

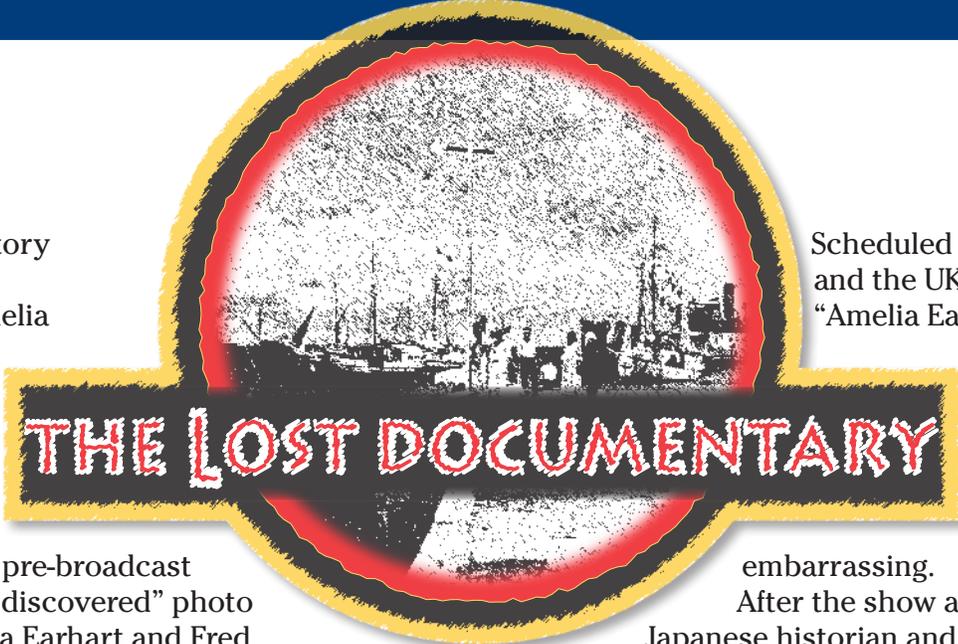
# TIGHAR TRACKS

August 2017

In June, the History Channel began promoting “Amelia Earhart – The Lost Evidence,” a two-hour documentary scheduled to air on July 9. The focus of wide-eyed pre-broadcast hype was a “newly discovered” photo said to show Amelia Earhart and Fred Noonan in Japanese custody. Some media outlets breathlessly touted the photo as proof of the pair’s “capture,” but the more responsible news organizations such as the BBC, the *Washington Post*, CNN, and others, turned to TIGHAR for comment.

We had examined and dismissed the supposed lost evidence a full year earlier. It was clear to us that it was neither lost nor evidence. Found in the National Archives in College Park, Maryland, the picture shows the harbor at Jaluit Atoll, the Japanese headquarters in the Marshall Islands, and is archived among material assembled by the Office of Naval Intelligence (ONI) in preparation for the 1944 invasion of the Marshalls. It is exactly where it should be and is clearly what it is labeled to be, a picture of Jaluit Harbor. No one in the photo looks like Earhart or Noonan and the alleged presence of a plane on a barge is pure imagination. The pasted-on caption made us suspect that it was a photo lifted by ONI from a pre-war commercial publication, but finding the original source seemed like a nearly impossible task.

TIGHAR’s warning notwithstanding, the documentary aired on the appointed day and the History Channel was rewarded with a record 4.32 million viewers. And yet, within ten days, re-broadcasts of the program had been cancelled and it was announced that the show would not be available on streaming and on-demand platforms.



## THE LOST DOCUMENTARY

Scheduled airings in Canada and the UK were scrapped. “Amelia Earhart – The Lost Evidence” had disappeared like you-know-who. The reason was as simple as it was

embarrassing.

After the show aired, it took a Japanese historian and blogger all of thirty minutes to find the photo in an obscure travel book held by the National Library of Japan. *The Life Line of the Sea, My South Sea Memoir* (South Sea Archipelago Photo Book) was written by Notoaki Nishino of Palau and printed by Fumio Almano in Tokyo. It was published in 1935, two years before Earhart and Noonan disappeared. The source of the photo in the National Archives was exactly what TIGHAR predicted.

