous personalities of the era. Cleveland truly was the aviation capital of the universe for those 10 days.

POST 1930S RACING

It wasn't long after in 1930 that Texas seceded from the union, and the uprising started. After the crushing blows delivered by the Great War, the influenza epidemic of the 1920's, and the failure of Prohibition, the once-proud United States has collapsed. With the secession of Texas in 1930, states across North America quickly jumped off the sinking ship of Federalism. Militias had formed in every nation of North America to fight piracy, insurrection, and the pilots of rival countries. The Broadway Bombers and The Hollywood Knights are famous for their prowess as pirate hunters, and for their rivalry with each other. Units such as the Wind Warriors of the Sioux Nation and the Dusters of the People's Collective rise to the air each day to do battle above a constantly changing political landscape.

THE FEEDING FRENZY

With the collapse of the United States and the rise of aviation, many aircraft manufacturing firms have seized the opportunity inherent in chaos. Some have cast their lot with their home nations; others will sell to anyone with ready cash. Where companies like Lockheed, Marquette, Hughes and others led the way in combat platforms, Hayman Aerospace based in Mira Loma, Calif. emerged as the leading, cutting-edge manufacturer of racing aircraft around the world.

As the nation began to break apart, racers continued to ply their trade, although their numbers began to dwindle. Pilots across the spectrum were asked to fly within newly formed units, and join causes that had ignited across the now-crumbling nation. Some racers clung to their roots, like Lowell Bayles, who had created a fierce following after the now-famous Pasadena Incident that sparked the use of weapons and other equipment.

In 1930 the races were held in Chicago, but the National Aeronautical Association which then licensed the races returned the show to Cleveland on the basis of its 1929 success. The Cleveland show had turned a profit of $90,000. The only other show to ever do more than break even was Spokane, Washington, in 1927 with a profit of $485. By 1931 the closed-course races and speed dashes had replaced most of the cross-country races. The Thompson Race first prize was increased to $7,500 which was a large sum of money during the Depression. But it was the danger element, just like the Indy 500, which kept the crowds coming back.

THE MONEY STARTS TO SHRINK

In 1934 the separation of the United States had cut the purses and the show had shrunk to a Labor Day weekend festival. It was also in 1934 that the first closed-course racer, Doug Davis, went down. Davis' death allowed Roscoe Turner, the flamboyant barnstormer, to win his first Thompson Race. Turner returned the next year, losing the Bendix race from Los Angeles to Cleveland by 23 seconds to Benny Howard. Turner vowed to win the Thompson Race, which had been increased, to 10 laps around a 15-mile course. More than 85,000 spectators watched Turner lead the race for eight laps. Then the blade on his Hornet engine snapped off. In a split second decision, Turner landed the smoking plane with a couple of bounces in front of the finish line to stealing the show.

It was about this time the use of weapons, tow cables and other aircraft add-ons had really taken off. The races were growing more fiercely competitive, fueled mostly by swelling national pride between newly created nations. Races taking place between the Nation of Dixie and the Republic of Texas were especially fierce, and competing planes were usually shot down, although this was against the rules (while causing pilots a bit of aggravation with a few peppering shots was not).

The Air Races continued to be successful despite the separation. Therefore, the National Aeronautical Association gave Cleveland a five-year option on the event. However, in 1936, the expansion at Hopkins forced the races to move to Los Angeles. The Thompson Race returned the next year, and it proved to be the most exciting yet. Earl Ortman in his black Bromberg Special was battling Roscoe Turner's plane neck and neck most of the race when Turner's oil-splashed windshield made him think he had missed a pylon. As Turner re-circled the pylon he fell behind Ortman. Ortman throttled back saving his engine because he had thought he won. However, Rudy Kling, an auto mechanic from Illinois, raced past Ortman just as they passed the finish line, blazing rounds into the pylon as he did, nearly killing the marshal perched in a nest atop the huge tower. Kling beat Ortman by an amazingly close speeds of 256.858 to 256.910 mph.

THE GROUP FORMS

In 1938 the newly formed National Air Racing Group announced rule changes to what was becoming known as the National Air Races. There would only be two high-speed events: the Thompson and Greve races. The qualifying races would decide the best starting positions. Once again the Thompson Race was increased to 30 laps around a 10-mile course. In addition a record purse of $45,000 would be shared. Only eight planes qualified for what was billed as "300 miles of the world's toughest flying." Finally, the group allowed the edition of higher caliber weapons as well as beeper-seeker rockets to aircraft. Roscoe Turner was again the favorite. He won his second Thompson Trophy when Ortman missed a pylon.

As the nations began to take shape and battles continued over crimson skies, it became difficult for the pilots to gain financial support necessary for the increasingly sophisticated planes. Aviators had to get creative. For example, Roscoe Turner traveled with a lion cub in his plane to generate publicity and an image. However, after Turner won the Thompson Trophy for the third time in 1939 (allowing him to keep the trophy), he announced his retirement. Still, many of the militias boosted support for local Air Shows and there were dozens of new airplane designs coming from manufacturers like Hayman, Ravenscroft and Hughes, which, by now, had become an especially fierce competitor.

Even as battle raged on, the Aircraft Industrial Association, an aircraft manufactures trade group, brought the races back to Los Angeles and Miami to showcase the advances made during the war. Cleveland once again obtained a five-year franchise for the event.

TODAY'S LANDSCAPE

Today, most racers have garnered considerable combat

experience in addition to plying their racing skills. Some 56 pilots form the Aerospace Racing Pilot Board, which oversees the sport's future and ensures competition is kept at least somewhat friendly between rival nations. Most pilots are affiliated through a manufacturer within their nation, or simply by nation. Jimmy Doolittle has flown for the Nation of Hollywood since it was formed, while Bayles runs his racer under the Republic of Texas moniker.

It's a big money business, where reputation, style and an arrogant demeanor dominate the heroes who break speed barriers, whisk past opponents by a hair's width and fire weapons wildly in an attempt to take home a big payday. In noting the rise in popularity of the sport, Empire State journalist Royce Belvoir said: "This is a sport that has grown as the interest in aviation has swelled, and the use of roads, highways and trains has declined. There's an obvious correlation, and the fans are gaga to see it happen."

It was Belvoir who off-handedly suggested the idea of lofting a zeppelin, making the planes fly around it as part of the course and letting spectators fire shots at the participants. Race promoter Wally McGregor bought it. Soon after, in a race dubbed the Empire Scoot, the *Lyrical Grace*, one of three flagships of the Farrell Airship Cruiselines company, allowed participants to pay $1,000 for a meal and the opportunity to fire a flak cannon as planes raced around their air ship. The idea was a huge success in the Empire State and in other regions across the land. In Dixie, the practice was banned after Haas Wilbury was killed on lap five.

Meanwhile, illegal sprint races for large purses in the Free State of Colorado were run through twisting canyons as roaming nomadic western settlers fired flak from crevices, valleys and revetments below. Usually conducted without the government's knowledge, these sprint races give rise to thousands of local citizen complaints each time they are run. Colorado believes Texas to be the secret organizer of the twice-per-year races (which are set at random times and no racer is informed about until three days prior).

On the left coast, the longest race of the year challenges racers to push their fuel use to its maximum in the Hughes Aviation 600, where endurance, not speed, make the champion. And dozens of other races across the country have sprung up in the wake of the sport's popularity, engaging the press corps, making heroes of the pilots and pushing fans through the turnstiles.

The sport has a bright future. Recently, Hayman Aerospace and the Hughes Aviation Company entered into separate agreements with 17 nations, which have agreed to host races well into the future. Sales of race related merchandise swelled in the years following the separation of states. The tapestry woven by the original barnstormers to today's professional speed demons, continues to unfurl and wrap this divided land.

LOWELL BAYLES

Is he the best racer there ever was?

By Jake Christopher
Air Racing Weekly

As racing pilots go, there may be none whose reputation, flare for the dramatic and ability to win is greater than the man who flies the *Charming Charlesie*. Add to that his title as the father of modern air racing, and Lowell Bayles may seem like an imposing figure when you first meet up with him.

But dig deeper into the man who collects fine art from Europe, drinks a hearty cup of coffee whenever he can grab one and smoke two packs a day, and what you see is a collection of oxymorons.

This was the guy who nearly shot down Loyle "Showstopper" Crawford at the Pasadena Incident? This was the pilot who once drove his car 75 mph past a convoy of highway patrolmen only later to receive a standing ovation from those same cops? This is the gentlemen who shows up with gifts at Texas orphanages every single year?

Bayles' smile is what really sets him apart. Engaging like a Big Bend sunset or restless like a cattle drive, he often finds himself with no time to spare between public appearances and hopping into the Charlesie. Tall and lanky, like an old gunfighter meandering around Dodge City, Bayles said he's not the first one to notice his controversial nature. But he's the first one to fuel it.

"You could say," he says in a voice slow and clear, "that I've done a few crazy things. But, I suppose, that comes with being a race pilot."

And it's not even "pilot" that he's saying. It's "pah-lut," and you hang on every syllable. It's like how his fans hang on when he barrel rolls to a photo finish in Los Angeles (twice in two years), and Miami (where he clipped several palm trees accomplishing the maneuver). Flash and flare aside, Bayles is surprisingly quiet, gives answers like riddles and philosophizes on whatever he's musing on at the moment.

The separation of the United States, for instance: "It's amazing one nation could splinter off like this one has. And it's still not done. I wouldn't be surprised if there are another 15 nations that spring up."

On winning more than $2 million since he started racing: "You counted?"

On causing the furor that eventually led to equipping race planes with guns and ammo: "I'm not sure how you want me to answer that. It happened a long time ago, and it's past us. Look at the results. People love it."

The answers go round and round like this until you arrive at a topic he likes to talk about: the Great War. Bayles history as a combat pilot was well known, where he shot down a total of seven German fighters, three bombers and single-handedly wiped out an enemy demolition plant with two .70-caliber weapons. But there no evidence to prove the latter true.

"Well, I did it," he said. "It isn't there any more. Ask my wingman. Ask my commander. Ask my mom."

More pointedly, we asked his agent, Gandy Willoughby, about that and much more. "Well, the Great War's over, you know? We're concerned about the now, and he's the greatest race pilot — hell — the greatest pilot to ever hit the skies. Period."

THE AWARDS

Willoughby reminded us of the accolades. More than 100 victories on the circuit (which is 78 more than any other racer), the two million in earnings, another 3 million in endorsements, and a standing deal with Hayman Aviation to fly its aircraft with a contract that expires well after Bayles does.

"And he did blow up that plant," Willoughby added for emphasis. "I saw the pictures. He's quite a fella."

And no one would have thought this could come from a shy, even-headed kid from Killeen, Texas, who spent most of his days reading books about pirates and learning what he could about fixing cars. The son of parents who immigrated from Europe, Bayles was always a hard worker, according to his mother, Ashlyn G. Bayles, who still tends the family's 200-acre ranch.

"He always had something he was doing around the house," she said. "Whether it was mending fences, feeding cattle or just reading, he was always involved in something."

When he had grown into a teenager, Bayles set off with a friend to learn how to fly a neighbor's crop dusting bi-plane. After "a couple of lessons," he was hooked. Jenna Lee Bayles said he was hard to find after that.

"He was always gone after he'd finished his work to fly that thing around the valley," she remembered. "He'd buzz the house, fly over us upside down or just do crazy things! He almost got himself killed a couple of times. Then, of course, there was J.R. That was tough for him."

"J.R." was close friend J.R. Richmond, who owned the bi-plane. One day, while passing over a field, Richmond slapped a nearby pole and crashed the plane, killing him instantly. According to his mother, Bayles almost lost his interest in flying completely.

"I thought he was going to die. He'd just sit up in his room, and read. He wouldn't come out for hours on end. I thought for sure he would go and do something rash," she said.

THE ARMY CALLS

Soon after, Bayles heard about the Army, and its need for trained pilots. Almost without hesitation, the 16 year old drove to the nearest recruiter, almost 120 miles away, and signed up to fly.

He went from barnstorming over Killeen to shooting down the enemy without much effort recalled Col. Thomas Lindquist, who served as Bayles' commander during the Great War. "He was a natural," Lindquist remembered. "I'd never seen anyone like him before. He could do things in an airplane that no one could do. And he'd laugh on the radio the whole time he did. He was outstanding."

Bayles flew escort and intercept missions over Europe, logging more than 1,200 sorties, flying whenever he was able. Three years later, his tour was done, his mantle as a colossal military aviator secured and life on the "outside" awaited. None of these things seemed to phase him.

"I found it all to be just a natural progression. It's just what you do," he recalled. "Flying is a lot like jilting a pretty girl. Some men are pretty good at it without really trying."

Without a full-time paying job after the war, Bayles found himself looking for permanent work in Texas until he was approached by aviation pioneer Jimmy Hayman.

Hayman had already built a fortune selling aircraft, parts and maintenance to the United States, and his innovative

technologies had sparked the groundswell of interest in aviation throughout the land. Hayman spotted Bayles hauling cargo from Los Angeles to Anchorage, Alaska, when he thought a partnership should be struck.

"I thought he was my sort of fella," Hayman recalled with his trademark bravado and candor. "I knew that bastard was going to make me and my company a lot of money. And in turn, we'd make him a few bucks, too. I convinced him to come join my team. You shove enough lettuce in a Joe's face, and they'll come work for you. Not Lowell. He was a heck of a negotiator. We eventually found some common ground."

A MUTUAL FRIENDSHIP

Hayman capitalized on Bayles' war record, and sent him out to perform flying demonstrations, including displays of aerial gunnery prowess (used to sell Hayman weapons), displays of uncanny agility (to sell Hayman aircraft), and public meetings with fans (to sell the Hayman name). Jimmy Hayman couldn't have been more happy, and the money was coming.

Then came Pasadena, and The Incident.

"I said to myself, 'What the hell is he doing?' and thought we were sunk," Hayman recalled. Bayles, to win the race, had begun fiercely slapping his wing into the fuselage of Lowell "Showstopper" Crawford's plane, trying to slow the reckless pilot down and win a crucial race. In the home stretch, Bayles drew a .38-caliber pistol and started shooting at Crawford's engine. Crawford's aircraft wounded, Bayles nipped Jimmy Doolittle at the finish line and won the race.

The crowds loved Bayles' antics. Air racing popularity went through the roof and Hayman Aerospace was right there when the demand exceeded the supply. The sales of aircraft went up more than 1600 percent. Profits were up. Bayles' celebrity skyrocketed. The Pasadena Incident led to the creation of a formalized racing group and the start of what has been declared "the most popular sport on a continent where popularity is not a commodity." A star was born and the Bayles/Hayman union was forged with six shots from a revolver.

Bayles is unphased, but at the same time glows with a passive arrogance and a steadfast confidence that anger many within the racing community. He's a tireless competitor, always looking for a faster time, a larger engine or another way to slow a fellow pilot. Fellow racer Nathan White said other racers don't spend too much time around Bayles.

"He's cocky, rude and downright mean sometimes," White said, a bitter tone to his voice. "There's just no need to be mean like that. None. But he is. And he's just as soon cut your throat while he's making you feel good. That just ain't no way to act."

These days, the skies are bluer, the grass is greener and the accolades are still pouring in for him. Living a comfortable life at a huge home outside Dallas (supplied by Hayman Aerospace), an adviser to Air Ranger Group 1 and the no-questions-asked leader of his sport, Bayles reflects on a life spent in the air.

"It surprises me how much attention I'm afforded," he said, an oxymoron to the attention he draws to himself. "I just do whatever I can to win races, and support my sponsors. I'm not sure that's such a bad thing."

BLAINE DARING

Don’t stand in the way of Cajun pride!

By Hal Maxwell
Air Racing Weekly

An evening with French Louisiana’s best racing pilot is an evening that is all about Cajun food. First it’s a plate of etoufee. Then, crawfish, steamed and lots of them. He’s popping off the heads of each of the little things, eating the meat from the body, sucking the juices from the head, chucking the shells in a bowl and looking across the table at me.

