THIRD DIMENSION BLOG

2009 YEAR IN REVIEW

Robert Novell

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2009

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The Birth of Commercial Aviation – Part One

The Barnstormers

Modern day aviators who practice their profession commercially have a set of challenges that far exceed that of the early aviators. However, I think the early aviators had far more fun and certainly spent more time actually flying their machines and enjoying the thrill of conquering the third dimension. So, let's take a look at the aviator's history calls 'Barnstormers'.

There were two main factors that brought barnstorming to the forefront during the 1920s---the number of World War I aviators who wanted to make their living flying airplanes and a surplus of Curtiss JN-4s, called a Jenny by those who flew it, that were released by the US Government and sold for around $200.00. The Jenny was the primary trainer used to train pilots during WW1 and all of the aviators were very familiar and comfortable with these airplanes and since there were no federal regulations governing aviation barnstorming flourished. Below is a Jenny in flight circa 1918—there were over six thousand of these produced by Curtiss for the Military in the U.S. and abroad.

http://en.wikipedia.org/wiki/File:Flying_jenny_cropped.jpg

Most barnstorming shows followed a typical pattern. A pilot, or team of pilots, would fly over a small rural town and attract the attention of the locals. They would then proceed to find a farmer's field that would serve as a runway. Then they would negotiate with the farmer to use his farm/field for an air show, and once a deal was struck, they would get back in their airplanes, fly back over the

town and drop leaflets offering plane rides for a dollar and promise daring feats of aerial daredevilry during the show that would follow the plane rides. The unique part of this proposition is that many of these small towns would simply shut down at the appearance of a barnstormer or aerial troop because most residents had never seen an airplane up close.

Barnstormers performed a wide range of stunts including spins, inside loops and barrel maneuvers while aerialist would do the wing walking, stunt parachuting and midair plane transfers. Although many barnstormers worked on their own, or in small teams, there were several large “Flying Circuses” with multiple airplanes and stunt people. The best known of these was “The Ivan Gates Flying Circus”, the all African American group called “The Five Blackbirds” and the husband wife team of Jimmy and Jessie Woods from Kansas.

Barnstorming thrived until around 1927 when new safety regulations forced many of these aviators out of business. The Government decided they needed to protect the public, after several aircraft accidents, and enacted laws that began to regulate the growing civil aviation business. The new laws made it nearly impossible for the Barnstormers to maintain their fragile Jenny’s up to the new standards and these same laws also outlawed many of the aerial stunts at low altitude. The final blow came when in the late 1920s the military stopped selling their excess Jenny’s and the Barnstormers were forced to abandon their art form.

The Birth of Commercial Aviation – Part Two

The Air Mail Service Pilots

Last week we talked about the art form of barnstorming and how it served as the beginning of commercial aviation. Now we will look at an event that developed simultaneously with the barnstorming era--- Air Mail Service Pilots.

In 1917, the U.S. Government decided that it had seen enough progress with the development of airplanes for it to appropriate the money to begin air mail service. This service was initially provided by the U.S. Army Air Corp for the Post

Office Department, but in 1918, the Post Office Department took over the operation providing equipment and pilots.

Between 1918 and 1925 there were over two hundred pilots who flew as Air Mail Service Pilots. Many of these pilots were from the barnstorming industry and many left the service to go back to barnstorming. Out of those two hundred pilots forty-four lost their lives and many more suffered severe injuries from crashes. Life as an Air Mail Service Pilot was almost as dangerous as barnstorming.

Congress passed the Kelly Act in 1925. This act authorized the Postmaster General to contract for domestic airmail service with commercial carriers. By transferring airmail operations to private companies the government would now take commercial aviation to the next level---this is the beginnings of the airline industry.

Winners of the initial five contracts were National Air Transport, Varney Air Lines, Western Air Express, Colonial Air Transport, and Robertson Aircraft Corporation. National and Varney would later become important parts of United Airlines which was originally a joint venture of the Boeing Airplane Company and Pratt & Whitney. Western would merge with Transcontinental Air Transport (TAT) to form Transcontinental and Western Air (TWA). Robertson would become part of the Universal Aviation Corporation which in turn would merge with Colonial, Southern Air Transport and others to form American Airways, predecessor of American Airlines. Juan Trippe, one of the original partners in Colonial, would later pioneer international air travel with Pan Am -- a carrier he founded in 1927 to transport mail between Key West, FL, and Havana, Cuba.

The air mail business continued to grow and more new companies began to be a part of the business. However, one of the more interesting facts about this transition to private companies is that the newly-formed companies had to follow the Post Office formula for pilot's pay. The companies had been informed that the pilots were to be considered "quasi-governmental" employees and any airline wishing to change the formula to cut pilot's wages would run the risk of losing its government contract. I find it extremely interesting that the US Government/US

Post Office turns out to be the first union to represent pilots on a wage and benefit package.

The Birth of Commercial Aviation – Part Three

The Air Mail Service Pilots Pay Scale

We have talked about the art form of barnstorming and how it served as the beginning of commercial aviation and we talked about how the Air Mail Service Pilots came to be. However, that which I find to be an interesting dynamic of the Air Mail Service Pilots is their pay scale---let me show you why before we move forward.

The original Post Office formula for calculating equitable pay for pilots was complex, but its underlying principles were crystal clear. Air mail pilots were to be remunerated in proportion to the number of miles they flew, and would also be compensated for the extra risks they undertook. Those risks were weather, night flying and flying over hazardous terrain.

A 1925 Post Office Department report describes the pilot's pay scale as consisting of two elements. The first element was the base salary. The second was a mileage rate. The base salary increased with the number of miles flown at night and with the length of service. The mileage pay also increased with night flying, but varied according to type of terrain over which the airplane flew. The more hazardous the terrain, the higher the mileage rate would be.

All In all, the average yearly earning of an air mail pilot in 1925 was almost $7000 per year or $583 per month. Considering a loaf of bread was five cents, and a gallon of gasoline the same, Airmail Pilots were paid as professionals in the field. The Post Office recognized the special skills and talent required for this job.

When we look around today at the pay scale of new aviators working with the regional airlines, I am appalled. The regional airlines are not the only ones we should throw rocks at but more importantly we need to look at the mindset of the aviator who is allowing himself/herself. By the way, the term aviator is not gender

specific, to be treated as a second class professional. Why is this necessary? History shows that aviators are a unique group who constantly train to a standard that few professionals are expected to attain but yet we are expected to give our services away until we land the big airline job. Wake up fellow aviators---today is tomorrow.

In closing out this week's article I would like to look back for a moment at a portion of what Captain Sullenberger said during his testimony before Congress this month and again this is only a portion of what he, Captain Sullenberger, reported to Congress:

"The events of January 15 serve as a reminder to us all of the daily devotion to duty of the many thousands of aviation professionals who keep air travel safe, and also as a reminder of what is really at stake. Like thousands of my fellow professional airline pilots, I know that flying a large commercial airliner is a tremendous responsibility. We understand that our passengers put their lives in our hands. We know that we must always be prepared. We must always anticipate. We must always be vigilant. Expecting the unexpected and having an effective plan for dealing with it must be in the very makeup of every professional airline pilot.

I am not only proud of my crew, I am proud of my profession. Flying has been my life-long passion. I count myself fortunate to have spent my life in the profession I love, with colleagues whom I respect and admire. But, honorable Representatives, while I love my profession, I do not like what has happened to it. I would not be doing my duty if I did not report to you that I am deeply worried about its future.

Americans have been experiencing huge economic difficulties in recent months – but airline employees have been experiencing those challenges, and more, for the last 8 years! We have been hit by an economic tsunami. September 11, bankruptcies, fluctuating fuel prices, mergers, loss of pensions and revolving door management teams who have used airline employees as an ATM have left the people who work for airlines in the United States with extreme economic difficulties.

It is an incredible testament to the collective character, professionalism and dedication of my colleagues in the industry that they are still able to function at such a high level. It is my personal experience that my decision to remain in the profession I love has come at a great financial cost to me and my family. My pay has been cut 40%, my pension, like most airline pensions, has been terminated and replaced by a PBGC guarantee worth only pennies on the dollar.

While airline pilots are by no means alone in our financial struggles – and I want to acknowledge how difficult it is for everyone right now – it is important to underscore that the terms of our employment have changed dramatically from when I began my career, leading to an untenable financial situation for pilots and their families. When my company offered pilots who had been laid off the chance to return to work, 60% refused. Members, I attempt to speak accurately and plainly, so please do not think I exaggerate when I say that I do not know a single professional airline pilot who wants his or her children to follow in their footsteps.

I am worried that the airline piloting profession will not be able to continue to attract the best and the brightest. The current experience and skills of our country's professional airline pilots come from investments made years ago when we were able to attract the ambitious, talented people who now frequently seek lucrative professional careers. That past investment was an indispensible element in our commercial aviation infrastructure, vital to safe air travel and our country's economy and security. If we do not sufficiently value the airline piloting profession and future pilots are less experienced and less skilled, it logically follows that we will see negative consequences to the flying public – and to our country."

The Birth of Commercial Aviation – Part Four

The Air Mail Service Pilots and the Airlines

Following the Air Mail Act of 1925, Congress almost immediately went to work on what would be the Air Commerce Act of 1926. This new piece of legislation gave the government responsibility for fostering air commerce, establishing airways and aids to navigation, granting licenses to pilots and airplanes, accident

investigation and making or enforcing safety rules. To review, in 1925 the Post Office turned over the air mail routes and contracts to private companies and in 1926 the government decided to regulate those companies as well as the rest of aviation. It appears that free enterprise was not the economic model of choice Congress preferred.

Now that the stage was set for government regulation the power brokers went to work and by 1930, the Postmaster General decided that he needed legislation that would allow him to enter in to long term agreements/contracts for airmail with rates based on volume or space rather than weight. This proposed legislation would also allow the Post Office to consolidate routes, if and when it was in the national interest to do so, because he believed the changes would promote larger and stronger airlines.

The Postmaster General got what he wanted and proceeded to hold a series of meetings in Washington to discuss the new agreements/contracts. The meetings were later dubbed the "spoils conference" because Postmaster General Brown gave them little publicity and purposely invited only a handful of people from the larger airlines. He designated three transcontinental airmail routes and made it clear that he wanted only one company operating each service, rather than a number of small airlines handing the mail off to one another across the United States. The Postmaster General got what he wanted. He got three large airlines (American, TWA and United) to transport the mail coast-to-coast -- but his actions also brought about political trouble that resulted in major changes to the system just two years later.

In 1932, with the election of a new administration and under the leadership of President Roosevelt, things began to change. The new administration began to hear from the smaller airlines that they had been unfairly denied airmail contracts by Postmaster General Brown. To reinforce this fact, the press discovered and reported that a major contract had been awarded to an airline whose bid was almost ***three times higher*** than a rival bid from a smaller airline. Congressional hearings followed, chaired by Senator Hugo Black of Alabama, and by 1934, the scandal had reached such epic proportions that it prompted President Franklin Roosevelt to cancel all mail contracts and turn mail deliveries over to the United States Army.

This decision by the Roosevelt Administration proved to be disastrous because of accidents and the death of numerous Army Pilots, so one month later there was a reversal of the administration's decision. It was at this point that the **Air Mail Act of 1934** was passed. The act gave back the air mail contracts to private companies, the bidding process was restructured and made more competitive, and former contract holders were not allowed to bid at all. However, the companies that were now barred from the bidding simply changed their names and chief executives and moved forward with the new process. The result was a more even distribution of the government's mail business, and lower mail rates that forced airlines -- and aircraft manufacturers -- to pay more attention to the development of the passenger side of the business. It is important to note that between 1926 and 1934, the airlines received more than *60 million dollars* in revenue from the Post Office, so even though the passenger side of the airlines had become the desired focus of the Roosevelt Administration, people also understood that the airmail subsidies made the system work.

Now the we have addressed the skullduggery of the time let's remember that in 1929 we had a financial meltdown called the ***Great Depression*** so times were desperate for all concerned but the new airlines were really in trouble and their salvation was the Post Office or U.S. Government. Sounds a little like what is happening today, but no Tarp money is being handed out yet.

