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Photo by Margaret Argue

Kapingamarangi Village, Pohnpei

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SPPF UPDATE



With articles from birding to Belau, readers will find a Micronesian focus to this issue. The pace of events and the twists and turns by which we acquire material have combined to produce the Micronesian focus this time. Since this is the case, we are going to attempt a focus on Polynesia for the July issue and Melanesia for October. This will not mean excluding good material or timely articles to fit an arbitrary rule, just a conscious effort to spread our coverage more equally around the Pacific region.

By the time this reaches most of you, SPPF's annual Pacific Networking/ NFIP Meeting will be under way. We have had a good response from Canadians working on the Pacific and are looking forward to a great weekend. Workshops scheduled include "Racism in Pacific Support Work" with Dr. Angela Gilliam of Evergreen State College, "Kanaky after the Matignon Accords" with Dr. Donna Winslow of the University of Montreal, and "Rural Development in Vanuatu" with Mr. Malakai Russel of the Vanuatu Department of Local Government.

In May SPPF is pleased to be helping host a visit to Vancouver Island by two Pacific women artists. Luseanne Koloi and Toi Maihi were part of the team that produced the Auckland Commonwealth Quilt. The gift of a quilt made by the women of one host city of the Commonwealth Games to the next host city as a sign of friendship has become a tradition of the Commonwealth Games.

After the official delivering of the Auckland quilt to Victoria, Luseanne and Toi will be meeting with indigenous women on Vancouver Island to share their skills and experience and to explore the link between crafts and culture.

We hope to be able to build on the contacts between indigenous people on Vancouver Island and the Pacific that began with the visit of an indigenous delegation from Vancouver Island to the Games in Auckland. We hope and expect that holding the Commonwealth Games in Victoria in 1994 will provide many opportunities to promote an awareness in Canada of Pacific peoples and their struggles. We hope the simultaneous raising of totem poles in Auckland and Victoria which was seen world-wide on live television, will signal a new awareness of the rights of indigenous peoples the world over.

Randall Garrison
Executive Director

About this newsletter...

TOK BLONG SPPF is pidgin, a language used in many parts of the Pacific. It might literally be translated as "this talk belongs to SPPF" or SPPF newsletter. **TOK BLONG SPPF** is published four times per year in English by the South Pacific Peoples Foundation of Canada. Partial financial support for this newsletter from the Canadian International Development Agency (CIDA) is gratefully acknowledged.

SPPF's major aim is to promote awareness of development, social justice, and other issues of importance to the peoples of the South Pacific. Through this newsletter we hope to provide Canadians with a window on the Pacific that will foster understanding and promote action in support of Islanders in their struggles for development.

We welcome readers' comments on the newsletter, as well as suggestions for articles, selections of clippings, or notices of development education materials of interest. We reserve the right to edit material. Views expressed do not necessarily reflect those of SPPF.

TOK BLONG SPPF is available to donors to SPPF with a minimum donation of \$15/yr for individuals and \$30/yr for groups, US\$15/yr and US\$30/yr for non-Canadian mailing addresses. Our address is 409-620 View Street, Victoria, B.C., Canada V8W 1J6. Telephone is 604/381-4131.

THE GREAT FLIGHT NORTHWARD: FSM MIGRATION TO GUAM

BY FRANCIS X. HEZEL, SJ AND THOMAS B. MCGRATH, SJ

Guam is an island with a booming economy and a chronic labor shortage, while the Federated States of Micronesia has a lack of jobs but a good supply of people in search of employment. It appears that the two have finally discovered one another, for hundreds of Micronesians have left home in the past two years to find jobs on their island neighbours to the north.

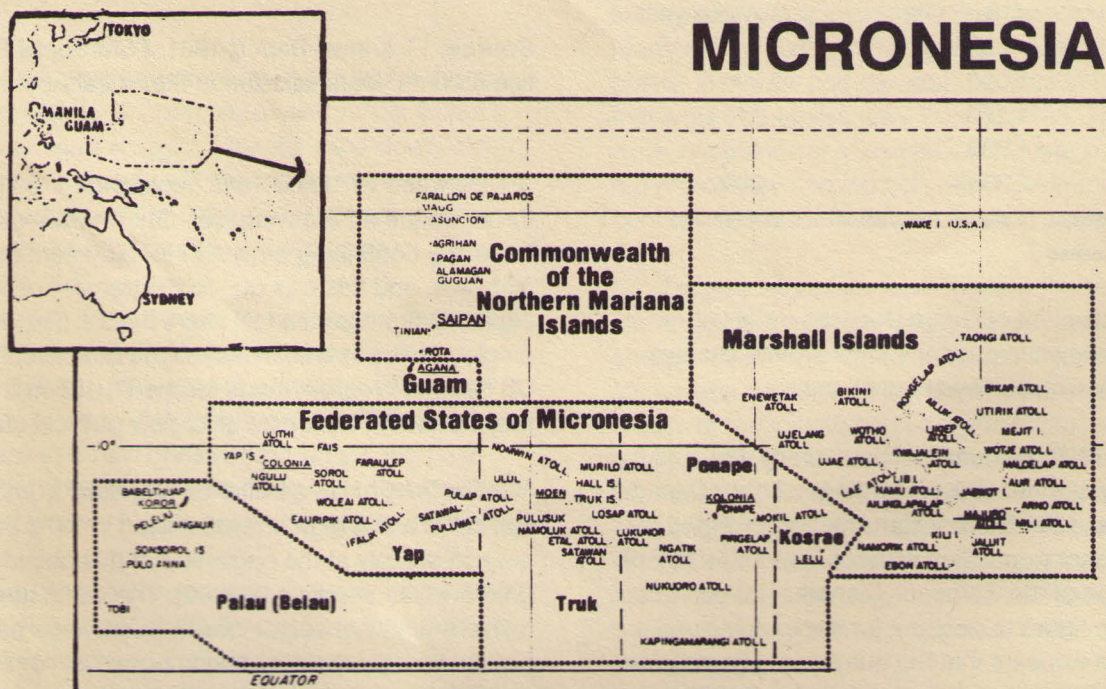
Micronesian emigration to Guam has a history that goes back to the earliest Trust Territory days. Even since the 1950s, Guam was the destination of many emigrants from Palau, an island that always had a reputation as the most progressive and achievement-oriented society in Micronesia. Palauans thronged to Tamuning long before Filipinos in any appreciable number arrived there, as many of us recall, and they owned the small bars and eating spots along Marine Drive that later passed into the hands of Koreans. Their number increased from perhaps 100 in 1953 to well over 1000, and perhaps closer to 1,500, by the early 1980s (Hezel and Levin, In Press: 4,29).

Meanwhile, islanders from other parts of Micronesia arrived in Guam to do college studies from the early

1960s when boarding facilities for Trust Territory students were first built. The number of young Micronesian college students on Guam first increased during the early 1970s, then dropped sharply as Micronesians turned to the US for school, but picked up again later as education and travel cost rose, and finally peaked by mid-1980s with over 500 students from FSM. Most of these students returned home after completion of their studies, but a few trickled into the mainstream of life as Guam residents.

The 1980 Guam Census showed 436 FSM residents (in addition to 39 Marshallese) on Guam, but about half of these were students who were on the island temporarily. The size of the permanent FSM community that had taken root on Guam by that time was no larger than 200-250.

During the twilight days of the Trust Territory when Micronesians still were unable to immigrate freely into Guam, the Northern Marianas were the favourite destination of young Micronesians seeking employment. Since there were no restrictions on entry into the Marianas, which were still officially a part of the Trust Territory



MICRONESIA

even then, scores of Trukese and others headed for Saipan or Tinian to take jobs in the garment factories that were just opening, in the fishing plant on Tinian, and in the dozens of businesses that were sprouting up as the tourist industry expanded.

The Floodgates Opened

When the Compact of Free Association between the FSM and the United States was implemented on November 3, 1986, the situation changed entirely. For the first time Micronesians were allowed free entry into the US and its possessions to live and work without restriction. A few rather wealthy Trukese and Pohnpeians had already built homes on Guam and established dual residence, as it were, shuttling between Guam and their own island.

One of them even put up a small apartment building that could accommodate Micronesian transients for a modest fee. But overall growth of the FSM resident community in Guam had been very small during the early 1980s, according to all indications. After the implementation of the Compact in late 1986, however, the floodgates opened. The Guam Department of Labor survey figures for March 1985 and March 1986 showed about 1100 ethnic "Micronesians" 16 years of age and older, most of them presumably Palauans (see table below).

Estimated "Micronesian" Population on Guam

Year	Estimated Population (16 + yrs)	Increase over previous year
1985	1,090	---
1986	1,100	10
1987	1,530	430
1988	2,330	800

Note: "Micronesian" includes Palauan as well as FSM and Marshallese

Source: Government of Guam Department of Labor. Ethnicity breakdown in quarterly employment surveys; data from the March surveys of each year.

By March 1987 the number had risen by 430, and by March 1988 by another 800. According to Labor Department estimates, 1200 Micronesians had been added to the Guam resident population within a year and a half of the inauguration of the Compact. If another 20 percent is added to this figure to account for dependents under the age of 16, it appears that the number of Micronesian newcomers to Guam may have totaled about 1600 by early 1988. These, we may assume, constituted the first

large wave of FSM people moving to Guam in search of jobs.

Trukese [i.e. from Truk] are at the forefront of this wave. So many have moved to Guam in the past few years that for Guamanians the term "Trukese" has become virtually synonymous with Micronesian in much the same way that all Micronesians were known as "Palauans" ten or twenty years ago. Sample surveys of the Micronesian households on Guam indicate that the Trukese population on Guam now numbers about 1000 to 1200 and is growing each month.

The Search for Jobs

There is no mystery at all as to what is driving Micronesians in such great numbers to Guam today. They are emigrating to find there the jobs that they are unable to procure on their own home islands. By the early 1980s the job boom of the previous decade was decidedly over in Micronesia (see table below).

Total Salary Employment in Micronesia

Year	Truk	Pohnpei	Kosrae	Yap	Palau	Marshalls
1970	1832	1847	N/A	952	1893	2796
1973	2515	1939	365	1126	2213	2889
1976	3743	3239	717	1421	3119	4079
1979	5599	3442	510	2027	3228	3977
1982	3782	3913	682	1484	N/A	4753
1985	4054	N/A	N/A	N/A	3370	N/A
1988	6116	6253	2376	2190	N/A	N/A

Source: TT Annual Report 1981; FSM Social Security Office records; Marshall Islands Statistical Abstract (1985).

Between 1979 and 1982, more than 1700 jobs throughout the FSM were lost. Only in Pohnpei was there any continuing growth in employment during the early 80s, and this was due to the transfer of the FSM capital to that island a few years before. The decline in employment was due mainly to the radical cutbacks in US Federal Program funds for the Trust Territory in preparation for the onset of its new political status.

The level of US assistance had risen from \$54 million in 1970 to a high of \$138 million in 1979 before dropping off sharply at the beginning of this decade (Micronesian Seminar 1984:40). The cut in funds also affected the private sector, which had always been dependent on government spending as its main impetus.

Employment figures for 1988 show an appreciable increase in the number of jobs within the past few years,

and the level of employment has apparently reached a new high everywhere as a result of Compact funding. But the increase may be too little and too late, considering the number of educated Micronesians entering the labor pool. In populous Truk, for instance, there are now only 600 jobs more than there were in 1979, while in Yap there are 100 more positions. Although Kosrae and Pohnpei show healthy gains, the overall increase in employment in the FSM - 5300 jobs since 1979 - is modest compared to the 14,000 who entered the labor pool in this same period.

The cutback in government funding and the concomitant loss of jobs hit Micronesia all the harder because of the euphoria that the education boom 1970s had brought. High school enrollment swelled during those years and hundreds of young Micronesians went off to college abroad in the expectation of finding jobs awaiting them upon their return. The early returnees were fortunate enough to find employment in the growing economy of the mid-1970s, but those who followed them were not as lucky.

During the period 1979-1982 in which FSM lost more than 1700 jobs, about 1800 recent graduates, half of them with at least some college education, entered the labor force (Hezel & Levin, In Press:21). Needless to say, large numbers of this and later crops of students were disappointed in their search for salary employment within Micronesia. Their frustration was reflected in a slight fall off in high school and college enrollment, but even so, great numbers of young people continued to pursue higher studies even in the face of a very uncertain future.

Guam's economy, meanwhile, was just the reverse image of the FSM's. In contrast to Micronesia, Guam's economy had been sluggish after the wind-down of the Vietnam War in the early 1970s, and the number of jobs, which dropped sharply in 1974, hovered at about the same level (30-34,000) for the next ten years.

Then in early 1984 the real boom began. Thanks to the devaluation of the US dollar and the resultant strength of the yen, the Japanese tourist industry on Guam began to show prodigious growth. This in turn helped to power a new construction boom and rapid growth in island business.. The misfortune that had befallen the US economy had become a windfall for Guam.

