

A STUDY OF ONE SPECIALIZED FORM OF
TOURISM - RECREATION ACTIVITY IN RELATION TO
ECONOMIC DEVELOPMENT --
S. C. U. B. A DIVING IN TRUK LAGOON

Thesis for the Degree of M. S.
MICHIGAN STATE UNIVERSITY
GEORGE V. STATES
1973



**THIS
IS
THE
TRUST TERRITORY OF THE PACIFIC ISLANDS**

ABSTRACT

A STUDY OF ONE SPECIALIZED FORM OF TOURISM-RECREATION ACTIVITY IN RELATION TO ECONOMIC DEVELOPMENT-- S.C.U.B.A. DIVING IN TRUK LAGOON

By

George V. States

This study represents the first approximation of the effects that scuba diving as one form of specialized recreation has upon both the economy, the culture, and the environment of Truk. In a broader sense, it is a study of the general role that tourism may play as a key input into economic development in Micronesia.

In 1971, the Truk Legislature passed the Truk Lagoon District Monument Act, P.L. 21-5. This legislation set aside Truk Lagoon as an historic and unique site. The site is unique because it is a graveyard of a Japanese Task Force sunk in the lagoon during World War II.

Using this legislative act as a benchmark, the author analyzed the past and present tourist situation on both Truk and Micronesia. He then projected the possible impact of future tourism possibilities in scuba diving and how it can play a key role in economic development.

Traditionally, Truk has had an economy based upon subsistence agriculture, copra, and a primitive fishing industry. Its population growth rate is one of the highest in the world. These factors, plus its position as one island district of the Truk Territory of the

Pacific Islands since 1945, have created an imbalance whereby the import-export ratio is abnormally high. Without "balancing" this ratio, economic development cannot take place. Tourism, or scuba diving as a specialized form of tourism, is beginning to emerge as the area of the economy that should be developed.

Scuba diving will increase the "G.N.P." of Truk. It will also bring about the formation of both an infrastructure and a superstructure that can be used for other types of tourism as well. Projections show that both scuba divers and other types of tourists are willing to travel long distances to undergo a quality recreational experience such as scuba diving in Truk Lagoon. With controls, the environment and culture of Truk can be maintained as well.

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George V. States

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Resource Development

1973

665372

ACKNOWLEDGMENTS

My heartfelt thanks to Dr. Milton Steinmueller, major advisor, for his friendship and guidance throughout my graduate program; Dr. Jim Ahl for his great assistance and counsel; Paul Schneider for his help and advice with the graphics. With love and pride to my son Danny, age five, for being at his best behavior while mom typed. Special thanks to Carl Turnquist for his constant encouragement, and to Chris Mitchell and all the crew in Truk District.

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CHAPTER I

INTRODUCTION

Nowhere else on earth is there such a museum. It is one of nature's unique time capsules, accidentally overlooked by man and now one of the great undersea wonders of our time.¹

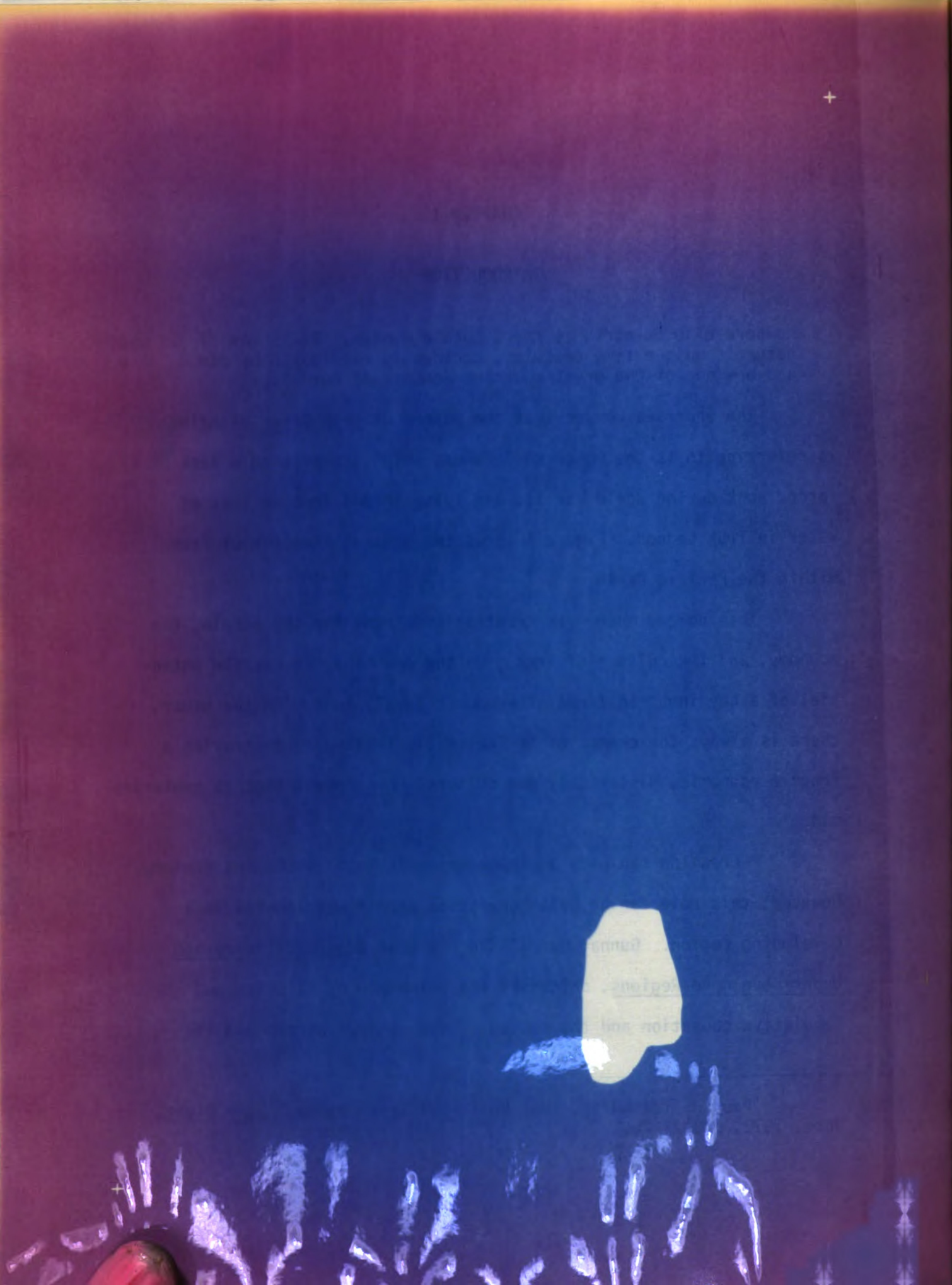
The undersea wonder that the editor of Skin Diver magazine is referring to is the 60 or so Japanese ships, comprising a task force, sunk during World War II, and lying in 300 feet or less of water in Truk Lagoon. Figure 1 shows the general location of Truk within the Pacific Basin.

This unique museum is creating a dilemma for the people, the economy, and the culture of Truk. On the one hand, it has the potential of a key input in terms of economic development. On the other, there is always the chance of it indirectly leading to destroying a fragile economic, historical, and cultural environment that is centuries old.

Recreation can play an important role in a developing economy. However, this role can be both beneficial and/or detrimental in a developing region. Gunnar Myrdal, in his book Economic Theory and Under-Developed Regions, discusses the principle of circular and cumulative causation and the notion of the vicious circle and its

¹Paul J. Tzimoulis, "War Relics of Truk Lagoon," Skin Diver, June, 1972, pp. 21-25.





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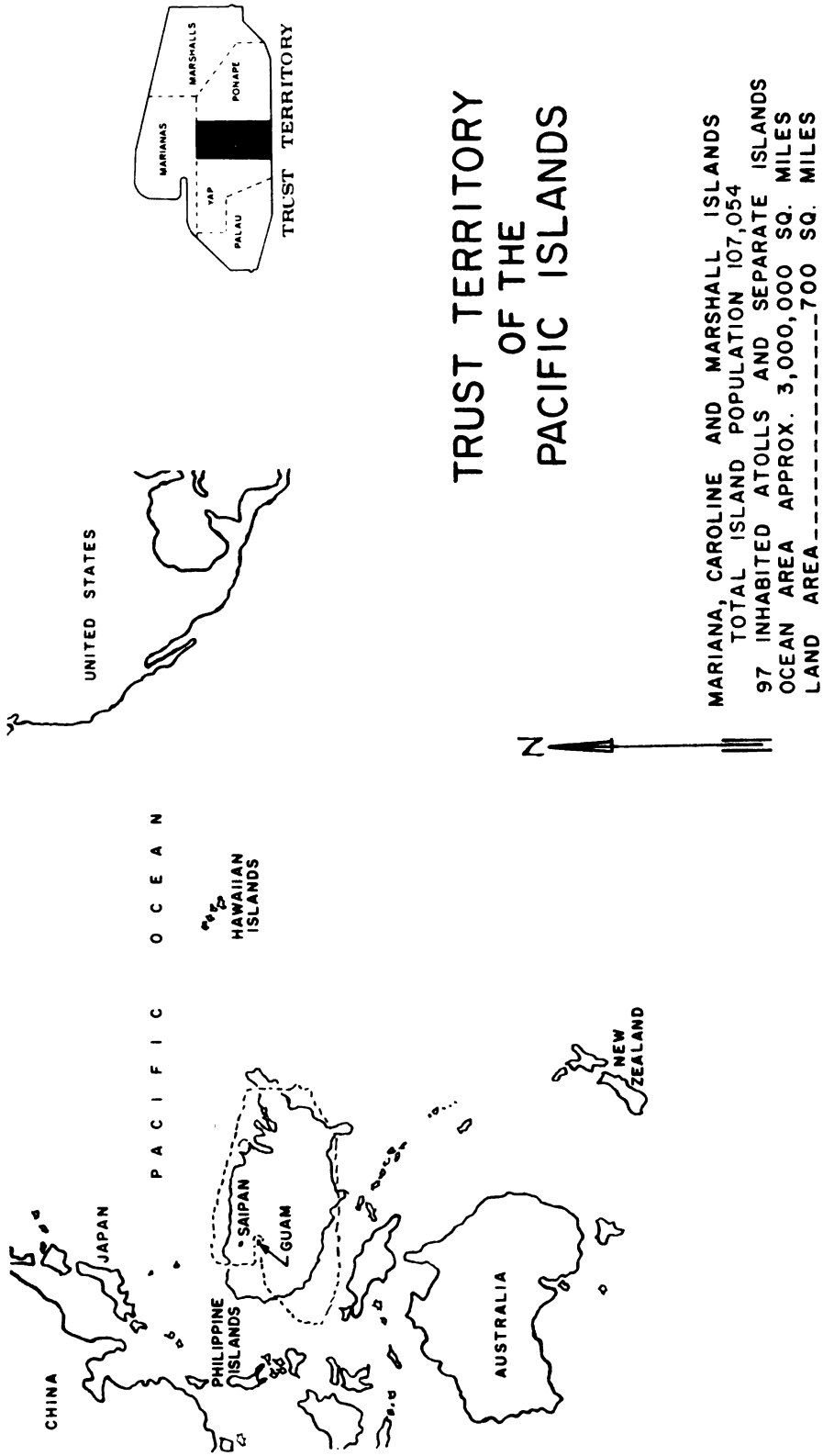


Figure 1.--Location in Pacific Basin.

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effects upon developing regions.¹ This vicious circle can be likened to a spring. Rather than having a stable equilibrium as many past development specialists believe, a developing country is either ascending this "spring" in a cumulative process upward or is descending downward. The cumulative process of economic development can go in both directions.²

Tourism can become an integral factor on this spring, and play an important part in the combined aspects in the cumulative process of development. The visitor industry can be both beneficial or detrimental depending on the basic position of the emerging nation at any given point in time. If an emerging nation is at the bottom edge of the spring, any grandiose plans that fail can create disaster. It is extremely difficult to achieve success starting on the bottom edge of the spring. The problem of economic development is even more difficult in the sense that any step along the spring demands inputs that must accrue. The process is equally reversible as well.

Many developing nations have assigned tourism to a primary location on the spring, and some consider it the panacea to solve all that particular nation's ills. Implementing tourism in an area creates a serious problem of imposing an input into a fragile culture that can have disastrous results upon the culture/tradition, land/man, or import/export ratios in an environmentally weak area. Gray mentions the value of a travel industry to any economy: investment

¹Gunnar Myrdal, Economic Theory and Under-Developed Regions (London: Gerald Duckworth & Co., Ltd., 1958), p. 12.

²Ibid.

in a travel industry creates a multiplier effect.¹ McIntosh explored the multiplier effect in much more detail and mentioned that conclusions have been reached in countries concerning the tourism multiplier. He reports the study by Harry Clemens, who estimated the multiplier effect to be 3.2-4.3 in the Pacific and the Far East.² Tourism can provide a very "key" input into economic development in an emerging nation. Tourism should not and cannot, however, become the dominant theme. It must be blended with the cultural, historic, and environmental aspects of that particular developing region, country, or area.

For those islands in Micronesia that are entering the twentieth century, and that are also interested in economic development, this move to promote tourism is fraught with many dangers.³ All too often many outside consultants and/or firms, after a brief tour of an island area, attempt to superimpose their outside knowledge on an area with a fragile culture and a much more fragile environment. There seems to be an almost uncontrollable urge by these outside consultants and firms, as well as by many local administrators, to prematurely try almost any scheme when the import/export ratio drops from 9/1 to 16/1 in a single year, for example.

¹H. Peter Gray, International Travel--International Trade (Lexington, Mass.: Heath Lexington Books, 1970), p. 152.

²Robert W. McIntosh, Tourism; Principles, Practices, Philosophies (Columbus, Ohio: Grid Press, 1972), pp. 185-86.

³T.T.P.I. stands for Trust Territory of the Pacific Islands, a trusteeship administered by the United States through the United Nations. In this thesis, these initials T.T.P.I. will be interchanged with the region of Oceania referred to as Micronesia, even though Micronesia includes other island groups, such as: Guam, Nauru, Ocean Island, and the Gilberts.

In Micronesia and particularly at Truk there are a series of added threats that make economic development very dangerous. Several of these threats to an island economy are: (1) an extremely fragile island environment; (2) cultures both unique to each particular island and to the world; (3) cultures not only that are fragile and unique to each particular island but that are complicated by both distance and time from other similar islands and the world; (4) uneven distribution of natural resources that have of late been "riddled" with price fluctuation; and (5) the normal problem of age versus youth, rural versus urban, that is made extremely more difficult because of time, culture, history, and location. Even taking these threats into consideration, tourism, viewed in the proper perspective, can be a very important input into Micronesia and their economy in general.

The important thing here is the particular type of tourism that one introduces into these islands and into Truk. It is possible, using selected types of tourism as a key input, to have economic development and yet preserve the cultural and environmental heritage.

One of the major forms of specialized recreation that has seemed to emerge, and that is gaining impetus in Truk, is diving involved with the apparently 60 sunken shipwrecks on the floor of Truk Lagoon, using self-contained underwater breathing apparatus (scuba diving).

The author of this thesis, during two years spent as Economic Development Officer for Truk District, Eastern Caroline Islands,



Trukese with breadfruit pounder. --Photo by T. Jacobis

Office of the District Administrator, decided that this recent phenomena of scuba diving to Truk was important enough to warrant investigation.

The general objectives of this thesis were to study the impact that scuba diving had and is having on both the cultural and economic facets of the Truk District. The specific objectives of this study are several fold:

1. To study the special attraction of scuba diving on Truk, Eastern Caroline Islands, particularly as it relates to the total tourism potential.
2. To attempt to quantify the probable effects of scuba diving in the Truk District.
3. To produce possible generalizations concerning these findings that might be applicable to other regions, countries, or areas with similar characteristics that could hopefully supplement their general tourism plans.
4. To make recommendations, based on this research, that will be beneficial in a minor way to the "state of the art" in the field of tourism.

Chapter II of this thesis will review some of the literature in this area and will discuss a brief history of the uniqueness of Truk and Micronesia. Chapter III will introduce the reader to the research methodology taken. Chapter IV will attempt to analyze both the data collected and research undertaken. Chapter V will summarize the data and the author will attempt to show (with limited data) that scuba diving can in fact be both beneficial to Truk in terms of economic development and yet still preserve a very fragile island environment.

CHAPTER II

MICRONESIA--PAST AND PRESENT

General

"A country without a history is like a tree without roots."¹ History-tradition, culture-income, travel, distance, and the preservation, protection and development of Truk's man-made underwater resources will be covered in this study of a specialized sport attraction. Scuba diving in the historic Truk Lagoon has the potential of attracting a worldwide market of sport diving enthusiasts with a common interest in travel, wreck, and reef diving. Since promotion of tourism is one of the functions of the Economic Development Office, the author, as Truk District Economic Development Officer, for the better part of two years has been partly responsible for the development of diving/tourism in the Truk Lagoon. In general, the Trukese are very reluctant to believe that tourism can be a beneficial factor in the economic development of the Truk District.

Truk District is located in the Trust Territory of the Pacific Islands. These islands cover some three million square miles of the Western Pacific Ocean, ranging from the equator to 22° north latitude and 130° to 172° east longitude. The Territory embraces more than 2,000 islands and islets, lying in three major

¹Quote attributed to Hermes Katsura, Speaker, Truk District Legislature, date unknown.

archipelagoes: the Carolines, the Marshalls, and the Marianas. Total land area of the Territory is approximately 700 square miles.

Trust Territory of the Pacific Islands is the largest part of Micronesia which means "small islands," and sprawls from the equator on the south to within 1,000 miles of Japan, and from an hour's jet ride east of Manila to the low-lying, harsh sand and coral atolls of the Marshall Islands west of Honolulu. It is mostly water. Although the Trust's boundaries enclose an area larger than the continental United States, Micronesia's landmass would barely fill two-thirds of Rhode Island.¹

Micronesia consists of three archipelagoes--the hilly, plush green Carolines, the volcanic Marianas, and the flat atolls of the Marshalls. These archipelagoes are subdivided into six political districts with headquarters at Saipan, Mariana Islands. The six districts are Yap, Palau, Truk, Ponape, Marshalls, and the Marianas.

The Study Area--Truk District

The Truk District of the Trust Territory of the Pacific Islands consists of those islands and territorial waters which lie within the area beginning at a point 0° latitude 148° east longitude, thence north to a point 11° north latitude 154° east longitude, thence south to a point 0° latitude 154° east longitude, thence west to the point of beginning. Figure 2 shows Truk Lagoon and Truk District.

¹Anon., Economic Development Office (P.C.V.), "Truk District." Unpublished, date unknown.

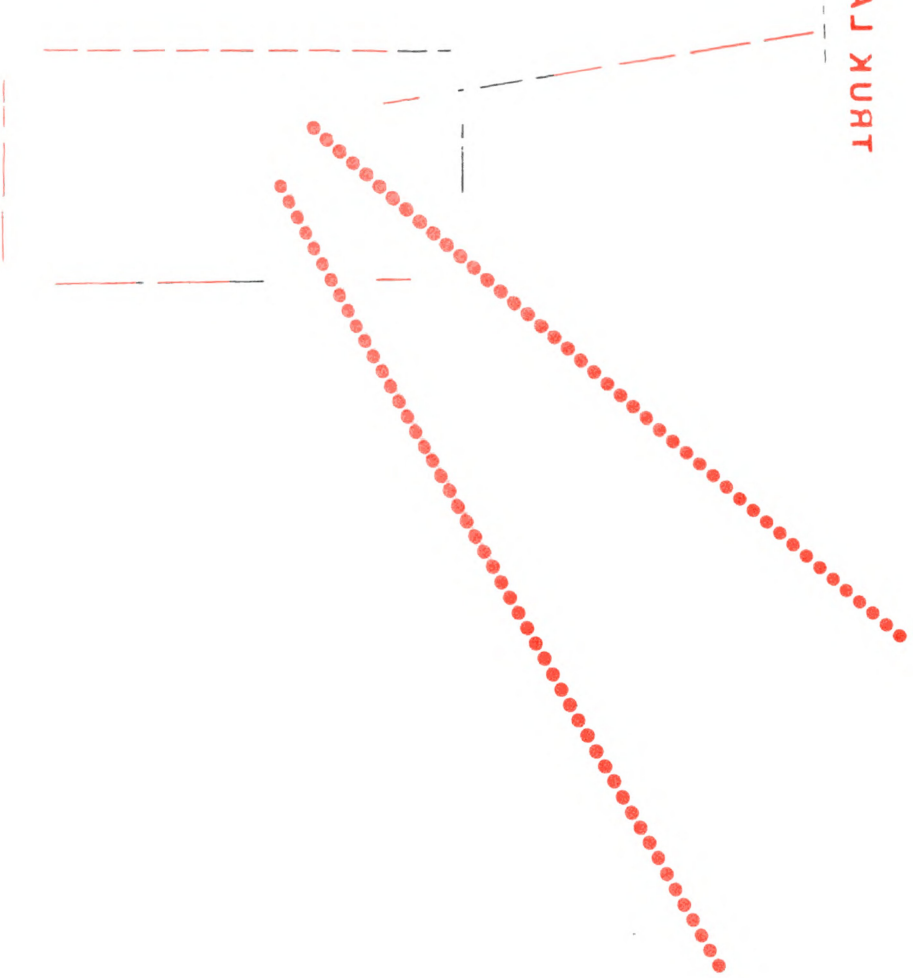
TRUK LAGOON

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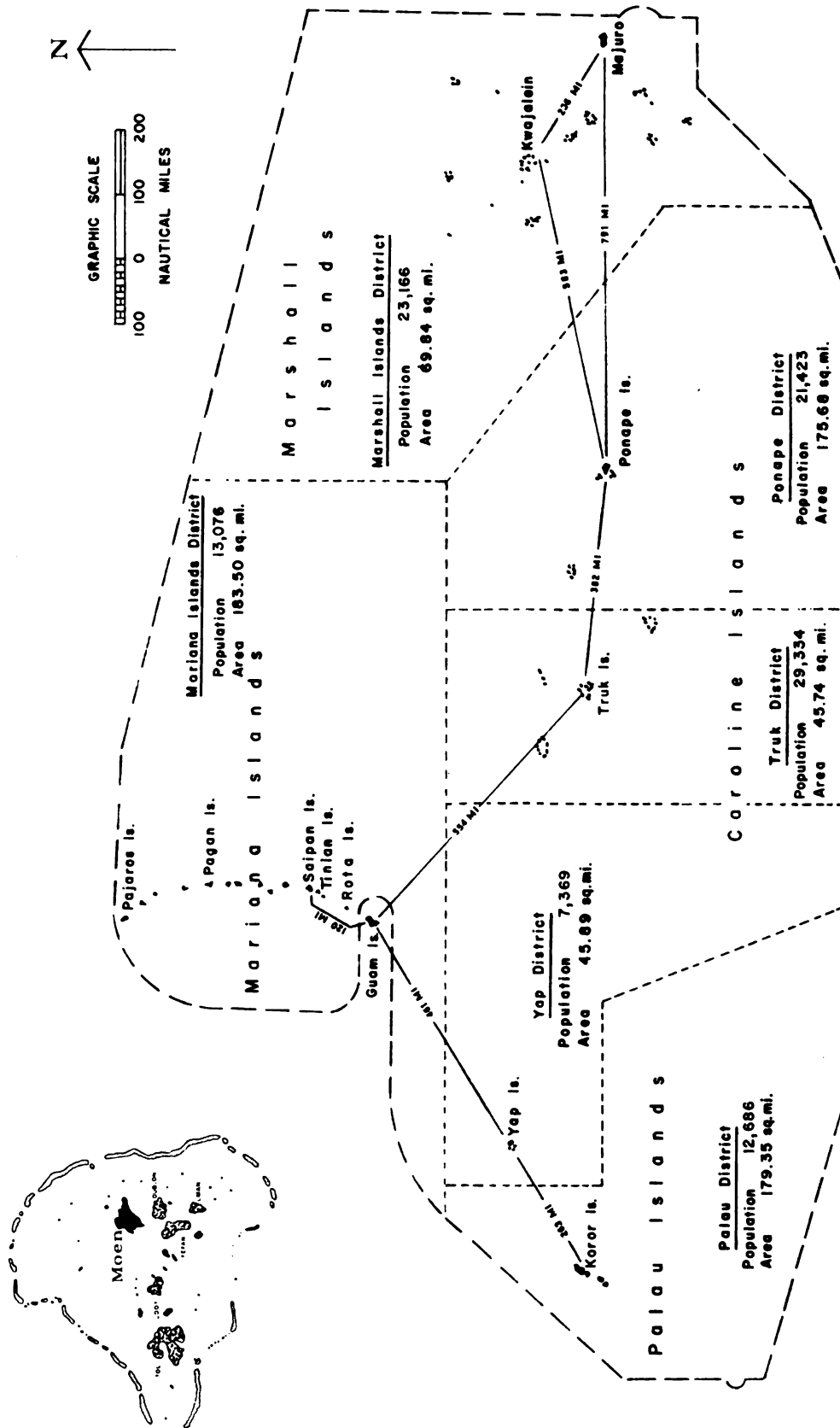


Figure 2.--Truk District and Truk Lagoon.