The Birth of Commercial Aviation – Part Five

The Airlines---The Pilots---The Unions

The roller coaster years of 1927 to 1937 brought about many changes in the airline industry, and before we move on to the next level of regulation that began taking shape in 1935, we can revisit the changes that took place for the pay scale of pilots.

The newly formed companies initially followed the Post Office formula because they had been informed that pilots were to be considered quasi-governmental employees and any airline that wanted to change the formula and cut pilot's wages was running the risk of losing its government contract. This was a fairly simple but effective strategy, but an event in 1929 changed everything. The pivotal event was ***The Great Depression***.

The Depression of 1929 brought about big changes to the Post Office formula partly because of cuts in the subsidies paid to the airlines due to faster and larger airplanes, and because of the airlines abandoning the Post Office formula between 1931 and 1933. This was due partly to the cut in subsidies, but the worsening of the Depression was the primary driving force.

By 1932, three alternative methods of payment were used to pay airline pilots. The first method was a base pay plus a mileage rate, which was used at United Airlines. The second method was a base pay plus an hourly rate used at American and TWA. The third method was a flat salary which was used at Northwest and Pan AM.

The important point in all that we have brought forward here is that as long as the U.S. Government was involved then professional pilots were paid as professionals. However, as the balance of power began to shift away from the professional pilots' true value to commercial aviation, there was another battle brewing that would shift the balance of power back to the professional pilots.

The **National Recovery Administration** was to hold hearings on setting a new standard covering wage, and this was presented by the **Aeronautics Chamber of Commerce**. The ACC was proposing wage and hour rules for *all* airline employees, including pilots.

In August of 1933, the ACC submitted to the NRA a code covering wages and hours for pilots. This code prescribed a minimum wage of $250.00 per month and a maximum of 110 hours per month flight time. In addition, there was a provision of the code that allowed the airlines to *choose* between paying an hourly or monthly rate. However, nothing was mentioned of paying a mileage rate. We can look at this as two steps forward and one step back, but there is another unexpected twist.

The Airline Pilots Association, which was formed in 1931 under the leadership of David L. Behncke, soon entered into negotiations, and by the recommendation of Fiorello LaGuardia, an ex-congressman who proved to be the star witness for the

pilot's position during the code hearings, ALPA adopted the position that the pilots should be removed from the code's provisions.

The argument to support this position was predicated on two principals. The first was that the minimum wage provision should not apply to **Airline Pilots** because they were **Professionals**, and the proposed code excluded persons employed in a professional, managerial or executive capacity. The second was that the maximum hours a pilot can fly, on a monthly basis, were already regulated by the Department of Commerce who was in charge of airline safety. The NRA ultimately decided to exempt the pilots, and although there were a series of challenges by all concerned, on both sides, it was the NLB that finally resolved the debate and issued a ruling on May 10, 1934.

This ruling prescribed a complex wage formula which consisted of four parts:

- Base pay
- Hourly rate
- Mileage rate
- Hazardous pay for flight over hazardous terrain

The base pay was fixed, but the hourly rate varied with the speed of the aircraft which could range from 125 to over 200 miles per hour. The mileage rate was calculated as additional pay for each mile flown over hazardous terrain and at speeds in excess of 100 miles per hour. The ruling also set limitations on hours as well establishing eighty-five hours of flying as the monthly maximum for all pilots.

This ruling granted professional pilots a generous share in productivity gains due to improved airline technology, and although an hourly rate was incorporated into the formula, the essential element was the mileage rate. By the end of the 1930s, almost every mile flown was done in excess of 100 miles per hour, and therefore entitled the pilots to considerable mileage pay.

The Birth of Commercial Aviation – Part Six

Job Security---Protected Seniority---Retirement

Pay for pilots, and all aviation professionals working in the airline industry, between 1935 and 1965 was stable, predictable and rewarding. Sure there were bumps in the road but all in all I think you can refer to this era as the **"Golden Years"**.

The stability and lifestyle of the pilots, cabin crew, mechanics and all other employees during this period will not likely be repeated in the future, but there are some exceptions to this statement in the 21st century. Still, by and large, those days are gone. The pilots during this period were paid well, they had a protected industry, and their retirement plan actually stayed intact after they retired so they were able to enjoy the fruits of their labor.

However, the problems created for the trunk carriers during this period were only fully realized in the late 1990s and still plague the industry now as the legacy carriers continue to fight for their survival.

For those of you who don't remember the difference between trunk and legacy---a "trunk carrier" is a carrier that operated under the CAB and a "legacy carrier" is any carrier that was operating when deregulation occurred in 1978. Considering that there were 26 carriers, plus or minus, in 1978 the number of legacy carriers still operating today may surprise you.

Enough personal commentary on job security but I do believe that I was born too late to enjoy the best years of aviation. I do not necessarily mean that the **"Golden Years"** were meant for me but I would have really loved to fly the Pan AM Clippers. Maybe in my next life but for now I guess I should be thank full that I still fly and get paid for it.

The Birth of Regulation – Part One

The Birth of the Civil Aeronautics Board

The roller coaster years that preceded the Civil Aviation Act of 1938 should have been viewed as “growing pains” for the newly-founded airlines and handled accordingly. However, by 1935, the federal government had begun a comprehensive economic regulation of the banking, rail, trucking, intercity bus and other industries. This trend reflected a general loss of confidence in free markets during the Great Depression, and the core objective in this new wave of regulation was to restrict or eliminate competition. It is important to understand that this was a complete reversal of the Roosevelt’s Administration position in 1932.

At this time, there was a war in progress in Asia and it was rapidly approaching Europe. Plus, the United States was trying to get its house back in order after The Great Depression. The aviation industry was considered an important link to national defense, and the newly formed Civil Aeronautics Board, established by Congress through the Civil Aeronautics Act of 1938, was expected to ensure their survival and prepare the newly formed airlines for the vital roles they would be expected to play in the coming years. All modes of transportation were just as vital as the airlines but it was the airlines, and the associated growth in aviation technology, followed by rail, trucking and all others that allowed our country to be successful on the road to recovery and beyond.

The newly created CAB, an agency that now controlled all of the domestic markets, was also responsible for establishing the quantity of service and pricing of that service. It did so by deciding where each airline could fly, how many flights should be taken, and how many seats they could offer. They were also responsible for setting minimum and maximum fares. Once airlines acquired authority to operate between two cities, they were obligated to operate a minimum number of flights but needed CAB approval to abandon the route if it proved unprofitable.

The CAB rarely approved an airline to do so, because they felt that if an airline was receiving a reasonable rate of return on profitable route, then this would subsidize service on the marginal/unprofitable routes. Essentially, the CAB controlled the profits and whenever an airline got into financial trouble, the CAB would simply arrange a merger with a healthier airline.

The Birth of Regulation – Part Two

The Birth of the Civil Aeronautics Board

In 1940, the Roosevelt administration reorganized the entities created by the Civil Aeronautics Act of 1938 and solidified the powers of the CAB over the airline industry. The CAA and the CAB now constituted a formidable political subsystem that created a mutually beneficial alliance between the CAB, the airline industry and key congressional committees and subcommittees. The stability of this subsystem proved to be a primary impediment to the creation of the FAA but the FAA did end up being the winner of this turf battle.

Regulated stability was a costly venture. Airlines could not respond quickly to changes in demand, wages were high, and supply exceeded demand. Airlines routinely operated at load factors less than 50 percent, and the protected environment kept prices high. Demand for flights was low, and as a result, air travel was only available to the affluent few who could afford it.

It is fair to say that in the 21st century, it is hard to imagine the U.S. Government introducing legislation with the core belief that competition had to be restricted or eliminated in any industry---or is it? However, there was a real need for this concept initially because of the pending world war. Still, to have this type of legislation stay in place for forty years was clearly the wrong decision, and when President Jimmy Carter finally dismantled the CAB with the Airline Deregulation Act of 1978, the trunk carriers of the protected era paid a heavy price.

I know that I have been brief in the presentation of facts surrounding the Air Commerce Act of 1938 and the CAB, but I have done so purposely. It can be all

too easy to become entwined in the minutiae of the bureaucracy of the US Government during the thirties and forties, so for now I think we will stop it here.

The Golden Years and Technology – Part One

The Boeing 247 Airliner

In 1930, the travelling public was more likely to take the train for long journeys than fly. The current airliners were uncomfortable, noisy, and not much faster than the new streamliner trains. Boeing, as part of the United Aircraft and Transport Company, decided to develop a new airliner based on its previous single-engine Monomail. The result was the Model 247, which carried 10 passengers at 155 mph in a new level of comfort. A revolutionary aircraft, the Boeing 247 has since become regarded as a prototype for the modern airliner because it was a clean cantilever low-wing monoplane of all-metal construction with twin-engine power plant, retractable landing gear, and accommodation for a pilot, copilot, stewardess and 10 passengers. With one engine inoperative, it could climb and maintain altitude with a full load, and the new Boeing also introduced a new feature for a civil transport aircraft--- pneumatic de-icing boots.

Company conflict accompanied the development of this aircraft. Boeing's chief engineer had called for a plane no larger than the planes in current production, claiming that pilots liked smaller planes and a larger plane would create problems such as the need for larger hangars. Fred Rentschler of Pratt & Whitney Engine Company, a member of the UATC, as well as Igor Sikorsky, who had been building large planes for years and also a member of UATC, favored a larger plane and claimed that it would offer more comfort to their passengers on long flights. Those in favor of the smaller plane won, and performance prevailed over comfort.

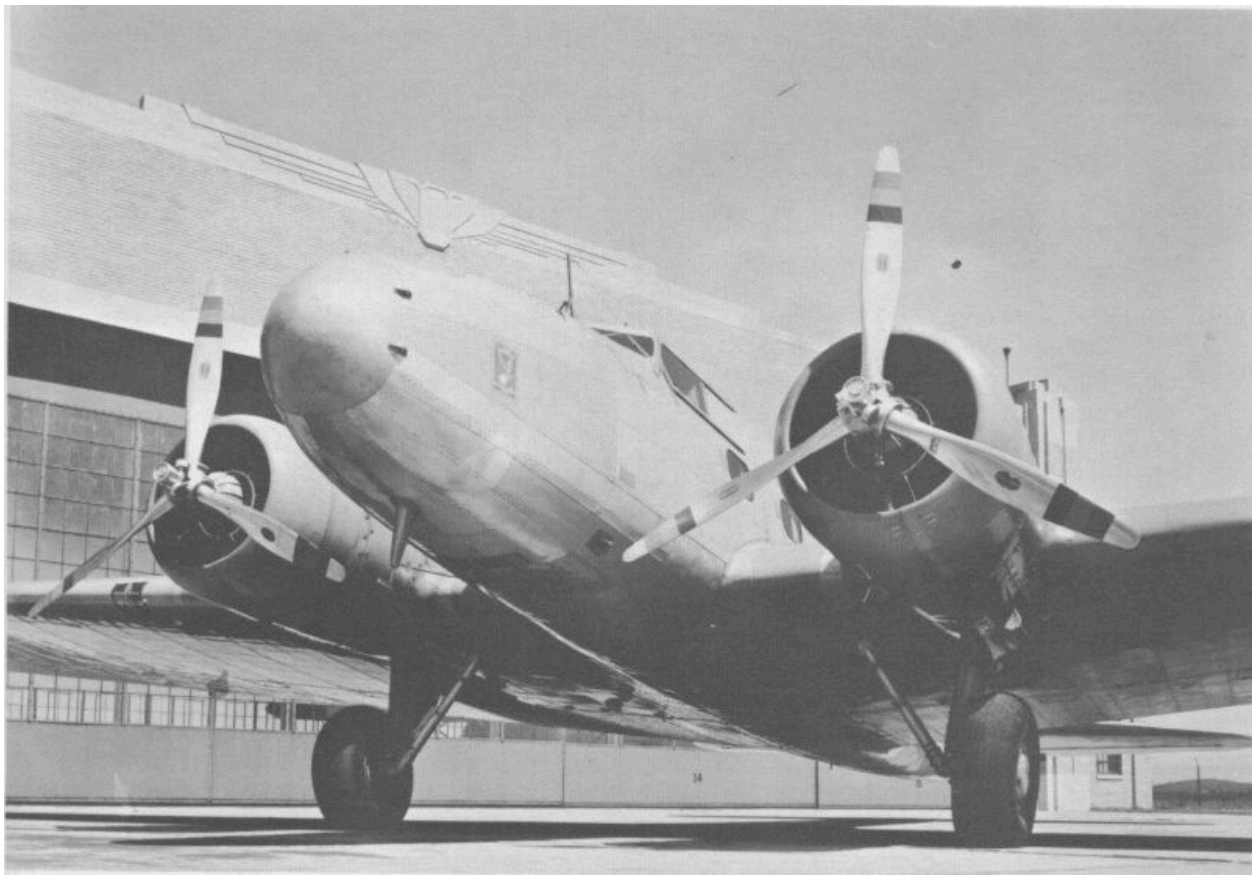
Disagreements also ensued over whether to have a co-pilot, which would increase passenger safety and comfort but would also add to the weight. The co-pilot was added. The propeller was also a source of controversy. Frank Caldwell's two-position variable-pitch propeller had already been perfected in 1932. But Boeing argued that the device weighed too much, and decided to use a fixed-pitch propeller. Nevertheless, with some foresight, the plane was designed so that there would be sufficient propeller clearance if a variable-pitch propeller was added later. This turned out to be a smart decision, since the 247D switched to the newer propeller.

