

North America's #1 Publication Covering Topics Important to Aviators and Aviation.



AIR ACTION WEEKLY MAGAZINE

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December 10, 1937



Exclusive! Interview with Daredevil
Air Pirate NATHAN ZACHARY
SEE PAGE 4

Secret Photos!
Inside the Cabin of a
PIRATE Zeppelin! SEE PAGE 8
A Pilot's Dream Come True!
The Latest Cockpit Instruments
SEE PAGE 18

THE FLAGSHIP ALOFT! Zachary's "PANDORA" and her Escorts

Photo by T. Lubsen / Location Pilot V. Bonilla

TIRED OF BEING

SHOT DOWN BY PIRATES?



Sharpen your dogfighting with ...

Wasting money on
spent ammunition
and repairs?

DR. FASSENBIENDER'S CRIMSON SKIES



INSTALLING

Insert the Crimson Skies CD into the CD-ROM drive, and follow the directions on the screen. If Setup does not begin automatically, refer to the Readme file on the Crimson Skies CD.

STARTING

Click Start, point to Programs, Microsoft Games, and Crimson Skies, and then click Crimson Skies.

On the Crimson Skies main menu, choose one of the following.

Campaign

Start or continue a campaign or replay a previous mission. Games are saved automatically at the end of each mission. To replay a previous mission, see "A Pirate's Memoirs," this issue, page 11.

Instant Action

Jump straight into a dogfight! Select from an assortment of missions or design your own. For details, see "Instant Action," this issue, page 27.

Multiplayer

Configure multiplayer games between you and your friends over a LAN, a modem, or the Internet. For more details, see Dr. Fassenbiender's interview in this issue of AAW, page 28.

Preferences

Adjust the game, audio, video, and control settings of Crimson Skies.

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Got the latest navigation equipment in your cockpit but you're *still* lost?
Can't tell a river from a railroad at five thousand feet?

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Water-
Resistant
Mission Map!



Press **ESC** to examine the
map during any mission.

Resume Mission

Click here to close the map and
return to the mission.

Restart Mission

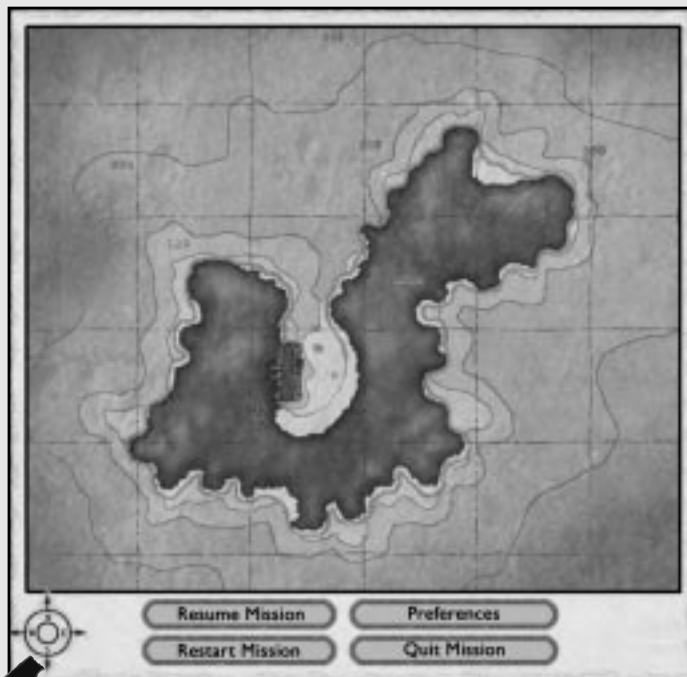
Click here to restart your current
mission.

Preferences

Click here to change the game,
audio, video, and control settings of
Crimson Skies.

Quit Mission

Click here to exit the mission and
return to the cabin.



Self-orienting compass: No need to turn
the map sideways or upside down!



Handy paperclips are included to attach
Mission Objectives and Reconnaissance
Photos to the map. Also included—
free—is a smudge-proof red wax pencil
to circle your objectives on the map.



North America's #1 Publication Covering Topics Important to Aviators and Aviation

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Air Action Weekly—the authority on the pilots, planes, and events in the skies of North America since 1928—has reason to be especially excited about this issue. Our featured pilot is that daredevil ace, debonair man of the world (some say bloodthirsty pirate), Nathan Zachary.

Mr. Zachary's name has been splashed across headlines from the Nation of Hollywood to the Empire State—but until now, no official biography of this man of mystery has ever been published.

Our ace reporters have surreptitiously snapped photographs of Zachary's base of air operations, the *Pandora*. Ever wonder what's inside a pirate zep? You'll get a look in this issue.

We also have articles on the latest aviation controls and flight tips from our experts.

This issue is bursting at the seams, Reader!

— Nero MacLeon
Senior Editor
Air Action Weekly Press

Nathan —
Here's your
complimentary copy
of AWW ... think your
article is aces!
— Nero

Dr. Fassenbiender's Crimson Skies

Learn more about this wondrous product. Install, start, and load combat missions. **inside front cover**

Atlas Mission Map

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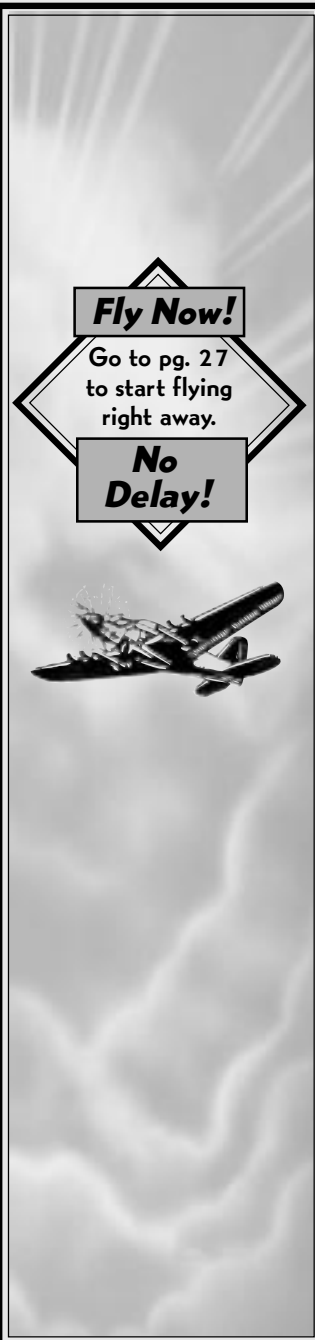
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The **TALL TALES & MANY LIVES** of **NATHAN ZACHARY**

IMAGINE OUR SURPRISE when Air Action Weekly received a telegram from Nathan Zachary asking if we'd like to interview him. Would we! Ace reporter Patricia Clark met with Mr. Zachary December 21, 1936, on Hilton Beach, Hawaii. Here, in his own words, is the story of one of today's most controversial pilots ...

I'VE ALWAYS BEEN SURROUNDED BY wide-open spaces. My folks told me I was born on a mesa under a full moon. They said I tried to reach up and touch it. I don't know if that's true, but that image has always fascinated me. I've always tried to grab the biggest, brightest prize in the sky.

We were Gypsies, wandering what had been the American Southwest, doing odd jobs and somehow scraping by. My folks were often accused of stealing. They weren't thieves, but they were poor and lacked the stature and eloquent words to defend their honor.

When I was sixteen, I lied about my age and joined the Army Air Corps. Six weeks later I was steaming toward Europe to fight in the Great War. Eddie Rickenbacker took me on as his wingman and taught me how to fly and fight. I collected a half dozen medals that first year.

But my career as a war hero ended when I met the German ace Wilhelm Kiser. He showed me I wasn't invincible, downing my plane in the Alps where I was captured and stuck in a POW camp.

I rotted in that camp for a year before a couple of officers and I escaped—running smack into the Russian Front. We did the only thing we could: joined the Russkies and flew their junk biplanes. We called our squadron the Gypsies, and despite the long odds we held our own against the Germans.

When the Great War ended, the fighting in Russia unfortunately continued. The Bolsheviks overthrew the Czar. I was caught in the middle and had to choose sides. It wasn't easy because I had fought alongside Russian farmers, and officers, and was even decorated by Nicolas I—but in the end, I supported the People's Army.

The Russians that I knew, however, changed. I watched the Red Army as they committed the same atrocities that had been inflicted upon them. I figured I had to somehow even the score, so I started flying the old noble families across the border to safety. While that eased my conscience, it also made me enemy number one of the Russian State.

I fled to England and attended Oxford University, returning in 1923 to the United





States (it was still the United States then) with a law degree and a fat bankroll.

Having seen how the rich and privileged had abused their power, I had a notion to beat them at their own game. I entered the stock market. By 1929 I was rubbing elbows with the likes of Rockefeller, Ford, and other young upstarts like Howard Hughes. I lived in a mansion on Long Island with expensive cars and servants ... and I was never more miserable in my life.

You see, I hadn't become any better than these tycoons. I had become one of them, stepping on little guys and not giving a damn about anyone but myself.

It was a relief when the stock market crashed and took it all away.

