

TIGHAR TRACKS

March 2017



Looking in the Right Place

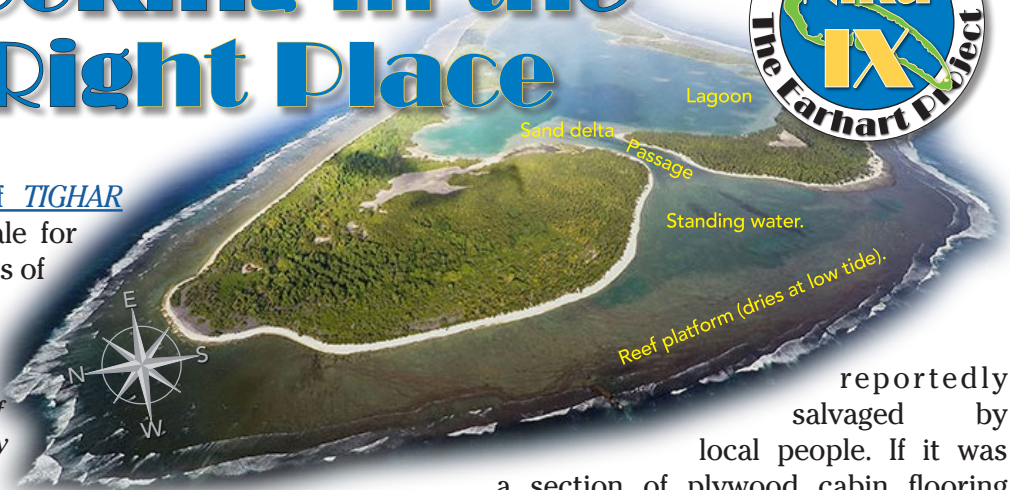


The [December 2016 issue of TIGHAR Tracks](#) presented the rationale for searching the lagoon for pieces of the Electra:

We know that debris on the reef washes into the lagoon and we have several anecdotal accounts of aircraft wreckage seen in, or possibly on its way into, the lagoon.

We asked TIGHAR Senior Researcher Robert Brandenburg, LCDR USN (ret) if he could quantify how much force would be available in major storm events to wash non-buoyant wreckage through the main passage and into the lagoon. Bob found that wave behavior on coral reefs has been well-researched by the oceanographic community, including data specific to Nikumaroro collected during New England Aquarium expeditions in 2000, 2002, and 2005. When Bob crunched the numbers the answer was surprising. There is no realistic way for non-buoyant debris of any nature to enter the lagoon by being washed through the passage. By the time even a once-in-50-years wave 7.5 meters (24.6 ft.) in height has hit the steep reef face, crossed the reef platform, and transited the long expanse of standing water west of the passage, there is insufficient remaining energy to drive non-floating objects up and over the sand delta at the eastern end. The passage and its western approaches act as a “sump” where debris will be trapped and remain until it corrodes away or is overgrown by coral.

Buoyant debris – tanks, plywood flooring, tires – might make it into the lagoon, where they would likely be driven by wind or flow until they ran aground in the shallows along the lagoon shore. The one piece of shipwreck debris known to have washed into the lagoon was a steel tank that appeared on the lagoon shore about a mile from the passage some time between 1985 and 1999, and was gone by 2011, probably now buried in the deep silt along the shore. The one piece of airplane wreckage said to have been seen in the lagoon circa 1958 was washed up on the lagoon shore directly east of the passage and was



reportedly salvaged by local people. If it was a section of plywood cabin flooring with aluminum features still attached, it may have been the source of the putative “heat shields” found in the abandoned village.

These new insights have caused us to alter our search plan for the 2017 Niku IX expedition. A sonar search of the lagoon interior for non-buoyant objects would be pointless, and a metal-detector search of the entire lagoon shore is not possible in the eight days Niku IX will be on site. Although we’ve crossed the passage many times, we’ve never searched the bottom, nor have we made a detailed examination of the large area of standing water to the west. Surviving debris could be difficult to spot visually so the best search method is probably waders and snorkelers with hand-held underwater metal detectors.

Although do-able within the time constraints of the expedition, the search will have to deal with the numerous Blacktip reef sharks who cruise the reef flat. They’re not big. A four footer is a big Blacktip. They don’t bother submerged SCUBA divers but they seem confused by waders or snorkelers splashing along on the surface. Even a small bite from a small shark would put blood in the water and, if you’re some distance from shore, things could get ugly fast.

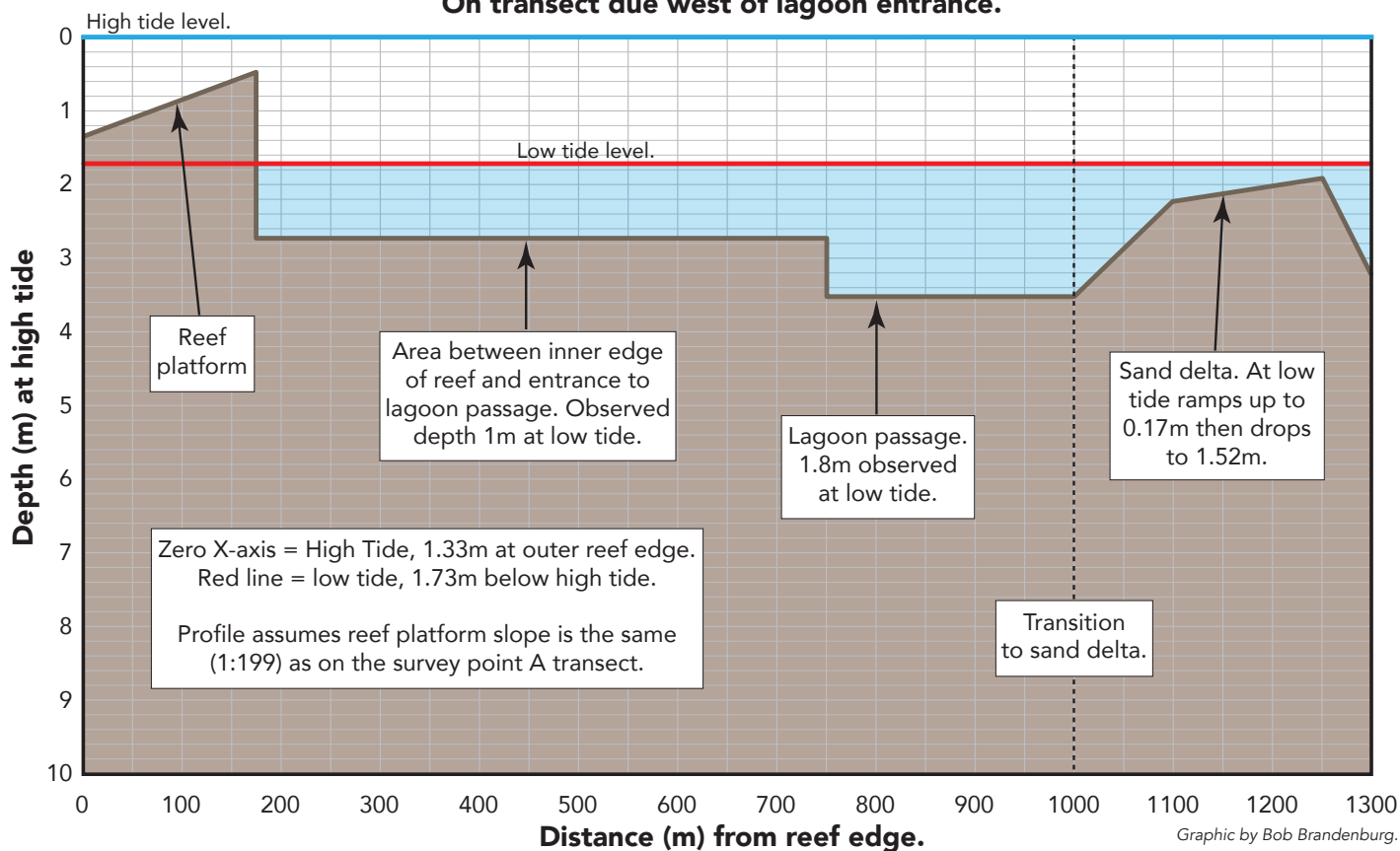
Niku is always a challenge but we’ll do our part if you’ll continue to do yours. We have excellent Surf Pro underwater metal detectors courtesy of White’s Electronics. We need to raise enough money to put at least two experienced operators aboard this summer’s Niku IX expedition. Please use the enclosed flyer to show your support. 🇺🇸



