

TIGHAR Tracks



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TIGHAR In Tarawa

Research Report

By Ric Gillespie, Executive Director, TIGHAR



TARAWA (PRONOUNCED "TARAWA") IS THE capital of the Republic of Kiribati, the island nation which owns Nikumaroro. Although TIGHAR's investigation of the Earhart disappearance has, from the beginning, enjoyed the endorsement and close cooperation of the government of Kiribati, we had never before had the opportunity to visit the nation's capital in person, do research in the national archives, or meet face-to-face with government officials. This was a long-awaited and very important trip.

Kiribati is pronounced "KIRibas" and is the local pronunciation of the English word "Gilberts." Historically, the islands that now make up the western regions of Republic of Kiribati have been known as the Gilbert Islands and, from 1892 until 1979 they were administered by the Gilbert and Ellice Islands Colony of the British Empire's Western Pacific High Commission. When the colony was broken up, the Ellice Islands to the south became the nation of Tuvalu (pronounced tuVALu) and the Gilberts, along with several other islands and archipelagoes including the Phoenix Group, became the Republic of Kiribati.

Earhart Project expedition team member Van Hunn and I spent seven days in Tarawa – from Tuesday, March 20 to Monday, March 26, 2001. Our original plan had been to stay until Thursday, March 29 but when we arrived we learned that Air Nauru had changed its schedule and now only makes the return trip to Fiji on Mondays. This meant that we would either have to accomplish 10 days' work in 6 days or stay until April 2nd. We decided to book our departure for the 29th, and extend our stay if necessary.



As it turned out we were able to complete our work and make the March 26 flight.

Getting to Tarawa

At present, three airlines operate into and out of Bonriki International Airport on Tarawa.

Air Kiribati operates Chinese twin-turboprop aircraft between Tarawa and the other atolls of the Gilberts archipelago. Each island has an airstrip and internal air service within the Gilberts seems relatively routine. Air Kiribati makes no international flights and does not service Kiritimati (Christmas Island) which is part of Kiribati. The only way to get from Tarawa to Kiritimati is to fly to Fiji, then Hawaii, and thence to Kiritimati. There is no air service at all to the other outer inhabited islands – Fanning, Washington, and Kanton.

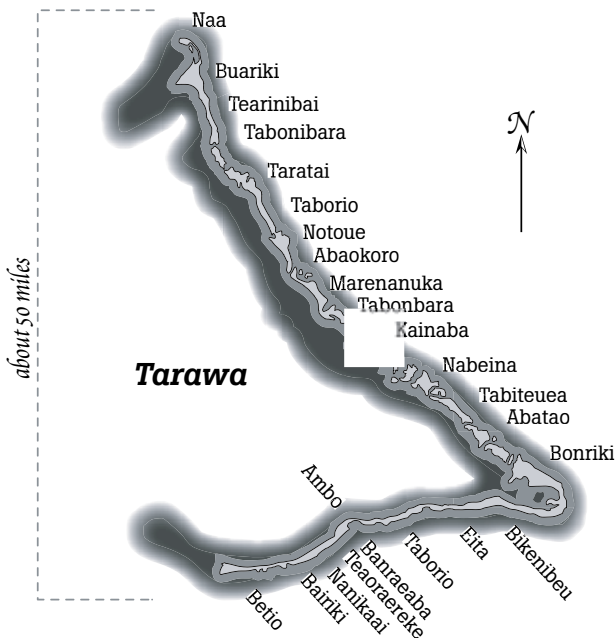
Air Marshall Islands operates one flight per week to and from Majuro in the Marshalls Islands. They now only have one airplane, an aging twin-turboprop Hawker Siddely, having sold their state-of-the-art but impossibly troublesome Saab 2000 to Vanuatu who have reportedly since sold the aircraft to somebody else. (That Saab is the same beast that stranded nine of us on Funafuti in Tuvalu for six days in 1997.)

