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FORUM

FLYING IN THE 1920S

Joseph F. Clark, III

Ninety years ago, America was a very different place, but still similar to the America of today in many ways. Immediately following World War I, a large number of veterans returned from overseas unable to find suitable work. A popular song of the time by Tin Pan Alley asked the question, "How Ya Gonna Keep 'Em Down on the Farm, After They've Seen Patee?" Indeed, many of the veterans did not return to their family farms, choosing instead to move to nearby smaller towns and cities.

As President Woodrow Wilson's administration was winding down, many questioned the state of the economy and future of the nation. Shortly after the war, the country remained in a recession until 1921. As time passed, there was a move to entrepreneurship throughout many financial sectors. When Warren G. Harding assumed the office of the presidency on March 4, 1921, many in government advised him to raise taxes to help move the country out of the financial doldrums. Going against this advice, Harding lowered taxes. This allowed the new entrepreneurs to start new businesses, including many by the returning veterans. This took the country into one of the greatest chapters of prosperity in modern history. We now refer to this time as the Roaring Twenties.

One group of entrepreneurs born of this time included the returning aviators. These were the first military pilots ever to return from a war. They recently learned how to fly, spent months flying in aerial combat, and they wanted to continue flying. Consequently, this group of men would go on to develop aviation in America.

At the start of the third decade in the last century, pilots and airplanes were unlicensed and there was no requirement for maintaining a record of aircraft maintenance. When an airplane broke, the pilot fixed it with whatever resources were readily available, usually from the local hardware store. Pilots typically kept their airplanes tied down outside in fields, as airports and hangars were a long way in the future. These early aviators were not businessmen, never planned a day beyond tomorrow, and were happy to hop enough passengers to fill their tanks with fuel and to buy themselves a hamburger or two. In a phrase - if you were a pilot, this period of 1920 to 1929 was perhaps the very best time to fly in American history.

LtCol Billy Mitchell

When the war ended, the pilots returned to an America almost completely devoid of airplanes and flying. The majority of the pilots went from the Army, back into civilian life, without the prospect of flying. However, many Americans remained interested in aviation right after the war because of the continued work of the military.

A few military pilots, primarily the leadership of the Army, stayed on. One of these officers was Lt. Col. William "Billy" Mitchell. Mitchell fought in the first war,

leading the bombing efforts against Germany. Just after the war, Mitchell remained vocal about the importance of aerial bombardment, much to the chagrin of high-ranking officers in both the Army and Navy.

Mitchell advocated a balance of airpower where "pursuit aircraft," or fighters, would dominate the airspace above the battlefield. Ground attack and observer aircraft would provide the ground bound tactical forces with the information needed to prosecute the battle. He also saw the eventual need for long-range "strategic bombing." Later in

The Barnstormers

1930, Mitchell stated, "The advent of the air power which can go to the vital centers and entirely neutralize or destroy them has put a completely new complexion on the old system of war."

Many regarded Hilly Mitchell as one of the most controversial figures in military aviation. For his part, Mitchell kept up his provocative statements about airpower as the nation moved into the 1920s. Mitchell's prime contention was that the naval forces of any nation were rendered obsolete because of the power of aerial bombers. He claimed bombers could sink battleships and that public funds would be better spent creating an aerial bomber fleet, rather than building antiquated battleships. Following congressional hearings in 1921, ranking civilian and military leadership gave Mitchell the chance to test his theories on captured German naval vessels, including the battleship, *Ustjriesland*.

In very short order, Mitchell's bombers sent the *Ustjriesland* to the sea bottom in deep water on July 21, 1921. Mitchell proved not only to Congress, but also to the world, the potential of aerial bombing forces in combat. Many took notice, including the Japanese who would employ Mitchell's theories 20 years later.

Mitchell's bombing of naval vessels drew a lot of national attention, but as the country moved into the 1920s, the interest turned from aerial bombing to an ever-improving economy. Aviation was beginning to find a foothold in the American way of life, starting with the military aviators who came home.

The Start of American Aviation

At first, the barnstormers stunted the growth of aviation commerce. True businessmen failed to recognize the potential of aviation because the barnstormers were making a "laughingstock of the industry." Many regarded the barnstormers as lackadaisical and blamed them for anything and everything that went wrong in aviation. Consequently, flying as a serious form of transportation was slow to start.

The barnstormers expertly used a lot of showmanship to spice up their air shows. To keep up their image of daring-do and bravado, they maintained their military titles to their best advantage. Many started as lieutenants, soon becoming captains, and eventually promoted themselves to majors and colonels. They wore components of their old uniforms, complete with riding breeches and boots, leather flying jackets and helmets, goggles, and white silk scarves.

Barnstormers who were interested in making money typically flew alone. These were the "gypsy" pilots.

Usually the pilots were able to sleep in a tanner's house, or with a nearby neighbor. If not, they slept under the wing or in a hammock strung between the struts of the airplane.

The Barnstormer's Arrival

In the 1920s, this particular scene played out many times throughout America; it is a spring or summer morning and it is a little slow around a small town, a town of about 1500 residents. Not much is happening and it is quiet. Hardly a sound can be heard around town, other than the normal background noise of residents going about their daily business.

