

# TIGHAR TRACKS

A PUBLICATION OF THE INTERNATIONAL GROUP FOR HISTORIC AIRCRAFT RECOVERY

## FLIGHT 19 RETURNS TO MARS

It was a close one. For a while there it looked like Flight 19 and the Bermuda Triangle might join Amelia Earhart on the Endangered Myth List, but a closer inspection of the five Grumman TBMs found on the ocean floor off Ft. Lauderdale, Florida disclosed that the numbers didn't match those of the fabled lost flight. For the time being, at least, the folks who believe super-market tabloids, order their lives according to horoscopes, and think playing the lottery is a good bet, can still revel in the image of WWII airplanes circling Mars.

For those of us who like to think we take a more reasoned approach to life, the whole media circus surrounding the discovery, and un-discovery, of Flight 19 is cause for reflection on the real purpose of aviation historical investigation and recovery. Had the five Avengers turned out to be the Lost Patrol, would recovery and preservation have been justified? What's the historical significance of Flight 19, wherever it is? Considered in the context of aviation historic preservation, the answers are quite apparent. The airplanes in question are not particularly rare (something over 50 examples extant worldwide) and the only individual distinction the training aircraft of Flight 19 have is their



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connection with the Bermuda Triangle, a phenomenon invented by a features writer on a slow newsday in 1950. Books, television shows, and a guest appearance in Steven Spielberg's 1977 film *Close Encounters of the Third Kind* have subsequently enshrined the Bermuda Triangle's Flight 19 in American folklore. The justification for the recovery of the Lost Patrol, if it's ever found, would not come from historic preservation as much

as from public education (see? airplanes really don't get whisked off to Mars.)

The same applies to The Earhart Project. As an historic aircraft, Amelia's Lockheed Electra (in which no records were set) cannot compare to her Lockheed Vega already on display at the National Air & Space Museum in Washington, D.C. It is only the mystery surrounding the aircraft's disappearance — a mystery as fraught with fantasy as any tale from the Bermuda Triangle — that makes it worth finding. TIGHAR's purpose in solving that mystery is primarily to replace fantasy with facts by using sound investigative methodology. The aircraft itself, if and when it is recovered, will serve as a reminder that no matter how obscured by legend, the truth is still there for those with the will and the discipline to find it.

# ANNOUNCING

## An Aviation Archeological Expedition

### To the Wilds of Delaware

July 19-21, 1991 (Fri., Sat., Sun.)



Volunteers are needed for the evaluative excavation of a site suspected to contain the remains of one of the most significant aircraft in aviation history. On January 25, 1934, fire levelled a storage barn on Bellanca Field in New Castle, Delaware, destroying at least seven aircraft. Among them was the Wright Bellanca WB2, "Columbia." Without question the most capable of the transatlantic competitors in 1927, this was the airplane Charles Lindbergh wanted to buy for the New York to Paris flight; but when owner Charles Levine reserved the right to choose the pilot, the deal fell through. Lindbergh had Ryan build him an airplane and, because of Levine's further machinations which delayed Columbia's departure, won the \$25,000 Orteig Prize. Nonetheless, on June 4/5, 1927, Columbia, piloted by Clarence Chamberlin with Levine along as passenger, flew nonstop to Eisleben, Germany, beating Lindbergh's two-week old record by more than 300 miles. Columbia went on to establish many other records and, by 1934, was scheduled for a well-deserved place in the Smithsonian. The fire, in fact, occurred the day before the transfer was to take place. The destruction of the storage barn was complete, and no record, either written or in the memories of former Bellanca employees, has been found to indicate any attempt at salvage. As far as we can determine, the non-flammable remains of Columbia and her stablemates are still there.

Today the Bellanca factory is occupied by a company that makes plastic bottles, and the airfield where the virtuosos of aviation's Golden Age came to confer with the maestro of aircraft design, Giuseppe Bellanca, is grown up to woods and scrub. There among the thorn bushes and poison ivy lies the rubble of a barn foundation, a blacksnake sunning himself on the small mountain of bricks that may well cover some of the most evocative relics of aviation's past.

The land is for sale and slated for industrial development. Once the bulldozers, graders and pavers come through, the chance to save whatever is there will be lost.