Private sector employment on Guam showed enormous gains since 1984, with the addition of 11,000 new jobs in the past four years. Overall, private sector employment has increased from 15,680 positions in

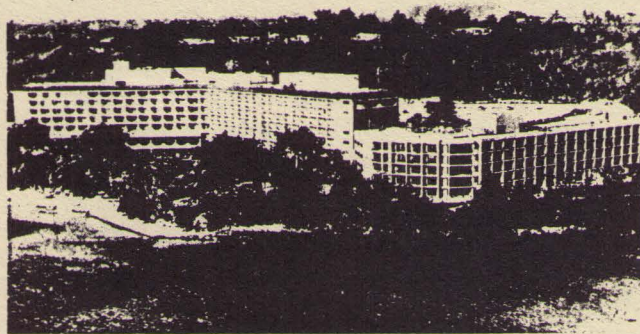


photo from Micronesian Handbook

475-Room Hilton International Guam

December 1983 to 29,860 in June 1988 - a rise of nearly 100 percent in less than five years (Gov Guam 1986: 110). And the boom shows no signs of abating.

At present Guam has a very limited labor supply from which to draw in order to fill these new positions. Unlike the Northern Marianas, which is experiencing a tourist boom of its own, Guam has severe restrictions on importation of alien labor. All H-2 work permits for foreign laborers must be signed by the governor, and the present size of the alien labor force is only about 1600 (Gov Guam 1988:22). Within a current unemployment rate of only 4.5 percent, there is little hope that Guam can find in its own population an adequate work force to handle all the new jobs that are being created. It may be providential, then, that the bars to Micronesian immigration dropped at the very time that the labor shortage was becoming acute.

Hundreds of Micronesians who had little hope of finding salary employment in their own islands have already moved to Guam to take up the entry level jobs - in hotels, in stores, and gas stations, and in construction - that would otherwise have been unfilled. The prospect of a job, even a lower status job, at US wage levels - which are princely by comparison with FSM standards - will continue to attract hundreds more in years to come.

Trukese especially have migrated to take advantage of the available jobs on Guam, as we have seen. The cheap turn-around flights first popularized by Air Micronesia a few years ago have contributed to the increase of traffic between Truk and Guam and have made it possible for many Trukese to familiarize themselves with that island by short visits. In addition, hundreds of young Trukese - far more than the total of other parts of FSM - attended college on Guam and did the advance scouting for living quarters and jobs that is always necessary before migrants arrive in any real numbers.

Moreover, Truk's 50,000 people constitute about half of the total FSM population, and its economy is unequal to the task of providing jobs for any more than a relative handful of the population. The unemployment rate has always been higher in Truk than anywhere else in Micronesia - a fact that is owing to the scale of its population rather than any real difference from other states' economic conditions. When new jobs began opening up on Guam - so quickly that the new positions created in two years there exceeded the total employment in Truk - Trukese were among the first to respond. They had even fewer alternatives at home than others in the FSM.

Guam's attitude towards the large influx of Micronesians within the past two years is ambivalent. Most long-time residents look upon it as a mixed blessing. There is no doubt that the newcomers play an essential role in Guam's expanding economy but, because of their reputed reputation for brawling and trashing accommodation, they are also regarded by many as a burden that Guam somehow bear with whatever good-humoured resignation it can muster.

The more substantial reservations that Guam has about its recent arrivals have to do with the social service costs and who will pay them. Education of dependents, medical care, and the other welfare programs for which Micronesians are eligible will cost the Government of Guam a sizable sum, and Guam authorities are asking themselves how to pass along part of the price tag to the US Federal Government. The cost of educating a public school student on Guam is \$3000, and projections based on partial enrollment figures for 1988 indicate that the number of Micronesian students may have increased by more than 100 during the past year.

Furthermore, since Micronesians are currently ineligible for federally funded public assistance programs, the welfare burden may fall upon the Government of Guam and private service agencies. But even as Guamanians ponder whether the costs of having large numbers of Micronesians may outweigh the benefits, the island remains firmly committed to its present economic growth course.

The number of visitors to the island is expected to reach the half million mark this year for the first time ever, the number of hotel rooms is expanding by several hundred each year, and hotel employees now work in three full shifts to keep up with the work demand. The large hotels are attempting to lure employees away from their rivals with higher salaries as the tourist industry vigorously competes for the limited labor supply.

Unless Guam wishes to call a sudden halt to its economic boom, the island must find additional large supplies of labor over the coming years - and of the various alternatives continued reliance on Micronesian labor is probably the cheapest, social costs notwithstanding.

Another Destination: The Northern Marianas

The Northern Marianas, which have been another fallback for FSM citizens in search of jobs, is also riding the crest of the tourist wave from Japan these days. Visitor entries have doubled within recent years and reached more than 200,000 in 1988. Hotel expansion has been rapid lately, and in five more years Saipan will probably reach the tourist level that Guam hit in 1986 (Stewart 1988: 137). In addition to the tourist industry and related services, there is a sizable manufacturing industry that has grown up around the 24 garment factories that now produce clothing for export to the US.

The Northern Marianas is now the home of nearly as many FSM citizens as Guam - between 1200 and 1400, our estimates show. In addition, there are about 1000 Palauans many of whom found jobs and took up residence in Saipan when it was still the capital of the Trust Territory, and perhaps 100 or so Marshallese. Although exact figures for the FSM residents of the Marianas are, as always, hard to come by, Trukese once again seem to be the largest group, with an estimated immigrant population of 700. There are probably 400-500 Pohnpeians and perhaps 200 Yapese, with a mere handful of Kosreans.

Hundreds of FSM citizens moved to Saipan during the early 80s before Micronesians were allowed free access to Guam in 1986. One of the main attractions was the job openings in the garment industry that was expanding rapidly during those years. Although the vast majority of the employees were Asian (mainly Chinese, Korean and Filipino), Commonwealth law mandated that twelve percent of the total work force be "local" employees - a term that is interpreted broadly enough to include Micronesians from outside the Marianas.

Factory managers have never found enough Chamorro and Carolinian workers to make up their quota and so have had to recruit from other parts of Micronesia. Of the 580 employees in the largest of these factories, 105 are "local", with all but 30 of these coming from the FSM. At present it is estimated that there are upwards of 450 citizens of the FSM - most of them women - employed in the garment industry on Saipan.

Scores of other FSM citizens have found jobs in the tourist industry as chambermaid, bellhops, and warehouse clerks, while many others have hired on as security guards for hotels and other private businesses. Apparently there are also a number unemployed, since over 200 FSM citizens were receiving food stamps as of October 1988.

Migration from FSM to the Northern Marianas has slowed considerably since 1986 for a number of reasons. The minimum wage in the Northern Marianas at \$2.15 is over a dollar and a half less than the \$3.75 minimum on Guam and the employee benefits are less comprehensive. Some 30 Trukese are said to be camping out on Saipan because low-cost housing, always scarce on the island, is unavailable to them. Moreover, the Northern Marianas has an ample supply of relatively cheap alien labor - the foreign labor force now numbers about 15,000 - and there is little need to encourage Micronesian immigration except to fill the quotas for the garment factories.

Although there is still a trickle of Trukese and Pohnpeians emigrating to Saipan today, they play a far more marginal role than Micronesians do in Guam. One small gauge of this is that, of the 285 persons employed by the newest luxury hotel, the Nikko Saipan, only eight are citizens of the FSM.

Unless the Northern Marianas imposes the same kind of restrictions on alien labor that Guam has legislated, there is no reason to believe that the Commonwealth will have to rely on Micronesians. On the other hand, as long as the job bonanza on Guam continues, there may be little to attract FSM citizens there except in the case of those who already have members of their family residing there. In all likelihood, the sizable Trukese, Pohnpeian and Yapese communities on Saipan will not grow much in the years to come. The Northern Marianas, then, can be expected to remain what they have been since the transfer of Trust Territory Headquarters there in the early 1960s - an economic fallback when all else fails.

Adjusting to life on Guam

Recent FSM arrivals on Guam face the same problems with which immigrants anywhere have always had to contend. Their first difficulty is to find adequate housing at a cost they can afford on the meager salary



Tamuning and Tumon Bay Area, Guam

photo from Journal of the Pacific Society

that their entry-level jobs provide. Some of the earlier Trukese arrivals move into the dilapidated trailers near the university campus in which students were already living. The facilities were over-crowded, unsanitary and in bad need of major repair.

One group of twenty Trukese, whose number seems to grow with each passing month, moved into a small building near the Agana Shopping Center that once was a bar and lounge. The structure is barely large enough for the occupants, even by Trukese standards, and because there is no plumbing in the building they must go to a nearby supermarket for bathroom facilities.

Micronesians are compelled to find housing wherever it is available cheaply. For this reason the recent immigrants are dispersed all over the island rather than congregated in one area as the Palauan newcomers were thirty or forty years ago when they clustered in Tamuning.

A few of the households are built around a family group and their structure is not much different from what it would be in Truk, Pohnpei or anywhere else in Micronesia. One Yapese in his twenties shares a house with his Trukese wife and their two children as well as three older relatives of his wife and several of his Yapese friends. A Yapese couple in their forties provide for their six children, all but one of whom are in school, as well as six others who are related to either the man or his wife.

These households often depend on the income of only one or two bread-winners, and they have the usual trouble making ends meet, especially when kinfolk in any number unexpectedly descend on them for a long

stay on Guam. But these problems, normal ones for any Micronesian family, are offset by the clear lines of authority that exist in such households. At least everyone in the household knows who is in charge, even if the head of the household is sometimes inhibited from exercising his authority as fully as he might like for cultural reasons. As the family sinks roots in its new home, it will gradually summon more of its children to Guam to attend school and family life will come to resemble that in other parts of Micronesia. Most of the household of FSM citizens on Saipan are of this type since they have had more time to settle into a regular family pattern.

The composition of many of the Micronesian households on Guam, however, is far less stable. Slightly more than half of the 101 FSM households surveyed were made up almost entirely of young people, usually in their twenties and often related or at least from the same island. They have banded together under the same roof in a commune-type arrangement. One such group from Nomwin, an atoll north of Truk, has six of its members working, many of them as security guards. In another group of nine from Fananu, all attend Guam Community College with the exception of one young man in his early thirties who has a job as a security guard. In a household of Puluwatese, four of the six young males work at a fast-food steakhouse.

Others in similar style communities work as gas station attendants, dishwashers, or as construction laborers. The most unusual case, however, may be of the 21 Yapese youth living in a fishing company barracks and supporting themselves by repairing fishnets all day long.

Households of this type, which can have as many as ten or twelve members, usually experience more serious problems, as we might easily imagine. Since the males in the household are roughly the same age, it is not an easy matter for one of them to assume a leadership role, even when he happens to be the single source of income. Normally, however, several have jobs and contribute to the support of the group, but each hesitates to impose any regimen on the others. People drift in and out of these houses regularly. Older relatives or friends from home may come to Guam, even if they do not speak English and lack the skills to find a job, just to get a taste of life in the city. The young people who belong to these communes often leave for better surroundings and a new household as soon as the opportunity arises.

These household are the most provisional of all and their families are experimenting to work out viable

authority structures in a setting that is still alien to them. Yet some manage to adjust successfully despite everything. One group of bachelors learned to control their partying, budget their money, and take turns cooking and cleaning; they now live in a well-managed household and own six cars, all of them paid for and insured.

Different islands appear to have their own characteristics, to judge from the household survey. The newcomers from Yap and Kosrae are unusually young - there are very few persons older than their early 30s - and they show a strong tendency to reside in the kind of peer-group households described above.

About two-thirds of the sample from both states were living in communities made up entirely of young people their own age. Another feature of these households is that very few of their members are not occupied either with a job or schooling. Well over half the Yapese surveyed and nearly two-thirds of the Kosraeans have full-time employment. These same characteristics are shared by the immigrants from some of the islands in Truk, especially Uman and the outer islands (Mortlocks, Westerns and Halls).

On the other hand, Marshallese and Pohnpeians, as well as most of the lagoon Trukese, show a strong leaning toward more structured family-like households. Such households, while less prone to conflict and better regulated, have a larger number of non-productive members. Only about one-quarter of all the Marshallese and Pohnpeians surveyed have wage employment. In what may be an interesting sidelight, five of the Pohnpeians in the survey were living entirely alone - something unparalleled in any other group.

The problems that Trukese and other Micronesians have on Guam are well publicized. The all-night drinking bouts and the drunken driving arrests, among other things, have become a source of some concern to FSM government officials no less that to Guamanians.

Police figures show that about 6 percent of all arrests made on Guam during 1987 were of FSM citizens, who at that time represented only slightly more than one percent of Guam's civilian population. Most of the crimes seem to have been alcohol-related and fell under the categories of driving while intoxicated, disorderly conduct, assault and larceny. The disproportionate arrest rate of FSM citizens may look worse than it really is since a great number of the new Micronesian arrivals on Guam are young males in the troublesome 15-35 age bracket.

Young Micronesian males frequently spend their leisure time doing the same things that they would be doing if they were back on their home island, but without realizing that their new community may not look quite so tolerantly on what they think of as accepted pastimes. In the same way, many of them have not yet learned that the standards for hygiene and property care may differ from what they have become used to at home.

The sight of two men passed out on a sidewalk near a pile of empty Budweiser cans along Marine Drive can raise an eyebrow or two among passing motorists, just as the specter of shattered windows and graffiti-covered walls can bring tremors of indignation to the most indulgent landlord.

Yet, our judgments on these new Micronesian immigrants will be kinder if we bear in mind that they must make huge cultural adjustments and changes in lifestyle without those resources that they could call on when they were back home. We might do well to remember that they live under new pressures and yet without the close supervision to which they have been accustomed. Given time, they will adapt as successfully as other groups have on Guam.

