

TIGHAR TRACKS

A PUBLICATION OF THE INTERNATIONAL GROUP FOR HISTORIC AIRCRAFT RECOVERY





*... that they might escape the teeth of time and
the hands of mistaken zeal.*

— JOHN AUBREY
STONEHENGE MANUSCRIPTS
1660

TIGHAR (pronounced “tiger”) is the acronym for The International Group for Historic Aircraft Recovery, a non-profit foundation dedicated to promoting responsible aviation archeology and historic preservation. TIGHAR’s activities include:

- Compiling and verifying reports of rare and historic aircraft surviving in remote areas.
- Conducting investigations and recovery expeditions in co-operation with museums and collections worldwide.
- Serving as a voice for integrity, responsibility, and professionalism in the field of aviation historic preservation.

TIGHAR maintains no collection of its own, nor does it engage in the restoration or buying and selling of artifacts. The foundation devotes its resources to the saving of endangered historic aircraft wherever they may be found, and to the education of the international public in the need to preserve the relics of the history of flight.

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COVER:

Charles Nungesser – Third highest scoring French ace and most highly decorated Allied pilot of World War I, post-war box office idol, and pilot of l’Oiseau Blanc. (TIGHAR Collection.)

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New TIGHAR members, especially those who have a special interest in the Earhart Project, might easily be puzzled by our fascination with the investigation we call Project Midnight Ghost – might find it odd that we consider it every bit as important as the much more widely known Earhart mystery. So if you've been wondering what all the fuss is about, or, like us, you never tire of the story, here's



Project Midnight Ghost takes its name from a quote by Charles Lindbergh (*The Spirit of St. Louis*, p. 130) in which he describes Charles Nungesser and François Coli as having “vanished like midnight ghosts” during their attempt to fly nonstop from Paris to New York just 12 days before he successfully flew the same trip in the opposite direction. The two French aviators took off from Le Bourget on May 8, 1927 in a highly modified naval aircraft officially designated the Levasseur PL8 but known to history as l’Oiseau Blanc. That’s pronounced l’Wahzo Blahnk, or you can say “the White Bird” – but references to “Lucy Blank” will probably get you guillotined in Paris.

The airplane was as strange as everything else about this flight. The Levasseur company had developed a machine for the French navy which managed to combine all the worst aspects of landplanes and seaplanes into one design. The only thing it had going for it was safety. The PL (Pierre Levasseur) 4 was a large (50' wingspan), single engine, three seat biplane with the unique feature of fixed landing gear attached to a plywood flying boat hull. In an emergency the pilot could jettison the entire undercarriage and land in the water. Of course, landing on the hull meant the prop wouldn't

clear, so there was a special device to ratchet it up into the horizontal position before splashdown. Taking off again was not an option. The idea was to keep plane and crew afloat until a ship could come along and hoist them aboard. To create the transatlantic PL8, Levasseur beefed up the already robust wooden fuselage, eliminated the front cockpit, and installed three huge fuel tanks with a combined capacity of 1,063 U.S. gallons, enough for an estimated 41 hours aloft. The aft observer's position was made into a side-by-side two-place open cockpit (equipped, one would hope, with a relief tube). On the front end, a massive reduction gear was fitted to the 450 h.p. Lorraine-Dietrich engine to permit the use of the mother of all cruise props – a fixed-pitch, forged aluminum affair over twelve feet long. For the transatlantic flight the landing gear would be dropped soon after take-off, freeing the airplane of its weight and drag. The landing would be made

in New York Harbor near the Statue of Liberty (a French gift to the United States). Voila!

And if the aircraft and the plan were a bit unconventional, the crew was even more so. The pilot was the guy on the cover, Charles Eugene Jules Marie Nungesser (that's Nun-jess-AIR in French, NUN-guesser in English, and “Chuck” in TIGHAR). With 45 aerial victories, he had been the third highest scoring French ace of the Great War and his dashing, daring (not to say suicidal) style had won him more medals than any other Allied airman. The tales told of his wartime exploits include his capture of secret papers behind enemy lines, an affair with Mata Hari, and, above all, his grim determination to continue to fly and fight despite numerous and repeated wrecks and wounds. He had an aluminum plate in his head, a platinum wrist, elbow, kneecap and ankle, and platinum replacements in several

long bones. His teeth and palate were gold, souvenirs of one crash that put a control stick through the roof of his mouth. He is said to have explained his personal coat of arms (shown above) by saying, “The strong heart does not fear death even in its most terrible aspects.” He survived (if you want to call it that) the war, married an American heiress in 1923, became a movie star (“The Sky Raider”) in 1925, and was divorced in



L'Oiseau Blanc – 11,000 pounds of wood, linen and gasoline and a twelve cylinder engine developing 450 h.p. Photo courtesy Musée de l'Air.

THE STRANGE TALE OF THE WHITE BIRD

1926. By 1927 his career as an aviation celebrity needed a shot in the arm (perhaps a poor choice of words), so he teamed with Levasseur and navigator François Coli (profiled in *TIGHAR Tracks* Vol. 9, No. 3) for the transatlantic attempt.

Nungesser and Coli were an odd couple by any standard. Chuck was the consummate hot-shot pilot – long on physical ability, guts and ego – who literally crashed his way through life. Frank had wounds and medals too, but he also had a family and a distinguished post-war career as a record setting long-distance flyer. His focus was not so much self-aggrandizement as it was the advancement of aviation. Although their names are forever linked because of the fate they shared, perhaps the only attribute they had in common was phenomenal courage.

On the morning of May 8, 1927 the White Bird, adorned with Nungesser's black heart insignia, took off from Le Bourget, dropped its wheels, and headed out to sea. It was the first time that an aircraft carrying enough fuel for the 3,700 mile trip had made it into the air, and expectations were high that Nungesser and Coli would arrive in New York sometime the next day. Lindbergh was still in San Diego preparing to head eastward to join the other transatlantic competitors. When he learned that the White Bird had made a successful departure he did not depart for New York, as depicted in the 1957 Jimmy Stewart movie (great film, not-so-great history). Instead, "I spend most of the day studying charts and data I've assembled for the westward, Pacific flight" (*The Spirit Of St. Louis*, p. 129).