When the United States split, I started hearing of pirates in the air. That inspired me to return to a life

that promised no future but delivered a present worth living in.

Today, the world is out of balance. Maybe I can tip the scales. I attack the rich and powerful of any nation and take what they treasure most—their money. In doing so I may bring them down a notch and show them they are not untouchable.

Let me end with a quote from a sixteenth-century English pirate that sums up my philosophy: "We will live life to the fullest, spit in the eye of those that would hold us down, and will surely hang because of it."

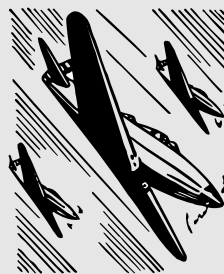
Nathan Zachary

INVENTORS

**NOT *all* PATENTS
ARE GOOD PATENTS**

Free

There are many degrees of Patent Protection. You want to make money from your invention; therefore, you want the best patent you can possibly get. Write today for our free booklet: "HOW WE PROTECT YOU." — C. A. LASSEN & CO., Empire State. Registered Patent Attorneys Since 1875



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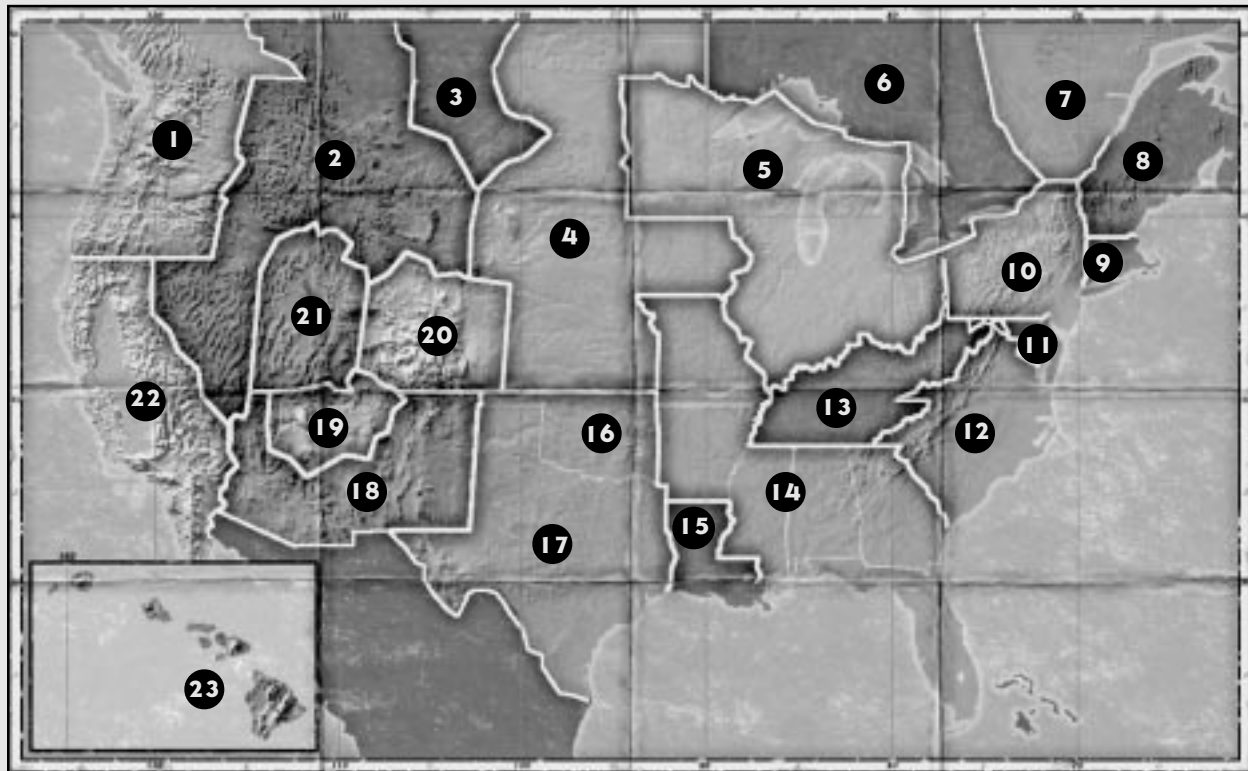
<http://www.zone.com/>

For an interview with the creator of the multiplayer game himself, see "MULTIPLAYER GAMES: AN EXCLUSIVE INTERVIEW WITH DR. FASSENBIENDER," this issue, page 28.



*The **RISE** of **AIR PIRACY** and the **FALL** of the **UNITED STATES***

***THE SKIES OF NORTH AMERICA** are a dangerous place, but they weren't always that way. Once upon a time America was united and stable. And not too long ago, automobiles, railroads, and steamers were the best way to travel, while airplanes were only a curiosity.*



- | | | | |
|--------------------------------|---------------------------|------------------------------------|------------------------|
| 1 Pacifica | 6 Protectorate of Ontario | 12 Protectorate of the Outer Banks | 17 Republic of Texas |
| 2 Disputed Western Territories | 7 République de Québec | 13 Appalachia | 18 Arixo |
| 3 Lakota Territory | 8 Maritime Provinces | 14 Confederation of Dixie | 19 Navajo Nation |
| 4 People's Collective | 9 Atlantic Coalition | 15 French Louisiana | 20 Free Colorado State |
| 5 Industrial States of America | 10 Empire State | 16 Protectorate of Oklahoma | 21 Utah |
| | 11 Columbia | | 22 Nation of Hollywood |
| | | | 23 Kingdom of Hawaii |



SO WHAT HAPPENED?

The first signs of change started with the post-World War I influenza epidemic. Isolationism grew in popularity as many fell to a disease brought back from Europe by returning servicemen.

President Woodrow Wilson's push to form a League of Nations outraged U.S. citizens and allowed Warren G. Harding's "New Independence from Europe" campaign to flourish. Harding called for greater separation from the world, and his Regionalist party adopted this as its platform's theme. When the Regionalists won office in 1920, they used their new power to promote Prohibition.

In 1923, however, President Harding died. His successor, Calvin Coolidge, refused to support Prohibition and the Federal bill languished in congressional committees.

Meanwhile, Prohibition became a battle between ideologically distinct regions in America. Checkpoints appeared on state borders as authorities tried to restrict the flow of alcohol. Many states used these checkpoints to levy unofficial—and highly illegal—tariffs.

In 1927, a new and deadly strain of influenza ravaged the country. States closed their borders and converted their liquor checkpoints into quarantine-enforcement sites. Smugglers and raiders adopted the airplane to avoid the limitations of ground-based transportation.

The election of 1928 suffered from low voter turnout, as most people avoided large groups for fear of contracting influenza. The Regionalists launched their "Strong State" platforms and effectively curtailed the Federal government's power.

In October of 1929, the stock market crash was the final blow to the United States. Regionalism had decimated the national economy and Washington D.C.'s call for financial assistance from state governments was universally rejected.

On January 1, 1930, Texas seceded from the United States, with California, the Carolinas, Utah, and New York quickly following their lead. Unable to mount the political and military campaign necessary to hold the United States together, Washington was now powerless.

As the Federal government crumbled, the vast majority of the nation's military deserted or swore allegiance to their native states. Many sold their skills as mercenaries or bandits.

North America's fascination with airplanes now became a necessity, as commerce between the new independent nations ground to a halt. Brushfire wars demolished the intercontinental railway system, and the highways quickly fell into disrepair or were sabotaged. The automobile, once destined to become the national shipping vehicle, gave way to gyrotaxis, aerobuses, and the large cargo zeppelins that commanded the skylines.

"Air pirates" captured the public eye during this period of turmoil. Small, disorganized bands of thrill-seekers and publicity hounds, these pirates began crime sprees that would inspire others.

The first serious pirate threat came in 1931. Jonathan "Genghis" Kahn—a former businessman from Chicago—created the infamous Red Skull Legion. The Skulls moved into Utah (posing as People's Collective militia) where they stole a military zeppelin.

Low-intensity border skirmishes between the new nation-states continued through 1935. Amidst the chaos, bootleggers and pirates thrived. Scores of new militias, most determined to defend their states, battled increasingly colorful and flamboyant raiders. The Redmann Gang, the Red Skull Legion, the Black Swans, and other pirate groups pillaged across national boundaries. The nation-states continued to subsidize their air wings but also began offering Letters of Marque to pirates, allowing them to legally attack the nation's rivals.

Today, North America is a continent politely at war with itself. Rival militias fall on each other in defense of their own national interests. Pirates and privateers challenge these militias for control of the skies, and they are often victorious.

The air lanes are the new frontier, where a single individual with skill and nerve can make all the difference. Today's flyers are men and women to be applauded, feared, but above all respected, for as long as they can push the envelope and maintain their hold on the skies. We have given them this power. The sky is the limit—but five thousand feet up makes for a long fall from glory.