This schematic cross-section is based on data collected in TIGHAR's 2007 survey of the northwestern reef as well as photographs, satellite imagery, and depth estimates by expedition participants. The floor of the passage is the first search priority.

Niku Reef Profile to Lagoon Sand Delta

On transect due west of lagoon entrance.



LOST & FOUND

On September 23, 1940, Gerald Gallagher, officer-in-charge of the Phoenix Islands Settlement Scheme, sent a message to the Resident Commissioner of the Gilbert & Ellice Islands Colony.

“Some months ago working party on Gardner discovered human skull – this was buried and I only recently heard about it. Thorough search has now produced more bones (including lower jaw) part of a shoe, a bottle, and a sextant box. ...[T]here seems to be very slight chance that this may be remains of Amelia Earhardt [sic].”

Gallagher was ordered to keep the matter “strictly secret” and send everything to British colonial headquarters in Fiji. Senior officials there conducted a closely-held investigation and concluded that the castaway was not Earhart. The matter was dropped and the official record filed away and forgotten.

The entire incident was effectively lost to history, surviving only as a distorted legend that was universally dismissed as fantasy by everyone – everyone except TIGHAR. In 1998, after ten years of dead-ends, discouragement and ultimately discovery, TIGHAR

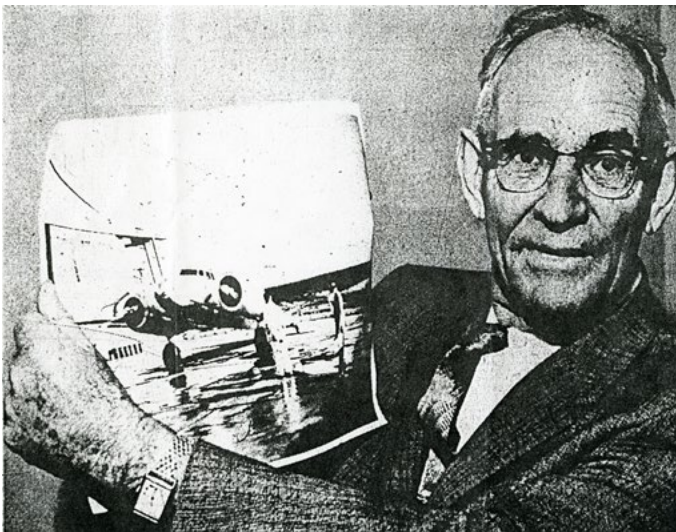
tracked down the [original British records](#). A new appreciation for the significance of those documents is changing the landscape of Earhart research.



*Gerald Gallagher at home on Gardner Island circa 1940.
TIGHAR Collection.*

How did the castaway of Gardner Island go from ridiculed rumor to documented fact? It began with a pissed off Coast Guard veteran.

1960-68 FLOYD KILTS



In the summer of 1960, California newspapers were rife with articles about a San Mateo woman who said that, as a girl on Saipan, she had seen Amelia Earhart and Fred Noonan in Japanese custody. U.S. Coast Guard veteran [Floyd Kilts](#), age 68, was sure the stories were wrong, and he contacted reporter Lew Scarr at the *San Diego Union* to tell him what really happened. He told the journalist

that, while dismantling the Coast Guard wartime radio station on Gardner Island in 1946, an islander had told him, through an interpreter, that a skeleton thought to be Earhart's had been found on the island in the latter part of 1938. According to the story, an “Irish magistrate planting coconut trees on Gardner for the government of New Zealand” had found the bones.

With the body were American shoes, size nine narrow, and “a cognac bottle with fresh water in it for drinking.” Farther down the beach was a man's skull. “The island doctor said the skeleton was that of a woman.” The “young Irishman” thought of Amelia Earhart right away. He put the bones in a gunny sack and tried to take them to Fiji in a four-oared open boat, but he died of pneumonia on the way and the “superstitious natives” threw the sack of bones overboard.¹

On July 18, 1960, the newspaper's City Editor, Leo Bowler, wrote to the British Colonial Secretary asking for confirmation. “If you could look through your log or record book of 1938 or 1939 maybe you would find an account of the incident.”² Not waiting for a response from the British, Bowler ran the story on July 21, 1960 headlined “San Diegan Bares Clue to Earhart Fate.” The Associated Press picked up the story but it received little attention. Nine months later, in April 1961,

Bowler received an answer from D.J. Nobbs, District Commissioner, Phoenix Islands District. "I have searched through the early records of the Phoenix Islands District and can find no report of the discovery of a skeleton on Gardner Island." Nobbs also noted, "[I]t would be most unusual for a ship to proceed from the Phoenix Islands to Suva direct and even more unusual for the Magistrate to have obtained leave to go on this mission...."³

Kilts' story was further debunked by William Dorais, an investigative reporter for KCBS Radio in San Francisco.