Air Nauru, the national carrier of the island nation of Nauru (pronounced "nawROO") is the only carrier now flying between Tarawa and Fiji. The airline's routes include service from its home base at Nauru to several destinations in Australia, the Central Pacific, and until recently, Southeast Asia and the Philippines, with a

total fleet consisting of one Boeing 737-400. Needless to say, the airline is stretched a bit thin and the Australian Civil Aviation Authority recently shut them down for ten days until they promised to make administrative and infrastructure improvements at their home base. When Air Nauru doesn't fly, the government of Kiribati has to charter Air Pacific (the Fijian national airline) to fill in – an inefficient and expensive expedient. Air Nauru is now flying again but only on “local” routes around the Central Pacific. The airplane itself is clean and attractive and seems to be well maintained but delays and cancellations are routine. Both our arriving and departing flights were many hours late.

Unlike at Funafuti in Tuvalu, the airport on Tarawa – Bonriki International – is not a modernized WWII airstrip but is a new facility. Its single 6,600 foot runway is paved and lighted.

Tarawa is an atoll – an irregular ring of coral surrounding a central lagoon – but, as is typical of most atolls, only a portion of the coral perimeter is above water. The inhabitable portion is an eastward pointing wedge roughly 50 miles in length made up of a series of small islands, each a mile or two long but only a few hundred yards wide.



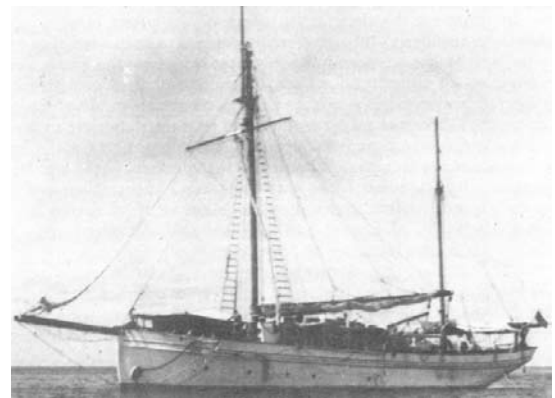
The entire string of islands is now joined by causeways so that a single paved road runs from the northern island of Naa, down around the “elbow” at Bonriki (where the airport is) and ultimately to Betio (pronounced “BAYso”) at the southern extremity. It was on Betio that the British colonial offices were located in the days before WWII.

The Japanese occupied Tarawa in December 1941 at which time the British colonial personnel and Australian and New Zealand coastwatchers were rounded up and imprisoned. All of the Gilbertese, except a few on the northern islands who managed to hide, were shipped away to be laborers elsewhere in the Greater East Asian

Co-Prosperity Sphere. In 1942 and '43 the Japanese brought in Korean workers and construction materials to turn Betio into one of the most heavily fortified islands in the Pacific. When American B-24s from Funafuti began to bomb the island in September of 1943 the Japanese summarily shot or beheaded all of the European prisoners.

Another casualty of the Japanese occupation was the Royal Colony Ship *Nimanoa* which had taken Harry Maude and Eric Bevington to Gardner in 1937 and had carried the bones of the castaway to Tarawa and to Fiji in 1941. Later that year her captain grounded her on the edge of Betio's lagoon reef rather than let her fall into enemy hands.

She was a rusting hulk when, on November 20, 1943, the U.S. 2nd Marine Division came ashore across that reef. Japanese machinegunners hiding aboard *Nimanoa*



RCS *Nimanoa* in happier days. Photo courtesy E. Bevington.

riddled the wading Marines from behind as they struggled toward the beach. Naval gunfire and bombs from F4F Wildcats reduced the old ship to a pile of wreckage. Over the next three days, the Marines clawed their way ashore and finally rooted out and destroyed the Japanese defenders in one of the bloodiest battles of the Pacific war. Over 5,600 men (about 1,100 Americans, 3,000 Japanese soldiers, and 1,500 Japanese and Korean civilian laborers) died on an island two miles long by a few hundred yards wide in a period of about 76 hours.