The Future

What impact will a continuing outflow of its population have on the FSM itself? If emigration continues at the level at which it has occurred during the past two years, the prodigious population growth of the area will be slowed to about half of its present level of 3.4 percent yearly.

In time, if birth rates lower and the emigration level steps up, the population growth could well decline to zero, as Palau's has for the past fifteen years.

This could have a tangible positive impact on the economy of the FSM. Not only would the cost of government rise much less steeply if the population were stable, but economic planners could count on a considerable source of income from the remittances sent back to their families by overseas employees.

Could the FSM afford to lose an appreciable number of its young people to Guam and other destinations abroad? Will the dreaded "brain drain" rob the islands of their most creative and energetic individuals? To call the emigration to Guam and the Northern Marianas that we have experienced in recent years a "brain drain" is misleading.

Those who have left FSM for the north are not necessarily the best and brightest of the young generation; in fact, they are often those whose job prospects at home are unpromising because they cannot hope to compete with their better educated and equipped peers. Our impression is that the most competent of the high school and college graduates would generally prefer to stay at home and take a decent job with their own government if they could.

For the most part, it is those who cannot count on such jobs at home who go off to Guam and Saipan. Sometimes they are sent off by their parents, as spoiled children might have been packed off in an earlier age, to make their own way in the world. This is not meant to disparage those who do leave; it is just to suggest that as a group, they are by no means the cream of their generation.

Yet there is surely something worrisome about an economy that cannot support its people and must send so many elsewhere for jobs. It is small comfort to know that the same phenomenon has happened in every age and in all parts of the globe. Perhaps more than anything else the new ways of FSM emigrants should provoke some searching questions about the viability of the Micronesian economies today.

Can anything be done to provide the job opportunities that young Micronesians seek in their own islands? If not, we can expect to see even greater numbers of our young people leave in the future.

BIBLIOGRAPHY

In press Hezel, Francis X. and Michael J. Levin. "Micronesian Emigration: The Bran Dran in Palau, Marshalls and the Federated States." In J. Connell, ed. *Migration and Development in the South Pacific*.

1984 Micronesian Seminar. *Past Achievements and Futures Possibilities*. Proceedings of a conference on economic development in Micronesia, held on Pohnpei, May 22-25. Major: Micronesian Seminar.

1987 Government of Guam, *Impact of the Compact of Free Association on the Territory of Guam*. Agaña: Office of the Governor.

1988 Stewart, William H. **Business Reference and Investment Manual for the CNMI**. Saipan.

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THE EFFECTS OF UNITED STATES NUCLEAR TESTING IN THE MARSHALL ISLANDS

BY CHARLES KERR

Professor of Preventive and Social Medicine, Department of Public Health, University of Sydney and member of a World Council of Churches team of inquiry into primary health care services in the Marshall Islands, October 11-21, 1987.

At the end of World War II the Marshall Islands became a US Trust Territory under the United Nations Trusteeship Council. During its trusteeship the United States conducted nuclear weapons tests that rendered uninhabitable several atolls and seriously harmed some Marshallese. A vast military base was established on the world's largest atoll, Kwajalein, whose lagoon is the target site for intercontinental ballistic missiles fired from the US mainland. The Marshall Islands' internal economy and political system were evolved in a manner that is almost entirely dependent on American resources.

A century ago, R.L. Stevenson called the Marshall Islands "the jewels of the Pacific". He was referring to atolls and lagoons of great beauty, albeit somewhat fragile environmentally and which were populated by self-sufficient and peaceful people whose language has no word for 'enemy'. Forty years of American military colonialism has changed all that.

It has deprived the people of the Marshall Islands of the opportunity to become anything but the clients of an aid-dependent welfare state. Indeed, the Republic of the Marshall Islands has accepted the aspirations and institutions of the world's richest nation on whose largesse it depends. In reality, however, the circumstances and conditions of most Marshllese are those of the underdeveloped world.

This paradox is evident in virtually every fact of Marshallese life. For instance, Marshall Islands vital statistics demonstrate a worse than average health picture for nations in the Pacific region. There is a life expectancy at birth of 60 years (both sexes combined), a relatively high infant mortality rate (44.8 deaths per 1000 infants) and a transitional pattern of causes of death with infections still predominant but with degenerative diseases (especially cardiovascular) increasing each year. Yet the

Marshall slands has the highest per capita healthy expenditure (\$US109) in the Pacific.

Given the strategic significance of the Marshall Islands and what has happened to other Micronesian countries under American influence, it is likely that the nation would have become dependent on the US even if the nuclear tests had not been conducted on its territory. Nevertheless, the consequences of the tests have been extremely important not merely as reflected in damage to people and land but also through contributing to the subservience of the Marshallese to American interests.

It was, of course, the remoteness of the Marshall Islands that lead to their selection for nuclear testing. Situated in the Central Pacific Ocean just north of the equator, the Marshall Islands consist of 29 coral atolls and five single islands. Each atoll is composed of islands and islets, totalling 1147, which are spread over a sea area exceeding 1.3 million square kilometres. The total land mass is 181 square kilometres.

Over half the 36,000 Marshallese live in Majuro Atoll, the administrative district of the capital of the Republic of the Marshall Islands and at Ebeye. The latter island is 5 kilometres from the spacious, landscaped US base on Kwajalein Atoll and is home for 9000 Marshallese crowded onto 26 hectares (the island is 1.5 kilometres long and 200 metres wide). Over 5000 people on Ebeye are from land-owning families evicted when Kwajalein was requisitioned for the US military base. The remaining population of the Marshall Islands live in other atolls and islands collectively known as "the outer islands".

THE US NUCLEAR TESTS

The United States began testing atomic (fission) bombs over Bikini Atoll in 1946. After two tests, the US decided to move to Enewetok Atoll because it had a larger land mass and lagoon than Bikini. These features favoured installation of the necessary instrumentation. Two series of atmospheric tests were conducted at Enewetok during 1948 and 1951. The first major hydrogen(thermonuclear) device was exploded during 1952. It totally destroyed the island of Elugelab in the

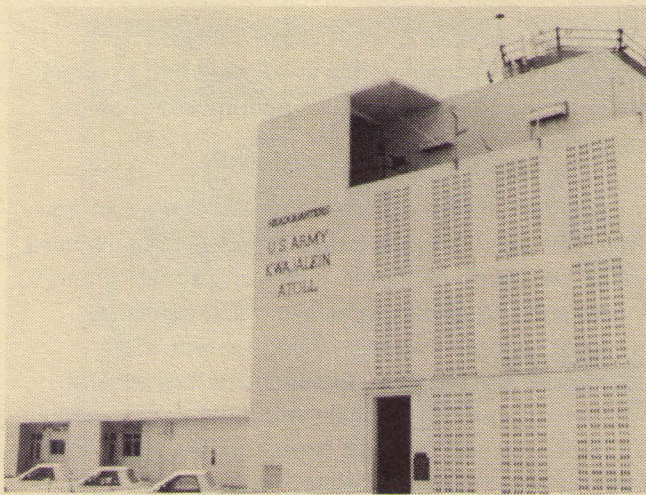


photo by Phil Esmonde

Kwajalein Air Terminal

atoll chain leaving a crater in the reef 1.6 kilometres long and 300 metres deep.

Testing subsequently returned to Bikini and on 1 March 1954, the US triggered its largest-ever hydrogen bomb, code-named Bravo and equivalent to 15 megatons of TNT. This was the only test known to have yielded fallout which affected people. The US accelerated its programme on both atolls before the international moratorium on atmospheric testing came into effect in 1958. Operations then ceased in the Marshall Islands. In all, 43 tests had been conducted at Enewetok and 23 at Bikini.

FORCED MIGRATION OF PEOPLE FROM BIKINI AND ENEWETOK

The military governor of the Marshall Islands used Christian parables to convince the paramount chief of Bikini to abandon the atoll. On the understanding that experimenting with nuclear devices would "*with God's blessing, result in kindness and benefit to all mankind*", the chief told the governor that his people would be pleased to go elsewhere. The Bikinians were led to believe that they would be returned to their atoll after the tests were concluded. They chose to move to Rongerik Atoll, 200 kilometres to the east.

This previously uninhabited atoll with only a quarter of Bikini's land-mass failed to support an adequate diet and by 1947 there were obvious effects of malnutrition among the people. After a period of dietary rehabilitation at Kwajalein military base, the Bikinians were moved to Kili Island. Although somewhat more suitable for growing staple food, Kili has no lagoon and is frequently isolated from shipping by rough seas.

The US conducted a limited clean-up of Bikini in 1969 which included dumping radioactive debris about

one kilometre off shore. The intention was resettlement of the Bikinians and in 1972, the US Atomic Energy Commission concluded that restrictions would have to be placed on food-gathering due to persisting high levels of radioactivity. The council representing the Bikini population decided that their people should not return as a group but they did not wish to stand in the way of any individual family who wanted to resettle their homeland.

A few families returned in 1972 but by 1975 regular monitoring had revealed that radioactive contamination of food and drinking water was higher than previously measured. Following legal action taken by the Bikinians in a US federal court, the US Department of Energy conducted a more thorough radiological survey and found that the main living areas on Bikini had radiation levels that exceeded US and international permissible limits. Moreover, there was evidence among resettled people of an increasing body-burden of the long-lived radionuclide, Caesium-137 which again exceeded the international standards. Accordingly, in 1978, the 139 people then living on Bikini were evacuated to Majuro. The current opinion after subsequent radiological surveys is that without a further extensive clean-up, the major living areas of Bikini Atoll could not be safely settled for another 30-60 years. The atoll remains uninhabited.

A similar fate befell the people of Enewetok. They had comparable difficulties with maintaining adequate nutrition on their site of resettlement. Ujelang Atoll. After the last nuclear test at Enewetok in 1958, the atoll was used for over a decade as a target for intercontinental ballistic missiles and for testing rocket engines. Enewetok was more physically damaged by nuclear testing than was Bikini - two islands in the atoll were totally destroyed and only small parts remain of another three. In addition and as happened also at Maralinga (Australia) during the British nuclear tests, experiments were conducted which scattered fragments of unfissioned plutonium over one island.

The US government completed a clean-up in 1980 after which the Enewetok people returned to the southern islands of their atoll. There were, however, restrictions on the areas in which food could be gathered. Runit Island which was contaminated by plutonium, remained indefinitely off limits. Fear of persisting sources of radiation was among the reasons why a quarter of the resettled people on Enewetok subsequently returned to Ujelang.

CONSEQUENCES OF FALLOUT FROM THE 1954 HYDROGEN BOMB TEST AT BIKINI

The official explanation of the fallout "accident" after detonation of the 1954 hydrogen bomb at Bikini was *"The energy yield of the experimental device exceeded predictions and sudden wind structure alterations sent the resultant cloud of radioactive debris unexpectedly eastward rather than over open seas to the north"*. Eyewitness accounts by American meteorologists disputed this claim in Dennis O'Rourke's documentary film **Half-life** by stating that eastward winds were established well before the detonation. Subsequent computer simulation models of atmospheric conditions at the time of the test also gave a high probability of a south eastern airflow over inhabited atolls.

People on three atolls, Rongelap, Ailingnae and Utirik were affected by fallout which was visibly evident as ash on Rongelap, the atoll nearest to Bikini. Also contaminated were the 23 men crew of the Japanese fishing boat, Fukuryu Maru V which was 128 kilometres east of Bikini. All suffered from acute radiation sickness on arrival in Japan two weeks later. A group of 28 US servicemen on Rongerik Atoll also suffered from acute radiation sickness.

ACUTE RADIATION EFFECTS AMONG THE MARSHALLESE

The 239 Marshallese who were said to have experienced "variably severe exposure" to ionizing radiation from fallout were extensively investigated by US scientists. Details are given in a series of reports and periodic reviews by the Brookhaven National Laboratory in New York and the US Department of Energy.

Acute effects were related to radiation dosage, being most marked among people from Rongelap who received an estimated whole-body exposure averaging 175 rem (1.75 sievert, sv). Comparable estimates for those from Ailingnae were 69 rem (0.69sv) and for those from Utirik, 14 rem (0.14sv). These are appreciable doses of absorbed radiation; to give some idea of dose magnitude, the whole-body radiation from, say, an extensive X-ray survey of the large intestine with contrast media would rarely exceed 500 mrem (0.005sv).

Fallout consisted mainly of mixed fission products with small quantities of neutron-induced radionuclides and traces of fissionable elements. Radiation-affected persons were exposed to deeply penetrating whole-body gamma irradiation, to internal radiation emitters

entering via the lungs or when swallowed and to direct radiation from radioactive debris accumulating on the body surface.

Initial symptoms originated from radiation damage of mucosal cells lining the gastrointestinal tract. Nausea affected two-thirds of people from Rongelap of whom 10 per cent suffered also from vomiting and diarrhoea. Only 5 per cent of those from Ailingnae with intermediate levels of exposure experienced nausea and there were no gastrointestinal symptoms among people from Utirik who had the least exposure. So-called "beta burns" resulted from direct effects of high-energy beta emitters on the body surface. The result was reddened skin, sore eyes and progressive hair loss. Caustic effects of highly alkaline calcium oxides from vaporised coral may have contributed to these varieties of external damage. About 90 per cent of those from Rongelap whose hair became white with fallout ash experienced considerable epilation whereas people from Utirik where there was no visible deposition of fallout suffered no external effects.

