

Chapter Two: "The tree upon which costly airplanes grow."

May 1935 – February 1936

"Where to find the tree on which costly airplanes grow, I did not know. But I did know the kind I wanted – an Electra Lockheed, big brother to my Vegas, with, of course, Wasp engines. Such is the trusting simplicity of a pilot's mind, it seemed ordained that somehow the dream would materialize." (Earhart, *Last Flight*)

Amelia Earhart with her Lockheed Vega 5C Special NR965Y in which she flew from Honolulu to Oakland in January 1935, and from Burbank to Mexico City and from there to Newark, NJ in April/May 1935. Courtesy of Remember Amelia, the Larry C. Inman Historical Collection on Amelia Earhart.



A New Chapter

Hindsight can make the improbable seem inevitable. Amelia's enthusiasm for the twin-engine Lockheed is a matter of record, but there was nothing ordained about the hurly-burly by which her dream materialized.

About the time the first Electras were entering airline service, the seeds of Amelia's airplane tree were being sown at a September, 1934 conference in the Grand Ballroom of the Waldorf Astoria in Manhattan. Three thousand attendees heard First Lady Eleanor Roosevelt, New York Mayor Fiorello LaGuardia, Edward C. Elliott, President of Purdue University, Amelia Earhart, and other influential public figures speak about the changing world and nation. Purdue's Elliott felt that the country's economic recovery from the Great Depression relied upon harnessing the energy of young people, especially women. The head of the Girl Scouts of America spoke of the need to prepare young women to be competent household managers and good wives. Amelia Earhart had a message more in tune with Elliott's. Women were being unfairly denied professional positions in aviation. The education of young women in technical fields was essential to the future of the industry.

Elliott was impressed with Earhart and began trying to figure out a way to use her to boost the university's appeal to women. By the following spring he was ready to make her a formal proposal. On May 18, 1935, he asked that she accept a position as "Department Head, or nonresident professor, or lecturer on careers for women" in a new department that would provide professional advice to female students. She would be paid \$2,000 per year but would need to spend only two weeks out of each semester at the university giving addresses, classes, or conferences. She would also be chief consultant for the university's work in aeronautical engineering.¹

Earhart eagerly accepted the offer. Working with young women to bring them out of the kitchen and into the cockpit would put her hard-won fame to use in the most productive way possible. Besides, being chief consultant in aeronautical engineering was irresistibly flattering to the woman who had never completed a course in higher education beyond high school and who had said her flights had meant nothing toward scientific advancement in aviation.²

Elliott's gambit worked. The announcement on June 3, 1935 that Amelia Earhart Putnam would join the Purdue University faculty as a woman's career advisor³ prompted a fifty-percent increase in the enrollment of freshman women before Amelia ever set foot on campus.

By the summer of 1935 Amelia Earhart had accepted that her long-distance flying career was probably over. Entrepreneurial aviation record-setting, so popular throughout the late 1920s and early '30s, was a dying profession. The boundaries of flight were now being pushed back by a new generation of all-metal commercial designs whose cost was far beyond the reach of even a well-sponsored individual. The 1934 MacRobertson Race from England to Australia had been won by a

small, purpose-built deHavilland Comet, but second and third place went to a Douglas DC-2 and a Boeing 247, off-the-shelf commercial airliners. In April 1935 Pan American's Pacific Division, under the guidance of star navigator Fred Noonan, began surveying airmail and passenger routes across the northern Pacific with four-engine Sikorsky flying boats. Aviation was emerging from its reckless adolescence and starting to find its way as a viable transportation industry.

Not only were new airplanes becoming too expensive, but some in the press had begun to see "individually sponsored trans-oceanic flying" as the "the worst racket" in aviation.⁴ As *Newsweek* put it, "Every so often Miss Earhart, like other prominent flyers, pulls a spectacular stunt to hit the front pages. This enhances a flyer's value as a cigarette endorser, helps finance new planes, sometimes publicizes a book."⁵ (In fairness, only once at the beginning of her career did Amelia endorse a brand of cigarettes, but her primary sources of income were product endorsements, book sales and the lecture circuit.)

In the run-up to her January 1935 flight from Honolulu to Oakland in her single engine Vega, the proposed flight had come under criticism from the *Honolulu Star-Bulletin* for being a pointless publicity stunt. The British weekly *The Aeroplane* called it a "useless adventure."⁶ The disappearance of Australian aviator Charles Ulm and his crew just a few weeks earlier on a flight from California to Hawai'i had resulted in an expensive and fruitless month-long search by the U.S Coast Guard. If Earhart should suffer a similar fate the taxpayers would pay the price for her folly. When it was learned that Earhart would be paid \$10,000 by the Hawaiian Sugar Planters' Association to make the flight as a way of promoting closer ties between Washington and the Territory of Hawai'i, she was accused of being a shill for lobbyists seeking more favorable tariffs.⁷ However, when she successfully completed the flight the bad press subsided and she was once more a hero, with a new record and no shortage of invitations to speak about her adventures.