Dorais contacted Kilts who told him the same story he had given the newspaper. Dorais thought it was "a crock,"⁴ but he wrote to the Central Archives of Fiji and the Western Pacific High Commission for any information they had about the discovery of a skeleton on Gardner Island.

The archivist replied, "No skeleton has ever been reported found on Gardner Island."⁵ By then, the handful of officials who knew about the incident had died.

During a visit to Tarawa in 1968, Dorais' colleague, Frederick A. Goerner, author of *The Search for Amelia Earhart* (Doubleday, 1966) found additional cause to doubt Kilts' account. The "Tarawa Administration" informed Goerner that remains had indeed been found

on Gardner but they were those of a Polynesian male. The "planter" in Kilts' story was actually the "director of the colonists who "made **no** [emphasis in the original] attempt to remove remains from the island. The gentleman in question died of peritonitis on Gardner and is buried in a marked grave there." Goerner also consulted a Mr. Roberts who was "a top assistant to the British High Commissioner." Roberts

... gathered together several of the older Gilbertese, who had been part of the colonizing activities at Gardner shortly after the Earhart disappearance. After much conversation and deep-thinking, it was decided that there was a legend about the remains of a Polynesian man being found on Gardner, what year or specific circumstance unknown. They were firm, however, that the skeleton of a woman had NEVER [emphasis in original] been found.

There was, too, a story of a woman's 'high-heel shoes' turning up on Gardner. This was a matter of some hilarity. Roberts said he was absolutely certain the remains of a woman had never been found because it would have been a matter of considerable interest to everyone.⁶

The castaway of Gardner Island had come to light only to be dismissed as an unfounded fairy tale.

**"NO SKELETON
HAS EVER BEEN
REPORTED FOUND
ON GARDNER
ISLAND."**

1988 – 89 THE EARHART PROJECT

TIGHAR launched its investigation of the Earhart disappearance in the autumn of 1988, inspired by navigators Thomas F. Gannon, LTC, USAF (ret) and Thomas Willi, CDR, USN (ret), who pointed out that Earhart's last inflight radio transmission indicated that she was following a navigational line that would bring her to Gardner Island. Research revealed that the U.S Navy's initial search in 1937 had followed this same reasoning, and directional bearings taken on radio distress calls apparently sent from the missing plane crossed in the vicinity of Gardner. The radio signals had stopped by the time Navy search planes flew over the island one week after the disappearance. No airplane was seen but the Senior Aviator noted "clear signs of recent habitation." Unaware that the atoll was officially uninhabited, the searchers moved on.

By the spring of 1989, TIGHAR had decided that an expedition to Nikumaroro was warranted, and by May had received permission from the Republic of Kiribati to visit the island in September/October of that year.

We were aware of the Floyd Kilts story early in the project. Fred Goerner had briefly mentioned the "weird" story in his 1966 book *The Search For Amelia Earhart*, and TIGHAR researchers had found the 1960 *San Diego Union* article. In an April 9, 1989 letter to TIGHAR researcher Rob Gerth, Goerner wrote:

I did considerable additional research on the Floyd Kilts story. It is a perfect lesson on how information can become corrupted through retelling, difficulties of interpretation, and the passage of time.

The human remains on Gardner were of a man, not a woman. There were only the remains of one person, and that person was a Polynesian man. There was no attempt to take the remains to Suva.

The "white planter" in the story was a New Zealander who died on the island of peritonitis. He is buried in a marked grave on Gardner.⁷

Goerner did not cite a source for his information.

A story alleging that Earhart's remains had been found on the very island TIGHAR intended to search was, nonetheless, interesting. Kilts had died in 1964 so questioning him further was not an option, but we were able to confirm that he had been in charge of disassembling the Coast Guard station on Gardner in 1946. Some elements of his account were factually incorrect and some were baldly fantastical, but buried in the tale were kernels of truth. The first work party did arrive in "the latter part of 1938." They were there to clear land, build a village, and plant coconuts, but for a British colony, not for the government of New Zealand. There was, however, an unrelated New Zealand government survey underway when the



work party arrived. There was no “Irish magistrate” but Gerald Gallagher’s nickname was “Irish.” He did die, but not of pneumonia or of peritonitis. Gallagher died on Gardner in September 1941 of an intestinal condition then known as “sprue” – celiac disease.

Neither Kilts nor Goerner had the few known facts right, but without real documentation it was impossible to know what, if anything, had actually been found on Gardner Island. TIGHAR’s 1989 expedition came up with no definitive answers, but we did discover airplane parts in the abandoned village that may have been salvaged from Earhart’s aircraft. On the last day, two members of the team came across a small grave on the southern side of the atoll far from the village. Were the bones in the Kilts story buried rather than dumped in the ocean? Further searching in the village and an archaeological examination of the grave seemed justified, so a second expedition was planned for 1991.



Was this Amelia Earhart’s grave? TIGHAR photo.

1990 - MIXED SIGNALS

If human remains were found on Gardner, it seemed like British colonial officials at the time must have known about it. Some were still alive. TIGHAR wrote to Harry Maude, the Lands Commissioner who had been the architect of the Phoenix Islands Settlement Scheme. In a May 4, 1990 letter to Richard Gillespie, Maude, retired and living in Australia, was quite certain that nothing of the kind had happened. Recalling his close association with his “best friend” Dr. D.C.M. MacPherson, whom he remembered as Assistant Director of Medical Services for the Colony

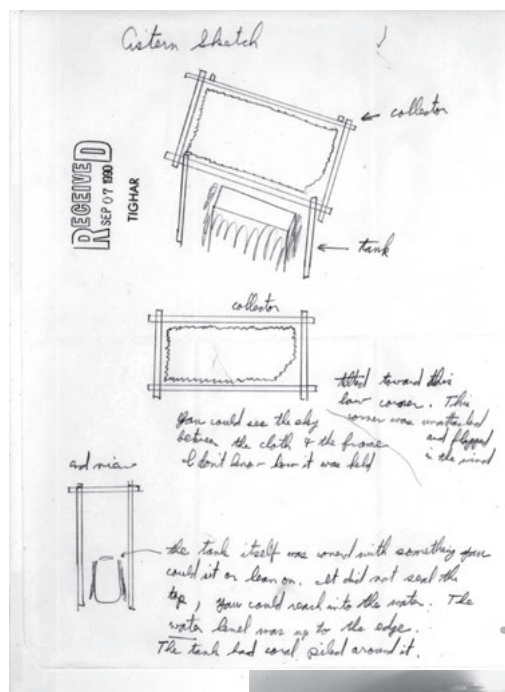
**“SUCH STUFF
AS DREAMS
ARE MADE ON.”**

of Fiji (in fact, MacPherson was Acting Central Medical Authority for the Western Pacific), Maude found it “difficult to understand, therefore, why [MacPherson] never once, in our interminable reminiscences, spoke of Gallagher’s ‘bones.’” He characterized Kilt’s account as “Such stuff as dreams are made on.”⁸

On August 25, 1990 an Associated Press article about TIGHAR’s investigation prompted a letter from Coast Guard veteran Richard K. Evans. Evans had been a member of Unit 92, the Coast Guard navigational radio station on Gardner during World War Two. He wrote of seeing a metal tank set up to collect rainwater back in the bush on the island’s southeast end.