“There’s simply nothing better than real Cajun food,” he said, in an accent that can only be described as from here. ‘Here’ is Baton Rouge, La., the home of Blaine Daring, arguably one of French Louisiana’s best acrobatic pilots, a savvy combat veteran and, most recently, an entrant on the National Air Races circuit.

Daring isn’t the sort of fellow you’d expect with a Cajun background. Perhaps “Southern” is a better term for the man with a mad toss of almost platinum blonde hair, cool blue eyes and boyish face women can’t seem to resist. At least, that was the case as we finished our meals at a place called Robideaux (you say it “ROBE-E-DOUGHS”) on the outskirts of the now thriving French Louisiana town.

Although fellow pilots call him "Nap" or "Napoleon" because of his stature, the accomplishments tower above his physical appearance. And Daring isn't afraid to talk about them. He'll remind you of how he jumped out of his stunt biplane less than 200 feet from the ground, popping his parachute and landing successfully. He'll remind you of the dead-stick landing he made in an autogyro skimming over Lake Ponchartrain and crashing into a local bait shop. And, of course, the baby story.

Daring became a Louisiana hero after he rescued the infant son of a woman traveling from Bossier City to new Orleans on the air ship *Clementine* in 1933. The *Clementine* had been attacked by a rogue band of Dixie Militia Brigands. As the Zeppelin plummeted toward the ground, Daring, a passenger on the liner, was able to move passengers to rescue planes.

One child was, however, forgotten. Daring found the boy, but not in time to reach the rescue aircraft. With only moments to spare, Daring leapt out of a window, hurling himself and the child into the unknown. As fate would have it, he and the baby landed in a local, deep-water fishing hole.

"That baby was fat. He was a big boy. I mean I had to yank him outta that chair. Then, we just sort jumped out the side door and landed in that patch of water. I thought it was pretty slick. I was just acting on instinct," he remembered.

INSTINCT GETS HIM BY

Instinct might sum up this gritty racing veteran's career in the sky. First, as a purser aboard air ships from the northeast to Baton Rouge. Then the chance to fly banners around airfields and big events. Next, stunt flying, using the name "Daring Dan" performing at local air shows.

His reputation grew as he performed barrel rolls, loops and slow rolls that made crowds go wild. But then he upped the ante on his flying career, soaring through huge rings of flames, leaping from one aircraft to another — and then back again. The blindfolded flying. He was all the rage in French Louisiana in 1934.

Until his stunt-flying crash that killed 38 people. Daring was turning loops around the air ship *Grand Amusement Dans le Ciel*. He'd reached the top of his loop and began his dive down. As he reached vertical, he smashed into the zeppelin's oversized cabin, sending passengers and crew tumbling out. Daring was thrown in a torn structure into the dining area. When the ship landed, he was arrested and sentenced to a year in jail for reckless flying.

But jail time only made his persona grow, as he found out. In French Louisiana, a nation known for its crooked government and dealmaking politicians, Daring had just joined an elite union. "I was in the pokey for almost two weeks when I figured out guys were leaving me alone because of who I was," he said.

He got an early parole from the Louisiana president's office. And a seat on the French Louisiana Aviation Board, and then — well, boredom.

"I could tell he was just restless, and out of his mind," recalls chief plane mechanic and close friend Archie Pirou. "He just isn't the government type. But he felt an obligation because The Man had bailed Blaine out. So, he did a year of that."

INTO THE DRIVER'S SEAT

Soon after, in 1936, he found his way into a racing cockpit, but not the way others have. "As I recall, he was pushed into the seat by big promoter Earl Comeaux," said Nelly Waking, who'd worked with Daring on the aviation board. "He really wanted to get back into the stunt flying business, but no one would give him the money because of his big accident. One thing led to another and he was zooming

around in that ugly purple plane."

That purple plane was the *Acadiana Pride,* which, as one spectator noted for the Times-Picayune would tell you, was "the ugliest, slowest and easily the cheapest thing to fly out of Louisiana since the pelican." Daring was asked to fill in after it first pilot, Regus Patoff LeBlanc, broke his leg in a hearty bar brawl the evening before.

"Yeah, I remember it. Not the brawl. Just when Big Earl told me I wasn't flying. I still hobbled out there to try and keep my seat. I knew if I didn't, my Fais-do-do in that plane would be over. I was right," said LeBlanc.

LeBlanc carried himself to the plane, where Daring was suiting up to fly. One thing led to another, and LeBlanc wound up on the ground, the victim of a mean right hook. LeBlanc said he didn't take any offense. "That's the way these things go," he added.

DEAD LAST

Daring ended up dead last in his first race in 1935. In the six successive races, he ended up last, last, last, last, last, and in fifth place — out of five planes. Daring wasn't sure the racing life was for him until Big Earl came back with a deal to keep in the plane for good.

"I was not going to do it unless Earl got me a better mechanic, and a new engine," Daring said. "I told him I wanted Archie to fix it. I didn't care where the motor came from."

Soon after, Pirou was onboard and the team, now called the Mad Mudbugs, began receiving funding from Fairchild, including a modified Brigand airframe and souped up Pratt and Whitney powerplants.

"Well, it just sort started coming together for us after that," Big Earl said. "Fairchild was real good about sending us the parts and things we needed to keep our team running. The Mudbugs were on their way and we had Blaine in the cockpit."

GETTING THE FEEL OF IT

Daring started to get the feel of the racer and clicked off a couple of wins in Columbia and the Empire State, and the team placed well in several other endurance events, going from point to point across the country. Daring had also developed a knack for flying around his opponents and taking podium positions.

In his three Bendix Race appearance, he has finished 11th, sixth and third respectively. He tossed another spoonful of rice in his mouth and I asked him what kept him from winning the latest race.

"Lowell Bayles shot up my tail pretty good, so we just sorted limped home after that. But Louisiana limping is like fast dancing to a lot of folks," Daring said with a smile. "It's something we can do pretty well."

The future looks bright for the man they call Nap. He's working his way up the National Air Races leaderboards and holding court at every air show he attends. His merchandise sells across the span of nations, and he's especially popular in Pacifica and in Europe, where the Europeans see him as a second son.

"It's kinda strange, you know? Maybe its because my ancestors are from there. Who knows? But if they want to come pay and see a race or two, I'll be happy to oblige them," Daring said.

As he finished off the last of his crawfish, he gave me a summary of his experiences in aviation so fare — and a bit of Lagniappe, or the unexpected — a moment on the silver screen.

"I think I've got a real shot to make something big of all this. For a once poor boy from the swamps of the south, me and the team have got a real chance to do well," he said. "I'm hoping I can turn, burn and win, and then find my way out to the Nation of Hollywood to be a movie star.

"Yeah, I think I can see 'em making a movie of my life," he concluded. "Flying over the tops of trees, with a big smile, and yelling out to all my fans, 'Laissez les bons temps rouler!'"

Let the good times roll indeed for this colorful character.

JACKIE COCHRAN

She breaks barriers in a man's world

By Hal Maxwell
Air Racing Weekly

As she rounded turn three Jackie Cochran heard the sound of metal twisting on itself. She looked needlessly toward the rear of her Dawson Dagger, and saw the gnarled hunk of torn, painted metal slapping against the side of her fuselage, a victim of shots fired earlier on in the race.

She'd lost some speed going into the home stretch, and that put sometime racer, all time Broadway Bomber militia officer Lieutenant Eugene "Money Man" Winthorpe, flying his Raven II, closing in on her six and beginning to pepper her tail with shells.

Cochran knew these last few miles in the race were always hardest. This was the time when the best pilots jockey for positions, hunker down in their flying saddles and sprint the remainder of the way to the line. Winthorpe was gaining. She pushed the throttle forward, seeing Winthorpe pulling along side her right wing, flashing a small, wry grin.

This wasn't a race she could win, but she'd been told that most of her life growing up, wanting to fly, wanting to be a part of something bigger than what she was. Jackie Cochran wanted to be the first woman aviator, and she wanted to be the first woman to race with the big boys.

Smart, sexy and daring, with cropped red hair, a piercing set of green eyes and a lanky, busty frame, Cochran had always gained the eye of the men in the usual ways, something she'd had a talent for growing up, but one she wanted to shirk.

As an orphan child raised in Florida, Cochran dreamed of traveling the world and seeing what it had to offer. As a teenager, she left her foster family and went to work for a beauty shop. At 19, she started her own cosmetics business and realized that if she could fly herself across the country, she could beat out her competition that traveled by car. So in 1932 she got her pilot's license.

"It was a special time for me," she recalled. "I can remember signing the card and thinking, 'Wow. I did it.' But I didn't get too caught up in the moment. I still had a lot of goals to meet."

But flying became more than just a way to do good business. In 1933, she began looking for opportunities to fly competitively (she was not denied service in her native Dixie militia). She entered a number of amateur events, failing miserably and encountering grief from her male counterparts at every turn. She then found an "in" to the long-distance Bendix Race, but failed to finish.

"I remember Jackie being a fiery sort of gal who didn't take no for an answer," said Harlan "Sugar" Porlowski, president of the Bendix Race Association. "She didn't finish that race, no sir, but we knew she would be back.

And boy was she ever."

A chance cosmetics sales encounter with Petra Dawson, wife of aircraft manufacturer Emil Dawson, gave her the opportunity she needed to acquire a race plane and the resources she needed. Cochran sold her cosmetics business in 1936 and gathered enough money for the fee to enter the National Air Races circuit full time.

NOT READILY ACCEPTED

At first, Cochran wasn't seen as "one of the guys," and it took some time. She experienced harassment at every turn, and didn't receive many of the same courtesies the male racers got when attending events. One night, in a small bar in the Lower East Side of Boston, she voiced her opinion to Lowell Bayles, the series' most successful pilot, after a draining a bottle of Kentucky bourbon.

"She socked me right in the kisser," Bayles said. "She came right over the table, planted a fist right in my chops and sent me into crashing into a large mirror. I got up to hit her, hesitated — it was a woman — and she belted me again.

She went on to give me her side of the story, and wanted to ensure I understood her, uh, perspective on things. After I got my jaw back in line, I told her I did, and that I'd lobby on her behalf with the rest of the fellas," Bayles remembered. "That seemed to appease her for about five minutes. Then she belted me again and left."

While she had communicated her message to Bayles, it wasn't received warmly within the racing community. Her plane was sabotaged twice before races. Engines damaged. Paint schemes vandalized with words like "Bitch go home," and other deterrents to her flying. Cochran knew what she had to do, and what it would take to earn respect.

That day came in early late 1936, when she took a first place finish in Miami over Bayles, beating him handily, and tearing out his wing with .30 caliber rounds and slowing him in the final turn. She went on to win her next three races, including a Bendix Trophy. The racing pilot fraternity took notice.

"Some of the guys did some pretty sad things," said Blaine Daring. "I mean, we can't go back and change them. But, jeez, that's over now anyway. We're glad she's one of us now. And man what a cutie. Don't tell her I said that though. She'll whack me!

Cochran is now recognized as one of the sports leaders and masters of racing strategy. Her savvy, grace and aggressive flying style have earned her respect from peers and her fan base has grown.

"It's exciting for me, but it's always where I wanted to be. Now I can keep moving up!" she concluded.

HORATIO HELLSTRAE

Racer believes in service before self

By Hal Maxwell
Air Racing Weekly

Horatio Hellstrae knows the value of a good gun sight as much as any other veteran fighter pilot would. He is after all one of the Great War's most decorated combat pilots, a hero to millions around the world and one of the National Air Races most capable race pilots — even as one of its most junior.

But the colonel knows better than to let any of that go to his head. For one reason or another, he said he has let the press coverage of his daring feats go on its own. So, forget the 12 planes he downed over Europe (making him a double Ace). Forget the two-fisted guts he showed in beating down an entire platoon of aerial borders single-handedly during the *Maiden of Honor* zeppelin incident over Northern California. And finally, forget Hellstrae leading 25 fighter planes into battle over France and, when the fight was done, only returning one — his own.

He would prefer being known as someone who still enjoys serving. Each morning, he dons his light-gray wool coat, trousers and garrison cap, and heads off to work as the commander of Pacifica's largest flying wing, the 3rd Aerial Interceptor Group. He would prefer being known as the man who still hangs his nation's flag outside each day for all to see and cherish. And, finally, he would prefer being known simply as someone who still cares.

"I live to serve my nation," Hellstrae said. "I am honored to have spent the time I have in the uniforms of the countries I have served. Whether that was the United States of America, or Pacifica now, I am someone who is bound by his service to country. It is what defines me."

To that end, he enters his sleek blue, gray and white Hughes Hummingbird in the National Air Races. He said it serves two purposes. First, he lets people know about his nation's pride in its military force. Second, he's able to use his racing plane as a recruiting platform, hoping to enlist as many as he can to be part of Pacifica's cause.

Hellstrae was torn between the service to the United States, already on the verge of collapse, and the loyalty to the newly formed Pacifica. However, as the skirmishes continued, the writing was clearly on the wall.

"People were deserting by the thousands. We were not getting supplies, or equipment to continue to function. That's when the officer corps decided it was time to make a decision. It was later blessed by many of the higher ups and away we went to our respective nations," he remembered.

A BRILLIANT MIND

A fantastic military planner, Hellstrae was instrumental in building the strategic underpinnings of Pacifica's militia, and raised the former three-plane, one zeppelin force into a giant. He later went on to put into place the structure for its units and defined the aerial logistics system that keeps Pacifica flying. He was almost assuredly on his way to promo-

tion as a flag officer when his passion for flying got in the way.

"He took a job as a fighter squadron commander, which surprised a lot of us," said General Larry Carleton, vice commander of Pacifica's military force. "He put in for it. We tried to talk him out of it. He said that's what he wanted. So, we gave it to him."

Shortly after becoming a squadron commander, Hellstrae caught the racing bug from a fellow flyer, Maj. Don Newcombe. "Yeah, I remember when I told him I was going to take my own plane out and enter it in an amateur event. That caught his attention. He's been hooked since," Newcombe recalled in an interview in the Landers Air Base Times, the base' local newspaper.

Hellstrae, with help from private vendors and the Pacifica militia, bought his first racing plane. He and Newcombe went on to enter several events together. The twosome was inseparable during events all over Pacifica, winning in spectacular fashion and wowing the crowds with their exhibitions of daring.

TRAGEDY STRIKES

Until fall of 1936. Newcombe was setting up to enter the final turn of a race near Seattle when his engine gave out. "Don just suddenly fell out of the sky. He tried to ride it down but …" Hellstrae said, but something got caught in his throat. "Then Don was gone."

Newcombe crashed in a spectacular fireball that ended up killing the major and 15 spectators. The press grilled Newcombe for being reckless; but his compatriots knew better. The crash sent Hellstrae into an emotional tailspin, and put him out of the cockpit for almost two months.

Eventually, he returned to flying regular missions with the Pacifica military, but it wasn't until Newcombe's wife, Ally, asked Hellstrae to return to the racing scene.

"There were people there who really respected and missed (Horatio), you know? He is a man bound by honor and trust of his fellow flyers. He always has been. So I asked him if he would go back to those people and show them why Pacifica's military pilots are the best around."

His response shocked her. "I said I'd race if she knew that every race I ran was dedicated to Don," Hellstrae said. "She had to know that."

Hellstrae did enter every Pacifica race that didn't conflict with his duty schedule. In 35 races, he won 23, and placed in another eight. He was always in the hunt. That savvy in the sky, coupled with a few clandestine scouting trips led, Howard Hughes to place a phone call.

"Mr. Hughes saw the value Colonel Hellstrae could bring to his company's bottom line, and in the sales of the Hughes Hummingbird. It was not a difficult choice," said one Hughes associate.

Hellstrae was signed just before the 1937 season. To date, the competition has been fierce, but he loves every moment of it, including the opportunities to see parts of nations once called the United States.

"It's great to get out there and see what once was," he said. "It's still a dangerous place, and there's still a place for military bearing. However, we can still race and wow the crowds."

HENRY RED EAGLE

Indian flyer's oil riches help him soar

By Hal Maxwell
Air Racing Weekly

He's rich. Very rich. In fact, he's the sort of rich that gives the elite crowd in the Empire State chills, and has them lying awake at night wondering how they can get more money they really don't need.