I will make no attempt here to describe the ferocity of that action except to say that today, 58 years later, despite decades of intense residential and commercial activity and nothing even remotely resembling any attempt at historic preservation, signs of the battle are everywhere. It is routine to scuff your foot on the ground and turn up a bullet or a shell casing. Pockmarked bunkers and blasted gun emplacements dot the landscape. Construction projects still unearth unexploded shells and bombs – and bones. The reef is littered with the rusting remains of tanks and “amtracs” (the amphibious landing vehicles used in the assault).

Van and I inspected and photographed the remains of several aircraft on the ocean-side reef. Most were evidenced by engines only but in one case a substantial

portion of the aluminum centersection and wing structure of what appears to have been a single-engined Japanese aircraft were still present despite a worst-case situation where the wreck is alternately submerged and exposed by the tide. Its survival is doubtless due to the fact that Japanese aircraft aluminum was anodized against corrosion and, unlike Nikumaroro, Tarawa's reef flat (being in a more benign weather area) never gets pounded by heavy surf.

Over on the lagoon side (Red Beach #2 in 1943) we hired a local boat at high tide and paid our respects to the *Nimanoa*. Van had his mask and snorkel along and we both went over the side and visited the old girl – “hands-on history” at its most poignant.

On Tarawa, one has the impression of being on the last scrap of earth on the edge of the world. It is as if some great ship has sunk stranding way too many survivors on far too little land. People live in extended family groups packed together on every available inch of ground. A house might be a one or two room cottage with



Ric snorkels on the Nimanoa.
Photo courtesy V. Hunn.

a cement floor and a tin roof or, more commonly, simply an elevated wooden platform with a roof of coconut thatch. The only “green space” is the blue/green water of the lagoon which serves as a communal latrine. Drinking water is delivered twice a day by tank truck drawing from government desalinization plants. “Catchment” (rain) water is much preferred but not many people have enough roof area to collect significant amounts from the not-infrequent showers. Europeans and a few well-to-do people have houses big enough to maintain private cisterns.

Although English is nominally the country's “official language,” few people in the villages or on the outer islands of the Gilberts speak anything but Gilbertese.

A walk down a residential street in Tarawa leaves you with three impressions: pigs, dogs, and kids. Most families have several pigs, kept in low pens and fed on coconut from the handful of trees on their land. Dogs are everywhere. It's inconceivable to be anywhere outdoors and not be able to see at least one, and usually two or three, medium-sized, rangy, lethargic dogs. They are outnumbered only by the children, who are neither rangy nor lethargic. Well-fed, energetic, playful and often impossibly cute, they dash about like flocks of noisy birds. Older children are often seen in the clean and pressed uniforms of the various religious schools – Catholic, Protestant, Mormon, or Seventh Day Adventist (no Moslem, Hindu, or Buddhist). After high school many children continue

their education overseas, usually in Fiji – and every year about 1,100 of them return home to look for jobs that are not there.

The unemployment rate is so high that no one seems to know what it is. It's just high, that's all. There is nothing to do. There is no industry. There are no tourists to speak of. If you don't work for the government or for one of the few foreign companies (Toyota, for example, has a dealership and maintenance facility on Bikenibeu) you get by from subsistence fishing and agriculture.

Any large infrastructure projects are sponsored by foreign governments or companies. Foremost of these is Japan in the form of voluntary war reparations. Except for an active Peace Corps office, U.S aid is almost nonexistent. There is no U.S. consul. Australia and New Zealand each have a High Commission (embassy) on Bairiki and provide various services. There is also a British Consulate. The People's Republic of China has a huge embassy, but nobody seems to know why.

