Virginia Aviation History Project

The International Civil Aeronautics Conference of 1928

by Linda Burdette

In the early days of the twentieth century aeronautical engineering and aviation capabilities expanded at a rate not seen in any technology in history. Despite naysayers and erratic support by the U.S. Government, the fledgling aviation industry was growing and nearly 25 years after the Wright Brothers first flight, President Calvin Coolidge suggested that the U.S. government should host an international conference to honor the Wright Brothers achievements and to further the cause of global aviation. After the deprivations of the Harding years, the support of the President was a huge boon to the aviation community. Coolidge made this proposal to the Conference of Aeronautical Industry at their December 1927 meeting, offering that a conference on the 25th anniversary in December 1928 would be ideal and would bolster the United States' position as a world leader in aviation.

December 15, 1928. ICAC delegates view the military aviation demonstration at Bolling Field, Washington, DC

The members of the Conference of Aeronautical Industry were quick to accept the President's suggestion, but actual implementation fell to the Commerce and State Departments. Unfortunately, the State Department was unwilling to support the effort. They were engaged in negotiating various international agreements impacting intercontinental travel, especially with the South and Central American countries, culminating in the Pan American Convention on Commercial Aviation early in 1928. Understandably they were fairly defensive of their role and, despite the urging of William P. MacCracken, the first Assistant Secretary of Commerce for Aeronautics, resisted moving forward on this new international conference unless the Commerce Department agreed that there would be no formal agreements reached among the participants. In May 1928, Commerce Secretary Herbert Hoover reached the limit of his patience and informed the President that although the public, the aviation industry, and the foreign governments were very interested in the conference, the State Department was unwilling to provide budget or support. Coolidge, in his inimitable manner, simply wrote a note on

Hoover's letter saying "Ask State to send this up." His secretary then forwarded the letter to Secretary of State Frank B. Kellogg directing his attention to the President's personal note. Even with Presidential support, the State Department still insisted that the conference drop one of its stated goals – to serve as a forum for discussion of future international regulation of air travel. Commerce agreed and took the lead planning the conference.

December 16, 1928. ICAC delegates posed for a group picture at Langley Memorial Aeronautical Laboratory. Orville is seated to the right of the woman with the white fur collar.

The first step was to get Congressional approval for the conference budget and to invite representatives of foreign governments. Commerce and State explained to Congress that the primary purpose of the conference was to promote contact by American manufacturers with foreign markets, with an ancillary goal of commemorating the anniversary of the Wright Brothers flight and the requisite approvals and budget forthcoming.

The State Department issued invitations to all countries with which the United States had diplomatic relations and requested submission of papers on aeronautical development. Soon two problems arose with the invitations. First, the U.S. Government at that time did not recognize the Soviet Union and had no diplomatic relations with them, so the State Department issued no invitation. However, a significant number of companies in the U.S. either had business with the USSR or Soviet companies had American-based affiliates or branches which placed orders for aircraft and equipment. The Soviet business was important to these companies and the aeronautical industry put pressure on State to accommodate them. So, conference officials notified the USSR industry that, although the State Department could not extend a formal invitation to the Soviet government or any Soviet aeronautical companies, their aviation experts could attend if they were affiliated with private American businesses associated with the Soviet businesses. Faced with these conditions, the Soviet companies declined the invitation stating that absent a formal invitation to the USSR, they would not attend. The second issue was that the League of Nations requested an invitation. The U.S. had not joined the League of Nations and some of the resulting friction was evident in the exchange that followed. The State Department recommended that the conference planners deny this request, noting that the League of Nations had previously tried to insert themselves into conferences with the U.S. Government and the U.S. had "courteously and effectively discouraged this intrusive tendency." State pointed out that all the League's member countries were included in the initial invitations and so attendance by representatives of the League was redundant. The conference committee acquiesced and the League was not invited.

