

# *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:

Amelia Earhart arrives at Lae,  
Territory of New Guinea, on July 29,  
1937. Photo courtesy A. Koch.

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**Design by** Patricia Thrasher.

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## Flashpoint

Dear Richard,

I was quite surprised to read your broadside "Oh, Mother!" concerning Dr. Keyzer-Andre's book *Age of Heroes* and his claim to have "unraveled the mystery of the Earhart disappearance." By coincidence I had just bought a copy in St. Petersburg and read it on the airplane on the way to Dallas. Either you have not read the book and therefore based your comments on hearsay, or you have begun using your critics' tactics and have deliberately misrepresented the facts.

Dr. Keyzer-Andre does not claim to have any hard evidence that Earhart and Noonan were captured by the Japanese. His speculation is based entirely on his familiarity with Amelia's Lockheed as a result of his involvement in preparing the aircraft for her flight when he was an engineer with Pan American in 1937. There is no reference to any last words by Earhart, nor does the author purport to know for a fact what happened to Earhart and Noonan. There is no reference to any papers being burned or evidence being destroyed.

I am as dubious as the next person when I encounter an individual who claims to have done as much as Dr. Keyzer-Andre. The Earhart angle is only the hook the publisher is using to market the book. As all rumors have a basis in fact, so do theories – no matter how off-the-wall they may seem.

Incidentally, he claims to have been heavily involved in working on the Lockheed in Miami after the repairs were performed and if he has the credentials he claims, he might be able to shed some light on the artifacts you found. If Dr. Keyzer-Andre is everything he claims to be, you might consider using him as a source rather than making him an adversary. ...

John R. Price  
TIGHAR #1000  
Grapevine, TX

*Please note: This letter has been edited to fit the space available for it. Every effort was made to retain the writer's meaning and tone, with only non-essential material cut.*

## *TIGHAR's reply:*

Dear Mr. Price,

Thank you for your letter of April 23, 1993 and for your words of caution. As I look back on the Oh Mother! episode I have to agree with you. As soon as Mr. Keyzer-Andre held his press conference to announce the book the Associated Press was immediately on the phone to me for a quote. I had never heard of Keyzer-Andre or his book and the reporter who called provided me with the information upon which he wanted me to comment (always a dangerous situation). As it happened, we had a mailing all set to go out anyway and, for comic relief more than anything, we included a short piece based upon what AP had told us. From your letter it would seem that either Mr. Keyzer-Andre included information at the press conference which he did not put in the book or there was a discrepancy between what the reporter reported and what was actually said. Whatever the reason, I regret any unfairness to Mr. Keyzer-Andre of which I may have been guilty.

We have since obtained a copy of his book which we will review in the next issue of *TIGHAR Tracks*.

Richard E. Gillespie

*See page 13 for the review.*

## A request from the West

Sirs:

At the Pima Air Museum here in Tucson, we are in the process of trying to restore a Lockheed 10 to Amelia Earhart's aircraft. Would you have a good, clear photocopy of her instrument panel? Also, would she have had an air speed gauge in knots for all that over water navigation, or the standard MPH and a conversion chart? Thanks for any help you can give us.

Edward Peel  
TIGHAR #1274  
Tucson, AZ

## *TIGHAR's reply:*

Dear Mr. Peel:

Thank you for your letter of April 20. There are at least two photographs which show portions of the instrument panel of Earhart's Lockheed 10E Special. I know of no documentation to suggest that the airspeed indicator was other than the Pioneer Type 354 which was standard equipment for the airplane. That instrument was calibrated in miles per hour.

But your letter raises a basic question. Is it a good idea for the Pima Air Museum to destroy the identity and authenticity of the world's oldest surviving Lockheed 10 for the sake of creating a phony look-alike of Amelia Earhart's airplane? Pima's airplane, constructor's number 1011, was the 11th Electra built and was delivered on December 21, 1934. The next oldest surviving Electra, c/n 1015 (the 15th built) has already been extensively cannibalized for the sake of enabling the Beuhler Foundation to turn yet another Electra, c/n 1130, into something resembling Earhart's airplane at a cost of over a million dollars.

For Pima to take a genuinely historic aircraft – the oldest existing example of one the most significant types in the development of commercial aviation – and tear it apart for the sake of pandering to the public's appetite for Ameliana would be nothing less than tragic. What the museum is contemplating is not the "restoration" but the destruction of an important historic property.

I have enclosed a complimentary copy of the TIGHAR Guide to Aviation Historic Preservation Terminology. I urge you to give it and this letter to the decision-makers there at the museum. If the museum will change its course and bend its efforts toward actually preserving and restoring c/n 1011 as it really once was, TIGHAR will donate an accurate scale model of the Earhart aircraft which can be used as part of the display and do all we can to encourage support and contributions for the project.

Richard E. Gillespie

# AN ANSWERING WAVE

*The article below appeared in the Feb. 1993 issue of Naval Institute Proceedings under the title "Why the Navy Didn't Find Amelia."*

She died on Saipan in 1944. She died in New Jersey in 1983. She died at sea in 1937. She's on a Pacific island, alive and well today.... As a wellspring of American folklore, only the assassination of John F. Kennedy compares with the disappearance of Amelia Earhart.

And inextricably connected with the Earhart legend is the United States Navy and what the Associated Press called "the greatest organized effort ever undertaken in behalf of a lost flier" eventually involving "3,000 men, 10 ships, [and] 102 American fighting planes." Why was such a huge effort mounted – and why did it fail? What was really going on? Was there a secret agenda? Was there a cover-up? Is it even possible to know?

Yes, unequivocally, it is possible to know. What happened in the central Pacific in July of 1937 is documented in official records which are voluminous, diverse and, but for a couple of notable exceptions, mutually corroborative. Fifty-six years later, no significant sources remain classified. Who did what and when they did it is, therefore, possible to document. What cannot be known from the historical record is that which was not known at the time – namely, what became of Amelia Earhart? That question too can now be answered, but not without an accurate understanding of the U.S. Navy search that failed to answer it in 1937.

The first step in getting to the facts is to separate out the folklore. Allegations that there was secret government involvement in the Earhart flight or that her disappearance was used by the Navy as an excuse to reconnoiter Japanese activity in the Marshall Islands are entirely without documentary support. Their only adherents today are conspiracy buffs who invoke the canard that absence of evidence is somehow proof of a cover-up. But equally unsupported is the notion that the U.S. Navy's search was a well-planned humanitarian effort that failed only because Earhart's aircraft crashed and sank at sea without leaving a trace. The message traffic, ship's logs, official reports and personal letters of the participants tell a very different story.