The twin-engine Boeing 247 made the three-engine airplane obsolete and gave the U.S. airline industry an enormous boost. United Airlines, a member of the holding company United Airlines and Technology Corporation (UATC), purchased 60 of the planes and soon outdistanced all of its competitors.

It appeared that the Model 247 had a bright future in airline service but the large order took up all of Boeing's manufacturing capacity and sent other airlines searching for alternatives. TWA went to Douglas and the DC-2---the DC-2 had a greater seating capacity and a higher speed--- and soon most US airlines were ordering DC-2's.

United Airlines had great success with its sixty planes for the relatively short time that it flew them, and many of United's aircraft were later purchased by Western Airlines.

(The following pages have a few pictures of the Boeing 247. These were borrowed from Holcomb's Aerodrome located at www.airminded.net. Great website for all of us aviation enthusiast---take a look!)

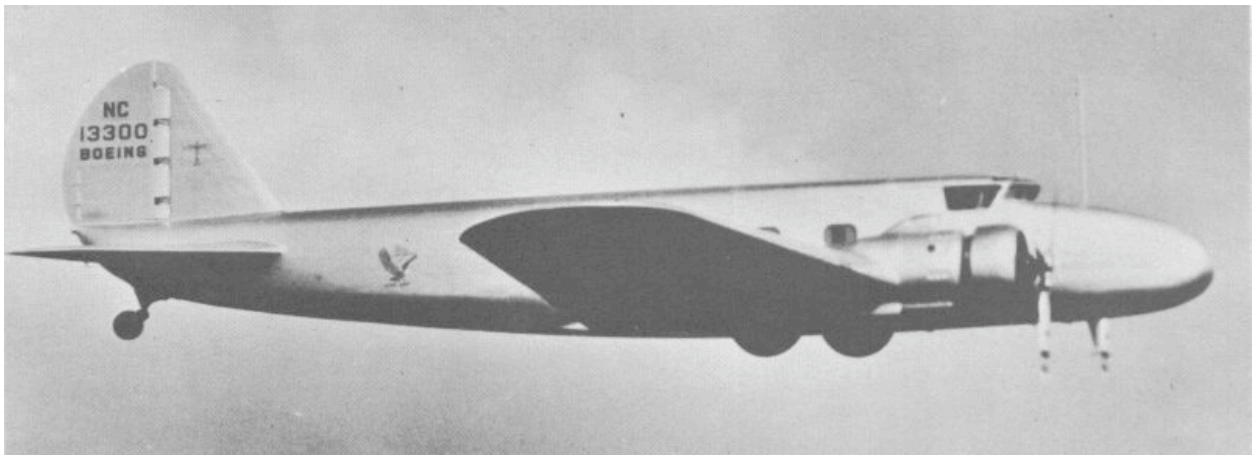


Specifications: Boeing Model 247D

Wing span: 74 ft (22.6 m)
Length: 51 ft 7 in (15.7 m)
Height: 12 ft 6 in (3.8 m)
Wing Area: 836.44 sq ft (77.70 sq m)

Empty Weight: 8,940 lb (4,055 kg)
Gross T/O Weight: 13,650 lb (6,192 kg)

Maximum Speed: 200 mph (322 km/h)
Service Ceiling: 25,400 ft (7,740 m)
Rate of Climb: 1,150 ft (350m)/min
Normal Range: 800 miles (1,297 km)
Engines: Two Pratt & Whitney Wasp S1H1-G, 550 hp, 9-cylinder radial engines.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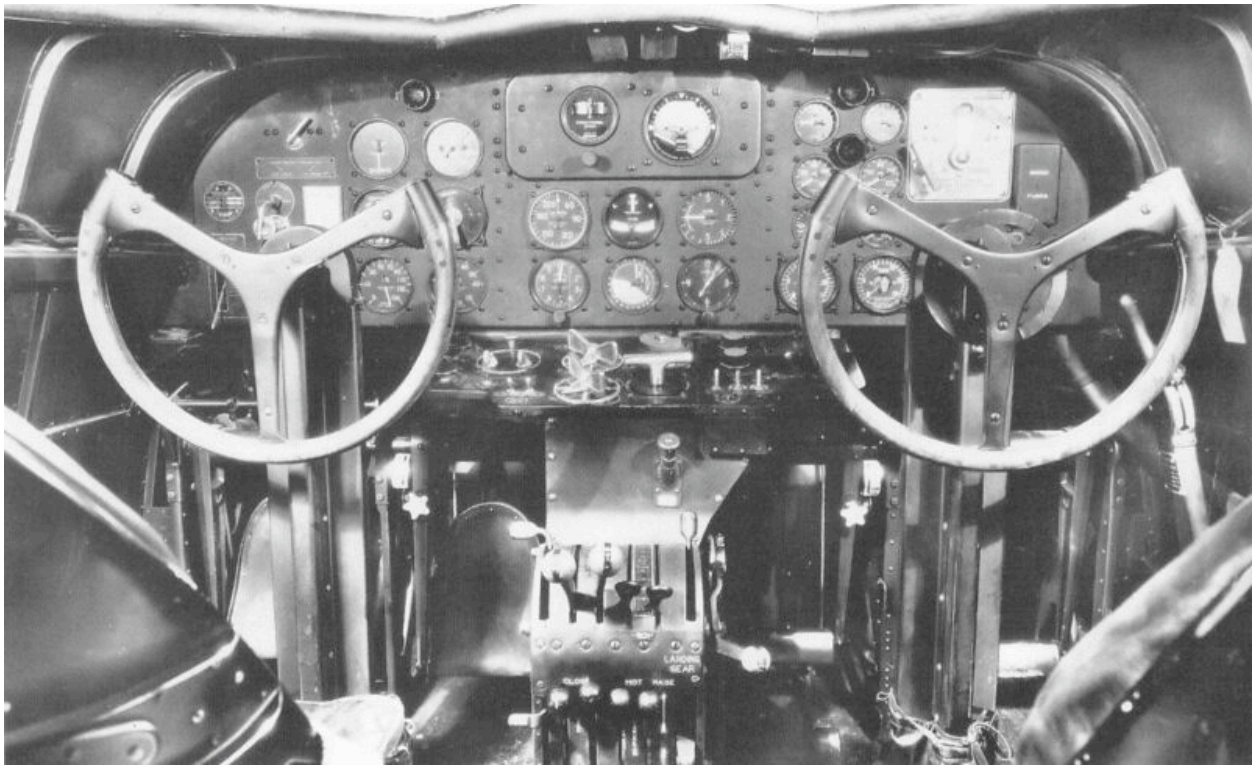

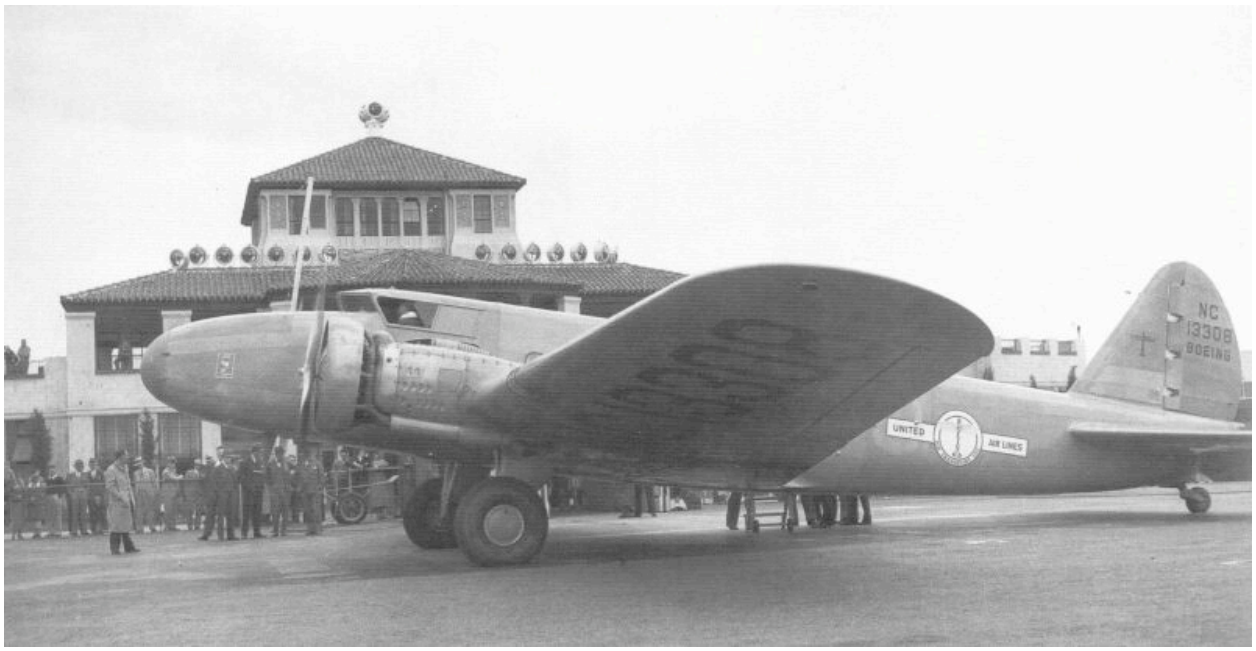
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The Golden Years and Technology – Part Two

The Douglas Airliners

Donald Douglas was initially reluctant to participate in the invitation from TWA to build a new airplane. He doubted there would be a market for 100 aircraft which was the number of sales necessary to cover development costs. Nevertheless, he submitted a design consisting of an all-metal, low-wing, twin-engine aircraft seating twelve passengers, a crew of two, and a flight attendant. The aircraft was insulated against noise, heated, and fully capable of both flying and performing a controlled takeoff or landing on one engine.

Only one aircraft was produced and it made its maiden flight on July 1, 1933 flown by Carl Cover. The plane was given the model name "**DC-1"**. During a half year of testing, it performed more than 200 test flights and demonstrated its superiority over the most used airliners at that time. In addition, a new speed record was set when the DC-1 was flown across the United States in a record time of 13 hours and 6 minutes.

TWA accepted the model with a few modifications---mainly increasing seating to 14 passengers and adding more powerful engines---and ordered twenty aircraft. The production model was called the "**DC-2"**.

The DC-2 was an instant hit. In its first six months of service, the DC-2 established 19 American speed and distance records. In 1934, TWA put the DC-2 on overnight flights from New York to Los Angeles, CA. and called the service *The Sky Chief.* The flight left New York at 4 p.m. and after stops in Chicago, Kansas City and Albuquerque, it arrived in Los Angeles at 7 a.m. For the first time the air traveler could fly from coast to coast without losing the business day.