In response to a derisive wave of media reaction, the History Channel released a statement:

*HISTORY has a team of investigators exploring the latest developments about Amelia Earhart and we will be transparent in our findings. Ultimately, historical accuracy is most important to us and our viewers.*

Meanwhile, a previously scheduled appearance by TIGHAR’s Ric Gillespie at the New England Air Museum on July 16 provided the perfect opportunity to point out the show’s many other errors and review the genuine evidence of the flight’s fate. (Ric’s presentation is on You Tube at <https://www.youtube.com/watch?v=8RZWQyul4W0>.)

It would be nice to think that the History Channel fiasco will finally put to rest the oft-debunked Japanese Capture Theory, but experience has shown that the survival of conspiracy theories has little to do with verifiable facts.



# Unmasking the Castaway



**W**ho was the castaway whose partial skeleton was found on Gardner Island (now Nikumaroro) in 1940? The finder, Colonial Service Officer Gerald Gallagher, at first thought “there seems to be a very slight chance this may be the remains of Amelia Earhardt (sic).” The Acting Medical Officer in Tarawa, Dr. Lindsay Isaac, believed the bones were those of an “elderly male of Polynesian race” that had been in a “sheltered position for upwards of 20 years and possibly much longer.” After examining and measuring the bones, Dr. David Hoodless, Principal of the Central Medical School in Fiji, was “not prepared to give an opinion on the race or nationality of this skeleton, except to state that it is probably not that of a pure South Sea Islander-Micronesian or Polynesian. It could be that of a short, stocky, muscular European, or even a half-caste, or person of mixed European descent.” Hoodless felt the man was “not less than 45 years of age and that probably he was older: say between 45 and 55 years.” He estimated the man’s height to be approximately 5 feet 5½ inches.

Dr. Hoodless suggested that, if a more detail analysis was required, “the obvious course to adopt would be to submit these bones to the Anthropological Department of the Sydney [Australia] University where Professor Elkin would be only too pleased to make a further report.” But the High Commissioner of the Western Pacific High Commission (WPHC) was content with Hoodless’ opinion which “appears to definitely indicate that the skeleton cannot be that of the late Amelia Earhart.”

Gallagher, who had started the whole affair, ended up discounting Hoodless’ findings and agreeing with Isaac. In a final note he wrote:

*“I have read the contents of this file with great interest. It does look as if the skeleton was that of some unfortunate native....”*

The fate of the bones is unknown, and the WPHC file was forgotten until TIGHAR tracked it down in 1998. The bone measurements taken by Hoodless were evaluated by forensic anthropologists Karen R. Burns, Ph.D. and Richard L. Jantz, Ph.D. Using FORDISC 2.0, an interactive computer program

created by Richard Jantz and Steve Ousley for the classification of unknown adult crania according to race and sex. They both concluded that the skull was more likely European than Polynesian and most similar to that of Norse (northern European) females. The level of certainty, however, was very low. Based on the length of the long bones measured by Hoodless, they judged the castaway’s stature to fit Earhart’s supposed height of 5’7” to 5’8”. They concluded that the skeleton, “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.”

Burns and Jantz released their analysis in a paper titled “Amelia Earhart’s Bones and Shoes? – Current Anthropological Perspectives on an Historical Mystery,” co-authored by Richard E. Gillespie and Thomas F. King, at the annual convention of the America Anthropological Association in Philadelphia on December 5, 1998.

Seventeen years later, in 2015, Pamela J. Cross at the University of Bradford in England and Richard Wright, Emeritus Professor of Anthropology at the University of Sydney in Australia, published a paper in the *Journal of Archaeological Science* titled “The Nikumaroro bones identification controversy: First-hand examination versus evaluation by proxy – Amelia Earhart found or still missing?” Cross and Wright took robust issue with Burns and Jantz’s findings. Applying a computer program, CRANID, developed by Wright, they argued that “[T]he 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.”

Kar Burns died in 2012, but Richard Jantz responded to the Cross/Wright paper with a decision to re-evaluate his findings using tools and data developed since his initial analysis in 1998. FORDISC 3.1 is much advanced over both the earlier version and CRANID. To carry the analysis further and explore possible physiological similarities between



To determine the actual length of Earhart's arm bones for comparison to the castaway bones, Glickman used a photo of Earhart holding a can of lubricant, an example of which was procured on eBay and used to accurately scale the photo. (Jeff reportedly had some difficulty explaining to his wife why he had purchased

an ancient half-full can of grease.)