To set the ground rules for the conference, Commerce and State set up an advisory committee with representatives from the Aeronautical Chamber of Commerce, National Advisory Committee for Aeronautics (NACA), the United States Chamber of Commerce, the Guggenheim Fund for the Promotion of Aviation, the National Aeronautic Association, and the military services. This group, grappling with political implications, decided that a representative of the U.S. delegation would chair each session, but would act more as a moderator than a true chairman. He would introduce the paper and the presenter, recognize those who

wanted to speak, enforce standard time constraints, and simply manage the proceedings rather than taking a more technically or politically authoritative role. No votes would be taken by the assemblage and the purpose of the meeting was "to provide an opportunity for an interchange of views upon problems pertaining to aircraft in international commerce and trade." One primary decision was that the conference was to be open to the general public, but only delegates and distinguished guests, such as the representatives of foreign governments or of the aeronautical industries, were to be provided designated seating.

So when December 1928 rolled around, the conference had grown to 441 attendees, including 77 official and 39 unofficial delegates from 39 foreign countries, 12 official U.S. delegates, 43 technical representatives, 238 representatives from industry and the flying public, and 32 committee members. Among the delegates were such notable persons as Orville Wright, Charles Lindbergh, Senator Hiram Bingham (member of President's Aircraft Board but more famous for being the discoverer of the Incan city of Machu Picchu), Secretary of War Dwight F. Davis, Amelia Earhart, Igor I. Sikorsky, and Italian airplane builder Giovanni B. Caproni.

The schedule called for the attendees to begin in Chicago at the International Aeronautical Exhibition the week before the formal conference. This show featured American aircraft and technology, including nearly every American airplane in production, along with some foreign aircraft. Following that, the delegates would travel to Washington, D.C. for three days of meetings; then to Norfolk, Virginia, to tour Langley Field; and finally end up at Kitty Hawk, North Carolina, to celebrate the 25th Anniversary of the First Flight.

The first wind tunnel developed at Langley, demonstrated to the ICAC delegates in 1928

The conference provided air transportation to Chicago, but only from Cleveland. The delegates had to travel by rail from New York to Cleveland because of the uncertain weather conditions in that area in December. They were duly warned that weather might impact their flight from Cleveland to Chicago, but as luck would have it, the weather cooperated and the delegates made the trip using "a fleet of multimotored airplanes."

After departing Chicago, the delegates traveled to Dayton, Ohio where they toured the U.S. Army Air Corps Material Division laboratories and attended a dinner hosted by the City of Dayton in honor of the Wright Brothers. [Note that although the festivities referred to the Wright Brothers, only Orville was in attendance since Wilbur had died in 1912.] The next day the delegates traveled by rail to Washington and settled in for their conference at the Chamber of Commerce Building, across Lafayette Park from the White House.

On Wednesday, December 12, President Coolidge personally gave the opening address (reprinted following this article) and emphasized his firm belief that international air travel and commerce were a vital part of a global economy and, indeed, would contribute to world peace. As President Coolidge extolled the

achievements of the Wright Brothers, listeners could not fail to notice that Orville Wright was actually absent. A train derailment had caused him to arrive late in Washington, DC. When he finally arrived and tried to enter unobtrusively by a side door, the delegates all stood and applauded. Wright quietly made his way to a seat beside Charles Lindbergh. Later, Lindbergh was called forward for the presentation of the Clifford Harmon trophy, and the Assistant Secretary of Commerce MacCracken asked Wright to come forward to take part in the presentation. Lindbergh stopped, waited for the elder aviator, and the two walked to the podium arm in arm. It was a touching reminder that, in 25 years, the world had gone from derisive skepticism of flying to universal acceptance and acclaim of pilots.

December 17, 1928. Riding in the wagons from Kitty Hawk to Kill Devil Hills for the 25th anniversary of the first flight by Orville and Wilbur Wright.

The conference was organized to address a different topic each day. Wednesday was international air transport; Thursday was airway development, meteorology, and communications; and Friday focused on foreign trade in aircraft and engines. Papers were presented on topics such as airgraphics (meteorology); airways; airports; organization, operation and maintenance of airlines; radio directors; electromagnetic compasses; altitude finding by radio echo; aeronautical research; aerial photography; aero propaganda (aka public relations); and the establishment of private flying clubs. There was also discussion about the establishment of an international code of standards for airplane manufacture and certificates of airworthiness, with the delegates pointing out that the failure of the U.S. to ratify the International Convention for Air Navigation hampered the export of American airplanes and equipment.