But Henry Red Eagle's first love is not for his money, a result of millions of gallons of oil located underneath the Osage Indian Territory. For Henry, the first love is to climb into the cockpit of his speedy race plane and leave behind the competition at a National Air Races course.

Red Eagle would have a good knowledge of this, since he's been in the skies for most of his adult life. Tall, stout, and stoic, with the eyes of a wandering hawk and an expression of a hardened warrior, he served in this militia before becoming an air racer. His time as a lead interceptor pilot in the Gray Horse Squadron, one of four units within the Osage militia, honed his discipline and experience behind the stick.

The time also taught him the hard lessons of living as an Indian between now-warring nations, and the price his people pay for their wealth and independence.

"We are a proud nation of people who have been attacked because we have oil," Red Eagle said, voice low and sullen. "In these times, people like ours must do what they must to survive."

Before leaving the service, Red Eagle honed his skills in the Battle of Sand Creek, a turning point for the Osage Nation, and a battle the Republic of Texas recognizes with some of the same reverence as the siege on the Alamo. Despite heavy damage to his Osage Aviation Company O-100 Lookout fighter-interceptor, Red Eagle managed to shoot down four Dixie Furies and another three pirate Brigands attempting reach oil reserves near the town of Fairfax.

"The man was a regular hero," said Republic of Texas legislator Sean "Buck" Prosser. "Hell, if I had that kind of moxie, I'd be up there myself. But that's just something, ain't it?"

Red Eagle was anointed a hero on the reservation and within the Republic of Texas. The tribe's ability to battle and hold its territory formed new bonds with the republic, and gave even greater importance to the oil supply controlled by the Osage.

THE OSAGE

The Osage themselves are a proud nation of warriors who have been brow beaten by North American colonialism since

Europeans settled in Jamestown, Va. In the 18th Century, the Osage were forced to move from the Mississippi Valley after successful venture in the lucrative fur trade. In the 19th Century, the tribe was driven even farther west by white farmers that coveted the tribe's land.

Eventually the tribe settled into what was once Oklahoma. Soon following, when oil was discovered on their land, they were dubbed "the richest people in the world." Their wealth and influence helped them form ties to Texas before seceded from the Union and kept the nation alive turning the ongoing turmoil of the breakup of the United States.

Red Eagle's time in the militia saw him through much of this transition and his family profited greatly from the oil sales. After his time as an officer was over, the tribe decided to fund his way in a new venture – air racing.

ON TO RACING

With money to burn, the Osage knew it needed something to give the tribe a good name, especially following the battle of the Copper Kettle, which had all but ruined the tribe's name within many nations. Air racing, it was decided, was a positive way to affect people, and would get them the sort of recognition the tribe deserved.

Red Eagle, however, was not the first pilot chosen to represent the tribe on the racing tour. That honor went to James Bigheart, a skilled but sometimes over-anxious pilot, who eventually crashed his racer in a little-known amateur race outside Missoula, Mont. The loss of Bigheart dropped a great pall over the tribe, but it was determined to continue racing.

Soon, the tribe approached Red Eagle, who was almost 43, almost a decade older than what would soon be many of his peers. He thought about the idea, but would not agree until the Osage Aviation Company created a safe air race. This caught many tribal members by surprise, but assistant chief Geoffrey M. Standing Bear said there was no need to worry.

"He exhibits all the qualities we look for," he said. "Wisdom, courage, frankness, boldness and a little bit of arrogance. Those are traditional Osage traits."

In a little under 13 months, the Osage designed, tested and fielded the Black Dog, a light, two-prop racer with a .40-caliber cannon and barely enough roon to fit Red Eagle's frame.

Soon after, the warrior racer found himself entered in amateur competitions, and doing well, finishing second, third and fifth in his first three races. He went on to race for almost two years before he was contacted by the National Air Races Group to turn pro.

"They asked and I said yes. I think it made my people proud they would receive the recognition they deserve in a venue that is highly recognized and viewed by people," Red Eagle said.

One of the circuit's most junior flyers, Red Eagle has finished one season and didn't fare well. Three disqualifications led him to get the engineers working on a revision of his race plane – the Black Dog – and its power transference system. Two slaps against a pylon had him in the hospital for almost three months. He ended the season with a seventh place finish in Dallas.

"The professional racers are much more aggressive. It is a different level of competition here. But I am glad to be here," he said.

Red Eagle hopes to make greater strides next season, flying the modified plane – dubbed the Black Dog 2 – and gain wins for the tribe. Even more important, he wants to carry the Osage banner across the nation and let the world know about the pride of his people.

"If they believe they can steal our oil, they are wrong," he said. "We will win races. We will grow stronger and we will do things to keep all our enemies away."

Planes and Pilots

Lead Pilot: Henry Red Eagle
Black Dog 2 6-6-6-7-6-5
Backup Pilot: Nathan Bearclaw
Black Dog 2 5-4-5-3-4-5

RAINS RACING SECURITY

Racing security started with visit from friend

By Curtis Lojean
Air Racing Weekly

After incidents between the states began to interfere with the sport, the National Air Racing Group deemed it necessary to have and budget its own security arm for its pilots and staff.

In 1932, Daniel "Blade" Rains was an on-the-edge air racing jock who'd crashed his Stillman one too many times into the Missouri hills. After breaking both of his ankles in one particularly brutal crash, he decided to go back to work as an investigator with his local town's sheriff's department. Before he could polish his badge, his friend Blaine Daring paid him a visit.

"I remember him saying that if I wasn't racing anymore, I should come out and be his bodyguard. I figured what the heck," Rains said. "So, I told him I would, but didn't make any promises for how long."

Rains did such a good job working with Daring the NARG noticed and decided to give him a bit of money to form a small team to protect all the racers. That meant flying top cover in three Fairchild Brigands during events. Rains' team did it so well (two of the three, except Rains, were shot down five planes apiece), the NARG funded him permanently and expanded his role.

"It was a kick because here I was -- just doing what I would normally do -- and they were paying me to do it," he said.

Rains expanded his team's role, flying the faster Fairchild Brigand II, hiring and maintaining aircrews and maintenance facilities in most every nation. Rains', who flies a Hayman Rhino, and his team now provide necessary escort to and from races for most pilots and their families as well as NARG officials and some high-level spectators.

Oddly enough, Rains doesn't interfere with any of the activity during Canyon Run races. "Too dangerous," he said. "One of us is bound to get his butt shot off trying to stop those folks from firing on the racers."

Besides, Rains admitted, it is the one time of year the racers do get to hold their own and see what sort of mettle they have for racing fans in those areas.

"They'd be embarrassed if we did do something," he said.

Today, Rains is the second largest aerial security company in North America and Europe, second only to Blake Aviation Security.

Planes and Pilots

Alpha Flight

Lead 1: Dan "Blade" Rains	
Rhino	7-7-8-5-7-5
Wing 1: Chuck "Bullet" Carrell	
Brigand II	5-6-5-5-4-6
Wing 2: John "Cray Dog" Craven	
Brigand II	5-5-8-6-6-5

Bravo Flight

Lead 1: Shawn "Stripper" Prosser	
Brigand II	7-6-6-7-6-6
Wing 1: Chip "Da Baron" Aaron	
Brigand II	5-5-6-5-7-6
Wing 2: Mike "Shane" Blanton	
Brigand II	5-5-4-5-5-5


NATIONAL
AIR RACES
WEEKENDS HERE!
TUDOR FIELD
HIGHER SPEEDS GREATER THRILLS
GIGANTIC WEEKEND SPECTACLE
A Crimson Skies Shoot-em-Up!
FREE AUTO PARKING

AIR RACE COURSES

INTRODUCTION

Of the two-dozen or so races that are run in a National Air Races season, most (save the long distance races) fall within three categories: Open Skies, Zeppelin Run or Canyon Run.

Each race has its own merits, strong points and dangers for every race pilot. More speed-minded pilots prefer the Open Skies venues like the Pacifica Loop and the Daytona Deuce, while more intricate, detailed minded flyers enjoy crafting their way through the canyons and valleys of the Four Corners Cannonball and the Longhorn Twist. Finally, there are those who simply like to hang it on the edge and tread the danger of flying through continuous flak fire of Zeppelin Runs.

The following are accounts from previous Air Racing Weekly journals that detail each type of race. In addition, an account of the Bendix Trophy Race, one of the National Air Races long-distance competitions (the Shell Speed Dash is another) is included here. Our reporters collected these accounts over the past two seasons.

A SPECTATOR'S DELIGHT - THE ZEPPELIN RUN

Mabel Van Furstenberg couldn't believe her luck. She was one of 15 people who get a chance to board the cruising zeppelin *Mary Margaret on the Seas* and launch a flak rocket during the Hindenberg Scoot air race.

She'd paid almost $1,500, a king's ransom for most Empire State citizens, but Van Furstenberg, a gregarious air racing fan, came from old money within the Empire State, and the idea of blasting some frail racing plane to bits with an explosion of fragmented metal somehow appealed to her.

Shooting at National Air Races pilots was privilege afforded to only nine participants per race. During the Scoot, racers would make their way around the *Mary Margaret on the Seas*, the Empire State's most luxurious cruise vessel, in a figure eight pattern, passing by the air ship's massive flak guns.

Van Furstenberg would be able to fire her blast on lap number two, along with two others who paid the fee. Three others would fire on the laps before and after Van Furstenberg.

As the zeppelin ascended toward the clouds, Van Furstenberg could hardly contain herself. She could only nervously eat a small meal before the ship reached its destination point, over what used to be the west end of Long Island, almost 6,000 feet in the air. The onboard PA speaker crackled to life.

"Welcome aboard race fans," the announcer said. "The races will begin shortly. You'll see the planes moving from your right to your left. For our gunners today, your objective will be to inflict the most amount of damage without actually downing our racers. So, get close!"

It was about that time that a purser came along and asked Van Furstenberg to come with him to the shooting deck, just below a very large observation level above the main cabin. Van Furstenberg was told to dress warm, and she did, wearing one of her finest fox furs and extra undergarments. And a good thing! Once she'd left the main cabin, a chilling cold swept by Van Furstenberg's legs.

When they'd finally reached the gunnery deck, she and the other eight shooters – mostly men – were given a brief history of the ship, which had fought valiantly during the Empire State's succession from the union. It was later retired and given new life as a cruise ship.

Immediately following, the shooters were led toward one of the massive flak cannons. Van Furstenberg had never seen anything like it before in her life. It gleamed, gun metal gray and bronze. Several shells sat next to the guns. The weapons master started to explain the operation of the weapon. She paid little attention, in awe of the massive gun's size and majesty.

She clicked in when the weapons master started talking about firing. "All you folks will need to do is get up in the firing chair, take a look through our specially made scopes, aim somewhere out there in the blue and fire away. We'll take care of cleaning up the shell and reloading. Be sure you put on the earphones, or you won't be walking out of here hearing anything at all!"

Now her excitement built. Although she was in the second rotation of people to fire, she was anxious to get started.

Instead of following the others to the observation deck to watch the first round of firing, she asked and received permission to watch the first group fire its weapons.

She was handed ear protection. She removed her hat, handing to a purser to hold, and placed the thick, wooden coverings over her ears. She looked out a large window, waiting to see race planes come by.

Moments later, she heard the familiar buzz of aircraft engines through her headphones and craned her head to the right. Without warning, the first "THOOM" of a flak cannon going off rang in her ears, nearly knocking her over, immediately followed by the explosion of the flak rocket going off. She didn't see if any of the planes avoided it and, as she regained her composure, the second and third cannons went off in succession.

The sound enveloped the deck, and Van Furstenberg's eyes widened with glee. One of shooters dismounted her firing post laughing and raising her hands as if she'd hit one of the racers. Van Furstenberg was ready to take the controls.

It would be, however, almost five minutes before the racers completed another lap and came around again for her to shoot. Still, she hastily walked over to the shooting position and sat down. Van Furstenberg looked over all the controls, dials and levers on the cannon, thinking smartly about who might have operated this during the battles fought over her state.

Crewmen came by, removing the expended shells from the deck and reloading the chambers of the guns with new ammunition. It wasn't soon after Van Furstenberg found herself given the cue to watch the sky and await the racers as they passed the zeppelin again.

She craned her head forward for a better view out the gun door opening, stationed along the starboard side of the massive ship. In the distance, she saw the small dots of planes making their way toward the *Mary Margaret of the Seas*. The weapons master came along side her.

"Get ready! Get your eyes in the scope," he yelled.

She peered into the scope, now seeing the aircraft clearer. Still, she didn't feel like she had a good shot. When the weapons master turned away, she raised her head and looked out the opening, seeing the planes more clearly. She found the trigger for the cannon, and gripped it with her slender hand.

As the cold wind blew past her face, she eyeballed the

two lead planes, one gleaming silver, the other white, squinted a moment and fired, catching the entire deck off guard. Van Furstenberg had fired her weapon earlier than any of the others.

She watched the rocket's streak zip out into the air and then, suddenly burst, sending shards of metal, glass and whatever else was inside, directly between the two lead planes. She watched the largest shards rip through the thin, sleek fuselages of the planes, one tearing into an engine cowling on the white plane, sending it smoking and spiraling toward the ground.

The silver plane rocked back and forth trying to maintain its air speed, but there was a clear gash across the top of the planes fuselage that was spraying some kind of fluid and smoking like an overburdened train.

Van Furstenberg yelled something excitedly, pumping her hand wildly in the air. Eventually, she watched the silver plane in the distance bank right and tail out of he race.

The other two cannons fired as the two trailing planes came by, missing on both accounts. Van Furstenberg dismounted her weapon as the crewmen and weapons master stared at her, a large smile covering her face.

"Well, this IS what I paid for isn't it?" she removed her

ear coverings and returned her hat on her head. She walked almost all the way to the exit door, kicked her heels in glee and walked off the deck.

RULES FOR THE ZEPPELIN RUN

— Use one Tethered Aerostat Zep map and the zeppelin map, placed side by side on the long edges. Like the Open Skies race, Zep Runs begin four hexes behind and four above the start/finish line. The objective is to complete one lap around the pylons and zeppelin.

— The zeppelin is a commercially fitted model, with flak cannons mounted. Onboard passengers are given the opportunity to fire the flak cannons to divert passing flyers, but may not shot directly upon them (this is a sort of luxury for those who can afford to watch the race from this vantage point).

RACES RUN IN SECRET - THE CANYON RUN

Perhaps the most well-kept secret of the National Air Races is the date and start time of the Four Corners Cannonball, an illegal race run through parts of Arixio and the Free Colorado State twice annually. The 250-mile sprint race usually also draws the highest attendance by pilots during the season.

The race begins in the northenmost corner of Arixio and takes racers on a winding journey past massive red plateaus, through narrow canyons and over highly angered nomads that roam the desert floors. These nomads also employ huge renovated flak cannons to fire at racers in attempt to down the pilots before they reach the finish line.

Started in 1934, the Cannonball boasts a rich tradition of secrecy. No pilot knows the start date and time more than three days in advance, leaving little time for preparation and post-race repair.

Only five pilots have ever been brought down by flak fire, and none killed. Most see the flak blasts as a welcome challenge into what would otherwise amount to a "fairly dull race,' according to the National Air Races best pilot.

"It'd just be another drive in the country otherwise," said Lowell Bayles, who claims three victories in the Cannonball. "I got my back wings shot off twice — and still limped home!"