Earhart's trip to Mexico City in April and May 1935 was at the invitation of the Mexican government and provided the opportunity for a controversy-free high profile flight. Afterward, with no further records to set in the obsolete Vega, she accepted the consulting position at Purdue and turned her attention to other career opportunities.

California

Along with a change in focus came a change in residence. For most of her flying career Earhart had been based on the east coast and, since marrying George Putnam in 1931, had lived in Rye, New York, a small town on the north shore of Long Island Sound about twenty miles from the City. Late in 1934, in preparing for the Honolulu to Oakland flight, she needed to be near her new technical advisor, Hollywood stunt pilot Paul Mantz. His company, United Air Services, Ltd., was based in Burbank, California on the same airport with the Lockheed factory. Earhart rented a house nearby. She loved it there – the warm climate, good flying weather, vibrant aviation community – and she enjoyed rubbing elbows with the constellation of Hollywood stars in Mantz's circle of friends.



In September, 1935 Earhart and Mantz signed a contract establishing their partnership in a corporation to be known as the "Earhart-Mantz Flying School." Courtesy of Remember Amelia, the Larry C. Inman Historical Collection on Amelia Earhart.



To help her prepare for her January 1935 flight from Honolulu to Oakland, Earhart hired dapper Hollywood stunt pilot Paul Mantz for \$100/day. Courtesy of Remember Amelia, the Larry C. Inman Historical Collection on Amelia Earhart.

On July 28, 1935 Earhart and her husband became officially bi-coastal when they bought a house in North Hollywood. Amelia ordered the long-range fuel tanks removed from her Vega and had the cabin converted to passenger configuration for use in a charter and flight school

business she was planning to start in partnership with Mantz. The future that lay before her, while less exciting than spanning oceans, promised a rewarding, more stable, and certainly much safer lifestyle. As if to put an exclamation point on the latter consideration, on August 15, 1935, Amelia's friend Wiley Post and humorist Will Rogers were killed when their Lockheed Orion crashed shortly after takeoff near Point Barrow, Alaska.

Yearnings

It is tempting to imagine what Amelia Earhart's legacy might have been had her life remained on that trajectory, but her husband and manager, George Putnam, recognized Purdue president Edward Elliott's enthusiasm for the famous flyer's association with the university as an opening that, if properly exploited, could put Amelia back in the lucrative long-distance flying game. Both Earhart and Putnam later wrote that the suggestion that Purdue fund a new airplane for Amelia came at President Elliott's invitation, but their story doesn't track with known events. As Amelia told it in her 1937 book *World Flight*, later edited by Putnam and published as *Last Flight* following her disappearance:

*One day last summer President Edward C. Elliott of Purdue asked my husband what most interested me beyond academic matters. ... [H]e divulged my suppressed pilot's yearnings for a bigger and better airplane.*⁸

George Putnam repeated the story in his 1939 book *Soaring Wings*: "In the summer of 1936 President Elliot of Purdue asked me what I thought there was in the field of research and education that interested AE most beyond academic matters. I told him she was hankering for a bigger and better plane."⁹

If Elliott opened that fateful door it did not happen in the summer of 1936. By that time Earhart's Electra had already been built and delivered. No surviving letter, memo, or telegram mentions such a query.

What is certain is that, at a meeting in Washington, DC on November 11, 1935, George Putnam presented Elliott with a proposal he called The Amelia Earhart Project. Amelia was not present. She had arrived in Lafayette, Indiana to start her work at Purdue on November 6, 1935.

The Amelia Earhart Project

In a typed memorandum describing the project, Putnam came right to the point.

*The wide-spread attention given Amelia Earhart's association with Purdue has identified her with the University. A further focusing of interest on this alliance can be of increasing importance from the standpoint of external institutional propaganda and internal inspiration.*¹⁰

Miss Earhart wanted to continue her "pioneering flying," set new records, and conduct "certain flights as laboratory tests involving various scientific aspects of modern aviation." However, her current airplane "is no longer sufficiently speedy or modern to hold its place in competition." And, for further over-water flying, she wanted "a two-motor plane."¹¹

Without mentioning the make or model, Putnam said there was an airplane available that fit the bill. "It embraces refinements and improvements whose practical demonstration can be important factors in commercial aeronautical progress." It was a multi-engine aircraft capable of sustained flight on one motor. It had a maximum cruising speed of over 225 mph and a cruising range, with full load,



Earhart's husband and manager, George Palmer Putnam, saw financial opportunities in Purdue University's enthusiasm for its association with Amelia. Courtesy of Remember Amelia, the Larry C. Inman Historical Collection on Amelia Earhart.

of over 6,000 miles. Equipped with “special tanks, instruments, and other devices,” this marvelous machine was not an experimental ship but rather a “development of proved design.” It could be had as either a stock model or a “custom-built job” for a base price of \$30,000. “The maximum total cost, including special equipment, preparation, flight outlays, etc., would be \$40,000. That figure would be the guaranteed top.”¹²