We assumed the natives had built it and we ignored it. But when we mentioned it to them a few months later they didn’t know anything about it. We suggested that a previous group of natives had built it but they said there were never any people living on the island (prior to their arrival). All we were sure of is that we didn’t build it and neither did the natives.”⁹

The tank in Evans’ sketch resembled the special fuel tanks in the cabin of Earhart’s Lockheed Electra. If Earhart landed at Gardner Island perhaps she salvaged one of the fuel tanks as a way to collect rainwater. Finding the tank became one of the objectives of the 1991 expedition.



Richard Evans’ sketch of the water collection tank he saw in 1944. Courtesy Richard K. Evans.

Fuel tanks in NR16020. TIGHAR Collection.

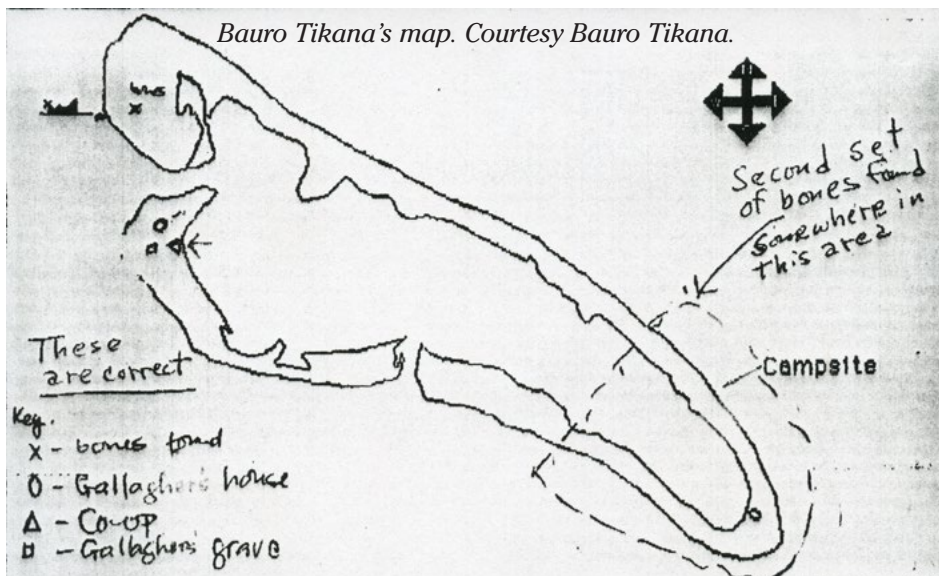


On August 12, 1991, six weeks before the departure of the expedition, a fax from former Nikumaroro resident Bauro Tikana in Tarawa provided the first partial corroboration of Kilts' story. Tikana wrote that he came to Gardner Island as Gallagher's clerk in 1940.

When we first arrived I saw the ship wreck and asked Mr. [Gallagher] about it. He told me it was the Norwich City. Later when the labors (sic) were cleaning [clearing] they told me that they found bones near the ship. I do not know if Mr. Gallagher knew about the bones as I didn't tell him about it. The labors also told me they found bones at the other end of the atoll (see map) when they were cleaning the land in that area. I don't believe Mr. Gallagher knew of these as he was the only white man there and most of the labors did not speak English and were afraid (sic) to talk to him and Mr. Gallagher did not speak Gilbertese. I did all of the interpreting for Mr. Gallagher and pass on all of his instructions to the laborers.¹⁰

The bones reportedly found near the shipwreck may have been from the four casualties of the Norwich City disaster buried by the survivors. The map Tikana provided indicated that "the other end of the atoll" where more bones were found encompassed both the small grave on the southern side of the lagoon and the area where Evans reported seeing the tank on the northern side. Tikana made no mention of shoes or Amelia Earhart.

Kilts, Goerner, and now Tikana – all related conflicting stories alleging that human remains had been found on Gardner. If it happened there should be an official record, but the District Commissioner for the Phoenix Islands, the Central Archives of Fiji and the Western Pacific High Commission, and the Tarawa Administration could find no such file. No documents, no artifacts, nothing but anecdotal recollections that mostly contradicted each other – this was no different than the Japanese Capture Theory.



**NO DOCUMENTS,
NO ARTIFACTS,
NOTHING BUT
ANECDOTAL
RECOLLECTIONS
THAT MOSTLY
CONTRADICTED
EACH OTHER -
THIS WAS NO
DIFFERENT THAN
THE JAPANESE
CAPTURE THEORY**

1991 – 1997 THE BAD NEWS/GOOD NEWS ROLLERCOASTER

Despite an intensive search, the 1991 expedition failed to find any trace of Evans' tank in the dense bush along the northern beachfront of the southeast end, and an archaeological excavation of the small grave on the southern side of the lagoon exhumed not the bones of Amelia Earhart but the remains of an infant.

Earhart's sometime photographer, Albert Bresnick, had alleged that Amelia confided to him that she was pregnant so speculation that the infant might be hers was inevitable, but the child had been interred in a wooden coffin and the design and orientation of the grave itself were in accordance with Gilbertese tradition. However, near the grave were a fragmented rubber shoe sole and two rubber shoe heels, one of which was embossed "Cats Paw Rubber Co. USA." "Shoes, American kind" were an

element in the Kilts story. Coincidence? Or had we found Amelia's shoe?

On August 12, 1992, TIGHAR received another letter from Frederick Goerner, detailing how he traced "the Floyd Kilts business" to a legend about the bones of a Polynesian man. All of Goerner's information came in the form of verbal assurances from supposedly knowledgeable individuals and he was certain that the skeleton of a woman had never been found on Gardner.¹¹ Were we chasing a ghost?

In 1995, TIGHAR researchers turned up a series of aerial photos of Gardner Island taken in June 1941 during a visit by six U.S. Navy PBY flying boats. One of the photos showed an opening in the dense beachfront vegetation and a large strip of bare coral in the shape of a numeral seven along the coastline where Richard Evans described finding the metal



June 21, 1941. U.S. Navy photo.

tank in 1944. An examination of the photo by forensic imaging specialist Jeff Glickman of PHOTEK revealed a metallic reflection deep in the bush. Could this be Evans' tank?