With so many people packed into such a small space, health problems are inevitable. Tuberculosis and hepatitis are endemic; cholera and dengue fever are a constant threat. For a Western visitor, a battery of shots beforehand and constant vigilance while you're there is the only way to come home healthy. Tarawa's only upscale hotel, the Otintaa, provides a clean, bug-free, air-conditioned room with flush toilet and shower with running hot (well, sort of warm) and cold (well, sort of warm) water for about \$US45 per night. The menu in the restaurant is somewhat limited but the food is good. Even so, Van and I drank only bottled water, ate no raw vegetables, and no chicken. We ate mostly broiled fish and rice. Lunch away from the hotel always came out of a can. (It will be a while before I can look at another tin of canned spaghetti.) The local snacks naturally reflect local tastes. Are you up for prawn flavored corn puffs or “Fici” brand fish flavored chips? Our caution paid off and neither of us got sick.

We rented a very decent Toyota Corolla (right-hand drive) for about US\$27 per day and somehow managed not to hit any of the clueless dogs that are constantly in the road. You can't get lost on Tarawa. There is only one road. No stop lights, no stop signs, but watch out for the speed bumps (make that “speed hills”).

Despite the abject poverty and overcrowded conditions, the people of Kiribati project no feeling of bitterness, desperation or despair. An uninvited European face on a village street is greeted only with polite smiles and perhaps a gang of giggling three-year olds shouting “I-Matang! I-Matang!” (Foreigner! Foreigner!). There is no begging or attempted salemanship. There is a strong sense of community and social peer pressure expressed in a Christian context. Some customs might strike us as antiquated. For example, a newly married couple is expected to produce a bloodied sheet on the wedding night to prove that the bride was a virgin. Success is

announced the next day by the happy couple touring the atoll in the back of a truck that is swathed in red bunting. Failure can range from acute embarrassment for the families to annulment of the marriage.

Crime is very low by our standards but drunkenness and vandalism are on the rise in the especially crowded districts of Betio. Perhaps the biggest long-term threat to a country made up entirely of

low-lying atolls is global warming. By some calculations the whole place could be underwater in twenty years. I posed that prospect to my old friend Kautuna Kaitara, the head of the Kiribati Customs Division. He grinned and said, "Remember Y2K?"

Disappointments and Discoveries

We spent three full days immersed in the Kiribati National Archives (KNA) and came away with 265 photocopied documents, plus the loan of three high resolution aerial mapping photos of Nikumaroro (which together cover the entire island) taken in 1985. From the government Mapping Agency we also have several copies of the new (1995) British Ordnance Survey map of Nikumaroro and the other Phoenix Islands. The map is based on the 1985 photos and an Australian ground survey that same year.

Ironically, we did not get to see the original file of Gallagher's telegrams describing his discovery of the bones. That file, first brought to our attention in 1997 by New member become an head archi- by the way, the file. We, originals.

Zealand author and TIGHAR Peter McQuarrie, has apparently item of some interest and had been pulled by the vist who was away during our visit. The assistant archivist - who, worked many hours of overtime on our behalf - tried but was unable to locate of course, have copies of the file anyway but it would have been nice to see the

ARAIA TAN ABABA

NIKUMARORO

- 1 Iaki
- 2 Terano
- 3 Ramler
- 4 Terenja
- 5 Abera
- 6 Bunata
- 7 Kamate
- 8 Kantarua
- 9 Tereli
- 10 Naami
- 11 Rencia
- 12 Anit
- 13 Utano
- 14 Matatewe
- 15 Terai
- 16 Bakawa
- 17 Babera
- 18 Nei rone
- 19 Kirata
- 20 Kirai
- 21 Tebi
- 22 Taana
- 23 Buake
- 24 Terena
- 25 Komituna

We had also hoped against hope that the prewar files of the Administrative Officer on Tarawa (Gallagher's contemporary, David Wernham) and the files of the Resident Commissioner of the Gilbert & Ellice Islands Colony (Jack Barley) on Ocean Island had somehow survived the war, but that seems to be a forlorn hope. Anything that was on Tarawa or Ocean Island when the Japanese invaded in December 1941 was apparently destroyed. Aside from some documents which apparently, like the bone file, came from Gallagher's office on Gardner, the earliest files in the KNA begin after the reconquest of Tarawa in 1943.

