



transpacific flight

By SALLY MACREADY LISTON

The years in the early 1920's were a fast-moving era for aviation; ideas for new fields to explore, new skies to conquer, were popping up all over the place and there were pilots who would undertake even the most hazardous adventure if it means another "first" in the field of aviation. Among the most daring were those in the U.S. Air Service ... the test pilots of McCook Field, Dayton, Ohio.

John A. Macready had just returned from his first aerial survey of America with Captain A.W. Stevens, photographer, in October, 1923. Without pausing to catch his breath, and hardly taking time to fill out the reports of the trip, he plunged to work on an idea that had been perking between him and Jimmy Doolittle for some months ... an attempt at the first flight across the Pacific Ocean, from San Francisco to Hong Kong.

He had not been idle in this connection while on the West Coast on his recent trip, having done some research and picked up "quite a little dope" there. In December, having worked out the numerous details necessary for a trip of this magnitude, he wrote the whole plan up and sent it to Jimmy, then at Massachusetts Institute of Technology, to look over.

In January, 1924, Macready broached the subject of the flight to Major McIntosh, Chief of the Engineering Division at McCook Field, to sound out his views. Major McIntosh, as he listened, gradually became more and more enthusiastic and said he felt "the best way to handle this is to go right down to Washington and see General Patrick (Chief of the Air Service) about it ... tell him what you have in mind and give him the whole picture," adding that "the General will be back in Washington after the 17th of this month and you could fly down after that."

But by the 17th of January, Macready was completely involved in the supercharger high altitude tests ... more troubles and problems had cropped up and Major McIntosh wanted him to stay with the project until it was completed and all the bugs worked out, for the supercharger tests had a high priority rating. Since Macready wasn't able to get away to fly to Washington to present the plan to General Patrick, he wrote Doolittle and told him what was causing the delay, adding, "If I can't get to Washington by the 28th, I'll send you all the dope I've worked up on the flight so you can talk to the General intelligently when he comes to Boston on the 28th."

Because it had proved itself so reliable on the Macready-Kelly transcontinental flight in the previous May, the Fokker T-2 monoplane was the first choice of the two men for the transpacific flight; however, as Macready casually mentioned to Doolittle in February, "the T-2 is now in the Smithsonian Institute in Washington and we may have some trouble getting it out again." Later that month when Macready talked to Major McIntosh about the flight, mentioning his desire to use the T-2, Major McIntosh, although increasingly in favor of the flight, had grave doubts about the possibility of extricating the T-2 from its resting place in the Smithsonian. "I think you'd have a great deal of difficulty in getting General Patrick to go through all the red tape necessary to have the T-2 taken out again" he said. "Why don't you look into the possibility of using the Douglas World Cruiser, or perhaps remodel a Fokker T-2 down at McCook."

Meanwhile, Doolittle was also unsuccessful in seeing General Patrick, so Macready forwarded an official memorandum of the proposed trip, with a request for permission to make it, to General Patrick's headquarters in Washington, signing both his and Doolittle's name to it. The request was dated March 12, 1924, and contained the following outline;

"Route.

From San Francisco to Honolulu 2395 miles
 From Honolulu to Island of Midway. 1325 miles
 From Island of Midway to Island of Wake 1200 miles
 From Island of Wake to Island of Guam 1515 miles
 From Island of Guam to Manila 1640 miles
 From Manila to Hong Kong 685 miles
 Total 8760 miles"

"It is requested that Lieuts. James H. Doolittle and John A. Macready be permitted to make this flight. Both are graduates of the A.S. Engineering School and are familiar with the testing, construction, maintenance and upkeep of airplanes. . . Both pilots have over 1700 hours in the air and are familiar with cross-country work and the preparation necessary for the successful accomplishment of long flights. Lieutenant Doolittle is familiar with navigation. Lieutenant Macready completed over 20,000 miles of cross-country flying last year."

(The document went on with details on radio and navigation) . . . "two types of navigation would be used; direction finding by means of radio and the terrestrial navigation used on the sea. The primary method would be by means of radio direction finding. Satisfactory radio towers are now in existence at San Diego, Honolulu, Guam and Manila. The Island of Wake is uninhabited. Midway is a cable station and almost uninhabited. It would be necessary to build 5 K.W. stations from the ground up, including the primary source of power on Wake and Midway. By making use of material already existing, the total cost of equipment to guide a plane accurately and safely from San Diego to the Philippines by way of Hawaii, Midway, Wake and Guam would not exceed \$6,000.00. The earth inductor compass which can be installed for eight pounds will be used to supplement the ordinary compass on this trip. This will not only facilitate navigation, but will be the best practical test which can be devised for this new instrument."