But it was not all work for the delegates. On Wednesday evening, President Coolidge hosted the delegates at the White House. One interesting event was the delicate handling of the Prince Mozaffar Mirza Firouz, head of the Persian delegation to the conference. It seems that the Prince had departed Chicago with a certain "Mrs. Bauer" who was listed as a "technical representative" to the Persian delegation. Many questioned the lady's status, including her reputation, and the State Department demanded the Persian Minister provide her credentials before they would issue the requested official status for Mrs. Bauer. That information never came and so Mrs. Bauer was unable to attend the conference as a delegate nor did she receive invitations to any of the social events. However on Wednesday, the Prince showed up at the White House with Mrs. Bauer in tow. The pair attached themselves to Mrs. MacCracken, the wife of the U.S. Assistant Secretary of Commerce for Aeronautics. They rode her coattails into the White House, but once inside, the Chief of Protocol challenged them. Nevertheless, rather than cause a scene with a visiting Persian Prince, the Chief of Protocol elected to let the pair attend the reception. So it is worth pointing out not only that the Obamas were not the first residents of the White House to entertain uninvited guests but the first Presidential party crashers came from the aviation community. (Is anyone surprised?)

On Saturday morning, the delegates visited Bolling Field and Anacostia Naval Air Station where they saw aerial demonstrations by military fliers. Then 220 of the delegates boarded the steamship District of Columbia to travel to Old Point Comfort near Norfolk, arriving Sunday morning. There, they toured NACA's Langley Memorial Aeronautical Laboratories and witnessed demonstrations of Langley's unique wind tunnels. This

December 17, 1928. W.O. Saunders lays a wreath at the foot of the memorial at the bottom of Kill Devil Hill. This wreath honored Wilbur Wright who had passed away in 1912. The wreath laying in honor of the Wrights has continued as a tradition on the anniversary of the first flight.

tunnel, completed in 1920, was the first wind tunnel in the world to use the principle of variable density air pressure to test scale model aircraft. The visit was doubly appropriate since research efforts at Langley were overseen by an advisory committee of noted scientists and aviation pioneers, including Orville Wright and Charles Lindbergh.

Departing Norfolk on Monday morning with Kitty Hawk as their destination, the delegates must have thought they were traveling to the end of the earth. In 1928, the North Carolina Outer Banks were as remote as when the Wrights made their first trip to the sand dunes there. The conference planners considered flying the party down, but that idea was quashed by Langley's chief test pilot, Thomas Carroll, who explained that although the ground appeared level, "numerous and large sink holes or soft spots" made landing very dangerous and that "landings should only be made there in an emergency with little hope of taking off again." In the face of that obstacle, the planners chose the very difficult and complicated overland route. The delegates traveled by bus over mostly unpaved rural roads from Norfolk to Currituck Courthouse, North Carolina. Seventy private cars then shuttled them to Point Harbor where the Roanoke Ferry Company was waiting to cross the three-mile-wide shallow waters of Currituck Sound. The final six miles was by automobile, but unfortunately when they arrived at Kitty Hawk, they were still almost 3 miles from the site of the day's ceremonies and had to walk the rest of the way. There were a few cars to shuttle the dignitaries and, of course, the resourcefulness of aviators came into play once again. Amelia Earhart and Reed G. Landis (a noted World War 1 flyer credited with twelve aerial victories) decided to speed up the process and commandeered a Coast Guard wagon and two horses. Picking up passengers along the way, they expertly guided the horses from the dock over the sand dunes to the site of the ceremony.