Moen Island is the administrative, commercial, and transportation center of the Truk District. It is one of some 19 high islands and 24 low reef islands in the Truk Lagoon. The Truk Lagoon is created by a 125 mile barrier reef roughly triangular in outline, 38 miles eastwest and 33 miles northsouth. Total land area is 35 square miles and water area of the lagoon is about 820 square miles. Figure 3 provides a more detailed view of Truk Atoll.

The largest island in the lagoon, both in size and population, is Tol, about 15 miles westerly of Moen. Tol is a handsome high island complex of peninsulas (some disconnected) and bays with a total land area of 13 square miles and a population of about 6,000.

Between Moen and Tol is the smaller island of Udot (1.8 square miles), a particularly attractive island of small villages and numerous beaches.

Dublon (3.4 square miles) is located about 3 miles south of Moen and is well known because of intensive development by the Japanese prior to World War II. This was a Japanese fleet and aircraft staging base until the air raids carried out by the United States in 1944. Piers, concrete airstrips, roads, and a few structures exist from that era. Dublon has much natural beauty.

The other large island near Moen is Fefan (4.7 square miles), known for its agricultural productivity. Garden plots have been developed on Fefan to produce vegetables for sale on Moen and in other islands.

Other major island groups in the Truk District include the Mortlocks which are approximately 125 miles southeast of Truk Lagoon,

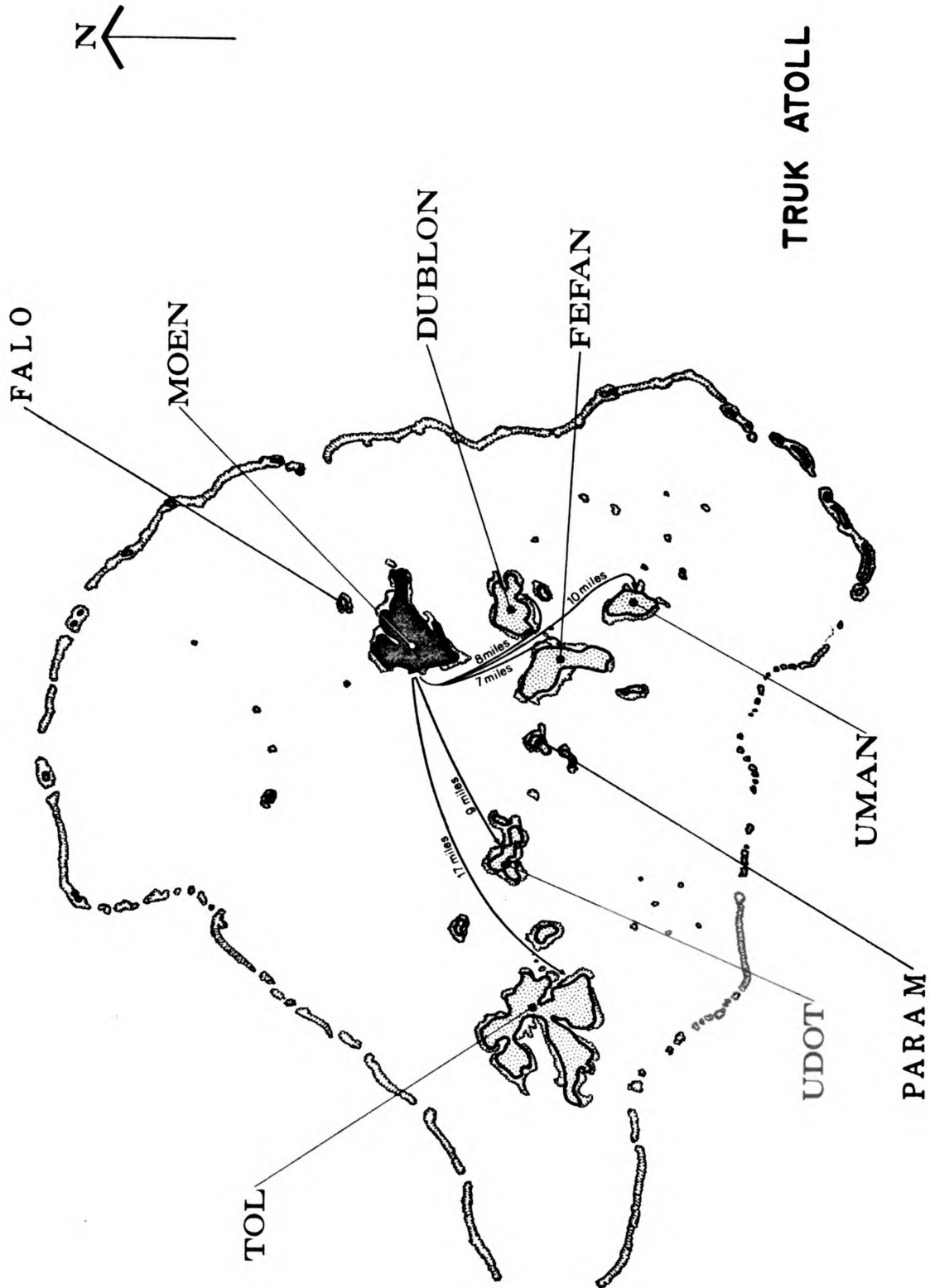


Figure 3--Truk Atoll.

the Halls 76 miles north, the Namonuitos 175 miles northwest, and the Western Island 170 miles west.

Geographically, Truk District is almost in the exact center of the Trust Territory. Saipan is about 667 miles to the northwest, Majuro about 1,200 miles to the east, and Palau about 1,100 miles to the west. Outside Micronesia, Tokyo is approximately 1,900 miles to the northwest and Honolulu 2,900 miles to the northeast.¹

Climate

A tropical oceanic climate produces a high and relatively uniform temperature, with a mean of about 80°F and daily range of about 10°F. Humidity variations are also low, averaging about 83 percent. Rainfall in Truk is seasonally heaviest from May to August, and lightest from January to March, but annual variations are large. Annual rainfall of roughly 140 inches is considerably less than that of Ponape and Kusaie, the other high islands in the Eastern Carolines, but higher than that of most of the low islands in the region.

The seasonal wind pattern consists of usually strong northeast trades from November to May, with the northwest monsoon weakly felt in Truk during the summer, as variable winds, calms, and occasional thunderstorms. Typhoons often originate in the Truk region and move westward. Rarely does a strong storm form sufficiently east of the District to produce full typhoon force winds at Truk.

¹T.T.P.I., "Handbook of Information," Truk District. Unpublished, 1973, p. 29.

Within the memory of living men, however, these storms have been catastrophic when they do occur.¹

History

Micronesia

The more than 2,000 atolls and mountain top islands of Micronesia were first sighted by Magellan in the spring of 1521. The Spanish flag was the first, and the United Nations flag the last, in a long series to fly over these islands. After the Spanish American War they were ruled by Germany up to the outbreak of World War I. After the fighting was over, the League of Nations gave Japan a mandate to run them. Between 1935 and 1941 the Japanese secretly fortified these islands, and at the cost of thousands of U.S. lives they were secured or neutralized near the end of World War II.

In 1947 the United States was given the administrative responsibility of the Trust Territory of the Pacific Islands under the supervision of the United Nations Security Council. As this is being written, the Micronesians are requesting self-determination, or free association, or complete freedom.

Truk

The recorded history of Truk begins with its discovery by a Spaniard, Alonso de Arellano, in 1656. This contact had no impact on either the Europeans or the Trukese, and it was not until the early nineteenth century that ships of various nationalities began

¹Ibid., p. 32.

to enter Truk Lagoon in any numbers. They were mostly explorers and did not markedly change the environment. However, a Frenchman, Dumont d'Urville, explored the islands rather thoroughly and, following a misunderstanding with the natives, was fired upon and d'Urville escaped with his two small ships. As a consequence, when an Englishman, Andrew Cheyno, visited Truk six years later he was attacked by an overwhelming Trukese force and forced to retire. He made it widely known that the Trukese were dangerous and treacherous. So during the short-lived whaling boom which brought these islands into prominence and which was over in about 1860, there were far fewer contacts between whalers and Trukese than elsewhere in the Carolines.

During Spanish rule from 1886 to 1899, the nearest administrative center was on Ponape and Truk was left alone, due largely to the warlike reputation of the people. However, traders of various nationalities visited the lagoon to buy copra. A number of these men married Trukese women and settled down in Truk. The chief trade items were tools and within a few years native bone and shell tools were completely replaced with iron and steel counterparts. Later the hundreds of guns introduced by the traders increased the violence of intra-island and clan warfare which had characterized the islands.

After losing Guam in the Spanish-American War, Spain sold the Northern Marianas and Carolines to Germany in 1899. In 1903 the Germans sent an expedition to Truk and told the Trukese to turn in their guns and to cease making war. The Trukese, already tired of

warfare, complied and set the pattern for acceptance of peaceful negotiation and administrative action which remains to this day.¹

The Germans greatly encouraged copra production which gave rise to acquisition of trade goods by the Trukese and appreciably harder work on the part of the Trukese. This era also marked the advent of corrugated iron houses. Not only was corrugated iron convenient to use but permitted the catchment of water, thus saving coconuts for copra production instead of their having to provide a beverage.

At the outbreak of World War I, Japan occupied the islands, an act that was confirmed by the League of Nations in 1920, and by the United States in 1922. Japan began major developments long before any military uses for the islands were contemplated. The developments included large fishing fleets, with refrigeration and drying plants for the fish, the planting of trochus beds, the cultivation of manioc, and other less successful ventures such as the introduction of pearl oysters and sponges. Under the Japanese, the steps to a money economy and dependence upon imported goods were carried far beyond the efforts of the Germans.

As early as 1935, the Japanese began the defensive fortification of Truk Lagoon. This lagoon is the world's largest fringed lagoon. During the first part of World War II, it became the most by-passed spot in the Pacific. The phrase used by many servicemen who were stationed in and around the Pacific was, "Truk Lagoon was no place to be near." The Japanese built what they referred to as

¹Joe Brown, "Micronesia: A Slumbering Giant Awakens," Oceans Magazine, August, 1969, p. 8.

the perfect defensible headquarters for their fourth fleet and later combined fleets. The present evidence of caves, guns, pill boxes, and known fact that the two famous unsinkable battleships were moored from time to time in the Truk Lagoon are evidence of their optimism. As recently as November, 1972, eighteen inch shells were found in the hold of a ship off Fefan Island which confirms their presence in the lagoon for resupply purposes. The fortification of Truk as a bastion for the Japanese in World War II proved disastrously inadequate. The allied air strike against Truk in February, 1944, and the blockade which followed destroyed the fruits of Japanese economic development. The necessity of supporting some 35,000 Japanese and almost 10,000 Trukese from the land alone resulted in serious depletion of resources. Intensive cultivation of sweet potatoes made unfit for use many acres of good gardening land, and the widespread use of explosives in fishing, as well as the underwater explosion of many aerial bombs and mines, seriously depleted the fish population. Even today, Trukese speak of most of the Japanese era with nostalgia, but remember the war bombing and blockade as a time of extreme difficulty and hardship.¹

Modern

The most obvious start of the Micronesian tourism industry was May 16, 1968, when Air Micronesia started jet air service within the Trust Territory. Air Micronesia is a corporation formed

¹United States Strategic Bombing Command Survey, The Reduction of Truk (Washington, D.C.: Naval Analysis Division, Declassified Document, 1947).

II



Dive into history, Truk Lagoon.
--Photo by Cappelletti

by Continental Airlines, Aloha Airlines, and the United Micronesia Development Association. A majority of the stock is held by Micronesians.¹

As facilities and services expand, it is expected that the flow of travel dollars will have a substantial impact on the economy of the area and that there will be a significant increase in employment opportunity generated directly and indirectly by tourism. The number of tourists entering the territory showed a marked increase during the reporting period after direct jet air service between Tokyo and Guam was established and a new 54-room resort hotel, the Royal Taga, opened on Saipan.² Through a license agreement with the Department of the Interior, Air Micronesia has committed itself to build five additional resort hotels within five years.

The Continental Hotel opened on Moen Island, Truk District, in early November, 1970. A picture of this hotel appears in Figure 4. The hotel was built by Continental Airlines with a managerial contract to Travelodge Corporation. Continental Hotels are presently being managed by Continental Airlines. It was completed with all the amenities, including cocktail lounge and dining room, fronting on a lovely beach and one of the most unforgettable lagoons in the Pacific. With a small but thoroughly modern hotel facility on Truk, near the center of the Trust Territory, the travel agent will have for the first time an anchor point for the 14- and

¹Brown, op. cit., p. 12.

²"Micronesia--Remembering an Adopted Cousin," Time, May 23, 1969, p. 28.



Figure 4.--Continental Hotel. Moen, Truk, E.C.I.

21-day package tours being offered by Travelworld, Inc. Mr. Ket Harris was the founder of Travelword, Inc., and Micronesia Tours, Inc. is a subsidiary of Travelworld, Inc. There is debate about the exclusive nature of the charter that they have with the Trust Territory Administration. Since they had to invest heavily, it appears that they would be given de facto protection for an indefinite period.¹

In September, 1970, through Micronesia Tours, Inc., three Dodge busses were shipped to Guam, each with a seating capacity of ten. They are using Japanese-made air-conditioned busses on Saipan, Koror, and Truk. To date, Truk has received their second bus. In addition, they provide sightseeing boats for lagoon island trips.

Another 50-room Continental Hotel on Koror in Palau District was completed in early 1971. These hotels have been designed by an Hawaiian architect, Ned Wiederhold, to blend into the island landscape. Presently under construction is a 100-unit Continental Hotel which is being built beyond the Royal Taga, on Micro Beach. All of this has a most direct bearing on tourism and the travel agent. Recognizing the imminence of modern tourism, Micronesian leaders are increasingly determined to structure it to serve their own people. At the same time, islanders are commencing to invest their own resources in what Dominic Renda, past president of Air Micronesia, calls "the necessary ground support for tourism." The state of the

¹Frank Riley, "Micronesia--Hotel on Truk Kicks Off New Travel Era," Pacific Travel News, September, 1970, p. 67.

art in tourism research is as weak as that of the ground support. Tourists who will travel thousands of miles to visit the Trust Territory need to be aware of that fact. It is a very expensive round trip of 13,000 miles from the west coast of Guam, plus another 6,000 miles within the Territory, if one includes a comprehensive visit through the Marianas, Carolines, and Marshalls.¹

Population

Total Trust Territory population at the end of fiscal year 1971 was 107,054. Truk District is the largest, with 29,334 inhabitants, followed by the Marshall Islands District, 23,166; Ponape District, 21,432; Marianas Islands District, 13,076; Palau District, 12,686; and Yap District, 7,369.

Truk District is composed of over eighty islands, most of which are small and do not support any population. The total land area of the District is 45.74 square miles, approximately 6.5 percent of the total land area of the Trust Territory.

Most of the islands in the District are located within Truk Lagoon, which contains nineteen high islands supporting over 20,000 of the total 29,334 inhabitants. There are more than sixty low islands within the lagoon.

Truk District has the dubious distinction of having the largest population as well as the highest population density ratio and one of the highest import per capita ratios in Micronesia.

¹R. W. Hemphill, "A Survey of the Future Tourist Potential of the Pacific Trust Territory," T.T.P.I., Saipan, M.I., April-May, 1966, pp. 4 and 6.

There exists much speculation on the outcome of the first real census in Micronesia. On September 18, 1973, a census was conducted simultaneously over all of Micronesia. Some estimate a total population for Truk District from 30,000 to an actual 38,000.¹

Selected Literature

Tourism

One of the recent additions to the literature in the field of tourism in general is a book by Robert W. McIntosh that has been long overdue.² The concepts of this book are based on the real world of economics, yet it adequately explains the economic theories in a manner that can be clearly and easily understood and applied in relation to tourism in Micronesia.

The chapter on cultural tourism in Dr. McIntosh's book is especially relevant. It discusses tourism demand. Another work is Protection of Mankinds Cultural Heritage.³ These two texts are essential for an understanding of the supply and demand relationship of tourism. On the supply side of tourism, which has been too often overlooked, the concept of the attraction of cultures as well as the protection of tradition and cultures is important. Aspects of tourism promotion are also covered in these texts.

¹United States Department of State, T.T.P.I., Annual Report 1969 (Washington, D.C.: Government Printing Office, 1969), p. 67.

²R. W. McIntosh, Tourism; Principles, Practices, Philosophies (Columbus, Ohio: Grid Press, 1972).

³United Nations, UNESCO, Protection of Mankinds Cultural Heritage (Rennes, France: UNESCO, 1970), Chapter VII, "Cultural Tourism."

One cannot begin to research the economics of recreation without an understanding of the Economics of Outdoor Recreation by Marion Clawson and Jack Knetsch.¹ This book extensively brings to light the many and varied problems facing the U.S. in connection with the demand (present and future) for recreation and who must supply the recreation facilities for the future. This book is a "benchmark" in quantifying recreation demand based upon distance traveled and money spent on recreation.

Clawson and Knetsch are a constant reminder of what tourism could use in the way of academic research. Somewhat public oriented, however, the attractions of tourism transcend into the public sector a good deal more than is commonly realized. They point up well the methodology of obtaining supply and demand statistics, which are desperately needed in tourism.

International Tourism, by Michael Peters, is a comprehensive text on tourism. Of particular interest for this study was the chapter on attractions and amenities where the idea is put forward that:

In the past, a country planning to enter the international tourist trade on a large scale will have been host mainly to tourists who have selected to visit the country on their own initiative. In the future; however, in order to expand the tourist trade, it will be necessary to market attractions and amenities in such a way that potential tourists are persuaded to select the country in preference to other competing countries.²

¹Marion Clawson and Jack Knetsch, Economics of Outdoor Recreation (Baltimore, Md.: John Hopkins Press, 1966).

²Michael Peters, International Tourism (London: Anchor Press, 1969), p. 152.

He then goes on to state: ". . . legislation for the preservation, protection and development of outstanding natural attractions is essential to prevent piecemeal development" ¹ Concerning the supply side of recreation, he then states: "The future development of any countries tourist industry will be directly dependent on the extent to which its tourism assets and attractions are adequately protected, preserved and developed." ²

This textbook has an interesting international flavor but concerns itself primarily with tourism in Europe. Tourism in Europe is developed to a much greater extent than in the United States. Micronesia has no tourism industry to compare with either Europe or the United States.

In 1966, a seminar was held under the auspices of the technical assistance program for the Organization for Economic Co-Operation and Development. The results of this seminar are beneficial to the tourist industry and can be applied to Truk. The cross section of countries attending contributed towards a well balanced interchange of views, especially with promotion and marketing of new areas and the retention of their distinct and individual images.

. . . then looking at the world market and the areas of competing attractions. The next stage is to assess the attractions both actual and potential of the area to be developed. This analysis can be done more precisely if the area is relatively limited or at least forms a separate

¹Ibid., p. 150.

²Ibid., p. 176.

and identifiable development region. (For promotion purposes, a tourist development area, ideally, should be small enough to be able to project its own distinct and individual image)

Specific to the problem, a review of the worthwhile studies compiled on the potential of tourism in the Trust Territory of the Pacific Islands is limited. A few of the more important are:

1. R. W. Hemphill, "A Summary of the Future Tourist Potential of the Pacific Trust Territory," T.T.P.I., Saipan, M.I., unpublished, 1966.
2. Checchi & Co., Future of Tourism Pacific and Far East, U.S. Department of Commerce, Washington, D.C., 1961.
3. Harry G. Clement, "Finance the Development of Tourism," Reading Book, International Travel and Tourism, I.C.T.A., Washington, D.C., 1967.