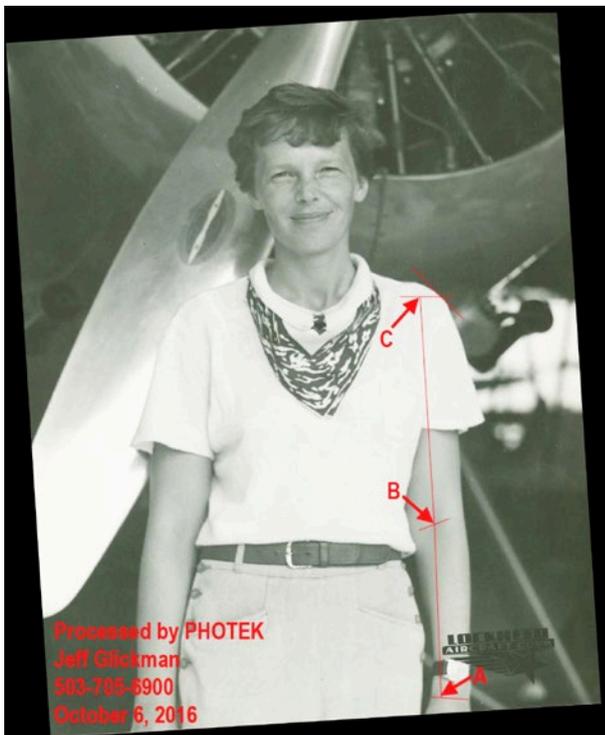
For data relating to Earhart's general build, Purdue University Special Collections allowed TIGHAR archaeologist Gary Quigg and Conner Prairie Museum historic clothing expert Paula Guernsey to take extensive measurements of Amelia's jacket and trousers. The data were shared with the Purdue archives for future use by historians.



the castaway and Amelia Earhart, Jantz turned to TIGHAR for new forensic data.

For an accurate assessment of Earhart's height, imaging expert Jeff Glickman, with the cooperation of the Smithsonian National Air & Space Museum, recreated an historical photo of Earhart standing with her trans-Atlantic Lockheed Vega now in the NASM collection.<sup>1</sup>

Glickman used another photo to confirm the unusual "brachial index" (ratio between the humerus and radius bones) shared by Earhart and the castaway.<sup>2</sup>



Processed by PHOTEK  
 Jeff Glickman  
 803-705-6900  
 October 6, 2016

After more than two years of research, Jantz's re-evaluation of the castaway bone measurements is now complete and is being submitted for publication in a peer-reviewed journal. While we're waiting for his paper to appear, TIGHAR senior archaeologist Tom King has written a paper titled "The Archaeological Context of the 1940 Nikumaroro Bones Discovery" soon to be published on the TIGHAR website. Ric Gillespie is completing a paper addressing the assertions made in the 2015 Cross/Wright paper and detailing the lost opportunities of the 1940/41 British investigation.

An elderly Polynesian male? A short, stocky European or half-caste male? Amelia Earhart? The three forthcoming papers – anthropological, archaeological, and historical – will provide the information needed to determine the probable identity of the Castaway of Gardner Island.

1. [https://tighar.org/Projects/Earhart/Archives/Research/Bulletins/77\\_EarhartHeight/Earhart-Height-Report-FINAL.pdf](https://tighar.org/Projects/Earhart/Archives/Research/Bulletins/77_EarhartHeight/Earhart-Height-Report-FINAL.pdf)  
 2. [https://tighar.org/Projects/Earhart/Archives/Research/Bulletins/78\\_EarhartArms/78\\_EarhartArms.html](https://tighar.org/Projects/Earhart/Archives/Research/Bulletins/78_EarhartArms/78_EarhartArms.html)

# TIGHAR



TIGHAR is internationally known for our investigations of famous aviation mysteries. Expeditions, archival research, and scientific analyses dominate our reports to the TIGHAR membership and coverage in the media, but some of TIGHAR's most important work happens behind the scenes.