Then a dog barks. Next, some of the younger people become aware of a strange, low frequency sound rumbling somewhere distant. Some can hear it, others cannot. Heads turn to seek the source of the noise. It grows louder. Suddenly, a boy points to the distant horizon and yells, "Airplane!" As the craft comes closer to town, the older ones with inferior hearing and eyes not so sharp finally see it, too. Other townsfolk come out of the local stores and shops to see the airplane for themselves. Now the faint engine noise is no longer faint, but strong, loud, and beating against the morning sky.

Before the residents realize it, the airplane is right on top of the town as the pilot roars right up the middle of Main Street. He flies so low, everyone feels like they could reach up and touch the bottom skin of the airplane.

The pilot turns the airplane around over the town, pulling up sharply and twisting on a wing. He looks down through the struts and flying wires to see the crowd starting to gather. He banks and pulls and rolls and dives. All eyes on the ground follow his every move. Then he heads to the east, over to where he has spied a farmer's field that looks promising. He circles back once or twice more, and the folks on the ground get the hint and start walking in the direction he wants them to go - toward the field.

They watch as he circles low over the field just at the edge of town, checking it from lower altitude to make sure it is smooth enough to land and long enough to hop passengers safely. In this age of airports, large fields will do just fine. The pilot hopes the farmer is amenable to his use of the field as a temporary airport. Most farmers are usually willing to let aviators use their fields, knowing they will get a bargain ride from the flyers at the end of the two or three days the fields serve as temporary airports allowing their neighbors to fly.

The first one to arrive at the field completely out of breath and so excited he cannot talk is the boy and his dog. For many of those following the boy, this might be the first time they have ever seen an airplane up close. There is no

question this is an important day in the town's history. The gypsy pilot's visit will charge the imagination of young people over the next couple of days, particularly those who invest \$3 for one of the rides offered by the gypsy flyer.

Exciting the crowds

The barnstorming era in America started slowly, but caught on fire faster than a match lit in a dry hay barn. As the pilots acquired enough money to buy surplus Jennys, they began flying passengers as fast as they could, typically at \$3 to \$5 for a 10-minute ride around town. If a passenger were "adventurous," they could pay a little extra for the "lifetime experience" of riding through a loop, a barrel roll, or a wingover.

As the airplanes ran low on fuel, there was always a young boy or teenager willing to work all day lugging five-gallon cans of gas from the nearest gas station. At the end of the day, the "gas-hauler" enjoyed the best ride of the day - flying through loops and rolls in the last rays of the sunset.

The more the "gypsy pilots" flew giving rides around the country, the more popular they became throughout the nation. Soon, they began flying in groups the public referred to as "flying circuses." The one flying circus more profitable and larger than the others was The Gates Flying Circus, founded by Ivan Oates and co-owned by Clyde "Upside Down" Pangborn.

Each pilot tried to develop a specialty, or signature stunt, if you will, and obviously, Pangborn's trick was flying inverted. Another of his specialties was transferring from one airplane to another while flying. These skills became especially useful in 1924 when parachutist Rosalie Oordon's parachute tangled in the landing gear of Pangborn's airplane.

In the fall of 1917, history attributes the first act of wingwalking to First Lieutenant Urner Locklear, a Texan. There are two stories about how he began walking all over airplanes while they were flying. One is an account of a communications cable snarling in the tail of his aircraft, and the other story is about a radiator cap coming undone on his airplane. As a flight instructor, Locklear often crawled out of the cockpit to sit on the spreader bar of the landing gear underneath the airplane. This gave his students the ultimate compliment in their flying skills.

Besides Pangborn, another of the Gates pilots making his mark on aviation was Hill Brooks. The Oates Flying Circus perfected the "\$1 ride" and with such a low fare, it became very popular wherever the circus performed. In a single day, Brooks flew 980 passengers. In all, historians estimate the Gates flying service flew a million

passengers with none suffering serious injury. It would be interesting to determine how many went on to become pilots themselves.

Some of the greatest stunt fliers of the day worked for Oates. As aviation historian Uon Dwiggin noted, many scholars believe that during the barnstorming era, "the Gates Flying Circus turned out more tuned pilots than the Army and Navy put together."

The legendary Jimmie Angel created another of the famous flying circuses. His troupe, known as the Angel Family Flying Circus, consisted of himself and his family. Angel was one of five brothers, the oldest four of whom formed the nucleus of their flying circus. Additionally, history acknowledges Angel with discovering the highest waterfall in the world, Angel Falls in Venezuela, bearing his name.

Jessie Woods "broke into the aviation game," as she puts it, in 1928 when she married aviator Jimmy Woods. They barnstormed for a year and then Jimmy organized an airshow. In a video on the Experimental Aircraft Association's website, Jessie tells how they started "....with one man and one woman and two airplanes." Soon, they had a troupe of performers that grew in size from two, to 12 to 15 people within four years. "They called their flying circus 'The Flying Aces.'"