We dubbed the area "the Seven Site" and, the next year, we mounted a small TIGHAR expedition specifically to check it out. The 1996 trip succeeded in locating the tank, but it was marked "POLICE TARAWA" and was the same type of steel water storage tank seen in the abandoned village at the other end of the atoll. Nearby were some bird bones, a shallow excavated depression in the ground assumed to be an abortive attempt to dig a well, and a scattering of what appeared to be construction materials – asbestos sheet, scraps of copper screening, a roll of asphalt roofing – nothing to suggest a castaway, much less Amelia Earhart. After six years of research and two expeditions, TIGHAR had located the tank Richard Evans' remembered only to conclude that the Seven Site was not related to our investigation.

With only the shoe fragments found near the infant grave to suggest any truth to Kilts' tale, TIGHAR included a more detailed archaeological survey of the grave area in the plans for a major expedition in February/March 1997, but that excavation found nothing further to support the presence of a castaway. Perhaps Kilts' story was the fairly tale everyone said it was.



1997 – 1998 REVELATION

A few months later, the picture changed. On June 27, 1997 New Zealand TIGHAR member Peter McQuarrie emailed TIGHAR Executive Director Ric Gillespie that he had recently returned from Tarawa where he had been doing research for a book he was writing about World War Two in the Pacific.

In Kiribati I had a good look at the Government Archives and found the file on the remains found at Nikumaroro by Gallagher. It turned out they were the remains of a Polynesian man more than 60 years old when he died and the remains had been exposed to the atmosphere for at least 20 years. The sole of the shoe was a woman's alright.¹²

McQuarrie's email struck like a thunderbolt. For the first time, we had a reference to an historical document that confirmed the discovery of human remains on Gardner. The castaway of Gardner Island was no longer just one more crazy Amelia Earhart rumor but

a documented historical fact – except the castaway was Fred Goerner's Polynesian man, not Floyd Kilts' missing aviator. But McQuarrie's brief description was puzzling. Who decided that the castaway was an elderly Polynesian man whose bones had lain exposed for twenty years? And why would such a skeleton be found with a woman's shoe? TIGHAR immediately arranged with contacts in Tarawa for faxes to be sent of the entire file.

Labeled "Discovery of Human Remains on Gardner Island," the file contained sixteen pieces of correspondence to and from Gallagher and they told a story far more complex than McQuarrie's email had suggested. Gallagher had found the bones in September 1940 and reported their discovery in considerable detail to his superiors in Fiji, expressing his belief that there was "a very slight chance that his might be the remains of Amelia Earhardt (sic)."¹³ He was ordered to make an organized search of the area, to keep the matter "strictly secret," and to send the bones and other finds to Fiji for

examination at the first opportunity. The first opportunity did not arise until late January 1941 when the Royal Colony Ship *Nimanoa* called at Gardner, but the castaway did not enjoy an uninterrupted voyage to Fiji. When the vessel stopped at Tarawa the local Acting Medical Officer, Dr. Lindsay Isaac, learned that human remains were aboard. Because the matter was being kept secret, he had no information about the circumstances of the bones' discovery or why they were being sent to Fiji. Isaac took possession of the "wretched relics" and pronounced them to be from an elderly Polynesian male.¹⁴ The file ends with the arrival of the shipment in Suva where the official inquiries were to be made.

The documents in the Kiribati National Archives are Gallagher's copies of correspondence he sent or received pertaining to the discovery. They probably remained on Gardner after Gallagher's death and were brought to Tarawa when the colony was abandoned in 1963. The file is undoubtedly the source for what Goerner was told when he visited Tarawa in 1968 but, with the documents in hand, it is clear that the elderly-Polynesian-man story was based on an unauthorized and uninformed assessment by a local medical officer. Gallagher's file ended just when the story starts to get interesting. What was the result of the official investigation in Fiji?

It was apparent to TIGHAR researchers that there must be further documentation somewhere and, most logically, it should be in the records of the now-defunct Western Pacific High Commission. But we had already gone that route without success. We knew that the records of the WPHC were archived at the Library and Records Department of the Foreign and Commonwealth Office at Hanslope Park in England. As early as February of 1997, hoping to find some official corroboration of the castaway story, we had asked the Records and Historical Services at Hanslope Park for any reference to Amelia Earhart. In May, they sent us the only file they had. It was from 1937 and dealt with the unsuccessful search for a rumored "spirit island" done by the British at the request of George Putnam.

The discovery of the Gallagher file in Tarawa the next month made us wonder if we had asked the wrong question. We had asked Hanslope Park for any files on Amelia Earhart, but if the bones had been judged to be not Earhart's, the file we were looking for might not mention her name. In September 1997 we informed Records and

FOUR MONTHS LATER WE LEARNED WE HAD HIT PAYDIRT.

Historical Services of the discovery of Gallagher's file and asked if they had anything on the finding of human remains on Gardner Island.

Over four months later we learned we had hit paydirt. On February 9, 1998, we received a letter saying Records and Historical Services had found "WPHC File No. 4439 (G&E) 1940, Skeleton, Human, finding of, on Gardner Island." We soon had faxes of the doctor's report detailing his examination of the bones and presenting his conclusion that the skeleton was that of a male, "short, stocky, muscular European, or even a half-caste, or person of mixed European descent." Included with the report were the doctor's notes with the measurements he had made of the skull and several of the bones. TIGHAR forensic anthropologist Dr. Karen Ramey Burns immediately recruited her colleague, Dr. Richard L. Jantz, at the University of Tennessee, Knoxville, to begin an assessment of the British doctor's conclusions using Fordisc II, a computerized database developed by Dr. Jantz for assessing gender and ethnicity from bone measurements.

The following November two TIGHAR researchers traveled to England and spent four days at Hanslope Park photocopying File No. 4439 and other records pertinent to the British investigation. The next month, December 1998, Burns and Jantz published their findings in a paper co-authored with Ric Gillespie and TIGHAR Senior Archaeologist Dr. Tom King. Titled, "Amelia Earhart's Bones and Shoes – Current Anthropological Perspectives on an Historical Mystery" the paper concluded that:

...the morphology of the recovered bones, insofar as we can tell by applying contemporary forensic methods to measurements taken at the time, appears consistent with a female of Earhart's height and ethnic origin.

*Historical, ethnohistorical, archeological, and forensic research is continuing in an effort to achieve more definitive conclusions.*¹⁵

2001 – 2010 VERIFICATION

Gallagher's description of the castaway campsite location seemed to match the Seven Site area we had located in 1996. Perhaps we had we been wrong in dismissing it as unrelated to the castaway story.