## IN-PERSON EDUCATION

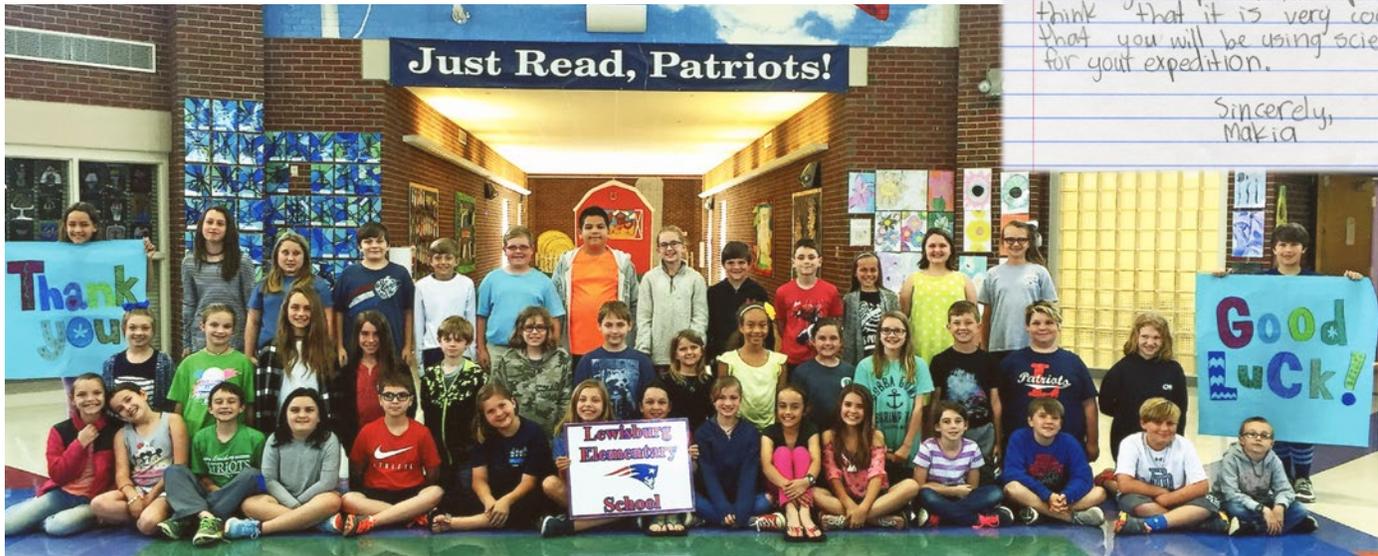
Hardly a week goes by without a request from a student doing a school project on Amelia Earhart. No matter how busy, Ric always takes time to answer their questions or do a telephone or Skype interview. It's not unusual for Ric to Skype with an entire class as he did recently with the Lewisburg, Mississippi Elementary School 4<sup>th</sup> Grade. Afterward, every student in the class wrote a thank you letter.

This is just one of thirty-three letters from the Lewisburg 4<sup>th</sup> Grade Gifted class.

Dear Mr. Gillespie,  
I hope TIGHAR finds Amelia Earhart's plane. I think that it's smart to have your expedition in Nikumorard instead of the middle of the ocean. Whenever we skyped it was very interesting. So thank you. I appreciate that you took time to skype us.

Your expedition to find Amelia Earhart's plane will inspire lots of kids around the world to keep trying, like how you inspired me. I especially think that it is very cool that you will be using science for your expedition.

Sincerely,  
Makia



Organized by TIGHAR climate Scientist L. DeWayne Cecil, a group of "STEM" (Science Technology Engineering Math) students in Asheville, NC followed the 2017 Niku IX expedition, including two live satellite phone calls from the expedition.

## EDUCATIONAL PUBLICATIONS

TIGHAR works closely with educational publications who use our work to teach a wide variety of skills. *Scholastic Scope Language Arts Magazine's* May 2017 issue featured an exercise based on an article about TIGHAR's work titled "What Really Happened to Amelia Earhart?" The article intentionally contains numerous grammatical and capitalization errors. "We love this story. Too bad we couldn't be bothered to edit it. Will you fix it for us?"

Educational activities don't bring in any funding but they always get priority at TIGHAR because, in the grand scheme of things, they are the most important work we do. Your membership makes these behind-the-scenes aspects of TIGHAR possible. TIGHAR thanks you. The kids thank you.

## CONTRACT SERVICES

Another low-profile aspect of TIGHAR is the work we do through our Contract Services Division. Federal law requires all U.S. Government agencies to determine whether new development projects will have an adverse impact on historic sites. When the sites in question are aviation-related, who ya gonna call? TIGHAR's Contract Services Division, led by aviation archaeologist Gary F. Quigg, has become the go-to source for on-site surveys of historic crash sites.