The U.S. Navy's reaction to Amelia Earhart's disappearance was not well-planned, nor was it poorly planned. It wasn't planned at all. The Navy's first indication of trouble hit the desk of Rear Admiral Orin G. Murfin, Commandant, Fourteenth Naval District in Hawaii at 1100 Honolulu time on July 2, 1937. A copy of a message from the Coast Guard cutter *Itasca* to USCG San Francisco Division reported Earhart overdue at Howland and led Murfin to conclude that "failure of the flight was imminent." Four hours later *Itasca* advised San Francisco:

EARHART UNREPORTED HOWLAND AT 1200.  
BELIEVE DOWN SHORTLY AFTER 0915. AM  
SEARCHING PROBABLE AREA AND WILL  
CONTINUE.



Although still technically the Coast Guard's concern, Murfin suspected that Earhart's whereabouts would soon become his problem and, at 1400, he convened a meeting of his senior officers to consider the situation. His suspicions were confirmed when, at 1440, he received a message from the Navy Department:

USE AVAILABLE NAVAL FACILITIES TO  
CONDUCT SUCH SEARCH FOR MISS EARHART  
IN YOUR OPINION IS PRACTICABLE.

Weeks later, after the search had failed, Murfin's official report would claim that, "...[T]he Department ... directed the Commandant of the Fourteenth Naval District to use all available naval facilities in the search." But that's not what his orders said, and the tendency to shift responsibility upward would later help create the myth that the Navy's massive response was "Personally authorized by President Roosevelt." The record, however, clearly shows that the Navy's involvement in the search began with a telegram sent by Earhart's husband and manager, George Putnam, as soon as it was apparent that the flight was overdue. The request for help was



*Rear Admiral  
Orin G. Murfin,  
Commandant,  
Fourteenth  
Naval District.  
Contrary to  
legend, it was he,  
not FDR, who  
launched the  
Navy's search for  
Earhart.*

*Photo courtesy  
National Archives.*

addressed not to FDR, but to Admiral William D. Leahy, Chief of Naval Operations. The CNO, while approving the use of naval facilities, left it up to the commander closest to the scene, Murfin, to determine what response was "practicable."

Perhaps because he had been advised that the plane could float "almost indefinitely," or perhaps because he was unsure how he should interpret his rather fuzzy orders, Murfin failed to adhere to the first rule of search and rescue operations – time is the enemy. Lined up on their beaching gear at Fleet Air Base Pearl Harbor were 24 new PBY-1 flying boats capable of making the 1,600 nm flight to Howland. On hand at the island were 1,600



gallons of aviation fuel originally intended for Earhart, while aboard *Swan* were 10,000 gallons more. As early as 1138 on July 2 *Itasca* had suggested that the Navy send a patrol plane to assist in the search, but it was 1923 before a plane headed south under the command of Lt. W. W. "Sid" Harvey. He and his seven man crew would spend the next twenty-four hours and three minutes aloft only to land where they had started – forced to turn back barely three hundred miles from Howland by "extremely bad weather." The Consolidated PBY would eventually carry out more successful rescues than any aircraft type in history, but Amelia Earhart's would not be one of them. No further attempt would be made to employ a PBY in the search.



The battleship U.S.S. *Colorado*, with nearly 200 ROTC students aboard, arrived in Honolulu for four days of liberty the same day Earhart disappeared. Photo courtesy National Archives.

At 1700 Murfin asked the Navy Department that he be permitted to divert the battleship U.S.S. *Colorado* which was, at that moment, mooring to Pier 2 in Honolulu in anticipation of four days of liberty. Fourteen days out of San Francisco, the ship was on its annual ROTC training cruise hosting nearly 200 college students, as well as several university VIPs along for the ride. But of more interest to Admiral Murfin were the three catapult-launched floatplanes *Colorado* carried – except the airplanes weren't aboard. An hour before Murfin made his request, *Colorado*'s Corsairs had been flown to Fleet Air Base, Pearl Harbor for scheduled maintenance. Four hours after Murfin's request, at 2112, came the message, "COLORADO IS MADE AVAILABLE." But with her personnel scattered all over Honolulu, her aircraft opened up for inspection at the Fleet Air Base hangar, and the need to provision and fuel for an unanticipated major expedition, it was 1408 on July 3rd before she cleared Pearl Harbor and set course for Howland Island "with the firm conviction that ... if [Earhart and Noonan] were still alive they would probably die of old age before we could arrive on the scene." By now Murfin was aware that there was a fast ship with an aircraft aboard far closer to the search area and in receipt of radio signals believed to be distress calls from Earhart. She was the British cruiser HMS *Achilles* (later to win fame in the pursuit of the *Graf Spee*). On July 3rd *Achilles* was 800 nm east of the island group *Colorado* would eventually

search on July 9th. Unlike *Colorado*, she was familiar with the area and could have had her Supermarine Walrus observation plane overhead the suspect islands fully four days before they were, in fact, searched. No request was made for her assistance. Instead, the aircraft carrier U.S.S. *Lexington*, preparing for Fourth of July celebrations at Santa Barbara, California, was ordered to rendezvous with four destroyers and proceed immediately to join the search, refueling in Hawaii on the way. But first she had to re-provision at Long Beach and then go to San Diego to take on aircraft whose pilots had to be recalled from holiday leave. It was July 5 before the *Lexington* Group began its 4,000 nm voyage to join the search.

On July 6 the *Itasca* was put under Navy authority and, for the first time, all the search elements came under one unified command. Murfin immediately delegated direction of the search to the *Colorado*'s skipper, Captain Wilhelm L. Friedell. Amelia Earhart had been missing for five days when, at 1433 on July 7th, *Colorado*'s planes were catapulted to inspect Winslow Reef 150 nm southeast of Howland. Until then, the only search conducted by anyone had been that of the lonely *Itasca*, eventually joined by *Swan*, scouring the ocean to the north and west of Howland. But they were looking in the wrong place.



This Vought O3U-3 "Corsair", *Colorado*'s plane 4-0-6, participated in the July 9, 1937 aerial search of Gardner Island. Photo courtesy National Archives.

Among naval authorities, aerial navigators familiar with Noonan's methods, and technicians at Lockheed, a consensus had developed that the lost Lockheed was probably not bobbing about in the ocean but had to be on an island or reef to the southeast of Howland. It was an intelligent assessment of the situation based upon the known capabilities of the aircraft, an analysis of the weather, Earhart's own pre-loss radio transmissions, navigational logic, and several Pan American Airways' radio bearings taken on what were believed to be legitimate distress calls from the missing plane. As early as July 5th, Pan Am reported that the available evidence "PLACES PLANE NEAR LINE OF POSITION AND INTERSECTION OF RADIO BEARINGS ... IN PHOENIX GROUP [of islands]." The spot best fitting that description was Gardner Island, an atoll 350 nm southeast of Howland,



but Friedell decided that *Colorado* would search Winslow Reef on the way. As Lt. (jg) William B. Short, pilot of plane 4-0-5, wrote in a letter to his father, "It was a good idea only we couldn't find the damn thing." The *Colorado's* pilots spent the next two days looking for the phantom reef and never found it.