After becoming “intimately familiar with the ship under all conditions” Amelia would establish some new transcontinental records, make a flight to Panama or Cuba, and undertake “detailed experimental work at various altitudes, including oxygen flight.”¹³

These preliminary flights would be followed by “the ultimate big flight, to be attempted only if and when everything proves out satisfactorily, to be around-the-world, starting at the Purdue airport and ending at Purdue. The plane could carry the name ‘Purdue’.”¹⁴

If Purdue would put up the money, Putnam was willing to share the net financial returns from the world flight. Finally, “At the end of its career of usefulness the plane itself could be installed as a permanent exhibit at Purdue. Meanwhile it would be useable by Miss Earhart – to be maintained and operated at her expense.”¹⁵

Putnam, the consummate salesman, was laying the bait in a classic bait-and-switch. The airplane he described did not exist. It is clear from later correspondence that it was to be either a modified or custom-built Lockheed Electra, but the capabilities Putnam claimed were pure fantasy. In November 1935, the Model 10 Electra had been in production for a year and a half. Lockheed had delivered 36 Model 10As powered by Pratt & Whitney 450 hp “Wasp Jr.” engines, and 5 Model 10Bs with Wright 450 hp “Whirlwinds.”¹⁶ Neither version was capable of anything near the performance described by Putnam. The more powerful Model 10E (Pratt & Whitney 550 hp “Wasp” engines) had not yet been introduced.

To what extent Amelia was involved in the preparation of the pitch to Purdue is not known, but throughout the fall of 1935 she was occupied with a brutal schedule of speaking engagements. That year she gave 136 lectures to audiences totaling 80,000 people – driving, not flying, from town to town across the midwest, giving, for \$250, what Putnam called “a straight, flying-is-safe and pleasant sermon” to women’s clubs and civic groups.¹⁷ In her surviving letters and telegrams from that time there is nothing relating to the proposal her husband presented to Elliott on November 11.

President Elliot’s reaction to Putnam’s proposal was enthusiastic. Upon his return to Purdue on November 14 he wrote to Putnam:

*Since our thrilling conversation Monday, I have accumulated some ideas which I hope to be able to discuss with you when I am in New York during the week of the twenty-fifth. I have just come from a conference here in connection with the aeronautical meeting in progress on the campus today and tomorrow. A.E. is performing in noble fashion. She has the entire campus on its toes.*¹⁸



November, 1935 at Purdue University. Earhart was extremely popular as a career counselor for young women. Photo courtesy Purdue Archives.

The Apocryphal Dinner Party

Amelia was performing in noble fashion but she was not involved in the discussions that would so profoundly affect her life. The legend that has grown up around Amelia Earhart would have it otherwise. An oft-repeated story is that

*In the autumn of 1935, at a dinner party at Elliott’s home, Amelia outlined her dreams for women and aviation and spoke of her desire to conduct studies on how long-distance flying affected pilots. Before the evening was over, guest David Ross offered to donate \$50,000 as a gift toward the cost of providing a machine suitable for the flying laboratory.*¹⁹

Versions of the story in several Earhart biographies vary as to exactly who was present and how much was pledged, but none of the accounts gives a specific date for the dinner. The event is not mentioned in Earhart, Putnam, or Elliott correspondence nor in any other contemporary source. The only time Earhart was at Purdue in the autumn of 1935 was from November 6 to November 26. On December 7, 1935, by which time AE had left Purdue, Elliott wrote to Putnam saying he had “been able to do some preliminary work with reference to the proposal presented in your memorandum.”²⁰ The dinner party story is charming but it is not how Purdue University came to fund the purchase of the aircraft in which Amelia Earhart met her fate.

On December 9, Putnam thanked Elliott for his “pleasant note of the 7th” and mentioned that he had taken some initial steps toward soliciting the involvement and support of the National Geographic Society. “This would lend a further dignity and international importance to the whole project. Also, of course, it would be a great financial aid. As I hear further from them I will report to you.”²¹ Elliott did not share Putnam’s enthusiasm for courting National Geographic’s participation and made no response to the suggestion.

Elliott visited Putnam and Amelia in New York over the Christmas holidays to discuss “important and encouraging new developments in the new project.”²² Possible donors had made no firm commitments but they were reacting favorably to Elliott’s advocacy for The Amelia Earhart Project. As the new year 1936 dawned, Purdue was taking the bait and it was time for Putnam to start making the switch. He needed hard numbers for a real airplane for Amelia to use, not in a program of scientific test flights, but for a flight around the world that “will put us all on easy street when she comes back.”²³

In Western Union overnight telegrams, sent a few days before January 4, 1936, Putnam asked Paul Mantz to get the “bottom price on small twin-engine Lockheed and delivery likelihoods without engines or instruments of plane we’ve discussed.”²⁴