The conference planners and NACA had discussed performing a reenactment of the first flight using an early Wright airplane owned by the Army, followed by demonstrations of modern airplanes. Two factors led to the cancellation of these plans: First, they could not locate any early Wright airplanes in flyable condition. Second, it was duck hunting season and the local hunters complained bitterly about the possibility of airplanes frightening away the ducks. The decision was made to take the safest and most politically discrete route and dispense with any flying demonstrations.

The assemblage arrived at the site of the Kill Devil Hills memorial on the afternoon of December 17, twenty-five years to the day after the first flight. During the ceremony, Secretary of War Dwight F. Davis laid the cornerstone for the planned memorial at the top of the dune with the words "Since time immemorial nations have consecrated battlefields and erected monuments to their distinguished sons. This nation, dedicated to peace, may well consecrate these sea-swept, sandy shores as a peace-time battlefield, for here mankind conquered the air." Also participating in the ceremony were three of the four eyewitnesses to the original flight – John T. Daniels, Adam D. Etheridge, and Willie S. Dough.

After the cornerstone was laid, the group moved down the hill to the approximate site of the first flight. The exact location could not be determined because the sand dunes shift constantly and in 1928 had moved about five hundred feet since 1903. The agreed-upon site was covered by a six-foot granite marker and National Advisory Committee for Aeronautics Executive Secretary John F. Victory presided over the unveiling. A wreath was laid at the foot of the marker in honor of Wilbur Wright, an act that would become a tradition at the anniversary celebrations.

The details of this conference have been overlooked by many historians and even at the time, State Department scoffed at the conference, labeling it "not anything of importance … nothing but a celebration." However it brought together people from around the world to build bonds of friendship and respect based on the love of flying; it allowed American aviation businesses to make contacts with international markets; and it provided an opportunity for aviators, aviation enthusiasts, business leaders, and politicians to consider the strides made throughout the world in the science and practice of civil aeronautics in the first 25 years of the twentieth century and to discuss ways and means of further developing it for the benefit of mankind.

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President Calvin Coolidge's Address to the International Civil Aeronautics Conference in Washington, D. C.
December 12, 1928

Members of the Conference:

This year will mark the first quarter century of the history of human flight. It has been a period of such great importance in scientific development that it seems fitting to celebrate it with appropriate form and ceremony. For that purpose this conference has been called, and to the consideration of the past record and future progress of the science of aeronautics, in behalf of the Government and people of the United States, I bid you welcome.

Twenty-five years ago, at Kitty Hawk, North Carolina, occurred an event of tremendous significance. It was the first extended flight ever made by man in a power-driven heavier-than-air machine. How more appropriately could we celebrate this important anniversary than by gathering together to consider the strides made throughout the world in the science and practice of civil aeronautics since that day and to discuss ways and means of further developing it for the benefit of mankind?

Others, whose names will long be remembered, had done much to solve the problem, but it remained for the able, persistent, and modest brothers from Dayton to demonstrate completely the possibility of a machine raising itself by its own power and carrying a man in sustained flight.

Human flight with wings, which had intrigued the imagination since the beginning of time, became a practical reality on the day that the airplane of Wilbur and Orville Wright rose from the windswept dunes of the Atlantic coast. The elder brother lives with us only in memory, but Orville Wright, who piloted that first plane, is still actively interested in that science. We are glad to have him as one of our delegates to this conference.

No achievement of man in the progress of civilization has had a more rapid expansion. In the early days the ability to fly was ascribed to gods and demigods, to spirits and supernatural and mythical beings, both of the human and animal family. Pegasus, the winged horse, and Daedalus and lcarus are two of the innumerable examples which come readily to mind. The yearning to fly probably always has been in the human breast. But for centuries its fulfilment was

considered as visionary, unattainable. Even within our memory utter impossibility was expressed by saying: "Might as well try to fly."