On May 9th the weather all along the northeastern U.S. coast was terrible. Thousands who gathered at the Battery in New York and on boats that crowded the harbor peered into the low clouds, fog and drizzle for the first glimpse of the White Bird. Numerous (mistaken) sightings reported the flight's progress from Boston, to Cape Cod, to Long Island. A French reporter jumped the gun and wired home a complete account of the White Bird's arrival. Paris went wild, but in New York the mood was somber as evening brought the realization

that Nungesser and Coli were down somewhere. By the next day Lindbergh was on his way across the continent and plans were underway for history's greatest search for a lost aircraft (the search for Earhart ten years later was small by comparison). In France, elation crumbled into shock, then turned to outrage as (false) rumors spread that the U.S. Weather Service had lured the French flyers to their death by withholding word of a storm off Newfoundland. U.S. Ambassador Myron Herrick sent a message to the other competitors in New York saying that this might not be a good time for an American transatlantic flight to arrive in Paris. For the next ten days the search for Nungesser and Coli dominated the headlines until, on May 20th, Lindbergh took off for Paris alone. Perhaps because he was so clearly the underdog, any resentment felt by the French people was forgotten in the pandemonium that surrounded his arrival. But just to be safe, Herrick made sure that the Lone Eagle's first official act in Paris was to visit the grieving mother of Charles Nungesser.

The search for the White Bird continued throughout the summer of 1927. The French navy combed the English Channel, merchant ships scoured the Atlantic sea lanes, Canadian ships searched the Gulf of St. Lawrence, and the U.S. Coast Guard covered the northeastern seaboard. Aerial searches were mounted in Quebec and Labrador, while, in Newfoundland, the Nungesser/Coli Search Expedition under the direction of Sydney Cotton used a Fokker Universal on floats in an attempt to investigate the many reports of an aircraft seen and heard there on May 9th. Of all the searches Cotton's seemed to have the most promise, but fog, maintenance problems, and bitter personal disputes within his party seriously hampered his efforts. In the end, none of the searches found the slightest trace of the missing airplane or its crew.

The Nungesser/Coli disappearance is the forgotten ingredient in the formula which created the Lindbergh legend. Had l'Oiseau Blanc made it to New York, the

Spirit of St. Louis would not have flown to Paris. As it turned out, the mysterious loss of the two French flyers set the stage for the triumph of the lone American boy. On the spot where l'Oiseau Blanc crossed the coast of France stands a monument to Nungesser and Coli where, every year on May 8th, wreaths are laid in memory of the fallen heroes. And on a quiet, shady corner on Le Bourget Airport stands another monument inscribed: "To the two who tried and the one who succeeded." Nearby, in the Musée de l'Air et de l'Espace (Museum of Air and Space), the bent and weathered undercarriage of the White Bird stands enshrined as the only surviving remnant of the historic flight.



The landing gear of l'Oiseau Blanc at Musée de l'Air et de l'Espace. Photo courtesy John Hiskes (TIGHAR #0852CE).

But for the members of TIGHAR the disappearance of the White Bird is not just a matter of monuments and tributes, but an active, open question. Nothing vanishes without a trace and, after sixty-six years of mystery and ten years of detective work, we'd like to think that the answer is finally emerging. And to those questioning eyes on the cover we say, Patience, Chuck. We're working on it.

FOUND OBJECTS

TIGHAR's search for the White Bird is now focused on the Gull Pond – a shallow, fresh water lake high in the interior of the Newfoundland's Avalon Peninsula. Local folklore has long told of “the plane in the pond” but nobody knows what plane it is, or indeed, whether there is really a plane in the pond at all. Metal debris is said to have been discovered there but, except for the artifact TIGHAR recovered in 1992, descriptions of just what was found, and when, rely entirely upon memory. There are no contemporaneous written records of wreckage being seen and every piece of “the plane in the pond” that was taken away from the site was later lost, usually due to some misfortune which befell the possessor (we don't call it Project Midnight Ghost for nothin').

Trying to assess anecdotal information is always an exercise in frustration. We all remember incidents from our past through a veil of personal interest and experience. Sometimes our memories are accurate, but just as often they are not. Add a second or third party to the storytelling process and it's almost impossible to know what really happened. With these caveats in mind we have compiled a catalog of objects said to have been found and some observations about what they might possibly have been.

Object #1: “Windscreen”

Drawing: No

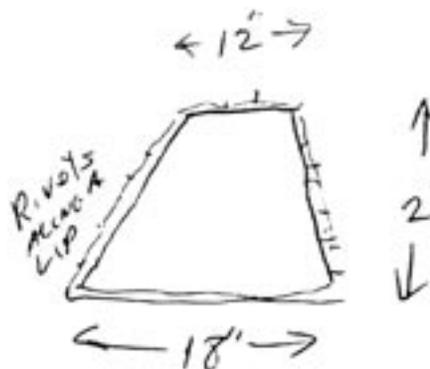
Source: Letter from Gunnar Hansen (author of “The Unfinished Flight of the White Bird” in *Yankee* magazine, June 1980) to “Mac” (?) dated 20 June 1988.

Story: In 1982 Howie McClennan, then living in New Brunswick, told Hansen that his grandfather had found a “windscreen” in a lake called Long Pond which was seven miles inland from Patrick's Cove. No date is mentioned. A plane was said to have “hit a rock in the middle of the lake.” McClennan's mother and uncle had seen the windscreen which was stored in their barn which subsequently burned. McClennan's uncle, Patrick McGraugh (sic), was said to know just where the “windscreen” was found.

Assessment: Although the pond name is wrong, this is clearly the “Plane in the Pond” story. We think the “wind-screen” is Object #2 described below.

Object #2: Trapezoid of lightweight metal measuring roughly 18 inches across the “bottom,” perhaps 24 inches on each side, and approximately 12 inches across the top. The edges were bent over to form a lip which was pierced with numerous rivet holes. The entire object was painted a shade of grayish blue likened to the color of a box of Tetley teabags.

Drawing:



Sketch by Patrick McGrath 9/18/92.