RULES OF ENGAGEMENT

Connect two canyon maps vertically. The course is run inside the plateau walls (except on map edges). Players on

10 KEYS TO A GREAT AIR RACE

Lowell Bayles took the time to give us what he believes are his 10 key points running a solid air race. Some of these may seem like common sense, but for the up-and-comers of the sports, it may provide some insight to winning a good race:

1. **Speed kills.** "Fly the fastest little number you can get your hands on, and then go all out. It's not worth holding back when you have that many people counting on you to win."
2. **Knock 'Em off the course.** "Use your flash, sonic and flak rockets to knock guys out of bounds or off the course. That's one less opponent you have to worry about."
3. **Keep an eye on the fuel.** "One lost tank means one less pylon. And so on. If somebody's chewed up your tank, you're gonna need to do some real voodoo to make it all the way around."
4. **Don't get comfortable.** "Somebody has always got their pipper on your tail, or is ready to squirt you with a bail full of oil. Don't assume anything out there."
5. **Come well armed.** "This one speaks for itself. Bring as much as you can — and make sure it's all functional before the race starts. No sense getting caught with a jammed weapon or a bad chute."
6. **Please the sponsors.** "Nobody rides for free."
7. **Find a groove.** "A lot of guys will get up there and go willy nilly all over the course. There's a good groove on every course that's going to provide you the fastest way home. This one takes some experience, but once you have it down, there's no beating it."
8. **Sweat the small stuff.** "Watch the gauges. Take the extra time."
9. **Don't take any guff.** "It's your race. Run it your way. Or, let the palooka who wants to tell you how to run it get in the hot seat."
10. **Enjoy the ride.** "There's nothing like it."

therow of hexes nearest on of the ends of the course. Someone who is not racing should place two flak makers each turn inside the canyon walls. Objective is toreach the other end of the map first.

THE GREAT RACE (PASADENA) - OPEN SKIES

Low to the ground, kicking up dust, loud and full of life, Pasadena is where the first shots were fired kicking off the greatest aviation spectacle North America has ever seen. That's why the race in this aviation-crazy town is simply called The Great Race.

Flown in open skies over the hills, valleys and flat spaces of the Southern California landscape, the Great Race flies only 150 miles and four laps, but provides its spectators some of the finest flying, best views and most intense competition of the season.

Three heats of 10 aircraft jockey for a final six spots in the trophy race, and find themselves pushing the envelope as industrial leaders, international dignitaries and world movers watch from the famous Sky High Café, home to the best view in racing.

The race's first winner, Lowell Bayles, knows the history, tradition and excellence of winning The Great Race and none of that majesty is lost on his counterparts.

"It's the one everyone is shooting for at the end of the year," said Blaine Daring, fellow racer. "the aircraft builders, the reporters and all the pretty Hollywood girls are out here watching us do our thing. The spotlight is shining so bright sometimes its hard to run a race."

The Great Race usually draws crowds of 450,000 to 700,00 people from all over, flown in by whatever can make the trip over borders — pirate zeppelins, passenger craft and any means necessaary to watch this race.

RULES OF ENGAGEMENT

Use two of the the Tethered Aerostat maps connected on the short end, length-wise. As the maps connect, the hexes that come together compose the start-finish line, and turn one off to the right (going counterclockwise). The start of the race begins four hexes left of and four hexes up from the start/finish line. Line up one row of three planes or two rows of three plane out of turn 3. Players may not shoot until planes cross the start-finish line. The objective is to complete one lap around the tethered aerostats.

BENDIX TROPHY RACE - LONG DISTANCE DASH

The Bendix Aviation Corporation, under the leadership of Malcolm P. Ferguson, its president, sponsors the Bendix Trophy Race, a free-for-all transcontinental speed dash, starting at Van Nuys, in the nation of Hollywood, and finishing at Cleveland Municipal Airport, in the Industrial States of America.

Ferguson and Bendix award the Bendix Trophy to the winner in the "R" Division, which consists primarily of the professional racers from the National Air Races circuit, but also allows 10 entrants from the amateur classes (much like the U.S. Open in professional golf).

The Bendix Aviation Corporation has sponsored this event since 1931. Sponsorship has been predicated on encouraging experimental work toward the development of higher cross country speed and new transcontinental speed records.

The Bendix Transcontinental Speed Dash offers competition for all types of airplanes. There are two divisions - the "J" Division for military airplanes, and the "R" Division for others. The "R" Division will be limited to 50 starters. There is no competition between the "J" Division and the "R" Division for the prize money.

The contest is flown either non-stop without refuel, or with refueling in flight, or with refuel landings, at the pilot's option. The shortest elapsed time from the starting point at Van Nuys to the finishing point at Cleveland will be the method declaring the winner.

An airplane must arrive at the finish point at Cleveland between noon and 6 p.m. August 30 to be eligible for the prize money.

While the total prize is $100,000, $90,000 of the purse is awarded to the first seven finishers in the "R" Division, with the winner receiving $65,000.

Also, $1,000 of the above total purse will be awarded to the first woman pilot making the fastest elapsed time.

The owner of the winning airplane in the "R" Division or an Aero Club he may designate is given possession of the Bendix Trophy for 10 months from the date of the Race. The pilot of the winning airplane in the "R" Division is awarded, for permanent possession, a gold replica of the Bendix Trophy. The second-place pilot gets a silver replica, and the third-place aviator receives a bronze replica.

Service pilots of the winning airplanes in the "J" Division for U. S. military airplanes are awarded replicas or medals.

RULES OF ENGAGEMENT

Connect two Open Skies maps on the short edges, (so the maps are extended lengthwise). Racers start on the first row of hexes on one edge of the map and must race to the other in the shortest amount of turns.

Start the planes in the first rows of hexes available on the edge of the map.


Los Angeles
1937

Racing planes are no ordinary birds

By Jake Christopher
Air Racing Weekly

Light, agile, sleek and colorful, racing planes are like no other aircraft. Their evolution is woven in the pages of barnstorming farmers, military aerial heroes and event promoters anxious to see more speed, more power and more money.

Most noticeable about the appearance of racing planes is the ratio of engine to fuselage. For instance, on most of the winning aircraft, the engine, its cowling and occupying components can take almost 30 to 40 percent of the total airplane space. Little room is left for the pilot, who is often confined to attempting to making dangerous maneuvers with little visibility or cockpit space.

Without these massive powerplants, however, planes would not be capable of the 200 mph-plus speeds they achieve, carrying their jockeys to victory and ensuring fame and fortune abound. But none of this would have been possible without two farmboys and a bet.

One of the first real races occurred when a pair of Midwestern farmers in the early 1910s decided it might be a good idea to see which cropduster was faster. One thing led to another, and those two farmboys created air racing, at least as an informal form of one-upmanship.

The Great War brought about the need to create faster, more powerful planes. Speedy Ravens, Brigands and other aircraft, following lengthy tours of duty, were brought home and overhauled. Some never saw the theater of war again. Those that did not found their way into the hands of part-time mechanics like Harold Willis.

"I remember Whittly and Douglas delivered us this terrible looking old plane, a Raven. I mean, it had more holes in it than a bad mystery novel," he joked. "We did as much patch work as we could and started playing around with the engine. Sure enough, we had our first racer."

Others were doing the same thing, and a loosely formed network of mechanics began to form around the modifications made to these military planes. Most were funded from the mechanics' own bank accounts, some clever horse trading for parts and the ingenuity of a group of people whose goal was a simple one — more speed and more power.

One of the chief modifications made early on to most of the airframes was tearing off the weight. The Raven provided an easy task, as it was a plane built for maintainers — easy to work on and easy to get apart. Stripped down, however, the Raven looked like a wet cat, and, once the flyers got onboard, they found it easy to handle. In fact, too easy.

"I remember the first time I got the thing up in the air. I pushed the stick over just a bit, and the whole thing started barrel rolling like crazy,' said retired test pilot Jesse Rails. "The thing would flip over on a dime. It was like someone was playing a big joke on me. Eventually, I got the hang of it."

GO, RAVEN, GO!

Willis' Raven proved the breadwinner amongst the first informal grouping of racers in the early 1920s. Some were building ramshackle planes from what was available on their farms and losing miserably. The Curtiss-Wright Fury and the Fairchild Brigand proved to be the easiest airframes to adopt for racing. The Fury's engine, if found intact, also provided ample power. In fact, many Fury engines were transferred to other unique airframes, some with more success than others were.

In actuality, many of the developed race planes turned out to be lethal, and many then-states banned racing plane production entirely, citing the inherent risks. With laws in place, most of those who wanted to continue the practice moved elsewhere to ply their trade. Others continued in secret until another airplane crashed and someone else was killed.

Credibility, accessibility and reliability had gone into the toilet for most racers. It wasn't until air race aircraft pioneer

Jimmy Hayman and Hayman Aerospace created the RP-1 Dasher that the sport got the shot in the arm it needed to survive.

Hayman, an entrepreneur who'd made his reputation first as an electrical engineer and later as a transport flyer during the Great War, had founded a small aircraft business in Mira Loma, Calif. He'd been looking for a niche to make a dent in the market behind Howard Hughes, Lockheed and other established builders.

Suave, cocky and brash, Hayman knew the stakes and bided his time until he discovered the air racing underground community. He saw the opportunity to create an entire line of products. However, he needed to meet his chief concerns of making money and keeping the revenue from this new venture flowing.

After discovering the existing laws in place, he quietly made his way around the country speaking with leaders in governments, exhausting resources to get laws changed regarding development and use of racing airframes. In 80 percent of the states that had laws, the legislation was changed and the market was reborn.

Seeing the market spring up before his eyes, Hayman was sure he'd make a killing.

Then came the separation of the states, and Jimmy Hayman's whole market interest changed. The seceding of Texas from the union sparked the wildfire for other states to secede and make their own ways. Racing took a back seat for a while, and Hayman created war-bound aircraft including the HF-1 Rhino, the MF-5 hacksaw and the LF-1 Tiger Beetle, all proven winners in several states across the land.

THE INTEREST SUBSIDES

Interest in air racing subsided for a time. However, once things had settled down and the new borders were drawn, the racing groundswell rose again. This time, it was greater than ever, with aviation interest at an all-time high, burgeoning at every turn. The need for well-trained pilots and air crewmen was unsustainable. The nations relied on the airways as the primary means of moving cargo, patrolling borders and keeping peace.

Sales of the RP-1 soared in 1934. Hayman seized on this aviation frenzy and had his engineers create four other low-cost, high-speed racers, all in the RP, or "Racing Plane," series to take advantage of the people's desire for seeing

skyward spectacle.

Lockheed, Curtiss-Wright, Fairchild and others followed with their own racing frames, each a big seller in different communities. And while production for these companies boomed, none was stronger, at least for race planes, than Hayman Aerospace. Hayman cornered the racing market with his brand of flyer, and his two-fisted approach to business earned him respect in the three biggest markets — the Empire State, the Nation of Hollywood and Republic of Texas.

Perhaps the fiercest rivalry in the business is between Hayman and Howard Hughes. Their race planes — Hughes' R600 Lamplighter and Hayman's RP-4 Streak — are usually one and two at the finish line of most races. They battle in the press, at the negotiating table (although Hughes will always have the advantage in war contracts with the various nations' war departments), and around the country. Both

supply great race planes that meet the racers ultimate demands — fast, agile, and good enough to beat an opponent.

In fact, today's planes only faintly resemble their older, unarmed predecessors. Still colorful, sponsored and loaded with horsepower, a plane that flies in a National Air Races event must also be armed. That means equipping the aircraft with any number of onboard goodies.

Most racers, at the minimum carry a .30-caliber weapon, as a way to slow an opponent (also in tribute to the .38 carried by Lowell Bayles during the Pasadena Incident). Others who can afford the space, payload and budget carry modified harpoon rockets (called tow cables), Hayman Drogue Chutes (fired to slow a leading plane's forward velocity), oil sprayers (to cut visibility), flak, flare and sonic rockets — all authorized by the National Air Racing Group.

AS FAST AS THEY WILL GO

Most agree the planes are as fast as they have ever been, citing the need to keep the races compelling and keep the crowds interested. Gunfire, missiles and other methods of slowing (not shooting down) an opponent are all viewed by the newest crop of fans as the way "it has always been done."

"The racing planes, and the kind of racing that's done today, make watching it worthwhile," said one fan. "I don't wanna see anyone shot down. It happens. And guys die. But no one wants to see anyone hit the silk. We'd rather see them cross the line smoking, burning and trying their best."

Hugo Vossler, president of the NARG, agreed. "The fellas use the weapons as a way to get a lead, or drive a guy off the course. It's not about being an ace. It's about using what's on your plane to the best of your ability. Our guys do that and they keep it exciting for the fans."

Hayman said further developments for the aircraft are in the works. "We're looking at all sorts of modifications for the planes. Our guys are on the ball. It's our bread and butter, so we're doing everything we can to make that butter sweet."

Sweetening may require Hayman to go back to the original idea — more power, more agility. But that means he can charge …

"More money, of course."

HAYMAN AEROSPACE

The Hayman Aerospace Corporation is headquartered in Mira Loma, Calif., and is home to one of the largest aircraft manufacturing, engineering and design facilities in North America. Hayman is also the single-largest producer of racing aircraft, with three models in production as of this writing.

Hayman also produces a line of fighter, bomber and reconnaissance aircraft, with clients in the Nation of Hollywood, Pacifica, Alaska and the Republic of Texas. To date, the Hayman plants (another is located near Dallas in the Republic of Texas) have produced more than 1,200 planes, with an almost unsurpassed track record for safety.

HISTORY

The experience of flying in the Great War gave Jimmy Hayman, who flew transport missions, the fire to come home and begin his great business.

Hayman, who started his production company in the garage of his first home, was conscripted as a pilot as a young man. On his 51st mission over Europe, Hayman's plane suffered heavy fire. His plane took little damage, but the cockpit windshield was shattered, sending shards of glass into his skin and left eye.

Unable to fly any longer, Hayman returned home to California. He started designing small transport and commuter aircraft, and found a niche audience willing to pay for his planes. Production grew and he eventually had to move his services to a larger location.

But Hayman was also competing with California's most well-known aviation enthusiast, Howard Hughes,

whose aviation business was booming. Hughes had already forged ties with government, industry and underground business leaders. That forced Hayman to scrap and dig even further to find clients.

So grew Hayman's legend as a two-fisted, no nonsense Scotsman who wouldn't take "no" for answer. He bullied his way into the Texas market and found a home in the San Fernando Valley as one of the areas principal business leaders. While not friends or even amicable acquaintances, Hayman and Hughes share the Southern California landscape in a business harmony.

Hayman's best known aircraft include the HF-1 Rhino, the MF-5 hacksaw, which has seen valuable time for the Pacifica militia and the racing planes — the RP-1 Dasher, RP-2 Stripe and RP-3 Streak.

His race planes are considered the finest, fastest and most agile on the market, with quality second to none.

HUGHES RACING AVIATION

The Air Racing arm of Howard Hughes' aircraft company has been working at a feverish pace to keep up with the innovative and groundbreaking designs offered by his chief opponent, Hayman Aerospace. The racing arm of the company began in 1933, as an offshoot thinktank of two partners of Hughes.

With two planes in production — the Hummingbird and the Charger — Hughes maintains its high standards when transferring technology and know-how to its racing platforms. Initially, Hughes wanted to save costs and convert many of his warplanes to racing models. However, with demand and sales for the racing airframes going through the roof elsewhere, Hughes was forced to open his own branch of the racing aircraft business.

Flown by some of the sport's top aviators, either through endorsement or contract, Hughes race planes have won their share of races, including a Bendix title and several professional races worldwide. While their success on the National Air Races circuit has not been fully realized, Hughes knows it is only a matter of time before he achieves status as "top dog."

"We're working very hard to ensure Mr. Hughes' race products are the best on the market and the product that leads the way for even the most scrutinizing racer," said Hughes Spokesman Fred Masters.

DAWSON AIRPLANES

Known to cater to pirates and other rogues of the air, Emil Dawson has built a reputation as a generally unscrupulous business man willing to make a buck from even the lowliest of scoundrels.

Dawson Airplanes, headquartered in Pacifica, reaches a wide variety of customers despite its small size and minimal marketing. With a plant that has never been viewed by the press, restricted to employees only, Dawson's capabilities are little known, but sources say Dawson has amassed some of the best engineering talent and salesmen in the Northwest.

HISTORY

Little is known of Dawson, although he is known to have immigrated from Europe in the 1900s and found his way to northwest by cutting a wide swath of business deals from the Atlantic to the Pacific. Many say he used bribery and graft to gain the bulk of his initial business, including several deals with companies that were "less than reputable," according to sources.

These days, Dawson relies on building aircraft for pirates, privateers and other air bandits in return for allegedly stolen secrets, goods and commodities. While nothing can be proven or pinned on Dawson personally, he is known by many as a man who keeps one hand on the card table and the other near a revolver.