A Junior on Floats

The small twin-engine Lockheed they had discussed was a new six passenger model the company had begun designing in response to a Bureau of Air Commerce invitation for a “feeder-liner” to serve small commercial markets.²⁵ A third lighter than its big sister but sporting the same 450 hp Pratt & Whitney Wasp Jr. engines as the 10A, the Lockheed Model 12 Electra Junior would be cheaper, faster and have greater range than either of the full-size Electras. Putnam felt confident that he could get the engines and instruments donated regardless of which model was chosen. He also advised Mantz that he was “obtaining data here on floats.”²⁶



*Amelia with Purdue president Edward C. Elliott.
Photo courtesy Purdue Archives.*

There is no surviving record of whose idea it was for Amelia to fly around the world on floats, and it is difficult to understand the rationale behind such a proposal. Floats would provide a measure of safety in the event of a forced landing at sea but, for the rest of the trip, floats would be a liability, denying the flight the use of virtually all of the world’s airports.

On January 2, 1936, Putnam sent Elliott an update on the selection of an airplane. They were making “interesting progress ... as to cost, delivery date, performance, etc.”²⁷ He estimated that they would decide within ten days or so which of two models was preferable. Putnam also informed Elliott that, “We are also getting full data concerning floats. This will be the first flight of the kind on pontoons.”²⁸

With his news about the plane, Putnam also sent Elliott a copy of the letter he had just written to Jack LaGorce, Vice President at National Geographic. Putnam justified seeking supplemental funding from the Society as “the removal of necessity for any commercialization.”²⁹ No more product endorsements or media deals, just “straight pioneering.”³⁰

Two days later, January 4, 1936, Putnam received an encouraging letter from Elliott, “This is being written to say confidentially that, providing a proper scientific research foundation can be established, there is no doubt now as to the availability of the money.”³¹ Exactly who gave Elliott the assurances he communicated confidentially to Putnam is not known. The donors wished to remain anonymous and apparently succeeded. Their identities and the amount they donated are nowhere to be found in contemporary Purdue records. The David Ross mentioned in the apochryphal dinner story may well have been the initial guarantor. Ross was a prominent Indiana industrialist and president of Purdue’s Board of Trustees. At his suggestion, the university had set up the Purdue Research Foundation. Indiana businesses run by successful Purdue alumni would make financial contributions to the university to fund research which would, in turn, benefit Indiana-based industry – a win-win for the school and Indiana business. The Research Foundation was the obvious context within which to create a special fund for aeronautical research.

Putnam immediately replied. “Thanks for your note of the 2nd. That’s good news.” The bad news was that support from the Purdue Research Foundation would be conditional upon a proper foundation of scientific research. Putnam worried that his letter to National Geographic, which had focused exclusively on the world flight, might not “supply sufficient information concerning the research characteristics of the project.”³² It also occurred to him that putting the airplane on floats might create a problem for a key element in the plan – having the world flight begin and end at Purdue. “Is there any sizeable lake conveniently near to Lafayette?”³³

It was becoming increasingly urgent to settle on an airplane but Mantz had not answered his telegrams and Putnam was furious.

*Please let me have immediately the data requested in my night letter of some days ago regarding the Junior Electra – the new smaller ship. If you are sunk in your troubles so that you cannot attend to these matters, let me know at once, as matters are reaching a crisis here and I cannot afford delays. If necessary I will have to deal directly with Lockheed, but of course it is much better to handle it through you – if you can attend to the job.*³⁴

The troubles Mantz was sunk in were divorce proceedings. His wife Myrtle wanted out and was threatening to go public with her accusations that Mantz had been having an affair with Putnam’s wife.

In considering the full-size Electra, Putnam was trying to decide between the Model 10A and the Model 10B, but neither version of the Electra offered the performance he had promised Purdue. He asked Mantz, “Is it possible to use straight Wasps in the Electra?”³⁵

Putnam’s question is a measure of the extent to which he was out of touch with Lockheed. The company was, in fact, already using straight Wasps in the Electra. The Model 10E with 550 hp Wasp engines had been in production since early December.³⁶ The Wasp was a physically larger, heavier, and thirstier engine than either the 450 hp Wasp Junior or Wright Whirlwind but it delivered superior takeoff performance and a small increase in speed. The 10E had been developed at the request of Pan American who wanted it for its subsidiary airline Aerovias Centrales operating out of high altitude airports in Central America.

A January 6, 1936, letter from Elliott confirmed Putnam’s concerns that the switch in focus from test flying to world flying was not going well. “I do not think that the outline of the scientific and research features of the flight, as presented in your memorandum to LaGorce [at National Geographic], contains sufficient detail that would be convincing to the donor representatives of the University.” Elliott insisted that, before any final understanding could be reached, another in-person conference would be necessary. If National Geographic was going to be involved, their representative should also be there.³⁷

Later that same day, Putnam wrote a second letter to LaGorce tamping down the tone of his original pitch and assuring him that “the Society’s maximum participation and sponsorship along the lines discussed is not essential to the project’s inception.”³⁸ He sent a copy to Elliott with a letter explaining that, after talking it over with Amelia, he could see “some debits”³⁹ in National Geographic’s possible participation. It’s not hard to see why Amelia didn’t think that bringing National Geographic onboard was such a great idea. The Society was a publicity juggernaut. Adding National Geographic to the world flight would dilute the Earhart brand.