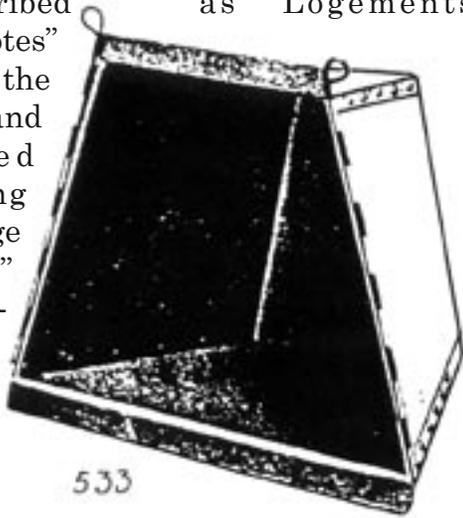
Source: TIGHAR interview with Patrick McGrath at his home in Patrick's Cove, September 18, 1992.

Story: The object was found on the small rocky island in the middle of the Gull Pond by Patrick “Patsy” Judge who brought it home to Gooseberry Cove and kept it in his barn which later burned. McGrath said he was with Judge when he recovered the object while hunting caribou in the winter “sometime in the '40s.” He had the impression that the metal had been there a long time.



Assessment: The *Illustrated Parts Catalog* for the Levasseur PL4 (from which the White Bird was derived) specifies two trapezoidal structures, part numbers 533 d (d for droit – right) and 533 g (gauche – left), described as “Logements

“Pied Des Pilotes” (Recesses for the Pilot’s Feet) and constructed of something called “Alliage (Alloy) L 2 R.” The dimensions of the structures are not specified. The catalog specifies various types and colors of dopes, varnishes and enamels for the aircraft, but only one color of paint – *gris bleu* (gray blue).



“Logement pied des pilotes.” Planche No. 29, *Album Photographique des pièces de rechange – de l’Avion marin triplace de bord – Type P.L.4R3b – Moteur Lorraine 450 cv 1929.*

Object #3: Piece of metal 12 to 14 inches long by about 3 inches at its widest part. The piece was “bent and somewhat crumpled” and “comparatively light” and thought to be made of “either aluminum or stainless steel as it showed no corrosion and was bright and shiny.” It had the appearance of a “support piece” and had no rivets but was stamped with “strange numerals.”

Drawing: No

Source: Telephone interview by TIGHAR researcher Jay Veith (TIGHAR #0767CE) with Ralph Martin of Harrogate, England on 6 July 1993 concerning a piece of metal given to him by Patsy Judge in 1947.

Story: In 1947 Judge gave Martin, who was visiting Newfoundland, a piece of metal which he (Judge) later (in a letter dated June 18, 1974) stated he had recovered from the Gull Pond in 1932. Martin took the object home to England and gave it to the Avro Company in Manchester for identifica-

tion. Avro wrote a letter directly to Judge which he subsequently lost. In the 1974 letter to Martin Judge stated that Avro had confirmed that the object was (spelling as in original) “undoubtfull a part off the undercarrige off the plane called either the Blue Bird or the White Bird.” Judge’s 1974 letter contains no description of the object. Martin’s 1993 description to Veith is based on memory. Any copy Avro may have had of their letter to Judge, and possibly the object itself, seems to have been lost in a fire at their plant (I swear we’re not making this up).

Assessment: The piece, as Martin described it, could be any of several parts listed in the *Illustrated Parts Catalog* for the PL4 associated with the release mechanism for the detachable undercarriage and made of “acier special” which appears to be the archaic French term for what is now called “acier inoxydable” – stainless steel.

Object #4: “Toolbox”

Drawing: No

Source: Strictly rumor. Story told to TIGHAR by CBC television reporter Reg Sherren who heard it from his father who has “been interested in the plane in the pond for many years.”

Story: Somebody found a toolbox on or near the island in the Gull Pond and hid it in the bushes along the shore. When they later went back to retrieve it, it was gone.

Assessment: For what it’s worth, press accounts from the time say that the White Bird carried tools with which Nungesser and Coli could cut the wings (presumably the upper wing) off the airplane to improve its seaworthiness in the event of a landing in the ocean.

Object #5: Two broken metal straps, each perhaps 6 to 8 inches long by 1 or 2 inches wide connected by a 6 inch hexagonal head tightening bolt. Although the piece was very rusted, the nut on the bolt could still be turned.

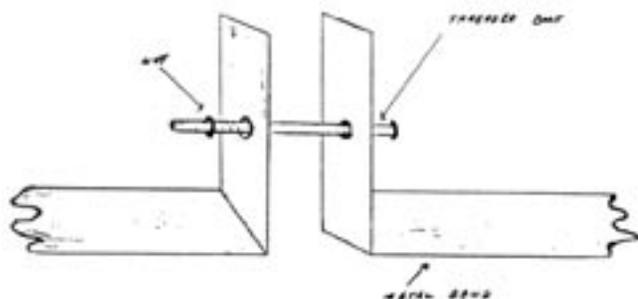
Drawing: (see next page)

Source: Hubert McGrath in an interview with TIGHAR at his home in Patrick’s Cove on September 17, 1992, corroborated by Patrick



McGrath in an interview with TIGHAR on September 18, 1992, and further verified by Charlie McCarthy in a telephone interview with TIGHAR on November 5, 1993.

Story: In the summer of 1970 or 1971, Hubert McGrath (then about 24), his cousin Patrick McGrath (then about 48), and local Roman Catholic priest Fr. Charles McCarthy (then about 36) traveled to the Gull Pond using a Bombardier J5 tracked vehicle. The purpose of the trip was to search for the plane in the pond, debris from which Patrick had seen as a young man (see above). They brought along a small boat and Fr. McCarthy had a wet suit, fins, mask and snorkel. He spent one or two days swimming about looking at the silt-covered bottom but found nothing except the object described above. It was lying on a rock in about one foot of water immediately adjacent to the island. He put it in the box his mask came in. In late 1971 McCarthy left the priesthood and moved to California, leaving most of his belongings in the care of his brother in St. John's. He returned to Newfoundland in 1972. In 1974 he discovered that the box and the object were missing and now assumes they were mistakenly thrown out by his brother.



Sketch by Charles McCarthy 12/1/93.