We do, however, have some very interesting documents. For example:

The archives have John T. Arundel's diaries on microfilm.

Arundel was the 19th century Australian entrepreneur whose many business ventures including the planting of coconut trees on Gardner Island. His diaries are voluminous and span many years. They're also written in a scrawly, informal hand that is very difficult to read and the copy function on the archive's microfilm reader is broken. Nonetheless, I was able to find and transcribe a couple of references to Gardner Island in 1892, including a description of the number and nature of buildings Arundel put up there.

These were:

- 1 store house – 8 sheets iron*
- 1 dwelling – 12 sheets iron*
- 1 cook house – 6 sheets iron*

This description is consistent with the very decrepit structural remains we have identified on Nutiran.

We now have much more detailed information about the original 1938–1941 settlement process. We have several lists submitted by Gallagher detailing names and occupations of not only the men but also the wives and children and supplies that made up the progressive waves of settlement. We now know, for example, that six pigs arrived with the families of the original work party in April 1939 (contrary to Emily Sikuli's recollection that there were no dogs or pigs on the island in 1940). The arrival date of dogs and pigs is important in speculations about the scattering of the castaway's bones.

The lists are also useful in trying to resolve anecdotal accounts involving bones and aircraft wreckage. There has been much speculation about whether the island's first Native Magistrate, Teng Koata, returned to the island after leaving in September 1940 and may have been in charge while Gallagher was away in Fiji from June 1941 to his return and death in September of that year. Could

this have been when the aircraft wreckage and bones on Nutiran were found, thus explaining why Koata never mentioned them to Gallagher? The latest of the lists prepared by Gallagher, apparently sometime in the spring of 1941, shows Koata's successor "Iokina" as "Acting Magistrate." Koata and his family are not on the list.

A very rough map of the island drawn by Gallagher on or about March 23, 1941 officially designates the names of the island's various districts and passages. There is, of course, no mention of "Ameriki" – the section at the southeast tip where the Loran station would later be built. A legend in Gilbertese at the bottom describes the boundaries of each district. Handwritten note in English in Gallagher's hand says:

Copy given to each family on 24/3/41. The names were decided on by a meeting of land-holders on the evening of 23/4/41.

No mark or indication of any kind is present in the area of the Seven Site.

A large scale (1 inch equals 100 feet) hand-drawn map of the portion of Aukeraime just east of Bauareke Passage was made by Gallagher and is dated March 19, 1941. It is titled "Gardner Nikumaroro Island – Land Boundaries – Sheet 1 – 'Bauareke' Passage Area-East."

Nine land demarcations are shown and numbered. A key shows what family name corresponds to each number. It looks like the baby grave and shoe parts are in the ninth (last) land parcel which was owned by the "Anibuka" family.

Area 25

On the reverse of the above-described map is another hand-drawn map, reproduced above, but this one shows the entire island and is unsigned and undated. In addition to the nine land demarcations shown on Gallagher's map, this one has six more continuing eastward plus another nine on the western side of Bauareke Passage, making a total of 24 land parcels in that area. On this map the south-east tip of the island is labeled "Amerika" which dates it to sometime after 1943 and probably later. Most interesting is a 25th land parcel shown all by itself in the area of the Seven Site. The key ascribes the ownership of this parcel to "Komitina" which is the Gilbertese rendering of "Commissioner," a generic term for the local British authority. (Gallagher spelled it "Kamitina." The wartime District Officer on Canton, Lt. Col. Huggins, signed his communications to the Gardner magistrate "Komitina.")

In yet another map designating island land holdings (see inset map, previous page), drawn by District Officer J. N. Freegard on 15th October 1954, the same parcel

of land is labeled “Karaka” (the Gilbertese rendering of Gallagher).