A PIRATE'S HOME

AFTER INTERVIEWING MR. ZACHARY, I was invited to tour his fabulous zeppelin, the Pandora. With the help of AAW's technical crew, we rigged a tiny concealed camera to get our readers exclusive photos of the interior of this airborne pirate fortress. Don't ask where that camera was concealed, please! —Patricia Clark

THE CAPTURE OF THE PANDORA marks a milestone in Nathan Zachary's pirate career. According to reliable sources, Nathan took a job as third officer on the Empire Air cargo zeppelin, *Fulcrum*, and then hired his gang as crewmembers. Once aloft, Nathan and his men took control of the airship. They set down the captain and crew in a Pennsylvania wheat field ... and sailed off into infamy.

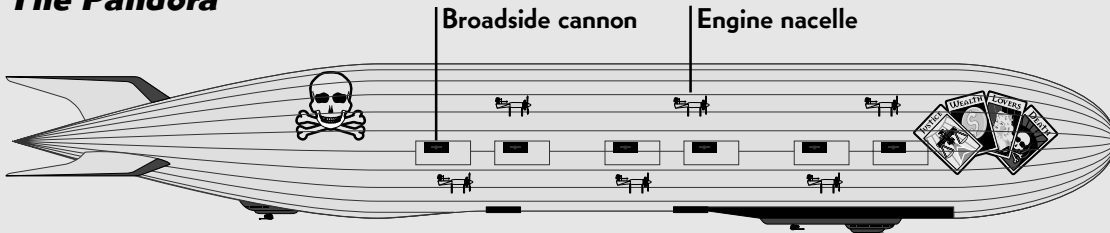
The airship was originally designed to carry two escort fighter planes, but serious modifications to the zeppelin's superstructure allow it to carry a squadron

of at least six planes. It has six broadside cannons and .60-caliber machine gun nests that protect each engine nacelle.

Mr. Zachary tells us that he renamed the zeppelin *Pandora* in honor of Pandora's box, which, according to Greek legend, contained the innumerable plagues of humanity, yet also contained the Hope that has comforted humanity from misfortune.

Which part he and his gang represent, he never told us.

The Pandora



Gas Capacity: 26,002,340 ft. ³	Typical Load—
Length: 1,378 ft.	Cargo: 75,000 lbs.
Diameter: 182 ft.	Fuel: 86,400 lbs.
Useful Lift: 384,470 lbs. (192.7 tons)	Oil: 6,050 lbs.
Engines: 12 Dynometric V16,	Ballast: 10,000 lbs.
440 h.p. each	Crew: 7,200 lbs.
Propellers: 4 Jaray L.Z.	Food Supplies: 54,000 lbs. (30 days)
Maximum Speed: 84 m.p.h.	Aircraft: 60,000 lbs.
Flight Ceiling: 13,000 ft.	Spares: 60,000 lbs.
Full Speed Endurance: 10,000 mi.	Free Lift: 25,820 lbs.



Inside the fortress



While certain sensitive sections of the zeppelin were declared off-limits, I obtained this photo of Nathan Zachary's cabin aboard the *Pandora*. Mr. Zachary's personal touches are everywhere in this room: the inch-thick Persian rug, the mahogany Louis XXVI desk, the Picasso sketch alongside the pin-up calendars, and his framed collection of medals from the Great War and the Russian Revolution. Velvet curtains adorn the windows along one side of the gondola, providing a commanding perspective of the

horizon and blue skies. Another window (seen in photo above) opens to the interior of the zeppelin so Mr. Zachary can observe the internal workings of his flying fortress. One can see in the background the zeppelin's steel frame and the launch bay with planes ready for action.

CHANGE MEMENTO

A picture frame with many photographs layered inside. (Mr. Zachary

apparently lives up to his reputation as the consummate ladies' man.) Click here to change the picture.

NEXT MISSION

Nathan Zachary's map and notes for his upcoming daredevil escapades. Click here to proceed to the next mission briefing. (See "Prelude to Mayhem: A Pirate Briefing," this issue, page 14.) Games are automatically saved after every mission.

PREVIOUS MISSIONS

Nathan Zachary's personal letters, news clippings from his past adventures, and more! Click here to view the memorabilia or replay a mission. (See "A Pirate's Memoirs," this issue, page 10.)

PLANE CONSTRUCTION

The blueprints and detailed specifications for Mr. Zachary's next customized plane. Click here to design and purchase aircraft. (See "Blueprint Blues: Plane Construction Basics," this issue, page 12.)

RETURN TO MAIN MENU

Click here to exit the cabin.

Don't miss the latest thrilling developments in the *Crimson Skies* universe—

Point your browser to <http://www.crimsonskies.com/>

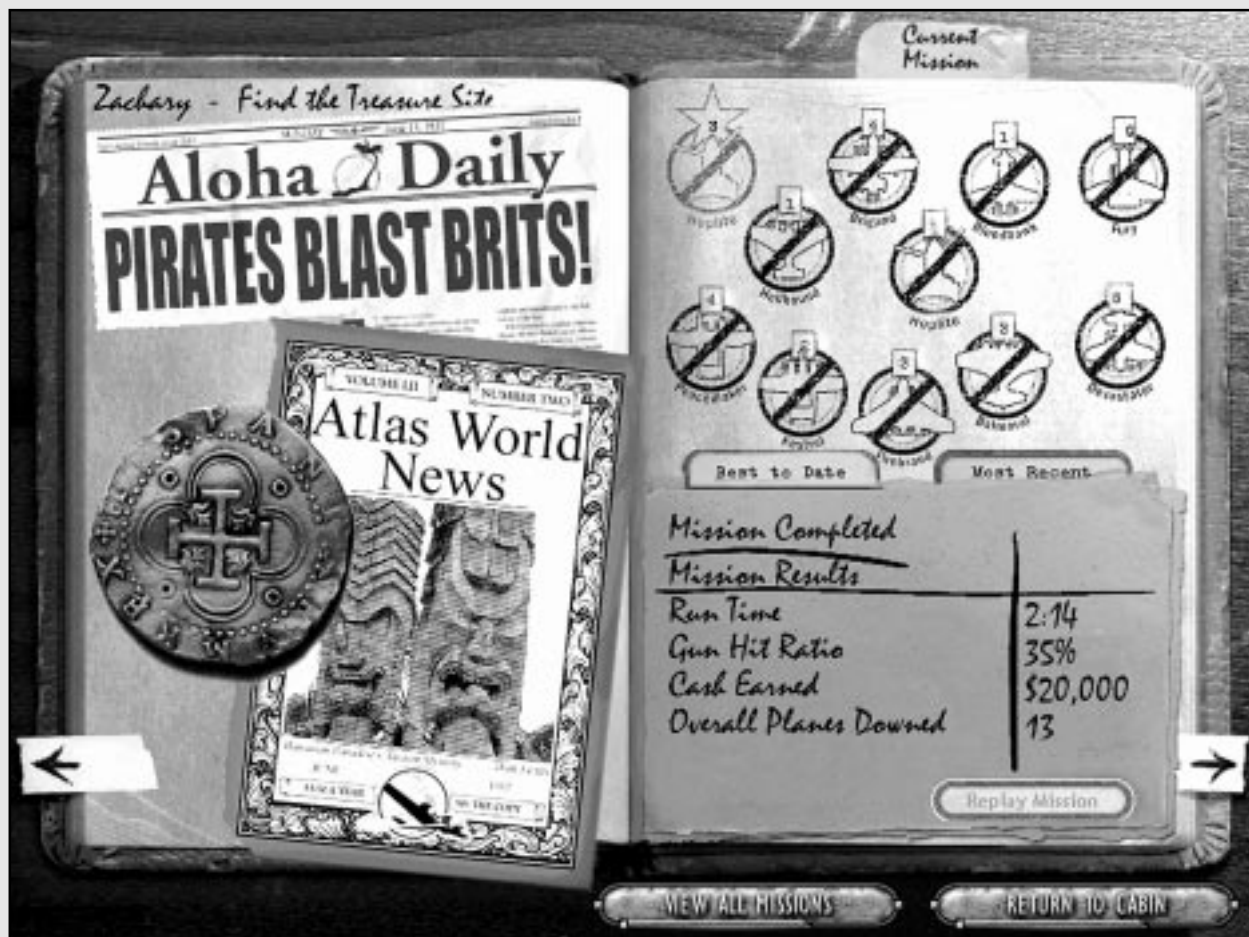
Every week we bring you current events from around the world in *Atlas World News*, profiles of the latest in aviation technology in *Air Action Weekly*, the inside scoop on daring militia flyers and deadly pirate aces in *Warriors of the Air*, and new pulp serials in *Spicy Air Tales*! Enter a world of aerial piracy and daredevil intrigue—updated weekly!



A PIRATE'S MEMOIRS

ACE AAW REPORTER PATRICIA CLARK steals a rare glimpse of Nathan Zachary's secret and personal scrapbook (sorry Nathan—we couldn't resist). Its pages are crammed full of newspaper clippings, postcards from exotic locales, photographs, kill markers, and handwritten, perfumed correspondence.

AFTER EVERY MISSION, Mr. Zachary returns to his cabin and reviews the performance of his **Previous Missions**. Each mission covers multiple double-page spreads in his scrapbook.





To flip the pages of the scrapbook, use the paper arrows taped to the edges of the scrapbook. To return to the current mission from any other page, click the **Current Mission** marker located at the top of the book.