With preparations for The Return to Nikumaroro underway there is neither the time nor the funding to do a complete excavation of the site this summer. However, interest in this project among the TIGHAR membership has been considerable and if at least six members are willing to donate \$100 and the sweat of their brows for a three-day weekend, we should be able to conclusively determine if there are historic artifacts at the site. Once the presence of good stuff is established, the site is safe. The same laws that prevent interstate highways from tearing up Native American burial mounds can be invoked to insure that the owner must commission and fund a responsible archeological treatment of the site before any federal permit is issued (EPA, Corps of Engineers, etc.).

This is a Category I TIGHAR expedition, open to any member in good health. Volunteers pay their own transportation and accommodation expenses plus a \$100 contribution toward the general overhead of the project. All direct expenses, and the contribution, are tax-deductible. TIGHAR will provide tools, lunch, cold drinks, and tall tales of other expeditions. We need a minimum of six, but we'll have to cut it off at a maximum of twelve (you can only have just so many people pitching bricks out of one hole), so first come, first served. If this sounds like your idea of a good time, we recommend counselling – but we'll gladly accept your help and your hundred bucks. Use the registration form insert in this *TIGHAR Tracks*. Registrants will receive further details on travel, accommodations, clothing, etc.



*Photo courtesy Frank Strand Collection*



# Expedition Vessel Selected for The Return to Nikumaroro



Photo courtesy Intersea Research

## R/V Acania

Length — 126 feet    Beam — 21.5 feet  
Draft — 9.3 feet    Displacement — 246.8 Gross Tons  
Speed — 10 knots  
Range — 6,500 Nautical Miles

When TIGHAR's expedition to find and photograph Amelia Earhart's lost Lockheed sails from Honolulu on September 30 it will go aboard a ship which is uniquely appropriate to the task. R/V *Acania*, owned by Intersea Research of Friday Harbor, Washington, is not only technologically well-suited to support the expedition, but is, herself, an artifact of the Earhart era with a rich and varied history.

Her keel was laid in TIGHAR's home port of Wilmington, Delaware at the late great Pusey & Jones shipyard in 1928. When the stockmarket crashed the next year not everyone on Wall Street jumped out of windows. In fact, a few lucky, savvy, or slippery individuals actually got richer and one of them was banker A. E. Wheeler. (As to which category best describes Mr. Wheeler, we might take a clue from a term originally coined to describe his style – "wheeler-dealer.") The *Acania* was built, sans budget, as his private ocean-going yacht at a cost of \$1,000,000 in a day when the workmen who built her took home about \$30 per week. In 1931 *Acania* was sold to film star Constance Bennet. *[Somebody help us here. Who was Constance Bennet? What were her best known films? Any photos of her aboard Acania?]* During WWII *Acania* was drafted and served as a Coast Guard cutter *[let's find out where she served and if she saw any action]* and later became a missile tracking ship. She was on the scene July 21, 1961 when Gus Grissom's Mercury capsule took the deep six following the United States' second manned spaceflight. After a stint spying on French nuclear testing in the South Pacific she was

purchased by Intersea Research in 1985. Since then she has been supporting oceanographic work by universities and the U.S. government.

As TIGHAR's expedition vessel for The Return to Nikumaroro, *Acania* will be re-creating the voyage of one of her contemporaries, the battleship U.S.S. *Colorado*, when it steamed from Honolulu to the Phoenix Islands in 1937 to search for Amelia Earhart. But *Acania's* search will have the benefit of more complete information than was available to *Colorado* fifty-four years ago. TIGHAR's extensive research and the results of our 1989 survey expedition to Nikumaroro have produced a wealth of information about the Earhart flight. Our search tools will include computers, side-scan sonar, a remote-operated vehicle, and metal detectors rather than catapult-launched floatplanes. But some aspects of the search haven't changed. It's still over 1800 sea miles from Honolulu to Nikumaroro, and the island today is little different than it was in 1937. The reef is still a ship killer, the sharks are still more plentiful than almost anywhere else in the Pacific, and the island's tropical vegetation has all but erased the feeble traces of the handful of people who once lived there. What relics of Earhart and Noonan's last days still lie buried in the sands of Nikumaroro? Is the site of their survival camp also their cemetery? And does Lockheed NR16020 rest relatively intact at the base of that reef? There is only one way to find out: go there and look – and the TIGHAR expedition, aboard R/V *Acania*, will do just that.





# THE DARWIN PHOTO



*The Darwin Photo — Courtesy Purdue University*

- Find out all we can about the circumstances surrounding the flight at the time the photo was taken. Perhaps there's an alternative explanation for the shape we see in the photo.
- Get an independent evaluation of the photo by the best photo analytical experts available.