Although Gallagher himself never drew it on a map of the island (at least, not one that survives) nor mentioned anything in existing correspondence about having his own plot of land, it’s clear that later authorities were under the impression that the Seven Site had been set aside by or for Gallagher. Had Gallagher wanted to have land on Gardner officially allocated to his personal use it seems like that authorization would have to come from higher up and there should be some mention of it in his file. There isn’t. The maps made by Gallagher make no mention of Area 25 and yet later maps associate him with that location.

Forty Kanawa Trees

In June 1940 Gallagher was on Beru atoll in the Gilberts making preparations to move his headquarters from Sydney Island to Gardner. On June 18th he sent a telegram to construction foreman Jack Kima Pedro, who was on Gardner supervising the repair of a cistern, asking:

Please telegraph whether there are forty kanawa trees on Gardner good enough to send to Rongorongo to be sawn into planks.

Rongorongo is an island in the Beru atoll. The next day Pedro replied: “Kanawa trees over hundred on Gardner.”

This might be a very important exchange. We know that Gallagher had much of the furnishings in the new Rest House on Gardner made out of kanawa wood and that the coffin for the bones was made from kanawa, but, of course, there is no sawmill on Gardner. Apparently the only facility in the region that could saw logs into useable timber was at Rongorongo. We know there were kanawa trees near the site where the bones were found and we had long suspected that the work party that originally found the skull was cutting kanawa. However, it is evident from the correspondence that kanawa cutting was not a priority for the laborers on Gardner. Their job was to clear land and plant coconuts. They had no need for kanawa and no way to cut it into planks.

It could be that it was Gallagher’s telegram of June 18, 1940 that prompted Pedro to send a work party to the kanawa grove at the southeast end and that the skull was found during that operation. I think that at least some of the clearing we see at the Seven Site (“Area 25”) in the June 1941 aerial photos is, in fact, the harvesting of the 40 trees that Gallagher wanted. The water tank and other material from the village may have been to support the logging operation. It may also be that it was Jack Pedro who told Gallagher about the skull and the Benedictine bottle when “Irish” arrived in early September, by which time Koata was already enroute to Tarawa with the bottle.

At any rate, it’s clear that Pedro was present on the island during the period when the skull was found.

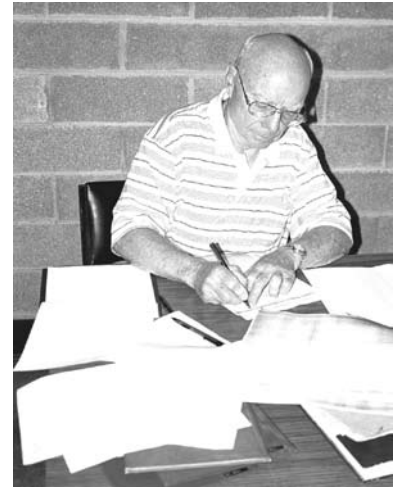
If this speculation is correct it means that Gallagher’s description of when the skull was found (Telegram No.1 from Gallagher to Vaskess dated 17th October 1940, “Skull discovered by working party six months ago – report reached me early September.”) is a bit off.

Another fascinating piece of correspondence that emerged from the archives is a July 1960 letter from Leo Bowler, editor of the *San Diego Evening Tribune*, to the “British Colonial Secretary” on Canton Island. Bowler basically relates the Floyd Kilts story and asks for official confirmation. The letter is passed to D.J. Knobbs, the District Commissioner for the Phoenix Islands District at Canton who replies in April 1961:

...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 in 1938.

He goes on to say that various aspects of the story, such as the boat trip to Suva, are highly unlikely. In the face of such official and authoritative denial, it’s hardly surprising that the Floyd Kilts story died on the vine. I don’t think that Knobbs is perpetrating any kind of cover-up. The whole bones thing was kept very quiet. Some senior administrators at the time (Harry Maude, Ian Thompson, Eric Bevington) had no knowledge of it. It’s hardly surprising that Knobbs didn’t know.