(Night flying, still in the experimental stages, was also mentioned). . . "but one night flight would be required since, by taking advantage of an early start, all legs of the flight, with the exception of the one between San Francisco and Honolulu, could be made without darkness."

Naturally, because of his troubles with mountain ranges on the transcontinental flight, Macready added a paragraph on elevations: "Although the navigation would probably be more difficult, the flight as a whole should be simpler and easier than the transcontinental flight from the actual flying, engine and airplane standpoint, as there would be no elevations to contend with. The engine could be throttled for practically the entire distance."

And then he added this paragraph, in case General Patrick thought this a too-ambitious project:

"Should the time or preparation appear too short to permit accomplishment of this project next May, or the Chief of Air Service not see fit to authorize this flight at that time, it is requested that the above named pilots be permitted to make a non-stop flight from San Francisco to Honolulu."

Navigation on this island-hopping flight would obviously be the biggest problem. Macready went on to describe how, in case the T-2 were to be used, it would be advisable to include an expert navigator in the crew in order to relieve the pilots of the bulk of the navigation work. Doolittle was then studying navigation, but the additional weight of 160 pounds could be amply compensated by adding Lieutenant Bradley Jones, a reserve officer and navigator of wide practical experience and knowledge of Pacific Ocean conditions. Jones had been a ship navigator for many years and navigated the course across the Pacific. He could be com-



Macready and Doolittle chose the Loening Amphibian for this projected flight across the Pacific. It was a remarkable airplane for its time. Powered by the inverted Liberty engine of 400 hp, it weighed 3,300 pounds empty (with wooden four-blade propeller), and its useful load was 2,200 pounds with 250 gallons of fuel. Shown here is the COA-1, Loening Model 34, c/n 2, over Langley Field in 1924. (Photo - Aviation Magazine, courtesy of Mrs. Sally Macready Liston)

fortably included in the crew of the T-2, the total weight remaining the same by the elimination of twenty-eight gallons of gasoline.

Two weeks later, General Patrick sent word he was making a visit to McCook Field, causing speculation that he had looked favorably on the request and was coming to discuss it more fully. Major McIntosh arranged for a conference between the General and Macready, but before the General arrived on March 25th, the official request was returned to McCook with the following endorsement:

"Although the Chief of Air Service appreciates the spirit which prompts a request of this nature and is confident that Lieuts. Macready and Doolittle are more than qualified to initiate such a project, with every prospect of success, it is not feasible to grant approval for this flight at the present time.

"At present, all of the resources of the Air Service are concentrated on the successful completion of the Round-The-World Flight and it is not desirable that any other projects of such magnitude be considered prior to its conclusion."

It was a bitter disappointment....

General Patrick did not wish to keep his conference with Macready when he arrived at McCook, since the decision had already been made (and perhaps because he didn't wish to be subjected to any more persuasion); at any rate, Macready still felt he would have a chance to talk to him when he flew him to St. Louis later on that day . . . but the General's plans were changed and he went by train instead. Undaunted, Macready wrote Jimmy that he was to ferry the General from St. Louis back to McCook the following Friday and would talk to him then, adding, "it looks, however, as though the chances are slim, although I will put up a hard fight."

Macready was determined, especially since he felt that if he and Jimmy didn't make this flight, the Navy would, and that would be an unpardonable occurrence to an Air Service type!

General Patrick never even got to Dayton. He went as far as Terre Haute by train and turned around and went back to Washington ... no one knew exactly why. Another opportunity to plead their cause was shot down. Major McIntosh advised Macready against making a special trip to Washington right away in hopes of reversing the General's decision so the project was postponed for a few months until the completion of the Round-The-World Flight. Macready felt they might still get the chance to make the flight, since the tone of the endorsement had been favorable to them.

In May, 1924, Macready was in Washington to make a speech, and while there, he took the opportunity to drop in at General Patrick's office. Although the General was absent, Major Frank, the Executive Officer, was there and they discussed the flight. "I think if you put through your request next year when the Round-The-World Flight is completed, you could expect a favorable reply" was Major Frank's opinion.

In the meantime, having ascertained that the T-2 was, sure enough, unavailable from the Smithsonian Institute, Macready began the search for another airplane capable of making the flight and came up with the Stout Air Pullman because of its similarity to the T-2. There was also the policy of the Air Service to use American-built airplanes whenever possible. He contacted William B. Stout, sending him an outline of the requirements needed in the way of performance, economy, arrangement, etc., indicating, in the best P.R. fashion, that "it would be desirable to use the Stout if you are interested in having an airplane bearing your name undertake a venture as outlined in the attachment."