To try to re-create the photo John Clauss, TIGHAR #0142CE, of Homewood, California, used an exact replica of the navigator's bookcase (constructed to represent Artifact 2-1 before it was cut apart) and a Lockheed 10A at the Western Aerospace Museum in Oakland. The museum's aircraft, formerly owned by Provincetown-Boston Airlines, has more windows and passenger seats, smaller engines, and a different door than Earhart's 10E. The fuselage dimensions and door opening are, however, identical. John positioned the bookcase where it should be, then duplicated as closely as possible the camera placement and angle of the Darwin photo. The result of the experiment (see photo opposite page) speaks for itself. A navigator's bookcase in a Lockheed 10 looks like what we see in the Darwin photo.

Research into the circumstances of the flight at the time the photo was taken has not turned up any alternative identity for the object in the photo and has, in fact, strengthened the likelihood that it is the bookcase. Earhart and Noonan arrived in Port Darwin, Australia, in the mid- to late morning of June 28, 1937 after a 500 mile flight from Koepang, Dutch East Indies. In a newspaper dispatch Amelia wrote that day, she says that customs

On March 21, 1991, Gary Quigg, TIGHAR #1025CE, of Crawfordsville, Indiana, forwarded some documents and photographs he had found in the archives at Purdue University. One of the photos may turn out to be the long-sought proof that the navigator's bookcase TIGHAR discovered on Nikumaroro came from Amelia Earhart's Lockheed Electra.

Labeled simply "Darwin, Australia," the photo (left) shows Amelia Earhart and Fred Noonan standing before the Electra's open cabin door with a pile of equipment at their feet and an unidentified man in a rumpled white suit looking on. What caught Gary's attention was that the photograph provides a rare, if somewhat obstructed, view into the airplane's aft cabin. Maddeningly, the dark interior is a jumble of shapes and shadows, but Gary had Purdue make a blow-up of that portion and sent the photo along in the hope that some information could be gleaned from it. When we examined the blow-up we could see a familiar shape in the area where previous TIGHAR research had indicated the bookcase should be. From the negative Gary sent we had a lightened print made in the hope that more detail could be pulled out of the darkness. The result is reproduced below and clearly shows that there is a box-like structure just to the left of Fred's hip and just below the right-hand corner of the rectangular patch of light in the center of the picture. The proportions of the object appear similar to those of the navigator's bookcase and there is a diagonal line running from the upper right to the lower left of the box which appears to correspond to the stiffener on the side of TIGHAR's Artifact 2-1. But appearances can be deceiving, and the potential importance of the Darwin photo is so great that we had to be sure of what we were looking at – but how?

We decided to approach the problem three ways:

- Attempt to re-create the photo using a navigator's bookcase and a Lockheed 10. Matching the known with the unknown is the essence of identification.



*The Darwin Photo (Detail) Courtesy Purdue University. This photograph has not been artificially enhanced or retouched in any manner.*

# THE DARWIN PHOTO

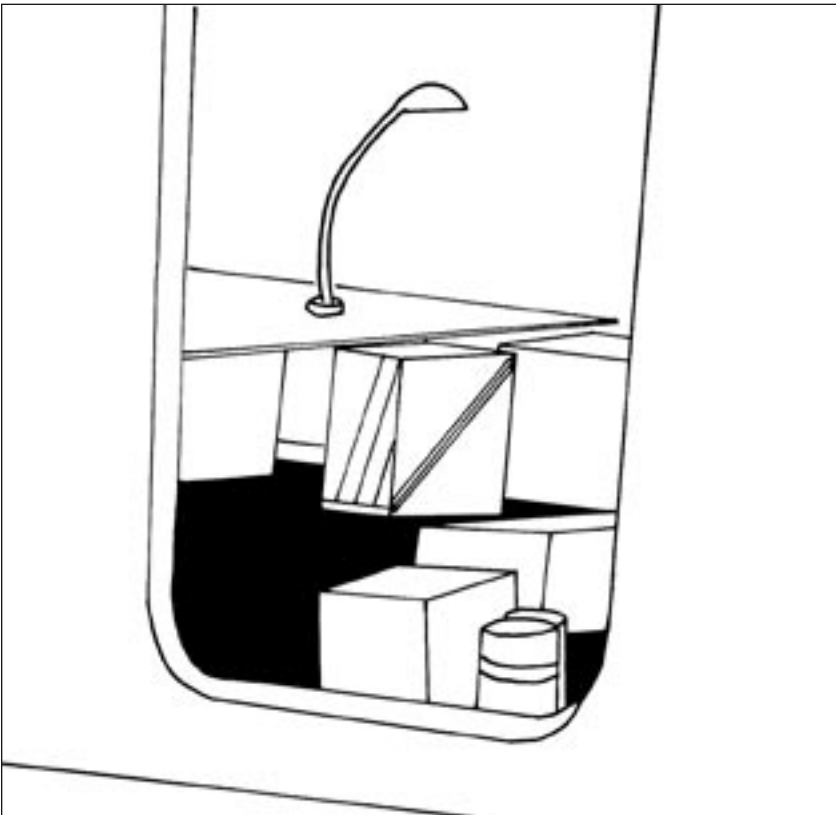
officials at Port Darwin had to clear the Electra “... as if she were an ocean-going vessel, but that was done with much dispatch. Inasmuch as we carry nothing but one suitcase apiece and have nothing in the plane but spare parts, fuel and oil, the process is simplified.” So the presence of any unusual items aboard the aircraft is denied by AE herself. The guy in the rumpled suit may well be a customs official.