There is a wide difference between the romance of flying and aeronautics as a science. Archytas, Greek mathematician and mechanician of the first half of the fourth century B. C., made a flying pigeon. This seems to be the earliest authentic record of mechanical flying. Leonardo da Vinci, artist and scientist extraordinary, who lived in Italy over 400 years ago, left some interesting treatises and drawings on the principles of human flying. It was not until 1783, however, that a man was actually lifted from the ground and carried along in the air for a considerable distance. The vehicle was a hot-air balloon, devised by the Montgolfier brothers, paper makers of Auvergne, France. One of them was invited to address the Royal Academy of Science, and ascents were made for the king and queen. In 1852 a Frenchman built a dirigible balloon, propelled by steam; but further progress was delayed until the development of the internal-combustion engine. Alberto Santos Dumont, brilliant young Brazilian, began in Paris in 1898 to construct a navigable balloon. About the same time in Germany Count von Zeppelin started to work out his rigid airship. Only recently have we welcomed here the latest example of his skill.

In the meantime beginning with Cayley, Englishman and "father of aerodynamics," who died in 1857, and continuing down through Henson and Stringfellow, Maxim, Ader, Lilienthal, and Langley (of Washington) scientists were gradually, with gliders and other devices, working out the problem of a heavier-than-air machine.

With genius, indomitable perseverance, and a will to overcome obstacles, the Wrights, mindful of what had gone before, applied themselves to the solution of the problem. They experimented at Kitty Hawk for three seasons; and in the fourth, on December 17,1903, success crowned their efforts. I understand the delegates to this conference will visit this historic spot on Monday, the exact day of the anniversary, to pay tribute to their achievement. That first flight lasted only 12 seconds. Three more were made the same day. One of 59 seconds carried the plane a distance of 852 feet. It was wrecked by the wind and tests ended for the time. Further experiments were made in Dayton in 1904 and 1905. In the latter year a Wright plane travelled for 24 miles at the rate of 38 miles an hour. Three years later one was bought by the War Department, our Government being the first to utilize this new device.

Other countries took up the idea and for a period rather outstripped us in flying. The crossing of the English Channel by the Frenchman Bleriot, considered an astounding feat, was made in 1909. Demands of the World War brought about the rapid advance in both the science and the practice, and in the production of equipment. After the armistice one after the other came the dating flights to annihilate space and time, including the thrilling and solitary journey from New York to Paris by our own Lindbergh in 1927.

It is to the development of aeronautics as an aid to the peaceful pursuits of transportation, of commerce, and of trade that this conference is to direct its attention. We are making a reality of the wonderful vision of Tennyson, who, in his "Locksley Hall," wrote in 1842:

For I dipt into the future, far as human eye could see,
Saw the vision of the world, and all the wonder that would be;
Saw the heavens fill with commerce, argosies of magic, sails,
Pilots of the purple twilight, dropping down with costly bales.

After the war European nations began to develop aeronautics as a part of their transportation systems. Passenger lines with heavy government subsidies were established between principal cities. In America, during the war, 10,000 pilots were taught to fly; hundreds of aeronautic engineers and designers were trained; nearly 17,000 planes were manufactured by thousands of artisans who became skilled in aircraft production in many new factories. All of this was

an important foundation for building up of civil aeronautics. Prior to this period our attention had been directed to the use of the airplane as a carrier of mail. From 1912 the Post Office Department sought money to establish air-mail lines, but not until 1918 was a special appropriation secured. In May of that year, between Washington and New York, the first regular route was established. This service has been rapidly expanded, until now we have more than 22 mail routes with a daily mileage of nearly 31,000 miles. The air-mail poundage for January 1926, was 23,000 pounds. In October this year 467,422 pounds were carried as compared with 423,838 in the previous month. Reduction in the postal rates last July doubled the amount carried inside of 30 days.

In 1926 this Government officially recognized the importance of flying by establishing the post of Assistant Secretary for Aeronautics in each of the War, the Navy, and the Commerce Departments. Since then we have made remarkable progress. Then the value of the aeronautic industry in the United States was placed at less than $5,000,000. Today it is said to be in excess of $150,000,000. In 1925 the production of aircraft was valued at about $13,000,000; for 1928 the estimate is over $50,000,000. For the air activities of the Department of Commerce we spent in 1927 more than $800,000; this year over three and a half million; and the estimate for 1929 is just under five and a half million.