Archaeological surveys in 2001, 2007, and 2010 confirmed our suspicions. Artifacts recovered from the site are consistent with an American woman of the 1930s, while the fish and turtle bones found in and

around campfires have been analyzed to be consistent with procurement and consumption by a non-native person. Two shattered, partially melted bottles in one of the campfire features suggest someone's effort to purify water. What we had taken to be an abortive attempt to dig a well may be where the skull was buried and later exhumed.

Some of the artifacts are specifically consistent with Earhart and Noonan. A broken pocket knife found at the site is the same type inventoried aboard

the Electra after the accident in Hawai'i and research revealed that the numbers reported to have been on the sextant box found with the skeleton identify the box as being for the same type of sextant carried by Noonan as a "preventer" (back-up).

Other artifacts and further research of historical records permit a partial reconstruction of the site's complex history. Initially the scene of the 1940 castaway discovery, beginning in 1941 the area was

cleared of trees and planted to coconut seedlings. During this period, apparently at Gallagher's instruction, a small shelter was built (probably the source of the construction materials we found in 1996). In 1944/45, Coastguardsmen occasionally visited the site for informal weapons practice, bringing mess hall crockery and radio vacuum tubes to use as targets. By the early 1950s the coconut planting had failed and the untended area soon grew up to dense underbrush.

2015 – 2016 REASSESSMENT

In 2015, a paper titled "The Nikumaroro Bones Identification Controversy: First-hand examination versus evaluation by proxy – Amelia Earhart found or still missing?" was published in the *Journal of Archaeological Science*. Co-authored by Pamela Cross, a student of Archaeological Sciences at the University of Bradford in England, and Richard Wright, Emeritus Professor of Anthropology at the University of Sydney, Australia, the paper challenged the conclusions reached by forensic anthropologists Richard Jantz and Karen Burns in 1998.

*This critical review of the original British investigation and the 1998 reassessment finds that there is no supportable evidence to impugn the original British analyses. The most robust analysis of the Nikumaroro bones indicates that the individual was most likely a stocky male, not Amelia Earhart.*¹⁶

The Cross/Wright paper was deeply flawed and required a response. Karen Burns had died in 2012 but Richard Jantz agreed to re-examine his findings using forensic tools and information developed in the seventeen years since his initial evaluation. Now nearing completion, his new assessment has

uncovered a possible explanation for why the British doctor misidentified the castaway's gender and he has identified a specific physiological similarity between the castaway and Amelia Earhart. When finished, Dr. Jantz's paper will be submitted for publication in a peer-reviewed anthropological journal.

Supplementing the anthropological reassessment, factual inaccuracies in the Cross/Wright paper inspired TIGHAR's Ric Gillespie to undertake a detailed re-examination of how the 1940/41 investigation of the castaway was conducted. His paper, also to be submitted for publication in a peer-reviewed journal, will document how the British high commissioner's refusal to seek outside help from American and Australian sources deprived the investigation of crucial information that may have led to a different conclusion. A third paper by TIGHAR Senior Archaeologist Dr. Tom King will detail the archaeological evidence found at the Seven Site.

There is more to come, but it is becoming increasingly clear that the "smoking gun" in the search for Amelia Earhart was found in 1940, misidentified, and lost to history until rediscovered by TIGHAR. 🌐

NOTES

- 1 *San Diego Union*, July 21, 1960, "San Diegan Bares Clue to Earhart Fate."
- 2 Letter from Leo Bowler to British Colonial Secretary, July 18, 1960. Kiribati National Archives, Tarawa, KNA 14/1, F/3/9/3.
- 3 Letter from D.J. Nobbs to Leo Bowler, April 6, 1961. Kiribati National Archives, Tarawa, KNA 14/1, F/3/9/3.
- 4 Frederick A. Goerner's notes on Kilts, papers of Frederick A. Goerner, National Museum of the Pacific War, Fredericksburg, Texas.
- 5 Letter from Frederick A. Goerner to Richard Gillespie, March 1, 1990.
- 6 Ibid.
- 7 Letter from Frederick Goerner to Rob Gerth, April 9, 1989.
- 8 Letter from Harry Maude to Richard Gillespie, May 4, 1990.
- 9 Letter from Richard K. Evans to Patricia Thrasher, August 25, 1990.
- 10 Fax from Bauro Tikana to Richard Gillespie, August 12, 1991.
- 11 Letter from Frederick Goerner to Richard Gillespie dated March 1, 1990 but received by TIGHAR on August, 7, 1992.
- 12 Email from Peter McQuarrie to Richard Gillespie, June 27, 1997.
- 13 Telegram from Officer-in-Charge, Phoenix Islands Settlement Scheme to The Resident Commissioner, September 23, 1940.
- 14 Telegram from Medical Officer, Tarawa to Officer-in Charge, Phoenix Islands, February 6, 1941.
- 15 "Amelia Earhart's Bones and Shoes – Current Anthropological Perspectives on an Historical Mystery," Burns, Jantz, King, and Gillespie, 1998.
- 16 "The Nikumaroro bones identification controversy: First-hand examination versus evaluation by proxy – Amelia Earhart found or still missing?," *Journal of Archaeological Science*, Reports 3 (2015), 52-59

The Evolving Paradigm

Crashed and Sank: In 1967 a Lockheed Electra 10E operated by Provincetown-Boston Airlines ditched and sank in the ocean off Cape Cod.



FOR NEARLY EIGHTY YEARS, THE PREDOMINANT explanation for the disappearance of Amelia Earhart and Fred Noonan has been the assumption adopted by the U.S. Navy and Coast Guard at the conclusion of the 1937 search – that the aircraft simply ran out of fuel, went down at sea, and sank. Beginning in the 1960s, allegations of Japanese culpability and a U.S. Government cover-up have provided fodder for conspiracy buffs, but *Crashed and Sank* has remained the most widely accepted answer to the riddle. In 1988, when TIGHAR launched an investigation into the possibility that the flight had reached Gardner

Island (now Nikumaroro), our inquiry was seen as an interesting but highly-speculative new theory.

The May 1989 issue of TIGHAR Tracks announced diplomatic clearance for the first TIGHAR expedition to Nikumaroro.

Over the ensuing years, as TIGHAR research and archeological work turned up more and more supporting evidence, public opinion began to shift and the Nikumaroro hypothesis was recognized as a serious challenge to the conventional paradigm. Predictably, adherents of the other theories became more strident in their criticism. Fans of the Japanese Capture theory accused TIGHAR of being part of the government cover-up and the Smithsonian National Air Space Museum doubled-down on *Crashed and Sank*.