At 0700 on July 9th, one full week after the Earhart flight had disappeared, the *Colorado's* aircraft were launched for an aerial search of Gardner Island. The night before, Lt. Short wrote, "As the schedule calls for an early morning launching for us, I will probably miss most of the fun. However, if I can only keep my date with Amelia it will be worth it!" The fun Bill Short missed was the arrival of "Neptunus Rex" to initiate the many "pollywogs" aboard the battleship who had never before crossed the Equator. The ship's official newspaper (headlined "Plane Search Halts Cruise") later devoted thirty column inches and all seven of its photos to the party, while covering the entire search for Earhart in twelve column inches. While cadets and VIPs alike were being paddled, dunked and otherwise assaulted, the three O3U-3s were wheeling high over Gardner Island, a four mile long, densely jungled ribbon of land surrounding a shallow lagoon. According to the official report of Senior Aviator Lt. John O. Lambrecht, the aerial inspection of the island was done from an altitude no lower than 400 feet for fear of bird strikes, and a photograph taken during the mission is from considerably higher. The searchers saw no Lockheed Electra but they did see something else:

Here, signs of recent habitation were clearly visible but repeated circling and zooming failed to elicit any answering wave from possible inhabitants and it was finally taken for granted that none were there.



A notation on the back of this U.S. Navy photograph of Gardner Island confirms that it was taken on the morning of July 9, 1937. The handwritten North arrow points due West. Photo courtesy New Zealand Archives.

What Lambrecht did not know was that there should have been no "signs of recent habitation" on Gardner. The place had been uninhabited since pre-historic times except for about 20 native laborers who planted some coconuts on the atoll and then left – in 1892. And yet Lambrecht was so convinced that people were down there that he made repeated attempts to get someone to come out and wave to him. Exactly what he saw remains a mystery. The only clue is a

comment he made in an interview before his death in 1972 in which he said he had seen "markers." Later, the official report of *Colorado's* commanding officer, Captain Wilhelm L. Friedell, directly contradicted the ship's Senior Aviator with a statement that no signs of habitation were seen on Gardner. Over the next two days the planes of the *Colorado* flew over the remaining six islands of the Phoenix Group. At no time was a search party put ashore on any island.

On 12 July *Colorado* was relieved by the *Lexington* and began its long overdue return to the West Coast. On-site direction of the search changed hands for the third time, passing to Captain Jonathan S. Dowell, commander of the *Lexington* Group. Again contrary to good procedure, a thorough re-examination of the most logical area was not conducted. Instead, the carrier steamed off to search the open ocean northwest of Howland Island. Six days later, on July 18, the *Lexington* Group ceased search operations having found nothing. At no time did the ships or planes of the group enter the Japanese Mandate nor did they inspect any island.

In his official report dated July 31, 1937, Rear Admiral Orin G. Murfin, wrote, "It is regrettably unreasonable to conclude other than that the unfortunate fliers were not above water upon conclusion of the search." Was Murfin's assertion justified or were Amelia Earhart and Fred Noonan, as those words were written, still alive – classically marooned on a desert island?

Three months later, on October 13, 1937, a small British expedition evaluating Gardner Island for future settlement noted unexplained "signs of previous habitation" on the atoll. When the island's first colonial work party was clearing underbrush in late 1938 they reportedly came upon "the skeleton of a woman" with "shoes of the American kind, size nine narrow." Expeditions to Gardner Island (now Nikumaroro) in 1989 and 1991 by TIGHAR have recovered aircraft wreckage consistent with Earhart's Lockheed, as well as personal effects, including the remains of an American shoe identical in style and size to that worn by Earhart on her last flight.

In assessing the U.S. Navy's search for Amelia Earhart it is unfair to apply current Search And Rescue (SAR) standards. Today's techniques and tactics are, in part, the product of experience gained in unsuccessful operations such as the Earhart search. The question of "How thorough was the search?" is only worth asking if it helps answer the larger question of "What really happened to Amelia Earhart?" – and clearly it does. But while the preponderance of the evidence now confirms the Navy's original suspicion that Gardner Island was where the Earhart flight ended, many questions remain unanswered. The pieces of wreckage found suggest either an explosion or catastrophic wave damage. Where is the rest of the airplane? How long did Earhart and Noonan survive on the waterless atoll? It is to answer these questions that TIGHAR will return once more to an island where, fifty-six years ago, a naval aviator tried in vain to elicit an answering wave.



# PREPARATIONS FOR NIKU III



## EXPEDITION MOVED TO MARCH

Ship availability, or rather the lack thereof, has meant rescheduling TIGHAR's third expedition to Nikumaroro from September of 1993 to March of 1994. We had planned to use a vessel provided by a company which holds tourism development rights for the Phoenix Group of islands (of which Nikumaroro is a part). Had that worked out it would have saved many thousands of dollars in positioning costs, but alas, their deal on the ship they planned to buy fell through and so, of course, did our charter. That puts us back to square one on our ship search.

Frustrating as the postponement is, it's not an altogether unwelcome delay. We're still getting new information from the continuing analysis of artifacts recovered on the first two trips and what we're learning will affect the way we structure and equip the next expedition. More time for further research and preparation should result in a more productive expedition.

## LOOKING IN THE RIGHT PLACE

The big question is where to focus the search for the rest of the airplane? Several pieces of aircraft wreckage recovered from Nikumaroro are strongly suspected of being from the Earhart aircraft but three are of particular interest. These appear to have escaped discovery by the island's later inhabitants and were only found by TIGHAR after a severe storm had stripped a significant amount of accumulated sand and vegetation from the island's western beachfront. A section of aluminum skin (Artifact 2-2-V-1) with a length of antenna fairlead wire (Artifact 2-2-V-1/1) loosely tangled on one corner, lay in the highwater wash-up line of beachfront vegetation uprooted by the storm. The skin's once-jagged edges are polished smooth and its relatively uncorroded condition, as well as its tenuous association with the wire, suggests that it had lain buried in the sand for many years, high on the beach not far from where it was discovered in 1991. A broken piece of a bakelite radio component (Artifact 2-2-V-2) was also found, still buried, about 25m away. Although representing a variety of materials and structures, the three artifacts all appear to be associated with the area of the Electra's cabin just aft of the wing. It therefore appears warranted to consider these pieces to be part of an original debris field, an analysis of which may provide some clue to the location of the rest of the airplane.