The DC-2 was the first Douglas airliner to enter service with an airline outside the United States. In October 1934, KLM Royal Dutch Airlines entered one of its DC-2 aircraft in the London-to-Melbourne air race. It made every scheduled passenger stop on KLM's regular 9,000 mile route---1,000 miles longer than the official race route--- carried mail and even turned back once to pick up a stranded passenger. Yet the DC-2 finished in second place behind a racing plane built especially for the competition. After that, the reputation of the Donald Douglas creation was

assured and it became the airplane of choice for many of the world's largest airlines.

Early U.S. airlines like United, American, Eastern and TWA ordered over 400 of the Douglas Airliners and it is these fleets and these carriers that paved the way for our modern air travel industry in the United States, quickly replacing trains as the favored means of long-distance travel across the country.

(The following pages have a few pictures of the DC-1/2/3. These were borrowed from Holcomb's Aerodrome located at www.airminded.net. Great website for all of us aviation enthusiast---take a look.)

First flight: Dec. 17, 1935 Model number: DC-3

Wingspan: 95 feet Length: 64 feet 5.5 inches

Height: 16 feet 3.6 inches Ceiling: 20,800 feet

Range: 1,495 miles Weight: 30,000 pounds

Power plant: Two 1,200-horsepower Wright Cyclone radial engines Speed: 192 mph

Accommodations

3 crew and 14 sleeper passengers

Three crew and 21 to 28 day passengers

Two Crew and 3,725 to 4,500 pounds freight


GRAND CENTRAL AIR TERMINAL
TWA
X 223Y
300


KHALB
Nº 116
NC16001

The Golden Years and Technology – Part Three

The Clippers of Pan Am

The history of Pan American Airways is inextricably linked to the expansive vision and singular effort of one man - Juan Trippe. An avid flying enthusiast and pilot Trippe, only 28 years old when he founded the airline, lined up wealthy investors and powerful government officials from his personal acquaintances in the high-society of the 1920s. However, Pan Am's first flight was an inauspicious start to its epic saga.

In 1927, facing a Post Office deadline for the commencement of mail carriage, Pan Am had no working equipment for its sole airmail contract between Key West and Havana. Fortunately for Pan Am, a pilot with his Fairchild seaplane arrived at Key West and was willing to carry the mail to Cuba for the start up operation.

Pan Am's fortunes took a turn for the better in the fall of 1927. Through the heavy lobbying efforts of Juan Trippe, Pan Am was selected by the United States government to be its "chosen instrument" for overseas operations. Pan Am would enjoy a near monopoly on international routes. Pan Am added lines serving Mexico, Central America, the Dominican Republic and Haiti. Most of these destinations were port cities, which could be reached only by landing on water so Pan Am made good use of its "flying boats," the Sikorsky S-38 and S-40. Flights were eventually expanded to serve much of South America.

Just a few years later, Pan Am launched its effort to cross the world's largest oceans. Survey flights across the Pacific were conducted with the Sikorsky S-42 in 1935, but passenger service required bigger and better aircraft. Accompanied by much fanfare, the Martin M-130 was introduced in 1936, followed by the Boeing 314 in 1939. Known as Pan Am Clippers, these mammoth flying boats flew from San Francisco harbor skipping across the Pacific with stops at Hawaii, Midway Island, Wake Island, Guam, the Philippines and then Hong Kong. Advance teams had prepared the stopover islands by blasting coral to make safe coves for sea landings and constructing luxury hotels for Pan Am's discerning, rich clientele. Next on the Pan Am list for conquest was the world's other major ocean - the Atlantic.

Boeing 314

As airplane travel became popular during the mid-1930s, passengers wanted to fly across the ocean, so Pan American Airlines asked for a long-range, four-engine flying boat. In response, Boeing developed the Model 314, nicknamed the "Clipper" after the great oceangoing sailing ships.

The Clipper used the wings and engine nacelles of the giant Boeing XB-15 bomber on the flying boat's towering, whale-shaped body. The installation of new Wright 1,500 horsepower Double Cyclone engines eliminated the lack of power that handicapped the XB-15. With a nose similar to that of the modern 747, the Clipper was the "jumbo" airplane of its time.

The Model 314 had a 3,500-mile range and made the first scheduled trans-Atlantic flight June 28, 1939. By the year's end, Clippers were routinely flying across the Pacific. Clipper passengers looked down at the sea from large windows and enjoyed the comforts of dressing rooms, a dining salon that could be turned into a lounge, and a bridal suite. The Clipper's 74 seats converted into 40 bunks for overnight travelers. Four-star hotels catered gourmet meals served from its galley.

Boeing built 12 Model 314s between 1938 and 1941. At the outbreak of World War II, the Clipper was drafted into service to ferry materials and personnel. Few other aircraft of the day could meet the wartime distance and load requirements. President Franklin D. Roosevelt traveled by Boeing Clipper to meet with Winston Churchill at the Casablanca conference in 1943. On the way home, President Roosevelt celebrated his birthday in the flying boat's dining room.

http://www.boeing.com/history/boeing/m314.html

Sikorsky S-42

The Sikorsky S-40 had laid the groundwork for Pan Am's Latin American route system, but Pan Am was never fully satisfied with its compromise design,. Even before the S-40 first entered service, Pan Am technical adviser Charles Lindbergh was developing specifications for a streamlined airliner that could truly span the oceans and fulfill Pan Am's intercontinental ambitions.

Two aircraft manufacturers made credible bids for Pan American's next airliner. Igor Sikorsky wanted the chance to build improve the S-40, whose limitations he fully understood, and Glenn Martin wanted to expand his business from military to commercial aircraft. To hedge his bets against either company's possible failure, and to stimulate competition, so that Pan Am would not be overly dependent on any one firm, Juan Trippe accepted both bids and ordered three planes from each company. On October 1, 1932, Pan Am placed a firm order for three S-42 aircraft, with an option for seven additional planes.

www.clipperflyingboats.com/pan-am/sikorsky-s42

Martin M-130

Even before the first Sikorsky S-40 entered service in 1931, it was obvious that the plane — which Charles Lindbergh called a flying forest — would not provide the performance necessary to fulfill Pan Am's ambitions. Consequently, the airline began searching a streamlined airliner that could truly span the oceans. Two manufacturers wanted the job. Igor Sikorsky wanted a chance to improve on his own S-40, and Glenn Martin wanted to establish his company in the commercial aviation business. Juan Trippe ordered planes from both.

The driving force behind Pan Am's specifications for a new plane was Andre Priester, the Dutch immigrant who had worked for KLM and who became Pan Am's detail-obsessed chief engineer. Charles Lindbergh, who had been so deeply involved with Pan Am's earlier designs, had just undergone the trauma of his son's kidnapping and murder on March 1, 1932, and was only minimally involved with the plans for the new clipper.

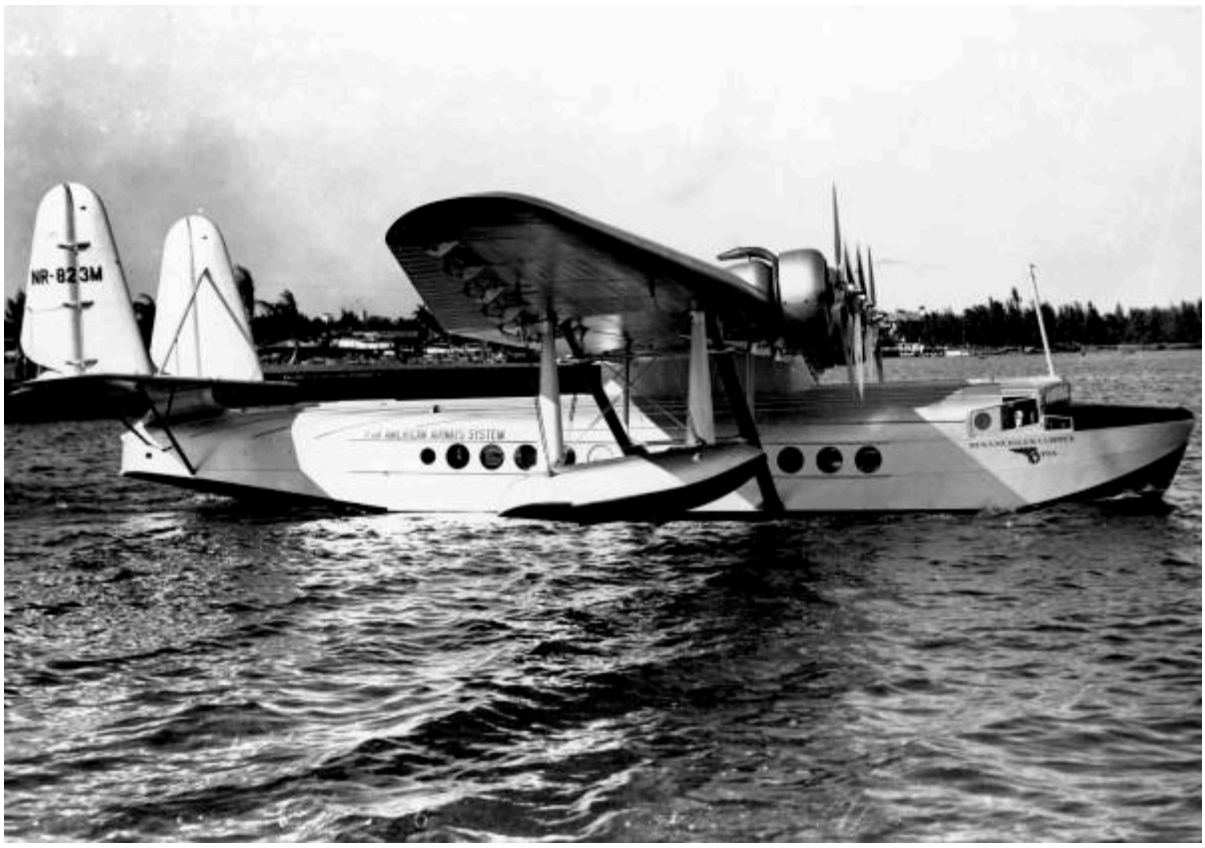
Pan Am wanted a plane that could fly 3,000 miles (long enough to reach Europe or Hawaii) while carrying a payload equal to its own weight, and the Glenn L. Martin Aircraft Company designed a plane that met the airline's needs. Although the first Martin M-130 was delivered over a year behind schedule, and its $417,200 cost was almost twice that of the Sikorsky S-42 (and more than five times the $78,000 price of the leading airliner of the day, the Douglas DC-2), the M-130 had the speed, size, and range to carry mail and passengers profitably across the Pacific or Atlantic.