R. W. Hemphill's survey of the Pacific area states: "A round trip over the same route is the poorest possible use of transportation, because it is a duplication of travel."²

As soon as the Trust Territory is able to provide suitable attractions, facilities and accommodations, alternate air routings could soon be provided that would enable travelers to include the Philippines, Palau, Yap, Guam, Saipan, Truk, Ponape, the Marshalls, Hawaii, and the West Coast economically and without the present prohibitive cost of back-tracking in either direction.

¹Organization for Economic Co-Operation and Development, Tourism Development and Economic Growth (Estoril, Portugal: O.E.C.D. Publications, 1966), p. 18.

²Hemphill, op. cit., p. 5.

. . . pacific travel should flow around the boundaries of a great isosceles triangle, whose apex is the west coast of the United States and whose base points are Hong Kong and Sydney, Australia.¹

This logical suggestion was followed in the development of the Hawaiian Island tourism with the entry point at Honolulu and the departure from Hilo, Hawaii. Mr. Hemphill's suggestion is also being carried out in Micronesia with Hawaii and Guam being the base and Australia as the point of the triangle, sometime in the future.

¹Ibid., p. 4.

CHAPTER III

METHODOLOGY

Establishment of Truk Lagoon District Monument

The twenty-first regular session of the Truk District Legislature in 1971 established the Truk Lagoon District Monument. While the intent of the legislature was actually aimed at preserving the Japanese ships and other objects sunk within the Truk Lagoon as historic landmarks and structures, the purpose of this legislation was actually much broader. Section 1 of this legislative act, the declaration of policy, states:

It is hereby declared that it is a district policy to preserve forever historic landmarks, structures, and other sites and objects of district or territorial significance situated within the administration area of the Truk District for the inspiration and benefit of the people of Micronesia.¹

Prior to the passage of this legislative act, several important developments had taken place on Truk.

In early 1969, Martin Pray, manager-sales for Air Micronesia Airlines, had written to Mike Ashman, Chief of Public Information, Trust Territory of the Pacific Islands. The main thrust of this letter was a request by Mr. Pray for cooperation and assistance in allowing the Costeau Undersea Exploration Group to dive in Truk Lagoon. The purpose of the Costeau visit to Truk was to obtain

¹Truk District Legislature, P.L. 21-5. See Appendix A for this complete public law.

footage for the production of a special one hour television documentary featuring the sunken ships of Truk Lagoon. This underwater documentary by Costeau Undersea Group was shown for the first time in early 1970 and has been repeated on several occasions up to the present. This television special introduced the world of T.V. viewers to the fascination and beauty of the underwater world of the Truk Lagoon. Costeau in his visit to the island had requested assistance in the use of facilities and learned that support was limited, if not nonexistent.

In March, 1970, Mr. Ken Seybold, president of Bay Travel Co., of San Francisco, California, and Paul Tzimoulis, editor of Skin Diver magazine, wrote to Charles Sicard, Economic Development Officer in Truk, and asked about facilities for a possible exploratory group tour to the Pacific and with Truk as the focal point. It can be assumed that their inquiry for information may have come about as a result of the one hour television special by the Costeau group about Truk Lagoon.

At this particular time there were few facilities for tourism in general on Truk, especially scuba diving. Furthermore, the infrastructure necessary for a commercial special interest tourist attraction was not only nonexistent but plans were not even on the drawing boards.

Continued inquiries were made regarding accommodations and scuba support from both individuals and commercial tour packagers. In addition, there were inquiries from other organized scuba diving groups.



Restored diver's helmet found in Truk Lagoon.
--Color plate, Skin Diver magazine.

The creation of the Trukese Monument, which sets aside Truk Lagoon and its wrecks as a monument for future generations of Trukese, was triggered by this inquiry and in reality was an afterthought added to a memo pertaining to an upcoming historic site survey. The note concerning the establishment of designating the sunken ships in the lagoon as a district monument was handwritten on the back of an official memorandum concerning a future park and historic site survey.¹

By June, 1971, it had become apparent to the Truk District Legislature that special interest tourism, in the form of scuba diving, was coming to Truk. There were both proponents and opponents to tourism as a tool for economic development in Micronesia.

Mr. Hermes Katsura, Speaker, Truk District Legislature, a Trukese from Udot Island, Truk Lagoon, had mixed feelings about tourism in general. In a letter to Mr. Mike Ashman, who is presently Chief of Tourism, Headquarters, Trust Territory of the Pacific Islands, Saipan, M.I., Katsura clearly stated his position:

Tourism must be based on a principle that Trukese must regulate, control, plan, determine, own and benefit from our own resources. It is time that we will not, under any circumstances, accept second class status in our homeland. We will not give up our natural birthright and dignity as men for the easy dollars that tourism may bring.²

Then he explains the popular fear of the package tours which leave nothing for the local people except jobs. Then he cites examples of

¹Juan Sablan, District Administrator, Truk, January 24, 1971. See Appendix B for complete memorandum.

²Hermes Katsura, Speaker, Truk District Legislature, June 15, 1971. See Appendix C for complete letter.

areas where tourism has become owned (superstructure) by outsiders and all that remains is the taxes from these facilities. The results of tourism and economic development in general, according to Mr. Katsura, make him "shiver like slaves and servants."¹ He set the following as possible guidelines for development tourism, Truk District.

1. Trukese culture must not be compromised nor destroyed by the influence of our tourists. Local handicrafts, house structure, dancing, food style and other customs must be retained and encouraged.
2. Perhaps there is a middle road which can be found in the development of tourism. By 'middle road' we mean a strategy or plan by which Trukese accept foreign capital for limited periods on terms favorable to both sides; by which foreign capital stays in Truk only so long as is necessary to train Trukese and protect its own financial stake; by which the facilities which are left behind are owned and operated by the local residents of Truk and a new business class has been developed to deal with tourists on a basis of equality and self respect.
3. A district tourism commission should be created by law to tightly regular foreign tourist facilities, to determine the number of tourists a year, to recommend plan and monitor the activities to tourism by a close follow up and to strictly make sure that they are only tourists and not go into business. I understand that a bill establishing such a Commission will shortly be introduced in our Legislature.
4. While I recognize the need for the Government to promote tourism, it would do so with two things in mind. First, tourism cannot and will not be the mainstay of the economy of Micronesia. Priority should be given to economic development in areas such as fisheries first. Second, the influx of foreign investment capital for tourism must not be allowed to infringe upon the basic rights of Micronesians to government services, such as power and water. The latter condition has recently been flagrantly violated in our District.

¹ Ibid., p. 1.

5. The regulations and promotion of tourism must be decentralized. District voices must be loud and clear and District decisions must be controlling on the question whether tourism should be pushed. The people of Yap feel differently from the people of Saipan. These differences must be respected.
6. Tourism must be perceived and developed as a "comprehensive" industry rather than an industry of foreign hotels and tour guides. Money and resources must be expanded to develop the corollary businesses which can prosper as a result of tourism. Small local supplies of meat, poultry, eggs, and produce must be developed at the same time as major hotels develop. Handicrafts must be emphasized. The tourist industry should be recast and re-promoted as an effort in "comprehensive" development, and not simply the development of non-Micronesian luxury hotels.
7. Lastly, the government must promote indigenous tourist entrepreneurs before permitting those from abroad. Ray Setik's hotel stands as living proof of how local resources can be mobilized to develop tourist trade. Let us always look to Micronesian skills and resources before turning to outside.¹

Mr. Martin Pray, manager-sales for Air Micronesia, in essence agreed with Mr. Katsura, about tourism generally in connection with Truk in a companion letter. Briefly, he disagreed with Mr. Katsura in several specific areas. However, one of the major concerns that he had was:

. . . relatively little dissemination of hard core information exists in the Trust Territory on what tourism is, how it operates, what are its benefits and its pitfalls. I am pleased to have heard from Mike Ashman and Wyman Zachary that they are planning tourism conferences in each district, bringing in people knowledgeable about the industry, to talk with district leadership. I understand that fine and needful program will be inaugurated this fall on the return from home leave of Mike Ashman, the T.T.P.I.'s new Tourism Specialist.

¹Ibid., pp. 1-2.

It is also my understanding that Mike was in Truk a few weeks ago and left several ideas on the establishment of a District Tourism Commission.¹

The author and Mr. Pray agree on all the basic concepts; however, we disagree in using the term visitor. As Economic Development Officer in Truk, the term visitor met with less resistance by the local people than the word tourist.

Mr. Pray stated that to him the term visitor/tourist had a certain meaning. He stated that visitors:

. . . are individuals who are not strictly programmed. They have plenty of free time to wander around through the villages, talk with people, probably break village customs through ignorance (like taking fruit and coconuts). These 'visitors' are also the majority of divers who come in twos and threes and salvage souvenirs from the ships. A 'tourist' on the other hand is programmed to the point where he rarely has free time and therefore little opportunity to disrupt the activities of the island and its people. They usually come in groups with an escort. They do everything together--tour, shop, eat, etc.²

Several points were emphasized by Mr. M. Pray.

1. Mr. Pray put forward the concept of controlling visitors/tourists by distribution of pamphlets through the hotels explaining what behavior might be expected by the local tourist commission, so as not to cause unnecessary shock to their culture;

2. He was an early proponent of the dive permit (only his objective covered not only preservation but public safety);

3. Besides his tremendous assistance as coordinator for Continental Airlines, he was influential in suggesting legislation for a tourist commission in each district.

¹ Martin Pray, Former Manager of Sales, Air Micronesia, July 1, 1971. See Appendix D for complete letter.

² Ibid., p. 2.

One point that was mutually agreed upon both by Mr. H. Katsura and Mr. M. Pray is the lack of factual information covering the possible effects of tourism in general upon the Trukese District and their culture. Quite obviously one of the major areas of importance includes the benefits and costs associated with the special interest attraction of tourism, scuba diving. The author deemed this a worthy area of study because of definitions, lack of research, etc.

Assumptions of the Study

If the preservation, protection and development of these wrecks is realistic and desirable,

If scuba divers are quality tourists, median 27 years of age, with higher education, higher wages, and perhaps possessing greater culture appreciation,

If divers have less need for nightlife, retire early, and respect the local traditional culture,

Then the promotion and development of scuba diving in the Truk Lagoon is in fact the highest and best use of local resources and without a doubt the only attraction (opportunity/cost) to be promoted, and a spin-off will be the preservation of the worthwhile culture traditions such as: (1) stick dancing (culture center); (2) canoe building (culture center); (3) navigational abilities (canoe racing and building); (4) local food and preparation; (5) waterfall (petroglyphs); (6) battlements (pre-settlement). Several modern attractions can also be mentioned. These are: (1) caves (World War II); (2) lighthouse (World War II); (3) underwater wrecks (World War II).

Hypothesis

The legislative act: designating all Japanese ships and other objects sunk within the Truk Lagoon as the Truk Lagoon District Monument, and for other purposes, represents a historical and unique turning point in Trukese history. Because very little factual information exists concerning the impact of scuba diving in Truk, the author of this thesis will investigate this aspect of tourism and its impact on Truk.

The hypothesis that the author will test can be stated: Scuba diving, a special interest attraction of tourism, can be both beneficial and can provide a significant input to economic development without shattering a fragile culture.

Limitations to the Study

The research undertaken concerning tourism on Truk is basic; several aspects of the study must be based on judgment as data availability is limited.

This is one case study in the broader aspects of attractions of tourism-recreation. It can set the stage for further research. While data is limited in some areas, nonexistent in others, the data analysis using trends and projections can shed some light on the future of tourism in Truk. It can perhaps start the process of meaningful data collection. It can establish a base period to investigate controls needed as the result of tourist promotion from many sources.

The format of this thesis is limited with existing data but it perhaps can provide a systematic framework for the socio-economic

measurements and some analysis of the attractions of tourism-recreation. It may begin to provide the framework for measurement of both specific and objective rating scales for different aspects of tourism, as well as scuba diving, for differing recreation areas, and for the major uses of each, as they relate to economic development in a developing economy.

Research Methodology

In order to investigate the impact of scuba diving on Truk, the author will use the year 1971, and the passage of P.L. 21-5, as benchmarks to study both before and after effects of scuba diving and its impact upon Truk. Because of data limitations, three time frames were chosen for this study. These time frames were for the years prior to 1971, the years 1971-1973 when the author was in residence as Economic Development Officer, and then using these two time frames in order to project possible impacts of scuba diving on Truk into the future. Quite obviously it is necessary to resort to trends and projections for this third time space. This third or future time span is the most critical to Truk. It is in this time frame that the diving in Truk, its impact upon the people, their culture and environment, and its place in economic development becomes critical. These three time frames respectively will be analyzed in Chapter IV. Emphasis will be placed upon analysis of the future.

The results of the analysis obtained will be summarized in Chapter V, and recommendations will be set forth.

CHAPTER IV

TOURISM IN PERSPECTIVE--PAST, PRESENT, FUTURE

Past Analysis

The data presented in this chapter will be analyzed using three time frames: (1) the past or that period prior to 1971; (2) the present, 1971-1973; and (3) the future. These periods were used because of data limitations and using the Truk Lagoon District Monument Act (P.L. 21-5) as a benchmark date. October, 1971, represents the date of implementation of the act by a letter authorizing the Economic Development Officer in Truk District to issue permits to dive and the enforcement of this legislation.

Data Limitations

When compared to other fields, the accurate data required for research on development tourism, or special interest attractions of tourism-recreation, is extremely limited or nonexistent in areas such as Micronesia. Tourism has long been known to be a field where excessive amounts of purely descriptive literature have been produced. Even what is available from hotels, airlines, or franchise operations can be considered suspect due to the close-mouthed relationship of one competitor to another. As a result, very little meaningful data is available on tourism for the developing regions of the world. It is nonexistent prior to 1971 in Truk. Scuba diving

in Truk Lagoon is completely new; therefore, past data is nonexistent, or data that does exist is completely unreliable. Not only is the lack of data prior to 1971 in Truk for tourism in general and scuba diving in particular a problem, but Truk's culture and environment are unique, making many comparisons from existing data difficult.

Population Characteristics

Micronesia cannot be discussed without a clear understanding that the population of Micronesia is not homogeneous. There exist thirteen languages, nine of which are written throughout the six districts. These languages are: (1) Marshallese; (2) Kusaian; (3) Ponapean; (4) Trukese; (5) Kapengamarangian; (6) Pulapese; (7) Puluwatese; (8) Ulithian; (9) Woleaian; (10) Yapese; (11) Palauan; (12) Saipan-Carolinian; and (13) Chamorro. The many and varied spoken languages explain some of the problems in communication. These problems in communication were caused by early settlement patterns.

In Moen itself these cultural characteristics are less rigid than the rest of the district due to a large transient population and permanent workers not originally from Moen. Traditional life is of greater strength the further one gets from the lagoon and especially away from Moen.

Moen and Dublon in particular have always been the trading center of the surrounding area. Moen is even more so the economic center today.

All the people of Truk District speak the Trukese language, a branch of the Malayo-Polynesia family. Each island has its own dialect, and it is not difficult to recognize which island a person

comes from by the way he speaks. Almost all the dialects are mutually intelligible with the possible exception of the Western atolls some 200 miles to the west of the lagoon.¹

Just as islands each have their own dialect in language, they also have culture traits that make any kind of generalization extremely dangerous. Any research done by anthropologists in the past was by single island; therefore, it is difficult to obtain data useful in this type of study.

The population is divided into a number of matrilineal "sibs" which function chiefly in regulating marriage. More important are matrilineal lineages, the members of which trace common descent in the female line from a remembered ancestress. Lineages were, until recently, localized in villages; they own that land and the members of a lineage form the usual cooperative work group. Lineage chiefs constituted the highest political authority in most cases.

Population, Death and Birthrate

The population of Micronesia has doubled over a period of 22 years, from 54,000 in 1950 to more than 107,000 by 1971. The death rate in 1970 was 5.4 per thousand population compared with 13.1 per thousand in 1950. The birthrate is higher than normal in worldwide statistics, constant at 33 per thousand since 1950; the larger percent of the population is under 44 years of age--the childbearing years.²

¹Anon., "The People and their Culture," Economic Development Office, Truk, date unknown.

²United Nations, Trusteeship Council, Report of the United Nations Visiting Mission to the Trust Territory of the Pacific Islands, 1973 (New York: United Nations, May 16, 1973), p. 86.

Per Capita Income

Prior to 1971, at the time when the population of Micronesia was approximately 50,000, the U.S. Navy was spending approximately a total of \$3,000,000 per year. This \$3,000,000 represents the best approximation available concerning outside development capital. Exports were all but nonexistent, and for the purpose of this study other outside income was nil. The economy can be characterized as a subsistence one.

Gross National Product

No data is available for "G.N.P." prior to 1971. If figures exist for "G.N.P.," like per capita income, they are not meaningful figures. We will discuss a first attempt at calculating "G.N.P." for Truk District later in this chapter.

Existing Economic Data-- Import/Exports

Prior to 1971 some data existed on imports and exports for Micronesia as a whole. These exports, basically consisting of copra and fish, are given in Table 1.

Data does exist for Truk in 1970, and its export/import in relation to these figures for Micronesia. In 1970, Truk exports totaled \$655,444. The import/export ratio of these exports was 7/1.¹ Copra and fish are the main exports. Scrap metal at one time was exported, but now is decreasing in importance. The

¹Based on the assumption that the import/export ratio should be at least 1/1 for somewhat of a balance in developing economies.

TABLE 1.--Import/Export Figures for Micronesia: 1964-1971.

Year	Imports	Exports
1964	\$ 5,686,000	\$2,644,000
1965	7,091,000	3,152,000
1966	8,917,000	3,008,000
1967	9,819,480	2,821,671
1968	13,572,052	3,025,571
1969	16,000,000 ^a	2,856,773
1970	20,920,318	4,176,003 ^b
1971	26,166,953	3,000,714

Source: Bank of America, Focus on Micronesia (San Francisco, California: Bank of America, 1973), p. 11.

^aEstimated.

^bTrust Territory of the Pacific Islands, Doing Business in Micronesia (Saipan, Mariana Islands, 1972), p. 7.

relative importance of copra, fish, and other commodities exported is seen in Table 2.

Tourism

Figures for tourism, the "invisible export," are not included in the import/export data.¹ Tourism, as we envision it, did not exist prior to 1965. Before 1957, a few visitors began arriving as a result of several factors. There was a change of administrative policy, an increase in the budget of the Trust Territory, and an open door policy to develop the economy of Micronesia. Entries had increased at about 50 percent per year from 1967-1969, but leveled

¹The transfer of currency which generally takes place via the tourist's pocketbook and the contribution thus made to the finances of the receiving country is defined as invisible.

TABLE 2.--Relationship between all Trust Territory Commodities
Exported: 1968, 1970, 1972.

Year	Copra	Fish	Other	Total
1968	\$2,480,500	\$ ---	\$544,500	\$3,025,000
1970	2,683,198	988,801	504,004	4,176,003
1972	1,317,542	886,385	432,810	2,636,735

Source: United States Department of State, T.T.P.I. Annual Reports
(Washington, D.C.: Government Printing Office, 1968, 1970,
1972).

off to 25-30 percent for the year 1970, or 26,700 visitors.¹ The
number of visitors and estimated expenditures are shown in Table 3.

Present Situation, 1971-1973

Gross National Product

Mr. Jack Hansen, P.C.V. for Truk, compiled the first estimate
of "G.N.P." taken upon Truk.² In an economy which is slowly emerging
from a subsistence to a money economy, the first attempt at a report
of this nature is a crude estimate at best. Mr. Hansen did include
the T.T.P.I. payroll which is in fact a U.S. subsidy. However, this
source of income is Truk's largest productive service and employer.
All of the following figures exclude subsistence labor and production.

¹Parsons Co., Environmental Impact Study--Truk (Honolulu,
Hawaii: Parsons Co., 1973), p. 38.

²Jack Hansen, "G.N.P." Report, Truk District, 1971. See
Appendix E for computation of this first attempt at calculating the
"G.N.P." for Truk.

TABLE 3.--Tourist/Visitor Entries into Trust Territory and Truk Plus
Estimated Expenditures for Both During 1970.

Month	Total Visitors	Estimated ^a Expenditures	Visitors Truk	Truk Expenditures
January	1,952	\$ 146,400	57	\$ 4,275
February	1,759	131,300	55	4,125
March	1,788	134,100	73	5,475
April	1,620	121,500	71	5,825
May	1,952	146,400	77	5,775
June	2,251	168,800	92	6,800
July	2,416	181,200	209	15,675
August	2,612	195,900	64	4,800
September	1,684	126,300	95	7,125
October	3,521	264,075	120	9,000
November	2,273	170,475	89	6,675
December	2,910	218,250	225	16,875
Totals	26,738	\$2,044,700	1,227	\$91,925

Source: Headquarters, Tourist Branch, T.T.P.I.

^aFigures based upon an average stay of three days, and an average expenditure of \$25.00 per day.

Truk District has a population of 30,000; from this, 52 percent of a potential 5,000 labor force is unemployed (no subsistence) and an import/export ratio that fell from 9.6/1 to 16/1 in a single year. The government payroll is 1,400 persons with an average wage of \$1,714.00 annually, plus the private payroll of 1,010 persons with an average annual wage of \$1,014.00, yields a total of \$3,500,000. Yearly personal consumption has been determined to be 95 to 96 percent of yearly personal income. Per capita income equals \$117.00 by dividing 30,000 population into \$3,500,000 total personal income. The "G.N.P." for Truk in 1971 is between \$4.0 million and \$4.10 million.

Truk's Employment

The total value of Truk exports for 1971 was \$479,821 while imports were over \$4 million. There are some 59 private firms operating in Truk. Preliminary employment information for Truk indicates that in 1971 there were 5,000 persons potentially employable in Truk; of those, 2,411 are employed and 2,590 are unemployed. The unemployment rate is 52 percent. These figures do not reflect the number of persons employed in subsistence farming or fishing, but do indicate that there is a large labor pool of unemployed. The 59 private firms operating in Truk paid approximately \$100,000 in gross salaries to indigenous people in 1971. The Trust Territory Government employs approximately 1,400 Micronesians in Truk District, most of which are Trukese.