To see the memorabilia of any other previous mission, click **View All Missions**. At the table of contents, select the mission you want to review, and then click **View Mission**. You can also replay previously saved missions from here by clicking it and then clicking **Replay Mission**.

To return to Nathan's cabin, click **Return to Cabin** on the desk below the scrapbook.

Mission Memorabilia

The first page of each mission has newspaper clippings, photos, and other remembrances of Nathan's adventures. To enlarge these items, simply click them. To export and save a particular favorite, click the **Export to Desktop** button, which appears next to some of the enlarged scrapbook elements.

Kill Markers



On the opposite page are rubber stamp-style "kill markers" of various planes. The numbers indicate how many of that particular model plane Nathan shot down on his last mission. Red-starred markers represent ace pilots! These markers are updated to reflect the statistics of Mr. Zachary's best score.



Mission Results

At the bottom of the right page are Nathan's performance statistics for this mission. The two tabs **Most Recent** and **Best to Date** let him compare his recent results. Click **Replay Mission** to try and beat the best score!

More Photographs, Newspaper Clippings, and Records

On the following pages there may be more clippings and pictures taken by observers as Nathan risked his neck flying his plane through ridiculously cramped quarters! Unfortunately this reporter didn't have time to take a careful look at the remainder of this intimate record of his daring exploits. Only Nathan Zachary knows for sure what secrets are there.

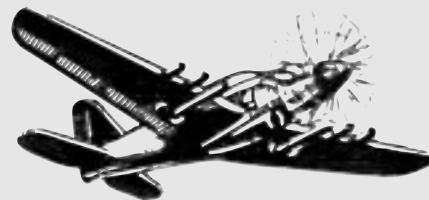
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BLUEPRINT BLUES: PLANE CONSTRUCTION BASICS

ANY PLANE IS A GOOD PLANE as long as it gets you up in the air, but if you're planning to customize your own aircraft, then the AAW engineers have a few tips for you.

EVER WONDER WHY AIRCRAFT MANUFACTURERS build planes the way they do? Why not use a Rolls-Royce Merlin II engine in the Curtiss-Wright J2 Fury instead of the stock R-1800-C? Because of the tradeoffs in weight and aerodynamic performance—and the ultimate limiting factor: cash!

To design a new plane from scratch, click **Plane Construction** in the *Pandora's* cabin. Then, name the plane you're about to design, click **OK**, and you're ready to start working with the plane construction blueprints.

These blueprints keep track of every detail of your plane. Along the top of the prints are the aircraft's name and your current construction costs. A note indicating your available cash is paper-clipped to the upper-right corner.

In the lower-left corner, the maximum *weight capacity* rated for your currently selected airframe and its *current weight* are shown, along with performance bars indicating the plane's overall *top speed*, *agility*, *armor*, and *offensive capability*. As you alter your design in the prints, these bars will change—add an extra set of machine guns and the offensive capability of your plane will increase.



Now that you know how to read the prints, you're ready to customize. To page through each blueprint, click the tabs along the bottom. Start with the first tab, **Airframe**, and then continue sequentially through all the tabs. Don't skip any of the steps or you could end up trying to fly a plane without an engine!

To select the specific components on each blueprint, use the

drop-down lists. Statistics and descriptions of the components appear in the lower-right corner of the blueprints as you scroll through the lists.

Airframe

Your airframe determines the maximum weight of the craft. If you start with a heavy frame, you may have superior structural integrity, but don't think you'll be as nimble as a lighter plane.



Engine

You get what you pay for. Expect to dole out the green for superior horsepower.

Armor

Add armor plating on your hull to protect yourself from bullets and rockets. Select armor for the nose, tail, and wing sections.

Guns

Guns can be mounted in any of four available positions. Each position may hold one gun or a pair of guns. If a pair of guns is installed into the same position, they must be the same make and caliber.

Hardpoints

Rockets attach to structurally reinforced hardpoints on your wings. Each wing can have a different number of hardpoints, but no more than a total of eight per airframe.

Paint

Personalize your aircraft with color, shading, and decals to make sure



both enemies and friends alike will recognize you in the skies!

When your plane is ready, click the **Ready to Purchase** button to view the overall cost and weight breakdown of your plane. If you've added too many components or exceeded the weight capacity of the

airframe, you won't be able to purchase the plane. If you need more cash to make the purchase, click the **Sell Planes** button to see what you can unload from your inventory. Click the **Purchase Now** button to finalize the sale, or go back through the blueprint tabs to make any necessary changes.

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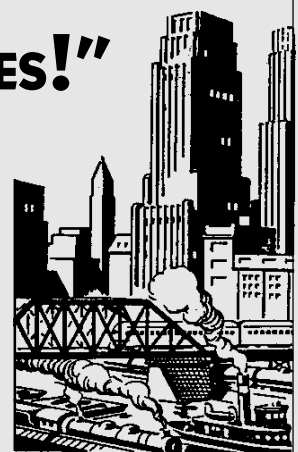


"WE MAKE CITIES!"

BIG

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Plane Selection

When changing planes, you can review the specifications for all available aircraft by scrolling through the drop-down lists for you and your wingman. When you select a plane, its speed, armor, and agility appear next to its silhouette, as well as its guns and available hardpoints. To use a plane for a multiplayer or instant action mission, select it and then click the **Export** button.

After you have chosen planes for you and your wingman, click **Accept Selections** to return to Flight Check—or if you wish to cancel the changes, click **Cancel Selections**. In either case you return to Flight Check.



Ammo Selection

Select the type of ammunition for you and your wingman by scrolling through the drop-down lists for each gun. Descriptions of the ammunition appear next to the plane.

Select rockets by scrolling through the drop-down lists for each hardpoint. Descriptions of rockets appear on the right side of the clipboard.

Accept or cancel your ordnance selections by clicking the **Accept Loadout** or **Cancel Loadout** button below the clipboard.





SOME PILOTS TAKE TO THE SKIES like they were born with wings. The rest of us struggle and learn the hard way at the school of hard knocks. Thankfully, the advanced aileron and rudder controls of today's planes make it easier than ever for beginners to take to—and stay in—the big blue.

LAUNCHING AND DOCKING

Modern combat planes rarely touch the ground. It's more likely that they launch from, and dock with, an airborne zeppelin.

Launching is the easy part—you drop from the zep, start your engines, and off you go.

Docking is a bit tricky. Zeppelins deploy a retrieval hook to catch your plane. Guide your plane under the belly of the zeppelin from the rear, and then line your nose up with the hook. Get as close as you can and match your speed to that of the zeppelin. Once you hook up, the zeppelin's crane reels you in.

THROTTLING

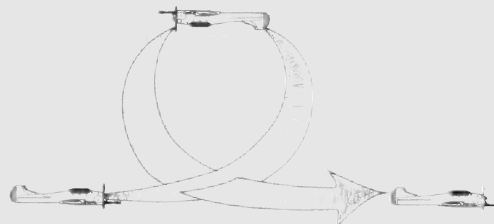
The joystick throttle controls the speed of your plane. Maneuvers with high angles of attack (the steepness of your climb) require more throttle than other maneuvers; otherwise, your aircraft can lose lift and stall.

MANEUVERING

There's nothing like the rush as you pull out of an inverted roll and brush your undercarriage against the treetops ... but before you rookies get carried away and try a stunt like that, let's go over the fundamentals.

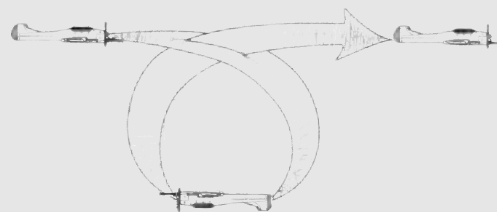
Climbing

Pull back on your joystick. This pitches your plane upward. If you continue to pull back you'll complete a forward loop. Make sure you're flying fast enough or the aircraft can stall.



Diving

Push your joystick forward. This pitches your plane downward. If you keep the stick pushed forward you'll continue to curve downward and complete a downward loop. Unlike climbing, speed is not a problem because you'll be accelerating due to gravity. Altitude, however, is a problem. If you're not high enough when you start this maneuver, you'll hit the ground!





EDITOR'S NOTE: Due to overwhelming reader requests, we're re-printing one of our most popular articles (originally in AAW, May 16, 1933), covering the basics of how to get your plane into the air.

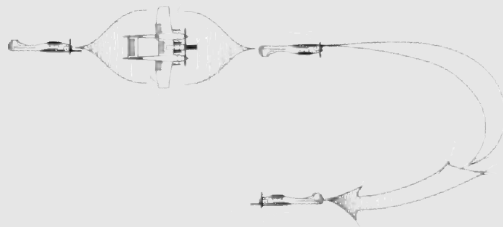
Rolling

Moving your stick to the right or left raises the flaps on one wing while lowering the flaps on the other. This rolls your plane right or left. There are three common maneuvers associated with rolling: the aileron roll, inversion, and banking.

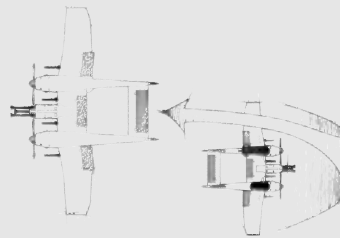
Aileron Roll Move your stick sideways. Roll and continue through a full 360-degree revolution until you're back where you started.