They had hoped to continue on to Lae immediately after refueling, but it had taken them 3 hours and 29 minutes to get to Port Darwin, and headwinds for the 1207 mile leg to New Guinea made an arrival before dark impossible, so they elected to spend the night in Port Darwin. They took the opportunity to off-load excess equipment (note parachutes, spare tailwheel, control yoke, and unidentified canister on the ground) for shipment home before they began the long Pacific legs. A radio problem was traced to a blown fuse which was replaced by an RAAF sergeant who showed AE how to do it (!). Because AE and Fred are wearing the same clothes they have on when they arrive in New Guinea on the 29th, we at first thought this picture was taken that morning before their departure. But the take-off for Lae was made at 06:49 local time and the sun angle in the Darwin photo is far too high for early morning. Fred’s unusual rumpled appearance (he was a stickler for good grooming) also suggests that this photo was taken shortly after mid-day on Monday, June 28, 1937.

Although the inside of the cabin looks very confusing at first, a reconstruction, using numerous other photos for reference, is possible. In the sketch below, known features of the aircraft’s interior (radio transmitter, navigator’s chart table, gooseneck lamp, and auxiliary battery box) are shown in their known positions. Some other objects visible in the photo are included (two boxes, possibly the spare parts AE referred to, and two cans of tomato juice, AE’s favorite in-flight drink). Other objects are omitted for the sake of clarity. (In the photo there are what appear to be two bundles of cloth resting against the starboard wall of the cabin and lying on the navigator’s table with what



*Re-creation of the Darwin photo. TIGHAR photo by J. Clauss.*



*Reconstruction of aircraft interior based upon the Darwin photo.  
Sketch by R. Gillespie*

might be a patch of sunlight shining on them. The effect is very confusing.) The navigator’s bookcase is shown where it appears in the photo. It does not seem to be affixed to anything but, at the time the picture is taken, is simply sitting on the cabin floor. Why? The answer, of course, is: we don’t know. But we do know that the mounting screw on the right-hand side of Artifact 2-1 broke at some time, and we know that a dark stripe of residue which runs diagonally across the back of the artifact was identified by the FBI as adhesive. The evidence, therefore, clearly suggests a failure in the mounting system and a temporary repair. That the photograph shows the bookcase dismounted from its original position after the failure and awaiting re-installation with adhesive is a possibility.

In early May, Autometric, Inc. of Alexandria, Virginia, agreed to do an independent analysis of the photograph using state-of-the-art computer processes and photogrammetry techniques. Equally important (because it wouldn’t have happened otherwise), they agreed to do the work as a donation to TIGHAR in the interest of historical truth. Although we have received a preliminary report we’ve agreed not to reveal any of the findings until their study is concluded.

If the Darwin photo proves to show a navigator’s bookcase aboard NR16020 just four days before the aircraft disappeared it will be the strongest evidence yet that TIGHAR has, indeed, solved the mystery of the disappearance of Amelia Earhart.



# TIGHAR To TIGHAR

Jennifer B. Baker, TIGHAR #164, of Evans City, Pennsylvania, graduated from Butler Area Senior High School on June 7. Jennifer has been a member of TIGHAR since March of 1986, when she wrote a paper on Nungesser and Coli for her eighth grade history class and got some information from TIGHAR on Project Midnight Ghost. She plans to pursue a career in journalism, but isn't sure yet whether she prefers the world of newspapers or magazines. Either way, TIGHAR will attempt to provide her with copy! Way to go, Jennifer.