Industry

As in all districts of Micronesia, a dual economy prevails, with aspects of the old subsistence economy melding with a rudimentary form of the cash economy of the Western world. Copra contributes about \$485,000 annually, and is still gathered and sun-dried in the old-fashioned manner, then brought to collecting points--sometimes by canoe in sacks--for purchase by Truk Trading Company. Copra appears to be somewhat marginal at present because of the world market prices. However, Truk's outer islands as well as some lagoon islands must depend on copra exports for income at any market price. The bulk retailing business is in the hands of the Truk Trading Co., owned by Truk businessmen and estimated by a local source to be grossing one and a half million dollars annually. Competition is provided by supermarkets--one developed by Setik, as part of his retailing and hotel complex (Mr. Setik is a Trukese Senator, Congress of Micronesia), and the second known as Truk Cooperative. Both of the latter are about to match the gross of Truk Trading Co.

Marine Transportation

Trans-Pacific Line connects Truk and the other six major ports in the Trust Territory with Mainland and Far East ports. Intra-district service, involving 14 islands in the lagoon and 24 outside it, is effected by eight government-owned and two charter vessels, many of them obsolete and in need of replacement. Seven of these will be replaced in the next five years, with \$4.7 million allocated to replace existing ships. Truk's harbor and terminal

facilities are in great need of improvement. They have already reached capacity for present tonnage, but a \$10 million program planned for the Trust Territory should ease the pressure. Unfortunately, the intra-district service must be heavily subsidized to keep the \$10 a ton freight rate from rising to the \$50 a ton cost, which would have a disastrous effect on already high outer island retail prices.

Fishing

Regarding the marine resources, the Territory's greatest natural resource, the Administration is engaged in seven major program efforts: inshore fisheries development, offshore fisheries development, starfish control, fisheries training, boatbuilding, conservation, and the development of commercial mariculture operations.

Construction

Truk's first contractor, Andon Amaraich, who is also a Senator and a member of the Congress of Micronesia, was the first to accept the challenge of starting a construction company and successfully building school classrooms. Since then, approximately ten companies are in business and numerous jobs for Trukese were created. Presently, only the very large contracts are let to outside firms; i.e., sewer, two-story high school, etc.

Distribution and Services

Following the lead of Truk Trading Co., Truk now has three over-one-million dollar complete service supermarkets. These operations service the lagoon and outer islands via field trip

ships. Co-ops and credit unions are still being advocated for areas where the private sector cannot or will not function properly.

Import/Export Ratios

The very evasive nature of the diffusion aspect of tourism in fact the real strength for emerging nations. However, after a certain point, a given increase in tourism can cause "a too high propensity to import." Sargent and others studied this high propensity to import in Antigua. Both Truk and Antigua are island areas with many similarities, although half a world apart.¹ The study in the Caribbean points up how economies that rely heavily on imports/exports can have growing pains, particularly when traditional exports are expanded as far as possible. Let us once more relate to the spring, whereby development tourism has started upward and (in this case, the invisible export, tourism) must sustain a correspondingly high export production or reduce the import bill.²

Table 4 shows the present problem in Truk. If one wishes to generalize from this limited data, it can be observed that the ratios are increasing at an alarming rate.

¹J. R. Sargent, et. al., The Limits of Tourism as a Growth Generator, Vol. V, No. 3 (Washington, D.C.: Government Printing Office, July, 1967), p. 82.

²Ibid., p. 86.

TABLE 4.--Increasing Import/Export Ratio--Truk: 1970-1972.

Year	Import	Export	Ratio
1970	\$4,778,571	\$655,444	7/1
1971	4,596,562	479,821	9.6/1
1972	4,992,661	320,000 ^a	16/1

Source: Economic Development Office, Truk District.

^aBased on data collected by E.D.O. as inputs into the 1972 United Nations Report.

Future

Tourism--General Micronesia

Tourism, agriculture, and large scale commercial fishing are considered the three most promising avenues toward the desirable economic goals for Truk. The Trust Territory Government is attempting the guidance necessary in developing these industries so that the desires of each District are met and that the dollar return to Micronesians is more than just wages for hotel employees or boat operators.

Tourist Commissions are being established in each District which will determine tourism goals and policies. Micronesians are being encouraged to take an active part in the development of hotels, restaurants, and related tourist facilities, including ownership, management, and staffing of these operations.

Tourism can be oversold in a fragile culture. The Visiting Mission of the United Nations Trusteeship Council in 1973 was concerned

about this and stated that, "Tourism is of little value to Micronesia and, indeed may have a generally negative effect" ¹

The report then went on to state the following points: (1) that the substantial part of the expenditures generated by tourism flows into Micronesians hands; (2) as well as the majority of jobs; (3) that the Micronesians participation does not end in fronting only for outside interest. In summary, the Mission makes the recommendation that agriculture and fisheries be promoted first as viable and balanced growth factors to the economy. "In this sense, the earnings from tourism should be regarded as a bonus, not as a first objective." ²

It is not possible, at this time, to determine the exact number of jobs that will become available since the plans of private businesses are not known. There are approximately 150 persons employed in jobs directly related to tourism in Truk District. The Protection of Resident Workers Act insures Micronesians preferential treatment in hiring practices. Training programs should be designed to provide the educational and training opportunities necessary for Micronesians to become qualified for positions which become available.

It has been estimated that there will be a requirement for one full-time employee for every three tourists. These employees will be in those industries which are directly related to tourism, such as hotel operations. Although there are sufficient hotel rooms

¹United Nations, Trusteeship Council, Report, 1973, op. cit., p. 63.

²Ibid., p. 64.

to accommodate increased tourism, most hotels are understaffed and an increase in tourism will necessitate the hiring of additional employees.

Additionally, as tourism expands, there will be a need for tourist-related facilities such as guided tours, for-hire sail and motor boats, scuba and skin diving facilities. These facilities will also require employees. As tourism expands, there will be spill-over employment into construction, recreation, service-oriented and agricultural industries. As noted above, the labor pool from which to draw these employees is extremely large. The net long-term effect will be a broadened wage earning base and increased personal earnings and savings.

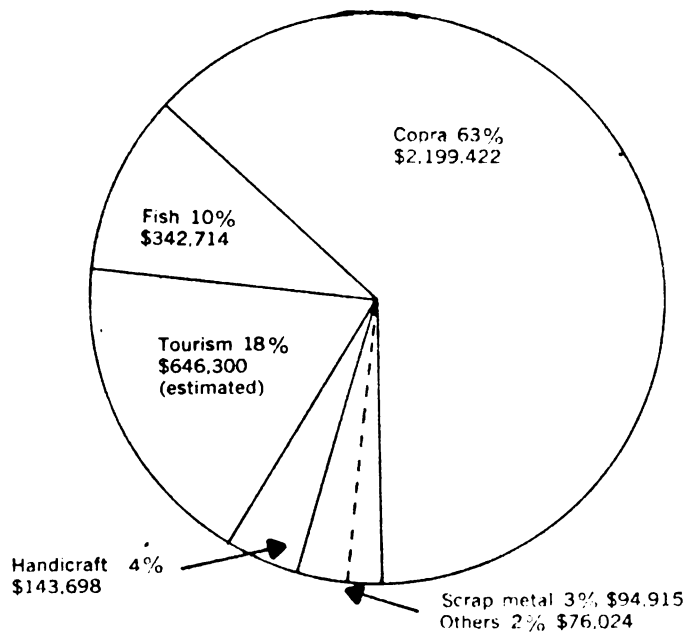
In an economy such as this, tourist expenditures are quickly absorbed into, and become an important part of the community financial structure. Therefore, as tourist spending and the subsequent re-spending occurs, there are positive short- and long-term gains. The wage earning base becomes broadened and, as a result of increased earnings, savings increase. As savings increase, the amount of money available for re-investment increases. This provides additional economic fuel which enables the economy to develop to its fullest potential. The laws and restraints noted above insure the orderly development of the economy and provide assurance that the local Trukese will participate to the fullest extent in the economic development and not just as hotel employees or boat operators. It should be noted that some Trukese will be hotel employees as clerks, room maids, etc., and some will be boat operators for fuel dock

operators. However, this employment for money wages will provide these people with the means to be an integral part of a fully developed economy. Additional employment opportunities will become available as more Trukese enter and complete the training programs noted above. Since travel to the Trust Territory by tourists is a luxury item and is somewhat controlled by the amount of disposable income available, tourism would most likely decrease during periods of economic recession. However, these periods are rarely long lasting and should not affect the overall growth rate of tourism in the Trust Territory.

Tourism, as an economic factor, will produce an additional financial effect in the form of a spill-over or multiplier effect. As the number of tourists in Truk increases, the level of local spending increases. The number of times a given sum of money changes hands generally varies from 3.2 to 4.3 times, depending on the nature of the economy. The existing economy in Truk is heavily dependent upon government spending. However, the physical, social, and cultural infrastructure necessary to a well balanced economy is rapidly developing, as is demonstrated by the developing roadway and utility systems and the improving retailing operations.¹

Tourism was called an "invisible export" because revenue is brought into the Trust Territory seemingly without a visible commodity being shipped out. Figures 5 through 7 show the relationship between all Trust Territory exports for Fiscal Years 1969-1970-1972. The increasing percent of tourism (invisible export) increases from 18%

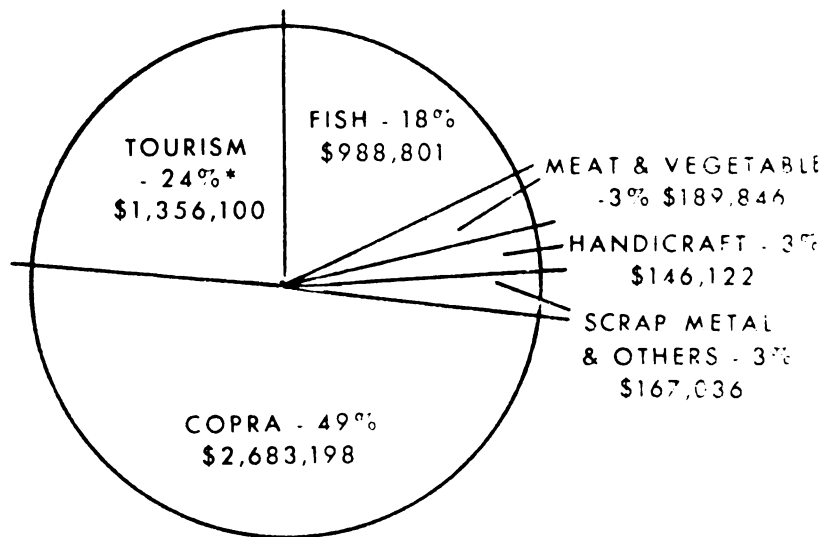
¹Parsons, op. cit., p. 29.



(Note: Lower sample includes estimated figures for tourism)

Figure 5.--Relationship between all TT exports, Fiscal Year 1969 (includes "invisible export" of tourism).

Source: Department of the Interior, Annual Report--1969, T.T.P.I., p. 58.



*Estimated figures generated by tourism.

Figure 6.--Relationship between all TT exports, Fiscal Year 1970 (Includes "invisible export" of tourism).

Source: Department of the Interior, Annual Report--1970, T.T.P.I., p. 75.

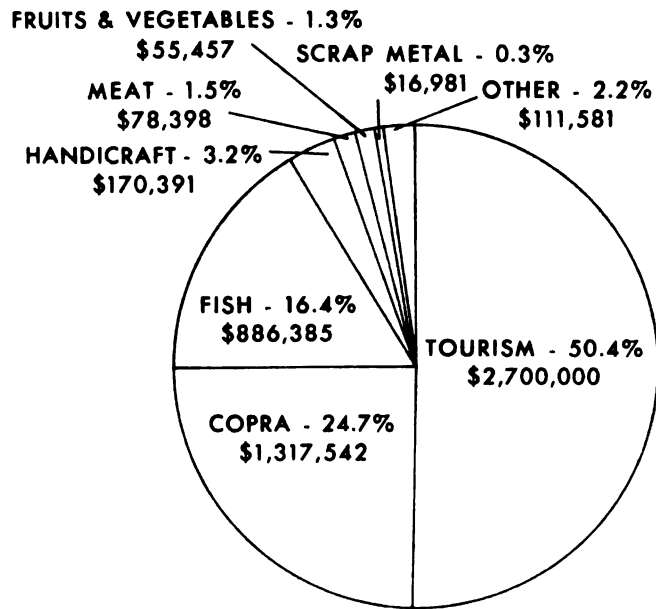


Figure 7.--Relationship between all TT exports, Fiscal Year 1972 (includes "invisible export" of tourism).

Source: Department of the Interior, Annual Report--1972, T.T.P.I., p. 68.

in 1969 to 24% in 1970 and noticeably increases to 40.5% in 1972. As tourism increases, copra production is seen to decrease.

Tourist statistics for the Trust Territory of the Pacific Islands are typical of the industry. The tourism branch of tourism, headquarters, Saipan, is aware that the figures contain double counting, errors in total number as well as nationality. An effort was made while the author was in Truk to correct this situation, by working with customs and the airline manifest. The first attempt was not successful due to a lack of follow-through.

The Pacific Area Travel Association foresees a four-fold increase in Micronesia area visitors by 1980. In 1972 there were

38,800; by the year 1980, this would increase to 155,200. The Bank of America estimates and projections of tourists and visitors are shown in Table 5. In 1970, there were a total of 26,738 tourists/visitors in the Trust Territory, and 4.5 percent or 1,227 of these visited Truk. The total 1970 Trust Territory tourist/visitor entries were 30 percent greater than the 1969 entries of 20,600. Total tourist entries in Truk in 1971 were approximately 1,400 persons; 20 percent more than 1970.¹

The United Nations in their projection and using the same base figures for 1970-1972 also projected possible tourists and visitors. Where the Bank of America projections had 32,800 visitors arriving in 1977, the United Nations saw the level being reached in 1975. These combined projections are shown by Figure 8. Table 6 shows the United Nation projection for tourists and visitors in Micronesia for 1969-1975. It can be expected that with improved promotional techniques and wider advertising, the rate of growth will continue. A lower rate of growth could be expected should American or Japanese tourist expenditures decrease in the near future.

The majority of tourists visiting the Trust Territory came from the United States and Japan in 1969. There were 13,448 visitors from the United States, 5,288 from Japan, and 1,864 from other countries. These figures had increased in 1972 to include 22,090 visitors from the United States, 12,700 from Japan, and 3,039 from other countries. Table 7 shows these figures for the years 1969-1972.

¹Parsons, op. cit.

TABLE 5.--Estimates and Projections of Tourists and Visitors:
1966-1977.

Estimates		Projections	
1966	5,700	1973	54,500
1967	9,000	1974	67,600
1968	13,000	1975	85,100
1969	20,600	1976	106,300
1970	26,700	1977	132,800
1971	33,600		
1972	38,829		

Source: Bank of America Economic Report--May, 1973 (San Francisco: 1973), p. 16.

TABLE 6.--Estimates and Projections of Tourists and Visitors:
1969-1975.

Estimates		Projections	
1970	26,700	1973	62,000
1971	33,600	1974	86,000
1972	38,800	1975	132,000

Source: United Nations, Trusteeship Council, Report by the United Nations Visiting Mission to the Trust Territory of the Pacific Islands, 1973 (New York: United Nations, May 16, 1973), p. 62.

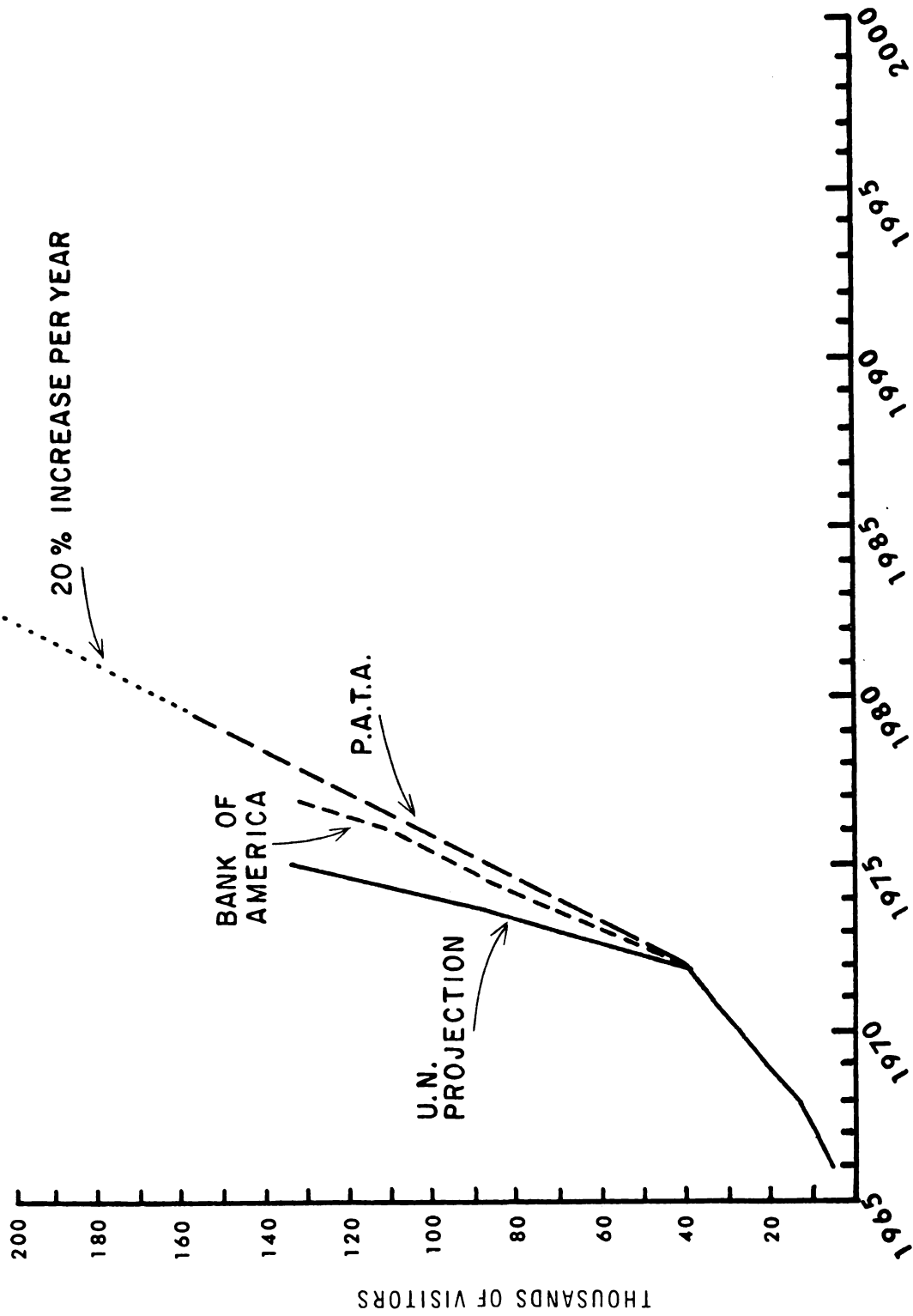


Figure 8.--Combined projections for tourist/visitors for Trust Territory of the Pacific Islands.

TABLE 7.--Country of Origin of Trust Territory Visitors: 1969-1972.

Year	United States	Japan	Other
1969	13,448	5,288	1,864
1970	17,733	6,838	2,167
1971	20,290	10,874	2,442
1972	23,090	12,700	3,039

Source: T.T.P.I. Headquarters Tourist Branch, Calendar Years
1969-1970-1971-1972.

Tourist entries in the Trust Territory for the first six months of 1973 are up 40.8 percent over 1972. During the first six months of this year, a total of 27,242 entries were recorded compared to 19,342 for the same period a year ago. Largest gains were recorded in the Marshalls (85.1 percent), Marianas (48.3 percent), and Ponape (39.6 percent). Table 8 is a breakdown of the figures by district.

Natural Features

Truk is blessed with two main attractions of tourism: (1) sun, sand, and the swaying palm trees; (2) the special interest attraction of scuba diving in the Truk Lagoon District Monument. M. Peters states:

Some countries or regions are extremely fortunate in that they have an asset so outstanding and unique that the tourist industry can largely depend on, and be promoted by this feature. More often, the combination of a number of assets is necessary to create a strong enough appeal to secure a

TABLE 8.--Breakdown of Figures by District of Tourist/Visitors.

District	1973	1972	Variance
Marianas	19,318	13,022	+48.3%
Truk	1,956	1,655	+18.1%
Ponape	1,819	1,303	+39.6%
Palau	1,654	1,655	---
Marshalls	1,620	875	+85.1%
Yap	875	832	+ 5.1%
	27,242	19,342	+40.8%

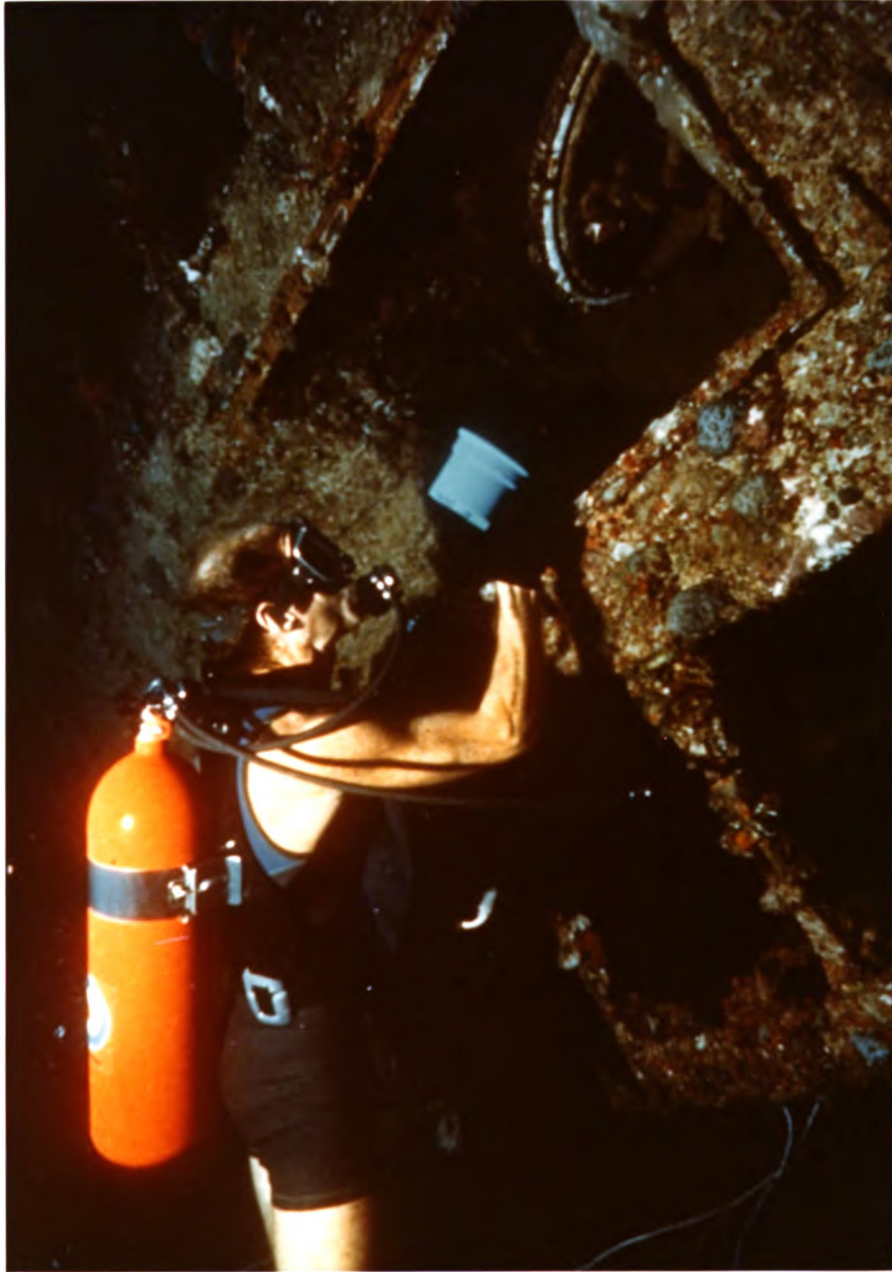
Source: Micronesia Memo, Air Micronesia, Inc., Saipan, Mariana Islands, August, 1973.

viable share of the market In some areas the combined appeal of a wide range of natural and man-made assets has been recognized too late to prevent unco-ordinated development thus spoiling these assets.¹

This is the type of tourist that Truk has been attracting with a relatively few hundred exceptions as a result of promotional work done by Air Micronesia and Travelworld. Travelworld, Inc., is one of the largest wholesalers of package tours in the world. Table 9 shows the entries and estimated expenditures for the years 1969-1972.