The next day, January 7, 1936, Mantz finally replied to Putnam with a telegram that seemed to change everything. It would take a year for Lockheed to deliver an Electra Junior on pontoons and putting floats on a full-size Electra would cost \$30,000, effectively doubling the price of the basic airplane. “For your requirements feel Sikorsky S43 ideal for distance required in addition to a good hundred and seventy mph cruising. Advise next steps.”⁴⁰

The Right Machine

In Mantz’s view, Lockheed was out of the picture. The perfect machine for an equatorial circumnavigation of the globe was the new Sikorsky S-43 “Baby Clipper.” The S-43 was a smaller amphibious version of the S-42 four-engine flying boats used by Pan American to survey routes across the Pacific. Powered by two 750 hp Pratt & Whitney “Hornet” engines, the Baby Clipper was fast and capable of lifting a heavy fuel load. Most importantly, because it was equipped with retractable landing gear in a flying boat hull, the aircraft was equally at home on water or land.



Entering commercial service in 1935 as the “Baby Clipper,” the Sikorsky S-43 amphibian was later operated by the U.S. Army Air Corps as the OA-8 and by the U.S. Navy as the JRS-1. TIGHAR Collection.

In his reply, Putnam agreed that the Sikorsky amphibian would be the safest choice, but Amelia wanted a Lockheed Electra, not so much for the world flight, but to have for continuing her flying career after the trip around the world was concluded. The price of an S-43 was \$110,000, “but the finances presumably will boil down into us spending nearly as much as we would on an Electra, and in the end having nothing to show for it.”⁴¹

Putnam could not understand Lockheed’s quotation of \$30,000 for pontoons. “There is something funny here. Of course, if they don’t want to do business with us let them say so at a once.”⁴² He was “in lengthy conversations” with the Edo Company, the leading manufacturer of pontoons for aircraft.⁴³ “What we want is an Electra. If we can get the bare ship for \$32,000 and Edo is right that they can get the floats on within \$15,000 and Lockheed will give us a square

deal (at cost) for tanks, etc. I would be able to close immediately.”⁴⁴

Close immediately? The funding from Purdue was not yet confirmed and relied upon a program of scientific research that had not yet been adequately described.

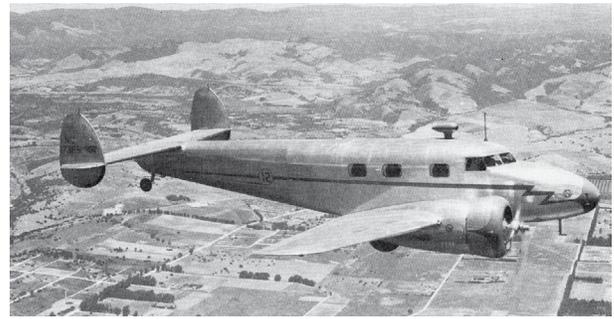
Putnam suggested that Mantz sit down with Allen Lockheed, founder and former owner of Lockheed Aircraft Corp., to see if he would design “a special ship built to order. Of course, it is pretty dangerous because there are apt to be bugs.” Nonetheless, if Lockheed was not going to be “halfway decent” he would rather spend \$30,000 on an “experimental job.”⁴⁵

Putnam ended his letter with an admonition to “roll up your sleeves” and “iron this thing out as quickly as you can.”⁴⁶

To put pressure on Lockheed, he included a second letter, ostensibly a private communication between himself and Mantz. “The enclosed letter is written so that you may show it to the Lockheed people. I think that would be smart. It would sort of indicate that you are taking them into your confidence. The implication might be that I did not know that you were showing it.”⁴⁷

The letter Mantz was instructed to leak to the Lockheed people was profoundly disingenuous. He understated the quote for floats from Edo as being “less than \$10,000.” He also claimed “the whole matter is moving into focus fast. The funds are available. We are considering several alternate ships.”⁴⁸

Lockheed should do all special modifications to an Electra at actual out-of-pocket cost for labor and materials. “I don’t believe Lockheed would insist on making money out of A.E. on a project of this



Although sometimes described as a scaled-down version of the Model 10 Electra, the Lockheed Model 12 “Electra Junior” was a completely different aircraft based on the same design principles as its big sister. Photo courtesy Lockheed Aircraft.

kind. For an Electra on floats to make the first round-the-world flight is a uniquely valuable exploitation bull's-eye."⁴⁹ And he added a manipulative postscript:

*"I am having conversations with the Sikorsky crowd now. It looks interesting. From the safety standpoint that is probably the best bet. I think the economics can be arranged. The primary unsatisfaction [sic] is that of course we wouldn't want a Sikorsky after the flight."*⁵⁰

Earhart and her husband were together in New York at this time and presumably communicating with each other. If Amelia was not actively participatory in her husband's duplicitousness, she was at least complicit. She was also certainly aware that an amphibious machine was the safest choice for the world flight, but the airplane she wanted was an Electra and boldness, not caution, was her trademark.