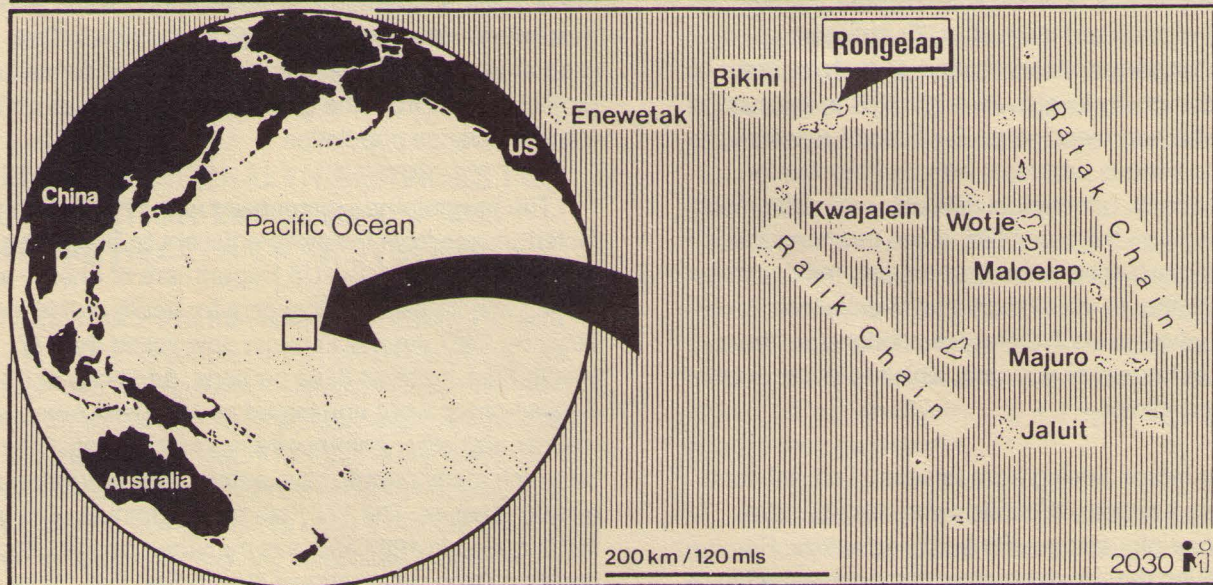
Sensitive blood indicators of radiation damage were closely monitored. White blood cells and lymphocytes fell to half their initial levels in exposed people from Rongelap and it took, respectively, one and two years, before the counts returned to normal. Blood platelets became reduced by one-third and did not increase to the normal range for more than two years. Immunological studies suggested some temporary decline in immune competence.

Radiochemical analyses of body materials during the days immediately following exposure indicated that only the isotopes of iodine exceeded maximum permissible levels of radionuclides in human tissues. Six months after exposure there was only "barely detectable" radioactivity found in urine samples.

LONG-TERM RADIATION EFFECTS - THE OFFICIAL VIEW

The 26 year follow-up report by scientists from the Brookhaven National Laboratory concluded that *"the general health of the exposed Marshallese people (except for abnormalities associated with thyroid injury) has remained good and about the same as that observed in the unexposed population examined. Vital statistics suggest that mortality and fertility rates have been the same in the exposed as in the unexposed sample. During the first four years there appeared to be an increase in miscarriages and stillbirths in the exposed Rongelap women that the observation was uncertain in view of the small numbers involved"*. Surveys

Marshall Islands



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failed to detect evidence of genetic defects and congenital malformations among the newborn that may have been induced by irradiation. Nor were radiogenic cataracts detected. Controlled studies on manifestations of the ageing process failed to observe any accentuated signs in the exposed. In 1972 a Rongelap male, exposed when one year old, died of acute myeloid leukemia and another Rongelap male died of stomach cancer. The Brookhaven scientists concluded that these instances may have been related to irradiation.

Thyroid abnormalities - benign and malignant tumours and hypofunction of the gland - are widespread late effects of fallout exposure among the Marshallese. Children faced a greater risk of thyroid damage because of the relatively higher concentration of radioactivity in their glands. Between 1954 and 1985, thyroid nodules developed in 63 per cent of Rongelap children who were less than 10 years old when the 1954 Bikini test was conducted. In some children, thyroid hypofunction has been associated with growth retardation. Thyroid nodules developed in two Rongelap males who were exposed in utero.

The distribution of thyroid pathology is dose-related with the highest rate of defects in people from Rongelap (a total prevalence of 33 per cent) and the lowest in the least exposed group from Uterik. Almost all from the original radiation-affected population with thyroid nodules have undergone surgical treatment in US hospitals. A wide spectrum of pathological charges, including malignant degeneration, has been observed.

LATE EFFECTS - OTHER VIEWS AND FINDINGS

The Brookhaven reports reflect painstaking investigations analyzed and interpreted in the cautious and conservative tradition of scientific studies commissioned on controversial matters by government agencies. Several conclusions have been challenged. In particular, although the Brookhaven investigations revealed what appeared to be a significantly increased rate of pregnancy loss among exposed women from Rongelap, the conclusion was left uncertain due to small sample size and other methodological difficulties. The Marshallese, however, are convinced that there were definite adverse consequences on reproductive outcomes. Darlene Keju-Johnson, a Marshallese graduate in public health from the University of Hawaii interviewed many women from radiation-affected atolls who had more than four miscarriages. She found evidence of "jelly-fish babies: (possibly hydatidiform moles) and varieties of birth defects that do not feature in official reports.

Marshallese views on acute radiation sickness do not appear to differ significantly from the effects related in official reports which also are in accord with the acute consequences reported for similar ranges of exposure among Japanese atomic bomb survivors and Chernobyl victims.

For long-term effects the situation is quite different. The Marshallese tend to ascribe a large number of diseases not known to have a radiogenic component in their origins to the effects of irradiation. The situation, however, has become complicated by many social,

cultural and political factors. These include the bitterness and resentment of those who lost their former homes and widespread distrust of US radiation scientists. The latter view appears related partly to revision of residual radioactivity levels which resulted in evacuation of people who had resettled on Bikini and Enewetok, and partly to serious problems with communication. Scientists have no conceptual difficulties in recommending restrictions on the quantities of sea food and fruit that may be consumed without exceeding maximum permissible radiation levels. Traditional Marshallese, however, conceptualise such dietary restrictions as "the more you eat the sicker you get", which to them, is an absurd proposition.

Another factor, arising from release of official documents for legal actions is public awareness of unfortunate "guinea-pig" statements by US scientists. For example, *"Even though the radioactive contamination of Rongelap Island is considered perfectly safe for human habitation, the levels of activity are higher than those found in other inhabited locations in the world. The habitation of these people on the islands will afford most valuable radiation data on human beings"*. During the latter 1980s the deepening distrust of US scientists fuelled clamour for a thorough radiological survey of contaminated areas by a team independent of the USA. The US government has showed no willingness to support such a proposal.

In one respect, Marshallese fears of a greater than officially acknowledged extent of radiation damage have been vindicated for the major detectable long-term effect of thyroid neoplasia. A recently completed epidemiological survey (Henderson) of thyroid nodules throughout the islands has shown that, contrary to the official view that fallout only affected people on nearby atolls east of Bikini, there is an excess of thyroid pathology in many atolls to the south. Given the lack of other risk factors for thyroid disease among the Marshallese, the only rational explanation resides in a much wider spread of fallout than previously acknowledged. The new findings increase the predicted burden of thyroid nodules (with the risk of cancer developing in a proportion of instances) by about 33 per cent. This yields a revised prediction of 1100 excess cases with radiation-damaged thyroids.

HEALTH SERVICES FOR THOSE WITH RADIATION INDUCED ILLNESS

From the outset the US authorities developed a policy of providing a special programme of highly technological medical care for radiation-affected persons. Accordingly, those who require advanced diagnostic

techniques, prolonged medical treatment on more than minor surgical operations were invariably transferred to hospitals in Hawaii or the American mainland. This programme has always been operated and funded as a project distinct from the general health services of the Marshall Islands population.

The programme commenced with 177 radiation-affected people from the atolls adjacent to Bikini who were designated by the US Department of Energy as requiring specialised medical care for acute radiation sickness. By 1987 the programme, now called the 177 Health Plan, covered 8260 persons. Additions to the original group were nominated as "exposed persons" by mayors and other community representatives. Criteria on which many people have entered the programme remain obscure. The 177 Plan had an annual budget of \$US2 million in 1987 and was managed by the US corporation Mercy International Health Services under provisions of the Compact of Free Association negotiated in 1985 between the USA and the government of the Marshall Islands.

The 177 Plan provides health services to "exposed people" and to inhabited areas of the four atolls officially recognised as affected by radiation. These latter services include provision of primary health care, four visits per annum by a specialised physician and, if necessary, transport of ill persons at no cost to higher levels of medical care in Hawaii or mainland USA.

There is no information on the quality and effectiveness of services provided by the 177 Plan. Some indication of problems associated with it were obtained during a team investigation of primary health care requirement in 1987. The team, including myself, was organised as an independent (i.e. non-American) body of enquiry by the World Council of Churches (WCC) at the request of the Marshall Islands government. A universal difficulty of the 177 Plan was its built-in financial incentives for sickness. There was a per diem allowance for attendance for medical care and monetary compensation for identifiable radiation-induced illness - in practical terms, virtually confined to a \$US25,000 payout after confirmation of thyroid pathology.

Following from this, there were expressions from exposed persons of a strong preference to attend visiting American Caucasian physicians for the obvious reason that such doctors would be much more likely to refer people for investigation and treatment, if necessary, in US hospitals. Such medical attention would be supported, of course, by per diem allowances and the possibility of a large compensation payment. A final problem with the 177 Plan was that its officials and

health workers were exposed to expressions of jealousy and hostility from other Marshallese who regarded the plan as privileged and providing services far superior to those for the three quarters of Marshallese who were not identified as "exposed persons".

INFLUENCE OF HEALTH SERVICES FOR THE RADIATION-EXPOSED ON THE GENERAL HEALTH CARE SYSTEM

To the extent that the most serious and prevalent long-term effect of irradiation is thyroid neoplasia, the provision of a highly specialised medical service can be justified for those who were actually exposed to radiation. But the general health services under Marshall Islands administration are run on similar principles at a lower level of funding. It is not clear if the special service for the radiation-affected has influenced the development of a general system centered around hospital and specialists and with poorly developed primary care and public health sectors.

Nevertheless, there is a strong impression from discussions with Marshallese health workers that public expectations have been greatly influenced by the elitist provisions of the special services for the radiation-affected. This impression is supported by budgetary allocations for the general health system. In recent years, maintenance of the main hospital at Majuro and the less well-established field hospital at Ebeye together with costs for the transport of persons who require higher level medical care in Hawaii or the mainland, have consumed two-thirds of the annual Marshall Islands general health budget. Only 10-13 per cent of the budget is spent on primary care and public health programmes for the 45 per cent of the population who live on the outer islands and there is a shortage of Marshallese health workers and inadequate training programmes.

The consequences of an inappropriate health care system are evident in the surprisingly poor health statistics previously mentioned. Admittedly, the widely dispersed nature of outer island populations presents difficulties for provision of health care but there are other non-malarious Pacific nations with similar problems who have achieved a better health record at lower levels of investment. Much more could be written about the unhealthy urban situations, especially on Ebeye.

It is true that in recent years an energetic Marshall Islands health minister and secretariat have attempted to redress the uneven balance of health services. A few initiatives along lines of the WHO Health for All policy have been taken but the outlook for improved health

remains almost universally depressing due to structural arrangements and institutions imposed by the USA and the adoption by the Marshallese of western dietary intakes, alcohol consumption and other health-endangering behaviour. There are no signs that US authorities have any intention of changing their entrenched policies.

As W.J. Alexander wrote in 1978 *"The history of the Marshall Islands under US trusteeship is a disgraceful record..."* The nuclear tests were a central feature of this record; in retrospect the tests were a barbarous and destructive episode with consequences that reflect a military policy of brutal self-interest and callous disregard for human dignity and the right of people to choose their own destiny.

Moreover, the principle of mindlessly pouring money into inappropriate mechanisms for resolving social problems has not worked in the USA; there is much less reason why such a principle should work in the Marshall Islands.

[A copy of the unedited paper with bibliography is available from SPPF.]



Developing the Coconut Industry

BY THOMAS KALOTAPU

Copra is Vanuatu's principal export. It is also a major source of government income through export duties. The coconut tree was, and still is, a vital part of Vanuatu's economy. This is not only because of its export earnings, but also for its other uses by the rural people: for its leaves, trunk, nuts and shells. However, to upgrade the standard of living in Vanuatu, it is the export earning that are most important.

The KDP (Coconut Development Project) was started in 1982. Phase One was initially funded by the European Development Fund (EDF) for four years, at a cost of US\$1.5 million). The main goal of the project was to intensify coconut extension work, which has been carried out by IRHO (Institut de Recherches pour les Huiles et Oleagineux) since 1980, to counteract the decline of the coconut industry in Vanuatu.

Toward the end of Phase One, the Vanuatu Government and EDF agreed to extend this project to Phase II for another four-year period under the Lome II Convention. This commenced in May 1989.