Assessment: Hubert, Patrick and Charlie independently concur in their opinion that the object was the remains of a strap used for attaching a tank-like object to a larger structure. The *Illustrated Parts Catalog* for the PL4 shows similar straps with tightening bolts on the aircraft's standard fuel tank. The White Bird's tanks were far larger and, while we know they were secured with straps, we have no photographs which show the tightening bolts. We do know that of the 1,686 bolts in the PL4, 1,533 (91%) were hexagon head and 118 of these were 15cm (about 6 inches) long.

While all five reported objects compare favorably to structures which might reasonably have been aboard the White Bird, it must also be recognized that not one of the objects, even if described with absolute accuracy, is *prima facie* an aircraft part. The strongest argument that the debris found at the pond came from an airplane remains the area's remoteness and the notion that the only way for the stuff to have gotten there was if it literally fell out of the sky. But every bit as significant as what was reported seen at the pond is what was apparently not there: no engine, no propeller, no instruments, no wires, no fabric, no aluminum fuel tanks, no steel tube fuselage skeleton (which l'Oiseau Blanc did not have), but no plywood fuselage (which it did have) either.

Could an aircraft have struck the island in an attempted landing, been damaged enough to scatter the kind of debris found there, and still been able to get back into the air and continue on? That hardly seems likely. Could the wreckage found at the pond be something that fell off an airplane in flight? That's certainly possible, but what could fall off or out of an airplane that would leave this kind of debris? And yet, if the metal objects reportedly found at the pond are evidence of a plane crash, where's the airplane? If it weren't for the fact that we found something there ourselves in 1992 we might conclude that all the stories of the plane in the pond are just – well – stories. But TIGHAR Artifact 1-21-1 is not a story. It's a very old lightweight steel structure with gray blue paint on it. (And no, we are not the slightest bit nervous about it being stored at TIGHAR headquarters. The fire extinguisher nearby is purely coincidence.)

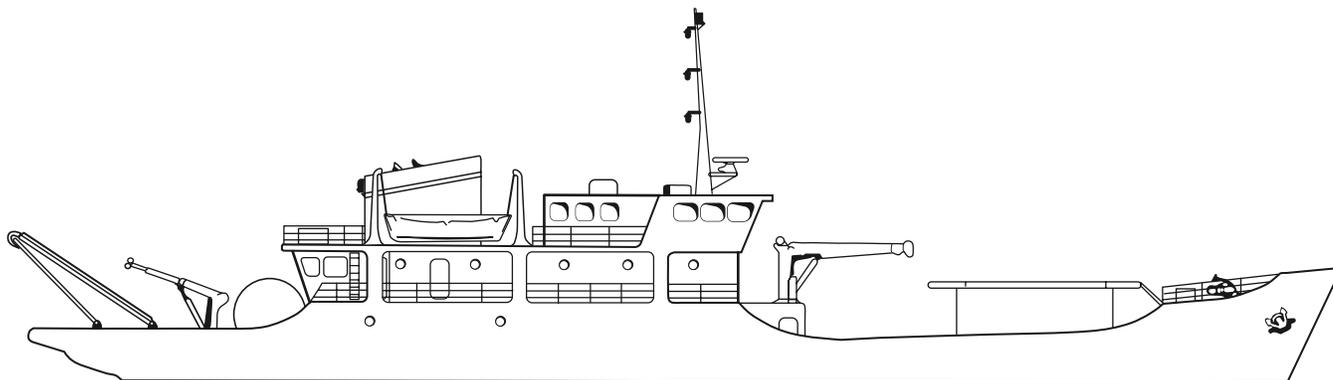
Reduced to our most conservative assessment, we can say that a long time ago there was a violent event at the Gull Pond involving a large machine at least partly made of lightweight metal parts painted gray blue. We mean to find out what machine it was and what happened there. A conclusive search of the pond bottom using remote sensing technology is scheduled for May 1994.



SHIP IN SIGHT AHEAD



One of the most difficult aspects of putting together an expedition to the Pacific is finding a ship which will do the job. Niku III requires a ship which can stay at sea, unsupported, for five weeks, carrying all fuel, food, water or water-making capacity, accommodations for crew and team, and is available at a reasonable cost. After many false starts, and much frustration, we have found the right ship for the job. Meet the M/V *Salmon Seeker*:



Built in the early 1970's as a seismic research vessel for the Canadian government, she is now working as a sport fishing platform out of Vancouver, B.C. One hundred eighty feet long, and with passenger accommodations for twenty-eight, she has the capacity for extended operations in the Pacific, including sonar survey, which the project requires. We have been working with her owners, Oak Bay Marine Group, for some time, discussing necessary refits and changes to outfit the ship for the hi-tech search technology we'll be using on and around Nikumaroro. We hope to sign final contracts early this spring.

With the single biggest decision of the project made, we can now forge ahead with more detailed preparations for the expedition. The Niku III island search team held its second planning session in San Francisco in November, and we're in the process of selecting a contractor for the all-important underwater search. Taking everything into account, it now looks like the culminating expedition of the Earhart Project will sail in the spring of 1995.

Special thanks to Michael Serafin, TIGHAR #1306CE, for his help in finding and evaluating ships for Niku III.

For Want of a Nail . . .



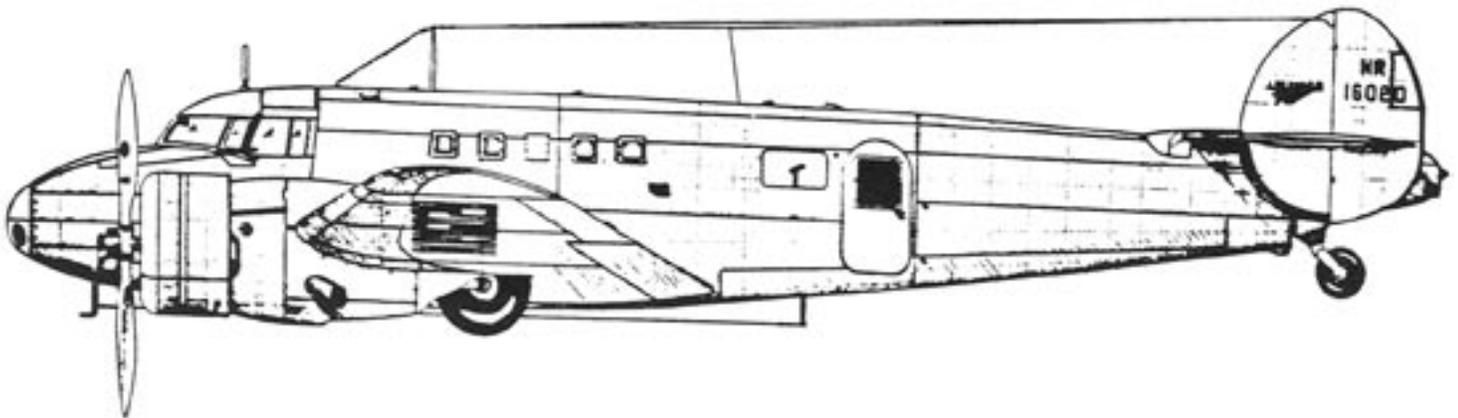
Finding the Earhart aircraft involves, in part, acquiring a thorough understanding of the events which led to its disappearance. In assembling and examining the documented historical record of the Electra's final flight we are repeatedly struck by how much "new" information is readily accessible to the dedicated researcher and by the extent to which previous speculation about the flight's fate has been based upon erroneous assumption and just plain bad information.