Nearly as valuable as the individually significant documents is the overall impression of the island’s development, administration, and flavor as reflected in the routine communiques throughout the 1940s, ’50s and early ’60s. One gets the impression that Koata was a competent and very independent administrator. During his tenure as Native Magistrate there is very little communication between himself and anyone with regard to administrative matters or anything else. One of the few exchanges between Koata on Gardner and Gallagher on Sydney involves Irish squashing Koata’s proposal to have only fellow Catholics settle on Gardner. By contrast, communications between various later British administrators and a progression of later Native Magistrates are characterized by innumerable whining queries about increasingly petty matters and annoyed paternalistic responses from the Brits. The impression I get is that Koata ran Nikumaroro



Van Hunn in the National Archives in Tarawa. TIGHAR photo by R. Gillespie.

as his own little kingdom and had little use for the new British kid who was in charge of the whole Phoenix settlement scheme. I think he was perfectly capable of doing all kinds of things that Gallagher never knew about. Once Irish arrived to live on the island I suspect that Koata had no desire and saw little need to stay on.

We copied many documents and reviewed many more that describe the postwar progress and eventual decline of the Phoenix settlement. In brief, the settlement on Sydney was abandoned as early as 1956 because of internal turmoil and mismanagement. By the late '50s Hull was becoming overcrowded and there was increasing pressure to settle more people on Gardner than the island was ready to accept. A new village on Nutiran was contemplated and begun but apparently never finished. Beginning in about 1960, drought conditions began to impact the settlements on Hull and Gardner and by early 1963 conditions were truly desperate. Water was being shipped in and people were rationed to one pint per day (!). There was no alternative to evacuation of both islands and the residents were removed to the Solomons on November 17, 1963.

The above is, of course, just an overview of the mass of new information we retrieved from the archives and we have much more studying to do before we can be sure we've gleaned as many clues as possible from this new information.

Partners In Preservation

In addition to the archival research, we had several productive meetings with senior Kiribati government officials concerning the future of Nikumaroro and the fate of the island's historic properties and artifacts. Our cooperative relationship was further cemented by our mutual agreement concerning the ethics and legalities that will

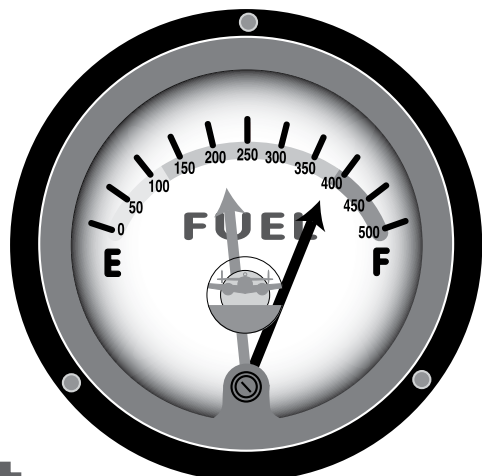
continue to govern searches, recoveries, conservation and, ultimately, the exhibition of artifacts.

Expedition Preparations

Our earlier-than-anticipated return from Tarawa to Fiji dictated by the altered airline schedule provided an unexpected opportunity to visit our expedition ship *Nai'a* and discuss in person the preparation for this summer's Niku III expedition. Among many improvements that have been made to this already outstanding vessel are new engines, a new, stonger mainmast, and a new after-deck platform for ship-to-launch transfers. This will be TIGHAR's third voyage aboard *Nai'a* and the advantages of that long mutual experience are hard to overstate.

In summary, this trip produced a wealth of new archival information, vital international understandings and agreements, and important pre-expedition logistical coordination. None of this would have been possible without the financial support of the TIGHAR membership. You, the members of TIGHAR, made it happen – and we thank you.