The section of skin is clearly the product of a very localized, inside-to-outside explosive impact of a fluid, either air or water. The other artifacts show damage consistent with such an event. At present we're considering two competing hypotheses.

## THE OFFSHORE HYPOTHESIS

Sometime after landing, Earhart taxied the airplane up under the trees to get it out of the sun while she sent radio distress calls. (Why not leave it out on the beach where it could be easily seen from the air? Because an aerial search was the last thing she expected.) When the Navy floatplanes from the U.S.S. *Colorado* flew over on the morning of the seventh day, the Electra was hidden in the shadows. Sometime later (days, weeks, months?) waves from a storm battered the airplane to pieces on the beach. In the process, water crashing into the fuselage through the cabin door blew out a section of the belly. We've found some of the debris from that event, but the bulk of the wreckage was swept out and over the edge of the reef and that's where we'll have to search for it. To do that we'll need sophisticated sonar and ROV technology which will enable us to look closely at relatively small objects in deep water.

## THE ONSHORE HYPOTHESIS

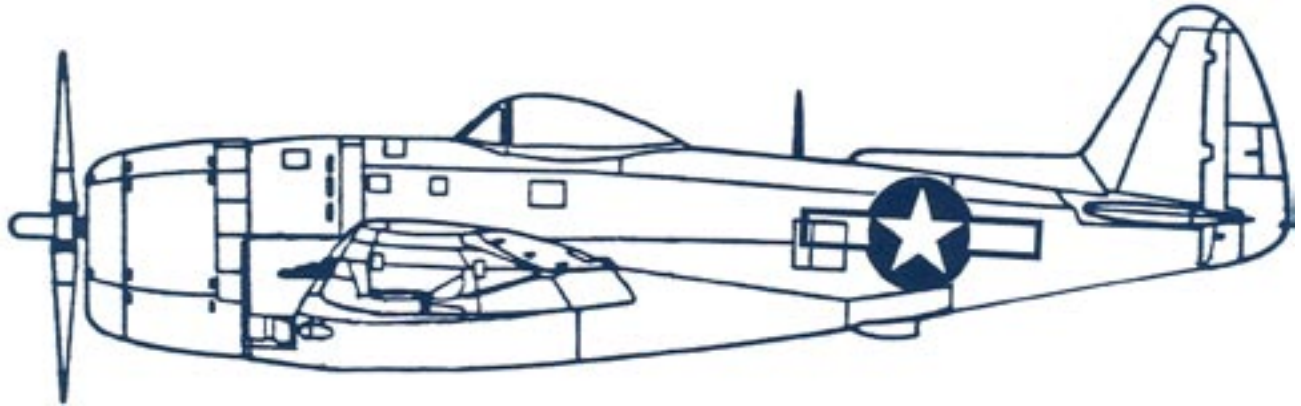
The damage seen in the artifacts was caused by an explosion that occurred when a spark from the radio transmitter touched off fumes from the fuselage fuel tanks. The resulting fire reduced the airplane to a burned-out smudge on the beach with only the outer wing panels and pieces of the tail surviving. These were interpreted as "signs of recent habitation" and "markers" by the Navy pilots who, searching from an altitude of about 1,200 feet, also described a 60 foot tall forest as "short bushy trees." In a matter of months the beach cleaned itself, the heavier surviving components (engines, main spar, etc.) settling into the sand where they now remain deeply buried, and the lighter pieces of debris being scattered, buried or washed out to sea.

If the first hypothesis is correct we need to return to the island ready to do a very detailed (read very expensive) underwater search. If the second scenario is closer to what really happened we need to go with technology that can look deep into the beach. That, too, will be expensive. To mount an expedition capable of conclusively searching both environments would be prohibitively expensive, so the more we can do now to figure out where we need to look, the better our chances of finding what we're looking for when we get there.

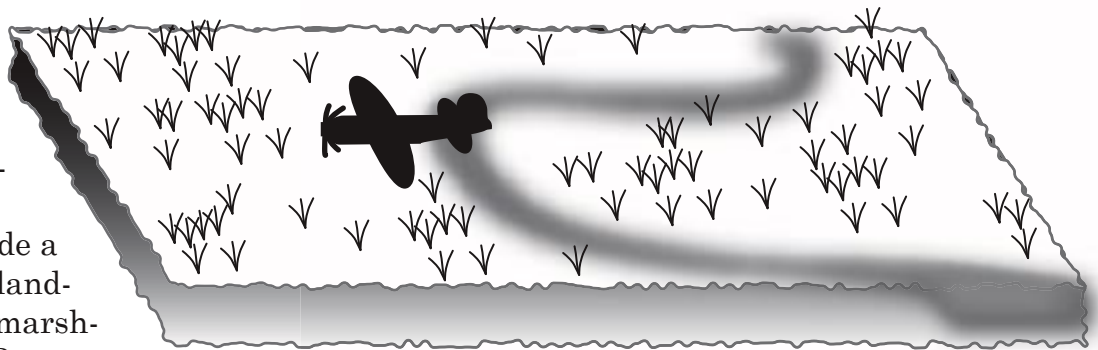




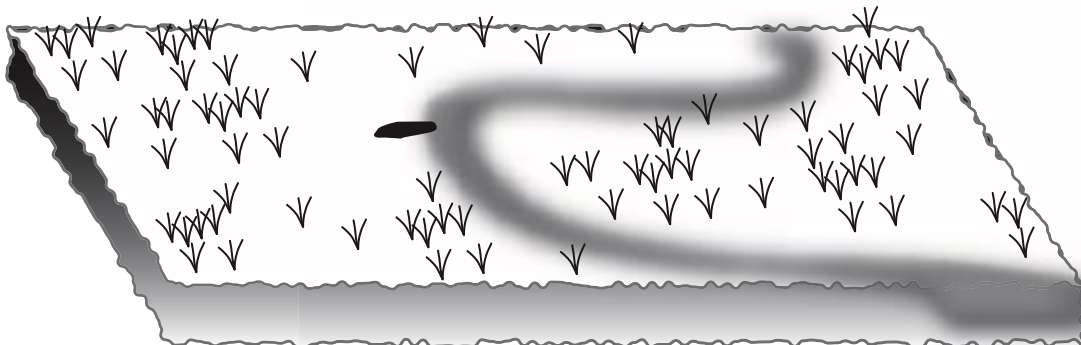
# THE BEAST OF



In the summer of 1944 a Republic P-47N Thunderbolt made a wheels-up landing on the marshland near Dover Army Airfield, now



Dover Air Force Base, Delaware. The airplane suffered minimal damage but the softness of the ground and the network of tidal tributaries, known as “guts,” made recovery difficult. The basic airframe was abandoned to the marsh. Over the course of almost fifty years the remains of the Jug gradually settled into the mud of what became the Bombay Hook National Wildlife Refuge. When found by TIGHAR in April of 1992, the only hint that the giant fighter lay buried beneath the marsh-grass was one small piece of the center-section protruding above the surface, and even that was submerged at high tide. The environmental difficulties (tidal flooding and stinking, bottomless mud) encountered in evaluating the aircraft soon earned it the name the Beast Of Bombay Hook.





