

What's A Dado Anyway?

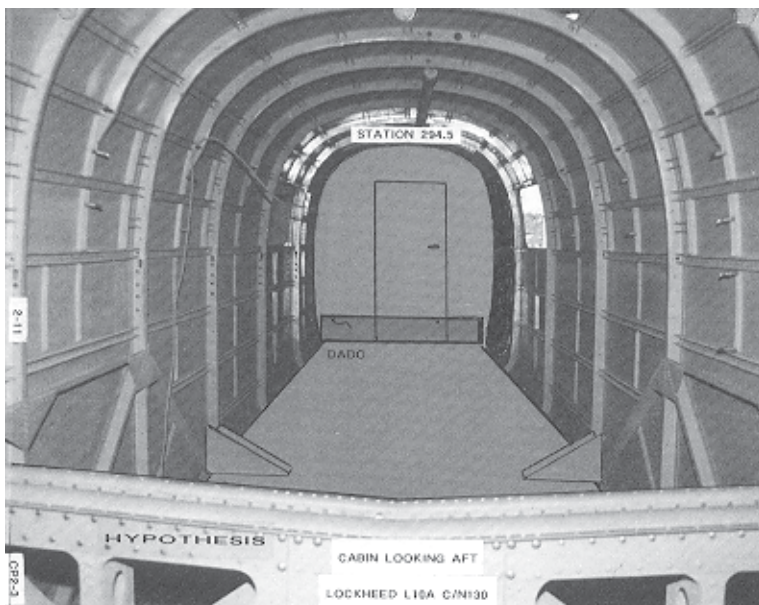
When we first found the thing back in 1989 we took it to be the cover of some kind of box. Although it didn't look much like an airplane part it was, at least, made of aluminum and, at the end of a grueling expedition which had found little else, that was good enough.

In the catalogue of artifacts from NIKUI, accession number 2-18 is described as "aluminum plate with riveted bands on edges; part of box?" found at "Karaka village, Ritiati, structure 17 (carpenter's shop?)." After six years of research we're now able to provide a somewhat better description.

TIGHAR Artifact 2-18 is a structure known in aviation parlance as a "dado." An internal fixture rather than part of the airframe, a dado is a panel (often insulated) which covers and protects the juncture of the aircraft's cabin flooring and the fabric-covered interior wall. Most commonly found in "cabin-class" twin-engined airplanes, they are typically a feature of civilian rather than military aircraft.

The dado found on Nikumaroro has a number of features which make it particularly interesting:

1. Although evidently used in what appeared to be the village's carpentry shop as a surface to hammer upon, it was never cut apart, broken or even seriously bent. Alone among the various pieces of aircraft debris found on the island to date, 2-18 is a complete structure, and yet nowhere does it carry a part number.
2. Identical pry marks at each of the holes in the right angle bend suggest that it was originally attached with nails to wooden flooring.
3. Several modifications made to the structure suggest that it was installed in a different location and served a slightly different purpose than originally intended. Rather than being one of a string of dados along a cabin wall, 2-18 appears to have been a stand-alone item.
4. When the dado was found, a unique elongated rivet still had remnants of insulation attached which appeared to be comprised of 1/4 inch kapok covered with a blue woven fabric. Unfortunately, this material was lost during the NTSB's examination, but excellent photos were taken by TIGHAR and provide a reference for the material.



Graphic and primary research by Frank C. Lombardo, TIGHAR #1806.

Was there such a fixture aboard NR16020? We don't know. Is it reasonable to postulate that 2-18 is part of the Earhart Electra? Here is how the above-listed features correspond to what is known about that aircraft.

1. The lack of a part number is consistent with what we see in existing Lockheed 10s. Electras generally have part numbers only on major castings (i.e. landing gear legs). Part numbers on other components, when they appear at all, are handwritten in marker. Military aircraft, on the other hand, consistently feature stamped-in part numbers on each component.
2. The flooring in Earhart's aircraft, like that in all Model 10s and Model 12s, was 5-ply wood with a balsa core. We have a wooden access panel from the floor of a Model 12. The metal strips around its edge are attached with nails which also fit the holes in the right angle bend of 2-18.
3. Although it was not uncommon for dados to be used along the cabin wall in Lockheed 10s, the few existing photos of the interior of NR16020 show no such feature. However, we know that NR16020 had a bulkhead installed at Fuselage Station 294.5 where, in the airline version of the Electra, the main cabin was separated from the lavatory. If, perchance, this bulkhead did include a dado (anybody got a photo?) then 2-18 would fit very nicely between the wall and the door as a stand-alone item.
4. Pursuing this hypothesis, Lockheed specifications call for the "partition enclosing the lavatory compartment" to be insulated with a material known as "seapak" (1/4 inch kapok covered with woven fabric, often blue in color). The unusual elongated rivet would fall in the correct position to anchor a rod or bungee for holding the lavatory door open.

In summary, Artifact 2-18, the dado, is an aircraft component which was used for local purposes by the villagers on Nikumaroro. At this time we have no way of knowing for certain where it came from except to say that it does not appear to be from a military aircraft; that it is consistent with features found on aircraft of the size and type of Earhart's Electra; and that it is possible to construct a reasonable hypothesis which places the object aboard the aircraft.