The Coconut Development Course at Tagabe Centre in Port Vila was held September 25th to 29th, 1989 to look at previous coconut development, and to introduce Phase II. The participants were seventeen selected farmers from the Southern Region of Vanuatu. This course marked the stability and progress of the coconut industry in the region, and the country as a whole.

The course was officially opened by the second secretary of the Local Government Council of Efate Island, based in Port Vila. The Senior Agriculture Extension Officer for the Southern Region explained current Government policy towards smallholder agriculture development, and how the Extension Service plans to initiate programmes to work with farmers.

This follows the Vanuatu National Development Plan, whose theme is "Economic Self-Reliance". Under this plan, the main objectives of the Extension Service are:

- * to provide the main channel of communication between farmers and agricultural researchers and other specialist sections of DALH for the farmers' technical problems;

- * to provide advice to farmers on improved techniques for cultivating basic food and cash crops (including nursery management techniques and pest and disease control), and on improved livestock husbandry techniques;

- * to demonstrate new production technologies at the farm and village level;

- * to supply improved planting material to farmers;

- * to monitor the impact of particular activities and projects at a local level.

The manager of the KDP introduced Phase II of the project and stated priority areas for the next four years. He said that farmer training is number one priority in this project. The KDP is organising and conducting village and regional courses to teach farmers improved techniques in cultivating coconuts.

The course concentrated on a range of topics, including:

- * establishing and managing nurseries;

- * selecting suitable coconuts;

- * marking, digging and planting;

- * maintaining a young coconut plantation, including fertilising and protective spraying against pests and diseases;

- * rehabilitating and replanting old coconut plantations;

- * inter-croppings;

- * and assessing copra quality by the Vanuatu Commodities Marketing Board (VCMB).

The course aimed to:

1. train smallholder farmers,
2. supply improved planting materials (seednuts and seedlings) from IRHO to smallholder farmers, with knowledge of the subsidised costs,

- * 3. encourage diversification by intercropping coconuts with root crops, fruit crops and livestock, especially cattle,
- * 4. get feedback from participants on the outcomes of the Project.

The selected farmers gained a lot of knowledge, especially in inter-cropping which will help them to gain productivity and economic output from the same piece of land. Farmers also learned about and carried out practical spraying exercises to combat typical pests and diseases in the field.

The most common pests affecting coconut palms in Vanuatu are *Brontispa* and *Aspidiotus* spp. which are both scales and fungi such as the *Helminthosporium* sp. A new pest affecting coconuts and becoming common is the caterpillar *Agonoxena* sp.

The two main types of coconuts recommended

during the course were locally selected Tall Vanuatu (fruit are red or green) and local Hybrid (fruit usually red). These are available from the IRHO Research Station at Saraoutou, Santo Island in northern Vanuatu. This station was established in 1962. It is managed on behalf of the Vanuatu Government by the French organisation IRHO. Its long-term research programme involves all aspects of coconut cultivation, including breeding techniques, hybridization, seednut production, and crop protection.

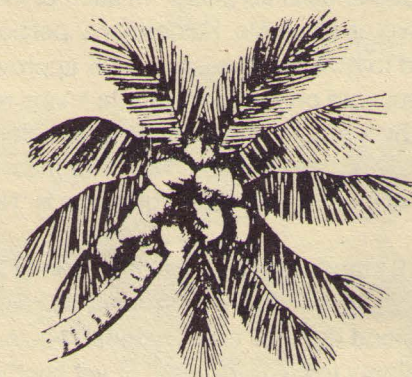
The coconuts planted in the past by our grandfathers and fathers are slowly becoming unproductive and current prices are low. Today's generations must diversify this vital industry, in quantity, in space and in time. The answer, hopefully, rests with the local, selected farmers.

[Reprinted from IRETA'S SOUTH PACIFIC AGRICULTURAL NEWS, Vol 7, No 8.]

THE VALUE OF COCONUT TREES

Coconuts were promoted at World Food Day in Honiara in October 1989. If you were to buy everything in a store that you could make or use from a coconut tree, you would have to spend a lot of money. Coconut trees and their fruit can provide many useful everyday objects, as well as food, drink and housing materials. Below is a list of what you would have to pay at an average store if you bought one of each item which can be obtained free from your coconut tree.

ITEM	STORE PRICE (\$)	COCONUT PRICE
Soft drink	1.80	FREE
Mil/cream	3.80	FREE
Baby oil	4.20	FREE
Cooking oil	3.80	FREE
Basket	30.00	FREE
Cup	3.00	FREE
Spoon	1.00	FREE
Mattress	12.00	FREE
Toilet paper	.90	FREE
Kerosene	2.00/litre	FREE
Washing brush	1.20	FREE
Floor brush	20.00	FREE
Hat	3.00	FREE
Haircomb	1.40	FREE
T-shirt	32.00	FREE
Timber (12 ft)	20.90	FREE
Roofing iron (12 ft)	33.00	FREE
Walling (9ft Masonite)	25.00	FREE
House post (10 ft)	40.00	FREE
TOTAL	\$236.00	NO COST



Every part of the coconut tree (Cocos nucifera) can be used. The husk provides cord, mats, brushes, and fuel, the leaves thatch, baskets, and fans, and the trunk building material. Food and oil from the nuts are the greatest prize. A healthy tree will produce 50 nuts a year for over 60 years.

[Reprinted from LINK, No. 13, Nov/Dec 1989]

BELAU AND THE COMPACT: MORE VOTES TO COME

BY LYNN WILSON

"The United States is so concerned about its military options that it has steadfastly refused to accept the people's wishes. We have said "No" four times to the United States nuclear intentions in four referenda in four years. When will we be heard? We have voted democratically and the United States must accept our vote. Does democracy apply only in the United States and not in Palau? The Palauan people need time to decide on their own kind of government and economy without interference. We call upon the Trusteeship Council of the United Nations to support our right to choose the future of Palau rather than to support the attempts of the United States to determine our future for us. "

Bernie Keldermans, an active supporter of Belau's Constitution, presented the above petition to the UN Trusteeship Council in 1983. Seven years later, the issues and concerns are remarkably the same. Belau's Constitution still contains a 75% requirement for any Compact that allows the US to bring nuclear and other harmful substances into Belau. In each of the seven Compact votes since Ms. Keldermans' petition Palauans have failed to give the necessary 75% approval. In the most recent vote on February 6th Palauans rejected the Compact by a greater margin than ever before. 59.8% voted "Yes" and 38.6% voted "No." For most observers and participants the overriding question is "Now what?"

The US stands firm that renegotiation of the Compact is impossible. Most government officials in Belau want to amend the 75% constitutional requirement to a simple majority to clear the way for yet another Compact vote. A small group of Palauan leaders are suggesting that a Constitutional Convention would present the best forum for debating changes to the Constitution. A coalition of citizens who have consistently worked to oppose US military options and the economic dependence represented by the Compact are calling for a 5-year moratorium on Compact votes. They feel this would give people in Belau a chance to build cohesiveness and determine Belau's future needs without coercion from the US.

Pressures to approve Belau's Compact have been strong and will most likely continue. Even if this Compact, or a similar document, does pass at some point in the future, positive avenues still exist for those who support Belau's Constitution and Belau's right to self-government. Possibly the strongest challenges would be to contest whether the Compact answers requirements for free association put forth by the United Nations.

Roger Clark, Distinguished Professor of Law at Rutgers University and Vice-President of the International League for Human Rights, has strongly argued for close examination of the UN's principles of free association. In 1960, the UN General Assembly identified two conditions for implementing free association in non-self governing territories:

a) Free association should be the result of a free and voluntary choice by the peoples of the territory concerned expressed through informed and democratic processes. It should be one which respects the individuality and cultural characteristics of the territory and its peoples, and retains for the peoples of the territory which is associated with an independent State the freedom to modify the status of that territory through the expression of their will by democratic means and through constitutional processes.

b) The associated territory should have the right to determine its internal constitution without outside interference in accordance with due constitutional processes and the freely expressed wishes of the people. This does not preclude consultations as appropriate or necessary under the terms of the free association agreed upon. (UN General Assembly Resolution 1541, Principle VII.)

Evaluating the processes of creating Belau's Constitution and the current Compact of Free Association, it is obvious that people in Belau have grounds to challenge the 1986 Compact of Free Association in the United Nations. Does US interference in Belau's constitutional processes mean that this agreement (or possibly any future agreement of free association) cannot be valid in the eyes of the UN? Has the limitation of

choices in status negotiations obstructed Belau's chances for an "informed" choice in deciding their future status? Has the lack of effective political education on the Compact and the government's misinformation campaigns impaired people's ability to make an "informed" choice? Have repeated votes, corruption, widespread intimidation against Compact opponents and government-sanctioned violence precluded a chance for "democratic" approval of the Compact in the future? The US does appear to have respected Belau's "democratic processes" in the past-- what guarantee is there that US officials would continue to follow similar policies in the future?

Another glaring point of difference between UN requirements for free association and the current Compact involves Belau's right "to modify" the Compact. Former interpretations of UN requirements have demanded that the freely associated state maintain the right to end the agreement at any time. Contrary to this idea Belau's Compact does not provide unilateral termination. Belau could never change the permanent "strategic denial" provision unless the US agreed. The Compact defines US military rights in ways that would shape the character of Belau's government, economy,

and culture. People in Belau would find it hard to end US military presence-- even after 50 years, even if they wanted to. Can a Compact that restricts and pressures Belau in such ways satisfy the UN prerequisite for free association?

Belau's struggle for self-government has been a long-term endeavour. It will continue for years regardless of whether the Compact of Free Association is implemented. Belau faces problems that are not easily resolved, but developing a viable economy, maintaining control of Palauan territory, preventing irreversible pollution, and claiming the right to choose a political status without coercion are reachable goals for Belau- today and for generations to come.

Lynn Wilson is co-authoring with Bernie Keldermans the forthcoming book, Belau and the Compact: Storms of Distrust, to be published by Times Change Press, Chicago, Illinois, Fall 1990. Lynn is a doctoral student at the University of Massachusetts. After living in Belau from 1987 to 1989, Lynn is presently writing her dissertation on women and political transformation in Belau under US administration.

CAMPAIGNING BEFORE THE FEBRUARY 6, 1990 VOTE ON THE PASSAGE OF THE COMPACT OF FREE ASSOCIATION BETWEEN BELAU AND THE USA. RESULTS: YES 59.8%/NO 38.6%. UNDER THE BELAU CONSTITUTION, 75% APPROVAL IS NEEDED TO PASS THE COMPACT.



photo by Lynn Wilson

TWO GRASS ROOTS ORGANIZATIONS IN BELAU - KLTAL-RENG AND OTIL A BELUAD - CO-NOMINATED FOR 1989 NOBEL PEACE PRIZE

KLTAL-TENG is a Belauan grassroots movement organized to support and protect the Constitution of Belau. **KLTAL-RENG** organizes and educates the grass roots, working for full Belauan sovereignty under the Constitution and against militarism. Established in 1980 by Roman Bedor, a Belauan lawyer and longtime activist for a nuclear free Belau, **KLTAL-RENG** sponsors Belau Pacific Center which carries out international networking and other support work for Belau's role in the struggle for a nuclear free and independent Pacific.

OTIL A BELUAD is a women's grass roots non governmental organization (NGO). Its aim is to create a forum to encourage women to further increase their participation in current political dialogue in Belau, to uphold the constitution of Belau, to challenge corruption in government, and to support policies that benefit the majority of the people of Belau.

Historically, women in Belau have been integral in deciding community and clan affairs. Thus **OTIL A BELUAD** or "Anchors of our Land" was formed as a result of the threats and intimidation towards women who spoke out around the time of the Compact vote and its aftermath in 1988. Now, unified under **OTIL A BELUAD**, the women have an active co-ordinating office including a gift shop, a resource centre and a meeting space. The centre is a beginning step in creating a strong and effective national-level women's organization to answer the needs of women not addressed by any other organization in Belau.

Financial support of **OTIL A BELUAD** has come from various sources, one of which is **PEACEFUND CANADA**. It is the hope of **OTIL A BELUAD** that the income from the gift shop will soon finance most expenses for ongoing projects of the centre.



photo by Lynn Wilson

WOMEN OF OTIL A BELUAD

CLEAR CLAIMS TRIBUNAL RESIGNATIONS

The entire panel of judges on the Marshall Islands Claims Tribunal has resigned. The chairman of the Tribunal, Australian attorney Bruce Piggott, resigned in early February citing "constant political interference" in the work of the Tribunal by members of the Marshall Islands Nitijela (parliament).

The Nuclear Claims Tribunal was established as an independent body to create a compensation process and to pay out US\$45 million to Marshall Islanders affected by the 66 US nuclear weapons tests conducted in the Marshalls between 1946 and 1958. The Tribunal was set up as one part of a total package of US\$270 million provided as a "final" settlement of all nuclear damage claims under the Compact of Free Association. More than 5,000 people have filed health and land damage claims with the Tribunal. The framework for compensation is now in place but payments which were scheduled to begin in June will be delayed for many months. (From a report by Giff Johnson in Islands Business, March 1990.)

