Something over two thousand fish bones, most of them smaller than a house key, are now at the Anthropology Department of the University of Alabama in Birmingham for analysis.

A similar number of bird bones are at the Bishop Museum in Honolulu to be identified and cataloged.

The mollusks are in Guam with Micronesian Archaeological Research Services.

The estimated cost of all professional faunal analysis contracted for so far is $10,600.

Answers are expensive.

The Underwater Search

The reef slope drops off much more steeply than anyone knew. The ROV got great HD video footage of what is basically a cliff face that is too steep to catch aircraft wreckage. The only man-made objects encountered, aside from debris from the Norwich City shipwreck, were what appeared to be a semi-circle of wire (but may also have been a piece of “whip coral”) and a couple of pieces of rope. Perhaps coincidentally, these objects were seen deep on the reef slope below where we think the airplane went over the edge.

Despite frustrations and mishaps, the ROV search gave us the first detailed picture of the underwater environment at Nikumaroro below scuba depth (about 100 feet). We had the capability to search down to 300 meters (1,100 feet) but it turned out that that’s where we need to begin to search. At that depth you reach the base of the cliff where the slope begins to shallow out. It’s where anything that went over the reef edge that was too heavy to be swept away by surf or currents is most likely to have come to rest. Three hundred meters is also the transitional area where the last faint traces of sunlight from the surface fade to the total blackness of the deep ocean. Airplane wreckage in this “twilight zone” should not be obscured by coral growth.

“WE’RE GONNA NEED A BIGGER BOAT.”

During the Niku VI expedition the ROV was operated from both Nai’a and ViSi – good ships, but they were chosen for their suitability to transport and support the land archaeological team. With no way to hold a steady position while being pushed about by wind and waves, the ships were acceptable platforms for only a relatively shallow search. To conduct a search at depths well below 300 meters we’ll need a more sophisticated ROV with a much longer tether and a ship with “dynamic positioning” – powerful thrusters linked to a GPS system that allow the ship to maintain a rock-solid position over a particular spot on the ocean bottom. The daily charter rate for such ships is at least double the rate for the ships we’ve used in the past.

Answers are expensive.

TIGHAR will return to Nikumaroro in July 2012 on the 75th anniversary of the Earhart disappearance, or sooner if possible, to conduct a deep water search for whatever survives of the Earhart Electra. There may also be a ground component to continue archaeological work at the Seven Site. We’ll have more details as the plan evolves.

In the meantime:

We’ll continue to analyze the artifacts, faunals, and data collected at the Seven Site.

Forensic examination and analysis of the 1937 photo that may show aircraft wreckage on the reef will continue.

A complete catalog and analysis of the radio distress calls heard for several days after Earhart’s disappearance is nearing completion.

There are some new possibilities in our efforts to find the bones that were sent to Fiji in 1940.

We’re planning a research trip the Solomon Islands to examine British colonial records in the archives in the capital of Honiara and conduct interviews with surviving former residents of Nikumaroro.

Watch the TIGHAR website (www.tighar.org) for updates and opportunities to participate.

As always, your continued support makes it all possible. Thank you.