Earhart departed to begin a new lecture tour the next day, January 8, and Putnam wrote to Elliott with the news that Pratt & Whitney had gladly agreed to contribute the engines for the still-theoretical airplane. To allay Elliott's concerns about the scientific aspects of the flight he promised to "prepare an exposition of the research features of the flight, in preliminary form, to expand as you advise."⁵¹ There is no record of any such exposition ever being drafted.

Two days later, on January 10, 1936, Putnam wired Elliot that National Geographic had decided against being associated with the project and added a positive spin. "While disappointing [it] has advantages [and] simplifications especially regarding Purdue, our exclusive responsibility to which [is] naturally primary. [In] some ways [it] makes my job easier."⁵²

The Purdue Research Foundation Signs On

With the question of National Geographic's participation settled, Elliott decided that the best way to find out how the Purdue Research Foundation felt about the world flight project was to ask its director, C. Stanley Meikle. That the project had come this far without the all-important Research Foundation being in the loop is more than a bit surprising. Meikle took the matter seriously and by January 18 had written an eight-page treatise entitled "Notes Pertaining to the Development of Purdue Educational and Research Program in Aeronautics." He sent his notes "which have been prepared as a result of our recent conversation concerning the possibilities of aerial expeditions" to Elliot on January 23.⁵³

The document begins with a detailed review of Purdue's six years of "continuous and persistent effort"⁵⁴ devoted to aeronautical research and the university's specific desire to explore the mysteries of high-altitude flight. The stratosphere's "strong, undisturbed, unidirectional winds or drifts which are much more favorable to flight than the violent disturbances which haunt the heavier strata enveloping the earth."⁵⁵ (These winds would eventually be named the Jet Stream.) Meikle noted that, "The real task of exploring the possibilities of flight in the stratosphere is yet to be undertaken. The craft which will successfully penetrate it and maintain prolonged flight in comfort and safety has yet to be designed."⁵⁶ Unbeknownst to Meikle, Lockheed and the Army Air Corps were, at that moment, designing the XC-35, a pressurized Electra with turbocharged engines for flight in the stratosphere. First flown in June 1936, the XC-35 won the 1937 Collier Trophy for the year's most valuable contribution to aircraft development.

Meikle hoped such an aircraft could be developed under the auspices of the Purdue Research Foundation but he lamented that "the Foundation at present has no funds with which to finance such a worthy scientific venture."⁵⁷ As a way to attract funding, he suggested that "well planned explorations into the stratosphere, or into other uncharted realms of space, in the interest of science and aviation" might stimulate donations devoted to aeronautical research."⁵⁸

Nowhere did Meikle make specific reference to Amelia Earhart or to a flight around the world, but in a not-so-veiled note of caution, Meikle warned that it would be unwise for the university to become associated with any venture that was "not based upon a serious intent to collect scientific and engineering data." Publicity was only beneficial if the scientific and engineering objectives could "withstand the scrutiny of public opinion."⁵⁹

With unintended irony, Meikle also recognized the element of risk. “Sometimes man’s skill and knowledge are insufficient to conquer the elements which confront him” and he “passes into oblivion” leaving only “fragmentary bits of mute evidence of disaster of unknown origin.”⁶⁰

Nonetheless, as long as the venture was a well-planned and worthy scientific expedition, “the University and Foundation might properly agree to provide for the expenses from funds made available for the purpose.”⁶¹

With Meikle’s agreement-in-principle in hand, Elliott wrote to Putnam on January 27, 1936 to say that the university’s lawyer was drafting a tentative memorandum of agreement. Once Putnam had reviewed it there would need to be a meeting of the directors of the Foundation but “In so far as the Purdue Research Foundation is concerned, its minimum share of the funds is already guaranteed. The important question is to determine a proper scientific program which can be approved.”⁶²

The Purdue deal was moving in the right direction but there was still the problem of articulating a proper scientific program.

Severe winter weather prevented further progress for the next two weeks, but on February 10, 1936 Elliott wrote to Putnam with the news that Meikle had made preliminary contact with Vincent Bendix in New York and his reaction was “favorable.”⁶³ Support from Bendix was seen as key to the project. Since 1931, Bendix Aviation Corporation, a leading manufacturer of aircraft parts, had maintained a high profile through its sponsorship of the Bendix Trophy transcontinental air race. In 1936 Vince Bendix was beginning to expand his holdings into the field of aircraft radio. The opportunity to test Bendix innovations in radio navigation equipment was exactly the kind of research the Foundation had in mind.