Inversion If you stop halfway through an aileron roll, you will be flying upside down, or "inverted." It's useful to invert your plane in conjunction with half of a downward loop—a quick way to reverse your direction and end right-side up.



Banking The last basic maneuver associated with rolling is banking. Roll your plane a quarter of a revolution so one wing points up, the other down—then pull back on your stick as if you were executing a climbing loop. This will bank the plane into a tight turn.



Turning

Twist your joystick to move the tail rudder right or left. This points the nose of your plane right or left and allows you to turn without banking.

There are dozens of more complicated combinations that incorporate these basic maneuvers. Practice the fundamentals and you'll soon be flying like an ace.

BAILING OUT

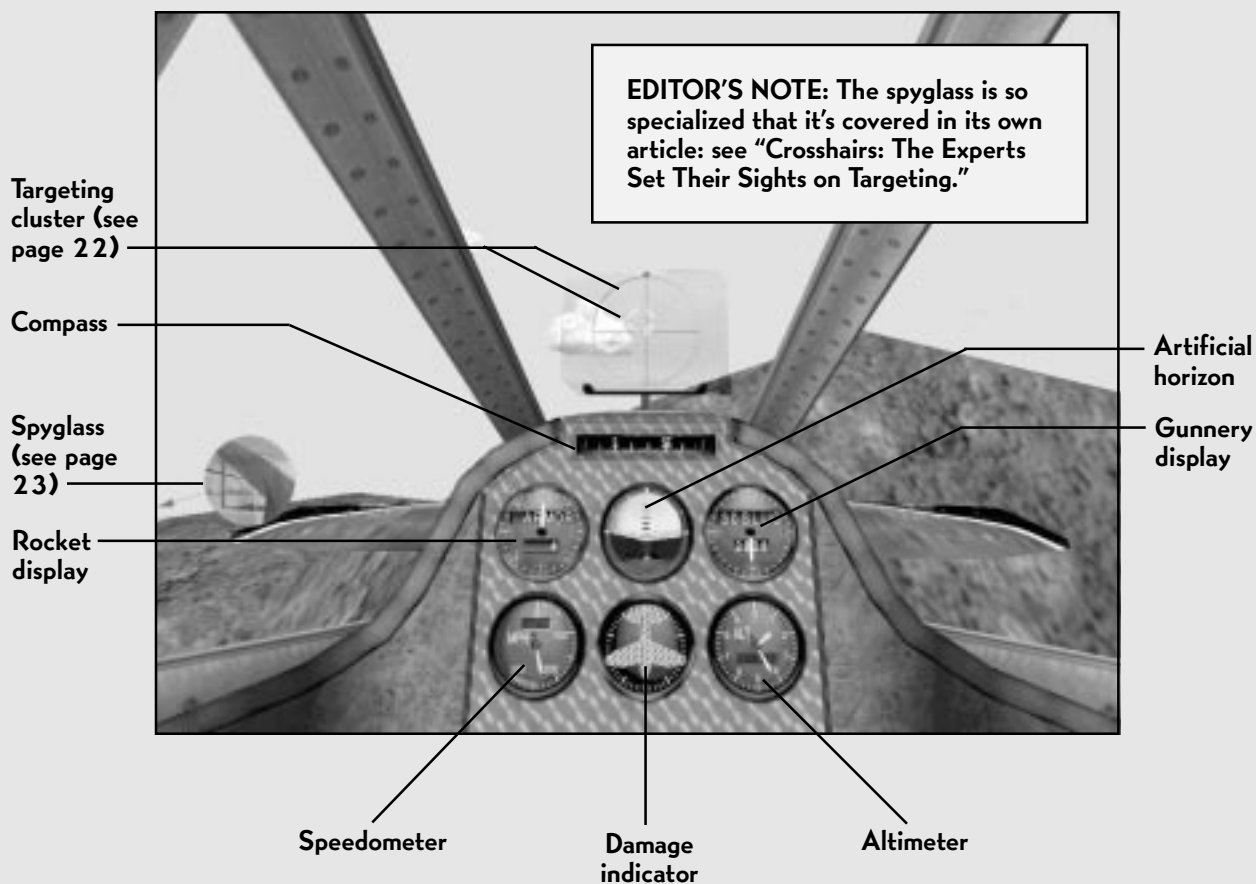
One last thing to learn: what to do if you fail to fly well. Press **CTRL+X** to release the canopy and jump. Be careful, though, if you're in a pusher prop like the Devastator. More than one pilot has tried to escape death only to leap back into their propellers. It ain't pretty.



FLIGHT INSTRUMENTATION

WE ASKED OUR TEAM OF EXPERTS to evaluate the latest technologies and dream up their ultimate flight instrument panel. Some of these are the tried and true gauges we've all come to rely on, but others are experimental and you won't see them outside a major aircraft manufacturer's test field. So sit tight, Readers, and we'll give you a glimpse of the best of the best.

OUR ENGINEERS MODIFIED THE COCKPIT of a Hughes Devastator. They didn't skimp either. Notice the classic burl wood and burnished steel trim. The layout of gauges may change, however, in different planes' cockpits.





Let's start with the basics ...



COMPASS An ordinary compass won't work because of the bumps and shifts caused by sudden acceleration in flight. We've selected an Explorer 2000 that is gyromagnetically stabilized. This compass always shows your heading in fog or rain—no matter which direction you turn or roll.

ALTIMETER

Our choice for altimeter is the Janas Rex because it's simple and easy to read. The longer needle marks hundreds of feet and the shorter needle indicates thousands of feet. This one has a special low-altitude warning light that flashes red when you drop below 100 feet.



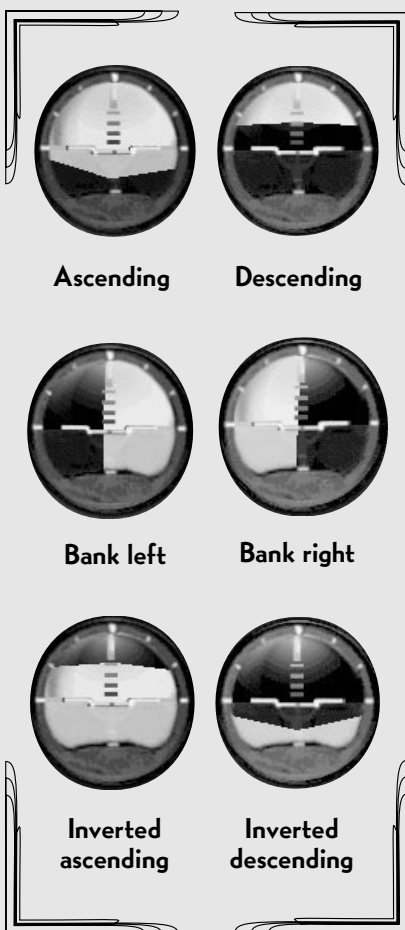
SPEEDOMETER

The Whistler Delux is a barometric air speed indicator that displays your true air speed in miles per hour. It has an automatic warning light that flashes when your plane drops below its rated stall speed.



ARTIFICIAL HORIZON It's easy to lose your orientation in bad weather or in the middle of a dog-

fight. To eliminate disorientation we use a Dexter-Handly artificial horizon. With dual gyroscopes and jeweled bearings for reliability, this baby lets you know which way your nose is pointed—up, down, or sideways.



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WEAK!**

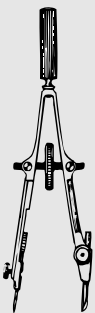


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Try some today!

And now for some non-standard equipment we've incorporated into our cockpit ...

GUNNERY DIS- PLAY

The Brown-
ing HPX gunnery
display shows
which gun is
armed and ready to
fire. It also has a
counter showing the
readied weapon's
remaining ammunition.
Pilots press **F3** or **F4**
to switch guns mounted
on their plane. When
selecting a different gun,
the indicator's needle
points to a lighted
cross on its outer edge.
These crosses as well
as the numerical
countdown are color-
coded to denote
ammunition status:

Green Ample ammunition.
Yellow Running low.
Red Gun is empty.



ROCKET DISPLAY

The Bluedevil
rocket display
tracks the status of
the rockets loaded
on your plane's
hardpoints. Similar to
the gunnery display,
the type of rocket
armed and the remain-
ing rounds are shown.
The display's needle
points to color-coded
crosses along the
edge of the gauge:

Green Several rounds remain.
Yellow Few rounds remain.
Red No rounds remain.



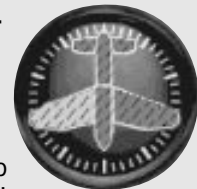
through the rockets (or **F6** to cycle
backward).

One feature we especially like
about this system is that it automati-
cally selects the next available rocket
to launch if you run out of the rounds
loaded on a hardpoint.