# BOMBAY HOOK

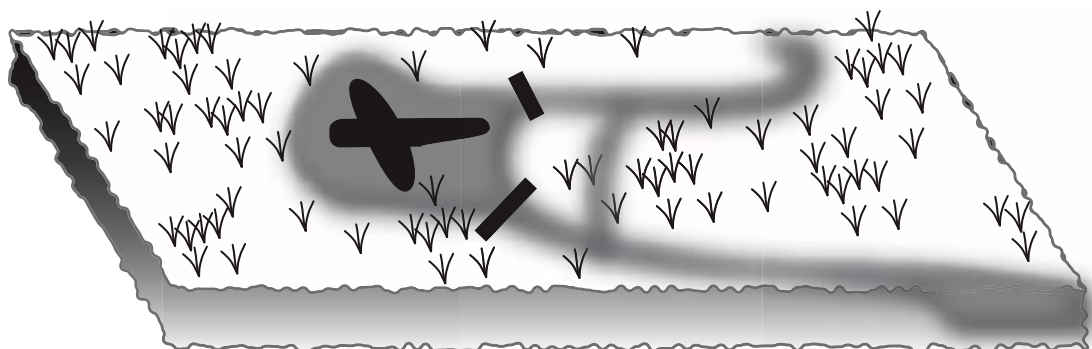
The Dover Air Force Base Museum expressed an interest in exhibiting the aircraft as a relic of the field's past and TIGHAR agreed to cooperate in a salvage effort.

In December of 1992, a TIGHAR team recovered a section of the left wing (see *TIGHAR Tracks* Vol.9 No.1), and in April of this year we tackled the job of excavating the rest of the air-frame in preparation for its eventual recovery. The only access to the site is by shallow-draft boat which limits the available technology to small pumps and big shovels. A system of dams and canals had to be laboriously constructed to control the twice-daily tidal



*That giant sucking sound you hear ... The Beast is robbed of another victim. Mike Serafin, TIGHAR #1306CE, is pulled from the mire by Bill Fredericks, TIGHAR #1543CE and Ric Gillespie.*

*TIGHAR photo by P. Thrasher.*



flooding but, after nearly two weeks of slinging mud, the Beast lay exposed in the bottom of something closely resembling a buffalo wallow. In October we plan to winch it out of its hole and onto a pallet so that it can then be airlifted by helicopter to the museum. Watch for a Notice Of Expedition calling for volunteers for this challenging project.



*The Beast as seen at low tide after extensive excavation and water diversion. The nose of the aircraft is to the left, the tail to the right. Vee Lamb, TIGHAR # 1269CE, works just forward of the cockpit. TIGHAR photo by P. Thrasher.*



# OPERATION SEPULCHRE

## More Rumors Than Airplanes

TIGHAR's on-going investigation of allegations that WWII German aircraft still survive in forgotten underground shelters has, so far, proved only that there are many more rumors than there are airplanes.

- A large hill on the outskirts of Kassel was said to have contained an aircraft assembly plant during the war. Its name, Baunberg, translates as "industrial mountain" and large doorways into the hillside are still visible. But on-site research found no evidence that the hill had ever been an airplane factory.
- A tale of three ME 262s hidden in a bunker near Regensburg in the closing days of the war seemed to be supported by the outward appearance of the site (see "The Case of the Boys and the Bunker," *TIGHAR Tracks* Vol. 4 No. 2). Detailed historical research and further inspection subsequently showed the story to be false.

Until recently, the most promising location was the former Luftwaffe night-fighter field at Mainz-Finthen, now a U.S. Army airfield, where photographs of WWII aircraft in underground hangars were supposedly taken as recently as the early 1970s. Assisting in the investigation has been Tom Palshaw (TIGHAR #1290C) who heard rumors of underground hangars and saw suspicious architectural features when he was stationed at the airfield in 1971. However, Lou Schoonbrood (TIGHAR #1198) has now compiled an exhaustive history of the facility from wartime German records which shows no evidence of underground shelters being built but does reveal some possible explanations for how the rumors got started. That photographs of airplanes underground ever existed now appears unlikely and the expense of on-site work at Mainz-Finthen does not seem warranted at present.

Research into other potential sites continues.



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## PROJECT MIDNIGHT GHOST

On May 9, 1927 Charles Nungesser and François Coli disappeared during an attempt to fly nonstop from Paris to New York in their Levasseur PL8 "l'Oiseau Blanc" (the White Bird). Charles Lindbergh, who successfully made the same flight in the opposite direction just 12 days later, described the French aviators as having "vanished like midnight ghosts."

From 1984 to 1991 TIGHAR conducted twenty searches in the woods of Washington County, Maine based upon numerous anecdotal accounts of a plane crash there in 1927. In 1992 we shifted our search to Newfoundland where contemporaneous records documented the unexplained passage of an airplane on May 9, 1927 on a course that led to a small, remote pond where local legend held that airplane wreckage had later been found. A TIGHAR expedition to the pond in October of 1992 recovered an artifact that may be part of that wreck (see "A Piece Of The Plane In The Pond," *TIGHAR Tracks* Vol. 8 No. 1), but identification of the badly deteriorated section of what appears to be a sheet steel cylindrical structure seemed almost hopeless.

One of the few clues to the artifact's origin may be the remnant of bluish gray paint still visible on one part of the exterior surface. This seems to corroborate the old stories that some of the wreckage seen at the pond many years ago was "robin's egg blue" in color. But the White Bird was, after all, white and its few metal parts were, as far as we knew, mostly aluminum – pretty

hard to connect with a piece of bluish-gray steel. Or is it? Thanks to the dogged research of Jay Veith (TIGHAR #0767CE)\* we learned that there was much more steel in the structure of the PL8 than we would have guessed. But was it painted, and if so, what color? The only known surviving part of the airplane is its landing gear, now on display at the Musée de l'Air in France. A review of our color photographs of this battered piece of history brought a sudden realization that the steel portions of the structure are just as "robin's egg blue" as they can be.

A request has been made of the Musée de l'Air that TIGHAR be permitted to have a flake of paint from the landing gear so that a laboratory comparison can be made with the paint on the artifact recovered from Newfoundland. If our request is granted, and if we get a match, it still won't be conclusive proof that "the plane in the pond" is l'Oiseau Blanc. It would, however, be an important piece of hard evidence and would justify the expense of a thorough search of the pond bottom for other artifacts, such as the 12-cylinder Lorraine-Dietrich engine, which would be conclusive.