These tourists spend their average three-day stay on Truk in the following general manner: one day total for sightseeing, approximately a half a day shopping for handicraft, another day total on water or beach, and remaining half day is involved with the airline

¹Michael Peters, International Tourism (England: Anchor Press, 1969).



Torpedo tube, I-169 submarine. Truk Lagoon.
--Photo by P. Tzimoulis

TABLE 9.--Tourist/Visitor Entries into the Truk District and Estimated Expenditures: 1969-1972.

Year	Visitor/Truk		Expenditures
1969	582	2 days × \$22.00 ^a	\$ 25,564
1970	1,227	3 days × \$25.00 ^a	92,025
1971	2,594	3 days × \$25.00	193,550
1972	2,909	3 days × \$25.00	218,175

Source: T.T.P.I. Headquarters Tourist Branch, Calendar Years 1969-1970-1971-1972.

^aSomewhere between 1969 and 1970, the basis for estimating expenditures changed from 2 days at \$22.00 per day to 3 days at \$25.00 per day.

and airport procedures. Truk's general tourists apparently are satisfied even with the lack of infrastructure and the yet inaccessibility of the real natural and man-made ground attractions of tourism--recreation.

Scuba Diving Permit System

The special interest attraction of tourism in Truk is underwater scuba diving. This special interest attraction can augment and utilize the existing infrastructure and superstructure as mentioned earlier.

The implementation of legislation regulating scuba diving began in October of 1971. One of the important sections of the legislation dealing with the establishment of Truk Lagoon District Monument is in Section 5 of P.L. (Truk District Legislature) 21-5, which states: (1) that permits will be required of all divers visiting



Torpedo tube, I-169 submarine. Truk Lagoon.
--Photo by P. Tzimoulis

the underwater monument; (2) that no artifacts will be removed from the monument; (3) that enforcement be with the District Administrator in Truk; (4) that specific regulations will be forthcoming.

Specific regulations later drawn up reinforced this legislation. Added to this legislation was the phrase, "and for other purposes." The impact of this statement essentially meant that these specific regulations applied to all public parks and historical sites in Truk District. These specific regulations set out the entire range of regulations for those diving in the Truk Lagoon, and included parks and historic sites. The first part of these regulations covered general provisions, authority, purpose, definition, and authorized representative. The second part of the act dealt with the permit system in detail. The third part set forth safety regulations, and the fourth set penalties. The fifth and last part dealt with publication.

These specific regulations covering scuba diving are, to the best of the author's knowledge, the first instance of regulations requiring permits to control scuba diving. There is no other permit system regulating scuba diving, let alone being used in connection with the conservation, preservation, and development of underwater resources.

The Diver as a Potential Tourist to Truk¹

Once tourist trends and projections have been analyzed for Micronesia and Truk, it is also necessary to investigate the scuba diver as an individual. It would be fruitless to try to develop a tourist industry around this specialized form of recreation, let alone giving it a primary role in economic development, if such items as personal characteristics, mobility, expenditures, and traveling of the scuba diver do not mesh with your plans.

In 1972, Skin Diver magazine undertook a survey of the readers of that magazine. Through a questionnaire, they asked questions concerning the diver's marital status, income, age, travel undertaken (both domestic and foreign), equipment expenditures, and diving experiences. A sample of 5,000 questionnaires were mailed out by this magazine. The results of this sample survey were interesting and fruitful in terms of market potential for Truk.²

This survey found that 93 percent of the divers interviewed by the questionnaire were male and 50 percent were married and had a median age of 27 years. It can be assumed that young, single males would have more mobility than the average tourist. These divers also had a median income of over \$15,000 per year and were possibly better educated than an average tourist. Again, with more money to spend

¹Data concerning scuba divers is extremely limited. This section of the thesis, with the exception of the projections, was largely derived from: Research Department, Skin Diver Reader Survey (Los Angeles, Calif.: Peterson Publishing Co., 1972).

²See Appendix F for methodology of this survey.

and more awareness of places offering a quality experience, this type of specialized tourist could be attracted to Truk. It was also found that once divers were attracted to a particular spot, they tended to stay longer than an average tourist.

Important to the development of tourism is a tourist willingness to travel to a particular site to partake of a certain kind of recreational experience. Scuba divers were found to be very willing to travel, both out of their states and out of the country, to particular locations offering the type of experience they sought. Of the 5,000 questionnaires sent out by the magazine, 2,250 or 45 percent were returned. Projections were based upon these figures and correlated with an estimated scuba diver audience of 550,000. Projections based upon this number of scuba diving enthusiasts showed that the scuba diver as a person is extremely mobile. Needless to say, the majority of scuba divers reside in the states with warmer weather. Table 10 shows that 372,380 scuba divers traveled out of their state of residence on skin diving trips.

Another enlightening and very important part of this survey to Truk was the respondent answer dealing with travel out of the continental United States: while almost 50 percent traveled close to home, over 12 percent traveled to the South Pacific and other countries. Table 11 shows the percent of estimated skin divers traveling outside the continental United States.

Scuba divers on the average spend more and stay at a destination longer than many other types of tourist while engaged in their

TABLE 10.--Out-of-State Diving Trips by Scuba Divers--1972.

State	Percent of Divers Traveled to Other States to Dive	Estimated Number of Divers
Florida	37.6	206,800
California	22.2	122,100
New York	11.7	64,350
New Jersey	8.8	48,800
Massachusetts	9.7	53,350
Rhode Island	5.2	28,600
Wisconsin	4.9	26,950
Connecticut	4.8	26,400
Michigan	6.4	35,200
Maine	4.7	25,850
Hawaii	9.3	51,150
Other States	28.9	158,950

Source: Skin Divers Reader Survey, Research Department, Peterson Publishing Co., Los Angeles, California, 1972.

TABLE 11.--Foreign Diving Trips by Scuba Divers--1972.

Country	Percent of Divers Traveling Outside United States	Estimated Number of Divers
Caribbean	15.7	86,350
Bahamas	15.8	86,900
Mexico	12.8	70,400
Bermuda	4.0	22,000
Baja California	7.9	43,450
Canada	5.4	29,700
Mediterranean	3.5	19,250
South Pacific	3.9	21,450
Other Countries	8.5	46,750

Source: Skin Divers Reader Survey, Research Department, Peterson Publishing Co., Los Angeles, California, 1972.



Divers at hatch, I-169 submarine. --Photo by P. Tzimoulis

recreational activity. Figure 9 shows the current and projected duration of stay of a scuba diver versus a general tourist.

Figure 10 shows the current and projected expenditures of a scuba diver and a general tourist. The scuba diver expends \$40.00 a day while the general tourist spends \$25.00.

Earlier it was stated that almost four percent of an estimated 21,450 divers visited the South Pacific in 1972. The economic development office issued 250 permits in this same year. It can be assumed that Truk then captured one percent of the scuba diver market. In the first three months of 1973, 180 diving permits had been issued. If this figure stays constant for the year, over 500 divers will visit Truk in 1973. Figure 11 shows the current and projected numbers of divers to visit Truk. By 1976, approximately 1,300 divers will dive in Truk Lagoon.

If Truk captures another one percent of the market of those scuba divers visiting the South Pacific between now and 1976, there will have been 2,700 divers visiting Truk. This is not an unrealistic assumption. Publicity such as the Cousteau documentary, Al Getting's current documentary, "The Silent Warrior" concerning the Japanese submarine in the lagoon that sank with all men aboard, and the publicity put out by Air Micronesia generates tourist travel. There is also an increasing influx of visitors from Japan.

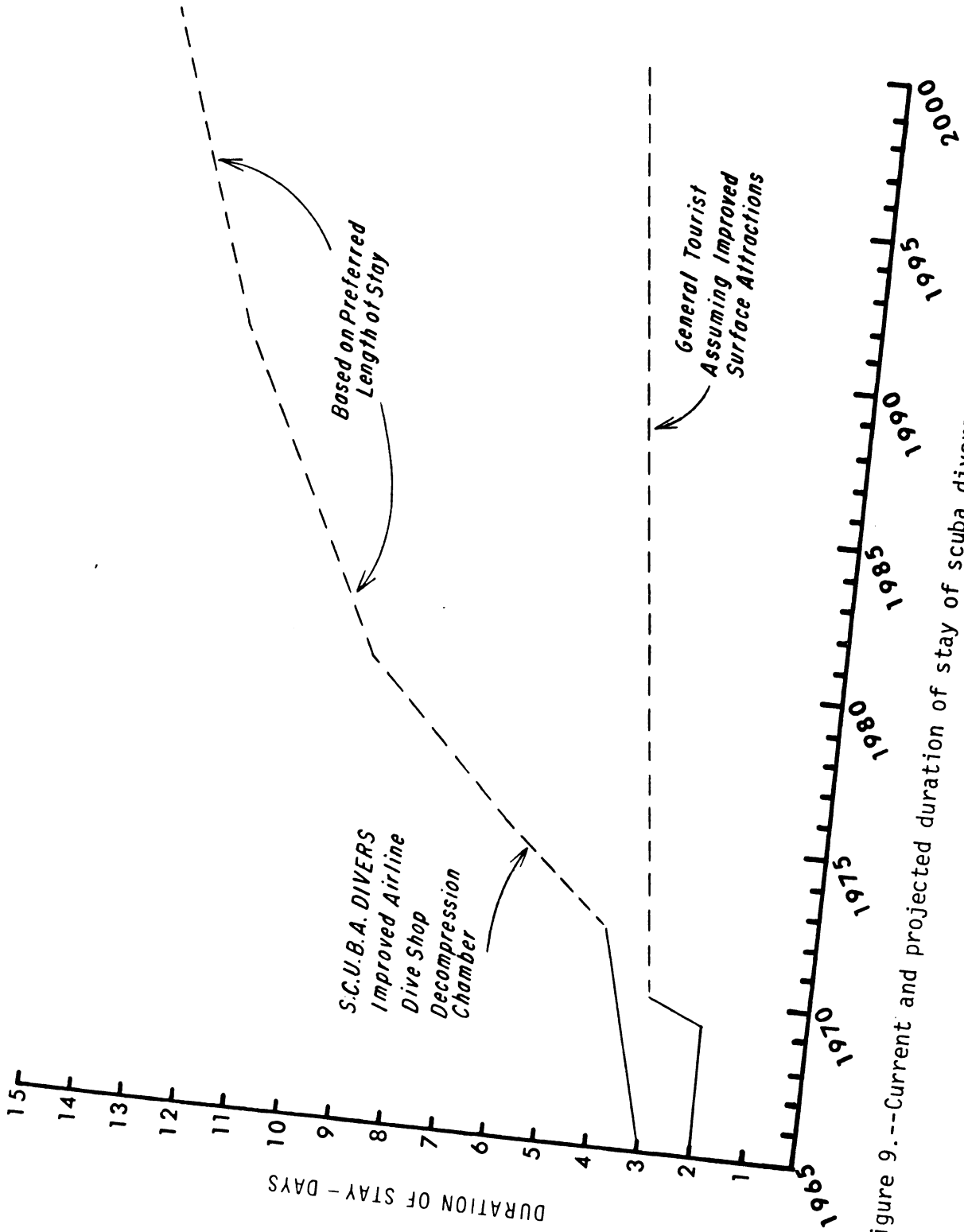


Figure 9.---Current and projected duration of stay of scuba divers compared to general tourists.

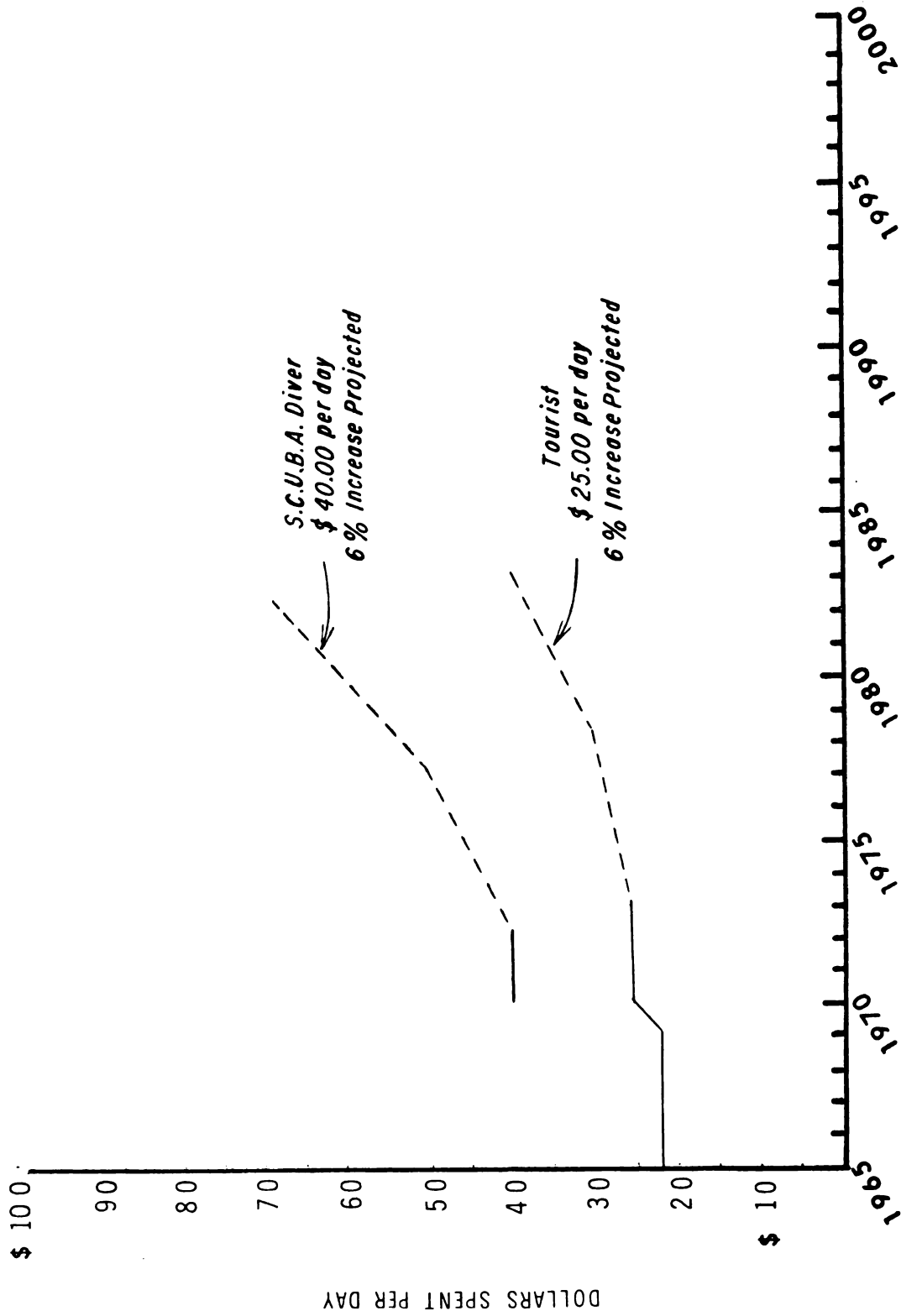


Figure 10.--Dollar expenditure, current and projected, of scuba divers versus average tourists.

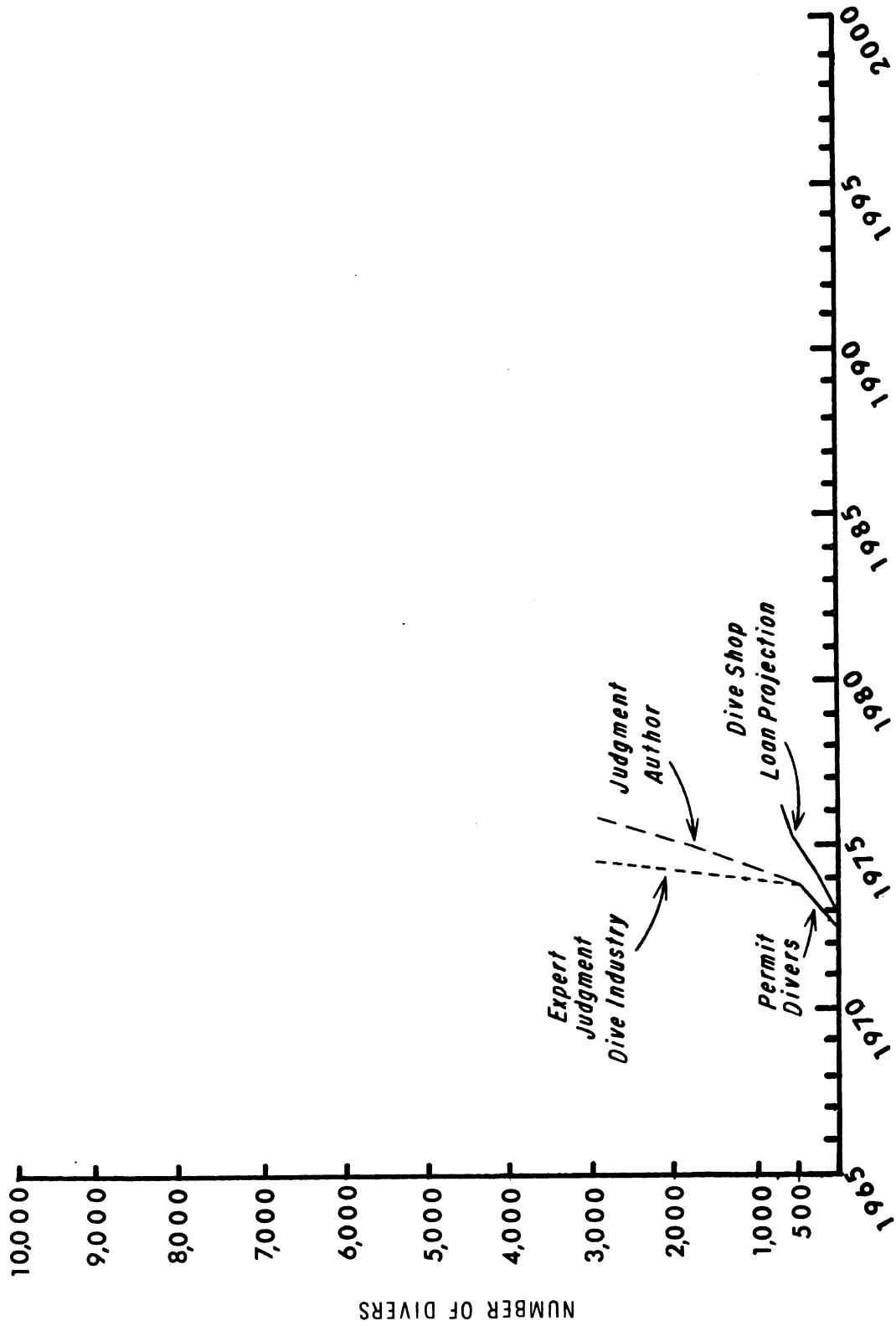


Figure 11.--Current and projected number of scuba divers to visit Truk: 1972-1976.

Environment-Culture and Development Tourism

The problem of a possible collision between a fragile culture, a fragile environment, and development tourism has been the theme of this research effort. Scuba diving as a special interest form of recreation can be beneficial for Truk. The spectacular scenery, coral reef, and lure of over 60 sunken Japanese ships in Truk Lagoon are three of the main tourist attractions on which a strong Truk tourist industry can be built. According to R. McIntosh, "The most important single element in the projection of the needed supply is that of adequate and imaginative planning."¹ M. Peters follows this same thought by stating that, "This planning should be within the context of the natural attractions of the area and the development of distinctive local features."² Tourism cannot become an important industry if an area lacks the amenities generally expected by the tourist visiting the area. The lack of planning or poor planning affect the supply side of tourism; it does no good to create demand and ignore supply. Without planning, uncontrolled tourism can create a loss of cultural distinctiveness, increased crime rates, overdevelopment, and a relegation of local people to servants. The degree to which these harmful effects manifest themselves is largely under control of the Trukese and the Congress of Micronesia.

¹R. W. McIntosh, Tourism; Principles, Practices, Philosophies (Columbis, Ohio: Grid Press, 1972), p. 140.

²Peters, op. cit., p. 176.

Market Area

A projection might be defined as an estimate of the future based on current or past trends. A forecast, on the other hand, is a prediction of things to come and need not be directly related to or based upon past trends.¹ Market or demand analysis is extremely difficult in the case of resource-based recreation. Projections derived using demand analysis are more tenuous. However, an attempt must be made to establish potential demand to show the input into economic development that scuba diving can create for Truk. Figure 12 shows a jet-hour schematic overlay on a Pacific Basin map. It can be seen that jet travel lessens distance in time for the possible demand that may be created by this type of tourism.