His reputation has not stalled him from producing a fast racing plane. The Dawson Dagger is considered the fastest plane for the pilot who can control the unstable, dangerous aircraft. However, with speeds in excess of 330 mph, the Dagger presents itself as a worthy option for those willing to take her into the air.

Dawson also manufacturers three other fighter planes

— the AirLance, the Grunt and the Whistler — mainly purchased by pirates and those with less-than-large wallets.

OSAGE AVIATION COMPANY

The Osage Aviation Company prides itself on the highest craftsmanship money can buy in an aircraft, producing a limited line of planes for a very exclusive group of users – themselves.

Headquartered in the Osage Territory of the Republic of Texas, Osage Aviation has produced a line of fighter-interceptor aircraft for the sole purpose of protecting its vast oil fields and reserves within the territory. The line of fighters has served the tribe well-throughout the company's short-lived history.

HISTORY

Not founded by one particular person or member of the tribe, the Osage Aviation Company operates as a collective of trained engineers and workers. Since its creation in November of 1933, the company has created three aircraft for security purposes.

The tribe's massive wealth also led to a stint in air racing, so the company produced a racing plane called the Black Dog. The aircraft acted like a very ill version of its namesake on the racetrack during its first season.

The tribe's chief pilot for the air races, Henry Red Eagle, asked the Osage's to rebuild the Black Dog, after some advice and pointers from the grind across country. While the Black Dog 2 still has yet to be tested, engineers suspect the plane will fare well within the National Air Races competition.

BENDIX AVIATION CORPORATION

Born in Moline, Illinois, August 12, 1882, Vincent Bendix was the son of a Methodist Clergyman who was married to a Swedish farm girl.

At age 13 he worked for the Postal Telegraph Company in Chicago as a messenger during school vacation. He went to New York on his own at the age of 16, working as an elevator operator in a hospital. He later worked in their maintenance department, during which time he was taught practical electricity.

From there, he took up typing and stenography, after which he worked in the accounting department of a brewery, and from there he obtained a position at the Lackawanna Railroad Co. After this he went to work for a New York law firm, at the same time acquiring his education in law. Even though his varied aforementioned undertakings were of short duration, due to his indomitable perseverance and ability, he decided to diverge to mechanical engineering, specializing in automobile and automobile engine design. It was in this profession he started his business career and laid an early foundation for his later phenomenal success in the automotive and aviation fields.

In 1901, Bendix was hired by Glenn Curtiss (later a famous builder of airplanes) who was then building the Torpedo motorcycle. During this period he gleaned extensive knowledge about the internal-combustion engine and the power-propelled vehicle. When he felt he had sufficient insight in this field he struck out for something better.

The Bendix Trophy

In 1904, he saw the auto buggy and decided to make this his Alma Mater in the automobile business. At this time Holsman of Chicago was one of the leaders in the auto buggy field and Bendix became his general sales manager and was instrumental in the successful mar-

keting of the new and interesting Holsman high-wheel automobile.

His interests later turned chiefly to building aircraft parts and supplies while still keeping a large stake in the crumbling automotive industry.

He later founded the Bendix Airport 1930. It was incorporated and capitalized for $500,000 and officially opened June 21, 1931. In 1936 it was renamed “Bendix Field.”

He is founder and sponsor of the Bendix Transcontinental Air Race and donor of the Bendix Trophy.

OTHER ORGANIZATIONS

THE NATIONAL AIR RACING GROUP

From the Mojave to Miami. From Mexicali to Moose Jaw, volunteer members of the National Air Racing Group judge, time, flag, keep score and do a dozen other behind-the-scene chores, helping to keep the air races on track. The body also serves as the official policy making arm for the National Air Races, and includes a chairman of the board with 10 sitting members.

Formed almost immediately following the Pasadena Incident of 1920 by pilots and businessmen in what was then called California, the NARG administers the most sought after sporting event in North America. In addition to creating rules, officiating races and approving designs for new races courses, the NARG also creates and designs many of the souvenirs, mementos and trinkets taken home by fans following a great race.

NARG volunteers can be found working at Air Race headquarters in Pasadena, Calif. Volunteers also tabulate the final results after each racing event, and distribute as many as 2,000 copies of its national magazine, Air Racing, to members, racers and other bodies it sees fit to receive the publication. With a standing membership of more than 2,500 members (the official community of pilots, engineers, owners and others) and other 175,000 as part of its fan club, NARG also administers one of the largest mailing programs in North America.

The organization itself serves no other purpose than to act as the political arm of the air racing sport, ensuring its success in the community and offering politicians, community leaders and other high rollers an avenue to access racing pilots.

NATIONAL AIR RACING PILOTS ASSOCIATION

In the backmost table of a small bar in Pasadena, Calif., Loyle "Showstopper' Crawford punched Lowell Bayles in the mouth for not only shooting his plane out of the air during an air race but being arrogant, dangerous and careless with the aviators life.

When Crawford had finally stopped socking Bayles in the mouth, the two shook hands, shared a bottle of scotch and summarily laid the foundation for the National Air Racing Pilots Association in 1921. Now more than 100 pilots strong, NARPA serves as the union of aviators who fly in the National Air Races professionally. Only about 40 pilots fly on the professional circuit while the remainder fly in the smaller, less noticed semi-professional races.

A flyer cannot participate in the National Air Races without first being a card carrying member of NARPA. Hefty annual membership dues keep many good pilots out, but weed the less ambitious from those whose competitive spirit — and wallet — keep them professionals.

NARPA acts as a liaison between the National Air Racing group, keeping the purses in line with expected costs of running a race. In addition, NARPA provides limited insurance coverage, and offers a camaraderie for many pilots within the organization.

The organization also works closely with those nations that help drive the sport and its popularity. So far, the Republic of Texas, Dixie, the Empire State, Pacifica and the Nation of Hollywood have all pledged funds to ensure air racing will be viewed by millions of fans for years to come. In return, air racers who call those nations home act as spokesman for tourism, travel and other national causes.

NEW ORLEANS AIR PIRATES

Forged by the battle cry of "Vin, femmes, Vol et Chanson!" (Wine, Women, Flight and Song), the New Orleans Air Pirates trace their roots to a small bar on a Bourbon Street corner now patrolled by French Louisiana militia.

Captain Artest Hargave, the band's charismatic leader and once an aviation captain in New Orleans and a respected community leader, found the practices of the new government to be outdated and too provencial for his tastes. When the state seceded from the union, the government's grip around its citizenry and its ties with France grew once again.

Hargrave saw the movement toward a rejoinment with France as one that would surely sink the nation into a severe collapse, and wipe clean its Cajun, Creole and other ethnic heritages. He gathered several of his closest aviator friends at Napoleon's in the French Quarter and drew up plans to create his band of privateers.

The charter was drawn up almost immediately: sustain the people who had been pushed aside during the cessation —those in the outer lying areas in western and northern French Louisiana — and assure them they would not be harmed. The NOAP's primary targets would be those of the French Louisiana government. Specifically, shipping lanes from the state to its closest trading partners.

While French Louisiana's squabble with Texas might interfere with government operations, Hargrave saw the aggression as an opportunity to capitalize. He secretly formed alliances with Texas militia forces, especially senior leaders in Air Ranger Group 3. ARG 3 patrolled Texas eastern borders and was responsible for much of the activity into Louisana.

Hargrave and his eight cohorts found refuge in a stolen French Louisiana militia zeppelin, and cruise the skies overhead.

THE NINETY-NINES

The history of the Ninety-Nines is deeply rooted in air racing. The Women's Air Derby on August 13-20, 1929 gave women the opportunity to participate in an area of aviation that had been eluding them. Louise Thaden wrote:

"To us the successful completion of the Derby was of more import than life or death. Airplane and engine construction had advanced remarkably near the end of 1929. Scheduled air transportation was beginning to be a source of worry to the railroad. Nonetheless a pitiful minority were riding air lines. Commercial training schools needed more students. The public was skeptical of airplanes and air travel. We women of the Derby were out to prove that flying was safe; to sell aviation to the layman."

Prior to the Bendix Trophy Race, air racing officials just would not believe that women were skilled enough to compete against men. Women were encouraged to hold their own competitions. From this came competitions such as the Women's International Free-For-All. Occasionally, women were allowed to compete with the men, such as the National Air Race and Transcontinental Handicap Air Derby, but any accident gave race officials one more excuse to exclude women.

Such a situation occurred with Florence Klingensmith's fatal crash in a Gee Bee Y during the 1933 Frank Phillips Trophy Race in Chicago. That crash was the reason given for keeping women out of the 1934 Bendix Race. Protesting the decision, Amelia Earhart refused to fly actress Mary Pickford to Cleveland to open that year's races.

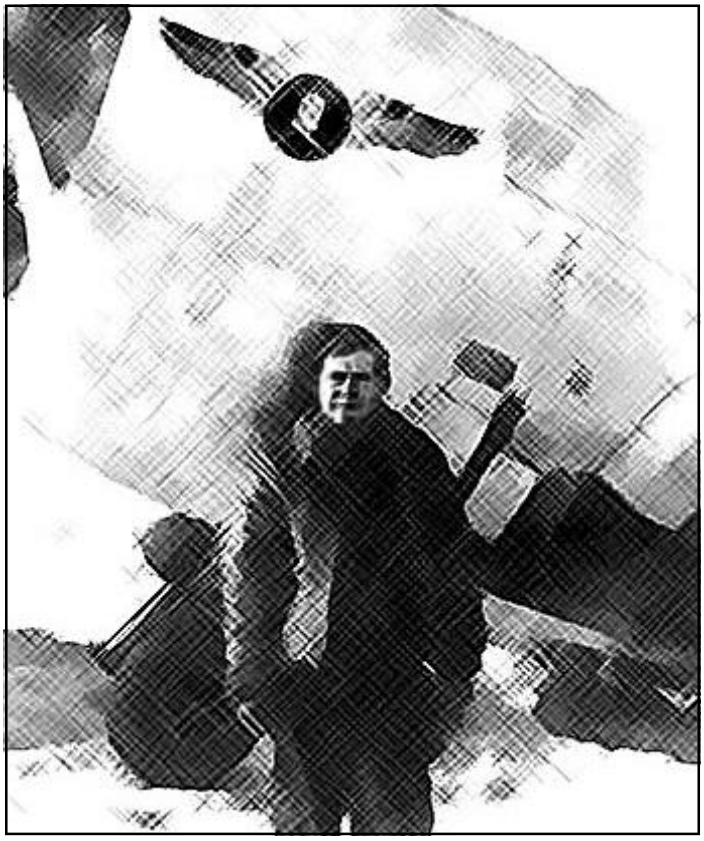
Although women were not allowed to compete in major races until the1930s, many air races created separate divisions for the women. The women's divisions were mirror images of the men's divisions, and it was soon noted that the women's times and speeds were very close to the men's.

One of the all-women races was the Dixie Derby from Washington, D.C. through the southern states and up to Chicago. Another was the Women's National Air Meet held in August 1934 at Dayton, Ohio. This race drew 20 women pilots for 20- and 50-mile free-for-all races.

During the 1930s, one of the more interesting races that made up the National Air Races was the Ruth Catterton Air Sportsman Pilot Trophy Race. This race, started in 1935, was not a speed race but a test of precision flying. Winners were the pilots that could navigate and pilot their aircraft the most accurately. Ruth Chatterton was an actress and private pilot, and agreed to sponsor the contest.

A SPECTATOR'S GUIDE TO AIR RACING

Crew chief offers his racing insights



By Clay Derringer
Air Racing Weekly

As any good fighter pilot will tell you, the key to having a good flying airplane is a good crew chief. No plane flies, gets painted, stays clean or reaches a top speed without the skilled hands of a great maintainer.

Within the maintenance world, a stint as a crew chief for an air racing pilot ranks as one of the elite slots. To make a plane run faster, weigh less and stay in the air is a feat that only few can accomplish, and the person closest to that before the race is the old crew dog.

Of the 50 or so on the circuit, his peers will tell you Eddie Brown stands head and shoulders above them all. Short, balding, with a mop of red hair and brilliant green eyes, most will tell you Brown is the most unassuming character you'll find out on the tarmac before a race.

But to watch him work is like seeing a skilled surgeon, or the best chefs of the Empire State, ply their craft. With him, it is oil, nuts, bolts, metal and the smell of gasoline combining to give his pilot – Lowell Bayles – the best ride he can build.

Maxwell is also the foremost authority on racing devices, contraptions and all the mechanics of a great race. In this listing, Brown details each of the air racing additions, rules and outlines what it takes to run an official National Air Races.

AIR RACING RULES

In general, follow the standard rules for playing Crimson Skies for movement, shooting, and combat. Racers can also use the rules found in "Behind the Crimson Veil" to make modifications. The following basic guidelines for creating air racing airplanes should apply:

GENERAL RULES - AIRCRAFT

■ Race planes should have a Base Target Number of 7 or better

■ Race planes should travel at a speed that is 4 or better

■ No autogyros are allowed in National Air Races events

■ May carry flare, flak, modified aerial mines, or sonic rockets. Planes may also carry racing devices (see Racing Devices explanation). Armor-piercing, high explosive, beeper-seeker, or drill rockets are prohibited. Aerial torpedoes are also prohibited.

■ Players may use any caliber of weapon their plane will carry, but may not use magnesium rounds in any race

GENERAL RULES — RACES

■ In most races, the objective is to complete one lap around the course.

■ A racer may not fly inside the course boundaries or off

the map, through voluntary or involuntary means. This results in a disqualification.

■ The first player to reach a finish line is deemed the victor. In many cases, planes will cross the line at the same time. See expanded rules for notes on this.

EXPANDED RULES

In general, the one race will consist of one lap around the arranged circuit. Markers – either pylons or aerostats will be used to indicate the locations of turns throughout the course. Course boundaries are measured by drawing from the center point of one turn marker (except zeppelins) to the center point of another marker. For zeppelins, use the nose and tail center points as a reference point.

A plane is determined off the course when it flies completely out of bounds. To determine an off-the-course ruling, use the standard CS aircraft base of a racing aircraft as a reference and directly centering it within a hex. If all portions of the clear, plastic base are outside the course boundaries, the racer is considered disqualified for the competition and receives no experience points.

MOVEMENT

Racers use standard Crimson Skies movement rules during races with the exception of performing a whiparound maneuver (see whiparound maneuver rules).

EXPERIENCE POINTS

Players earn experience by winning, placing or performing one of several acts during a race. Points are awarded for the following things:

EXPERIENCE TABLE

Event	Tally
Winning a race	30 points
2nd place finish	20 points
3rd place finish	10 points
Passing a plane (one time award)	10 points
Killing a pilot/downing a race plane	-30 points

WINNING THE RACE

The first aircraft to cross the start/finish point wins the race. If two players cross the line at the same time, the plane with the faster movement written in wins. If both movements are the same numbers, the plane with the highest top speed wins. If both planes have the same top speed, roll a d10 to determine the winner. The chart explains winning the race:

CHECK	FACTOR
1st check	First plane to cross the line
2nd check	Turn/movement speed check
3rd check	Plane top speed
4th check	d10 highest roll

RACING DEVICES

Several devices are available for pilots to mount on hardpoints for racing purposes. Planes are equipped with a number of modifications before the racing season as well to facilitate the National Air Races rulebook.

One of these modifications includes a modified beeper system used by drogue chutes. The beeper allows chutes to be fired onto a predesignated spot on each craft to eliminate damage from these missile objects.

Some aircraft are also preequipped with modified harpoon rockets for use in whiparound maneuvers and slowing opponents down.

Other devices include:

DROGUE CHUTES

Slowing an opponent down is usually only an option allowed by bad mechanics or traffic on the race course. Drogue chutes give racing opponents another opportunity to slow an opponent down. Attached to rocket hardpoints, these devices are launched like normal rockets during a race.

Mass: One hardpoint

Cost: $150

Game Effect: These missile-like projectiles anchor themselves to the rear of an opponent's plane. Once attached, the Brown Seeker pops a small parachute, which causes the opponent's plane to decelerate to a maximum speed of one for the next turn. The seeker chute detaches itself after one round. Two or more attached Brown Seekers will cause an opponent's plane to stall next turn. No damage is incurred.