A classic example is the problem of why Earhart failed to establish two-way voice communication with the Coast Guard cutter *Itasca*. Had she been able to get useful information from the *Itasca* she almost certainly would have reached Howland Island or, at the very least, been quickly rescued. But, although *Itasca* could hear her voice loud and clear, she couldn't hear their replies. Attempts to explain why have ranged from allegations that the whole incident was an elaborately staged hoax to speculation that Amelia simply wasn't wearing her earphones at the right times. More often, it is simply written off as an inscrutable mystery the answer to which, like Amelia herself, is forever lost. Nonsense! The Earhart disappearance is an extraordinarily

well-documented sequence of events, and an examination of the historical record suggests a logical explanation of what went wrong. It is also a solution to the mystery that may be absolutely provable from existing photographic evidence. Here's what we think happened and why.

Earhart couldn't hear the Itasca's voice transmissions because her receiving antenna was inoperative. Mounted on the belly of the Electra, the antenna was broken off when it struck the ground while she was taxiing for takeoff in Lae, New Guinea. Unfelt by Earhart or Noonan in the heavily overloaded aircraft, and unseen by those watching her departure, the bump that broke the antenna began the sequence of events that ended in aviation's most famous disappearance.

We began to suspect the antenna when an examination of the *Itasca's* radio logs made it clear that Earhart's problem was clearly not the radio



For the second world flight attempt NR16020 had three radio antennas:

- For transmitting, a vee-type wire antenna stretched from a mast atop the forward fuselage to the tip of each vertical fin. A length of fairlead wire attached to the starboard arm of the vee entered the cabin on the starboard side and connected the antenna to the Western Electric Type 13C transmitter mounted on the floor just forward of the cabin windows.
- For radio direction finding, a manually rotatable Bendix loop antenna was mounted over the cockpit and connected to the Western Electric Type 20B receiver installed under the copilot's seat. There has been much confusion and controversy over whether a separate RDF receiver was aboard the aircraft at this time. The historical record, however, clearly indicates that there was not.
- For receiving communications, the receiver under the copilot's seat was connected by fairlead to a straight wire antenna which ran from the starboard pitot mast under the aircraft's nose to a mast approximately amidships (hidden in this illustration by the retracted wheel) and terminated at a mast on the belly directly under the cabin windows. This aftmost mast is the one that appears to have been broken off while taxiing for takeoff at Lae on July 2nd.

PROJECT NOTES

receiver itself. On one occasion, and one occasion only, Earhart heard signals sent by the *Itasca*. At 19:28 GCT, when the strength of her radio transmissions indicated that she was close to Howland Island, she asked the *Itasca* to send signals upon which she would try to take a bearing with her own Radio Direction Finder (RDF). To do that she had to switch from the regular receiving antenna, a long mast-supported wire that ran along the belly of the airplane, to the rotatable loop antenna mounted over the cockpit. For the first and only time she heard something: a series of A's (dit dah, dit dah, dit dah), but because she had asked that the signals be sent on a frequency far higher than her RDF could home in on she was unable to "get a minimum" (obtain a direction to the station). She then switched back to the belly antenna and never heard anything more. Clearly, the receiver is working and the loop is working. The culprit must be the belly antenna.

We then asked, "When is the last time that we know the belly antenna was working?" Although it has been widely stated that Lae radio operator Harry Balfour was in two-way radio communication with Earhart for the first seven hours of the flight, a close examination of the historical record shows



In this photo of AE (taken in Natal, Brazil on June 6, 1937) clearance between the aft belly antenna and the ground appears to be about 16 inches. (Purdue University Collection.)

that Balfour's recollections are not accurate. There is, in fact, no evidence that Earhart heard anything over the belly antenna at any time during the flight. The last documented instance of voice communication with the *Electra* is during an early morning test flight at Lae on July 1st, the day before the takeoff for Howland. Photographs of the aircraft being prepared for departure on July 2nd clearly show the antenna intact but also reveal that clearance between the aft antenna mast and the turf surface at Lae has been reduced by the heaviest load NR16020 has ever been asked to carry.

A careful look at home movie film of the takeoff, included in NBC News Production's "Untold Stories – The Search For Amelia Earhart," showed that both the loop and the transmitter antenna mast on the top of the fuselage were visible but no trace of the belly antenna could be seen. Still, the film is of poor quality and the airplane is too far away to call the scene conclusive evidence that the belly antenna had somehow disappeared between engine start and take off. However, we recently realized that additional footage from the same home movie sequence was used in the EAA's production of Buddy Brennan's conspiracy story *Witness to the Execution*. In a close up shot of the *Electra* taxiing past the camera, the belly antenna mast amidships can clearly be seen but the aft antenna mast – the one most at risk to ground strikes – is just as clearly missing. An interesting sidelight to this hypothesis is an anecdote told by R.E. Fullenwider (TIGHAR #0126) who, as he puts it, "spent some time in Lae during World War Two courtesy of Uncle Sam." As he remembers it, the old-timers there often said they hadn't been surprised when Earhart was lost because "she left part of her trailing wire antenna laying on the runway." Of course, the *Electra*'s trailing wire antenna had been removed long before. If antenna wire was found on the runway at Lae after her departure we have a pretty good hunch where it came from.