Stout was very interested in having his name and plane used for this purpose.

As an afterthought, Macready also added that he and Doolittle would be interested in ideas that would provide safety in case it were necessary to land on the ocean ... a foresighted request in view of the men and airplanes that went down in the cool waters of the Pacific during the Dole Race some three years later. One added admonition to Mr. Stout: "Kindly consider this confidential."

The Pulitzer Air Races in September at Dayton occupied the fliers for some weeks, followed closely by a visit from General Mitchell to inspect McCook Field; and it became the first week in October before any action on the projected flight could be started again. The death of Captain Skeel in the Air Races was a tragedy that spread a pall over Dayton, especially McCook Field where he had been a popular officer. Macready was on the Board appointed to investigate the crash, and it precluded his keeping an appointment with Stout, who had come from Detroit for the Races. Later he contacted Stout again, flew up and looked at the Air Pullman and found it to be unsatisfactory for the purpose intended.

Still trying to locate the right airplane, Macready wrote Donald Douglas in November — Douglas had received considerable favorable publicity in the newspapers — and asked for full particulars on airplanes then in construction.

The Douglas airplanes were then deemed unsuitable for a long-distance, over-water flight but Douglas went to Dayton anyway and began working up a design for the type of airplane needed. It became a question of building an entirely new airplane from the ground up which would take a considerable amount of time ... a factor which might unfavorably influence the Air Service because of the large expenditure of money needed to build a new experimental airplane.

Macready also looked into capabilities of the Loening Amphibian COA-1. The basic design seemed to suit their specifications with but few modifications; it had a Liberty engine and the Air Service already had a contract for ten of them which was practically completed. With the exception of providing for additional gasoline capacity, few changes would be necessary, thus keeping expenses down. It was built to operate over land and sea, making it the ideal airplane for such a flight; it was comfortable, although the pilots were out in the open the whole time. In short, it seemed perfectly suitable and Macready, bursting with enthusiasm, wrote Jimmy at length extolling the virtues of his new find, enclosing pictures of the plane.

COA-1, A.S. 24-8 at Langley Field.
(Langley photo AN-6346-2-25, courtesy of Mrs. Liston)





The Hamilton Standard propeller increased both weight and performance. (Nat'l Archives 80-G-3146, courtesy of Fred T. Donaldson)

Grover Loening came to Dayton and started working up figures and data on November 28th, 1924, after a session at Macready's home the day before, going over the whole project in detail.

Macready sent the request in again, this time with the Loening Amphibian figures, hoping to follow it up with a trip and conference with General Patrick at the first opportunity. The Engineering Division working Saturdays and Sundays at McCook Field, as well as weekdays, because of the Corps Observation Contest, and it was difficult to get away.

Knowing it was the intention of the Air Service to select a pilot from the Engineering Division to be sent to the Loening Factory to test the Amphibian, it was recommended that in approving the Trans-Pacific Flight, Lieut. Macready, test pilot, be assigned to the testing of the COA-1. The request also recommended that Lieut. Macready be assigned to test it when it arrived at Honolulu in order to learn the conditions across the Pacific Ocean, pick out a satisfactory field from which to take off at San Francisco, and view the conditions at Honolulu . . . flying conditions that is.

Furthermore, the request pointed out, there were features of the Loening which made it the ideal airplane for the flight such as convenience of installing extra fuel tanks, modifying seats and windshields to permit the pilots maximum comfort for rest protected from slipstream winds, providing a priming tank over the water pump for emergency use, making front footpedals removable and positioning the door in the firewall to assure maximum access to the back of the engine for emergency repairs. Other minor changes, easily done, would remove certain unnecessary appendages such as armament (they didn't anticipate enemy fighters), gun ring, camera installations and electric landing gear mechanism, installing an earth inductor compass and radio receiving set and deepening the hull six inches in order to furnish extra floatation for the large fuel load.

Estimating the combined weight of water, gasoline, oil, crew, food, etc., and knowing the wing area, the pilots figures it would give about 14.8 pounds per square foot, and this, with the 420 hp inverted Liberty engine, would mean 18 pounds per hp, relatively light compared with that of the Fokker T-2. Maximum range was 2820 miles, and the longest leg would be from San Francisco to Honolulu . . . 2395 miles; cruising speeds were indicated at 82 mph loaded, 107 empty.