Aeronautics have been rapidly advanced in other parts of the world as well. Nearly half of the 70,000 miles of air routes regularly operated in the world are in international air services, connecting important cities. Approximately 10,500 are in Latin America, and about 5,000 in Australia. Some have been in operation for several years. Among the new services opened in 1928 are the Peruvian Navy line over the 6,000 miles between Lima and Iquitos, between Lima and Talara, and the Barranquilla-Guayaquil, Nueve-Laredo, Dakar-Buenos Aires, and Montreal to New York lines. Additional routes are being planned between the United States and the West Indies, South America and Mexico, and Australia and Canada. Important routes being considered are between the Netherlands and the Netherland East Indies and between Great Britain and Australia.

From incomplete reports it is indicated that about 15,000,000 miles were flown on European air services alone in 1927, more than 200,000 passengers carried and 10,000,000 pounds of luggage and goods and 3,000,000 pounds of mail. An average of nearly 75,000 miles daily were flown. It is estimated that these figures will be increased from 25 to 33 per cent for 1928. Most of the European lines have government subsidies. The efficient way in which they are operated has resulted in increasingly better financial reports.

Regular flying in the United States, beginning with a short mail line, has increased until this year there are approximately 15,500 miles of airways, on which during the first six months of the year nearly three and a quarter million miles were flown on regular schedule. The daily mileage is estimated at 52,000 miles. We have three important international lines-New York to Montreal, Seattle to Vancouver, and Miami to Havana. Plans to extend the latter to the Isthmus and South America are under way. The transportation companies have been taxed far beyond their equipment. A recent and important development has been the linking of the airplane and the transcontinental railways, providing a rapid journey between distant points. The airplane is used for fast day travel, with a transfer to a railroad for the night journey.

The nineteenth century was the railroad and steamboat age. The twentieth century will be known for the development of aeronautics and air transport. The airways of the world now have a greater mileage than the railways did in 1850, the twenty-fifth anniversary of the opening of the first railroad built by Stephenson. Attention has recently been called to the safety of air passenger service, compared with that of railroads in the early days. In 1927 the Imperial Airways (Ltd.) carried 52,000 passengers over 2,500,000 miles without injury to a single passenger. In 1842, eight English railways, carrying 10,503 passengers over 3,562,338 miles, killed 22 and injured 34 others.

The country-wide tour of Lindbergh in the United States, following his wonderful and spectacular flight to Paris, did much to make America air-minded. A large amount of civil flying is now being done here, and the civilian-owned aircraft number over 6,000.

The aeronautic branch of our Department of Commerce is vigilant, resourceful and progressive. It has inaugurated a comprehensive system of regulation and control of aircraft manufacture as well as operation. Airways are laid out over the best flying country, and aids to flying, such as beacons and weather reports, are furnished. Our transcontinental airway from New York to San Francisco is over 2,600 miles long. More than 5,000 additional miles of airway are under the jurisdiction of the Department of Commerce. An air-information service is maintained and aeronautic research carried on through the Bureau of Standards. Valuable cooperation is rendered in the establishment and equipment of airports. On October 1, 1,387 ports were available for the use of the Army, Navy, and commercial fliers. Municipalities and communities in all parts of the country, realizing that air contacts mean more and better business, are planning airports. Nearly 900 more are now in prospect.

Air transport means much to the United States, divided as it is in the West by lofty mountain ranges and deserts. In the early days it took six months to go from Missouri to the Pacific coast. An airplane has travelled across the continent in less than 24 hours. We are stretching out our arms through the air to Canada and to our other friends and neighbours in the South.

All nations are looking forward to the day of extensive, regular, and reasonably safe intercontinental and interoceanic transportation by airplane and airship. What the future holds out even the imagination may be inadequate to grasp. We may be sure, however, that the perfection and extension of air transport throughout the world will be of the utmost significance to civilization. While the primary aim of this industry is and will be commercial and economic and the prosperity of the world will be immeasurably advanced by it, indirectly, but no less surely, will the nations be drawn more closely together

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