We're presently trying to assemble the best prints available of any photographs or film taken on the morning of the Lae takeoff. We'll then have them evaluated by the best photogrammetrists we can find in the hope that independent expert analysis will confirm our suspicions. Establishing beyond reasonable doubt the cause of Earhart's failure to reach Howland Island will not, of course, help us find the rest of her airplane. It will, however, be an important contribution to the historical understanding of the Earhart disappearance and illustrate to those who have difficulty accepting TIGHAR's methodology that, yes, the truth can be discovered by anyone with the discipline and determination to seek it out.



THE 1994 TIGHAR TITHE

As 1994 opens, TIGHAR is grappling with a familiar problem: too much work, too little time, too little money. It's a difficult quandary to be in. On the one hand, if we spend the time we should on research and field work – the reasons for TIGHAR's existence – there isn't enough time to raise the money to pay for it all. On the other hand, if we spend the time then no real work gets done. What to do?



For TIGHAR's tenth new way for members TIGHAR cause. Enclosed

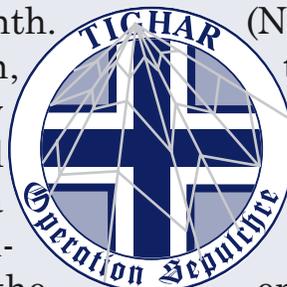
year, we are instituting a convenient to make meaningful contributions to the with this *TIGHAR Tracks* you'll find a slip to fill out and return as part of a new system of pledges called the **TIGHAR TITHE**.

We need to raise more money more efficiently than we did last year to fulfill the promise of our projects. We know you want to help, and we also know that it's easier for you to do more a little at a time rather than in a big chunk. Happily, it's also more efficient (read less expensive) for TIGHAR that way.

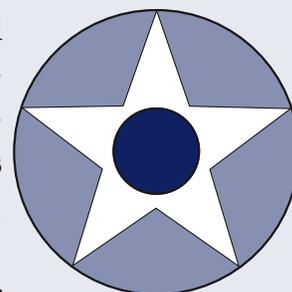


Here's what to do:

- Decide what amount you're realistically able to contribute to TIGHAR each month. (Note: Because this is a straight charitable donation, the entire amount is tax deductible within the limits of the law for U.S. taxpayers.)
- Fill out and return the enclosed **TIGHAR TITHE** slip.
- Each quarter we'll send you a set of three pre-addressed, stamped envelopes with slips to include with your monthly donation. Just drop your check in the envelope, seal and mail.



It's a system that makes sense for you and for TIGHAR, and it's a system that reduces fund-raising costs and puts more donation dollars to work for aviation archeology and historic preservation. Membership renewals and the sale of publications and wearables will continue as in the past. The **TIGHAR TITHE** is a way for you to say, "I'm not just keeping tabs on something important for aviation history – something that is worthy of my support."



**Together, we're changing the course of aviation history.
Send in your pledge slip today!**

TIGHAR Hard Drive Progress Report

Number of Contributors to Date 131
 Total Amount Contributed \$9,000.27
 Amount left to raise ±\$6,900.00

Member	Honoring
Nelson D. Bentley, #1199	*
Raymond D. Berkheimer, #0995	*
James E. Bledig, #1127	*
Wayne D. Borden, #1046	Valerie M. A. Borden
Georges Bouché, #1514	Georges Guynemer
George E. Brown, Jr., M.D.#1620	General William C. "Billy" Mitchell
David E. Burt, #1650	Amelia Earhart
Victor E. P. Cipolla, Sr, #1533	Lt. Geo. R. Cipolla, USAFR
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Honeywell, Inc. Commercial Flight Systems Group, #1502R	*
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Howland B. Jones, #0655	Donald V. Earnshaw
E. Luke Knowley, #0615	All Preservationists
William E. Kretschmer, #1508	Bob Kopp & Bill Robinson
Dr. Tommy Love, #0457CE	Men & Women of the 301st Fighter Wing
Peter Paul Luce, #0123L	TIGHAR Expedition Volunteers
Megan Mansfield, #1482	Grace T. Mansfield
Jessie Roberta Mathis, #0998	Amelia Earhart
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Richard H. Pingrey, #0908C	Pan American World Airways
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* Some contributors did not designate an honoree.

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TIGHAR MEMBER
3456 LINDBERGH ST
EARHARTVILLE MN 55199-6314

For all the jokes and complaints, we have to occasionally face up to the fact that the United States Postal Service is one of the best in the world. Ninety-nine and a half times out of a hundred, the mail gets where it's going, on time, in good condition, without fuss or bother, delivered to our very doors – at about half the price routinely paid elsewhere, and much less than at other times in history. For instance, in the 1690's, the charge for mailing a letter from New York to Williamsburg, Virginia was more than \$11.50 – at a time when 50 cents a day was good pay. Let's see, that would be about ... \$2,800 now, figuring about \$30,000 per year as a good average income.

Well, twenty-nine cents an ounce is a lot better than that, but it's still too much when you're mailing three and four ounces at a time to over 1,000 people – like TIGHAR does. So we've decided to take advantage of a special

postal rate for non-profit organizations – bulk rate third class. The savings are significant: eighteen cents for a *TIGHAR Tracks* and a few stuffers, as opposed to ninety-eight cents. The down side is it will take longer to reach you – possibly as much as three weeks if you live in a very small town in a very remote location. We have arranged for any mail we send out third class to be forwarded to you if you have moved; however, this would be a good time for you to check your mailing label and make sure we have the correct address. Also, if you know your nine-digit ZIP® Code, we should have that – it really helps speed your important mail to you.

A few of our members will continue to get their mail via first class delivery. All members with APO or FPO addresses, or any member whom we know is actually residing outside of the U.S. in spite of a U.S. address, will find first class postage on their mail. This should help ease loss problems. Of course, non-U.S. mail must go first class, and we always send it air mail.

Please let us know if you are having problems getting your TIGHAR mail, or if any portion of your address is incorrect or missing. We want to reach you!