The investigative tools employed by the Contract Services Division – archival research, archaeological field survey, artifact identification, data analysis – are the same techniques TIGHAR uses in addressing the much higher-profile, and infinitely more challenging, historical mysteries.

Usually sub-contracting to archaeological firms hired to handle large projects, TIGHAR does site surveys in the U.S. and overseas for such agencies as the USAF, the National Park Service, the National Forest Service, the Bureau of Land Management, and so forth. Sometimes we're allowed to publish the official report. The full report on TIGHAR's 2006 survey of World War II Japanese aircraft at the Old Colonia Airport in Yap, Federated States of Micronesia is on the TIGHAR website at [https://tighar.org/Contract\\_Services/Yap/csYap.html](https://tighar.org/Contract_Services/Yap/csYap.html). The photo below is part of that report.



*Gary Quigg is Director of TIGHAR's Contract Services Division. Gary holds a Masters Degree in Public History from Indiana University-Purdue University and is a member of the Register for Professional Archaeologists (RPA). He has been a TIGHAR member since 1990 and has served on six TIGHAR expeditions to Nikumaroro.*



Sometimes, as in the case of a recently completed investigation of the 1955 crash of an Air Force jet, we're prohibited from sharing the results of this important and often fascinating work. We'll tell you about it if and when we can.

*Nakajima BN5 "Kate" dive bomber on Yap, Federated States of Micronesia.*



# Niku IX Preliminary Report

by Tom King, TIGHAR Senior Archaeologist

The Niku IX Expedition was a success in all kinds of ways, though exactly how much of a success will depend on the results of lab work and other analyses now underway or being planned.

The expedition was a cooperative venture involving TIGHAR, Betchart Expeditions, the National Geographic Society, the Institute for Canine Forensics (ICF), the Woods Hole Oceanographic Institute (WHOI) and of course the government of Kiribati, which extended every courtesy and helped us in innumerable ways. Thanks are due to everyone, notably including the 60 or so Fijian, American, Australian and New Zealand participants who struggled through the Scaevola, plumbed the

depths on the reef, and sifted through tons of coral on the Seven Site – most paying their own travel expenses. We traveled to Nikumaroro from Fiji aboard the MV *Reef Endeavour*, owned by Captain Cook Cruises and capably captained by the modest Ken Ballentine. We oldsters did miss the homey *Nai'a*, but the *Reef Endeavor* and her fine crew served us nobly.

In brief, here are the results I can report at the moment.



**Back row:** Lew Toulmin, Michael Silvert, Arthur Rypinski, Jaime Bach, Maria Roberts, Tom Roberts, Margaret Betchart, Andrew McKenna, Rob Draper, Robert Christopherson, John Atwill, Philip Ingraham.  
**Middle Row:** John Rippinger, Nancy Farrell, Kim Zimmerman, Dawn Johnson, Bobbé Christopherson, Deb Wade, Marjorie Smith, Mary Ingraham, Keith Gordon, Joe Cerniglia.  
**Front Row:** Kenton Spading, Tom King, John Clauss, Julie Oakley-Jagger.

❖ The dogs of the ICF – Border Collies Berkeley, Kayle, Piper and Marcy – and the humans they let handle them, of course – performed superbly, braving the skies and the waves and the coral and crabs with great aplomb. On day one at the island they demonstrated that they could detect graves, and by day three they had alerted under the “Big Ren” and in the “Skull Hole” at the Seven Site and – importantly – nowhere else along the Seven Site ridge. This gives us independent confirmation that we’ve been right in thinking that it was under the Big Ren – or its mother – that the Seven Site castaway died and left the 13 bones collected by the colonists and Gerald Gallagher. And that the “Skull Hole” is indeed where the cranium was buried and subsequently exhumed.