DAMAGE INDICA- TOR

By far our
favorite gauge is
the Crispin Mark
V damage indica-
tor. No need to
strain your neck in
an inverted roll to see
if your tail is shot to
pieces—just one glance
at this beauty will tell
you if you can continue
to soar through the
clouds or if you need
to limp back to the
hangar. An outline of
your plane is divided
into right and left
wing, nose, and tail
sections. These are
color-coded, indicat-
ing levels of damage
for that section:

Green Section untouched.
Yellow Up to 50% of section's
armor destroyed.
Orange 50% to 100% of section's
armor destroyed, and 0 to
25% of airframe destroyed.
Red 25% to 100% of airframe
destroyed.



Other new gadgets and
gauges are arriving on the
market everyday (some only
available on the black market).
In future issues, we promise
to keep you up to date as we
hear about them and put them
through their paces in the air.



FIREMAN'S COMBAT TIPS

STEVE "FIREMAN" KELLEY JR.—CAPTAIN of the Republic of Texas Air Rangers, an ace ten times over, decorated hero of the bush wars ... and still flying strong—gives us this week's insights on combat in the air.

EVERY DAY NEW PILOTS GREENER than a grove of sapling dogwoods ask me what my secret is. How did I rack up fifty-two confirmed kills—five of those aces themselves? And how did I do it while keeping my hide in one piece? Well, there is no *one* secret in this business ... actually, there are two: know-how and numbers.

Know-How

Know your planes. Flying a heavily armed and armored Kestrel or the nimble Bloodhawk? Study every aircraft you come across and be ready to exploit your enemy's tender spots ... while learning how to protect your own.

For example, if your opponent is a Bloodhawk, don't ever get in front of his gunsights. Get on—and stay on—his tail. On the other hand, if you're flying a Kestrel, you can afford to chip some paint off your hull before getting into trouble—so you might risk that head-to-head confrontation.

Always check your loadout of ammunition and rockets with a careful eye. In every circumstance, there's a best weapon that can be used to your opponent's demise. Don't use dum-dum rounds if you're flying against a thick-skinned Warhawk. Plan on taking out a zep? Don't make the mistake of loading only flak rockets. These are slip-ups you won't live to repeat.

Numbers

When I was in school, I was lousy at numbers and math. Fortunately, up in the air you won't have to worry about anything like a binomial theorem—but you do have to have a feel for things in motion, how fast they're going, where the heck they are, and where they're trying to go.

Look around (see "Eyes Wide Open: Views," this issue, page 24) and spot your enemies. If you notice bullet holes stitching your wing, it's pretty much too late to do anything. Try to know where *all* the bad guys are—not just the one you have targeted.

You want to get behind your enemy (unless they have a backward-firing turret) and, likewise, you want to keep them off your backside.

When approaching an enemy plane try to be higher—that gives you more maneuvering options. For example, a smart flyer will know how to trade his altitude for speed and vice versa. Dive to catch a faster aircraft ... but if you need to slow down (a dangerous thing to do in a dogfight!), then climb straight up.

Having trouble lining up your targeting sights on a more maneuverable opponent? Try slowing down as you bank; that'll shorten up your turn radius so you can keep up with their fancy aerobatics.

Parting Shot

Just remember ... the unpredictable can—and does—happen up there. A lapse in concentration in a dogfight is fatal, so stay as sharp as a broken bottle in a barroom brawl. Good luck, Greenhorns!





The **EXPERTS SET THEIR SIGHTS on TARGETING!**

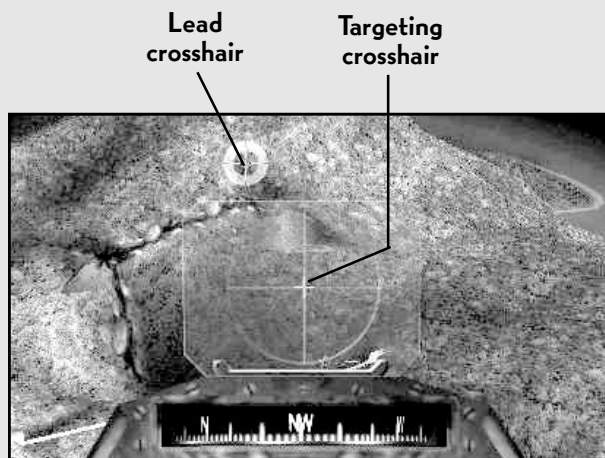
WELCOME TO OUR WEEKLY column on how to sight faster, shoot straighter, and smoke every pirate that crosses your path! This week, in addition to the usual tips, we showcase a new gadget our AAW engineers have found: the spyglass.

DEPENDING ON YOUR COCKPIT AND VIEWPOINT (see "Eyes Wide Open: Views," this issue, page 24), you'll have either the lead crosshair sights and the targeting sights or *just* the lead crosshair sights.

The targeting crosshair shows where the nose of your plane is pointed.

The lead crosshair accounts for the velocity of your plane as it twists and rolls. This sight shows where your bullets will fire.

If the lead and targeting crosshairs line up, you'll fire dead ahead.



SELECTING TARGETS

To select a target or mission objective, use one of the following commands. (See the back cover of this issue for complete joystick controls.)

To target

Next enemy or objective
Previous enemy or objective
Nearest enemy or objective

Next allied aircraft
Previous allied aircraft
Nearest allied aircraft

Next non-aircraft target
Previous non-aircraft target
Nearest non-aircraft target

Nearest attacker under crosshairs
Nothing

Press

E
SHIFT + E
CTRL + E

W
SHIFT + W
CTRL + W

R
SHIFT + R
CTRL + R

Q
T

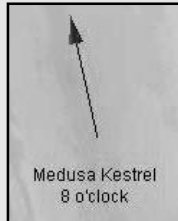
When you select a target, you'll see additional information. If your target is in your forward field of view, you'll see the target's name.





If you're close enough, the target is enclosed in brackets (**red** for enemy, **green** for friendly, and **blue** for neutral targets and objectives), making it easier to sight even behind cloud cover.

If the target is not within your forward field of view, you'll see the name of the target, the direction you need to turn your plane to face it, and an arrow that points toward the target.



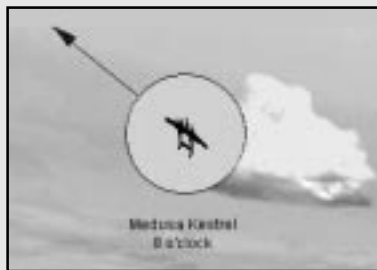
When you destroy a target, another is automatically selected (if one is available).

The **SPYGLASS**

Ever wanted to see who or what is flying under or behind you? Now you can.

The spyglass is a gyroscopically stabilized optic system that displays a magnified view of your selected target. This enlarged image rolls along the edge of your windshield, with an arrow that always points in the direction of your target.

The spyglass system is toggled on and off by pressing **SHIFT+S**. It automatically shuts off when the target is out of visual range.

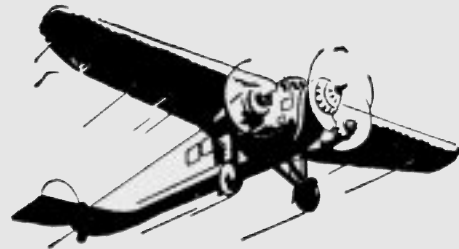


Tip of the Week



Only once in a blue moon will you ever be flying straight in a dogfight. Aim your lead crosshair ahead of your enemy's flight path—by the time your bullets travel the distance between you and him, his plane will be where you have aimed!

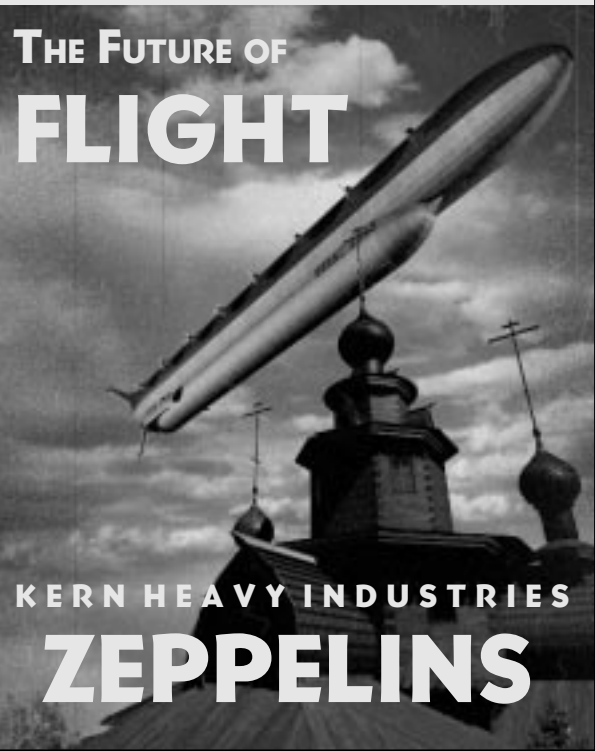
TASTE



ADVENTURE UNTAMED

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WEEKLY IN *AIR TIMES MAGAZINE!*

THE FUTURE OF FLIGHT



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EYES WIDE OPEN: VIEWS

***IN A DOGFIGHT**, if you lose your opponent in a bank of clouds, the glare of the sun, or a blindspot, it could be over for you faster than you can say "hit the silk." Eyes Wide Open is AAW's column on strategies to stay aware of everything in the air!*

THIS WEEK SOMETHING DIFFERENT: We preview the view options now standard in all the latest aircraft designs. Boy, have we gotten an eyeful! There are now some tricks you can pull that you could never attempt in the old days.