The Japan-Guam, Guam-Australia origins should be promoted first. As Hemphill points out, "there should be at least a years lead time on any market promotion."² The United States market potential lends itself more to a market to be promoted at a future date. It may seem ironic that the Japanese today are returning in large numbers to the islands they surrendered nearly thirty years ago. Some are returning as tourists, others as businessmen, and some to renew nostalgic memories. In Palau alone, 65 percent of all imported goods now come from Japan.

¹McIntosh, op. cit.

²R. W. Hemphill, "A Survey of the Future Tourist Potential of the Pacific Trust Territory," T.T.P.I., Saipan, M.I., April-May, 1966, p. 7.



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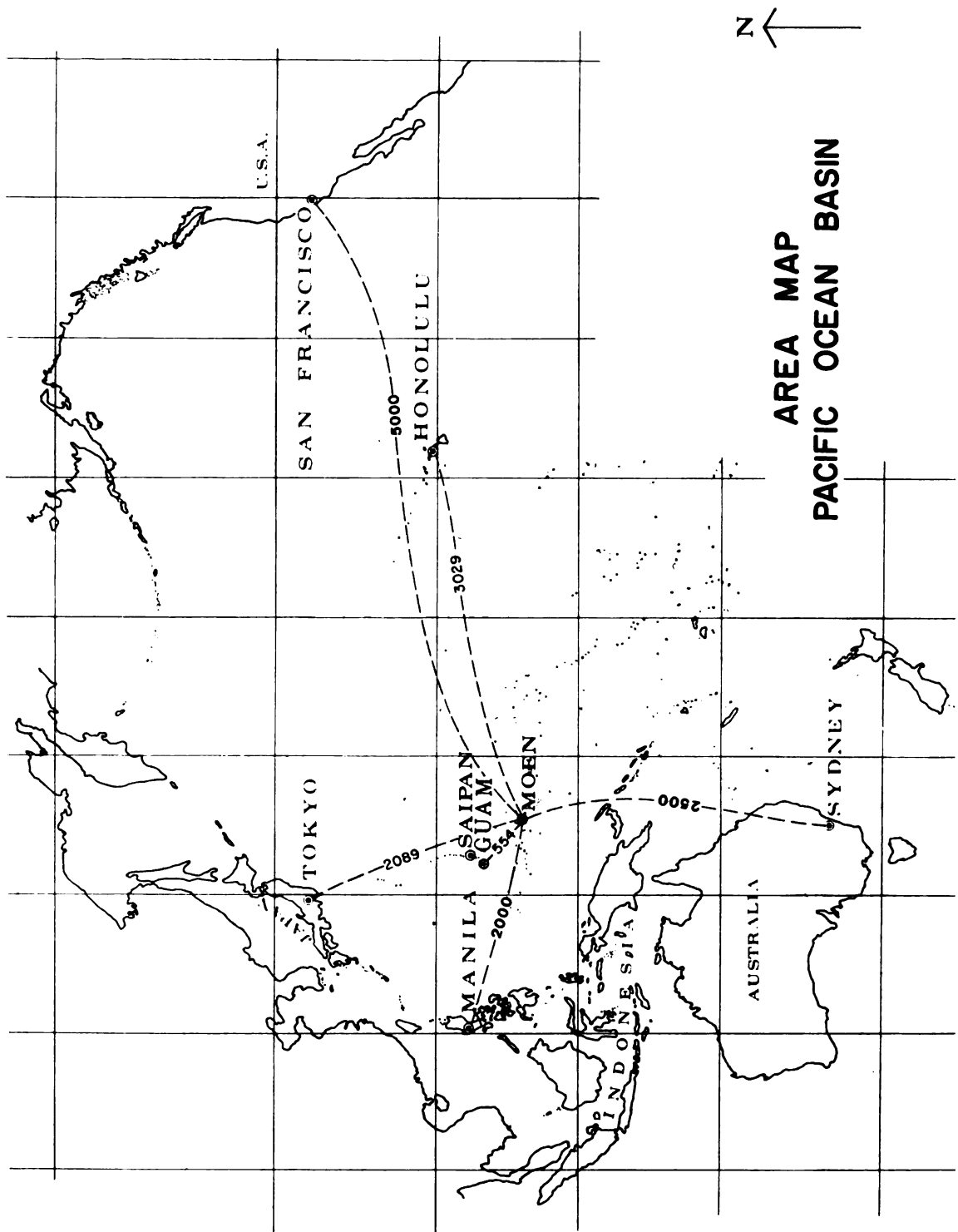


Figure 12.--Assuming-jet-hour transportation from Truk District, E.C.I.

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Largely responsible for the recent tourism increase from Japan was a round trip air fare from Tokyo to Guam established in 1969, as a tourist special for honeymooners. At present there is a \$180.00 round trip air fare for a 23-day excursion rate. Coupled with improving air service and ground accommodations within the Trust Territory, the new fare and schedule, as of December 15, 1972, with daily flights is attracting thousands of Japanese.

Tourism shows no partiality or nationalism. There are thousands of American navy, army, and marine veterans who would enjoy visiting this area with their families or comrades. While this is an untouched market that could become increasingly important, it should have less emphasis placed upon it as previously mentioned.

Superstructure¹

Promotion of a specialized form of tourism such as scuba diving creates the need for certain facilities upon the supply side to complement this promotion. Two necessary facilities immediately needed upon Truk were a dive shop with a good quality clean air producing compressor and a decompression chamber for treatment of divers with equipment failure. Without a quality air compressor, there can be no plans for a future scuba diving attraction. A

¹In this study, R. McIntosh's tourism components and supply will be used: (1) natural resources, available for the use and enjoyment of visitors; (2) infrastructure, underground and surface construction; e.g., water, sewage, gas and electric, telephone, roads, etc.; (3) transportation (link); (4) superstructure and above ground facilities; e.g., airport building, resorts, hotels, restaurants, museums, and entertainment; (5) hospitality--attitude and pride of host.



Hatch of submarine at 110 feet.
--Photo by P. Tzimoulis

decompression chamber is needed to treat the bends which are caused by ascending too rapidly, and other dive associated accidents.

A dive shop has recently been developed on Truk whereby the Administration has leased government land (near the future marina) and provided the seed capital. This dive shop is owned by a Trukese, who is a master diver. Recently, a decompression chamber was obtained from Italy and is now located at the dive shop on Moen Island in Truk District. Previously, patients were flown to Guam, an eight to twelve hour trip, for treatment of diving associated accidents.

Truk, as does the rest of Micronesia, depends upon air transportation as the primary means of inter-district transportation. Most mail, perishable cargo, and other freight is brought into Truk by aircraft. Air Micronesia is the only airline currently serving Truk, operating a B-727-100 aircraft with daily flights from either Honolulu or Guam. There are no air-taxi or general aviation flights into Truk. Military flights into Truk average five per month. These flights consist of logistical support for the Seabee Civil Action Team and are primarily C-130 aircraft. The present airfield is located on the northwest corner of Moen Island, and consists of a runway 5,100 feet long by approximately 200 feet wide, with a modest wood frame terminal building. There are plans for the expansion of this airfield.

The long-term effect of the development of the Truk District Airport will be to allow Truk to meet the operational needs of its air transportation requirements through the year 1990. As the tourist industry increases in Truk, so must the air field. However, recent

budget cuts do not look promising for airport expansion. It is interesting to note, though, that Air Micronesia plans on approximately 81,000 passengers enplaning at Truk by 1995.

A key to tourism in Truk is the new hotel accommodations. The Continental Hotel with 54 air-conditioned rooms can offer just about anything in the way of creature comforts available in Waikiki (Hawaii), except television. At present Truk leads all other districts with a total of 140 hotel rooms. Besides the Continental Hotel, there are four other hotels on Truk. All of these are located on Moen Island and operate at an estimated 25 percent occupancy. The number of rooms could double by 1980. However, there are currently 54,750 room nights available while current demand is only for one-fourth of this amount. Projections indicate that the present quantity of hotel rooms is sufficient to handle the expected number of tourists up to 1990. However, there may be a need to upgrade the quality of some of the present hotel rooms to meet tourist standards.¹

Infrastructure

The anticipated increase in transient population will place heavier demands on the utility systems of Truk. This increased demand has been anticipated by the Trust Territory Government.

Supplies of fresh water in the Truk Islands other than the district center (Moen) are obtained chiefly from small streams, deep wells, waterholes, and by the catchment of rainwater from the roofs

¹United Nations, Trusteeship Council, Report, 1973, op. cit., p. 62.

of buildings. All surface water and water in open wells is subject to pollution.

The Truk water system improvements were begun in fiscal year 1969 with funding for a one million gallon water storage tank. Fiscal year 1970 funding provided the construction of 12 deep wells, together with one catchment, to supply the water requirements of approximately 5,000 people. The progressive expansion of the water system to outlying villages and tourist-related activities will necessitate the development of new water sources. Most likely these new sources will be additional deep wells.

The present electrical power system of Truk consists of four diesel generators capable of producing 2,300 KW. Average production is 1,900 KW, and demand is in excess of 3,000 KW. In the latter part of fiscal year 1973, another generator is expected to begin operation with an average output of 1,000 KW. A second generator of the same size is to be in operation in fiscal year 1972. The Continental Hotel has its own electrical generator and the rest of the hotels are supplied from the central power plant.

The Truk sewage system is currently under construction and Phase 1 of this program will extend coverage to approximately 35 percent of the island population. A secondary sewage treatment plant capable of processing waste for 9,510 persons is to be constructed on Moen Island. A deep water outfall will be located on the northwestern corner of the island. Processed sewage from this outfall will be rapidly dispersed into the lagoon. No adverse effects on the marine environment are anticipated due to the

relatively small volume of sewage compared to the large volume of the lagoon. By fiscal year 1981, the entire population of Moen Island will be served by the sewage collection and treatment facilities.

The fact that over 60 Japanese ships lie at the bottom of Truk Lagoon attests to the quality of the lagoon as a natural harbor. The length of the present dock is 300 feet and used for ocean-going vessels. It is made of concrete and in excellent condition. The depth of water along the face of the dock is about 27 feet and while this is deep enough for all but very large ships, passenger ships could anchor nearby in the harbor and ferry passengers to and from dockside. Warehouse facilities on the dock for general merchandise are about 1,500 square feet.

The roads are all of one class--unpaved; they can best be described as leaving a lot to be desired. They are usually circumferential along the shorelines of the island. There are about ten miles of usable roads.

Impact on the Natural Environment

The natural environment of the Truk Islands has been extensively altered due to man's activities. During the Japanese occupation period numerous roads, footpaths, airfields, gun emplacements and other war related-structures were constructed. Extensive breadfruit, coconut, sweet potato, and taro fields were cultivated for subsistence food. By June, 1945, during World War II, there were over 35,000 Japanese and 10,000 Trukese living off the land and nearby sea.

Since the Japanese occupation, many of these improvements have become overgrown and allowed to revert to a natural state. Additional factors such as inter-island and inter-district travel have further confused the indigenous environment. Plants and animals have been carried from island to island, producing an almost homogeneous natural environment within the district.

In general, the flora of the Truk Islands is tropical and typical of the Pacific Islands. Past studies have estimated some 298 plant species belonging to 252 genera and 90 families exist on Truk. Seven separate and fairly distinct vegetative zones have been established: mangrove swamp, strand vegetation, fresh-water marshes, fill vegetation, grassland, coconut-breadfruit and Ficus-Pandanus forest. The various zones have differing economic and food values and occur in varying degrees on the separate islands. The mangrove swamp has economic value in itself as a suitable habitat for fish and mangrove crabs.

The largest vegetative zone is the coconut-breadfruit zone. Plantings vary in density from one locality to another, and this zone has the highest economic value to the Trukese, being used both for food and copra production.

The fauna of Truk is similar to that of other Pacific Islands due, in part, to the large amount of inter-island traffic and the introduction, by man, of non-indigenous organisms.

There are numerous fish found in the Truk Lagoon. Only four of these are taken regularly as food fish: parrot fish (Searidae), rabbit fish (Siganus sp.), scad (Trachurops

crumenophthalmus) locally called Akule, and mullet (Mugilidae). The latter two serve as food and bait fish. Akule are generally taken in the mudflat areas, occasionally by illegal dynamite blasting. Outside the barrier reef, skipjack tuna (Scombridae) are fished commercially by non-Micronesians. A large monitor lizard (Varanos sp.) inhabits the area, and there are geckos and skinks, although these are not commonly seen. Snakes have not been introduced to these islands.

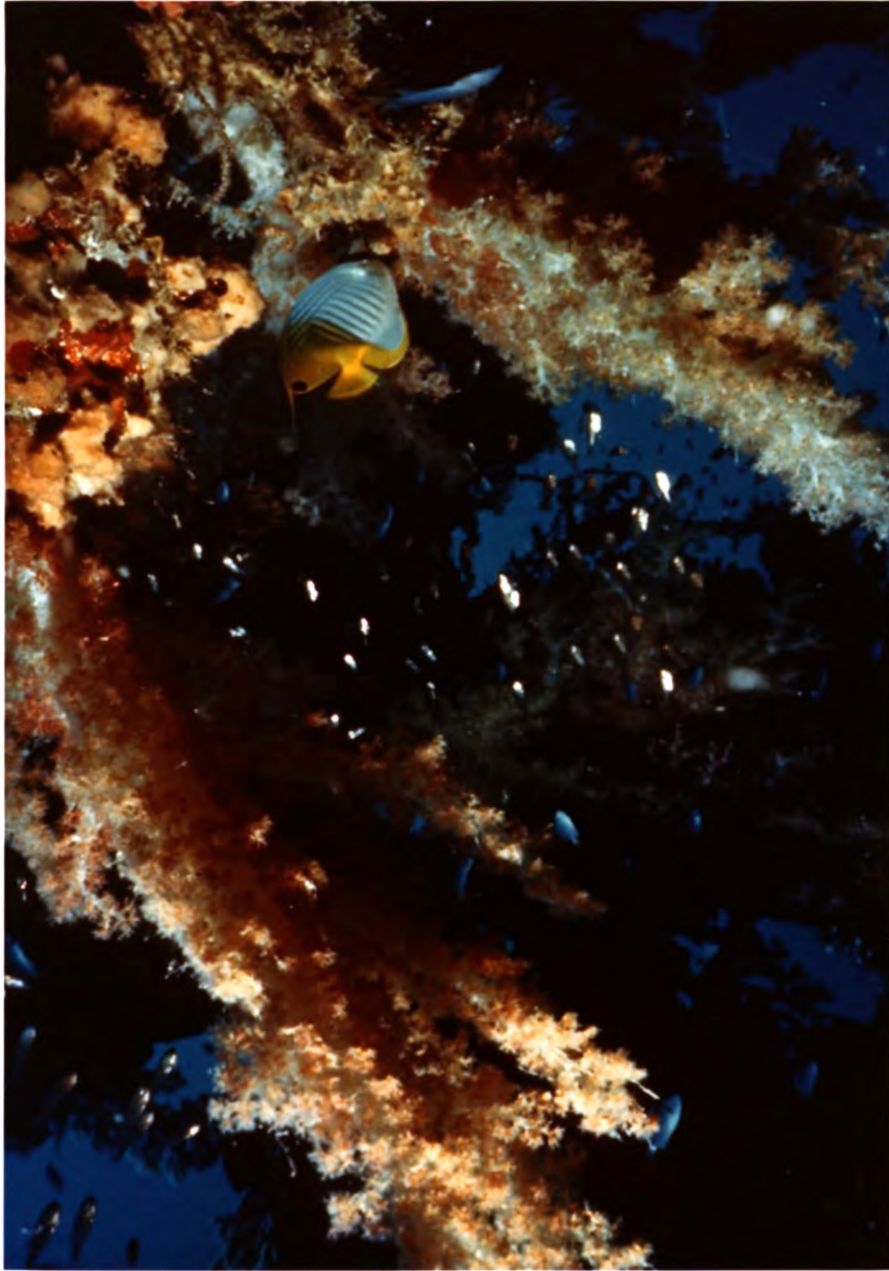
Corals are the most essential organism to the well-being of a reef community and can be destroyed through any of the above activities. Sewage pollution has already destroyed some of the fringing reefs on Moen Island. The deep water sewage outfall previously discussed will not cause adverse effects on the marine environment since the sewage will be distributed over a wide area and there will be an abandonment of the present open pit privies and benjos.

Cultural Features

As is true of most Pacific Islands, there are extreme cultural difference between the Truk Islands and the other Trust Territory Districts.

The smallest political unit on Truk is the Aif which is a group of families. Aifs are arranged into villages, with each inhabited island being composed of one or more villages. With the advent of the Europeans and the abolition of wars, the mountainside villages were moved down nearer the water. During the World War II bombardments, the villages were moved to sheltered spots on the

VII



Fish and coral.

--Photo by Zanoletti

VIII



Coral on cable.

--Photo by P. Tzimoulis

IX



Ship's running light.
--Photo by Cappelletti

sides of mountains. Since the war, most of the villages have again been moved down to the shore.

Villages generally consist of one or two rows of scattered houses along coastal roads. The houses are usually constructed of boards or strips of corrugated iron with walls commonly only part way to the roof. Coconut and ivory-nut fronds are generally used for roof thatching. House floors are often built two or three feet above ground and woven mats are sometimes used for walls. Isolated houses in the jungle and on the hillsides commonly have dirt or sand floors.

The most significant cultural influence on physical planning on Truk is the land tenure pattern. The village development pattern noted above is not happenstance, but relates to the Trukese cultural patterns. Extended families (Aifs) are more the rule rather than the exception, and the typical homesite is occupied by more than one biological family. It is undesirable for a biological family to live by itself, as it would not contain enough workers. More important on Moen, Trukese dislike being lonely and are curious about other people's business. Since Moen is the commercial and governmental center of the District, many more Aifs are found on Moen than are usually found on one island.

The dances, music, language, and other cultural features of the Trukese will be valuable assets as attractions of tourism, and the Trukese should be encouraged to maintain these cultural assets. The maintenance of the cultural distinctiveness of the Trukese should also be the responsibility of the Trukese. The advice and

guidance necessary for this maintenance is available through the Trust Territory Government. The Trukese are a proud and strong people, and can be expected to provide themselves with the leadership and controls necessary for their own protection. Those customs which have persisted will most likely continue to persist, no matter what influences are brought to bear.

X



Stick dance, Truk.

CHAPTER V

SUMMARY AND CONCLUSION: POLICY IMPLICATION AND FUTURE STUDY

Summary and Conclusion

Micronesia is Stone Age--it is also twentieth century.¹ American administrators have argued for two decades that change would spoil Micronesia and its 107,000 people. It would be pleasantly idealistic to believe that man might wall off one tiny corner of the world against our modern civilization and let the witch doctors practice their trade as they always have in the past. But Micronesia is hardly the place to try it. It was in Micronesia, after all, that man continued at a place called Bikini what he had started at Alamogordo and Hiroshima; the islands and their people can never go back to the way it used to be.

As is normal, after being rather abruptly exposed to the progress and products of the twentieth century, the people of Micronesia are confused and naturally concerned about the advent of the new and retaining the old. However, they possess an uncanny ability to move slowly towards self-sufficiency while at the same time they are exploring the possibility of independence. The basic balance of

¹R. W. Hemphill, "A Survey of the Future Tourist Potential of the Pacific Trust Territory," Trust Territory of the Pacific Islands, Saipan, M.I., April-May, 1966.

an emerging area, and the fundamental relationship of resources, both natural and man-made, has never been successfully explained to the Micronesians, or at least not in a way that they understand.

Considerable time and effort was spent proposing a joint venture in the commercial fishing field by the office of Economic Development in Truk District. When that failed, a public corporation between the Truk District Legislature and a large U.S. fishing company to be located on government land on the Island of Dublon was proposed. Both proposals were turned down in favor of a local Korean/American venture which failed in six months.

The Trust Territory economic base is limited. Labor, land, natural resources, capital, and infrastructure basic to development are meager and distributed over many islands. The basic political priorities of the people and its representatives in Truk are fishing, agriculture, and tourism. This appears to be an unrealistic set of priorities. Tourism (scuba diving) has been the only one of the three that has developed into what looks like a viable source of economic development for the Truk District. The development of scuba-tourism, as a special interest attraction coordinated with the present infrastructure and superstructure available for general tourism, will produce positive short- and long-term economic effects in Truk in particular and Micronesia in general.

This thesis is the first rough attempt to evaluate the importance and the possible impact that scuba diving, as a specialized form of tourism, would have upon Truk. It is concluded that tourism can provide a positive force for constructive economic development

for the Truk District of Micronesia. Scuba diving, a special interest attraction of tourism, can be both beneficial and can provide an important input to economic development without shattering a fragile culture. This study investigated the past, where tourism was absent in 1965, to the present 1971-1972 where tourism is becoming a significant factor in the economy of Micronesia. Possible trends of scuba diving in Truk were then projected. Events prior to and from the enactment of the legislation creating P.O. 21-5, Truk Lagoon District Monument, to the implementation of the permit system were investigated.

The actual effect on Truk's economy as reflected in the Gross National Product was difficult to determine. Indications were that, if scuba diving develops, it would add considerably to the "G.N.P." of Truk. The increase in the number of tourists, and taking into consideration the multiplier effect, will provide additional income now and into the future.

An example of Truk's complete lack of any commercial scuba infrastructure is exemplified by a memo dated March 25, 1970 from the Economic Development Officer in Truk to Headquarters, Economic Development Department in Saipan, M.I. It states that it:

. . . could be noted that scuba facilities are not yet commercially available in Truk; we are getting inquiries on this. Truk Recreation Center (a private company) is working on this but no need to mention it until it becomes a reality.¹

¹ Memo from Economic Development Officer, C. Sicard, to Headquarters, Economic Development Department, Saipan, M.I., March 25, 1970.

A dive shop was finally started after three years of negotiation. In developing the data needed for a loan to develop this dive shop, some interesting figures came to light. Estimates and projections showed that in fiscal year 1971-73, 250 divers visited Truk. In the three month period following, 178 divers, under the permit system, visited Truk. Consequently, assuming this rate will continue, over 400 will visit Truk in 1973-74. If the questionnaire sent out by Skin Diver magazine is approximately correct, then 36 percent or 198,000 divers traveled outside the continental United States in 1972 for dive trips. Of these, 4 percent or 21,450 dove in the South Pacific. This number of divers represents a market potential that, if capitalized upon, can be beneficial to Truk.