The 4,500 mile Electra

Putnam caught up with Amelia on her lecture tour in Tennessee and drove with her to California, arriving in Burbank around February 1, 1936 to try to sort out the airplane.⁶⁴ On February 12, Putnam reported to Elliott that floats might not be necessary. “It begins to look as if we might be able to get a ship of sufficient cruising range, perhaps, to negotiate the hop from Honolulu to Suva, or to Japan. ... [I]f this should work out, our financial and mechanical problems will be very greatly simplified.”⁶⁵

Lockheed engineers calculated that, theoretically, a Model 10E could be modified with additional fuel tanks to deliver a range of 4,500 miles, enough to fly the 3,200 miles from Honolulu to Suva, Fiji with adequate reserves. In 1928, the same year Amelia crossed the Atlantic as a passenger in a trimotor Fokker F.VII on floats, Australian Charles Kingsford-Smith flew the same type, on wheels, from Honolulu to Suva, landing in a soccer stadium. (The field was too short and he had to intentionally groundloop the big Fokker to avoid hitting an embankment.) Honolulu to Japan is 3,900 miles, a greater distance and further from an equatorial route, but Tokyo had a real airport.

Putnam told Elliott he expected to be flying back to New York about February 20th.⁶⁶ By that time he expected to be ready to place an order for the aircraft. “Will it be necessary or helpful for me to plan to stop at Lafayette enroute east?”⁶⁷

Indeed it was. Putnam’s presence at Purdue to discuss the proposal being drafted by Meikle and the university’s lawyer was essential, but on February 15 Putnam wrote that his departure from California would be delayed at least another week. He was, however, “greatly pleased” with the progress being made toward selection of an aircraft and expected to have a tentative contract with the manufacturer in a few days. Doing away with the pontoons not only reduced the cost but restored the “ideal procedure” of starting and finishing the world flight at Purdue.⁶⁸

There was also some uncomfortable news. In a separate “confidential note to you alone” Putnam briefed Elliott on the Mantz divorce and warned him that “there is a chance that some effort will be made to drag A. E.’s name into the proceedings.” He had rejected an opportunity to hush the whole thing up but the accusations had made him so mad that he had decided to let Myrtle Mantz air anything she wished. “Frankly, there is nothing I would like more than to wring the slanderous lady’s neck!”⁶⁹

Completing the Switch

Meanwhile, at Purdue, concerns about the lack of a detailed program of scientific test flights were overshadowed by the potential financial rewards to be had from the university's support of the proposed world flight. In "General Notes Pertaining to the A.E. World Flight," Purdue Research Foundation director Stanley Meikle expressed his opinion that "any scientific body actively interested in the science of flight might properly be prompted to donate substantial funds to an A.E. World Flight."⁷⁰ It was, however, essential that the money go to a permanent fund established by the Foundation for scientific research in aeronautics. Otherwise, "there is danger that the enterprise will be looked upon as an ingenious scheme devised primarily for the purpose of raising funds."⁷¹ Which, at least for George Putnam, is exactly what it was. His bait-and-switch had morphed the proposed "detailed experimental work at various altitudes, including oxygen flight"⁷² into Purdue's enabling of Amelia's return to record-setting ocean flying.

Meikle proposed that the Foundation establish a research fund to be known as the Amelia Earhart Putnam Research Fund for Aeronautics.⁷³ The fund would accept donations made to the project and serve as a repository for the scientific data resulting from the world flight. His original plan had been for the airplane to be owned by Purdue and deeded to Earhart after the flight was concluded, but he now suggested a more arm's-length relationship. He drafted a Tentative Proposal which specified that the Foundation's support would be in the form of "an unconditional donation in the interests of science to be used toward the purposes of this project."⁷⁴

Unconditions

The unconditional donation, however, would be anything but unconditional. In a tour-de-force of double-speak, Meikle wrote, "Obviously, it will be necessary for the Flight Commander and the Flight Manager to accept this tentative proposal. It would seem to me that such acceptance should include a definite statement of plans put in language which will in no manner vary the intentions of the donor to make an unconditional donation." Meikle went on to list fourteen conditions including guarantees that Amelia Earhart would be the Flight Commander; George Putnam would arrange for and manage the world flight; the flight would be made in an Electra; the flight would start and end at the Purdue airport; the flight would leave the shores of the U.S. at Washington "carrying messages of good will from members of the official family;" and all monies generated by the flight, the sale of news items during the flight, and the first story at the end of the flight would go to defray the expenses of the flight and "provide for the permanent A.E.P. Research Fund for Aeronautics."⁷⁵ Nowhere was there mention of gathering of scientific data.

The "unconditions" listed in Meikle's notes were not included in the Tentative Proposal. He explained, "I feel certain that the integrity of both A.E. and G.P.P. is sufficiently well known so that a positive statement of what they intend to do will be an adequate guarantee of fulfillment."⁷⁶

On February 27, 1936 Meikle sent his Tentative Proposal and accompanying Notes to Elliott to be presented to, and presumably approved by, Putnam when he arrived in Lafayette en route to New York.