First, you can cycle among a normal Cockpit view, an Exterior view, and a First Person view by pressing the **F8** key.



EXTERIOR VIEW shows more terrain as well as most of your instruments.



COCKPIT VIEW has all the traditional gauges but a somewhat limited field of vision.



FIRST PERSON VIEW is the least obstructed view.

**WEISMAN
USED AIRCRAFT**

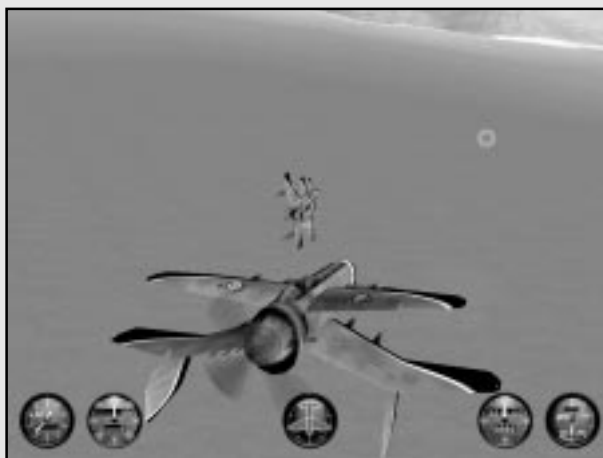
"Aircraft for the OTHER fellow!"





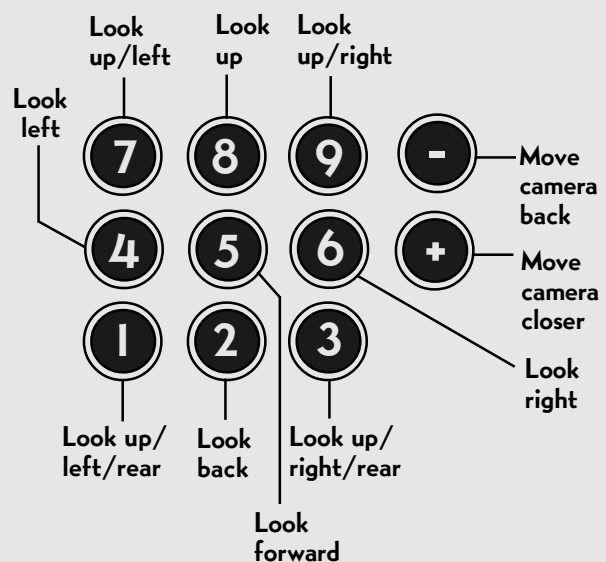
Another view option is the Chase view. Press **F7** and your vantage becomes fixed relative to your plane—you'll see your aircraft approach and then zoom past your viewing angle. It's a great shot for those budding Hollywood directors!

Finally, you can press **L** to track a targeted plane. Your viewpoint will center on this target regardless of the orientation of your plane. Press **L** again to get out of this mode.



"CENTERED" TARGET

In any view, you can look to the side, behind, above, or below by using the hatswitch on your joystick or the keys on your numeric keypad. Using the hatswitch or these numeric keys "snaps" your point of view in the specified direction.



If you press the **J** key in conjunction with the hatswitch or numeric keys, you will smoothly turn your point of view in the specified direction. Press the **K** key to return to the "snap" look mode.

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CAMERA VIEWS

To see	Press
Above your plane	F9
In front of your plane	F10
From the left of your plane	F11
From the right of your plane	F12

At any time you can access one of four cameras to check on how your plane is fairing from the comfort of the cockpit.



STUNTS—HOW to GAIN FAME & GLORY!

WANT PEOPLE TO KNOW YOUR NAME? *Want them to point at your plane—whispering with admiration, or maybe feeling a touch of fear—as you buzz overhead? How about a few snapshots in the local newspaper? Or do you want the mere flash of your colors to make even the most notorious pirate think twice about tangling with you? Then, Reader, you’ve turned to the right page as we present AAW’s ongoing special feature on aerial reputation.*



SOME PILOTS measure their success by the thickness of their wallet, the number of hours logged in the big blue, or how many tons of cargo they’ve lifted from New York to New Orleans. But for those who know better, the real measure of a pilot can’t be held or tallied with a number. The real measure of your worth is fame.

You increase your fame by shooting down other pilots (the bad guys ... not your own wingmen), capturing zeppelins, performing dangerous airborne maneuvers, and other awe-inspiring feats. This week we explore the “dangerous airborne maneuvers” part of fame-building.

DANGER ZONES

Danger zones are tight spaces that can challenge even a seasoned flyer. Keep your eyes peeled for tunnels, narrow canyons, open hangars, and any other seemingly impossible-to-navigate spaces that will get you noticed fast when you fly through them!

Your wingmen might have a few suggestions, too, so listen up. They’ll let you know if you’ve accomplished a noteworthy stunt.

Another benefit of these danger zones is their ability to remove the competition. Squeeze your plane through a train tunnel and see if that pirate on your tail has the guts to follow! He’ll either break off his attack or learn the hard way that cramped quarters, blinding speed, and a shaking hand make a lethal combination.

And don’t forget to check the newspapers afterward. Your picture could be splashed across the front page—or maybe even make a Hollywood newsreel—all excellent additions to the scrapbook!

The only limits to your fame are imagination ... and your nerve. So, test yourself, pilots. Live dangerously or not at all.

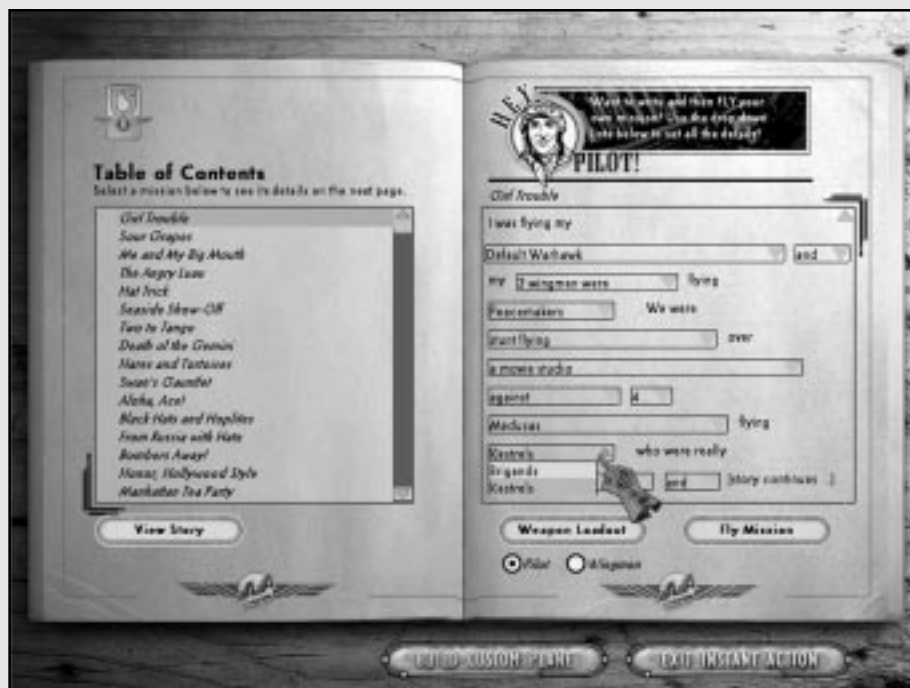




INSTANT ACTION

INSTANT ACTION IS AAW'S FORUM for pilots who want to tell their own tales of aerial combat.

THERE ARE TWO WAYS TO fly an **Instant Action** mission. You can select a story in the Table of Contents, click **View Story**, scan the details of the mission on the facing story page, and then click **Fly Mission**. Or you can tell your own story by customizing the mission with the drop-down lists on the story page.



To customize your own adventure, fill in the specifics of your mission, such as number of wingmen, the planes they'll fly, location, and the details about your opponents. Next, check your (and your wingmen's) guns and ammunition by selecting **Pilot** or **Wingmen** and then clicking **Weapon Loadout**.

To customize a plane for an Instant Action story, click **Build Custom Plane** at the bottom of the screen.

Finally, click **Fly Mission** to launch into INSTANT ACTION!



MULTIPLAYER GAMES: AN EXCLUSIVE INTERVIEW with **DR. FASSENBIENDER**



DR. FASSENBIENDER IS NORTH AMERICA'S preeminent mechanical whiz, a patent-holder of numerous generator and engine designs, and best known for his aviation and autogyro inventions. In this week's issue, the good doctor talks with AAW editor Nero MacLeon about *Crimson Skies* and shows us how aspiring pilots can get serious combat experience!

AAW: How does one go about making a multiplayer connection, Doctor?

Dr. Fassenbiender: To start a multiplayer game, it's as simple as clicking **Multiplayer** on the main menu. Then, establish a network or Internet connection by selecting the connection type you want—MSN Gaming Zone, LAN IPX or TCP/IP, Internet, or modem-to-modem.