*ICF Specialist Kayle at the Seven Site. Photo courtesy National Geographic.*

❖ A dedicated band of volunteers then dug like crazy under the Big Ren, and cleaned out the Skull Hole (again), sifting and screening the coral rubble (which ALL looks like bones), with dogs re-



*Dawn Johnson and Kim Zimmerman retrieve soil samples for DNA analysis. Photo courtesy John Clauss.*

checking the area from time to time. Tom Roberts, Dawn Johnson, Jaime Bach, Nancy Farrell, and John Clauss coordinated and mapped in what was dug and found, and osteologist Dave Grant repeatedly spoiled people’s days by saying “nope, coral.” My son Josh took responsibility for the Skull Hole, while I hobbled around acting directorial and Maria Roberts took skillful notes. No obvious human bones turned up, but stay tuned, analysis of what we did find is not complete. And National Geographic is pursuing the extraction of DNA from soil samples recovered under sterile conditions (masks, surgical gloves and sleeves) by Dawn Johnson and Kim Zimmerman.

❖ Meanwhile, on the North Cape, teams working with Bob Draper were unable to find the possible cairn he saw there in 2015, but did find – of all things – what appears to be a substantial prehistoric site, with graves (detected by the ICF pups but apparent to the humans as well) and a shallow freshwater pond – probably fed by rain – with dragonflies.

❖ In the colonial village, teams coordinated by Joe Cerniglia found and recovered the intriguing “UCA PHARM” vial noted but not collected in 2015, and also collected bottles at the colonial dispensary for comparison with those from the Seven Site. They also documented and in some cases recovered other interesting artifacts, including a shoe that’s now in my freezer awaiting analysis and conservation. It appears much like those worn by Earhart on the World Flight, and we naturally want to compare it with the shoe parts found in 1991 at the Shoe Site.

❖ At the Shoe Site, teams coordinated by Kenton Spading found the area heavily overwashed and overgrown, and weren’t able to do much. The same, sadly, applied to the area northwest of Bauareke Passage where colonial veterans interviewed in 2011 by Gary Quigg and his Solomon Islands team had reported seeing something like an airplane door.

❖ Things were disappointing underwater, too, where divers coordinated by Andrew McKenna were unable to find a suspicious piece of metal noted in 2015, and found most of the area seriously contaminated with *Norwich City* wreckage. However, TIGHAR, Betchart, and WHOI divers were cheered to find the reef looking pretty healthy, with a sizeable shark population. They were also visited by a whale, probably a Minke.

❖ At the end of the trip, acting on report that a briefcase of bones had been seen in a warehouse

on Tarawa, National Geographic Archaeologist in Residence Fred Hiebert, ethnographer Jaime Bach and I flew there and – with magnificent help from the government in the midst of the national Independence celebrations – searched the warehouse without result. This quest will continue.

- ❖ We pulled several dozen big garbage bags of plastic flotsam off the beaches; a drop out of the Pacific Garbage Patch’s bucket, but it made us feel good anyway. Margaret Betchart was mainly responsible for this effort.
- ❖ Those of us who knew her held brief memorial services for our late and much loved TIGHAR-sister Kris Tague at the Shoe Site and in the village, and were glad to see that the tie we tied on a palm tree in 2007 to honor our late and also much lamented colleague Howard Alldred was still waving proudly.

- ❖ Finally, we added a dozen or so songs to the *TIGHAR Tunes* songbook, and raised over \$3,000 in pledges to the Phoenix Islands Protected Area through Mike Silvert’s skillful auction of my overrated novels.
- ❖ Various aspects of the operation were captured on video by Rick Pettigrew of The Archaeology Channel as well as by National Geographic videographers Ben Zupo and Corey Robinson; National Geographic writer Rachel Shea took it all down in words.
- ❖ We all emerged from the expedition with only minor cuts and scrapes, skillfully treated by expedition physician (and veterinarian and seamstress) Suzanne Martin. I’m grateful to all involved for making the trip such a success.

As the *Reef Endeavour* made her final circumnavigation and pointed her bow toward Fiji, there were many fist-pumps along the rail and shouts of “Niku Ten, Niku Ten!”

And the dogs barked.



## CONFIRMATION

Depending on how National Geographic’s soil testing turns out (admittedly a long shot), the most notable accomplishment of the Niku IX expedition is undoubtedly the performance of the dogs from the Institute for Canine Forensics at the Seven Site. As Tom King says in his report:

“This gives us independent confirmation that we’ve been right in thinking that it was under the Big Ren – or its mother – that the Seven Site castaway died and left the 13 bones collected by the colonists and Gerald Gallagher. And that the “Skull Hole” is indeed where the cranium was buried and subsequently exhumed.”