Cole Palen Dies

TIGHAR notes with regret the death of Cole Palen, founder of the Old Rhinebeck Aerodrome, on December 15. His airshow, operating out of a grass field in Rhinebeck, New York, was a classic of its type – the evil “Black Baron” pitted against the sterling “Percy Goodfellow” in mock battles against a backdrop of World War I sets. In full costume, and using period cars as well as period aircraft (many replicas and a few extensively re-conditioned planes), the show provided a taste of the past and a roaring good time for a generation of aficionados. He also established a museum on the site where he exhibited some rare and unusual items from aviation’s history. No news has been released as to the future of the air show or the museum.

Palen died in his sleep at his winter home in Florida. The cause of death was not immediately known. He was 68. Our condolences to his family and friends on this untimely loss.



IT'S ONLY TELEVISION

Amelia Earhart

**A film biography presented by
*The American Experience***

**Broadcast on PBS
Wednesday, October 27, 1993**

**Written, directed and produced by
Nancy Porter**

**Co-Producer
Jane Feinberg**

**Edited by
Jeanne Jordan**

**Narrated by
Kathy Bates**

We had great hopes for this show. At last, an Earhart biography produced for public television in the terse, here's-the-way-it-really-was, PBS style. Previewers gushed about how the program was “a neat bookend for last season’s documentary on Charles Lindbergh. Both are fine biographical portraits of enigmatic idols and both illuminate the aviator behind the myth” (Martin Zimmerman, *L.A. Times*, Oct. 27, 1993).

At the opening of the show series host David McCullough explained, in the measured cadences which have made him the very voice of reason to millions of PBS viewers, that the program would not attempt to deal with the various theories concerning Earhart’s disappearance, some of which are “highly bizarre and based on pure conjecture.” (Right on, Dave.) He then broke the news that Amelia was “not the best of pilots” (good, scratch one myth) and that she became so caught up in the need to set new records that “by the time of her final flight she was trapped.” Huh? And then it started. After a promising first 30 seconds the American Experience biography of Amelia Earhart stalled, spun and crashed in a jumble of falsehood, distortion and rumor-mongering.

It became clear early on that the producers had adopted a revisionist agenda about Earhart – that she was an exhibitionist of limited ability who became the victim of her own unlimited ambition – and were out to make their case unhindered by journalistic ethics. Case in point: We are shown a photo of Amelia standing on the roof of a tall building and told that she was kicked out of finishing school for walking on a window ledge in her nightgown. Not only is the story false but we can’t even find a reference for it as a rumor. Earhart voluntarily resigned from Philadelphia’s Ogontz School in the first weeks of 1918 and went to Toronto where she became a nurse’s aid treating men wounded in the war. Her decision, based on moral conviction, is well documented, well known, and says a great deal about who she was and how she thought. The photograph shown on

the American Experience was taken at least a year later when she was a premed student at Columbia University.

Such factual and visual misrepresentation is endemic in the program. The Fokker “Friendship” with Earhart as passenger struggles aloft from what we’re told is Boston Harbor but is really Trepassy Bay, Newfoundland. Then author Doris Rich (*Amelia Earhart, a Biography*, Smithsonian Press, 1989) tells us that the flight left from Nova Scotia (what the heck – all those Canadian places are alike, aren’t they?). For Earhart’s 1932 solo transatlantic hop we’re told that she flew from New Jersey to Ireland, while the film shows her takeoff from Harbour Grace, Newfoundland. No one mentions that Bernt Balchen flew her Vega the first thousand miles to Newfoundland, nor is it mentioned that her intended destination was Paris, not Ireland.

But it is in the program’s representation of Earhart’s final flight that history suffers most. Chronology is mangled for the sake of creating the desired story. We learn that in April and May of 1937, while the Electra was being repaired for the second world flight attempt, Earhart was preoccupied with supervising the building of her lavish house in Hollywood (which had been completed in 1935) and with campaigning for FDR (who had been re-elected the previous November). We’re told that when Earhart and Putnam break off their association with technical advisor Paul Mantz all of the planning responsibilities fall on George Putnam who “knows nothing about flying” (except for what he may have picked up in the last nine years of managing his wife’s other flights). Gore Vidal confides to us that, by this time, Amelia was “certainly sick of G.P.” He also tells of being present at the New York *Tribune* offices when his father and Putnam received a phone call from Amelia in Lae in which she said she was having “personnel problems” which Vidal says was a code that meant Noonan was drinking. (Putnam was in San Francisco, not New York, at the time. There was no telephone service to Lae, New Guinea. Gore Vidal was eleven years old in 1937.)

In the end, Earhart’s disappearance (the subject Dave said they weren’t going to get into) is laid to her “totally run down” condition (myth), a radio communications failure attributable solely to Earhart’s request of an inappropriate frequency (not true), and, besides, “celestial navigation wouldn’t help because the location of Howland Island on her charts was off by five and a half miles” (a truly ridiculous statement).

How does something like this happen? We know this much. Although Tom Crouch, Chairman of Aeronautics at the Smithsonian’s National Air & Space Museum is listed as the show’s primary historical consultant, he never saw the script nor did he see the show before it aired. His input consisted entirely of a couple of hours of conversation with the producers. During the research phase the show’s co-producer, Jane Feinberg, contacted TIGHAR for help. We provided copies of the 7th Edition of the Project Book and the Companion (free of charge, after Feinberg said their budget couldn’t handle the \$150 contribution we ask from TIGHAR members). We also put her in touch with Russ Matthews (TIGHAR #0509CE) who did much of the film research for *Untold Stories: The Search For Amelia Earhart*. In short, there is no question that the American Experience had access to accurate, well-documented historical resources. They could have told the truth and they chose not to. Next time you sit down to watch a PBS documentary enjoy the show, but remember – it’s only television.



NOT WORTH THE TRIP

Many TIGHAR members recently noted a short press item announcing that “Papua New Guinea’s war museum will send a search team to a remote jungle to look for what may be the wreckage of the plane Amelia Earhart was flying when she disappeared. The team will travel to East New Britain, an island northwest of the mainland, where an engine has been found. It was first discovered by an Australian Army patrol in 1944.” Worth checking out? We don’t think so, and our reasons for discounting what others apparently see as a promising lead may provide some insight into how TIGHAR decides when and when not to mount an expedition.