Another flying circus, the 13 Black Cats, would crash airplanes into trees and houses for the right price - \$1200. Another of their specialties was looping airplanes with a man sitting on each wing for \$450. They would also fly with two men fighting on the upper wing. Eventually, one man would mock the other off the airplane and the price for this act ran \$225. Someone booking an air show could request an airplane to blow up in-flight with the pilot parachuting out for only \$1500.

One of the signature acts performed by the 13 Black Cats included a "mid-air repair." Gladys Ingles was the star of this show. The mechanics rigged one of the troupe's Jennys to have a wheel fall off on takeoff. The appropriate amount of alarm and despair surged through the airshow crowd. They worried for the fate of the pilot.

That was when Ingles, one of the mechanics, would strap a spare tire to her back, climb onto another Jenny, and fly up to meet the "stricken" Jenny. At altitude, she would walk out on the wing as the Jennys flew close together. Then she would climb from one airplane to the other. After she made her way through the struts and wires to the fuselage, she climbed down to the spreader bar of the landing gear. Ingles replaced the wheel, tightened the axle nut, and saved the day! This is one of the rare stunts caught

The Barnstormers

on film and available today by way of YouTube.com at www.youtube.com/watch?v=8oAzdbdOJ2A.

The Birth of Regulations and the End of the Show

To give an idea of how lax the regulations were at the time, in the Wichita Falls, TX Air Show of 1911, Slats Rodgers looped at 1500 feet over the crowd. At the top of the loop, he dropped a dummy from the plane that fell into the crowd, who called the police. The police took Slats and his boys to city hall, but never arrested the aeronauts. Instead, police and city officials treated all of the pilots to a lavish party in celebration of their fine show."

As the flying circuses became more popular around the country, The Oates Flying Circus unquestionably held the top spot of the all the aviation troupes. Industry leaders and the public referred to Oates as "the Pope" and .P.T. Barnum of aviation."

It was about this time the flying extravaganzas started conflicting with local pilots in some of the locations they visited. There were also a series of serious accidents involving both performers and members of the public. A perceived need on the part of the government to protect the masses led to the creation of a new regulatory body for aviation. The Air Commerce Act of 1926 enabled the Federal government to "foster air commerce," create programs for certification of pilots, airplanes, and require aircraft maintenance records. It also allowed for investigation of aircraft accidents.

After the government placed restrictions on aviation, the newly formed Bureau of Air Commerce grounded The Gates Flying Circus several times. Still, the circus managed to fly 273 shows in 75 cities in one year. While the latter part of the 1920s was rough on air shows overall, Texaco decided to close in 1934 when they refused to supply free gas following the final show in Teterboro, NJ.

Barnstorming thrived in North America during the first half of the 1920s, but by 1927, the new safety regulations imposed by the Bureau of Air Commerce began influencing the popular form of entertainment. The government - spurred by that perceived need to protect the public, and responding to local pilots who were upset that "barnstormers were stealing their customers" - enacted several laws to regulate the fledgling civil aviation business. The new regulations made it nearly impossible for barnstormers to keep their already fragile Jennys up to the

new flying spectacles. Let alone in the air. The new regulations also outlawed several forms of aerial stunts. The new rules raised performance altitudes to heights higher than what crowds could easily see the aerial acts. Coupled with the end of the government selling Jennys, many barnstormers found it too difficult to continue making a living and abandoned their art.

Although some modern pilots such as the famous aviator, Joe Kittinger, continued to put on barnstorming exhibitions later in the Twentieth Century, nothing can compare to the magnitude of that time in the 1920s, when itinerant aerial shows sprung up throughout North America daily, making audiences gasp with excitement.

Barnstorming appealed to many pilots as a way to make a living. Several famous aviators worked as stunt pilots or aerialists at one time or another. Charles Lindbergh, for example, got his start in aviation by barnstorming. Besides only flying on the barnstorming circuit, Lindbergh went on to wing walk, parachute, and work as a mechanic. Some other well-known daredevils included Roscoe Turner (the famous speed racer), Hessie Coleman (the first licensed African American female pilot), Pancho Barnes, (the well-known speed pilot of the "Golden Era of Airplane Racing"), Wiley Post, (the holder of two trans-global speed records), and several Hollywood stars, stuntmen, and stunt pilots, among many others.

Although many regard barnstorming as "the" romantic period in aviation, others debate that interpretation. On one hand, some barnstormers did quite well financially and socially. Several towns across the nation paid the flyers handsomely for their shows, even holding parties and dances in their honor. Some pilots and aerialists also obtained free room and board when they traveled. Nevertheless, the nomadic existence of barnstorming could also cause serious problems. Sometimes it was difficult for pilots to find fuel or the right parts for their planes. Other times, they could go several days without attracting a large enough crowd to make a profit.

Under those factors were not problematic enough, as Jessie Woods of the Flying Aces declared, "Don't let them kid you- it wasn't romantic. I slept on the bottom wing of an airplane. I learned how to sleep there without falling off. I've gone through as much as three days without sleep. "There's nothing romantic about that."+

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