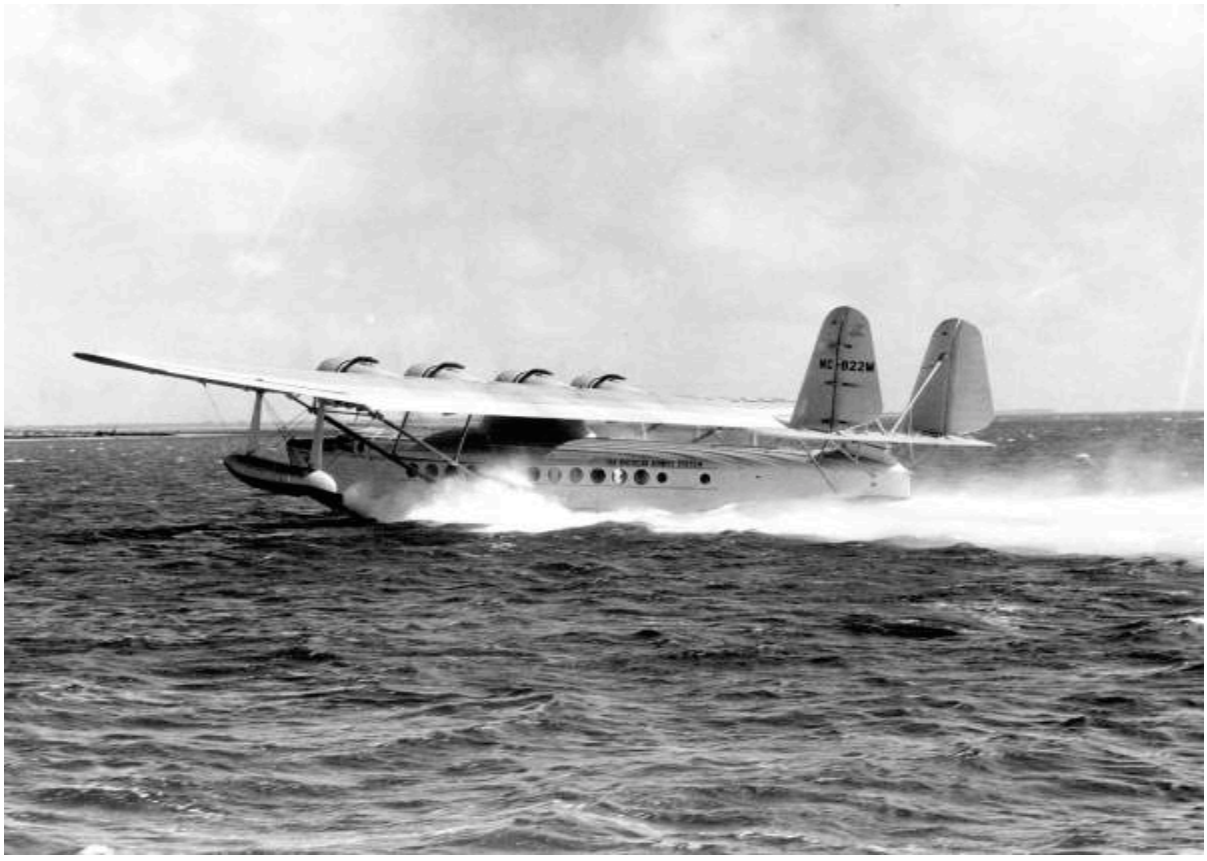
The first M-130, named China Clipper, was delivered to Pan American on October 9, 1935, just two days after its first test flight. A little more than a month later, on

November 22, 1935, China Clipper left San Francisco on the first scheduled mail flight across the Pacific ocean.

www.clipperflyingboats.com/pan-am/martin-m130

(The following pages have a few pictures of the Clippers. These were borrowed from Holcomb's Aerodrome located at www.airminded.net. Great website for all of us aviation enthusiast---take a look.)


NR-823M


NC-822M

The Golden Years and Technology – Part Four

The Boeing-707

Before we begin with the 707, let's look again at where we have come from in this series. The Boeing-247 set the stage for air travel as we know it and the DC-3 took it to the next level. Transcontinental flights were now a daily occurrence, more and more communities were being added and served on a daily basis, and operational safety was improving. The Clippers opened up the door for international travel and blazed a trail for other international carriers to follow and then as piston engine design hit its limit World War 2 provided new technology. Now, forward in to the jet age and the Boeing-707.

The Boeing 707 was to become the first turbine-engine powered airliner in the United States. The basic design was derived from the Boeing 377 Stratocruiser as the B-47 bomber. So pure was the design of the Boeing 707 that it has served as the basis for all future Boeing transports to the current day as well as those of its rivals. By the time production finally ended in 1991 there had been 1,010 aircraft built for passenger, freight, and military operations.

The 707 had seating for approximately four times as many passengers as its closest rival, the British de Havilland Comet, as well as a higher maximum speed. These basic points, combined with a structural problem of the British aircraft that led to a number of well publicized accidents, helped establish the 707 in World-Wide service. The British returned to the skies in 1958 with the Comet-4 and were the first to open a transatlantic passenger jet service. However, Pan Am inaugurated the first round-the-world jet passenger service on October of 1959.

The first commercial 707s, labeled the 707-120 series, had a larger cabin and other improvements compared to the prototype. Powered by early Pratt & Whitney turbojet engines, these initial 707s had range capability that was barely sufficient for the Atlantic Ocean. A number of variants were developed for special use, including shorter-bodied airplanes and the 720 series, which was lighter and faster with better runway performance.

Boeing quickly developed the larger 707-320 Intercontinental series with a longer fuselage, bigger wing and higher-powered engines. With these improvements, which allowed increased fuel capacity from 15,000 gallons to more than 23,000 gallons, the 707 had truly intercontinental range of over 4,000 miles. Early in the 1960s, the Pratt & Whitney JT3D turbofan engines were fitted to provide lower fuel consumption reduce noise and further increase range to about 6,000 miles.

There is a lot of information on the 707 readily available on the web and a good start point is the Boeing web site, where I have spent many hours researching their products.

(The following page has a few pictures of the 707 chosen from open sources on the web.)


BOEING 707

Airline Deregulation – Part One

The Deregulation Act of 1978

Why was deregulation necessary after 52 years of control by the U.S. Government? Did they have an attack of conscious? I don't think so. It was all about the regional airlines like Texas International, Southwest, Air Cal, and others who were not being regulated by the CAB, and as a consequence they offered competitive fares and frequency. The Trunk Carriers were not allowed to do this. So, some in Congress started asking why and before long someone started waving the banner for deregulation. That someone was Senator Ted Kennedy.

Deregulation actually came to the forefront during President Gerald Ford's stay in the White House, but it was President Jimmy Carter who made it all happen during his administration. President Carter gave the chairman's chair at the CAB to a believer in deregulation---Mr. Alfred Kahn.

Before I move forward, let's go back to Senator Ted Kennedy. Senator Kennedy was convinced that government regulation did not serve a purpose and was counterproductive to the health of the airlines and the flying public. Granted, almost everyone could see that, but the Senator started this process in 1974 and 1975, and I find it curious that after sitting in the Senate since 1962 why it took him -- and others -- twelve years to figure this out. The intra-state carriers had been around since the mid sixties and the CAB had been micromanaging airline affairs since 1938. Senator Kennedy joined hands with Stephen Breyer, a Harvard academic, to investigate inefficiencies of existing regulations, and the Kennedy hearings focused on the inefficiencies that resulted from regulation by comparing the experience of the regulated airlines with that of the unregulated intra-state carriers.

Of course, their conclusions were obvious to most in the industry but it is important to understand that the dismantling of the trunk carriers began here. So, Senator Kennedy started it by pointing out all of the inefficiencies that his current and former colleges had put in to the system and Mr. Kahn finished it.

Senator Kennedy was a hero and a champion of the people, but I think someone forgot to consider the twenty carriers that fell from the ranks, and all of the professionals who worked for those carriers who lost their jobs, their retirement and pension funds, and their future working in an industry, that they had made the best in the world.

Now back to Mr. Kahn, who is now known as the "Father of Deregulation ", an economist who also served as an adviser to President Carter as well as the Inflation Czar. Now I don't want to show my bias towards Carter, I am a diehard Libertarian, but history does not treat him or his policies kindly. However, somehow historians have overlooked the failure of deregulation. Mr. Kahn was a staunch supporter of deregulation, and he did his job well. The experts will tell you that fares came down 30% in the years following deregulation, and you have more options, and better service. But what about the chaos they created and then ignored? An interesting footnote here is that all of the trunk airlines and their unions opposed deregulation except United. Why? Also, I found it interesting that Ralph Nader also opposed deregulation---imagine that.

Airline Deregulation – Part Two

The Deregulation Act of 1978

I think we talked enough last time about how deregulation came to be, so let's consider a few of the options the legacy carriers used to stave off the competition. For those who think that the size and experience of the legacy carriers should have been sufficient to win this battle, you are wrong. The micromanaging of the trunk carriers by the CAB created an airline business model that was inefficient, top heavy with management, and union contracts that were negotiated when each carrier had protected turf. Things changed quickly and when the cash reserves and access to credit dried up, the inevitable occurred.

The legacy carriers obviously had a fare war on their hands with all the new competition entering the market place, but they also had a very important tool in their arsenal---their computerized reservation system. The airlines began to use

all of the data on who flew where, what days they flew, what time they flew, and how often. The use of this data was formally titled “Yield Management Pricing.”

American Airlines pioneered this tactic, and in doing so allowed most of the legacy carriers to follow their marketing and pricing scheme, and really put the business traveler at a disadvantage. Essentially this new tactic allowed each carrier to sell different seats on the same flight for dramatic differences. Tourist who booked early could fly cheaply---business travelers who flew at the last minute paid full fare. This obviously created a public relations problem for the carriers with the business community, so to solve that problem the “Frequent Flyer Program” became a substitute for lower prices. This perception of something for nothing -- most business travelers were being reimbursed by their companies -- worked for a while but cost conscious corporations soon demanded better.

The two-tier pay scale was the next move by the legacy carriers. This tactic allowed the legacy carriers to pay new employees the same lower wages that the upstarts were paying. The two-tier system granted parity at some point but the real question was whether or not the carrier would survive long enough for the new hire to recover the losses incurred. Some did, but others were not as lucky.

There were other tactics employed by the legacy carriers such as the hub and spoke system, the addition of the regional carriers to control feed traffic to the hubs at a substantially lower cost, and the updating of the fleets to more fuel-efficient planes. The legacy carriers worked hard to recover from 52 years of regulation, but for many that was an impossible task.

Airline Deregulation – Part Three

The Deregulation Act of 1978

We have talked a lot about deregulation, and I wanted to break it up a little by making this week a picture week. I have a website I go to view old airline photos, www.edcoatescollection.com, and this week I want to show in pictures the intra-state airlines that started the deregulation frenzy. I realize that most of you may

not remember who the companies were, so let's take a look and remember to visit the Ed Coates collection website and take advantage of his hard work to preserve aviation history in photos.

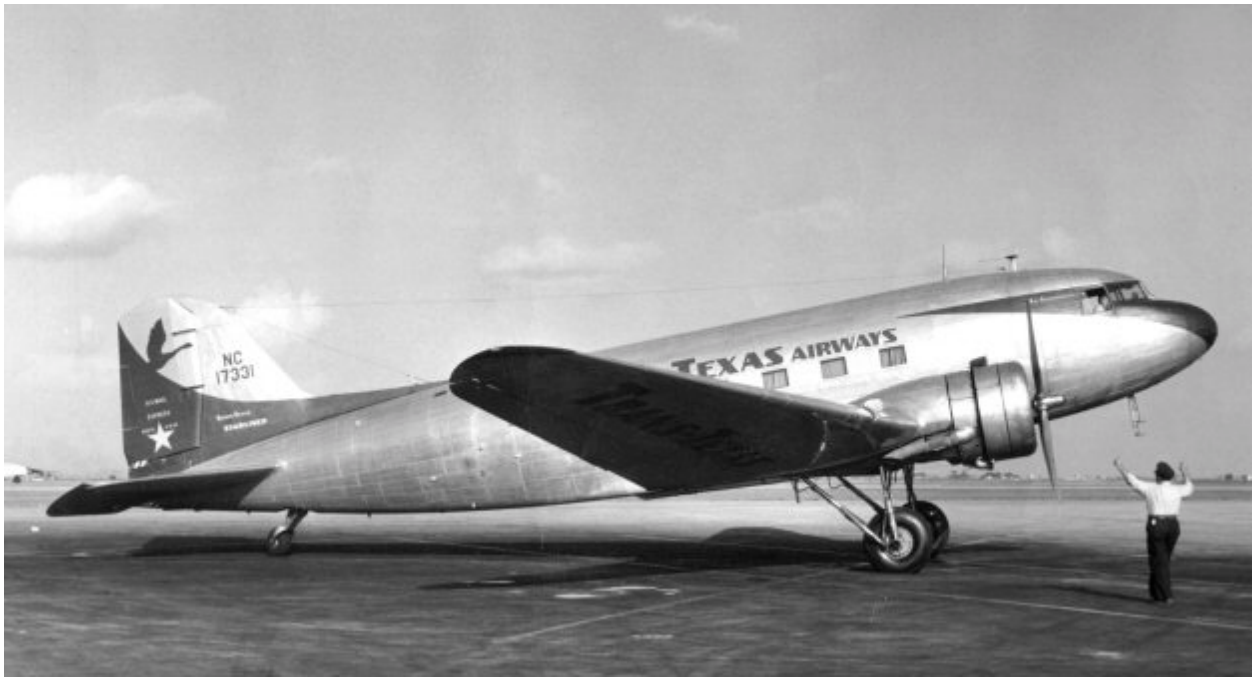
www.edcoatescollection.com/ac3/Airline/Air California Electra.html

www.edcoatescollection.com/ac3/Airline/Air California Boeing 737-200.html

www.edcoatescollection.com/ac3/Airline/AirCal BAe 146.html

www.edcoatescollection.com/ac3/Airline/AirCal MD-80.html

Before they became known as Texas International Airlines the airline was called Trans Texas Airways.



www.edcoatescollection.com/ac3/Airline/Trans Texas Airways Douglas DC-3-1.html

www.edcoatescollection.com/ac3/Airline/Trans Texas Airways Convair 240.html

www.edcoatescollection.com/ac3/Airline/TIA Convair 600.html

www.edcoatescollection.com/ac3/Airline/Texas International Airlines McDonnell Douglas DC-9-32.html

No need for Southwest photos but here is an additional photo you may find interesting. This is a young lady selling Coca Cola to the passengers on a National Airlines flight in Jacksonville, Florida---the year was 1947.

ibistro.dos.state.fl.us/uhtbin/cgisirsi/x/x/0/5?library=PHOTO&item_type=PHOTOGRAPH&searchdata1=National Airlines

Airline Deregulation – Part Four

The Deregulation Act of 1978

Deregulation was based on the premise and expectation that an unregulated industry would attract new airlines and increase competition, with the obvious result being lower fares and improved service. The existing, as well as the new, airlines would be allowed to enter and serve any market they wanted, and provide service at whatever price they thought reasonable. Again, the goal was to boost competition and expand service. This was certainly good for the consumer, but what about the airlines?