As the month came to an end, Meikle was waiting for George Putnam to arrive in Lafayette and make the positive statements the Research Foundation required before approving the unconditional donation. Putnam, still in California, had roughed out the cost of the whole project at \$69,000, including the "equipment of plane" [sic] at the completion of the world flight. He was counting on engines, spark plugs, propellers, instruments, and gas and oil, to be donated. He estimated he would need \$50,000 from the Purdue Research Foundation and expected to realize another \$15,000 in revenue from newspaper exclusives and fuel endorsements. Other media deals and writing would add to the earnings.⁷⁷

Myrtle Mantz, for her part, was ready to name Amelia Earhart Putnam in court.

Notes

- 1 Elliott letter May 18, 1935.
- 2 Speech in Ft. Wayne, Indiana, March 21, 1935.
- 3 *Ames Daily Tribune*, June 3, 1936.
- 4 "Major Al Williams Rips Earhart Flight as Stunt," *Cleveland Press*, March 27, 1937.
- 5 *Newsweek*, January 19, 1935.
- 6 Rich, p. 197.
- 7 *Bakersfield Californian*, January 4, 1935, p. 1.
- 8 Ibid, p. 49.
- 9 Putnam, p. 272.
- 10 Memorandum from Putnam, "The Amelia Earhart Project," 1935.
- 11 Ibid.
- 12 Ibid.
- 13 Ibid.
- 14 Ibid.
- 15 Ibid.
- 16 "Lockheed's Model 10 Electra," *Journal of the American Aviation Historical Society*, Vol. 23, No. 2, Summer 1978.
- 17 Putnam to Mantz, January 7, 1936, DRP.
- 18 Letter from Elliott to Putnam, November 11, 1935.
- 19 Purdue website Historical Note at <http://www4.lib.purdue.edu/archon/?p=creators/creator&id=17>.
- 20 Letter from Elliott to Putnam, December 7, 1935.
- 21 Putnam to Elliott, December 9, 1935.
- 22 Western Union night letter, Elliott to Putnam, December 20, 1935. DRP.
- 23 Quote attributed to Putnam by Janet Mable, *Christian Science Monitor*, DRP.
- 24 Putnam to Mantz, undated communication, DRP.
- 23 Francillon, *Lockheed Aircraft Since Since 1913*, p. 129.
- 26 Undated Western Union telegram, Putnam to Mantz, DRP.
- 27 Putnam to Elliott, Jan. 2, 1936.
- 28 Ibid.
- 29 Putnam to Elliott, Jan. 2, 1936.
- 30 Letter to LaGorce included with Putnam to Elliott, Jan. 2, 1936.
- 31 Letter from Elliott to Putnam Jan. 2, 1936.
- 32 Putnam to Elliott, Jan. 4, 1936.
- 33 Ibid.
- 34 Putnam to Mantz, January 4, 1936, DRP.
- 35 Ibid.
- 36 Francillon, p. 122.
- 37 Elliott to Putnam, Jan. 6, 1936.
- 38 Letter to LaGorce included with Putnam to Elliott, Jan. 6, 1936.
- 39 Putnam to Elliott, Jan. 6, 1936.
- 40 Telegram quoted in Putnam to Mantz, January 7, 1936, DRP.
- 41 Telegram quoted in Putnam to Mantz, January 7, 1936, DRP.
- 42 Ibid.
- 43 Ibid.
- 44 Ibid.
- 45 Ibid.
- 46 Ibid.
- 47 Ibid.
- 48 Ibid.
- 49 Ibid.
- 50 Ibid.
- 51 Putnam to Elliott, January 8, 1936
- 52 Telegram, Putnam to Elliott, January 10, 1936.
- 53 Meikle to Elliot, January 23, 1936.
- 54 Meikle notes included with letter to Elliott, January 23, 1936.
- 55 Ibid.
- 56 Ibid.
- 57 Ibid.
- 58 Ibid.
- 59 Ibid.
- 60 Ibid.
- 61 Ibid.
- 62 Ibid.
- 63 Elliott to Putnam, February 10, 1936.
- 64 Putnam to Mantz, January 7, 1936; DRP.
- 65 Putnam to Elliott, February 12, 1936.
- 66 Ibid.
- 67 Ibid.
- 68 Putnam to Elliott, February 15, 1936.
- 69 Ibid.
- 70 Meikle, "General Notes Pertaining to the A.E. World Flight," February 14, 1936.
- 71 Ibid.
- 72 Memorandum from Putnam, "The Amelia Earhart Project," 1935.
- 73 Meikle, "Tentative Proposal," February 14, 1936.
- 74 Ibid.
- 75 Meikle, "General Notes", op.cit.
- 76 Ibid.
- 77 Cost charts, February 27, 1936, Purdue archive.