The January 2015 issue of Smithsonian magazine featured a cover story that denigrated TIGHAR's work. Rather than present an informed critical review of our evidence, the article selected a handful of our findings and called them into question with half-truths and misstatements of fact.

TIGHAR TRACKS

A PUBLICATION OF THE INTERNATIONAL GROUP FOR HISTORIC AIRCRAFT RECOVERY

EARHART PROJECT RECEIVES DIPLOMATIC APPROVAL

The Republic of Kiribati has granted full approval for the Earhart Project's September expedition to proceed. This was an absolutely essential prerequisite to conducting operations in the Phoenix Islands. The research, organization and ethics of the entire project went through U.S. State Department channels to President Jeremiah Tabai and were reviewed by the Ministry of Foreign Affairs in Tarawa (the capital of Kiribati). It was a lengthy and, at times, nerve-racking process, but in the end we received not just permission but a pledge of assistance from the government of Kiribati.

Official endorsement from Tarawa also clears the way for the release to TIGHAR of recent low altitude aerial photography of McKean and Gardner Islands taken by Lockheed Orions of the Royal New Zealand Air Force. These will be of tremendous value in planning our search of the islands and their surrounding waters.



Another key step in mounting the expedition has been accomplished with the chartering of what is without doubt the finest research vessel in that part of the world. Pacific Nomad is a 115-foot motor vessel operated by Martine Pacific Ltd. of Fiji. She has supported several U.S. government sponsored scientific projects and has the rare capability of serving as a completely self-sufficient base for our 18 person team during the five weeks we'll be at sea.

Final selection of the expedition team is now nearly complete, and notifications will go out soon to all who have asked to be considered. In some ways this is the toughest part of our job. Assembling the most competent team possible is not necessarily the same as choosing who wants to go the most.

The Earhart Project is on schedule and on budget. Sound research has produced a reasonable hypothesis, and we have assembled the tools and approvals necessary to test it. All that remains is to complete the funding. The support of TIGHAR's members has brought the project this far and well, we're sure, help take it all the way to the Phoenix Islands and back — perhaps with the answer to the fate of Amelia Earhart.



That summer, a paper published in the *Journal of Archaeological Science* challenged TIGHAR's 1998 assertion that the partial skeleton of a castaway found on Nikumaroro in 1940 was most likely that of a female of Earhart's height and ethnicity. The 2015 paper argued that the opinion of the doctor who examined and measured the now-missing bones is more credible than a modern computerized interpretation of the measurements by two forensic anthropologists.

In response to the criticisms in the 2015 paper, Dr. Richard Jantz undertook a re-evaluation of the bone measurements with the advantage of research, forensic tools, and databases developed in the seventeen years since his original assessment. For the past eighteen months TIGHAR has been working closely with Dr. Jantz to provide him with the historical data he needs to augment his anthropological re-evaluation.

We're finding that the case for the bones being Earhart's is far stronger than we realized in 1998.

In November 2016, a preview of one of Dr. Jantz's new findings – that the arm bones of the castaway had the exact same variation from the norm as Amelia's – prompted widespread international headlines acknowledging that “Amelia Earhart May Have Died As a Castaway.” Even the *Smithsonian* reported that “Reexamination of data from a 1940 skeleton, suggests that the long forearms may match those of the missing aviator.” Of course, for the Japanese Capture folks, it was just more proof that we are in league with the conspirators. One vocal die-hard labeled TIGHAR “the despicable establishment protectorate.” (You can't make this stuff up.)

When finished, Dr. Jantz' paper will be submitted for publication in a respected peer-reviewed journal. Meanwhile, buzz continues to build about what else he has found. In a recent television interview Jantz said, “There are some things that will be in the published report that I probably shouldn't talk about, but it will be pretty eye-opening stuff.” 🌐





ELSEVIER

Contents lists available at ScienceDirect

Journal of Archaeological Science: Reports

journal homepage: <http://ees.elsevier.com/jasrep>



The Nikumaroro bones identification controversy: First-hand examination versus evaluation by proxy – Amelia Earhart found or still missing?

Pamela J. Cross ^{a,*}, Richard Wright ^b

^a Archaeological Sciences, University of Bradford, Bradford, UK
^b Emeritus Professor of Anthropology, University of Sydney, Australia



ARTICLE INFO

Article history:
Received 23 March 2015
Received in revised form 14 May 2015
Accepted 15 May 2015
Available online xxxx

Keywords:
Palaeopathology
Forensic analysis
Cranial analysis
CRANID
Osteology
Human identification
Female airplane pilots
D.W. Hoodless
Nikumaroro skeleton

ABSTRACT

American celebrity aviator Amelia Earhart was lost over the Pacific Ocean during her press-making 1937 round-the-world flight. The iconic woman pilot remains a media interest nearly 80 years after her disappearance, with perennial claims of finds pinpointing her location. Though no sign of the celebrity pilot or her plane have been definitively identified, possible skeletal remains have been attributed to Earhart. The partial skeleton was recovered and investigated by British officials in 1940. Their investigation concluded that the remains were those of a stocky, middle-aged male. A private historic group re-evaluated the British analysis in 1998 as part of research to establish Gardner (Nikumaroro) Island as the crash site. The 1998 report discredited the British conclusions and used cranial analysis software (FORDISC) results to suggest that the skeleton was potentially a Northern European woman, and consistent with Amelia Earhart. A critical review of both investigations and contextual evidence shows that the original British osteological analyses were made by experienced, reliable professionals, while the cranial analysis is unreliable given the available data. Without access to the missing original bones, it is impossible to be definitive, but on balance, the most robust scientific analysis and conclusions are those of the original British finding indicating that the Nikumaroro bones belonged to a robust, middle-aged man, not Amelia Earhart.

© 2015 Elsevier Ltd. All rights reserved.



Richard L. Jantz, Ph.D., Professor Emeritus, Anthropology Department, University of Tennessee, Knoxville. Doctor Jantz is an internationally acclaimed expert in skeletal biology, human Variation, and forensic anthropology. With Dr. Karen Burns, Dr. Tom King and Richard Gillespie he co-authored TIGHAR's 1998 study “Amelia Earhart's Bones and Shoes.”

Karen Ramey Burns, Ph.D., our beloved “Kar,” was a forensic anthropologist famous for her work in international human rights investigations. She taught human osteology and forensic anthropology at the University of Georgia, the University of Utah and, as a Fulbright Scholar, at the University of the Andes in Bogota. As member of TIGHAR's 2001 and 2007 expedition teams she conducted experiments in mammalian decomposition and scavenger (crab and rat) behavior on Nikumaroro. Kar was deeply involved in TIGHAR research until her untimely death in January 2012.