We have talked about the practices that the airlines adopted to stave off the competition, and how the business model created under the CAB would ultimately bring about the demise of the majority of the legacy carriers, but we have not talked about one very unique feature of deregulation---The Employee Protection Plan.

The Employee Protection Plan (EPP) was devised to provide displaced employees with compensation and to grant them the right to be rehired by another airline before any other potential candidate was considered. However, this program never provided any assistance or compensation to the employees of failed airlines, and so it was ultimately repealed by the Congress. The paradox here is that the airlines themselves were the biggest opponents of this plan. As I have said before, “Job security as an aviator is a myth even in the best of times”, and the struggle continues.

There is very little information available about the actual damage done to the airline employees and their families. Most people seem to be focused on the consumer, and how they have benefited. The general consensus by these experts is that because fares have gone done some thirty percent between 1978 and 1990, we have been successful with the grand plan. Experts also say that productivity has also increased, but the question remains: Did the consumer pay

for that, or did that responsibility fall upon the airline employees and their families?

Another group of experts describes deregulation as an “unfinished revolution.” In this article, they speak of the first wave of deregulation as the hub and spoke route system and the success of that concept. The second wave was the successful introduction of the low-fare airlines flying point-to-point service after point-to-point was abandoned by the full service airlines*. What was that about successful point-to-point*? The third wave of deregulation was the introduction of the regional jet and the cost savings to the legacy carriers. The final will be the deregulation of the airports and the ATC system.

While many of these statements may have been backed by statistical data and facts to support their ideas, few people have taken into consideration how these changes impacted the airline employees and their families. What research has been conducted on how their lives have been impacted? The whole truth and complete story may never be represented fully, and certainly doesn’t sell well in Washington or to the consumer.

The Legacy Carriers – Part One

Mergers and failures are difficult to keep up with, but there are some significant changes that took place in the 1980s and the decades after that can provide us with some perspective of the state of the industry. Do you remember which airlines were around in 1978 and which ones are no longer in existence? If the answer is no, here's a list of who is not around:

- Aloha Airlines failed in 2008
- Air Cal was absorbed by American in 1987
- Braniff failed in 1982 and Braniff II failed in 1989
- Continental is still with us but the current Continental is a remake of the original Continental that was bought out by TI/Frank Lorenzo
- Eastern failed in 1990
- Frontier was absorbed by Continental in 1985
- National was absorbed by Pan AM in 1980
- Northwest was absorbed by Delta in 2008/2009
- Ozark was absorbed by TWA in 1986
- Pacific Southwest was absorbed by US Air in 1988-
- Pan Am failed in 1990
- Piedmont was absorbed by US Air in 1989
- Republic was absorbed by Northwest in 1980
- TWA was absorbed by American in 2001
- Western was absorbed by Delta in 1987

These facts are very telling on the success of deregulation, but there are a number of experts who will argue that this is normal for any industry whether it is airlines or typewriters. However, the important thing to note here is that other industries were not regulated by the CAB.

Airline failures and mergers (what I referred to as absorptions above) occurred for some very simple economic reasons. First, and the most important, was to grow the airline and increase the route structure. The second reason was to control the

minor to major markets to offset or minimize loss in the major to major markets where there was stiff competition. The third was only the strong survive.

The Legacy Carriers – Part Two

The Failure of Braniff and Eastern

Braniff was truly the most colorful airline of all times. The airline began back in the 1920s and as you might imagine, there were air mail contracts that helped them with that start. Braniff had a colorful and successful history, but when it came to deregulation, CEO Harding Lawrence, made a calculated decision to expand operations rapidly on a newly opened set of domestic and international routes, and operations on the new routes began with little advanced marketing or training of personnel.

Lawrence believed that deregulation would be retracted and that Braniff would retain its new routes. When deregulation was codified into law, Braniff found itself with huge cash needs for operations, but insufficient cash flow because the customer base was marginal at best. Again, its market failure stemmed from poor management strategy and execution; however, a friend, who flew for Braniff, once told me that the CEO had conducted a teleconference for employees and his take on the business strategy was that Braniff would be the biggest airline in the U.S. or they would break the bank. “Damn the torpedoes and full speed ahead” was his philosophy. The rest is history.

Eastern Airlines, formerly known as Eastern Air Transport before the airline was forced to change its name in 1934 because of the air mail scandal that we discussed earlier in the year, was a Florida airline with a proud tradition and a solid route structure. However, most people will blame Eastern Airline’s failure on poor management practices and bad labor relations which actually began under the direction of Eddie Richenbacher. Still, the primary reason for the failure can be attributed to Frank Lorenzo who gutted the airline, alienated the unions and finally forced a strike which led to the failure. Lorenzo was finally banned from

ever being a part of any airline operation, but the damage he did to Eastern and others was reprehensible.

I know this was brief but I have a reason. Former employees of each of these airlines have web sites that contain a wealth of information on who, what, when, and where. Take some time to explore the story that they tell. A good starting point for Eastern is www.eara.org/**history**.html and for Braniff I would start with www.braniffpages.com/.

The Legacy Carriers – Part Three

The Failure of TWA and Pan AM

TWA and Pan AM were part of the big four that made aviation what it is today and the demise of TWA is the saddest of all the fallen carriers. TWA was not always TWA but started life as Transcontinental Air Transport, The Lindbergh Line incorporated in 1928, and merged with Western Air Express in 1930. The merger was forced by Postmaster General William Brown and the airline was then known as Trans Western Airlines. In the mid-forties the name was changed to Trans World Airlines.

TWA will always be known as the Howard Hughes airline, and Carl Icahn will always be known as the man who destroyed that airline. TWA seemed to always play catch up instead of leading. Howard Hughes was responsible for the Constellation taking TWA ahead of the pack, but then he refused to move away from the Constellation into the jet age and left the airline floundering. TWA had an east to west route system but never developed its north to south route until after deregulation which put them at a real disadvantage when we talk about competing in an unregulated environment. The story has many ups and downs but TWA 800 was the final blow and things never rebounded.

Pan Am is another sad tale. Pan Am was the pioneer of international aviation, and during the regulatory era, it had been awarded worldwide routes but no domestic routes.

Shortly after deregulation, Pan Am proceeded to rectify the situation by purchasing National Airlines. National seemed to be a good fit with its Miami location and offered a route network that naturally drew planes into the Pan Am hub at Kennedy Airport. Pan Am failed at that merger, not because it lacked foresight or resources, but because it poorly executed the merger. Pan Am's expertise was in delivering international operations where customers readily tolerated delays of an hour or more. It was unable to deliver a competitive degree of on-time performance when compared with domestic services of other U.S. carriers. It was unable to integrate its systems and its work forces effectively, and unable to modernize its fleet. In the last decade of its operations, Pan Am lost more than $12 billion. It survived by selling off its assets. The Pan Am Building in New York, the Intercontinental Hotel Chain, land in Tokyo, and its routes to Japan and London were all sold for top dollar. Once those were gone, the airline itself disappeared. Gone, but not forgotten.

I know this was brief but I have a reason. Former employees of each of these airlines have web sites that contain a wealth of information on who, what, when, and where. Take some time to explore the story that they tell. A good starting point for Pan Am is www.panam.org and for TWA I would start with www.twasilverwings-kc.com/htdocs/TWA_historypage1.htm.

The Legacy Carriers – Part Four

Gone but Not Forgotten

1978 Roll Call of Legacy Carriers

Alaska Airlines	Northwest
Aloha Airlines	Ozark
Air Cal	Pacific Southwest
American	Pan Am
Braniff	Piedmont
Continental	Republic
Delta	Southwest

Eastern	TWA
Frontier	United
Hawaiian	US Air
National	Western

Mergers and failures are difficult to keep up with, but there are some significant changes that took place in the 1980s and the decades after that can provide us with some perspective of the state of the industry. Consider the following facts:

- Aloha Airlines failed in 2008
- Air Cal was absorbed by American in 1987
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- Pan Am failed in 1990
- Piedmont was absorbed by US Air in 1989
- Republic was absorbed by Northwest in 1980
- TWA was absorbed by American in 2001
- Western was absorbed by Delta in 1987

The following airlines are still in operation: Alaska Airlines, American Airlines, Delta Airlines, Hawaiian Airlines, United Airlines, and US Air.

I have closed with pictures of the fallen carriers, so enjoy and for each photo there is a credit listed so that you can do some looking on your own.

Gone but Not Forgotten

Aloha Airlines failed in 2008

(Picture Credit: *http://upload.wikimedia.org/wikipedia/commons/thumb/1/1a/Boeing737-N742AL.jpg/800px-Boeing737-N742AL.jpg*)

Air Cal was absorbed by American in 1987

(Picture Credit: http://www.aircraftshots.com/Airlines/photo/lg/Air-California-Boeing-737-293-N462AC-Passenger-Jet-Airplane-Commercial-Aircraft.jpg).

Braniff failed in 1982 and Braniff II failed in 1989

(Picture Credit: *http://www.airplane-pictures.net/images/uploaded-images/2006-11/1512.jpg*)

Eastern failed in 1990

(Picture Credit: *http://aviationexplorer.com/Eastern_Airlines_Aircraft/Eastern_Airlines_L1011.jpg*)

Frontier was absorbed by Continental in 1985

(Picture Credit: *http://members.tripod.com/~LAMKINS/FL_737DEN.jpg*)

National was absorbed by Pan AM in 1980

(Picture Credit: http://airlinersgallery.files.wordpress.com/2009/03/national-1st-747-100-n77773-67grd-mia-bdlr.jpg

Northwest Orient---Northwest Airlines

(Picture Credit: http://upload.wikimedia.org/wikipedia/commons/thumb/4/48/Northwest_Orient_Boeing_747-100_at_London_Gatwick_Airport_in_June_1983.jpg/800px-Northwest_Orient_Boeing_747-100_at_London_Gatwick_Airport_in_June_1983.jpg)

Northwest was absorbed by Delta

(Picture Credit: http://upload.wikimedia.org/wikipedia/commons/thumb/3/3b/NW_B747-200_before_and_after.jpg/715px-NW_B747-200_before_and_after.jpg).

Ozark was absorbed by TWA in 1986

(Picture Credit: *https://shop.slidecorner.ch/images/NS0009r.jpg*)

Pacific Southwest was absorbed by US Air in 1988

(Picture Credit: http://www.jetpsa.com/photos/70s/7003.jpg)

Pan Am failed in 1990

(Picture Credit: *http://upload.wikimedia.org/wikipedia/commons*)

Piedmont was absorbed by US Air in 1989

(Picture Credit: http://farm4.static.flickr.com/3653/3509740948_f46217238a.jpg?v=0)

Republic was absorbed by Northwest in 1980

(Picture Credit: *http://www.aviationexplorer.com/Old_Airline_Airliner_Pictures/Republic_Airlines_Boeing_727.jpg*)

TWA was absorbed by American in 2001

(Picture Credit: http://www.airplane-pictures.net/images/uploaded-images/2008-2/10230.jpg)

Western was absorbed by Delta in 1987

(Picture Credit: http://www.aviationexplorer.com/Old_Airline_Airliner_Pictures/Western_Airlines_Boeing_707.jpg)

The Low Cost Carrier – Part One

Lower Fares and Increased Frequency

Lower fares and more frequent flights will yield even lower fares, more frequent flights and a happy consumer---right?