The scrap metal export industry will disappear entirely as an export when the last metallic remnant of World War II is removed. With the passage of Truk Lagoon District Monument legislation, the scrap metal industry will not be developed or exploited on Truk as it was on other Pacific Islands.

Commercial fishing as an export is in a state of tremendous disequilibrium. The Trukese, through a "favored national clause," which essentially curtails outside development capital except for America, cannot be developed intensively at this time.

Tourism, the invisible export, can be beneficial both to Micronesia in general and to Truk in particular. Tourism as an economic input will bring outside revenue into a developing economy. Tourism in Micronesia will increase four fold by 1980. Tourist-visitors generally increased in Truk 20 percent between 1969 and 1970. It can be expected that this rate of growth will continue.

Scuba divers with their particular economic makeup are a quality tourist. Scuba divers as an economic class of tourists are above average; they mainly travel further and spend more money in looking for diving attractions. The attraction of the Truk Lagoon now that it has been established will not decrease. Scuba divers are willing to travel great distances for a quality recreational experience. Over 25 percent of the skin divers questioned by Skin Diver magazine traveled 2,500 miles in 1970. They spent an average of \$500 per visit. Scuba diving, because it is a specialized type of recreation, necessitates the need for both an infrastructure and a superstructure, if it is to be successful. An infrastructure dive shop and decompression chamber have to be available. Scuba divers must also have meals and lodging. At present, tour packages that are promoted by the airlines for scuba divers in particular are a reality. Scuba diving will not harm the cultural and natural environment of Truk. Legislation has now been established to protect the Truk Lagoon. A permit system has been established that begins to provide the first control over man's actions while scuba diving on Truk. This permit system, under careful supervision, can be used to balance the economic development and environmental protection.

Policy Implications

The gross product of the Trust Territory is derived largely from U.S. funded expenditures for services and capital improvement. The budget of the Trust Territory for fiscal year 1972 is estimated at \$73 million, including the \$60 million the United States gives in direct appropriations and grants. Other income is obtained from



"Number, please!"

--Photo by Cappelletti

tourism, copra, subsistence farming, fishing on a small scale and in larger commercial operations, and from sales of scrap metal and handicrafts. The economic development of inhabitants varies from the semi-urbanized residents of the District Centers, participating in a money economy, to the dwellers of the outer islands who may only receive a small amount of cash from the sale of copra and handicrafts to augment their subsistence resources.

There are three economic areas which can be developed in Micronesia--tourism, commercial fisheries, and agriculture. These three fields currently account for over 90 percent of Micronesia's exports. However, their dollar volume is relatively low when compared to the volume of imports. Fiscal year 1971 exports were \$3,000,714 while imports were \$26,166,953. The 1971 export figure is lower than 1970, due to a drop in revenue from copra, scrap metal, handicrafts, trochus shells, fish, and meat exports. Imports for 1971 are more than \$5 million greater than 1970. The above figures do not include the "invisible export" of tourism, which amounted to \$2.4 million or 45 percent of all exports for 1971.

While imports into Truk are increasing each year, the Trukese themselves have a strong reluctance to encourage the development of any industry. To correct this imbalance in their export/import ratio, this strong reluctance is in part due to their culture and in part to their fears of outside exploitation. They also are not knowledgeable in terms of the benefits, as well as the cost to any country, of economic expansion. Their fears are in part well founded. They well remember a long period of exploitation under the Japanese and others.

Recently there was a chance for development of a commercial fishing venture by a large American corporation. This corporation had the expertise, capital, and the interest to develop commercial fishing in Truk. There was a complete rejection of the corporation which could have produced approximately a million dollar per year payroll, in favor of a Korean/American venture, with a Trukese Senator as vice-president. This venture failed because of lack of expertise and capital. Even though the venture has failed they hold the joint venture fishing permit; that will probably curtail other development in this industry.

As long as outside subsidies are forthcoming from the United States, the Trukese are not overly concerned about economic development. Coupled with a subsistence type of existence, based upon a plentiful supply of breadfruit and taro, they are not overly concerned about starvation.

The church, since the time of the first Missionaries, has executed a strong influence in political affairs. Several Trukese ventures have been quietly shelved because they represented an economic threat to ventures undertaken by the church upon Truk. This attitude by the church on Truk may hopefully change in the future.

The Trukese culturally are a matrilineal society, and an extended family type relationship and internal well-being take precedence over economic development. Scuba diving as a specialized tourist attraction does not lend itself to clan relationship. Very few, if any, of the elected Trukese politicians are scuba divers.

As this paper is being written, there is a move towards independence on the part of Truk District. Trust Territory of the

Pacific Islands, in December of 1973, will be the last of eleven such Trust Territories created by the United Nations at the end of World War II. The Mariana Islands District wishes to go commonwealth with the United States. The Marshall Islands want free association with the United States. Truk is deliberating complete independence with their heavy reliance upon the United States for economic assistance. One wonders if this may be a bluff. Truk has strong ties, both past and present, with Japan.

Relation between Tourism and Culture

"It is difficult or nearly impossible to measure attitudes toward specialized attractions but perhaps actions indicative of attitudes could be measured."¹ There is a positive economic advantage of scuba diving to Truk. In the off season the general tourist infrastructure and plant is partially idle and can be capitalized upon for scuba divers' use. The general attributes of the scuba diver would seem to indicate that these divers could be both beneficial to the economy of Truk without harming the culture and environment.

As tourism increases in Truk District, additional problems and/or objections to the development of Truk's scuba diving may arise due to increased visitors. Such factors as the degradation of the Trukese culture, historic sites, increased pollution, and other factors may be cited as reasons not to proceed with emphasizing

¹Marion Clawson and Jack Knetsch, Economics of Outdoor Recreation (Baltimore, Md.: John Hopkins Press, 1966), p. 289.

the development of scuba diving upon Truk. The Trukese, Congress of Micronesia, and Trust Territory Government are aware of these problems. The Environmental Protection, Resident Workers, and Foreign Investment Laws were enacted to protect the local people and to preserve their heritage. Local control over economic, social, and cultural development of Truk will assure the retention of those facets of Trukese culture which should be preserved and protected.

The most important aspects of Truk which can be used to promote good tourist development are the beautiful environment and the unique culture of the Trukese people. Consequently, only those kinds of tourists who wish to enjoy the Trukese environment and culture should be encouraged to visit. Examples of groups of people who possess these traits, in general, are scuba divers, sports fishermen, shell collectors, conservationists, and anthropologists. Each of these groups have organizations and magazines in which selective publicity about Truk could be undertaken.

In order to emphasize the special character of Truk to visitors, the facilities for tourists should be tightly controlled so that they reflect local traditions. Hotel builders should be required to use local materials and a modified traditional style. Both the Maramar Hotel and the Continental Hotel are examples of this to some extent.

This local style hotel/restaurant architecture and development should be encouraged in Truk. Not only does it ensure that tourist facilities are visually a part of the local tradition, but it is very successful financially. Laws can be passed which limit any

further building of hotels/restaurants to those which are built in the Trukese tradition, using local style and materials.

Recommendations

Having accepted the fact that tourism can be beneficial to Truk's economic development, a certain list of priorities should be mentioned that must be immediately implemented to keep pace with the demand for this type of recreation. The most important recommendation that one should try to begin to implement is that of changing the traditional attitude of the Trukese people toward tourism in general. As previously mentioned, the culture of the people themselves, combined with 100 years of outside exploitation, has made them extremely suspicious of economic development itself. There needs to be a tremendous information and education function to clarify to the Trukese that not all tourists are villains, and that they do not have the resources internally to bring about this change themselves. A good beginning for this process would be workshops, hospitality schools, and citizen participation through direct contact with the visitors themselves.

Obviously the Trukese, as is so often the case with any developing country, lack capital for development purposes. The Trukese economy is so dependent already upon subsidies by the United States that it is even more difficult to develop. At this time, probably the only approach to attract outside capital that would be acceptable to the Trukese would be joint ventures, whereby the capital and expertise from the outside would be joined together in partnership with the Trukese. These joint ventures should have

a time clause where eventual management and ownership would be transferred to the Trukese. This type of partnership agreement is difficult to obtain, large corporations tend to be exploitive, and the Trukese wish to assume no risk.

Along with a change in attitudes and development capital, in-servicing training of native Trukese must be undertaken. Scuba diving takes specialized skills as do hotel and tourist management. Presently aliens (Philippinos) are used for accounting and Koreans are given the priority in construction activities. This does not mean that the Trukese favor this system, but the fact remains that these skills are lacking in the Trukese labor market. An in-service training program needs to be developed, whereby Trukese can learn to handle their own affairs as well as become trained as an important part of the infrastructure for tourism in general and scuba diving in particular. One initial approach that can help is having outside instructors come in and teach the Trukese the necessary skills. Many skilled instructors have expressed interest in donating their services, for the cost of the airfare and expenses, in exchange for the chance to dive in the unique environment of Truk Lagoon. Training programs whereby Trukese have gone elsewhere outside for training have mostly failed. This in-service training program should be structured such that all skills are available and trained as the need arises.

As tourism develops, both in Micronesia and upon Truk, complementary industries can also be developed. One major type of industry is that of food and lodging. Others might be native

XII



Snorkel diver, Truk Lagoon.
--Photo by Cappelletti

handicraft and a wide range of service-oriented industries. Guidelines and training must be provided to would-be Trukese entrepreneurs.

The other areas that need to be developed among the complementary industries are those associated with scuba diving. As mentioned in the study, 93 percent of all divers are male, and of these 49 percent are married, and yet only 37 percent of these married males dove with their families. If one wishes to capture a large share of the market, complementary activities must be provided for the entire family. This could include such things as snorkel courses, glass bottom boat trips, a marine museum at the airport, as well as other attractions on the land for those members of the family or group not interested in water activities.

There is a tremendous lack of basic data concerning Micronesia, Truk, and tourism in general. Even the data covering scuba diving is entirely limited even at the conclusion of this study. Basic research needs to be undertaken in areas concerning land use, economic development, tourism, political relationships, and impacts of these upon the environment. Future studies should involve inventory of land use, land tenure, and environmental studies. Many facets of tourism involving the supply side of tourism upon Truk need to be studied. There should be studies undertaken to investigate some way of beginning an information and education function to inform the Trukese of both the benefits and costs associated with tourism development. This same information and education function should be aimed at both Trukese legislators and American administrators. While some anthropological studies have been undertaken, they are

extremely limited in scope. There should be inter-disciplinary studies undertaken to link the culture, economy, and the environment together. If Truk or other island groups in Micronesia are to retain both cultural identity, environmental purity, and economic development, these studies are a necessity.

Capital, labor, and management are basic for development in the Trust Territory. These inputs need to be combined with the unique natural resources existing in the Truk District. Consequently, the Trust Territory Government and the Congress of Micronesia continually seek methods to promote the development of the economy of Micronesia so that it will be geared to a world economy rather than a subsistence economy.

Only through proper development of her resources can Truk improve its standard of living. It has the largest population and the highest population density in Micronesia. Truk fails to see the emergency of the situation.

One cause of backwardness is a lack of resources. The stock of resources in proportion to the size of the population on Truk is insufficient to generate development. Thus, the local people are unable to accumulate the capital with which they can develop their district. On Truk, each item exported has been created from a surplus production derived from the fixed resources of the district. The clearest, although not necessarily the best route to take for economic self-sufficiency is to increase exports through tourism. Tourism is an export that can pay for itself in terms of economic

development. The more exports, the greater is Truk's chance for self-sufficiency.

This basic fact of economic life in developing countries still governs: the amount of imports into a developing country is controlled by that country's surplus resources available for export. A nation with limited resources has limited necessities available to the people such as health supplies, foodstuffs, and educational materials. At this point in time, there are only two exports that can help Truk develop and maintain growth. One export has to be development of the fishing industry in the District. However, fish are a natural resource and in the long run may not survive. International competition, as we well know, is rapidly depleting this resource of the oceans. The second export that Truk can develop and that has great potential in economic development without endangering the culture and environment of the District is tourism in general. The special interest attraction of scuba diving, as part of the worldwide trend of the increase in tourism, may well be the catalyst for the future economic development of the Truk District, Eastern Caroline Islands.



Truck on bottom of Truk Lagoon District Monument.
--Photo by P. Tzimoulis

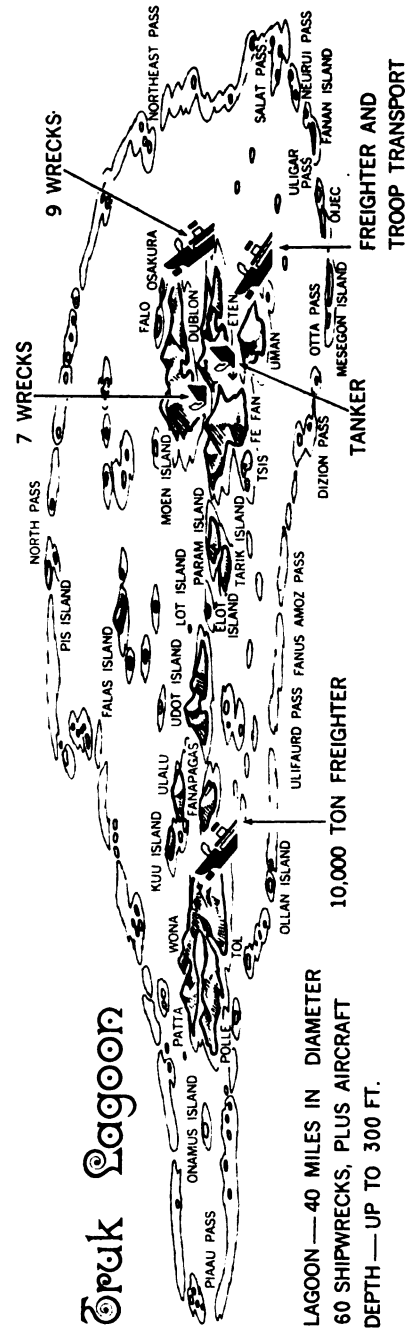


Figure 13.--Location of some of the wrecks in Truk Lagoon District Monument.

APPENDICES

APPENDIX A

TRUK DISTRICT LAW NO. 21-5

APPENDIX A

TRUK DISTRICT LAW NO. 21-5

TRUK DISTRICT LEGISLATURE

TWENTY-FIRST REGULAR SESSION, 1971

ACT NO. 4

DESIGNATING ALL JAPANESE SHIPS AND OTHER OBJECTS SUNK WITHIN THE TRUK LAGOON AS THE TRUK LAGOON DISTRICT MONUMENT, AND FOR OTHER PURPOSES.

BE IT ENACTED BY THE TRUK DISTRICT LEGISLATURE THAT:

Section 1. Declaration of policy. It is hereby declared that it is a district policy to preserve forever historic landmarks, structures, and other sites and objects of district or territorial significance situated within the administration area of the Truk District for the inspiration and benefit of the people of Micronesia.

Section 2. Establishment of Truk Lagoon District Monument. All ships, other vessels and aircraft, and any and all parts thereof, which formerly belonged to or were a part of the armed forces of Japan and were sunk to or otherwise deposited on the bottom of the Truk Lagoon prior to December 31, 1945 shall be and hereby are set apart as district monuments, which shall be collectively called the "Truk Lagoon District Monument."

Section 3. Administration, Protection and Development. The administration, protection and development of the aforesaid district monuments shall be exercised under the direction of the District

Administrator of the Truk District or his duly authorized representatives; provided, however, no funds of the Truk District Legislature shall be obligated therefor unless or until the Truk District Legislature has appropriated funds which are available for that purpose.

Section 4. Appropriations. There are authorized to be appropriated annually such sums as may be necessary to carry out the provisions of this act.

Section 5. Permits to Examine. All persons who dive to or by any other means seek and obtain access to the aforesaid ships, other vessels and aircraft, or any and all parts thereof, for the purpose of examination or the gathering of objects therefrom shall first obtain a permit therefor from the District Administrator of the Truk District Legislature or his duly authorized representatives. The District Administrator is authorized to issue such permits to those persons whom he deems qualified to conduct such examination or gathering, subject to such rules and regulations as he may prescribe.

Section 6. Rules and Regulations. The District Administrator of the Truk District shall make and publish from time to time uniform rules and regulations for the purpose of carrying out the provisions of this Act.

Section 7. Penalties. Any person who, without the permission of the District Administrator of the Truk District, shall remove, appropriate, damage, or destroy the aforesaid ships, other vessels or aircraft, or any or all parts thereof, or who shall violate any rules and regulations issued pursuant to this Act shall, upon conviction, be fined a sum of not more than \$1,000 or be imprisoned for a period of not more than six months, or both.

Section 8. Effective Date: This Act shall take effect upon its approval by the District Administrator, or upon its becoming law without such approval.

Signed by:

Hermes Katsura, Speaker
Truk District Legislature

Date: 7/16/71

Attested by:

Keichiro Gerhart, Secretary
Truk District Legislature

Approved by:

Juan A. Sablan
District Administrator,
Truk

Date: 8/14/71

APPENDIX B

MEMORANDUM FROM

JUAN A. SABLAN

APPENDIX B

OPTIONAL FORM NO. 10
5010-103

MEMORANDUM FROM JUAN A. SABLAN

011 5-6-3

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Kisande Sos, A/Econ Dev Officer DATE: 1/24/71

FROM : Distad

SUBJECT: Park and Historic Site Survey

8

The attached memo from HiCom is self-explanatory. With Bill and Angie assisting, please draft reply for my signature and hold it until I ~~return~~ return from Saipan Friday or Saturday (1/29 or 1/30).

What I think Saipan is trying to establish is ~~xxxx~~ how much survey needs to be done by Mr. Apple, and how long will it take him to complete.

A listing of sites (lagoon first then possibly Satawan for the military tanks and Puluwat for the Jap light-house) and the time/effort required to conduct thorough surveys. For planning purposes, assume in all case that boat (or in the case of the outer islands, ship) transportation will be the prime media. Try the best you can to develop these.

If you have something prepared before I return, give them to ~~John~~ John.

(over)

Also, consider designating the sunken vessels in the lagoon as national monuments.

Handwritten note by Mr. Sablan says: "Also consider designating the sunken vessels in the lagoon as national monuments."

APPENDIX C

LETTER OF HERMES KATSURA

APPENDIX C

LETTER OF HERMES KATSURA



TRUK DISTRICT LEGISLATURE

**MOEN ISLAND, TRUK DISTRICT
EASTERN CAROLINE ISLANDS 96942**

June 15, 1971

Mr. Mike Ashman
Tourism Specialist
Trust Territory Headquarters
Saipan, Marianas 96950

Dear Mr. Ashman:

Please accept my apologies for the long delay in writing you regarding tourism as I have seen and observed it as far.

The delay is due to our preparation before the Congress of Micronesia Special Session, Typhoon Amy, the Congress of Micronesia Special Session and the Legislature's Regular Session which will last until the middle of July. Also, many of my papers were lost during the typhoon as my office was under the rain and sun for four days. Therefore I have to start all over.

Based on our meeting discussion with Chief Petrus and Frank Nifon, let me repeat our feeling on Tourism.

Tourism must be based on a principle that Trukese must regulate, control, plan, determine, own and benefit from our own resources. It is time that we will not, under any circumstances, accept second class status in our homeland. We will not give up our natural birthright and dignity as men for the easy dollars that tourism may bring. Tourism so far is a package deal prearranged with outside tourism agencies, bureaus and associations. Tourist money has come and gone

to fixed areas, leaving nothing in the hands of our people except a few who happened to be hired as tourist guides, bus and boat drivers, and some as waitresses in hotels. Also I note examples in other areas, in the West Indies, Bahamas, Hawaii and even Guam where large buildings and tourist facilities are owned almost entirely by outsiders, where the tax base depends on the outsider's revenue, where government itself is subject to the strong pressures of foreign business interest which makes us shiver like slaves and servants.

While tourism has not been solid and permanent, let us consider the following points as your guideline in helping Truk:

1. Trukese culture must not be compromised nor destroyed by the influence of our tourists. Local handicrafts, house structure, dancing, food style and other customs must be retained and encouraged.
2. Perhaps there is a middle road which can be found in the development of tourism. By "middle road" we mean a strategy or play by which Trukese accept foreign capital for limited periods on terms favorable to both sides; by which foreign capital stays in Truk only so long as is necessary to train Trukese and protect its own financial stake; by which the facilities which are left behind are owned and operated by the local residents of Truk and a new business class has been developed to deal with tourists on a basis of equality and self respect.
3. A district tourism commission should be created by law to tightly regulate foreign tourist facilities, to determine the number of tourists a year, to recommend plan and monitor the activities of tourism by a close follow up and to strictly make sure that they are only tourist and not to go into business. I understand that a bill establishing such a Commission will shortly be introduced in our Legislature.
4. While I recognize the need for the Government to promote tourism, it should do so with two things in mind. First, tourism cannot and will not be the mainstay of the economy of Micronesia. Priority should be given to economic development in areas such as fisheries first. Second, the influx of foreign investment capital for tourism must not be allowed to infringe upon the basic rights of Micronesians to government services, such as power and water. The latter condition has recently been flagrantly violated in our District.
5. The regulation and promotion of tourism must be decentralized. District voices must be loud and clear and District decisions must be controlling on the question whether tourism should be pushed. The people of Yap feel differently from the people of Saipan. These differences must be respected.

6. Tourism must be perceived and developed as a "comprehensive" industry rather than an industry of foreign hotels and tour guides. Money and resources must be expended to develop the corollary businesses which can prosper as a result of tourism. Small local supplies of meat, poultry, eggs, and produce must be developed at the same time as major hotels develop. Handicrafts must be emphasized. The tourist industry should be recast and re-promoted as an effort in "comprehensive" development, and not simply the development of non-Micronesian luxury hotels.
7. Lastly, the government must promote indigenous tourist entrepreneurs before permitting those from abroad. Ray Setik's hotel stands as living proof of how local resources can be mobilized to develop tourist trade. Let us always look to Micronesian skills and resources before turning to outside.

I hope these comments can guide you in your work and will be looking forward to seeing you either here in Truk or in Saipan.