Photo courtesy J. Baker



TIGHAR photo by M. DeWitt

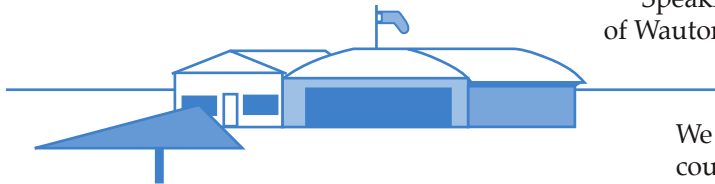
Speaking of graduations, Russell Matthews, TIGHAR #509CE, of Princeton, New Jersey, graduated from Davidson College in Davidson, North Carolina in May. Russ has been a member since December of 1987, and is a victim of several TIGHAR expeditions, most notably the 1989 Earhart Project expedition to Nikumaroro. Russ will be returning to the Pacific with TIGHAR in October of 1991; following that, he hopes to attend the University of Southern California for a master's degree in film. He plans a career as a film director.

Two TIGHARs have recently published books. We don't have enough room in this issue for reviews, but we want you to know the books are available, and to tell you a little about them. The first one we received was *The Boeing 247: The First Modern Commercial Airplane* by Henry M. Holden, TIGHAR #1118, of Randolph, New Jersey. The book is a complete

history of the 247, and includes many details of William E. Boeing's remarkable airplane, with lots of photographs. It's published by Tab Books, a division of McGraw-Hill. You can write to the publisher at Blue Ridge Summit, PA 17294-0850 (no street address), or to the author at 14 Alpine Drive, Randolph, NJ 07869.



The other book is a real collector's item. By Alexander Roca, TIGHAR #0288, of South Berlin, Massachusetts, it is a beautifully bound and presented limited-edition coffee-table style book, jammed with photographs, information, and artwork about a very rare bird indeed: the Shelton "Crusader." Entitled: *Crusader: The Story of the Shelton Flying Wing, Its Company and Its Creator*, it is published by Rare Birds Publishing, P.O. Box 67, South Berlin, MA 01549. An experimental aircraft of the thirties, it was way ahead of its time in many ways. Some of its design features (that's a line drawing of it there, to the right) can be seen today, incorporated into such aircraft as the B-2 Stealth Bomber. And here's the great part: this book usually sells for \$77.50 + \$7.50 shipping, but Sandy will give a \$10.00 discount to TIGHAR members, AND will donate a portion of the proceeds from sales to TIGHAR members to TIGHAR. Thanks, Sandy, and congratulations on a massive job extremely well done.



Speaking of special offers, here's one from Jeff Plitt, TIGHAR #1232 of Wautoma, Wisconsin for all you TIGHARs flying in to Oshkosh:

Wautoma Municipal Airport (YSO)  
N44-02.7 W89-18.4

We will be open 24 hours a day from July 25 until August 3. 10% discount on all fuel, oil and merchandise for TIGHAR members.

FREE Wing Camping.  
414/787-3030

There is now an official TIGHAR Ham radio net designed for communication among those TIGHAR members who are amateur radio enthusiasts. The focus of the net, at present, is to solicit and disseminate information which may be useful to The Earhart Project and is therefore known on the air as the Amelia Earhart Search Net. Members Tom Gannon, TIGHAR #0539 of Ft. Walton Beach, Florida (WA4HHJ) and Lynn Wilke, TIGHAR #1131 of Peru, New York (WA2DAC) have organized the net which operates at 20:00 Z on Fridays and 21:00 Z on Sundays. The frequency is 21.383 MHz (15 meter amateur phone band) and if that is not available the alternate frequency is 14.288 MHz. Tom Gannon is the control station for the net so if you're a Ham operator set your beam antenna for Florida and come up on frequency. Tom is one of the originators of The Earhart Project and manned the 1989 expedition's communications base in Suva, Fiji.





**Help Wanted** – Part time clerical in small smoke-free office. Ideal for retired or semi-retired person. Aviation background helpful. Filing, mail handling; light typing, bookkeeping. 8 - 12 hours / week to start; more hours as business grows. Will train on Macintosh computers. Reply with letter or telephone call to: TIGHAR, 1121 Arundel Drive, Wilmington, DE 19808, 302/994-4410, 9-5 M-F.