Sir Frederick Laker, who founded the first long-haul no frills airline in 1977 between London and New York, said that the 20th century belonged to the traditional high-cost airlines but the 21st century would be the domain of the low-cost no frills airline. It is easy to see why he would say this in 2002, based on historical evidence, but perhaps the traveling public will begin to grow tired of the bus lines called "Low Cost Carriers" and demand something better. This will not occur in the short-term so all we can really do is tighten the seatbelt/harness and hold on.

The original concept for the LCC came about in 1971 when the founder of Southwest Airlines mapped out the route and cost structure for his airline, which at the time was an intra-state airline flying in Texas. As a result of this simple strategy, Southwest Airlines has grown to become one of the most successful airlines in America. This strategy was copied internationally by carriers in the UK, Europe and beyond, and continues to spread as the world community demands cheaper fares and more frequent flights.

There is a lot to be said about the business models being used by the LCCs, but it is not effective to become entwined with the minutiae. Instead, let us look at the characteristics that define a LCC followed by a question that may make you think about what the possibilities for change really are.

The Low Cost Carrier – Part Two

Business Model

There is a lot to be said about the business models being used by the low-cost carriers (LCCs), as I said last week, and this week we will discuss the first three of the seven points or elements listed below.

Traditionally there are seven elements that define a LCC. These elements are:

1. Low labor cost per flight hour
2. Low ticket distribution costs
3. No frill service
4. Common fleet type
5. Point-to-point route structure
6. Secondary airport service
7. Above-average fleet utilization

Of course, the missing element that makes all of this work is that there is no CAB to micromanage the affairs of the airline. So let's take a look at each one of these separately by asking a question—What if?

Labor costs are always one of the biggest operating costs a company has to deal with, especially when associated payroll taxes, health care and retirement benefits are factored in. However, when we consider that the mandatory retirement age of 60 was moved up to 65 in 2007 and the additional burden that a company like Southwest now has because of this. Does this begin to put them at a disadvantage?

If Southwest's route structure was challenged by a Southwest lookalike that was well-capitalized with a much lower labor cost and ready for a long fight, would they survive as the dominant carrier? It is rumored at the time of this writing, that Southwest is considering a buyout of AirTran. If this actually takes place, history suggests that they will probably not merge or integrate the people but instead would simply eliminate the duplication of service and increase the utilization of their fleet thereby reducing their hourly operating cost. Not a pleasant thought

for the people of AirTran, but Southwest is concerned about their company and want to be ready for the time when that Southwest lookalike appears.

Ticket distribution costs are now almost the same for all carriers. Initially, the legacy carriers had to resolve the travel agent problem and the massive infrastructure cost surrounding the call centers which each airline had. When that was done, the Internet provided a delivery system that is now utilized by all of the carriers and the cost for everyone is almost the same.

However, the next level of ticket distribution and cost savings that could very well be employed by the LCCs is almost ready and it is my personal belief that WalMart is involved. If this were the case, do you think if WalMart can sell tickets they could also figure out how to start and run an airline that will compete with Southwest?

No-frill service is no-frill service, but what happens when the LCCs begin to offer a few tidbits here and there to give themselves an advantage? In the free market system carriers would have to begin to match the offers of others to keep up and then perhaps offer one better. If the ticket prices are to stay low who will pay for this? Will it be the airline or the employees?

The Low Cost Carrier – Part Three

Business Model

There is a lot to be said about the business models being used by the low-cost carriers (LCCs), as I said last week, and this week we will discuss the remaining four points/elements listed below.

Traditionally there are seven elements that define a LCC. These elements are:

1. Low labor cost per flight hour
2. Low ticket distribution costs
3. No frill service
4. Common fleet type
5. Point-to-point route structure

6. Secondary airport service
7. Above-average fleet utilization

Of course, the missing element that makes all of this work is that there is no CAB to micromanage the affairs of the airline. So let's take a look at each one of these separately by asking a question—What if?

Common fleet type airlines will be a constant in this equation and the only factor that could garner additional profits is more leg room. More leg room equals removal of seats, which equals less people and increased costs per revenue mile. Who will be the first to do this and increase the ticket price on the promise of more comfortable surroundings and better service? Who will pay---the airline or the employees?

Will it be point-to-point or hub and spoke? This is a question that will plague the LCCs as they grow and as they try to protect their traffic. There are a number of hubs that Southwest and others use, but as the number of LCCs continue to expand, who will be the first to adopt the true hub and spoke system of the legacy carriers? Then what happens to the point-to-point advantage that the established LCCs have?

Secondary airport service will prevail for some time to come, but as the government prepares for the next wave of deregulation, airports and ATC, this will also change. Airports will begin to compete for service based on the rules of free enterprise, and not government subsidy. It only makes sense that we stand-by for a change. Who will be the highest bidder for the right to service the major hubs?

Fleet utilization is at an optimal level for most LCCs but we can never underestimate management's ability to get more for less. This is usually done at the expense of the employees, but at some point the employees push back and this is usually done with a Union, which history tells us will dramatically affect the labor cost equation. So what happens when the Unions organize all of the LCCs?

The Low Cost Carrier – Part Four

Business Model

The LCC is also a business model that the legacy carriers have adopted, except they are called regional airlines and are used to provide the minor to major market feed traffic, as well as point-to-point service to compete with the LCCs. Regional Airlines are certainly not new to the scene but let us consider the possibilities.

Embraer is now producing a very successful narrow body twin engine jet that can be ordered in a 75 to 125 seat configuration and have similar capacities to the original DC-9 and the B-737 which are of course main line equipment not regional. To date, Embraer has over 800 firm orders and options for another 800.

Bombardier is in the race as well as a couple of other manufacturers and these aircraft are not only being used by regional carriers but main line carriers as well. The only thing that is currently stopping the legacy carriers from moving more of their business to the regional carrier with the larger jets is the **Scope Clause** in the contracts with their pilots.

A **Scope Clause** essentially limits the size or number of seats that a regional operator can use for the main line carrier. The concept here is to encourage the airline management to grow the airline from within and limit the outsourcing of jobs to the regional carriers. The concept is valid and is needed more today than ever before because of airline economics and bad management. However, be prepared for some of the regional carriers to walk away from the main line support system and add to the LCC competition-- or slugfest as it is called by some--and there will be some fierce negotiations during the upcoming contract negotiations between ALPA and the legacy carriers.

The Next Wave of Deregulation

(No, This Week it's a Current Event)

"Gatekeepers of the Third Dimension"

The article I speak of was written by Sholnn Freeman, a Washington Post Staff Writer, and reads as follows:

Federal efforts to improve U.S. aviation safety after a deadly regional plane crash in February have hit major obstacles, sapping momentum for a reform effort that enjoyed broad political support earlier this year.

A number of aviation safety proposals have been filed in Congress this year in response to the Feb. 12 crash of Continental Connection Flight 3407 outside Buffalo. The crash killed 50 people, making it the deadliest U.S. transportation accident in seven years.

In preliminary hearings and reports, the National Transportation Safety Board has exposed a number of safety issues, including lax pilot hiring practices, problems related to training and fatigue and superficial regulatory oversight by the Federal Aviation Administration.

In three days of hearings in March, the NTSB released cockpit voice transcripts from the accident, and the plane's co-pilot can be heard expressing fears about poor training and her inadequacies as an entry-level pilot. The safety board's revelations were followed by a wave of news conferences, news releases and congressional hearings in which lawmakers demanded action.

Action appears to have been stymied on a number of fronts, however. Objections from U.S. aviation colleges have slowed House legislation intended to improve safety. The schools are fighting a provision that would require all airline pilots to obtain airline transport pilot certificates from the FAA, substantially boosting the flight time of entry-level pilots. Under current regulations, only senior pilots must have the certificates, which require 1,500 hours of flight time.

The flight time requirement is a big problem for the colleges, which tend to graduate pilots who have 250 to 350 hours. Pilots from the schools have been able to move quickly to entry-level jobs at regional airlines as junior pilots. The new rule would force graduates to spend an additional year or more acquiring the required flight hours.

Embry-Riddle Aeronautical University, the country's largest aviation school, has emerged in recent weeks as a major opponent of the provision. The school's Daytona Beach campus is in the district of Rep. John L. Mica (Fla.), ranking Republican on the House Transportation and Infrastructure Committee, which oversees aviation.

Tim Brady, dean of Embry-Riddle's College of Aviation, and other aviation educators said the provision would spur aspiring airline pilots to fulfill the flying time requirement by piloting crop-dusters and towing banners.

Staff members in Mica's office have been working on a compromise with FAA officials and committee Democrats.

Jim Berard, a spokesman for the House transportation committee, said he is confident that the group could reach "an amicable solution." But a compromise could alienate other House Democrats, families of crash victims and pilot union members who back reforms.

"Any attempt to decrease the qualifications below the level of an airline transport pilot license is watering it down," said Capt. James Ray, media chairman of the U.S. Airline Pilots Association, which represents 5,200 US Airways pilots and has been a strong backer of the bill.

Meanwhile, other efforts to improve aviation safety have foundered. In the Senate, action on aviation safety legislation has taken a back seat as key lawmakers grapple with health-care reform.

Separately, an FAA initiative to extract voluntary commitments from the aviation industry to improve safety has drawn sharp criticism from Democrats. In June, FAA Administrator J. Randolph Babbitt wrote dozens of airlines and eight labor unions asking them to upgrade safety practices and report back to him on their progress.

Rep. Jerry F. Costello (D-Ill.), chairman of the House aviation subcommittee, credited Babbitt with starting a rulemaking process aimed at addressing pilot fatigue this year. But Costello said that the FAA had failed to impose firm deadlines and that data from the voluntary initiative are "raw and incomplete."

The FAA has said 69 of 98 airlines and three of eight aviation unions have responded. Babbitt vowed last week to publicize the names of unresponsive airlines and unions.

"While we haven't heard from everyone at this point," Babbitt said at the hearing, "I will use my bully pulpit going forward."

Now I understand that there is a lot of money on the table here, but for me the only thing I see is qualifications and safety. There is nothing wrong with crop dusting, towing banners, or flight instruction. All of these endeavors build character and experience, and as for as flight instruction is concerned, it was or is my experience that you can learn as much as you teach about your craft. So, what is the problem? The problem as always is money, and overall the regional carriers have a good safety record. Is this due to luck, good equipment or good schools? Probably a little bit of all three. However, I consider myself a **"Gatekeeper of the Third Dimension"** and I agree with Captain James Ray of ALPA. I hope you do and I hope you think this issue is as important as I do.

The Next Wave of Deregulation – Part One

ATC and Airports

Some industry watchers have said that after more than twenty years of airline deregulation, air travel is again coming to the forefront of public policy. The number of complaints about congestion, delays, increasing fares and the loss of service at some of the smaller communities has reached an all-time high. There have been a number of proposals by the policymakers in Washington, but the most outlandish is federal control over fares and routes again. However, most observers discounted this policy before the ink was dry.

It is the micromanagement started by the CAB, and continued by the FAA, that is still causing problems for the legacy carriers and others. So what are the

alternatives? Deregulate the airports and turn them over to private enterprise, as well as privatize the ATC system. In a recent report, it was stated that new technology exists that could produce an increase in capacity of up to fifty percent at airports such as LGA and DCA. However, these new technologies are not likely to be employed in a timely fashion because the ATC system is obsolescent and will not change dramatically until the system is turned into a business that is funded by its users.

The second piece in the puzzle is the airports and their need to be free to expand based on market demands, and not the control of funds by the FAA. This can be done by airports charging access charges during peak times with those additional revenues being directed to new runways and capacity enhancements for that airport. This gives the control of the airport back to the community it serves, and allows the marketplace to control expansion or contraction of services.