REAR OIL SPRAYERS

Another good means of slowing an opponent on a racer's

six is to cloud up his windscreen. This can be done through the use of a Hayman Rearward Oil Sprayer. These canisters are mounted on hard points and spray an inky, oily liquid onto the opponent's cockpit.

Mass: One hardpoint

Cost: $100

Game Effect: The effect causes the opponent to slow to a random speed rolled on a d10/2 for two turns and he must fly straight (the racer is allowed to make a legal facing movement). He then rolls a d6 and halves it for the number of rounds his plane is affected by the oily mess.

MODIFIED HARPOON ROCKETS

Another device used to slow an opponent's progress, the MHR (tow cable rocket) uses a grappling hook to attach itself to an opponent's aircraft and slow its progress. Under the right circumstances, the MHR will also give the firing pilot a speed advance. See the rule for this later in the chapter.

Mass: One hardpoint

Cost: $250

Game Effect: If the towing plane is heavier than the plane being towed, then the player being towed has successfully attached and can be towed for d6/2 rounds or until the next turn on the course, effectively gaining the towing plane's speed. If the trailing plane is heavier than the lead plane, the grappling device is torn out and the trailing plane takes one flak hit to a frontal location.

MODIFIED AERIAL MINES

To discourage fellow racers from following closely behind on a player's tail, the National Air Races recently allowed the use of low-explosive aerial mines. These mines act the same as their military brethren, but contain less kick.

Mass: One-half hardpoint

Cost: $65

Game Effect: Aerial mines are deployed in the movement phase. A player may add the 'M' suffix to his pilot's movement orders to indicate the release of a mine (along with the number in brackets if the pilot deploys more than one). For example, if the pilot were releasing two aerial mines, his movement order would be 4R2M[2]. When a mine is released, place a flak burst counter in the hex occupied by the aircraft at the start of its movement. The aerial mine detonates in that hex at the end of the same movement phase. Treat damage and effects as for .40-caliber AP rounds.

OTHER RULES

Several other rules also apply to air racing:

COLLISIONS AND "RUBBIN'"

Collisions in air races follow the regular Crimson Skies rules; with the exception of something air racers call "Rubbin'." Air Racers will, from time to time, attempt to touch paint with their fellow competitors.

When two planes find themselves in the same hex, perform the standard collision check with the following modifications:

■ If both players match numbers, normally a collision would take place. Players may follow normal CS rules for collisions, the modified rules or may use the following rules in air races.

■ ■ If racers end up with the same collision number, the numbers may be moved by 1 for players whose natural touch is 6 or higher to avoid the collision number. If neither can move the number, the planes collide and damage is incurred. Because of the aerial dexterity employed by air racers who always fly close, each plane takes only one flak hit to the appropriate location.

■ ■ If Racer 1 shows a 9, and Racer 2 shows an 8, either racer, based on their natural touch level, can make a modification to "rub" his fellow competitor. If only one racer may perform this act, the player whose number is being matched will be "rubbed" and effectively damaged by the opposing pilot. The player who was hit takes one flak hit to the appropriate location.

PLACING FLAK DURING AIR RACES

Flak will be placed during Canyon Run-style and Zeppelin Run-style races. The flak will only be placed as racers are making the turn around the zeppelin (zeppelin run) or in the canyon walls.

Flak should not be placed purposely to remove flyers from a race, and should be placed by someone who is not participating race (a store owner, friend or other neutral party).

CANYON RUN

Flak will be placed during each turn planes are within canyon walls. Treat damage and effects as for flak rockets (p.

42 Rules of Air Combat).

ZEPPELIN RUN

Flak will be placed during each turn planes are passing by the zeppelins, and will stop when the final plane is out of the zeppelins range. Treat damage and effects as for flak rockets (p. 42 Rules of Air Combat).

TETHERED AEROSTATS

Aerostats are used in place of pylons for Zeppelin Run and some Open Skies class races. These small dirigibles float about 1,000 feet in the air and are filled with hydrogen.

Created by various manufacturers, aerostats are usually unarmed, but for certain Open Skies events, are mounted with a .30-caliber turret and a gunner.

Base Target Value: 2

PYLONS

Air racing pylons stand about 100-feet high, and are usually made of wood or aluminum. All pylons are stationary objects, usually mounted with flags to indicate a turning point or location on the course. Pylons are static objects and are never armed.

Base Target Value: 3

SKY HIGH CAFÉ

The most famous "pylon" is the Sky High Café, located on the third turn of the Pasadena racecourse. This facility, a restaurant and lounge accommodating more than 200 people, sits atop a pylon 200 feet in the air. Huge bay windows look out over the racecourse.

The Sky High Café is the most frequent location used for whiparound maneuvers, although only about 20 percent of them are completed successfully.

Base Target Value: 1

TOW CABLE USE

A tow cable, or modified harpoon rocket, can be used one of two ways on a race course. They are outlined here:

SLOWING AN AIRCRAFT. An aircraft trailing an opponent may use a tow cable to effectively slow down an opponent in flight, reducing his opponent's speed and increasing his own. To attempt to slow an opponent by using a tow cable, a pilot must first fire the cable harpoon, using normal to-hit tables (a tow cable range of 4 should be used to estimate range and the plane's normal base to-hit number). If trailing plane hits the opponent's aircraft, use the following formula to determine effect:

Base Target Number 16 (attempting to slow a plane) + 2 (if shocked) +1 (attempting to gain speed) - (sixth sense) - (natural touch).

A successful roll means the pilot has attached the cable and will perform the manuever. A seocnd roll of the d10 determines the effect.

1-5 - slows the opponent's plane by 1; no effect on trailing plane

6-9 - slows the opponent's plane by 2; increases trailing plane speed by 1

10 - No effect on opponent's plane; trailing plane has hard point ripped from wing and incurs flak damage (use the flak damage template).

ATTEMPTING TO WHIPAROUND. A high-speed racing plane is capable of being extremely nimble and making sharp turns around tight corners. Sometimes, however, it needs help. A pilot can attempt to attach his tow cable to a pylon or aerostat in an attempt to "whiparound" the object, gain speed and shoot into a straight away. This manuever has only been performed three times successfully. in Air Racing history.

This is a one-time manuever, the most difficult of all racing moves, if successful offers tremendous advantages to the pilot, including a terrific gain in speed and position.. If failed, it could cost him the race, his aircraft or even his life. To attempt a whiparound manuever, the targeted hex must be within the target range of the tow cable (4 hexes) and he must roll to hit the pylon/aerostat. If he hits the target, use the following formula to engage the whiparound manuever:

Base target number 23 (attempting the whiparound manuever) + 2 (if shocked) + 1 (attempting to gain speed) - (natural touch) - (sixth sense) - (steady hand).

If successful, roll a d10 to determine the results:

1-4 - Pilot completes whiparound one hex past normal, allowable range with no damage incurred to air frame.

5-8 - Pilot completes whiparound manuever two hexes past normal, allowable range with one stress fracture to the

outermost wing during the manuever.

9-10 - Pilot completes whiparound manuever three hexes past normal, allowable range with two stress fractures concurrent to the outermost wing during the manuever.

Failure to complete the manuever means a roll on the table below:

1-5 - No change in movement; no damage

6-8 - No change in movement; flak damage to the front of the outer most wing rolling a d10 for location

9-10 - Plane advances three hexes forward and uses random movement table to complete manuever; incurs two flak damage markers on outermost wing.

RP-1 DASHER

The original and still one of the best, the RP-1 Dasher is one of Hayman Aerospace's best-selling aircraft and a fine addition to any racing organization's stable of planes.

The Hayman Aerospace RP-1 Dasher is the first in a line of three racing planes constructed by aircraft manufacturer Jimmy Hayman. The Dasher emphasizes light-weight, speed and endurance while maintaining a high degree of competitiveness through various aerial racing add-ons.

DESIGN HISTORY

The Dasher was first created in 1936 and is powered by a front-mounted Rolls Royce V-12 2200 engine that creates nearly 1,300 horsepower, allowing the Dasher to exceed speeds of 325 mph without stress on the airframe.

The Dasher's small forward-swept wings present a more effective means of cutting the air for racing pilots and provide for greater maneuverability due to their smaller surface area. Still, the Dasher is nose heavy and requires the pilot to maintain a high speed in order to keep from stalling.

In addition to three hardpoints (which allow for mounting of modified harpoon rockets as tow cables or turn devices), the Dasher also sports two .30-caliber cannons, manufactured by Browning. The cannons are wing-mounted and are removable, the only system of its kind for a racing plane.

The cockpit uses a series of sophisticated radio equipment and technology to convey racing pilots information. The includes a descriptive "head-up" display showing amounts of stores, ammunition and other crucial levels.

The Dasher and other Hayman Aerospace components are manufacturered at one of two plants, one in Mira Loma, in the Nation of Hollywood, and the other near Dallas in the Republic of Texas. The Dasher and its variants are the top selling racing aircraft in North America, and are especially good sellers in the two nations where they are made.

RP-1 Dasher

Pilot Name	Kills	Squadron Name	Plane Name

Natural Touch	Sixth Sense	Dead Eye	Steady Hand	Constitution	Quick Draw

GUNS	1	2	3	4	5	6	7	8
Caliber				30	30			
Ammo								
Range				7	7			
Jammed								

ROCKETS	1	2	3	4	5	6	7	8
Type								
Range								

Experience Points

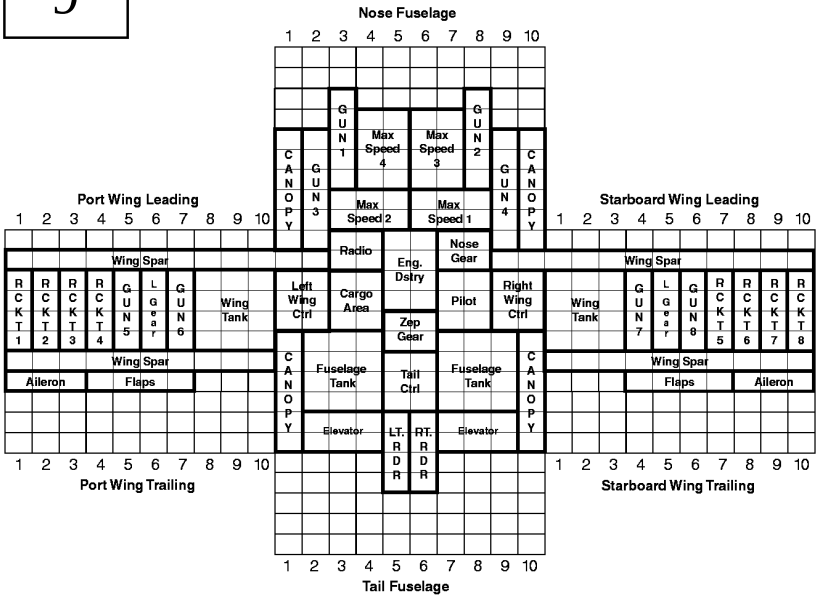
Combat Experience:
- Survived Mission & Inflicted Damage (20pts) _____
- 1st Kill of mission (20 pts) _____
- 2nd Kill of mission (40 pts) _____
- 3rd Kill of mission (60 pts) _____
- Additional Kills (80 pts each) _____

Additional Experience
- Successful landing or zeppelin hook (10 pts) _____
- Retrieved "memento" during bail-out (5 pts) _____
- Rescued cargo or passenger (10 pts) _____
- Bailed out without being shot down (-20 pts) _____
- Fled engagement (-20 pts) _____

Total experience earned for mission _____

Base To-Hit

9



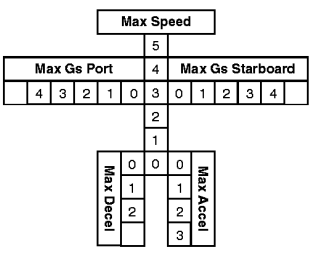
Redlining Engine Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Stalling Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Starboard Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Port Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Aircraft Performance



Turn	Maneuver	Gs	Specials		Jammed
1			Push	Shock	
			Smoke	Shock-G	
2			Push	Shock	
			Smoke	Shock-G	
3			Push	Shock	
			Smoke	Shock-G	
4			Push	Shock	
			Smoke	Shock-G	
5			Push	Shock	
			Smoke	Shock-G	
6			Push	Shock	
			Smoke	Shock-G	
7			Push	Shock	
			Smoke	Shock-G	
8			Push	Shock	
			Smoke	Shock-G	
9			Push	Shock	
			Smoke	Shock-G	
10			Push	Shock	
			Smoke	Shock-G	
11			Push	Shock	
			Smoke	Shock-G	
12			Push	Shock	
			Smoke	Shock-G	
13			Push	Shock	
			Smoke	Shock-G	
14			Push	Shock	
			Smoke	Shock-G	
15			Push	Shock	
			Smoke	Shock-G	
16			Push	Shock	
			Smoke	Shock-G	
17			Push	Shock	
			Smoke	Shock-G	
18			Push	Shock	
			Smoke	Shock-G	
19			Push	Shock	
			Smoke	Shock-G	
20			Push	Shock	
			Smoke	Shock-G	
21			Push	Shock	
			Smoke	Shock-G	
22			Push	Shock	
			Smoke	Shock-G	
23			Push	Shock	
			Smoke	Shock-G	
24			Push	Shock	
			Smoke	Shock-G	

RP-2 STRIPE

Hayman's RP-2 represents a mid-range flyer that almost any would-be racing team can start with.

The RP-2 Stripe is the mid-range model racing plane from Hayman Aerospace, combining the aerodynamic stability of the company's MF-5 Hacksaw war plane with the agility of the RP-1 Dasher.

DESIGN HISTORY

The puller-prop V-10 Allison power plant generates almost 1,200 horsepower, ushering the craft to almost 275 mph. The craft is perhaps the roomiest of race planes, seating its pilot comfortably within a modern cockpit with excellent visibility and a light stick.

The Stripe is the only Hayman race plane not equipped with guns. Many pilots perceive this lack of weapons on the Stripe as a detriment. However, where the Stripe lacks in cannons, it makes up in hardpoints. The Stripe has four stations for racing devices and other ordnance, and sports one of the best overall agility ratings in the series.

The price of a Stripe is about average for a racing plane, and Hayman Aerospace sells enough to continue to manufacture the bird. Known clients include Ronny Miles, of the Free Colorado State Gunslingers race team and Miles Brabish, who races on an independent ticket.