The New and Improved TIGHAR Store

By the time you receive this *TIGHAR Tracks* the new TIGHAR Store will be active. It features a number of improvements, some of which have been much in demand:

- ❖ The Store will now accept all credit cards, as well as PayPal.
- ❖ Shipping will be charged according to our actual cost, rather than at a flat rate.
- ❖ Real-time inventory tracking will help us keep Stuff in stock, or tell you something isn't available.
- ❖ Membership discounts will be available immediately after you join.
- ❖ It looks really cool.

If you were registered in the TIGHAR Store before, you will automatically be registered in this new version of the Store. For security reasons, we could not import your password, so you will need to set one up. It can be the same one, or a different one. Then you will be ready to order.



If you haven't used the Store before, you may want to register, set up a user name, and choose a password, for these two reasons:

- ❖ If you want to buy something that is a download, you must register in the Store so the system recognizes you as cleared to download the item.
- ❖ If you are a TIGHAR member, and are registered and sign in, you will receive member discounts automatically. Discounts don't apply on all items, but on a lot. The discount is 20%. Items with a discount have a red tag on them in the description.

If you are joining TIGHAR as a new member, and want to buy some Stuff as well, get your discount by registering in the Store, joining, waiting about two minutes, and then going back to buy Stuff in a separate transaction. That's about how long it takes the system to update and record you as a member. Just make two separate transactions instead of one.

Of course, there is no requirement to register if you don't wish to; the Store will work just fine without that.

Questions? Problems? Email us: store@tighar.org, or call us (normal business hours Eastern U.S. time): 610-467-1937.






STORE HOME MEMBERSHIP STORE CATEGORIES ▾ CONTACT RETURN TO TIGHAR HOME PAGE

WELCOME TO THE TIGHAR STORE!

You'll find dozens of ways to participate in TIGHAR's work here, from memberships to t-shirts. Proceeds from all sales go to support the research and the field work we have done for over 30 years. TIGHAR is a 501(C)(3) public charity. All donations are tax-deductible to the extent permitted by law.

Top Sellers

| | | |
|---|---|--|
|  Associate TIGHAR... \$60.00 ★★★★★ ADD TO CART |  Researcher TIGHAR... \$120.00 ★★★★★ ADD TO CART |  Senior/Student TIGHAR... \$45.00 ★★★★★ ADD TO CART |
|---|---|--|

All links to the TIGHAR Store from the TIGHAR Website or any book mark you have saved will direct you to the new Store.





NIKUMARORO

This new annotated satellite image of your favorite atoll provides not only the what-and-where but also the what-it-looks-like information you need to follow TIGHAR's investigations, reasoning, and discoveries.

The spectacular nearly cloud-free image of Nikumaroro was acquired by Digital Globe's World View-3 satellite on November 15, 2016. Historical photographs and photos taken during TIGHAR expeditions provide a ground-level view of key features.

For a \$50 donation you get a poster-size (24" x 36") print on high-quality heavy paper, AND a downloadable high-resolution PDF.

Order on line in the new TIGHAR Store before March 31 and pay only \$40, or only \$30 if you are TIGHAR member (Associate or above) in good standing.

<https://tighar.wisdomfilters.com>



Payment



Name on Card

Billing Address

City State Zip Country

Card # Expiration Date CVC

Amount Charged: US\$

Signature

Or send a check with your order, made out to TIGHAR.

TIGHAR · 2366 Hickory Hill Road · Oxford, PA 19363-4417 · USA · 610-467-1937

Help Search The Passage



Ric looks across Tatiman Passage during the 2015 Niku VIII expedition. TIGHAR photo by L. Rubin.

As described in “Looking in the Right Place,” research has shown that Nikumaroro’s main lagoon passage is the best place to search for aircraft wreckage that was washed up onto the reef. Searching the passage will be far easier and less expensive than the previously planned lagoon search, but it will still cost \$25,000 to put two experienced underwater metal detector operators aboard next summer’s Niku IX expedition. Your donation to Niku IX will help make that possible.

Please use the form below to make your tax-deductible contribution, or visit the TIGHAR website at tighar.org and click on Donate.



My Donation



Name on Card

Billing Address

City State Zip Country

Card # Expiration Date CVC

Amount Charged: US\$

Signature

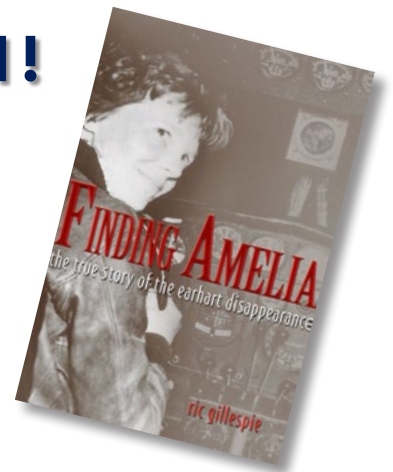
Or send a check with your order, made out to TIGHAR.

TIGHAR · 2366 Hickory Hill Road · Oxford, PA 19363-4417 · USA · 610-467-1937

NEW TIGHAR STORE GRAND OPENING SALE

- 40% off **EVERYTHING*** for TIGHAR members in good standing who register in the new TIGHAR Store (an additional 20% added to your regular 20% member discount).
- 20% off **EVERYTHING*** for non-members or those who do not wish to register in the Store.
- Wearables, Useables, Books & Information – **EVERYTHING* ON SALE UNTIL MARCH 31!**
- Order online at tighar.wisdomfilters.com or use the mail-in order form on the reverse.☐
- Don't miss out on this opportunity to support your organization AND get great savings on TIGHAR stuff.

SALE ENDS MARCH 31!



- * Memberships and a few other items excluded. International postal rates apply for non U.S. postage areas.
- ☐ If your order includes one or more downloads of images or information, you will be required to register in the store in order to use your download link, even if you pay via check or telephone in your credit card.

SALE ORDER FORM

| Item | Size | # | Price | Amount |
|---------------------------|------|---|---------|--------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| U.S. Shipping | | | \$8.00 | |
| Shipping, Canada | | | \$15.00 | |
| Shipping, everywhere else | | | \$25.00 | |
| TOTAL | | | | |

You can also order at the TIGHAR On-Line Store:
<https://tighar.wisdomfilters.com>



Payment



Name on Card

Billing Address

City

State

Zip

Country

Card #

Expiration Date

CVC

Amount Charged: US\$

Signature

Or send a check with your order, made out to TIGHAR.

TIGHAR · 2366 Hickory Hill Road · Oxford, PA 19363-4417 · USA · 610-467-1937