Sincerely,

Hermes Katsura
Speaker, Truk District Legislature

HK/yn

cc: District Administrator, Truk
Chief Petrus Mailo
Truk Delegation to Congress of Micronesia
All Legislators
All Magistrates
All Local Businessmen

APPENDIX D

LETTER OF MARTIN PRAY

APPENDIX D

LETTER OF MARTIN PRAY

July 1, 1971

Mr. Hermes Katsura
Speaker of the Legislature
District of Truk
Moen, Truk, 96942

Dear Mr. Speaker:

Joe Smith of Air Micronesia has relayed to me your request for some thoughts on tourism that may assist you in preparing remarks for the convening of the next session of your Legislature. Joe tells me you are interested in ideas that may relate to the establishment of a Truk District Tourist Commission and some specific thoughts relating to the behavior of visitors re pilferage of coconuts, breadfruits and other foods together with souvenir salvage from the lagoon. I am happy to send you this letter containing some of my views.

First of all, I am concerned that there has been relatively little dissemination of hard core information in the Trust Territory on what tourism is, how it operates, what are its benefits and its pitfalls. I am pleased to have heard from Mike Ashman and Wyman Zachary that they are planning tourism conferences in each district, bringing in people knowledgeable about the industry, to talk with district leadership. I understand this fine and needful program will be inaugurated this fall on the return from home leave of Mike Ashman, the TTPI's new Tourism Specialist. It is also my understanding that Mike was in Truk a few weeks ago and left several ideas on the establishment of a District Tourism Commission.

Towards the establishment of a District Tourism Commission, I enclose a short outline which I prepared for the TTPI over a year ago. It is extremely basic, but in examining the accomplishments of the other districts that already have tourism commissions, these basic steps have yet to be taken. Please note that a tourism commission's task is directed internally to build an attractive, functional visitor "plant"--determining what a visitor will see and do and how he will spend his money, and it is directed externally to publicize the area so that outsiders will learn of it and visit. An important

first step, per functions A and B in the outline, is to inventory the attractions and commercial facilities. Once inventoried, second steps for their improvement and promotion will be evident.

It is my opinion that the ideal length of stay for an average tourist to Truk--and by Truk I mean the Greater Lagoon area for there is little chance that tourists will venture to the outer islands--is two to three days. At present, as you undoubtedly know, they are offered a basic three to four hour land tour of Moen covering South Field to Xavier School with a visit to the gun cave by the Distad's old house, the dock and trading area, etc. They are given a lagoon tour which goes from Moen over the Rio de Janiero and Fujikawa Marus (sometimes there is handline trolling enroute), then a walk through Dublon followed, ideally, by lunch and swimming on Osakura. This, plus relaxing at the hotels or swimming is the present program. Nighttime activity is remarkably quiet on Moen and we have asked the Travelodge people to consider showing non-commercial films at their hotel. From time to time for the larger groups, dances have been arranged by the students, mostly I believe from Mizpan High School. We have had excellent reports from Truk visitors; they have been contented with what they have seen and enjoyed their visit. Certainly Truk is to be commended for the outstanding selections of local handicraft which to my thinking have been in good supply at all times.

In getting into the subject of tourist behavior, it is important to point out the difference in definition between a "visitor" and a "tourist." To date you have had mostly visitors. These are individuals who are not strictly programmed. They have plenty of free time to wander around through the villages, talk with people, probably break village customs through ignorance (like taking fruit and coconuts). These "visitors" are also the majority of divers who come in twos and threes and salvage souvenirs from the ships. A "tourist" on the other hand is programmed to the point where he rarely has free time and therefore little opportunity to disrupt the activities of the island and its people. They usually come in groups with an escort. They do everything together--tour, shop, eat, etc.

The problem in control of tourism, then, lies more with the individual visitors than with the programmed tourists. As Truk becomes well known, and it will now that it has a wide choice of good accommodations, the number of tourists will increase substantially. But, and it can't be helped, so will the visitors. Individuals from Japan and Kwajalein particularly, I would predict. About the only way to "control" them is with a pamphlet given to them when they immigrate, and also available at hotel front desks and in hotel rooms. This pamphlet or leaflet should explain what behavior is expected of a visitor by the Trukese people--what are the taboos, what are misdemeanors, etc. Most visitors will respect the customs if they know what they are.

As far as salvage is concerned, there must be control of all diving not only to preserve the ships but from the element of public safety. All boats that carry visitors must be licensed. They must follow fire prevention procedures and there must be life preservers for each person in the boat. Divers should show Divers Association cards before air can be sold to them. All divers should be made to depart from restricted areas and return to them so that they can be checked against salvage items. Truk and Palau will have to establish boating and diving regulations and enforce them.

Finally, enclosed in case you have not seen it, is some draft legislation for the establishment of a Trust Territory Tourism Board which would encompass all districts. This bill was, I understand, not introduced at the Congress this year but one like it undoubtedly will in the future. I pass it along as some of the ideas and language may be helpful to you in your consideration of tourism on Truk.

I shall be visiting Truk July 15th and 16th and would be pleased to discuss tourism with you should you desire.

Cordially,

Martin Pray
Manager--Sales
[Air Micronesia]

MP/LG

cc: Wyman Zachary
Mike Ashman
Dominic Renda

Attach:

APPENDIX E

"G.N.P." CALCULATION

APPENDIX E

"G.N.P." CALCULATION

Many people in Truk have expressed an interest in certain economic statistics of Truk District, particularly those that could be used as a base from which to gauge business growth. Private Domestic Investment (I), Micronesian Government purchases of Goods and Services (G), Exports and Imports, Personal Consumption (C), Personal Savings (S), Labor Force and Unemployment as a % of the Labor Force, per capita income, and a very simple model of Truk's GNP are the economic indicators with which we will be working. Some of these have already been examined in previous pages, but I will summarize each one in this Appendix.

It should be remembered that Truk is painfully emerging from a subsistence economy to a money economy and on many islands this emergence has not truly happened. At best we can say that Truk rests on a nebulous land lying somewhere between a purely subsistence economy and one oriented toward money. In many instances subsistence labor and production which cannot at all be measured interfere with proper estimations of base economic indicators causing these indicators to be far less than accurate. Hence, the following figures should be considered as crude estimates at best. Hopefully, however, they will be refined and used to assess the impact of the development of a coconut desiccation industry, or for that matter of any new business projects, on Truk's economy.

A further interference with accurate predictions is the U.S. Government subsidy to Truk. Because it is not really produced by Trukese, we should exclude the U.S. payment to Truk from our figures and try to erase its impact on our calculations. But that is an impossibility because all economic activities on these islands are closely intertwined and heavily dependent, directly or indirectly, upon that U.S. subsidy budget allocated to Truk. In fact, Truk's largest "productive" service and employer is her District Government and that is almost completely subsidized by the U.S. With this as a preface let us begin to examine some of Truk's economic indicators. (All of the following figures exclude subsistence labor and production.)

1. TOTAL POTENTIAL LABOR FORCE--TRUK (1971)	5000	100%
ACTUALLY EMPLOYED (1971)	2410	48%
UNEMPLOYED	2590	52%

2. See Text--Existing Economic Data--for more detailed explanation regarding ratio and trend of imports/exports.

	IMPORTS	EXPORTS	RATIO
FY 1971	\$4,596,562	\$479,821	9.6/1
FY 1972	\$4,992,661	\$320,000	16/1

The net loss each year is completely subsidized by the U.S. Government. The trend is increasing at an alarmingly accelerated rate.

3. GOVERNMENT PAYROLL 1400 persons @ average wage of \$1714/year
PRIVATE PAYROLL 1010 persons @ average wage of \$1014/year
TOTAL YEARLY PERSONAL INCOME \$3,500,000
4. Total Private Domestic Investment and Private Savings can be calculated from the following:

<u>NAME OF ORGANIZATION</u>	<u>TOTAL SHARES OUTSTANDING (\$)</u>
Truk Transportation Co.	\$21,405
TTC	146,000
UMDA	66,210 (of which TTC owns \$20,000)
Maramar Hotel	72,000 (of which UMDA owns \$25,000 and TTC owns \$10,000)
Air Micronesia	33,000 (through UMDA)
Fefan Credit Union	8,500
North Moen Credit Union	19,000
Uman Credit Union	2,900
Truk Co-op Credit Union	15,000
Truk Government Employees Credit Union	527,000*
Nama Store	12,000
Piis Fishing Co-op	7,500
Truk Co-op	62,000
All other cooperatives	10,000
TOTAL	\$1,002,515

Bank of America has total deposits to date of \$613,000

TOTAL PRIVATE SAVINGS AND INVESTMENT (to date) \$1,615,515

Annual input to this category is approximately \$150,000. Last year shareholdings in the Truk Government Employees Credit Union increased by \$200,000, yet we feel that this increase was abnormally large and

*Savings through a Payroll Deduction Plan on Government wages.

thus not truly representative of average yearly saving in Truk. The T.G.E.C.U. does, however, have a tremendous influence on Savings and Investment in Truk.

From these figures we can see that the Marginal Propensity to Save is between .04 and .05 and the Marginal Propensity to Consume somewhere near .95 or .96. In other words, very little investing or saving and a great deal of consumption occurs in Truk. This could be indicative of a lack of fundamental understanding of the forces lying behind a developing money economy.

5. PERSONAL CONSUMPTION for our simple economy can be calculated as follows:

$$\text{PERSONAL INCOME (Y)} - \text{Savings and I} = \text{PERSONAL CONSUMPTION (C)}$$

$$\begin{array}{rcl} \$3,500,000 & - & \$150,000 \\ 100\% & & 4\% \text{ to } 5\% \end{array} = \begin{array}{r} \$3,350,000 \\ 95\% \text{ to } 96\% \end{array}$$

6. For Per Capita income in our simple model we will divide total population in Truk (30,000) by Total Personal Income (\$3,500,000) = \$117.000.

7.

- A. Total amount of Loans Outstanding made by organizations in Truk equals \$780,500.
- B. The Micronesian Government allocated from its FY 73 budget \$500,000 for Marine Resources Development (to be divided among the six districts) and \$100,000 for Productive Development Loan Fund; and the Truk District Legislature allocated \$60,000 to the TDL Economic Development Loan Fund (this is included in the TDL Budget). These figures are sort of a Government Investment into economy and will be included in our GNP model.

8. Truk Government Purchases of Goods and Services in FY 72 equaled \$375,000. In FY 73 these purchases (TDL Budget) are estimated to be \$563,000 of which about \$450,000 will be collected and spent. As of November 31, 1972 (\$200,000 had been collected).

9. GNP Model for Truk.

Theoretically GNP should include Personal Consumption (C) + Private Domestic Investment (I) + Government Purchases of Goods and Services (G) + Net (Exports-Imports). In our Truk Model, however, we will exclude the difference between Imports and Exports as this net loss is entirely subsidized by the U.S. And we will include a fourth term called Government Investment (G_i) which includes Micronesian money allocated to Truk District as well as TDL money.

$$\$3.35 \text{ million (C)} + \$0.150 \text{ million (I)} + \$0.100 \text{ million (G}_i\text{)} + \$0.450 \text{ million (G)} = \$4.05 \text{ million.}$$

Thus, Truk's GNP lies between approximately \$4.0 million and \$4.10 million.

[Compiled by Jack Hansen.]

APPENDIX F

METHODOLOGY OF SKIN DIVER

READER SURVEY

APPENDIX F

METHODOLOGY OF SKIN DIVER READER SURVEY

- 5,000 Skin Diver subscribers were selected for sampling.
- 2,250 questionnaires were received by Dec. 12, 1971
cut-off date. These were then tabulated.
- 3,250 questionnaires had been received from Skin Diver
subscribers by Jan. 1, '72, representing a 65%
return. Scheduling considerations did not permit
tabulation of all questionnaires.

Questionnaires were mailed by Petersen Publishing Company November 15, 1971; check-in, editing, coding and tabulations took place between Nov. 17th and Dec. 27th. Since a cut-off date, December 12th, was fixed, projections are based on a total of 2,250 respondents or 45%. Had we extended the cut-off date by two weeks, the return would have been 65% or 3,250.

Percentages in the survey are projected to a total audience figure of 550,000, PPC Research, January, 1972.

No inducement or incentive was included.

The subscriber list used for mailing was selected in a random and scientific manner. Questionnaires used for this survey are on file in the Research Department, PPC, a sample of which is available upon request.

APPENDIX G

MEMORANDUM REGARDING TRUK LAGOON
DISTRICT MONUMENT LAW

APPENDIX G

MEMORANDUM REGARDING TRUK LAGOON
DISTRICT MONUMENT LAW

October 12, 1971

MEMORANDUM

To : District Administrator, Truk
From : District Attorney, Truk
Subject : Administration of the Truk Lagoon District Monument law

While discussing various things with the new Economic Development Officer, I mentioned, in connection with tourism, that the subject law had been recently passed by the Truk District Legislature in an effort to preserve the sunken Japanese fleet, and he suggested that his department could administer the permission requirements in the law. This would seem to have merit, as his department does have related interest and the greatest contact with potential divers, at least those coming from outside the District.

On a different but generally related subject, I would appreciate knowing which department will be administering the new high seas fishing industry law with respect to issuance of licenses and collection of informational reports required by law.

Lyle L. Richmond

cc: Economic Development Officer, Truk

APPENDIX H

PUBLIC PARKS AND HISTORICAL
SITES REGULATIONS

APPENDIX H

PUBLIC PARKS AND HISTORICAL SITES REGULATIONS

TRUST TERRITORY OF THE PACIFIC ISLANDS
Office of the District Administrator
Truk, Eastern Caroline Islands 96942

CHAPTER I

TRUK LAGOON DISTRICT MONUMENT

PART 1. GENERAL PROVISIONS

1.1. Authority. These regulations have been promulgated by the District Administrator, Truk District in accordance with Sections 5 and 6 of Truk District Law 21-5, and shall have, including any amendments thereto, the force and effect of law.

1.2. Purpose. These regulations are designed to facilitate the administration, protection and development of the Truk Lagoon District Monument.

1.3. Definition of the Truk Lagoon District Monument. The Truk Lagoon District Monument consists collectively of all ships, other vessels and aircraft, and any and all parts thereof, which formerly belonged to or were a part of the armed forces of Japan and were sunk to or otherwise deposited on the bottom of the Truk Lagoon prior to December 31, 1945.

1.4. Authorized Representative. The District Economic Development Officer, Truk District, is designated as the authorized

representative of the District Administrator, Truk District, for the purpose of administering Truk District Law 21-5 and these regulations.

PART 2. PERMITS TO EXAMINE

2.1. Permit Required. All persons who dive to or by any other means seek and obtain access to any Japanese ship, other vessel or aircraft, or any and all parts thereof, located in the Truk Lagoon and part of the Truk Lagoon District Monument, for the purpose of examination or gathering any object or objects therefrom, shall first obtain a permit therefore from the District Economic Development Officer.

2.2. Qualifications of Permittee. No permit shall be issued to any person who intends to engage in scuba diving or other manner of diving to any Japanese ship, other vessel or aircraft, or any and all parts thereof, located in the Truk Lagoon and part of the Truk Lagoon District Monument, without presenting a duly issued and valid certificate of qualification other satisfactory evidence of qualification to the District Economic Development Officer; provided, however, that, the District Economic Development Officer may, in his discretion, issue a permit to any person not having such satisfactory evidence of qualification who agrees to dive only when accompanied by a licensed Trukese Diving Guide.

2.3. Scope of Permit. The permit shall allow examination only of the Japanese ships, other vessels, and aircraft, or any and all parts thereof, located in the Truk Lagoon and part of the Truk Lagoon District Monument, unless the gathering or removal of objects therefrom is approved specifically by the District Administrator or

District Economic Development Officer, Truk District. Any such authorized gathering or removal of objects shall be in writing, which shall describe the objects with particularity and must be attached to the permit to examine.

2.4. Fees. A fee of not more than two dollars (\$2.00) may in the District Economic Development Officer's discretion be charged for issuance of any permit. Any fees collected shall be used to promote and develop diving activity or to construct, purchase, and maintain diving facilities in Truk District, subject to use for any necessary and proper expense in administering Truk District Law 21-5 and these regulations.

PART 3. SAFETY REQUIREMENTS

3.1. Safety Rules Prescribed. The following safety rules and precautions shall apply to all scuba diving or other diving to any Japanese ship, other vessel or aircraft, or any and all parts thereof, located in the Truk Lagoon and part of the Truk Lagoon District Monument.

(a) No Night Diving. Diving at night shall not be done without the prior written permission of the Harbor Master, who is the District Director of Public Works, Truk District.

(b) Buddies. Diving shall not be done without at least one "buddy."

(c) Underwater Lights. Divers shall at all times carry an underwater light while diving.

(d) Entry into Ships. Divers shall not enter the holds, cabins or other portions of any ship or other vessel without first

knowing where they are going and how to get out. Use of a rope or other means as a guide is encouraged wherever possible.

3.2. Additional Safety Rules. The District Economic Development Officer may issue and publish other rules and regulations, as he may determine are desirable or necessary from time-to-time to promote safe diving.

PART 4. PENALTIES

Pursuant to the provisions Section 7 of Truk District Law 21-5, any person who shall violate any of these regulations shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than one thousand dollars (\$1,000) or imprisoned for a period of not more than six months, or both.

PART 5. PUBLICATION

The District Economic Development Officer shall post these regulations, and any amendments thereto, or a summary thereof, conspicuously at such public places and utilize such other means as he determines is best suited to inform the public generally and prospective divers specifically of their contents and purposes.

PART 6. EFFECTIVE DATE

These regulations shall become effective on the 1st day of May, 1972.

CERTIFICATION

Pursuant to the authority vested in me as District Administrator, Truk District and in accordance with Sections 5 and 6 of Truk District Law 21-5, these regulations hereinabove set forth have been promulgated and approved by me this 5th day of April, 1972.

Juan A. Sablan
District Administrator

APPENDIX I

NOTICE TO DIVERS IN
THE TRUK LAGOON

APPENDIX I

NOTICE TO DIVERS IN THE TRUK LAGOON

TRUST TERRITORY OF THE PACIFIC ISLANDS
Office of the District Administrator
Truk, Eastern Caroline Islands 96942

All Japanese vessels and aircraft in the Truk Lagoon are part of the Truk Lagoon District Monument, created by Truk District Law 21-5.

The purpose of this law is to administer, protect, develop and preserve forever this most famous of historical sites in Truk for the inspiration and benefit of the people of Micronesia. To that end and for the enjoyment of both visitors and residents who wish to explore this part of the beautiful underwater world of Truk, you must be aware and comply with this law and its rules and regulations.

The requirements are as follows:

1. All persons who wish to go underwater to see these vessels and aircraft, by scuba diving or other means, must first obtain a permit from the District Economic Development Officer, Truk.

2. This permit will allow you to examine these vessels and aircraft, but you may not remove any object of any kind without a specific additional authorization endorsed to your permit.

3. To obtain a permit, you must be a certified scuba diver or present other satisfactory evidence of your qualification, or agree to dive only with a licensed Trukese diving guide.

4. There is no fee to obtain your permit at this time. Any donations to be used solely for the purpose of developing diving activity and facilities will be gratefully accepted.

5. Safety rules.

a. Diving at night is not permitted without prior written permission of the Harbor Master (District Director of Public Works).

b. You must dive with at least one "buddy."

c. You must carry an underwater light.

d. Before entering holds or other portions of vessels, you must know where you are going and how to get out. Using a rope or other guideline is encouraged.

PENALTY. Any person who, without prior written permission, shall remove, damage or destroy these vessels or aircraft, or any part thereof, or violates any issued regulations, is subject to a fine of \$1,000 or imprisonment of 6 months, or both.

DISCOVER THE UNDERWATER WORLD OF TRUK!

PRESERVE ITS BEAUTY FOR ALL!

BIBLIOGRAPHY

BIBLIOGRAPHY

- Anon. (P.C.V.), "Truk District." Economic Development Office, unpublished, date unknown.
- Anon. "The People and their Culture." Economic Development Office, unpublished, date unknown.
- Bank of America. Focus on Micronesia. San Francisco, Calif.: 1973.
- Brown, Joe. "Micronesia: A Slumbering Giant Awakens." Oceans Magazine, August, 1969.
- Clawson, Marion, and Knetsch, Jack. Economics of Outdoor Recreation. Baltimore, Md.: John Hopkins Press, 1966.
- Gray, Peter H. International Travel--International Trade. Lexington, Mass.: Heath Lexington Books, 1970.
- Hemphill, R. W. "A Survey of the Future Tourist Potential of the Pacific Trust Territory." Trust Territory of the Pacific Islands, Saipan, M.I., April-May, 1966.
- McIntosh, R. W. Tourism; Principles, Practices, Philosophies. Columbus, Ohio: Grid Press, 1972.
- "Micronesia--Remembering an Adopted Cousin." Time, May 23, 1969.
- Myrdal, Gunnar. Economic Theory and Under-Developed Regions. London: Gerald Duckworth & Co., 1958.
- Organization for Economic Co-Operation and Development. Tourism Development and Economic Growth. Estoril, Portugal: O.E.C.D. Publications, 1966.
- Parsons Co., Environmental Impact Study--Truk. Honolulu, Hawaii: Parsons Co., 1973.
- Peters, Michael. International Tourism. England: Anchor Press, 1969.
- Research Dept. Skin Diver Reader Survey. Los Angeles, Calif.: Peterson Publishing Co., 1972.
- Riley, Frank. "Micronesia--Hotel on Truk Kicks off New Travel Era." Pacific Travel News, September, 1970.

- Sargent, J. R., et al. The Limits of Tourism as a Growth Generator, Vol. V, No. 3. Washington, D.C.: Government Printing Office, July, 1967.
- States, George V. "International Tourism--Invisible Export/Visible Import." Unpublished, 1970.
- Trust Territory of the Pacific Islands. "Handbook of Information." Truk District. Unpublished, 1973.
- Trust Territory of the Pacific Islands. Doing Business in Micronesia. T.T.P.I., Saipan, M.I.: 1972.
- Tzimoulis, Paul J. "War Relics of Truk Lagoon." Skin Diver, June, 1972.
- United Nations, Trusteeship Council. Report by the United Nations Visiting Mission to the Trust Territory of the Pacific Islands, 1973. New York: United Nations, May 16, 1973.
- United Nations, UNESCO. Protection of Mankinds Cultural Heritage. Rennes, France: UNESCO, 1970.
- United States Strategic Bombing Command Survey. The Reduction of Truk. Washington, D.C.: Naval Analysis Division, Declassified Document, 1947.
- United States, Department of State. Trust Territory of the Pacific Islands, Annual Report 1969. Washington, D.C.: Government Printing Office, 1969.

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