RP-2 Stripe

Pilot Name	Kills	Squadron Name	Plane Name

Natural Touch	Sixth Sense	Dead Eye	Steady Hand	Constitution	Quick Draw

GUNS	1	2	3	4	5	6	7	8
Caliber								
Ammo								
Range								
Jammed								

ROCKETS	1	2	3	4	5	6	7	8
Type								
Range								

Experience Points

Combat Experience:

- Survived Mission & Inflicted Damage (20pts) _____
- 1st Kill of mission (20 pts) _____
- 2nd Kill of mission (40 pts) _____
- 3rd Kill of mission (60 pts) _____
- Additional Kills (80 pts each) _____

Additional Experience

- Successful landing or zeppelin hook (10 pts) _____
- Retrieved "memento" during bail-out (5 pts) _____
- Rescued cargo or passenger (10 pts) _____
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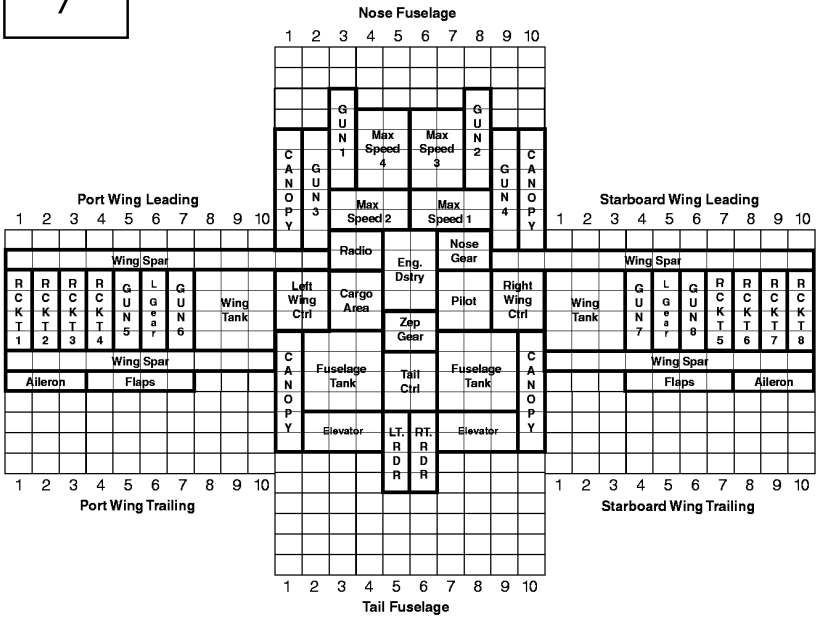
- Fled engagement (-20 pts) _____

Total experience earned for mission _____

Base To-Hit

7



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8 (Base Number)
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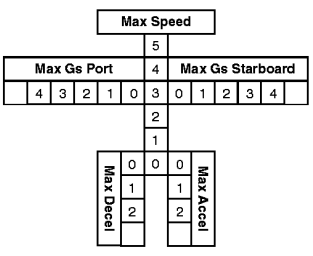
Aircraft Performance



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			Smoke	Shock-G	
5			Push	Shock	
			Smoke	Shock-G	
6			Push	Shock	
			Smoke	Shock-G	
7			Push	Shock	
			Smoke	Shock-G	
8			Push	Shock	
			Smoke	Shock-G	
9			Push	Shock	
			Smoke	Shock-G	
10			Push	Shock	
			Smoke	Shock-G	
11			Push	Shock	
			Smoke	Shock-G	
12			Push	Shock	
			Smoke	Shock-G	
13			Push	Shock	
			Smoke	Shock-G	
14			Push	Shock	
			Smoke	Shock-G	
15			Push	Shock	
			Smoke	Shock-G	
16			Push	Shock	
			Smoke	Shock-G	
17			Push	Shock	
			Smoke	Shock-G	
18			Push	Shock	
			Smoke	Shock-G	
19			Push	Shock	
			Smoke	Shock-G	
20			Push	Shock	
			Smoke	Shock-G	
21			Push	Shock	
			Smoke	Shock-G	
22			Push	Shock	
			Smoke	Shock-G	
23			Push	Shock	
			Smoke	Shock-G	
24			Push	Shock	
			Smoke	Shock-G	

RP-3 STREAK

The RP-3 represents the finest in racing aircraft engineering. Fast, agile and a dream to handle, the Streak, while costly, offers the racing pilot the best opportunity for victory.

The most modern of all race planes, the RP-3 Streak brings together the finest in aerial craftsmanship with the pinpoint engineering expected for a competitive, agile race craft. It is the first truly pure race plane.

DESIGN HISTORY

Created in late 1936 by Hayman Aerospace, the Streak employs all the latest aeronautical aviation advances including rear-swept wings, an engine constructed of an amazingly light rear-mounted aluminum alloy and onboard systems that make it second-to-none.

Churning out more than 1,500 horsepower from a V-16 Allison 3000 engine (using a six-blade prop), the Streak has also has the smallest cockpit space, squeezing its pilot into confines normally allotted for people taking bathes or stepping into a phone booth. Wing slats, flaps, ailerons and other surface devices are controlled from a single stick and foot pedals, giving the pilot amazing control and more than 375 mph worth of air speed.

One single, nose-mounted .40-caliber cannon allows its pilot to annoy even the hastiest of competitors while sporting three hardpoints for racing devices. The Streak also comes hard-mounted with a tow cable in the fuselage, including 500 yards of cable.

PILOTS AND RECORDS

The Streak may is also the most costly of any racing craft, pricing in at almost $17,000 per unit. Hayman guarantees each airplane, and flies the craft to its buyer himself. Hayman has delivered the aircraft to the likes of Lowell Bayles, Marshall Bill Redman (who purchased one as a fancy) and Paladin Blake.

RP-3 Streak

Pilot Name	Kills	Squadron Name	Plane Name

Natural Touch	Sixth Sense	Dead Eye	Steady Hand	Constitution	Quick Draw

GUNS	1	2	3	4	5	6	7	8
Caliber				40				
Ammo								
Range				6				
Jammed								

ROCKETS	1	2	3	4	5	6	7	8
Type								
Range								

Experience Points

Combat Experience:

- Survived Mission & Inflicted Damage (20pts) _____
- 1st Kill of mission (20 pts) _____
- 2nd Kill of mission (40 pts) _____
- 3rd Kill of mission (60 pts) _____
- Additional Kills (80 pts each) _____

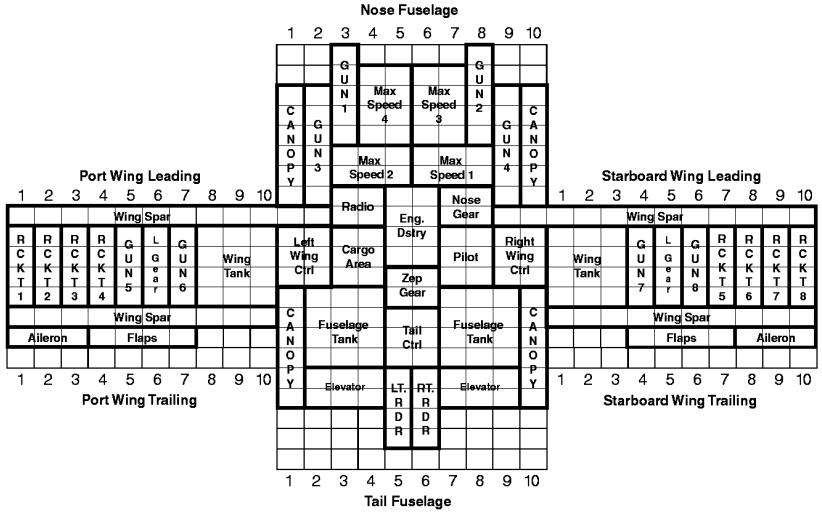
Additional Experience

- Successful landing or zeppelin hook (10 pts) _____
- Retrieved "memento" during bail-out (5 pts) _____
- Rescued cargo or passenger (10 pts) _____
- Bailed out without being shot down (-20 pts) _____
- Fled engagement (-20 pts) _____

Total experience earned for mission _____

Base To-Hit

10



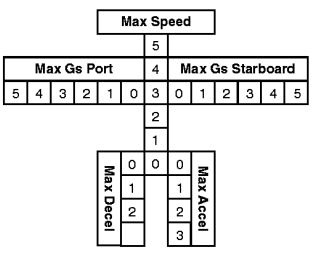
Redlining Engine Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Stalling Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Starboard Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Port Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Aircraft Performance



Turn	Maneuver	Gs	Specials		Jammed
1			Push	Shock	
			Smoke	Shock-G	
2			Push	Shock	
			Smoke	Shock-G	
3			Push	Shock	
			Smoke	Shock-G	
4			Push	Shock	
			Smoke	Shock-G	
5			Push	Shock	
			Smoke	Shock-G	
6			Push	Shock	
			Smoke	Shock-G	
7			Push	Shock	
			Smoke	Shock-G	
8			Push	Shock	
			Smoke	Shock-G	
9			Push	Shock	
			Smoke	Shock-G	
10			Push	Shock	
			Smoke	Shock-G	
11			Push	Shock	
			Smoke	Shock-G	
12			Push	Shock	
			Smoke	Shock-G	
13			Push	Shock	
			Smoke	Shock-G	
14			Push	Shock	
			Smoke	Shock-G	
15			Push	Shock	
			Smoke	Shock-G	
16			Push	Shock	
			Smoke	Shock-G	
17			Push	Shock	
			Smoke	Shock-G	
18			Push	Shock	
			Smoke	Shock-G	
19			Push	Shock	
			Smoke	Shock-G	
20			Push	Shock	
			Smoke	Shock-G	
21			Push	Shock	
			Smoke	Shock-G	
22			Push	Shock	
			Smoke	Shock-G	
23			Push	Shock	
			Smoke	Shock-G	
24			Push	Shock	
			Smoke	Shock-G	

HUMMINGBIRD

Hughes' famous reliability and integirty give the racecraft excellent staying power on the racing course for the long haul, according to its manufacturers.

Steeped in the tradition of great Hughes Aircraft, the Hummingbird is Howard Hughes' first offering to the racing community. Sleek, light, agile and ergonomic, the Hummingbird is a popular plane with those who fly in the Nation of Hollywood and with those who fly within the Industrial States of America.

Hughes' famous reliability and integirty give the racecraft excellent staying power on the racing course for the long haul, according to its manufacturers.

DESIGN HISTORY

Powered by twin Allison V-10 six-bladed turboprops mounted on the front and rear of the plane, the Hummingbird generates close to 1,285 horsepower and eclipses speeds of 285 mph without problems. Many pilots have modified the airframe and fuselage, and achieved speeds close to 320-330 mph.

Equipped with three .30-caliber Browning machine guns, the Hummingbird also sports enough firepower to waylay any opponent. It's drawback — only two hardpoints for stores and racing devices. Hughes engineered the Hummingbird first for speed, and second for its ability to make sharp turns and mark time across race courses.

Hughes has produced more than 350 Hummingbirds since 1935. Leotis Crandell in Dixie is perhaps the most well-known of the Hummingbird racing pilot, achieving two wins in the bird.

Crimson Skies

Hummingbird

Pilot Name	Kills	Squadron Name	Plane Name

Natural Touch	Sixth Sense	Dead Eye	Steady Hand	Constitution	Quick Draw

GUNS	1	2	3	4	5	6	7	8
Caliber	30	30		30				
Ammo								
Range	7	7		7				
Jammed								

ROCKETS	1	2	3	4	5	6	7	8
Type								
Range								

Experience Points

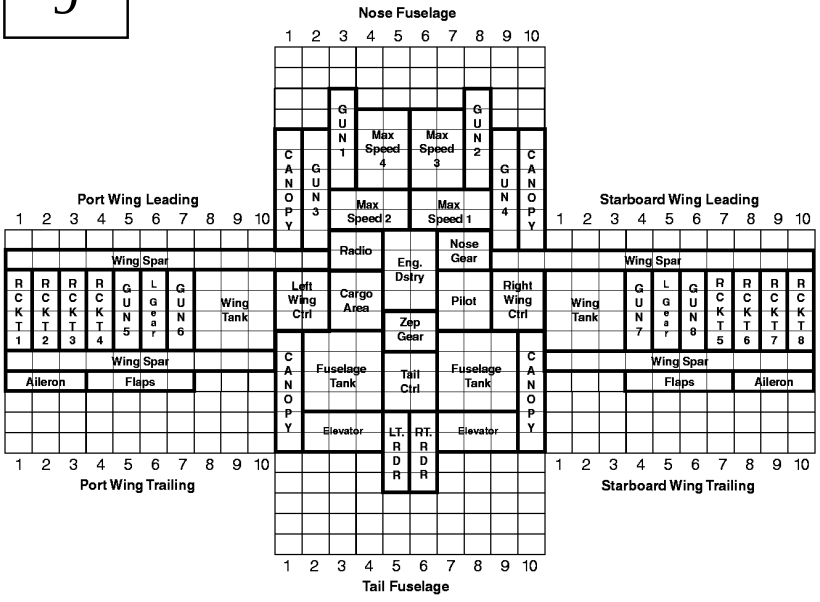
Combat Experience:
- Survived Mission & Inflicted Damage (20pts) _____
- 1st Kill of mission (20 pts) _____
- 2nd Kill of mission (40 pts) _____
- 3rd Kill of mission (60 pts) _____
- Additional Kills (80 pts each) _____

Additional Experience
- Successful landing or zeppelin hook (10 pts) _____
- Retrieved "memento" during bail-out (5 pts) _____
- Rescued cargo or passenger (10 pts) _____
- Bailed out without being shot down (-20 pts) _____
- Fled engagement (-20 pts) _____

Total experience earned for mission _____

Base To-Hit

9



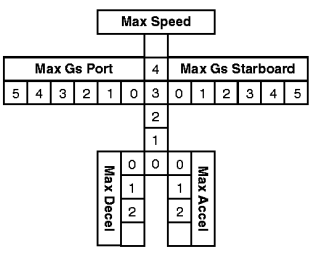
Redlining Engine Calculation
- **8** (Base Number)
- \+ Amount over Current Max.
- \+ 2 if Shocked
- \- Pilot Natural Touch Skill
- **= Target Number**

Stalling Calculation
- **8** (Base Number)
- \+ Amount over Current Max.
- \+ 2 if Shocked
- \- Pilot Natural Touch Skill
- **= Target Number**

Starboard Gs Calculation
- **8** (Base Number)
- \+ Amount over Current Max.
- \+ 2 if Shocked
- \- Pilot Natural Touch Skill
- **= Target Number**

Port Gs Calculation
- **8** (Base Number)
- \+ Amount over Current Max.
- \+ 2 if Shocked
- \- Pilot Natural Touch Skill
- **= Target Number**

Aircraft Performance



Turn	Maneuver	Gs	Specials		Jammed
1			Push	Shock	
			Smoke	Shock-G	
2			Push	Shock	
			Smoke	Shock-G	
3			Push	Shock	
			Smoke	Shock-G	
4			Push	Shock	
			Smoke	Shock-G	
5			Push	Shock	
			Smoke	Shock-G	
6			Push	Shock	
			Smoke	Shock-G	
7			Push	Shock	
			Smoke	Shock-G	
8			Push	Shock	
			Smoke	Shock-G	
9			Push	Shock	
			Smoke	Shock-G	
10			Push	Shock	
			Smoke	Shock-G	
11			Push	Shock	
			Smoke	Shock-G	
12			Push	Shock	
			Smoke	Shock-G	
13			Push	Shock	
			Smoke	Shock-G	
14			Push	Shock	
			Smoke	Shock-G	
15			Push	Shock	
			Smoke	Shock-G	
16			Push	Shock	
			Smoke	Shock-G	
17			Push	Shock	
			Smoke	Shock-G	
18			Push	Shock	
			Smoke	Shock-G	
19			Push	Shock	
			Smoke	Shock-G	
20			Push	Shock	
			Smoke	Shock-G	
21			Push	Shock	
			Smoke	Shock-G	
22			Push	Shock	
			Smoke	Shock-G	
23			Push	Shock	
			Smoke	Shock-G	
24			Push	Shock	
			Smoke	Shock-G	

CHARGER

Built primarily as an aerobatic plane, the Charger has gained fame from those pilots who modified this twin-winged aircraft to suit racing needs.

Long and elegant, as a broadsword might be if thrown into the sky, the Hughes Aviation Charger may be the most unusual entrant into the National Air Races circuit. Built primarily as an aerobatic plane, the Charger has gained fame from those pilots who modified this twin-winged aircraft to suit racing needs.

DESIGN HISTORY

The Charger sports one V-16 Allison engine, capable of about 350 horsepower. But the planes tremendous weight only allows it an air speed of about 275 mph. The key to achieving success in the Charger is removing much of the planes inner workings, about 35 percent of its armor and tinkering with the flying surfaces to achieve a smooth, faster ride. That can usually mean speeds of about 310 mph.

The Charger may also be the best equipped of any racing aircraft. Originally, it had no weaponry to speak of. However, Hughes last 150 models have come equipped with one forward-fixed .60-caliber cannon, and four hardpoints for racing devices. While adding to the weight of the plane, the cannon does provide the greatest deterrent to flyers that feel they should be in front of this dangerous plane.

The Charger can be seen more in the events preceding a National Air Race, performing stunts, stall, twists and turns in the sky. A few pilots have modified the plane to race to their needs, including Gordon Harris, flying for Alaska, and Bobby Knight, who flies for himself.