BOUGAINVILLE CEASEFIRE

A ceasefire went into effect on Bougainville on March 2nd providing for the withdrawal of Papua New Guinea Security Forces from the island on March 16th, two days after the current State of Emergency ends. Justice Minister Bernard Narakobi will lead the PNG delegation in talks with the rebels.

The Bougainville crisis has resulted in more than 100 deaths, and severe damage to the reputation of PNG Security Forces. Amnesty International has called for an investigation into allegations of torture and deaths among detainees. There is also evidence that the Security Forces destroyed more than 100 homes in reprisals against supporters of the rebels. The actions of the Security Forces seem to have strengthened support for landowners and the hardline separatists.

Both the PNG government and Bougainville Copper Ltd. appear to have accepted the fact that the copper mine will remain closed for some time, if not forever. The PNG government has begun implementing major budget cutbacks as a result of the revenue shortfall from the mine closure. Bougainville Copper has accepted an out of court settlement with its insurers for nearly US\$100 million for losses resulting from the shutdown. (SPPF)

HURRICANE OFA

February's Hurricane Ofa was the worst to hit the South Pacific since 1972. At least 12 lives were lost and damage estimates run into the hundreds of millions of US\$. Damage estimates for hardest hit Western Samoa alone exceed US\$110 million. In addition to battering Western Samoa and American Samoa, Ofa hit Niue, Tonga, Tokelau, Wallis and Futuna, and Tuvalu. A few days later the northern Cook Islands were damaged by Cyclone Peni. Over half of all houses in Western Samoa, American Samoa, and Tokelau were severely damaged or destroyed. Crop damage was extensive on all the islands and many people were left in need of emergency food supplies, including as many as 80% of the 162,000 Western Samoans. (From Islands Business, March 1990.)

PUTTING NATURE BACK IN BALANCE

BY MARK JAFFE

ROTA, NORTHERN MARIANA ISLANDS

- Here on a verdant, wind swept savanna, dappled by sunlight that occasionally broke through a rolling cloud canopy, 1090 took his first steps into a free, new world.

Born and raised 8,000 miles away, in Front Royal, Virginia, 1090 had been brought to this limestone speck in the Pacific about 30 miles from Guam, in attempt to reverse the effect of one of the more bizarre ecological massacres ever recorded.

Now, as a dozen biologists, ornithologists and others looked on with heightened expectations, Herman Muna, a biological technician at the Guam Division of Wildlife and Aquatic Resources, reached into a wood and wire cage covered with a canvas tarp.

Gloveless, Muna pulled out a pigeon-size bird, a Guam rail, bearing a leg band numbered 1090, and placed it on the ground. The flightless bird made a dash across the field into a stand of short, leafy trees known to the Chamorro natives as yogas.

In an hour's time, six similar Guam rails were released. With the birds rode the hope that humans would succeed in reintroducing a species that had been all but wiped out by a crafty, ill-tempered and still uncontrolled reptile called the brown tree snake.

During the last 40 years, the brown tree snake has been eradicating the birds of Guam. Nine species of forest birds, three of them not found elsewhere, have disappeared. "A snake has never been involved in anything like this before," said Thomas Fritts, a research biologist with the US Fish and Wildlife Service. "We've never seen a reptile cause this much ecological harm before."

Six years ago, just before the last of the birds was eliminated, a network of US zoos and conservation organizations engineered a "birdlift" of threatened birds, brought them to the US, and bred them in the hope of returning them to Guam.

Ecologically, Guam remains at the mercy of the snake, which now outnumbers Guam's 150,000 residents by an estimated 10-1 and has become a menace to wildlife, poultry, pets, and even people.

So Rota, a lush US protectorate with minimal development, became a way station last week, a haven for rails, until something can be done about the snake. In coming years, Rail No. 1090 will be followed by rails bred in zoos in about a dozen US cities until a stable, self-sustaining population is created.

Last week's release is more than simply an exercise in trying to right an ecological wrong or put a link back in the ecological chain. The reintroduction of this endangered species represents a significant event in wildlife development and management.

"For the first time, a bird that has gone extinct in the wild has been put back into the wild," said Stuart Pimm, a professor of ecology at the University of Tennessee, who attended Thursday's release. "For 20 years, everybody has been aware of the prevailing environmental crisis, and the gloom and despondency as we lose more and more species," he added. "But this release represents a turning point in conservation biology."

With the world losing one to three species of plants and animals a day, the release of the rail here marks one small effort to reverse the trend.

The story of 1090 and the tree snake began more than 20 years ago when game wardens on Guam began noticing that the bird population was dwindling. By 1978, the birds were disappearing at an alarming rate; several studies were launched in an effort to explain the phenomenon.

Scientists checked pesticides, habitat loss and disease. None offered an explanation. Then in 1982, Julie Savidge, a University of Illinois graduate student arrived on Guam. Cracking the mystery was to be her doctoral dissertation.

After a year, Savidge had no better idea what was happening. Then she heard a bizarre explanation offered by some of Guam's Chamorro natives. The birds, they said, were being swallowed by "the snake" -the reptile everyone called the Philippine rat snake.

That struck Savidge and other biologists as far-fetched. There did not seem to be that many snakes around, and no snake had ever caused the complete extinction of an island's bird population. "There was no record of a snake eating that many birds," Savidge said.

Besides, "a predator and prey usually reach some equilibrium," said Robert Beck, an official with the Guam Division of Wildlife and Aquatic Resources. In the simple laws of biology, if a predator destroys all its prey, it will destroy itself as well.

Still it was a lead, so Savidge started collecting and slicing open snakes. Each was filled with feathers and egg shells. The Chamorro story was true. The snakes were indeed eating the birds.

Nonetheless, a number of influential biologists and naturalists insisted that a disease must be the killer. "Julie had to construct some really convincing experiments to prove it," Beck said, "...for we were dealing with something that had never happened before and a lot [of scientists] simply didn't believe it."

Clearly, the culprit was the reptile, the one long suspected of being the Philippine rat snake -until Larry Shelton, then-curator of birds at the Philadelphia zoo, visited Guam in July 1983 and returned with a photograph of the snake.

Shelton showed the photograph to John Groves, the zoo's curator of reptiles. Groves took one look and knew. The snake was from the Solomon Islands, 1,500 miles away, not the Philippines. It was the brown tree snake (*Boiga irregularis*), not a rat snake.

Another thing quickly became clear. There was no way to protect the few remaining birds on the island. Already, by mid-1983, nine species had been wiped off the island- including three found nowhere else in the world. Gone forever were the rufous fantail, the bridled white-eye, and the broadbilled flycatcher.

If the two remaining native species of birds -the rail and the Micronesian kingfisher- were to survive, they would have to do it some place besides Guam, at least until the snake had been dealt with. In only a matter of months, the birds would be completely gone.

And so, in 1984 a great birdlift, to bring the endangered species to US zoos, was undertaken by the American Association of Zoological Parks and Aquariums in cooperation with the US Fish and Wildlife Service and the government of Guam. In January of that year, the first six birds flew to Philadelphia, and during the next few months more birds were brought to the National Zoo's Conservation and Research Center in Front Royal.

Getting the birds off Guam did not ensure that they and their offspring would be saved. Biologists faced

two crucial problems: getting the birds to breed in captivity and preserving the genetic diversity that enables species to adapt more easily to change, thus enhancing its chances of survival.

Starting off with just 21 rails and 34 kingfishers, the biologists were facing what they call a "genetic bottleneck," where mating options were limited because there were so few of the birds. Breeding among closely related birds often leads to inbreeding which eventually will enfeeble any species.

In the past, matchmaking was done as much by guess and intuition as by science. Now, for the first time, it was decided to use the most advanced genetic analyses including DNA work-ups, to attempt to solve the puzzle.

Equally important was getting selected birds to mate. Very little was known about the rail or the kingfisher, but nobody was too worried about the rail. "Rails have never been difficult to breed. They are precocious birds," said Shelton, now curator for birds at the Houston Zoo and chairman of the zoological association's committee on rails.

The rail population, which is housed at 13 zoos, has virtually exploded to about 150. "This whole program has gone much faster than anyone expected," said Shelton. If all goes well, every six months for the next two to five years about 30 additional rails will be brought to Rota, until a stable population is created.

The exercise last week was viewed as a success by its participants on Rota and in the US. Getting the birds rescued, removed, bred, returned, and set free was cause for enormous satisfaction. But even pristine Rota, while offering a seemingly perfect environmental venue for the acclimation of rails, also presents some serious problems- from humans.

For one thing, the residents of the island have a penchant for shooting anything that flies. The Marianas fruit bat is an endangered species, but the islanders keep shooting and eating them.

More threatening than the gun, however, is the bulldozer. On Rota, which is 90 percent undeveloped, developers have announced plans to build two large resorts with two full-size golf courses, which would cover about 13% of the island.

The projects, which have estimated price tags of \$250 million and \$600 million, are backed by developers and aimed at the Japanese tourist market. The resorts

would be on the northern coast of the island, far from the central savanna. Nevertheless, the resorts would dramatically affect the tiny island.

"Will it affect the rails? I don't know," said ecology professor Pimm. "Is it a concern? Obviously it is."

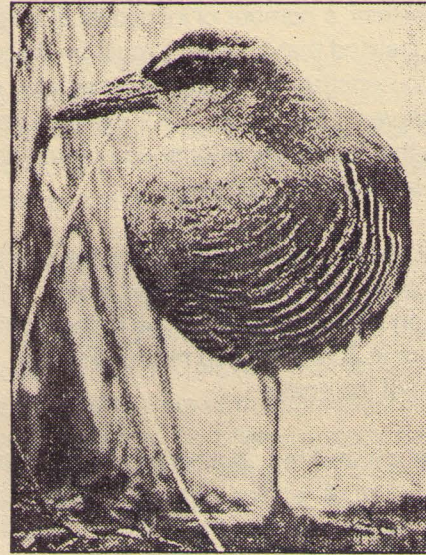
[Rota articles reprinted from The Philadelphia Inquirer, February 4, 1990.]

THE SNAKE



NAME: Brown tree snake, or *Boiga irregularis*.
RANGE: Natural range stretches from Indonesia to Papua New Guinea.
ADULT LENGTH: Five to eight feet.
WEIGHT: five pounds.
SIZE: Slightly thinner than a garden hose to slightly thicker than a bicycle tire; head is flat, spade-shaped.
COLOUR: From drab brown to drab olive, often with a bright yellow underbelly.
REPRODUCTION: Female apparently can store semen and lay eggs from it for more than a year.
EATING HABITS: Flexible in tastes, it can eat a meal as big as 70 per cent of its own body weight, an analogy is a 150-pound man eating 105 pounds of food for dinner.
PREDATORS: Monkeys, carnivorous birds, perhaps others.
CHARACTERISTICS: It climbs almost magically, without coiling or seeming to notice gravity. It can tie its tail into a knot and stretch itself from branch to branch. Will also hunt on the ground. It can hunt by smell or its keen night vision. Its fangs are at the back of its mouth and can deliver its venom, which is not poisonous to human adults, only by chewing on its prey.
WHAT EXPERTS SAY: "It has a really vile temper," said Michael McCoid, biologist at the Guam Division of Wildlife and Aquatic Resources. "If it feels threatened, it will attack and keep attacking; it'll back you up."

THE BIRD



NAME: The Guam rail, or koko
RANGE: Once common across the Pacific islands, but by the mid-1970s, found only in Guam and Okinawa. Because of the brown tree snake, only about 18 remained on Guam five years ago, and now there are none. The U.S. breeding program has produced about 150 rails, some of which are being released on Rota.
ADULT SIZE: About 10 inches high.
WEIGHT: About three-quarters of a pound.
Colour: Light brown with white stripes around its eyes and across its belly.
REPRODUCTION: "They become sexually active at about three months old," said Robert Beck, an official with the Guam Division of Wildlife and Aquatic Resources. "They can lay new eggs in a matter of days after hatching chicks."
EATING HABITS: The animals live and forage for insects in family groups.
PREDATOR: Brown tree snake.
CHARACTERISTICS: Flightless, but very territorial and aggressive.
WHAT EXPERTS SAY: "They'll fight other rails that intrude... Males and females will even fight if they don't get along," said Beck. Their aggressiveness was the biggest problem in breeding the birds in captivity, said Scott Derrickson, of the national Zoological Park's Conservation and Research Center in Front Royal, VA. "You need a lot of space or these birds will kill each other," he explained.

CHANGE THREATENS LANDSCAPE AND TRADITION ON ROTA

By Mark Jaffre

ROTA, Northern Mariana Islands- During WWII, when American soldiers were fighting their way toward Japan, island by island, bloody battle by bloody battle, they skipped Rota. They fought on Guam to the south and Saipan to the north, but ignored this 3-by-10 mile coral blip in the Pacific Ocean even though Japanese soldiers were on it.

That's pretty much been the story of the place until recently. Now remote Rota—with its virgin rain forests, limestone cliffs and pristine coral reefs—is the target of Japanese developers who want to spend \$850 million to build resort hotels and golf courses over 13% of the island.

The proposals are only on paper. No shovel has touched the earth. But already, politics have turned ugly, family is set against family, and traditional values are taking a beating. "Farming, hunting, raising your family and the church. That used to be the foundation of life here," said Gerald Calvo, a native Rotanese and director of the island's program for the elderly.

"But now I think people are fighting against themselves. There's no question politics and money are really changing the place."