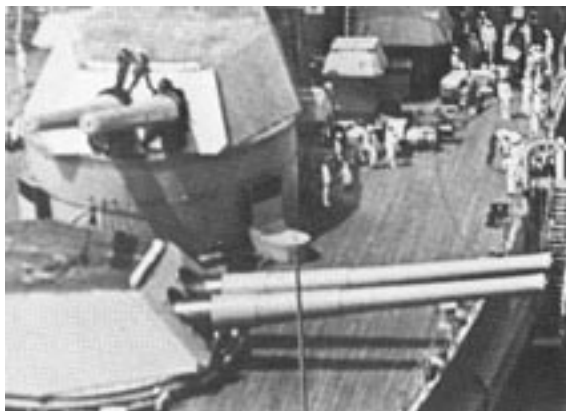
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\* Dogged research, like misery, loves company. Jay would like to hear from TIGHAR members who are interested in helping with archival research, particularly in the Washington, D.C. area. Look him up in the TIGHAR Directory or call TIGHAR headquarters for his address



# NAVAL ENGAGEMENT

On April 28, 1993, as part of the Annual Meeting and Seminar of the U.S. Naval Institute at the United States Naval Academy in Annapolis, Maryland, a panel of six experts discussed and debated the fate of Amelia Earhart before a near-capacity audience at the Academy's Mahan Hall auditorium. It had been agreed that at the conclusion of the panel discussion each panelist would go on record with an opinion as to whether or not TIGHAR's conclusions regarding the Earhart flight are substantiated by the evidence gathered to date.



Because the volume of evidence to be dealt with was far too great to be presented in the two hours allotted, the panelists were provided with a variety of study materials well in advance of the event. TIGHAR sent each panelist the 7th Edition of the Earhart Project book and copies of the 31 historical documents and laboratory reports upon which our conclusions are based. They also received material sent by Colorado businessman William Prymak, president of the Amelia Earhart Society, who expressed "considerable dismay that the Naval Institute has afforded Mr. Richard Gillespie of TIGHAR yet another soapbox on which to expand and perpetuate his ridiculous and mendacious claims...." Following his rejection for the 1989 TIGHAR Earhart Project team, Mr. Prymak became convinced that Earhart was captured by the Japanese. In addition, each panelist received a packet of information from California author/historian Carol Osborne asserting that "To date nothing relating to Amelia Earhart, Fred Noonan or the plane has been found." Ms. Osborne's biography of Earhart, published in 1987, endorses the theory that the flight went down at sea.

When the great day arrived and the seminar convened, TIGHAR's executive director, Richard Gillespie, opened the battle by firing off each point of evidence leading to the conclusion that the flight ended at Nikumaroro. Dr. Tom Crouch, Chairman of Aeronautics at the Smithsonian National Air & Space Museum, then attacked Gillespie's evidence with a thundering broadside of statements about rivet patterns, shoe sizes and island surveys. Observing the agreed-upon rules of engagement that each panelist would have his say before rebuttals were made, Gillespie did not return fire. The guns of the next panelists were trained on the various conspiracy theories. Prof. Mark R. Peattie from Harvard University's Reischauer Institute for Japanese Studies levelled a scholarly barrage that methodically destroyed any notion that Earhart was on a spy flight. He was followed by Hiroshi Nakajima, execu-

tive director of The Pacific Society, who deftly demolished allegations of Japanese abduction by explaining that there was a precedent for American fliers caught straying into restricted Japanese airspace. In 1931 Clyde Pangborn and Hugh Herndon, aboard their Belanca "Miss Veedol," had illegally landed in Tokyo and been caught with aerial motion pictures of military installations. Rather than imprisonment and execution, the Japanese response had

been to confiscate the film and fine the offenders ¥2,000 (about \$50). The tone of the conflict softened as J. Gordon Vaeth, a WWII blimp commander recently retired from a career with NOAA, explained that he would rather that Miss Earhart have disappeared at sea than be remembered as "some fragment of skull." Rear Admiral Francis Foley, USN (Ret.), who as a young naval aviator flew off the carrier U.S.S. *Lexington* during the 1937 Earhart search, then told of how the planes had searched vast expanses of ocean without finding anything.

By this time the two hours were nearly up and moderator Jeanne Latter, an actress who does a one-woman Amelia Earhart show, started to ask for the panelists' verdicts on TIGHAR's evidence. No reply had been made to Tom Crouch's fusillade. Was TIGHAR out of action – dead in the water? Gillespie interrupted with an objection that the panelists were being asked to make a judgement based upon inaccurate information. Without exactly waiting for orders, he steamed up to the podium and loosed a devastating salvo of documented fact. Crouch, it turned out, had loaded his guns with the poorly researched generalizations and misrepresentations provided by Carol Osborne – his earlier broadside had been fired with dud ammunition. Suddenly on the defensive and taking hits, Tom gallantly returned fire. "Come on, Ric! Those shoes could have come from any one of the Coast Guard guys." "Sure. Any one of 'em who wore women's shoes" (laughter from the audience).

Eventually Ms. Latter regained control of the proceedings and asked the panelists for their votes. Was TIGHAR's conclusion that Earhart and Noonan landed at Nikumaroro substantiated by the available evidence? Adm. Foley, Prof. Peattie, Nakajima-san, and, of course, Gillespie voted yes. Dr. Crouch and Mr. Vaeth voted no, maintaining that Earhart had probably gone down at sea. All were in agreement that there had been no spy mission and no conspiracy. Final score: Niku 4, Pacific Ocean 2, Japan 0.

All vessels engaged in this action returned safely to their respective ports.





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**"Surely the best scholarship the Earhart business has seen to date."**— *Dr. Thomas F. King, founding member of the Society Of Professional Archeologists.* **"Outstanding ... the definitive work on AE."**— *Dr. Randal Jacobson, scientist at the Office of Naval Research.* **"I would use this work in undergraduate and possibly graduate history courses as an example of how historical investigation should be done."**— *Prof. Mark R. Peattie, a scholar at Harvard University's Reischauer Institute for Japanese Studies.*

#### Excerpt from Chapter One –

At various times and in various books, three distinct Amelia Earharts have been offered up:

- Amelia the Spy ...a secret agent who paid the price for espionage.

- Amelia the Victim ...who blundered into the hands of the Japanese military, was wrongly imprisoned on suspicion of spying and died – an innocent victim of circumstance.