The technology is there and the business model is in place for the airports, but there have to be policy changes in Washington to allow this to happen. If the policymakers free up the infrastructure, private enterprise can better cope with the dynamics of an expanding marketplace better than the present system which is being micromanaged by policymakers.

Next week, I will continue with the series on the next wave and highlight a few of the changes needed for the system to move forward and catch up with the 21st century.

The Next Wave of Deregulation – Part Two

ATC and Airports

Last week we talked about the two major fixes that need to occur in order for deregulation to be complete. This week I want to highlight three items that a revamped ATC would need to address quickly in order to address the anticipated doubling of daily airline takeoffs and landings that is expected by 2020.

Free flight: We've heard a lot of talk but nothing has been implemented on a small or large scale. If you are involved in commercial aviation, I do not have to explain the consequences of zigzagging your way across the country and under free flight that goes away. Direct routing from A to B using satellite-based navigation and other systems will greatly expand the volume of available airspace, but the FAA will not and does not attempt to quantify how soon free flight will be available domestically.

PRM: Certain airports, JFK-BWI-MSP and a few others are not able to run simultaneous approaches in bad weather to parallel runways because of the runway separation. PRM, precision runway monitor, would allow approaches to parallel runways with less than the 4200 feet required while maintaining safety standards. This service is being implemented by the FAA now, but the technology has been in place for years. So, for any of you who might recall being on a gate or airport hold for weather in the Northeast I would assume, like me, you are asking why. I think it can be said that the bureaucracy has only one friend---itself.

Curved approaches: These have been demonstrated in simulation models for years and proven to be safe, but they only now starting to be approved by the FAA for routine operations. It does in fact take the installation of GPS equipment to do this, but I don't think that the technology driving this bus is cutting edge. It is there, on the shelf, and if the ATC system is converted to a commercial corporation, these types of approaches can be routine in the next five years. It is estimated that this could in fact increase the hourly capacity by 40% or more at airports like LGA and DCA, allowing greater access to these and other airports.

There are certainly more elements involved in the equation, but for now I simply want to spark an interest in you, the reader, to complete the task of knowing where you are going and where your industry is going.

The Next Wave of Deregulation – Part Three

ATC and Airports

The first wave of deregulation was Hub and Spoke by the legacy carriers. The second wave was low cost carriers flying point-to-point. The third wave was the introduction of the regional jets. The next and final wave is deregulation of the ATC system and the airports. Today we will talk about the regional jets and their impact beyond the third and final wave of deregulation.

The RJs first appeared in 1997 and was the response by the legacy carriers to the low-cost carrier. I am not a fan of how the regional airlines or legacy carrier's use these to depress the wages of professional aviators, but the RJs are here to stay so I will deal with the wage issue in a later series. For now, we know that the public loves them over the turboprops and Bombardier estimates the market for these airplanes in the US to exceed 1500 units by 2011. Embraer is further expanding that market, along with the seating capacity of their models.

Some analysts refer to the coming years in aviation as the "RJ Revolution". This is based on the fact that the travelling public has become less tolerant of delays and the point-to-point offered by the RJs reflects the same thing that the low cost carriers are doing. The only exception being that they are controlled by the legacy carriers.

Now with that being said, I should point out that what the analyst are predicting is the RJs will be the new low-cost carriers competing with the old low cost carriers. It is said that the possibilities are endless, and that new entrepreneurial airlines will be able to offer service between hundreds of city-pairs not being served now. Boeing has pointed out that the fastest growing area for airlines over the next ten years or so will be point-to-point routes that overfly hubs.

Now if all of this is true, I think the legacy carriers will lead the pack and control the deliveries of new airplanes. I am sure that there will be some new upstarts, but by and large, the legacy carriers will lead and the low-cost carriers will follow. So, where does this take us?

I agree with the concept, but as I said in my commentary, the first of this month we are in need of a single voice that will speak about the minimum standards that need to be in place that dictate 1500 hours as a minimum time requirement, and the salary for the right seat need s to be 50K or greater with 100K for the left seat. If this does not happen then, as Captain Sulley said before Congress, the RJ revolution will simply be the new ATM machine for the legacy carriers, and those who follow in their footsteps.

The Mindset of an Aviator - Part One

(This week it is Commentary)

The Broken Promise

I know that for most who may read this retirement may not be an issue; however, one day when the reality that you are not twenty-five but forty-five sinks in and you have determined that maybe you can't continue spending your way to the next level of success then suddenly the "R Word" may take on a life of its own because you can't work forever--- when this day arrives take care with whom you place your trust.

There are no remaining legacy carriers, with the exception of Continental and American, which have maintained the integrity of their pension plans, and while there are three or four low cost carriers who are working hard to trying to establish/maintain their plans the test if time/economic downturn/unions may change that equation.

Delta Airlines, the Atlanta-based operator of Delta and Northwest airlines, said in its 2008 annual report it expects to spend $420 million this year on pension benefits; however, its pension plans' liabilities exceeded their assets by $8.6 billion at the end of 2008.

The GAO recently reported that four companies, two of which were United Airlines and US Airways, turned over their pension plans to the government backed insurance plan and the combined short fall of cash was eleven billion dollars **($11,000,000,000)**. OK, no surprise there but why did the top executives at these four companies pay themselves forty-nine point five million dollars **($49,500,000)** in retirement and severance benefits in the years prior to filing for bankruptcy.

The one dimensional thinking of corporate officials, or should I say me and my friends first thinking, is a standard today in corporate America but it is also a standard for the up and coming generation of aviators. Why would I say this? I say this because there can be no other reason why an aviator would undermine the standards of those who came before them. I say this because in a time not so long

ago in a land not so far away slave labor was abolished and minimum standards were established. Could it be that while we throw rocks at management that perhaps we have overlooked the basics? We as aviators control the gate to the third dimension----not management--- not the FAA/NTSB---not Wall Street. Take care with whom you place your trust but above all it is up to you to maintain a standard based on principals as a professional who respects the standards of our craft.

The Mindset of an Aviator - Part One

An Aviator

I have arrived and I am one---or are you? Did you ever hear the old saying that a Private Pilot's Certificate was just a license to learn? Well, guess what---that Commercial Pilot Certificate is not any different and remember you are an aviator first and a master of automation second. If you cannot master an aircraft without using the automation can you be the master or are you the slave who depends on the master?

Now that I have your attention rest assure that I am not telling you that you should fly a 747 at flight level 410 by hand---not intended to be done that way and you would have to be masochistic to try and do so. What I am talking about is being the Pilot-In-Command and not a passenger.

I know that the trend today is automation and they teach automation from take off to touch down; however, should this be the professional standard expected of an aviator or should we as aviators expect more from ourselves? Should we demand more from those who are providing the training? Maybe we need to examine the system that allows inexperienced aviators to believe that they are ready when they are not---what say you?

Now, let us consider the mathematical consequences of the statement **"I am the Pilot in Command and I am responsible for your safety"** and what that means to you, or your family should you not survive, and the lives of others**.** There was a fatal crash this year involving a fifty passenger aircraft and everyone perished. Consider for a moment just how many people were affected by this. Let us

assume, for the purpose of this illustration, that there were no children on board and that each passenger and crewmember was married and traveling without their spouse, and now let's do a little math.

Passengers and crew…**53**---spouses…**53**---parents and grandparents…**424**---children of each based on an average of 2 per family…**106**---extended family based on an average of 5….**265**---close friends of each passenger and crewmember based on an average of 5 per member…**265**. As you would suspect we could continue this with almost an infinite number of possibilities but we will stop here and use the figure **1166**. This number represents persons whose lives will forever be changed as a result of this event and if you consider all the other people who could possibly be affected the final number could balloon to well over five-thousand.

The issue of making life and death decisions is present in almost all professions but why do we allow others to make this decision for us. You as an Aviator/Gatekeeper are responsible to yourself to maintain a standard that is no different than that which you expect from the surgeon who is performing surgery on a member of your family. There is no such thing as a routine surgical procedure---there is no such thing as a routine flight.

As the Pilot in Command you make the decision to dispatch and go maybe five times a day/ thirty times a week, and based on your line schedule, maybe three-hundred sixty times a year. Your decisions will effect almost one half million people a year---Are you ready, and are you truly prepared for that responsibility?

In closing I would like to say that the crew on the flight mentioned did in fact try to meet the challenge and responded to the event with their best efforts---they were not successful. God bless them and each and every passenger who lost their lives. It is my hope that each person touched by this can find peace and comfort with the coming New Year.

The Mindset of an Aviator - Part Two

An Aviator

Last week we talked about the concept of a Commercial Pilot's Certificate being a license to learn and touched briefly on the issue of inexperience and the ability, or inability, of the system to acknowledge that. That having been said I would also like to say that I have flown with quite a few young aviator's who would make Lindbergh proud---and my name is Novell not Lindbergh---but they are the exception. The vast majority of the young aviator's are not capable of flying without the automation and when it came to V1 cuts, single engine departures, or single engine arrivals they were passengers hoping for a good outcome.

It use to be that the simulators for each airplane was a challenge because they flew nothing like the real airplane, but if you could adjust to the idiosyncrasies of the box, and then adjust to the idiosyncrasies of the airplane based on what you had learned, then there was no problem. Now it is just the opposite, or so it seems, and the simulator flies better than the real airplane. Not sure if I am going to get a lot of agreement on this but after twenty years of flying, ten type ratings, and maybe three-hundred hours in simulators I can attest to the quality of the modern day simulators and they fly better than the airplane itself.

So, where am I going with all of this? We as aviators, specifically those who are involved in air carrier operations, need the flight engineer's seat back in the airplane as a learning platform. There is no better view than the view from the left seat and there is no better platform for learning than the view from the engineer's seat. You see it being done, you hear it being done, and after seeing a number of different crewmember's working together you begin to understand what to do, what not to do, and why it is done a specific way; in addition, you see it in good weather, bad weather, snow and ice at Logan or Kennedy, and the low visibility operations at SFO and ORD. Then it is time to move to the right seat and polish your skills and prepare yourself for the ultimate responsibility using all that you have learned, seen, and be told.

The Mindset of an Aviator - Part Three

Food For Thought

Whenever we talk about a pilot who has been killed in a flying accident, we should all keep one thing in mind. He called upon the sum of all his knowledge and made a judgment. He believed in it so strongly that he knowingly bet his life on it. That his judgment was faulty is a tragedy, not stupidity. Every instructor, supervisor, and contemporary who ever spoke to him had an opportunity to influence his judgment, so a little bit of all of us goes with every pilot we lose.

An Aviator

I wish I could talk to this unknown author who is credited with this week's quote because he, or she, truly understood aviation, and the importance of aviators having a collective conscience. I do not expect to see many changes in the training programs at the Flight Schools that are providing aviators to the regional airlines. The regional carriers are addicted to cheap labor just like the American public is addicted to cheap prices at WalMart; however, collectively, we as aviators, can change the mindset of all who think aviation, and WalMart should have the same labor practices.

The flight engineers seat will never be seen again either because the 121 carriers are not going to pay for something that they worked so hard to get rid of----and to do so would mean that maybe they had compromised safety by doing so in the first place.

It is my belief that each pilot sitting in an aircraft operated by an air carrier should have a minimum of 1500 hours and possess an ATP Certificate. This will help ensure that the experience level in the right seat is not limited by rehearsed simulator training, but will be balanced with simulator and practical flight experience in a variety of aircraft. I think there will be a lot of rocks thrown at me for this statement but I believe that if we as aviators have to stop and recognize that we have to change before the system will change--- and as we all know change can be painful.

Think about what we have talked about today and think of alternatives. The alternatives, of course, must address what we as aviators need to do to protect

the future of our profession and establish a standard for those who will be following in our footsteps. This is a difficult task but we must start now to change the system from the inside out.

Next week I am off to Central America for a few weeks so I am only going to have a single post for the month of December; however, remember as aviators we are the **“Gatekeepers of the Third Dimension”** and corporate America does not need to think for us nor should we wait for the FAA, NTSB, ALPA, or any other government entity to return control our of our domain.