For the record, Rota, 2,000 miles west of Hawaii in the western Pacific, is a part of the United States. It has a US post office. It gets federal grants. Folks watch the super bowl.

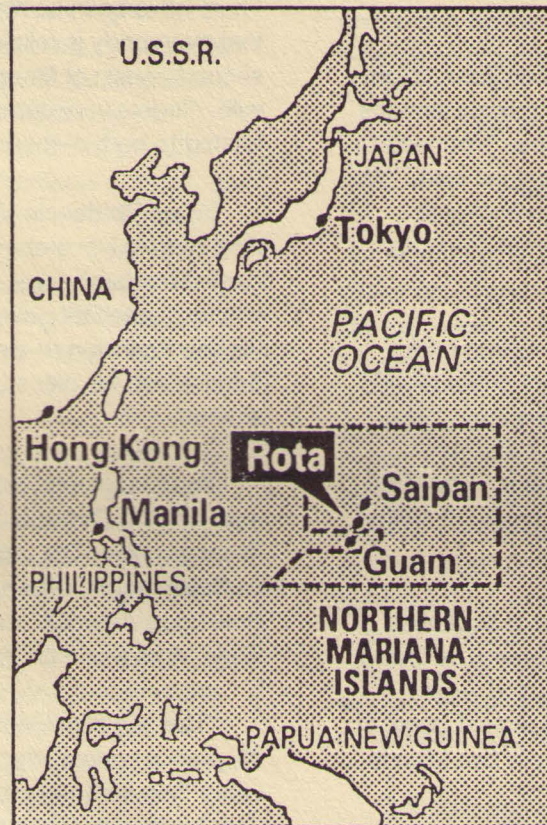
Yet English takes second place in the streets to an odd mixture of Spanish, Japanese and a dialect spoken by the Chamorro natives. And local dishes include something made from a pig's spinal cord, intestines, and blood, all boiled together until it congeals. Then it is spread on a tortilla. This is not your average party dip.

The fight over the future of the island comes as scientists try to conduct a unique and potentially very valuable wildlife experiment. Last week, American biologists began releasing in Rota's lush rain forests a species of bird now extinct in the wild, the Guam rail.

But just last month, Japanese developers announced sweeping plans for the island. All across Micronesia development is threatening rain forests and jeopardizing coral reefs and coasts. On Guam, which is already heavily developed, there are proposals for \$1.5 billion in new hotels. Rota's neighbor, Tinian, has voted to allow casino gambling.

"Micronesia is to Tokyo what the Caribbean is to New York City," said Bob Beck, an official with the Guam Division of Wildlife and Aquatic Resources. In 1988 500,000 Japanese tourists visited Guam.

From the air, Rota looks like an emerald surrounded by water so vibrant and so blue that it seems to be lit from the bottom of the ocean by huge lights. The island rises from the sea in a series of coral cliffs covered with greenery and topped with a broad flat savanna of meadows and rain forests.



The Philadelphia Inquirer/ROGER HASLER

From the ground, however, Rota isn't a total paradise. It has only one paved road, which leads from the airport to the edge of Songsong, the village that is home for most of the island's 2,000 inhabitants. There are no traffic lights or street signs. Until four years ago, there were no telephones. Today there are about 80 private phones.

Just last year, Rota got its first regular air service. There are no dry goods or hardware stores. There are, however, three gas stations and two video stores. There is also a new million-dollar health clinic - but no doctor. "Rota is the Appalachia of Micronesia," said Bob Egber, a high school teacher who came from Alaska in September on a two-year contract.

While Rota's mayor, Prudencio T. Manglona, might argue with Egber's characterization, he quickly laments the island's lack of infrastructure and jobs. "We need to develop roads, water, and power," Manglona said. "We need jobs for the 200 people who are unemployed." That jobless figure gives the island an unemployment rate of more than 20 percent.

Still, Manglona, a small, solid, slow-talking man, says he worries about rapid development of the island, even though he owns a construction company. "We have no crime, no drugs, but there aren't enough people on Rota to staff big hotels," he said. "If they import labour, like other islands, what will happen? Will all these things come, too?"

"The problem," said Edward Yokeno, a Japanese businessman with tourism interests on Guam, "is that Saipan and Guam are overdeveloped...Land values have soared and beachfront property is almost gone. So where do [developers] go? There are only two islands left- Tinian and Rota," Yokeno said.

"Tinian is flat and uninteresting," he said, "but Rota is a luscious island with beautiful beaches and beautiful water... In five or seven years, there will be direct flights from Tokyo to Rota. Rota is a sleeping volcano awaiting to erupt."

The development tremors are already shaking the three pillars that have sustained the island's society: the land, the family, the church. Under Commonwealth laws, only Chamorros may own land, but they may lease it to foreigners for as long as 55 years.

"It is a Chamorro belief that you hold on to your land. It is your security. Your children stay with you when you have your land," Calvo said. "But now people are selling their land. All they can think about is the

things they can buy with the money. The children are fighting over their parents' land. Some of the elderly are being pressured by their children to sign leases" with developers, he said.

Chamorros, of course, can buy land, and several influential Chamorros are buying all the parcels they can. Among the largest landholders are Manglona, who is the mayor, and Victor Hocog. They are also bitter rivals who ran on opposite tickets in an acrimonious election in November.

Adding to the intensity of political divisions on the island is this: All the Rotanese issue from five families. There have been so many marriages among the families that everybody is related. For example, Calvo is a second cousin of Manglona and the uncle of Hocog's wife. "It gets very complicated," Calvo said. "My wife is related to both of them, too."

When Prudencio Manglona was re-elected to his third term in November, his coattails might as well have carried the family seal. His brother Benjamin was elected lieutenant governor of the Northern Marianas, his son Paul won re-election to the Northern Marianas Senate, and his niece Laura was re-elected councilwoman.

The island was first settled by the Spanish 300 years ago, and the Catholic Church has been the sinew of Chamorro life. "The culture is based on the church. You can't separate a Chamorro from the church," said the Rev. Louis Antonelli, the priest at San Francisco de Borja, Rota's one church.

"This is a small, conservative community," said the 72-year-old priest who grew up near Hazelton, Pennsylvania. "We are trying to hold on to traditional values." With his flowing white beard, close-cropped hair and wire-rim spectacles, Father Antonelli looks the epitome of the missionary parish priest- only the jeans peeking from his white cassock give him away.

"I love it here. I love the outdoors. We have a little ranch and I work there most mornings. This has been a wonderful place and I've had a good time," he said. "But I foresee big changes here...It is changing already."

[Reprinted in an edited version from The Philadelphia Inquirer, February 5, 1990.]

MEDICAL OFFICERS FOR MICRONESIA THE NEXT GENERATION

BY GREGORY J. DEVER

Responding to present and foreseen shortages of properly trained indigenous doctors, Micronesian and US health leaders and medical trainers have come together to establish the Pacific Basin Medical Officers Training Program in Micronesia.

Among the many health problems that currently exist in the present and former American flag territories of Micronesia, the acute shortage of indigenous doctors has reached crisis proportions. It is estimated that by the year 2000, at least 100 doctors will be needed in Micronesia to keep abreast of the current departure rates resulting from deaths and retirements and to cope with an increased demand for medical services fueled by the brisk regional birth rate of 3 percent or more - a growth rate which doubles the population every 24 years. Yet until recently there were only a handful of Micronesian medical students in any medical education institution in the Pacific.

The shortage of women doctors in the region is critical. Only four Micronesian women doctors are practicing throughout Micronesia and three of those are in Palau. There are no indigenous women doctors in the Federated States of Micronesia nor in the Republic of the Marshall Islands.

The islands of the former US Trust Territory of the Pacific Islands, with a population of 150,000 people spread across a Pacific expanse equal in area to that of the continental United States. After forty years of American stewardship remain truly a Third World community. Poor hygienic conditions lead to excessive rates of preventable infectious diseases which are still the leading cause of death in most of the jurisdictions. Infant and maternal mortality rates are excessive. Malnutrition induced by diet changes is manifested by increasing rates of kwashiorkor and xerophthalmia (night blindness caused by Vitamin A deficiency) in infants and children and diabetes mellitus in adults. On some islands twenty percent of children six and under manifest gross evidence of malnutrition and up to 25 percent of the population over fifteen years display evidence of diabetes.

Provision of health care is frustrated by underfunding, lack of continuity and the problems of supply logistics to such a vast area. At the same time, the health

system that has developed in Micronesia over the past two generations is a model of First World medicine imposed on a developing, resource-poor area. Until recently, up to fifty percent of health budgets had been spent on off-island referrals to Hawaii and Guam for a few intensive care patients while basic services went generally underfunded. It is therefore not surprising that disease prevention and health promotion services are in need of development within Micronesia.

' the acute shortage of indigenous doctors has reached crisis proportions '

The reasons for the current doctor shortage in Micronesia - and among the rest of the Pacific islands - are many and complex. The following are but three contributing factors:

First, traditionally Micronesian and other regional Pacific Island students have been trained at the Fiji School of Medicine in Suva, which has a rich tradition as a medical training school for over a century. However, over the past decade the Fiji School of Medicine has been plagued with excessive political, racial and academic problems combined with excessive failure rates for both ethnic Fijian and regional Pacific Island student. Fortunately, the school is now under new administration with plans for revitalizing its programs.

Second, because of the poor regional primary and secondary education infrastructures, there have been only a handful of Micronesians who could satisfy the rigorous math and science entrance requirement of Pacific rim metropolitan medical schools in Hawaii, New Zealand, Australia and Papua New Guinea. Few students from these disadvantaged educational backgrounds survive to graduate from these very Western and competitive medical educational programs.

Third, of the few Micronesians who graduate with metropolitan MD or the British-styled MBBS degrees, most seek employment in the metropolitan countries where they were trained. The majority of Micronesian MDSE now practise in Hawaii and California. For complex reasons, more than just salary, the MD degree has become a passport to opportunity in the United States.

This problem of 'physician' brain drain is not limited to Micronesia: it is a chronic and disappointing problem throughout the rest of the Pacific, frustrating health human resource development among many of the poorer nations. Guam, on the other hand, has been more fortunate in attracting back its doctor sons and daughters. However, the lifestyle and doctor's salary scale on Guam more approximates that of a metropolitan country.

In addressing the issue of doctor shortage in Micronesia, there is unanimous agreement among the Ministers and Directors of Health of Micronesia and American Samoa that indigenous doctors are needed to care for their own people. Presently, expatriates, - most of whom are the 25 or so National Health Service Corps assignees of the US Public Health Service - make up the majority of doctors working in many of the jurisdictions.

Through the joint planning of the Micronesian and American Samoan health leadership and the John A. Burns School of Medicine of the University of Hawaii School of Medicine, specific US federal legislation was developed to establish the Pacific Basin Medical Officers Training Program (PBMOTP) in Micronesia. The PBMOTP is a five-year doctor training program - three years of which will take place in Pohnpei, where it is based, with Years 4 and 5 to be spent in rotation throughout Micronesia and other Pacific islands. Presently, 53 First to Third Year medical students from Micronesia and American Samoa are enrolled in the program, of whom forty percent are women.

In reviewing the medical problems in Micronesia, it is very apparent that they fall mostly under the categories of community health and primary health care. Acknowledging this, the PBMOTP curriculum will produce a doctor who is a primary health care specialist - one who is not only competent in curative skills but who will have an equally sound training in community medicine, environmental health and health management and planning.

The PBMOTP, to attain its ambitious training goals, has recruited a Pacific-based faculty with more than 100 person-years of teaching and working experience in the Pacific Basin. The faculty includes the former Acting and Deputy Dean of the Fiji School of Medicine, a former coordinator of the Health Management Program of the University of the South Pacific, a former Assistant Secretary of Health of Papua New Guinea, and medical faculty from the Universities of Auckland and Hawaii. The faculty is augmented by National Health Service Corps assignee doctors, other expatriates and

Micronesian doctors based at the Pohnpei State Hospital.

As well as being agents of change for the next generation, these future medical officers will address the current doctor shortage crisis and join the other able members of their islands' health teams in tackling the difficult and often frustrating health issues of the region.

Gregory J. Dever, MD, is the Director of the Pacific Basin Medical Officers Training Program.

[Reprinted from **Development Bulletin** 1990:14, a publication of Australian Development Studies Network, Australian National University, Canberra.]

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ORAKEI MARAE

BY GLORIA WILLIAMS

On January 29, 1990 a massive fire destroyed the Orakei marae meeting house in Auckland, home of the Maori tribe Ngati Whatua. For the Ngati Whatua people it was one more bitter experience in a long history of struggle involving their ancestral lands at Orakei. Over the years their struggle came to symbolize the Maori land claim fight in New Zealand.

Decades of government intervention, supposedly aimed at responding to an increasing need for housing development in the Auckland area, resulted in the Ngati Whatua of Orakei losing virtually all of their tribal lands. They were evicted from their marae at Okahu Bay and housed in overcrowded state housing nearby. As a final insult, their venerated meeting house at Okahu Bay was burned to the ground in 1951.

Virtually landless and without a marae to serve as the cultural and spiritual focus for their tribal activities, the Ngati Whatua continued over the decades to press for return of their lands. In the mid-1970's a 506-day historic occupation of Bastion Point lands at Orakei brought the matter to national attention. Eventually the matter ended up before the Waitangi Tribunal, the body set up to make recommendations to the government for resolving Maori claims.