MSN Gaming Zone: To play on the Zone, you must first create a free Zone ID and install the Zone software. After you've done this, enter a *Crimson Skies* game room and start playing! **Note:** The host of a *Crimson Skies* game on the Zone is the first person to enter a game room. For more information, go to <http://www.zone.com/> and click Help.



LAN IPX or LAN TCP/IP: With either of these connections you play on your local area network (LAN) using an IPX or TCP/IP protocol.

Internet: With this connection, you play on the Internet using a TCP/IP protocol by entering the IP address or DNS name for the computer you want to connect to.

Modem-to-Modem: With this connection, you play with two computers using modems by entering the phone number of the computer you want to connect to.



AAW: And if I want to fly my own customized plane?

DF: Simply click the **Build Custom Plane** button to design your own plane from scratch.

AAW: Now I'm ready to host or join a game?

DF: Yes, you decide to either host a game or join a game already started by another player. If you click **Host**, you'll be prompted to name the game session, select an optional password, and set the maximum number of players allowed in the game.

If you click **Connect**, you will see a games list screen. This list can be sorted by game name, number of players, mission type, environment, or even status. To update the list, just click **Refresh**.

After you click a game and then **Join Game**, you are asked to enter a callsign for the session, select a pilot voice, and provide the password if the host requires one.

AAW: So what is this game lobby business?

DF: This is where players form teams, review the game settings, or alter them if they happen to be the host,

and communicate with one another before entering a multiplayer game.

The Players list shows the players' callsigns in the current game. The host's callsign tops the list, followed by the other players in the order they joined. The numbers next to the callsigns are the players' ping times in milliseconds [ed. note: this is the time it takes the game server to respond to that player]. The boxes adjacent to these numbers show the players' status: checked means the player is ready to enter the game, and not checked means the player is not ready.

Team: To create, join, or leave a team, click the **Create Team**, **Join Team**, or **Leave Team** button (only one is available at any given time, depending on your current team status).

Boot: The host may boot any player back to the games list screen by selecting the player's name in the list and then clicking **Boot**.

Ready: When you are ready to enter the game, click **Ready**. The host cannot start a game unless all players are ready.



AAW: How do players communicate with other players in the lobby?

DF: Communications from other players appear in a large message window. The text color is the same color as the player's name in the Players list. System messages are gray and enclosed in brackets.

Players type their messages in the Chat box. To transmit messages, they press **ENTER** or click the **Send** button.

AAW: What are these tabs on the upper-right of the interface?

DF: Here players can choose their planes and ammunition. All players can view the mission options, but only the host can modify them.

Under **Mission Options**, the host selects the mission, environment, victory conditions, allowable team sizes, and details on allowed lives. The host may also

outlaw certain aircraft components and/or ammunition by clicking **Select** and filling out the Outlaw Components form. When components have been outlawed, players are alerted to the changes and all of their planes are reset to the default selection.

Under **Select Plane**, plane selection works the same as for any standard flight check [ed. note: see "Prelude to Mayhem: A Pirate Briefing," this issue, page 14]. If the host allows customized planes, they may be imported from the player's custom planes directory [ed. note: see "Blueprint Blues: Plane Construction Basics," this issue, page 12].

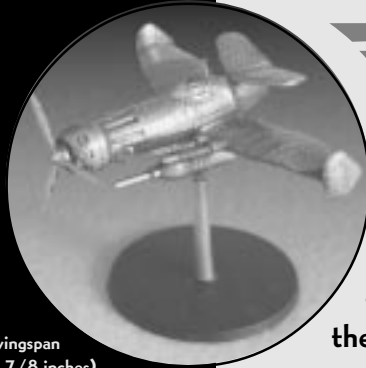
Under **Select Ammo**, players load ammunition onto their plane. Outlawed rocket and ammunition types cannot be selected.

AAW: This is remarkable! How do I start?

DF: Each player must select **Ready**. When all players are ready, the host starts the game by clicking **Launch**!



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(wingspan
1-7/8 inches)



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Freelance Photographers Frank Woll, Tom Peters, Lex Story, Edison Girard, Ron "Eagle Eye" Lemen.

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Flight Crew Ground Crew Technician Foreman: Todd "Andy Gibb" Squire; Wingman Avoidance Expert: Erika "Adara" Carlson; Commander, Combat Engineering: J.J.J. "None of them stand for Jay" Banchemo Jr.; Big Rocket Expert: Michelle "Battle Angel" Gamboa Stenson; Live Grenade Specialist: Mike Pondsmith; Experimental Aircraft Pilot: Chris "Blue Max" Chamberlain; Mile High Club Chairman: Dave "Sgt. Skeyle" Blumberg; Scout Pilot: Paul "Idaho Kid" Reed; Ordnance Preparation: Mark "4AM" Forrer; Arial Recon: Matt "MEGAMAN" Alderman; Test Pilot: Jim "Stickman" Bosler; Tarmac Crew: Scott "Scooter" Luse; Engine Mechanic: Mark "Nitro" Heinen; Chief Zeppelin Engineer: David "Big Z" Kern; Weapons Specialist: Russ "Pyro" Phillips; SonoBuoy Deployment Specialist: Mark Selander; Stress Tester: Stuart "Scribbles" Compton; Hardware Configuration: Paul "Mr. Happypants" Gradwohl; Nitro Experimenter: Joe "Scrapbook Picture Gluer" Mullenix; Ace Pirate: Steve "Sea Wolf" Kastner; Director of Disinformation: Stan "Trust Buster" LePard; First Aid Specialist: Jesse Janosov; Hangar Janitor: Brian "Avenger" Soderberg.

Stunt Team Andy Glaister, Jim "Shaft" Reichert, Chris Hadden, Nigel Keam, Randy Shedden, Melody Litovkin.

Other Pirate Liaison Officer: John "Black Flag" Howard; Saint of Circumstance: Tom "T-man" Sternberg; Art Smuggler: Daniel "Treetop Flyer" Dociu; Beverage Specialist: Gary "Reaper" Hinger; Animal Trainer: Graham "Qi-Qi" Kays; Undercover Operations: Eric "Shifty" Nylund; Bombsight Calibrator: David "Mountain Man" Blevins; Paid Informant (Hollywood): Eric "Alan Smithee" Trautmann; Special Correspondent to the Black Swan: Dana "Switchblade" Fos.

Who Saved Your Bacon?

ANY GOOD PILOT WILL TELL YOU ...

WEAPONS & TARGETING

Fire guns **SPACEBAR**
 Fire rocket **X**
 Cycle guns **F3, F4**
 Cycle rockets **F5, F6**
 Target next enemy/objective **E**
 Target next ally **W**
 Target next non-aircraft **R**
 Target nearest attacker under crosshairs **Q**
 Target nothing **T**
 Toggle spyglass **SHIFT + S**

VIEWS

Look direction **1-9 (numpad)**
 Cycle views **F8**
 Access camera **F7, F9-F12**

MANEUVERING

Point nose up
 Point nose down
 Roll right
 Roll left
 Turn right
 Turn left
 Level out

THROTTLING

Increase
 Decrease
 Adjust throttle
 Activate nitro-boosters

DOWN ARROW

UP ARROW
 RIGHT ARROW
 LEFT ARROW
 PERIOD (.)
 COMMA (,) **SHIFT + L**

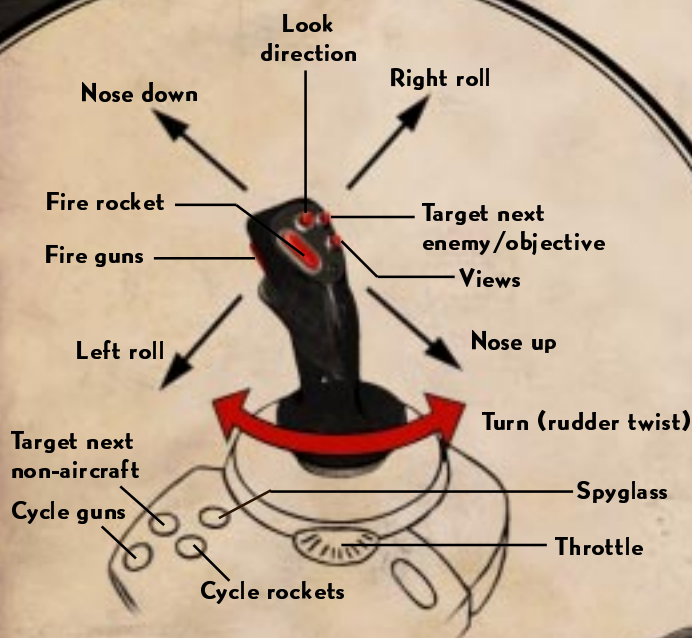
PLUS (+)
MINUS (-)
1-9
N

OTHER

Access mission map and in-game menu
 View all controls
 Chat
 Chat to team
 Double game speed (single player only)

ESC

F1
GRAVE (`)
SHIFT + `
BACKSPACE



NEW "ANGEL Series 3" Flight Control Stick

Shur-Shot
Aero-Instrument
Company

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Microsoft