On December 8, 1924, Macready flew to Washington; before tackling the General, he stopped in at Major Kilner's office and talked about the proposed flight. Major Kilner, although in favor of it, wasn't too optimistic about getting the idea approved, even though the Round-The-World Flight was successfully completed. "I think he wants to get all the mileage he can out of that flight and let it go at that for awhile," he said.

But Macready went in to see General Patrick a few moments later anyway, and the two men chatted for some time about everything but the subject both knew was uppermost on the other's mind. At about the time Macready could see the interview was coming to a close, he handed the General a letter containing all the pertinent data on the flight with the latest revisions.

General Patrick frowned, hesitated, then finally held out his hand for the letter, obviously reluctant and a little annoyed at being pressed on a matter he had thought was closed. But he glanced through the letter, casually at first, then with heightening interest, and finally read the entire contents through very carefully. He was obviously impressed with the fact that the proposed airplane was an Amphibian already completed, not one that would have to be built on an experimental (\$\$\$) basis; the Air Service was in a constant state of insufficient funds. He kept Macready in his office for nearly an hour after that, asking questions and jotting down notes, until finally he said he'd think the matter over again carefully and make his decision later.

For the first time in months, Macready felt really optimistic - he was elated and had to share the news with someone. General Mitchell was in his office and received the news of the proposed flight enthusiastically; any project that would promote his beloved Air Service, air power, and the future of aviation, had his wholehearted support.

Colonel Pratt's office was near by and Macready poked his head in to give him the news; the Colonel asked a great many questions, then: "Sounds good, if it stands up under a thorough investigation" he said. All three officers were in favor of the flight all the way across the Pacific. The flight only as far as Honolulu didn't seem to create great interest. They felt the navigational aspect might be a hangup, but Macready assured them that Jimmy had been studying navigation at Boston Tech for the past year and could handle this phase of it. The direction finder was still somewhat experimental. "Changes for the Trans-Pacific Flight at this point seem about 50-50" he wrote Jimmy after this.



COA-1, A.S.25-228, Loening Model 34-8, No. 8, stationed at Crissy Field, Calif. (Photo G364-321-16 (2-4-26-10A) courtesy Paul R. Matt)

Then it happened. On January 7, 1925, in a Memorandum to Lieut. John A. Macready, McCook Field, Dayton, Ohio, Subject: Request to Participate in Trans-Pacific Flight, Major Kilner stated:

"Your request for permission to participate in a Trans-Pacific Flight has been given very careful consideration by this office. The Chief of Air Service is extremely gratified with the unquestionably high morale of the flying personnel of the Army Air Service; at the present time, however, it is regretted that favorable action cannot be taken by the Air Service relative to the participation by its personnel in a Trans-Pacific Flight . . . and therefore . . . must necessarily be held in abeyance for future reference at a time when conditions may become more desirable."

A crushing disappointment . . . especially after all the work and planning that had been put into the project. There was one glimmer of hope contained in the last paragraph of the Memo:

"This office is thoroughly interested in your plan to modify the COA-1 for the exceptional performance predicted, and will endeavor, upon completion of the prescribed service tests to be given these airplanes which are now in production, to make one of the same available for the necessary changes at McCook Field, in order that test flights may be conducted within the continental limits of the United States to prove whether or not the modified COA-1 is the desired type for such major flights as may be projected in the future."

For the time being at least, however, the proposed flight was scrapped . . . but the groundwork had been laid . . .

Macready and Doolittle were three years ahead of their time, for in July, 1927, the flight was finally undertaken, but then only as far as Honolulu. By that time Macready had resigned from the Air Service to go with Frigidaire Corp. It was Lieuts. Maitland and Hegenberger who made the flight, another historic first in the annals of aviation for the U.S. Air Service.



ABOUT THE AUTHOR

Sally Macready Liston was graduated from Oregon State University with a BS degree, where, in her freshman year, she was one of three girls enrolled in Engineering School. Although always interested in aviation, she didn't start writing for publication until 1968, when her first article appeared in the *Aerospace Historian*. Another article appeared in the Spring '69 AAHS Journal "Perils and Pitfalls of Early Test Pilots" and in October, 1970, she and her father, John A. Macready, presented a paper entitled "First Steps into Space" before the Annual Meeting of the American Institute of Aeronautics & Astronautics in Houston. She has been a legal secretary, editor of a YR magazine with national circulation, and College District President for Kappa Alpha Theta. She is currently writing the story of her father's aviation career, while working on her own private pilot license.

Col. Macready was the Guest of Honor at the 13th Annual Meeting of the American Aviation Historical Society, San Francisco, Calif., 5 February 1972, introduced by Royal D. Frey, USAF Museum.