Being sure we have the right place is important. Gerald Gallagher’s description of where he found the partial skeleton was sparse:

September. Working party buried skull but made no further search. Bones were found on South East corner of island about 100 feet above high water ordinary springs. Body had obviously been lying under a "Ren" tree and remains of fire turtle and dead bird appears to indicate life. All small bones have been removed by giant coconut crabs which have also damaged larger ones. Difficult to

[Telegram from Gallagher to WPHC Secretary Vaskess, October 17, 1940]

The “South East corner” is a huge area and the reference to “high water springs” means only that the site is well above where anything could be washed in by the tide. The “ren” tree (*Tournefortia argentea*) is a salt-tolerant species that is found

all over the island. Nonetheless, after many failed attempts, dead ends, and false starts, TIGHAR was able to identify a location that matched Gallagher’s description and yielded archaeological evidence that suggests the presence of an American woman of the 1930s. One tiny bone found at the site might be the tip of a human finger, but the DNA lab couldn’t be sure. We found the remains of fires, turtles, birds, and small fish apparently cooked and eaten by a non-islander, and a twice-dug hole seemed to fit Gallagher’s account of exhuming a skull that had earlier been buried by a work party. And, sure enough, there was even a ren tree. A female American seems to have been at this site doing things that suggest she was a castaway trying to survive by catching and eating local wildlife, but is this where she died?

Enter the forensic dogs. What the dogs detect is not bone, but the chemicals left behind in the soil when a human body decomposes. If you’re searching for an old unmarked grave, dig where the dogs “alert” and you’ll find bones. But, in this case, the body wasn’t buried. Crabs had carried off many of the bones and Gallagher picked up what was left. The island has a large population of rats. Rodents chew bones for the calcium. Nonetheless, it was hoped that the forensic dogs would lead researchers to undiscovered bones from which DNA could be extracted and matched to an Earhart-family reference sample. The dogs alerted on sites near the ren tree and on the “skull hole.” Excavation did not turn up the hoped-for bones, but the dogs’ identification of the tree and the hole as places where human remains decomposed does provide confirmation that we have the place where the castaway died and reinforces our interpretation of the artifacts and features we have found there.



# MAXIMUM EFFORT

## FINDING AMELIA the true story of the Earhart Electra



The maximum effort to get TIGHAR's new book *Finding Amelia – The True Story of the Earhart Electra* finished this year is back on track after the unexpected, but ultimately beneficial, distraction of the bogus History Channel show. The Japanese Capture dragon has been driven back into its cave and we can again move ahead with genuine historical research and writing.

Since the project's inception, 152 TIGHAR members have sponsored the writing of *The True Story of the Earhart Electra* by joining the TIGHAR Literary Guild with a \$100 (or more) contribution. Seven TIGHARs have become Book Patrons with a \$5,000 gift. All supporters receive draft chapters for review and comment, will receive a signed copy of the finished book, and will be recognized in the book's Acknowledgments.

New draft chapters will be going out as soon as they're written, but more help is needed. If you're not a member of the Literary Guild, please join today. If you're already a member, please continue your support. If you're able to become a Book Patron you can make a single contribution or schedule your support. Just let Ric know what you'd like to do.

*Finding Amelia – The True Story of the Earhart Electra* will include seldom-seen photos tracing the many changes to the aircraft from its delivery to its disappearance. For example:



*That's clearly Amelia, but is that her Electra with painted engine cowlings? Photo courtesy of Remember Amelia, the Larry C. Inman Historical Collection on Amelia Earhart.*

Yes, her Model 10E Special, then registered R16020, had painted engine cowlings for a short time in August and September 1936.

This photo was taken August 18, 1936. Amelia is at the old Turkey Hill Lockheed plant where she has had the cowlings of her new Electra emblazoned with the gold and black of Purdue University in preparation for a visit from university President Edward C. Elliott. The photographer is there because she has just announced that she will be competing in the Bendix Trophy Transcontinental Air Race on September 4.

**PLEASE USE THE REVERSE SIDE OF THIS FLYER OR GO TO  
THE TIGHAR WEBSITE TO MAKE YOUR CONTRIBUTION.**

# MAXIMUM EFFORT

- Yes, please include me in the TIGHAR Literary Guild. Enclosed is my contribution of \$100.
- Yes, please add my enclosed contribution to my membership in the TIGHAR Literary Guild.
- Yes, please have Ric contact me about becoming a Book Patron.

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## THANKS FOR YOUR HELP.