In all, it was to be nearly 40 years before the Ngati Whatua regained control of their land at Orakei. When the meeting house was accidentally gutted by fire in January it has only been vested in Ngati Whatua control for 1 1/2 years. Prior to the recognition of the Ngati Whatua claim, it had stood for several years on the disputed lands at Orakei as a multicultural and non-tribal meeting house. The Waitangi Tribunal recognized the claim of the Ngati Whatua that without a meeting house and marae they could not fulfil their rightful role as the tangata whenua (the first people of the land) in the Auckland area.

It was a great day for all Maori people when their Ngati Whatua cousins at Orakei had their mana (prestige) restored by the return of their land, marae and meeting house. Given this historic perspective it is understandable that the tribal kaumatua (elders) have said that the meeting house must be rebuilt. A rebuilding fund has been set up with support from Auckland Mayor, Dame Cath Tizard.

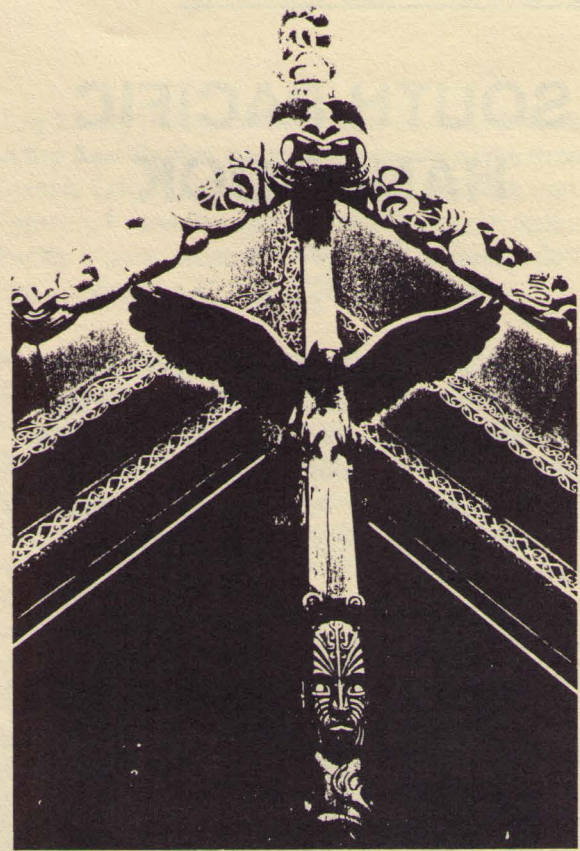


photo by Gloria Williams

THE ORAKEI MARAE

Canadian visitors to the 1990 Commonwealth Games were in Auckland when the fire occurred and were deeply saddened by the destruction of the meeting house. Canadians had watched the magnificent display of Maori culture at the Commonwealth Cultural Festival in Okahu Bay hosted by the Ngati Whatua of Orakei as the tangata whenua. They had witnessed the special affinity that had developed between the Ngati Whatua people and the Salish and Nuu-cha-nulth delegations sent from Canada to participate in the Opening and Closing Ceremonies of the Auckland Games.

This special connection with the Maori, and the Ngati Whatua in particular, is now finding expression in a fund-raising drive for a Canadian contribution to the Orakei marae rebuilding fund. SPPF has agreed to sponsor the Orakei rebuilding project in Canada and to serve as the collection agency for those who wish to contribute to the fund.

[Gloria Williams, the author of this article, accompanied the indigenous peoples delegation from Canada to the Auckland Commonwealth Games.]

BOOK REVIEW

SOUTH PACIFIC HANDBOOK

David Stanley
Moon Publications, 1989.
Cost \$16.95

The long awaited new edition of David Stanley's **South Pacific Handbook** is now out and if your local bookstore doesn't have copies, insist they order them. The **South Pacific Handbook** is simply the best travel book on the South Pacific. Add this volume to Stanley's **Micronesia Handbook** and you've got a complete guide to the Pacific.

Those with a more limited itinerary and a concern about packing excess paper should check out Stanley's

SOUTH PACIFIC HANDBOOK



DAVID STANLEY

Tahiti-Polynesia Handbook or his **Fiji Islands Handbook**. How does one person produce all this material? It is tough work but David Stanley has decided to do it, and to do it well.

Stanley's strengths as a travel writer are many. First there is the good, solid practical information, not just on where to stay and where to eat, but also on more interesting place and events off the beaten path or under the noses of the package tourists. Then there is Stanley's clear respect for Pacific people, their cultures, and their environment, and the issues important to them.

This is just about the only guidebook that will tell you about French nuclear testing in Polynesia, the independence struggle in Kanaky, and the coups in Fiji. There is information on the threats to coral reefs, the locations of the best hiking trails...and then there is the esoteric information like the fact that there are no dogs on Aitutaki. The residents simply found them too delicious to resist.

Stanley is an expatriate Torontonion now living in California and a man known for his frank opinions. Where else would you find accommodation described as being "popular with cockroaches, tars, and tarts?" Or directions to find this charming place by watching out for the nasty dogs at the gate? Nor does Stanley hesitate to wax eloquent on the virtues of things he likes, including two Indian restaurants side-by-side in Suva described simply as "the best Indian restaurants in the South Pacific."

The 1989 edition has grown to over 700 pages. Considering that the brief sketches of Australia, New Zealand, and Hawaii have been wisely dropped, this means that there is nearly 40% more information in this new edition. Stanley covers the range from budget to bizarre. Only the multinationals and the package tours are thankfully omitted.

Travelling with David Stanley will keep you well-fed, well-sheltered, well-informed, and even entertained. And if things have changed or you happen to disagree with him, drop him a line and your name is likely to appear in the credits in the next edition. Even more amazing is the fact that this is a book you might want to take out of your suitcase or pack and actually read.

RESOURCES

BOOKS

Pacific Universities: Achievements, Problems and Prospects

Edited by Ron Crocombe and Malama Meleisea, 427 pp, 1988, Institute of Pacific Studies of the University of the South Pacific, Box 1168, Suva, Fiji.

An exciting and wide-ranging collection of essays dealing with the planning and development of post secondary education in the South Pacific. From virtually no university education before 1945 for Pacific islanders to the development of distance and satellite education of the 1980s, the book covers the setting up of the plan for four universities in the islands in the 1960s to the opening of exciting new horizons in education for the region today. An added strength of the book is its coverage of programs and courses of study offered in the various institutions in the region.

July 21-22, 1990/Australia: Women and Militarization in the Asia-Pacific Region. A workshop with Professor Cynthia Enloe as a keynote speaker. Contact: Jan Pettman, Peace Research Centre, Research School of Pacific Studies, Australian National University, GPO Box 4, Canberra ACT 2601, tel (062)49-3098.

August 1990/Norway: Second International Indigenous Women's Conference. On the agenda is the foundation of the International Indigenous Women's Council. The first conference held in 1979 in Australia recommended setting up a council to create a political platform for decision making and action for indigenous women of the world, to establish a network for communication between indigenous women and a forum to focus attention on the priorities of indigenous women, to assert indigenous women's positions according to the right of indigenous women to determine their own well-being, to plan strategies to obtain positive change, to strengthen lobbying and the struggle for indigenous women's rights, to share cultural, social and spiritual experiences and to apply to the United Nations for NGO status. Contact: Sami Women's Association, Jeag-gegeaidnu 29, N-9730 KARASJOHKA, Samiland via Norway. tel +47-84-99880, 66192.

AUDIO VISUALS

Hotu Painu/Poison Fruit

48 min, available in both PAL and NTSC from the New Zealand Film Commission, P.O. Box 11-546, Wellington, New Zealand. Produced by Paradise Films. Cost: \$US195.00.

An account of the effects of French nuclear testing in the South Pacific. This documentary offers interesting new footage of commentaries by peoples concerned. Overall it suffers from a lack of cohesion and leaves the viewer feeling a bit disjointed, despite the moving testimonials from both opponents of the tests and workers on the site.

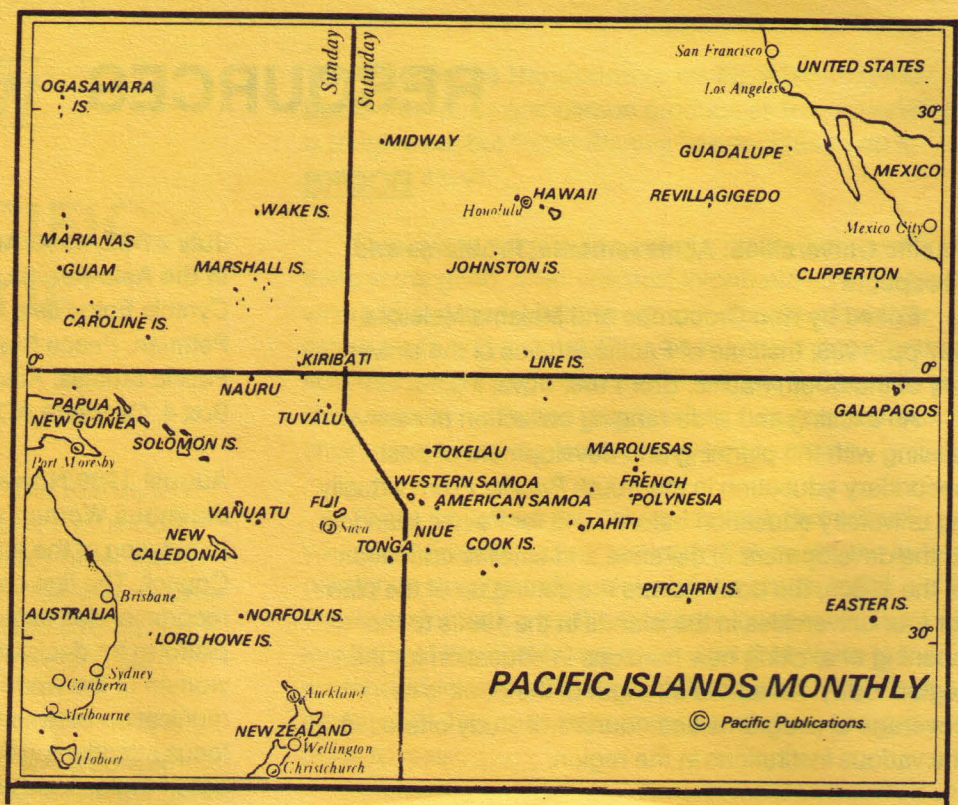
CALENDAR OF EVENTS

July 4-8, 1990/Australia: ASPAC 1990, A Conference for Disarmament, Security and Cooperation in the Asia-Pacific Region, to be held at the University of Melbourne. ASPAC will consist of panel discussions, plenary sessions and over 100 workshops on themes including the nature of security, issues in militarization, self-determination and human rights, environmental issues, economic development, regional movements and networks, strategies for building disarmament, security and cooperation, common security and campaign methods and skills. Contact: ASPAC 1990, GPO Box 336C, Melbourne VIC 3001, tel (03)663-8080, FAX (03)348-1270.

December 7-12, 1990/Aotearoa (New Zealand): WORLD INDIGENOUS PEOPLES CONFERENCE : EDUCATION.

This conference will address education culturally and holistically. Its aims and objectives are to share learning experiences with other indigenous peoples, to share teaching experiences and skills with other cultures and to foster unity and goodwill between nations. Contact: Te Kohanga Reo 1990 Conference Committee, 11 Lipman Street, Mt Victoria, Wellington, New Zealand





POLYNESIAN CANOE CHAMPIONSHIPS

More than 1000 paddlers from around the Pacific took part in the International Polynesian Canoe Federation's fourth world sprint championships in Auckland in January. Teams came from outrigger strongholds of Tahiti and Hawaii, as well as from American and Western Samoa, Australia, California, Canada, the Cook Islands, New Caledonia, New Zealand and Fiji.

Federation President Georges Estall believes the boost in participation and spread of membership since the outrigger champs began in 1984, shows the sport has what it takes to gain recognition as an Olympic event. Estall hopes outriggers will be part of the competition for the next South Pacific Games in Papua New Guinea, showing the Polynesian sport as an equal with the usual European events. The potential for outrigger canoeing to spread further through the region is shown by the sport's blossoming in New Zealand. Since its inception in 1987, Tatou Hoe O Aotearoa has championed

the huge revival of waka (canoe) culture amongst Maori tribes, and now boasts 14 clubs nationally. The Auckland champs were also notable for what Estall calls the "leap forward" in competitiveness by the newer members. Tahiti, with its pool of more than 6000 paddlers in what is virtually the country's national sport, again swept the medals. The 250-strong Tahitian contingent won 19 of the 22 gold medals, including all of the single person outrigger titles, and the men's and women's glamour sprints in the 12-person double hulls.

But the Baloa women's team from Australia took two team golds, as did a combined Hawaiian women's team in the masters event. California, New Caledonia, and New Zealand also took their share of the dozen lesser medals which eluded the Tahitians. A clearer portent for the next championships was the increasing number of new teams in the finals, including Western Samoa, New Zealand, California, and Australia.

Know someone who would be interested in TOK BLONG SPPF? Send us his/her name, address and interest in the Pacific Islands and we will send a complimentary copy. Let us know if we can use your name as a reference. Send to SPPF, 409-620 View Street, Victoria, B.C., CANADA V8W 1J6.