This looks like a ing. There's just more someone to come in (packaging T-shirts tion (mid-September a day to handle the a TIGHAR mem- for Pat to get more

help wanted ad, but what it really is is a sign – a sign to do here than two people can manage, and we need a couple of mornings per week to do filing and help and posters and so on). During the period of the upcoming to mid-November), we'll need the person to come in five mail and take care of essential messages and business. ber in this position. Give us a buzz or drop us a line if information.

that TIGHAR is grow- help. Right now we need prepare mail to go out Earhart Project Expedi- days a week for half We'd really like to have you're interested – ask



## Notes from the Field

### Project Midnight Ghost Expedition XX: April 15 – 30, 1991

The 18 TIGHAR volunteers who searched the Maine woods as part of Project Midnight Ghost Expedition XX arrived with hopes of finding the final answer to one of aviation's greatest riddles: the disappearance of Charles Nungesser and François Coli aboard the White Bird in their 1927 Paris-to-New York attempt. They came away not with dramatic discoveries, but with bits and pieces of hard-won information to add to the jigsaw puzzle. Such is the nature of archeology.

The purpose of Expedition XX was to prove or disprove the hypothesis that the site identified by Expedition XIX on Third Round Lake Hill was the crash site of l'Oiseau Blanc and was where salvagers had collected the wreckage for removal in 1974. Expedition XX disproved that hypothesis. The site was meticulously excavated and, although some additional material was found, there was simply not enough debris there for this to have been the original crash site. Also, a reconstruction of the hauling operation evidenced by the artifacts, when compared with a survey of forest development at the site, makes it clear that the salvage had to have occurred much earlier than 1974 (more like 1954). A broader survey of the rugged high terrain along the hill's ridgeline found no evidence of a hilltop treestrike.

In summary, we have strong testimonial and circumstantial evidence that the White Bird crashed on Third Round Lake Hill, Washington County, Maine, but no physical proof unless and

until we can es- identification of have in hand. We ible physical evidence tion which describes a trail from the hilltop to a logging road over a mile away. We have two independent reports of a television documentary broadcast c. 1974 which allegedly depicts precisely the scenario indicated by the rest of the evidence: the Nungesser / Coli aircraft crashed in Maine and was later found and removed from the woods. Bill Alexander, #0403E, of Grand Rapids, MI, and Don Ward, #1134CE, of Leesburg, VA, are presently spearheading a renewed effort to track down that documentary. Members wishing to assist should contact Bill directly (see your TIGHAR Directory). Richard Pingrey, #0908C, of Selah, WA, is running down some leads on artifact identification. Meanwhile, Project Director Ric Gillespie is starting to pull together seven years of research into a comprehensive project book similar to that written for the Earhart Project. No field work in Maine is planned for the fall of 1991 due to the time constraints imposed by The Return to Nikumaroro. Field work next spring will depend upon the results of the continuing research into this, the most difficult, and to many, most fascinating of TIGHAR's investigations.



## The New Breed



When Jimmy finally cleaned his room he found a skateboard, three baseballs and Amelia Earhart.

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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 world-wide.
- 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.

**TIGHAR Tracks**, published seven times each year, is the official publication of The International Group for Historic Aircraft Recovery. A subscription to **TIGHAR Tracks** is included as part of membership in the foundation (minimum donation \$35.00 per year). The editors welcome contributions of written material and artwork. Materials should be addressed to: Editors, **TIGHAR Tracks**, 1121 Arundel Drive, Wilmington, DE 19808 USA, Telephone 302/994-4410. Photographs and artwork will be returned on request.

# MEMBERSHIP FORM

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

☐

\$35 for a one year membership

☐

\$60 .00 for a two year membership

☐

\$125.00 for a five year membership

☐

\$1,000 for a life membership

Please send me —

*TIGHAR Tracks* seven times a year, and a membership patch and decals  
 Invitations to participate in expeditions, courses, seminars, and Gatherings  
 Opportunities to subscribe to special internal TIGHAR project publications  
 Opportunities to do research, interviews, and reports for aviation historical projects

Name

Address

Telephone

Please return this form with your membership dues in U.S. funds only, to TIGHAR, 1121 Arundel Drive, Wilmington, DE 19808 USA; Telephone (302) 994-4410, 9 a.m. to 5 p.m. EST/EDT, M-F. ALL DONATIONS TAX-DEDUCTIBLE WITHIN THE LIMITS OF THE LAW.