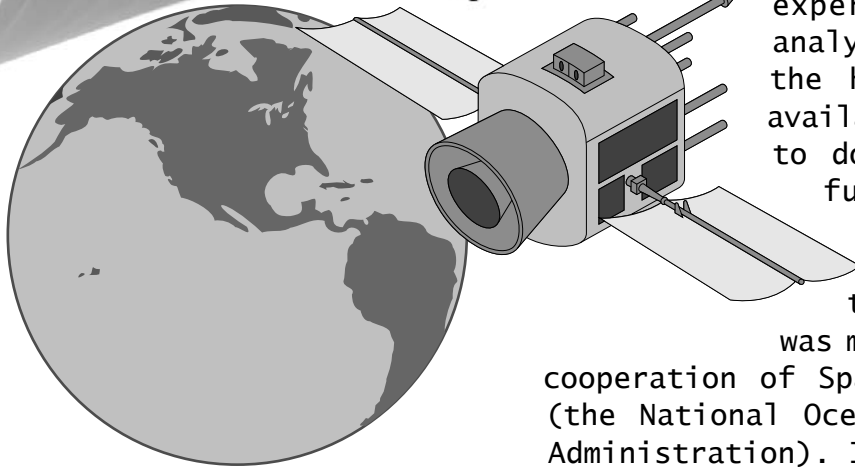
The Big Push is On



Original Budget for Niku III:	\$500,000
Budget Extras:	
Satellite Imagery	\$3,000
Tarawa trip	\$4,000
Ten extra days of ship charter	\$50,000
Total Budget	\$557,000
Pledges of Support Received:	<u>\$373,600</u>
Balance to Raise	\$183,400

Cash in Hand Needed by August 1:	\$450,000
Cash in Hand to Date:	\$206,170
Pledges which will come due by August 1:	<u>\$173,620</u>
Cash Needed to Raise by August 1:	\$70,210

TIGHAR in Space



On Monday, April 16, 2001 at 21:59 Zulu the Lockheed/Martin IKONOS 2 satellite looked down from space and captured two images of Nikumaroro specifically for TIGHAR: a black and white panchromatic image with one meter resolution and a four-band multispectral color image with four meter resolution. We have not yet seen the imagery but the quality is reported to be excellent and basically cloud-free.

As reported in the February 2001 issue of *TIGHAR Tracks*, the acquisition of this imagery was contracted through Space Imaging, Inc. of Thornton, Colorado but the actual arrangements turned out to be far more unusual and fortuitous than we had originally anticipated.

Ordering custom satellite photos is a bit different from hiring a photographer to take pictures. The customer does not own the images outright but rather purchases the rights to use the images in specific ways via a licensing agreement. As reported earlier, we thought that the project would cost \$6,000 but, as it turned out, our intended use of the imagery - analysis for research purposes and reproduction for the TIGHAR membership - carried a far higher price tag. Further complicating

the issue was the fact that we do not have the expertise internally to analyze the data. Making the high resolution data available to another entity to do the analysis would further increase the cost.

A creative solution to the problem was made possible with the cooperation of Space Imaging and NOAA (the National Oceanic and Atmospheric Administration). It seems that NOAA is conducting a study of the world's coral reefs to assess their health and the environmental factors threatening them. The reef at Nikumaroro is one of the few pristine examples left but, because it's not U.S. territory, NOAA is not able to spend money to take pictures of it. The deal we worked out is that TIGHAR will pay for the acquisition of the imagery. We'll share it with NOAA who will both analyze it for our research purposes and use it in their own coral reef study, and we'll be able to make pretty pictures of Niku available to our members with proper credit to Space Imaging. The cost of all this to TIGHAR is \$3,000, half of what we originally anticipated.

It's still \$3,000 that was not in the budget but contributions in response to February's appeal have already covered two-thirds of that amount. Jim Thompson (TIGHAR #2185) of Select GIS Services, Inc. has been a major contributor to this project and has generously offered to match dollar-for-dollar all contributions toward covering that last thousand bucks. Send at least \$100 and we'll send you an 8x10 color copy of the satellite photo of Nikumaroro - and Jim will double your money for us.

Analysis of the imagery is scheduled for early May and we should be able to report the results in next month's *TIGHAR Tracks*.