- Amelia the Incompetent ...a pathetic figure, physically exhausted ...debilitated by illness, who nonetheless departed upon her most difficult fight with suicidally low fuel reserves. Despite the gallant efforts of the U.S. Coast Guard she failed to find Howland Island and, hopelessly lost, ran out of gas, ditched at sea and sank without a trace.

None of these images is supported by the evidence [and] most of what has been published over the past 56 years has been wrong. It is long past time for the record to be set straight.

Offered in appreciation of a \$100 contribution to The Earhart Project. Members who have purchased a previous edition may obtain the 7th Edition for a contribution of \$25.

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Offered in appreciation of a \$75 contribution to The Earhart Project.

### 7th Edition and Companion set – \$150.

As we go to press with this issue of *TIGHAR Tracks* we also are making final preparations for departure for The Netherlands and TIGHAR's Introductory Course in Aviation Archæology. We are very pleased with the international response to the course – we have registrants from the U.S., Brazil, Hungary, The Netherlands, Great Britain, Malta, Germany, and Denmark. A full report on the course will appear in the next *TIGHAR Tracks*.

Speaking of courses, two more offerings of the Aviation Archæology course are planned for the continental U.S. this year. We'll be in San Diego at the San Diego Aerospace Museum on July 10 and 11, and in Seattle in November (tentative). Right after the first of the year we'll shift back to the east coast with courses in Connecticut and Florida – exact dates TBA. Regional Gatherings will be held in conjunction with all of these courses; a flyer will go out several weeks before each date with details. If you don't see a location which is convenient for you, please call us – we're always looking for new places to have the course. We need a good museum with classroom facilities, and a reasonable hotel nearby. If you would like more information on the course, please write or call.

Those of you who carefully peruse the boilerplate on the back cover of *TIGHAR Tracks* will have noticed that we have raised our membership dues. A mailing went out to all members several weeks ago warning of this action, and inviting everyone to take advantage of the opportunity to renew their membership at the old rate. A lot of people did so – thanks! If you have already mailed a membership renewal at the old rate, that's o.k. All new memberships, and renewals from now on, will be charged at the new rate. We were sorry to have to do this, but after five years at \$35 we just couldn't hang on any longer. May it be another five years before we have to do it again.




## Incredible Adventures

***Age Of Heroes*, by Henri Keyzer-Andre with Hy Steirman. Mamoroneck, NY: Hastings House, 1993. 292 pp.**

As noted in the “Dear TIGHAR” department of this *TIGHAR Tracks* (see page 3) we read Mr. Keyzer-Andre's book to be sure our initial comments had not done him an injustice. In retrospect, it might have been kinder just to ignore the whole thing.

The dust jacket of *Age Of Heroes* proclaims the book to be the “Incredible Adventures of a Pan Am Pilot and his Greatest Triumph, Unraveling the Mystery of Amelia Earhart,” and, indeed, “incredible” is the only word for it. It's not just that the book is rife with inaccuracies – for example, the pilot who flew Amelia Earhart across the Atlantic in 1928 was Wilmer Stultz, not “Struts,” and AE did not “set altitude records in a helicopter” (she set one unofficial altitude record in an autogyro). These and many, many other errors are merely evidence of sloppy research. And it's not just that the author's personal recollections describe events that could not have happened – such as Fred Noonan showing him Earhart's wrecked Electra in a hangar in Hawaii on the night after her March 20th groundloop, even though both Earhart and Noonan had sailed for California on the S.S. *Malolo* at noon that day. Such mistakes might be forgiven as simple lapses in memory in an autobiography written by a man born in 1907.

The most curious aspect of Mr. Keyzer-Andre's autobiography is that this MIT-trained engineer, this consultant to Howard Hughes, Charles Lindbergh, and Amelia Earhart, this Pan Am pilot who shared cockpits with the likes of Bill Grooch and Ed Musick, consistently demonstrates an alarming ignorance of the very subjects in which he claims expertise. He thinks an airplane will go into a spin if “the bank is too steep” and says his WACO cabin biplane “held sixteen gallons of gas, about eight hours of flying time.” He tells of being flipped upside down by

cont. 

turbulence while still a student pilot but being able to keep the WACO level in inverted flight “with my altimeter and turn-and-bank indicator” while he figured out what to do. And when is the last time you heard an old pro refer to “the joystick”? There’s something fundamentally wrong here. Keyzer-Andre makes much of his employment at Pan American, where he says Juan Trippe used him as “a sounding board” – and yet he thinks all Pan Am flying boats on the Pacific routes were “China Clippers,” and repeatedly refers to the company’s survey ship as the *New Haven* (it was the *North Haven*).

The author’s statements regarding Amelia Earhart are equally incredible. He says that while Earhart’s Lockheed 10E was in Miami he recommended and supervised the installation of “Pratt & Whitney’s 550, HP S1H1” engines (all Lockheed 10Es had Pratt & Whitney R-1340-S3H1 engines of 550 horsepower). Keyzer-Andre has figured out that Earhart and Noonan were captured and executed at the express instruction of the Japanese Emperor so that the Electra’s advanced technology could be copied for use in the Zero. Why Hirohito should have gone to all that trouble is a bit puzzling given that the Imperial Japanese Navy had purchased an Electra from Lockheed the year before (sales of American aircraft to Japan continued unrestricted until 1939). The author’s map of the central Pacific could also use a little work. No one seems to have tipped him off that Nikumaroro and Gardner are the same island.

In the end, it’s hard to get upset about a book like this. As history, it’s so transparently bad that it’s harmless. As autobiography, readers will make up their own minds about the author’s credibility. As a solution to the Earhart mystery, like the other conspiracy books, it offers anecdotes instead of evidence. TIGHAR’s recommendation is that you do what we should have done and just ignore *Age Of Heroes*.

—Richard E. Gillespie  
Executive Director, TIGHAR



## Has The National Air & Space Museum Gone Off Course?



*“The Swoose,” the oldest surviving B-17, in storage at NASM’s Garber facility. TIGHAR Photo by P. Thrasher.*

In the July 1993 issue of *Aviation* (formerly *Aviation Heritage*) magazine, an editorial by Arthur H. Sanfelici entitled “Is the NASM Thumbing its Nose at Congress While No One is Watching?” accuses the National Air & Space Museum of ignoring its mandate to “collect, preserve and display aeronautical and space flight equipment of historical interest and significance” (Public Law 722, § 77a). According to Mr. Sanfelici, “...the gleaming, exciting storehouse of treasures ... is suffering from neglect because its earlier artifact-oriented curatorial staff is being systematically replaced by socially oriented theorists as the Smithsonian’s top management creates an academic atmosphere that spurns its founding commitment to the care of the collection.” *Aviation* magazine wants to “pressure Congress to get the NASM back on course.”