Crimson Skies

Charger

Pilot Name	Kills	Squadron Name	Plane Name

Natural Touch	Sixth Sense	Dead Eye	Steady Hand	Constitution	Quick Draw

GUNS	1	2	3	4	5	6	7	8
Caliber	60							
Ammo								
Range	4							
Jammed								

ROCKETS	1	2	3	4	5	6	7	8
Type								
Range								

Experience Points

Combat Experience:

- Survived Mission & Inflicted Damage (20pts) _____
- 1st Kill of mission (20 pts) _____
- 2nd Kill of mission (40 pts) _____
- 3rd Kill of mission (60 pts) _____
- Additional Kills (80 pts each) _____

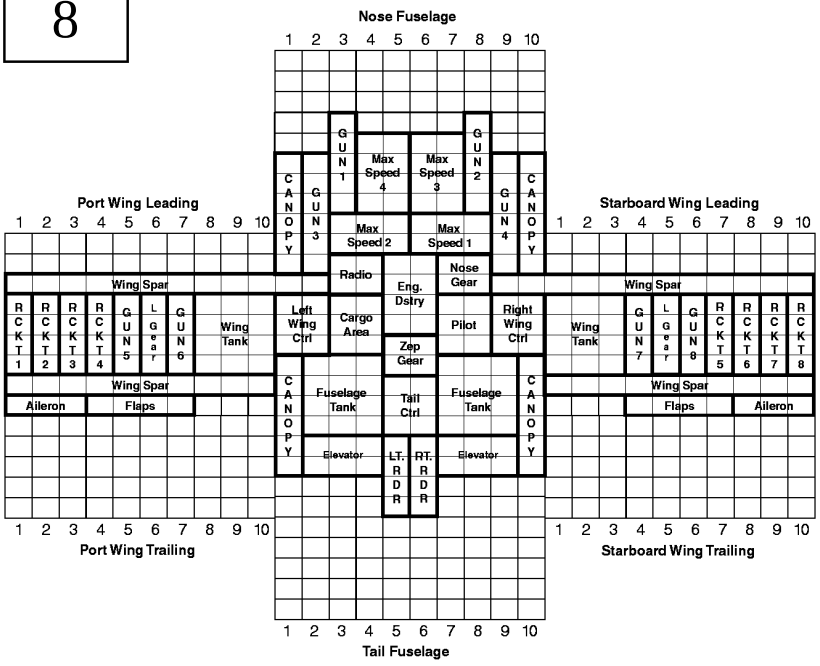
Additional Experience

- Successful landing or zeppelin hook (10 pts) _____
- Retrieved "memento" during bail-out (5 pts) _____
- Rescued cargo or passenger (10 pts) _____
- Bailed out without being shot down (-20 pts) _____
- Fled engagement (-20 pts) _____

Total experience earned for mission _____

Base To-Hit

8



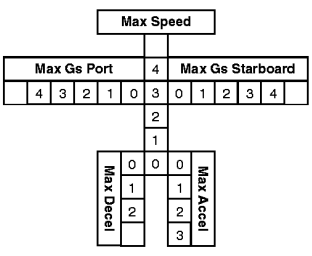
Redlining Engine Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Stalling Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Starboard Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Port Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Aircraft Performance



Turn	Maneuver	Gs	Specials		Jammed
1			Push	Shock	
			Smoke	Shock-G	
2			Push	Shock	
			Smoke	Shock-G	
3			Push	Shock	
			Smoke	Shock-G	
4			Push	Shock	
			Smoke	Shock-G	
5			Push	Shock	
			Smoke	Shock-G	
6			Push	Shock	
			Smoke	Shock-G	
7			Push	Shock	
			Smoke	Shock-G	
8			Push	Shock	
			Smoke	Shock-G	
9			Push	Shock	
			Smoke	Shock-G	
10			Push	Shock	
			Smoke	Shock-G	
11			Push	Shock	
			Smoke	Shock-G	
12			Push	Shock	
			Smoke	Shock-G	
13			Push	Shock	
			Smoke	Shock-G	
14			Push	Shock	
			Smoke	Shock-G	
15			Push	Shock	
			Smoke	Shock-G	
16			Push	Shock	
			Smoke	Shock-G	
17			Push	Shock	
			Smoke	Shock-G	
18			Push	Shock	
			Smoke	Shock-G	
19			Push	Shock	
			Smoke	Shock-G	
20			Push	Shock	
			Smoke	Shock-G	
21			Push	Shock	
			Smoke	Shock-G	
22			Push	Shock	
			Smoke	Shock-G	
23			Push	Shock	
			Smoke	Shock-G	
24			Push	Shock	
			Smoke	Shock-G	

DAGGER

Several Daggers have broken apart in flight because their pilots could not master the fine balance of airmanship with the raw flying talent needed to keep this bird in the air.

While Jimmy Hayman sets the standard as racing aviation chief maverick, Emil Dawson follows a close second (and doesn't pretend to be friends with any of his fellow aircraft manufacturers). That said, he also created one of the swiftest, most powerful and most dangerous racing aircraft on the circuit, the Dawson Dagger.

DESIGN HISTORY

Tiny like the Gee Bee Z, the Dagger sports a massive V-16 Rolls Royce power plant like an enormous nose in the front of the aircraft set with a four-bladed prop. Because its wing size is slightly larger than its fuselage length, the power plant is able to generate a tremendous amount of velocity, almost 330 mph, but makes the aircraft unstable. Several Daggers have broken apart in flight because their pilots could not master the fine balance of airmanship with the raw flying talent needed to keep this bird in the air.

Equipped with one .40-caliber machine gun, the Dagger is prepared to be a nuisance to any competing flyer, but its tiny size leaves it woefully short of hardpoints — only two.

Only a handful of aviators will trust their life in a Dawson Dagger, but those who do usually find tremendous success. Jeff "Macho" Monda of the Redmann Gang has achieved limited success in the plane, but wrecked it once in a horrifying crash near Laredo. Another pirate, Samuel "Tallboy" James has also attempted to drive the Dagger with little success on the circuit.

Crimson Skies

Dagger

Pilot Name	Kills	Squadron Name	Plane Name

Natural Touch	Sixth Sense	Dead Eye	Steady Hand	Constitution	Quick Draw

GUNS	1	2	3	4	5	6	7	8
Caliber	40							
Ammo								
Range	6							
Jammed								

ROCKETS	1	2	3	4	5	6	7	8
Type								
Range								

Experience Points

Combat Experience:

- Survived Mission & Inflicted Damage (20pts) _____
- 1st Kill of mission (20 pts) _____
- 2nd Kill of mission (40 pts) _____
- 3rd Kill of mission (60 pts) _____
- Additional Kills (80 pts each) _____

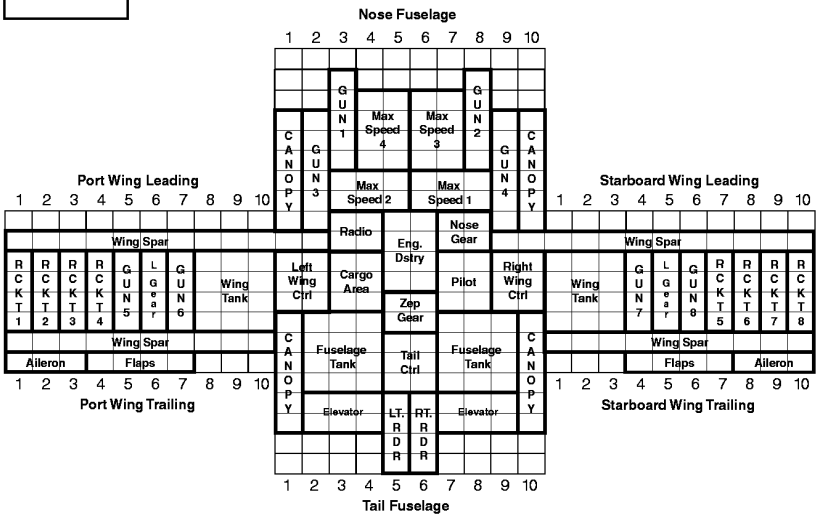
Additional Experience

- Successful landing or zeppelin hook (10 pts) _____
- Retrieved "memento" during bail-out (5 pts) _____
- Rescued cargo or passenger (10 pts) _____
- Bailed out without being shot down (-20 pts) _____
- Fled engagement (-20 pts) _____

Total experience earned for mission _____

Base To-Hit

10



Turn	Maneuver	Gs	Specials		Jammed
1			Push	Shock	
			Smoke	Shock-G	
2			Push	Shock	
			Smoke	Shock-G	
3			Push	Shock	
			Smoke	Shock-G	
4			Push	Shock	
			Smoke	Shock-G	
5			Push	Shock	
			Smoke	Shock-G	
6			Push	Shock	
			Smoke	Shock-G	
7			Push	Shock	
			Smoke	Shock-G	
8			Push	Shock	
			Smoke	Shock-G	
9			Push	Shock	
			Smoke	Shock-G	
10			Push	Shock	
			Smoke	Shock-G	
11			Push	Shock	
			Smoke	Shock-G	
12			Push	Shock	
			Smoke	Shock-G	
13			Push	Shock	
			Smoke	Shock-G	
14			Push	Shock	
			Smoke	Shock-G	
15			Push	Shock	
			Smoke	Shock-G	
16			Push	Shock	
			Smoke	Shock-G	
17			Push	Shock	
			Smoke	Shock-G	
18			Push	Shock	
			Smoke	Shock-G	
19			Push	Shock	
			Smoke	Shock-G	
20			Push	Shock	
			Smoke	Shock-G	
21			Push	Shock	
			Smoke	Shock-G	
22			Push	Shock	
			Smoke	Shock-G	
23			Push	Shock	
			Smoke	Shock-G	
24			Push	Shock	
			Smoke	Shock-G	

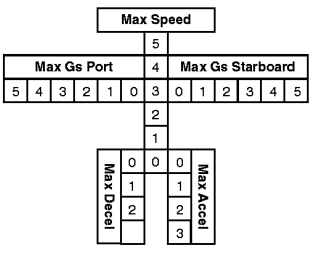
Redlining Engine Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Stalling Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Starboard Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Port Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Aircraft Performance



BLACK DOG 2

The "Pilot Lying Forward" cockpit decreases visibility, but allows for better handling of the severe G forces exuded when the plane made sharp turns.

After becoming a breakaway nation from the Republic of Texas and the neighboring Navajo state, The Osage Indian tribe decided it was in need of a flying militia to defend its borders.

Over time, after building reliable, tested military aircraft, the Osage embarked on the creation of its first racing craft, the Black Dog.

DESIGN HISTORY

At first, its engine was too big. Vibration and torque caused the pilot to lose control. This meant the loss of three pilots before someone decide an air frame that size would not control 450 horsepower of propeller-driven fury.

After several sessions back at the drawing board, the Black Dog 2 emerged with Henry Red Cloud as its pilot. It shined in early tests and provided the first glimpse of the unique PLF cockpit.

The "Pilot Lying Forward" cockpit meant Red Cloud was stretched out inside the nose of a long, slender silver fuselage, handling the controls. Although this decreased his visibility, Red Cloud could better handle the severe G forces exuded when the plane made sharp turns.

Also, unlike other racing craft, its V-14 engine was mounted in the rear, spinning a massive six-bladed red prop. With wings swept forward, the Black Dog 2 looked more like an experimental bomber than it did a racing plane.

Equipped with one .30-caliber machine gun, the plane sports four hard points for racing devices and other uses.

For the oil-rich Osage, the Black Dog 2 has been a proven winner in early runs on amateur circuits and showed enormous potential speed, incorporating something called "Supercruise" into its design. This is an aspect of the aircraft the tribe refuses to talk about, only saying, "We're sure it gives us in edge on the racing course."

Black Dog 2

Pilot Name	Kills	Squadron Name	Plane Name

Natural Touch	Sixth Sense	Dead Eye	Steady Hand	Constitution	Quick Draw

GUNS	1	2	3	4	5	6	7	8
Caliber	30							
Ammo								
Range	7							
Jammed								

ROCKETS	1	2	3	4	5	6	7	8
Type								
Range								

Experience Points

Combat Experience:

- Survived Mission & Inflicted Damage (20pts) _____
- 1st Kill of mission (20 pts) _____
- 2nd Kill of mission (40 pts) _____
- 3rd Kill of mission (60 pts) _____
- Additional Kills (80 pts each) _____

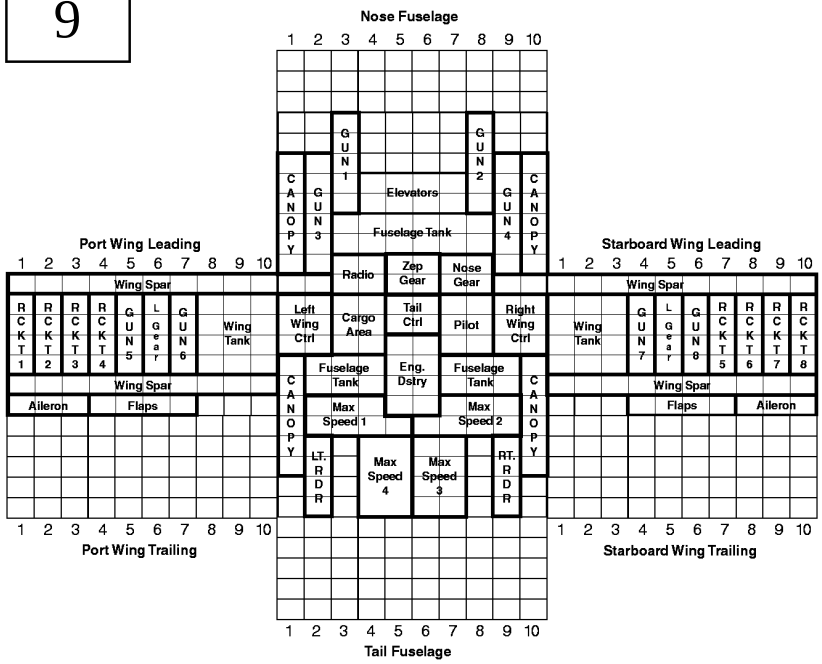
Additional Experience

- Successful landing or zeppelin hook (10 pts) _____
- Retrieved "memento" during bail-out (5 pts) _____
- Rescued cargo or passenger (10 pts) _____
- Bailed out without being shot down (-20 pts) _____
- Fled engagement (-20 pts) _____

Total experience earned for mission _____

Base To-Hit

9



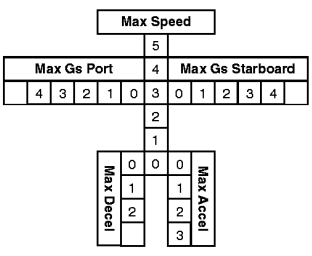
Redlining Engine Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Stalling Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Starboard Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Port Gs Calculation
8 (Base Number)
\+ Amount over Current Max.
\+ 2 if Shocked
\- Pilot Natural Touch Skill
= Target Number

Aircraft Performance



Turn	Maneuver	Gs	Specials		Jammed
1			Push	Shock	
			Smoke	Shock-G	
2			Push	Shock	
			Smoke	Shock-G	
3			Push	Shock	
			Smoke	Shock-G	
4			Push	Shock	
			Smoke	Shock-G	
5			Push	Shock	
			Smoke	Shock-G	
6			Push	Shock	
			Smoke	Shock-G	
7			Push	Shock	
			Smoke	Shock-G	
8			Push	Shock	
			Smoke	Shock-G	
9			Push	Shock	
			Smoke	Shock-G	
10			Push	Shock	
			Smoke	Shock-G	
11			Push	Shock	
			Smoke	Shock-G	
12			Push	Shock	
			Smoke	Shock-G	
13			Push	Shock	
			Smoke	Shock-G	
14			Push	Shock	
			Smoke	Shock-G	
15			Push	Shock	
			Smoke	Shock-G	
16			Push	Shock	
			Smoke	Shock-G	
17			Push	Shock	
			Smoke	Shock-G	
18			Push	Shock	
			Smoke	Shock-G	
19			Push	Shock	
			Smoke	Shock-G	
20			Push	Shock	
			Smoke	Shock-G	
21			Push	Shock	
			Smoke	Shock-G	
22			Push	Shock	
			Smoke	Shock-G	
23			Push	Shock	
			Smoke	Shock-G	
24			Push	Shock	
			Smoke	Shock-G	

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