First, as usual, the media have the facts wrong. There is no war museum in Papua New Guinea. The museum referred to is probably the Modern History Branch of the National Museum and Art Gallery. East New Britain is, of course, not an island but rather a district on the large island of New Britain. The engine was found not in 1944 but on April 17, 1945. The newspaper story gives the impression that the engine or wreckage has been seen since then. That is not the case.

TIGHAR has been aware of this story since May of 1991 when its originator, Donald A. Angwin of Perth, Australia, first wrote to us. We interviewed Mr. Angwin by phone on May 10, 1991. According to Mr. Angwin, he was one of a patrol of 20 soldiers from D Company, 11th Australian Infantry Battalion, which departed Kalai Mission at Wide Bay, New Britain on the morning of 15 April 1945. The patrol area was on the eastern tip of New Britain which is dominated by the port of Rabaul, a major Japanese base throughout the war. At approximately 1300 hours on the third day, the patrol came across a large aircraft engine imbedded in the mud of the jungle floor. Lt. Kenneth Backhouse

and Warrant Officer Keith Nurse inspected the engine and copied down details of the lettering and numbers visible on its data plate. Their impression at the time was that it was not a military engine, that it had been there for several years, and that it was probably from the wreck of some pre-war civilian aircraft.

About a month after the patrol returned to base interested enlisted personnel, including Corporal Angwin, were told that the information on the engine had been sent to Battalion or Brigade Headquarters and a brief note had come back stating that the engine could be from a Lockheed Electra with Wasp engines. Angwin made notes of this opinion on a waterproof pouch which he subsequently kept as a souvenir. It was not until he heard of TIGHAR's investigations that he decided that the engine he saw in 1945 might be from Earhart's aircraft.

We carefully considered Mr. Angwin's story and evaluated it according to the same standards we use to judge all potential evidence. We noted the following:

- The engine information is missing. The only contemporaneous documentation of the entire story is Angwin's notation on the waterproof pouch to the effect that an opinion was offered that it could be from an Electra with Wasp engines.

- The term "Wasp" was used by Pratt & Whitney as the trade name for a whole family of aircraft engines in wide use during the 1930s and '40s. Earhart's aircraft carried R-1340-S3H1 Wasps (serial number 6149 and 6150) as did the other 14 Model 10Es built. The Lockheed Model 10A Electra used the R-985-SB, known as the "Wasp Jr." Three of these aircraft (c/n 1060, c/n 1105, c/n 1108) were operated by Guinea Airways during the late '30s and, in fact, serviced Rabaul. "Wasp" engines were also used on Ford Tri-motors and a variety of other aircraft servicing the bustling New Guinea gold mining industry. Taken in historical context, it is not unfair to say that if one should chance to come upon a civilian aircraft engine of the pre-war period in that part of the world, chances are excellent that it will be a Pratt & Whitney "Wasp."

- Experience has taught us that the prospect of returning to a specific spot in a wilderness area where someone long ago saw something the significance of which is only now realized is a classic formula for frustration. Even if there was reason to believe that Mr. Angwin's engine was worth re-discovering, the problem of finding it again in the jungles of New Britain based upon 48 year old recollections would be hard to overstate. Barring phenomenal luck, the only chance of finding the engine is if local people have come upon it and know where it is.

- Earhart departed Lae, New Guinea at 00:00 Greenwich Time on July 2, 1937 with enough fuel for, at most, about 24 hours of flight. Twenty hours later she was somewhere within about 100 miles of Howland Island (as documented by the strength of her radio transmissions received by the Coast Guard cutter *Itasca*). For her to reverse course and fly more than 2,000 miles back to New Britain in the four hours before her fuel ran out would require a groundspeed of some 500 knots.

Mr. Angwin's story is not unlike literally dozens of other recollections of Earhart wreckage seen in various locations spanning the South Pacific from New Guinea to Saipan. If we, at TIGHAR, have learned anything in ten years of aviation historical investigation it is that anecdote is not evidence. Calling war stories "oral histories" does not make human memory any less frail, and archeology is a most unforgiving science. Believe what you will – the stuff is wherever it is and you will only find the stuff you seek if what you have chosen to believe is the truth. Sometimes a story or recollection fits documented fact so well that it's worth checking out on the chance that it will lead to real evidence. But to chase a hypothesis which directly contradicts voluminous and mutually supportive historical records is, in our opinion, not worth the trip. 🐾

BLUE SIDE UP

TIGHAR Expedition Wisdom

(Soon To Appear on Coffee Mugs
and T-Shirts Near You)

- ✱ *Adventure is what happens when things go wrong.*
- ★ The trick is not minding that it hurts.
- ✱ *You said this would be fun.*
- ✦ There are a lot of places in the woods.
- 🕸️ **Stuff is hard to find.**
- 🚫 **"No significant element of personal enjoyment."**

CALENDAR OF EVENTS, 1994

January 18 — “Finding Amelia” presentation by TIGHAR Executive Director Richard Gillespie at United States Air Force Museum, Wright-Patterson AFB, Ohio.

February 26 & 27 — Introductory Course in Aviation Archeology & Historic Preservation, West Coast of United States (specific location to be announced).

March 9 — TIGHAR Board of Directors meeting, Wilmington, Delaware.

April 23 & 24 — Introductory Course in Aviation Archeology & Historic Preservation, East Coast of United States (specific location to be announced).

May 16 – 27 — Project Midnight Ghost Expedition XXIV, the Gull Pond, Newfoundland. Category II Expedition. Team will be selected from among volunteers who have completed the Aviation Archeology Course.

MEMBERSHIP FORM

I would like to join TIGHAR. Enclosed is my donation of

\$45 for a one year membership
\$30 for full-time students

\$80 for a two year membership

\$195 for a five year membership

\$1,000 for a corporate membership

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TIGHAR Tracks four times a year
Invitations to participate in expeditions, courses, seminars, and Gatherings
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Please return this form with your membership dues to TIGHAR, 2812 Fawkes Drive, Wilmington, DE 19808 USA; Telephone (302) 994-4410, 9 a.m. to 5 p.m. EST/EDT, M-F; Fax (302) 994-7945. ALL DONATIONS TAX-DEDUCTIBLE IN THE UNITED STATES WITHIN THE LIMITS OF THE LAW. Personal checks may be drawn in U.S., Canadian, or European Community funds.