What has happened at the great museum on the Mall to bring down such wrath? Can it be true that historic airplanes are “suffering from neglect” while a gang of “socially oriented theorists” creates an “academic atmosphere” (of all things!) at the Smithsonian Institution? Should Congress turn from lesser matters (like the deficit) and “get NASM back on course”?

TIGHAR’s headquarters is just a couple of hours up the road from NASM. For the past eight years TIGHAR’s professional staff and volunteers have regularly done research with, fought with, helped and been helped by the staff at NASM. Smithsonian “top management” of both the “earlier artifact-oriented curatorial staff” and the current “socially oriented theorists” have served on the panels of TIGHAR seminars. Also, because our aviation archaeological work frequently involves the comparison of artifacts we’ve found with aircraft stored at NASM’s Garber Facility, we enjoy a unique familiarity with the unrestored aircraft there. Here’s our perspective on what’s happening.

The story of the U.S. government’s stewardship of historic aircraft is one of ignorance, myopia and neglect, but in recent years it has seemed to be moving toward a happy




ending. For decades, much of America's aviation heritage was, quite literally, left to rot. For the Smithsonian's collection, the impetus for corrective action came not from within its own hallowed halls, but as a direct result of the early 1960s Great Awakening in public enthusiasm for old airplanes. Outraged articles in the aviation press condemning what had become a sort of National Airplane Junkyard at Silver Hill, Maryland led to Congressional action and, in 1962, money was appropriated for a National Air & Space Museum. However, from the beginning, there was a tragic estrangement between the scholars, curators and conservators who worked in the traditional Smithsonian disciplines and the new kids down the block who liked airplanes. In retrospect, it seems incredible that the Smithsonian Institution would inaugurate a major new museum without one degreed museum professional on its management staff – but that's what happened. NASM's management was made up almost exclusively of retired military pilots. They were, and are, nice guys who have a genuine love of aviation and no small knowledge of aviation history. But a pilot/historian is no more a preservationist than he is a plumber. Described in Mr. Sanfelici's editorial as the "earlier artifact-oriented curatorial staff" (some of whom now serve on *Aviation* magazine's Editorial Review Board), this same group was characterized in a 1991 letter to the Washington Post as "the narrow clique of pilots who once ruled [NASM]."

In 1973 a "NASM Vehicle and Power Plant Restoration Planning" committee was recruited from among "the most knowledgeable aviation personalities in the country." The collections management standards and procedures they drafted violated some of the most basic principles of historic preservation, and the junkyard at Silver Hill soon became a highly-specialized aircraft repair facility. A deliberate program of rebuilding and altering aircraft solely for the sake of creating more attractive displays destroyed the answers to countless historical questions and turned definitive original aircraft into gleaming reconstructions of themselves, or replicas of airplanes they never were. In those years at NASM, the genuine article was so little valued that the fabric from the Curtiss NC4, the Fokker T2, the Douglas World Cruiser, and others was stripped off, cut up and sold as souvenirs. As recently as 1991 NASM's Senior Curator for Aeronautics (since departed), when presented with the prospect of obtaining real artifacts from an historic aircraft, informed TIGHAR that "the museum is not in the business of collecting relics." Interpretation of artifacts – the educational role of the museum – was pretty much limited to what the Washington Post called "showing off big shiny aircraft and rockets." The museum with the mandate to "collect, preserve, and display" was in danger of becoming, to borrow a phrase from Dr. Tom Crouch, Chairman of the Aeronautics Department, "little more than a Disneyland with wings."

But happily, over the past few years, an Enlightenment in aviation historic preservation has begun to dawn over the National Air and Space Museum and there's some evidence that the "academic atmosphere" so feared by Mr. Sanfelici is actually emerging. In 1987, Dr. Martin Harwit, an astrophysicist, became the museum's Director and a

difficult transition period began. Some of the old guard went away, and some went away mad. But now, under the leadership of Lin Ezell and the guidance of Conservator Ed McManus, the Garber Facility's former practices are gradually giving way to the genuine preservation of aircraft as historic properties (see "Truth Before Beauty" in *Air & Space Smithsonian*, Feb/Mar '93). The resulting exhibits will not look theme-park pretty, but they'll be real and therefore infinitely more powerful, evocative and valuable than any shiny fraud. Sanfelici's charge that unrestored aircraft are suffering from neglect is absolutely untrue. In fact, for the first time everything at Silver Hill is securely under cover. As Dominick Pisano, Assistant Chair of Aeronautics attests, "We have a better handle on the collection now than we've ever had." Meanwhile, downtown, the interpretation of the artifacts is becoming more thought-provoking. The opening in November 1991 of a new WWI gallery entitled "Legend, Memory, and the Great War in the Air" brought both waves of critical praise and charges of political correctness. Whether you approve of or abhor the statement that the museum has chosen to make with its artifacts, the exhibit is intellectually challenging and a giant step beyond the shallow "ain't airplanes neat?" themes which still typify many of the exhibits.

Sanfelici complains that, at the rate of about two per year, it would take as long as 100 years for NASM to "restore" the more than 200 aircraft now stored at the Garber Facility. He doesn't seem to understand that it is far more economical in time and dollars to truly save original aircraft than it is to remanufacture them. Simply by reordering its priorities Silver Hill could conserve its entire backlog without adding another person to the staff or another buck to the budget. The National Air & Space Museum has not gone off course – it is finally getting on course. The aviation historical community should encourage rather than castigate NASM's evolution toward genuine aviation historic preservation. There are plenty of issues to which the U.S. Congress needs to pay attention. Fixing up old airplanes ain't one of 'em. 

## BLUE SIDE UP

### Progress

The most commonly heard expressions in airlines cockpits have recently changed. In the old days, they were:

"Was that for us?" "What'd he say?" and "Oh, sh-t!"

But in the era of computer-assisted flight now upon us, these have become:

"What's it doing now?" "Why'd it do that?" and "Oh, sh-t!"

# Calendar of Events

**July 10 & 11, 1993** — Introductory Course in Aviation Archeology, San Diego Aerospace Museum, San Diego, California.

**July 10, 1993** — West Coast Regional Gathering, San Diego, California. Details to be announced.

**October 9, 1993** — “Finding Amelia” lecture and slide presentation by TIGHAR Executive Director Richard E. Gillespie for Zonta International, Columbus, Indiana.

**Mid-October, 1993** — Beast Of Bombay Hook Expedition, Dover, Delaware (see page 9).

**Mid-November** — Introductory Course in Aviation Archeology, Museum Of Flight, Seattle, Washington (tentative).

**January 18, 1994** — “Finding Amelia” lecture and slide presentation by TIGHAR Executive Director Richard E. Gillespie at the United States Air Force Museum.

**March 1994** — Niku III, Earhart Project Expedition departs San Francisco.

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