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SUMMARY
OF
TINIAN LAND APPRAISAL REPORT
PREPARED BY
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INTRODUCTION AND SUMMARY

INTRODUCTION

Situation

The Marianas Political Status Commission and a delegation representing the United States are in negotiations aimed at achieving a political union between the present Mariana Islands District of the Trust Territory of the Pacific Islands and the United States of America. Among the items of negotiation are arrangements under which certain land will be made available to the U.S. for defense purposes.

The land which has been under discussion consists of

1. The Island of Farallon de Medinilla, a 229 acre parcel which has been made available as a target area.
2. Approximately 197 acres of land in the Tanapag Harbor, Saipan area now under military retention.
3. Approximately 482 acres in the Isley Field area of Saipan.
4. Approximately 17,475 acres of the Island of Tinian.

A Joint Land Committee has been appointed by the Marianas Political Status Commission and the President's Personal Representative to consider the exact details of specific requirements and means, procedures and terms for acquisition of land by the U.S. Government. It is in the interest of

all parties to the negotiations that the price under which the use of the land is made available to the U.S. Government be a fair price and that the record will show that such price together with its associated terms and conditions was arrived at in a reasonable and prudent manner.

Ordinarily the acquisition procedure utilized by the U.S. Government includes an appraisal of the land to be acquired. Typically one would expect that the parties making land available to the U.S. Government would also have an opinion of value to guide them in negotiations. The usual reasonable and prudent procedure of appraisal has been somewhat impeded because of technical difficulties in the application of the traditional techniques of appraisal.

The position of the U.S. representative appears to be that their valuation procedures are not readily applicable to the parcels under discussion and that they are prepared to negotiate price without the use of the usual appraisal process. The position of the representatives of the Marianas appears to be that it would not be reasonable to proceed to negotiate price without the benefit of expert counsel on the subject of a fair price based upon the value of the land. The function of this study is to provide analyses which will assist in the provision of such expert counsel on the subject of land value.

Purpose of Report

This report provides the basis of forming a professional opinion of the value of certain land on the islands of Saipan and Tinian, Marianas Islands District, Trust Territory of the Pacific Islands.

On the basis of the various analyses an informed opinion may be developed as to reasonable potential use of the subject parcels. That reasonable potential use may, if economically advantageous, become the highest and best use.

Highest and best use may be simply defined as use of land to the greatest economic advantage. That definition may be elaborated to include constraints imposed by societal and legal regulations. Additionally it may be elaborated to specify greatest economic advantage as the present value of future benefits.

The present value of future benefits involves a stream of income earned by the land through its use. The beginning of that stream of income may be imminent as under immediate development. Under these circumstances the element of immediate development is present.

The element of future development may also be present. Planners are plagued with the difficulty of land developed to the wrong use because the development comes too early. For example, commercial or high density development may be the highest and best use of a parcel of land but its time may not have arrived yet because the highway interchange or rapid transit stop has not been built yet. Sometimes the land which is best suited for these more intense uses is developed with low density housing which is a misuse of the land. That misuse, later corrected by demolition of good structures, is testimony to the fact that highest and best use considers a time dimension

Value is predicated on expectations. Some expectations are "speculative" in that the events permitting certain uses may or may not occur. While the

presence of uncertainty affects value it is normal to have some speculative aspect. The only difficulty with these uncertainties is that they are difficult to measure as they affect value.

One method of analyses, reasonably suitable when development to a specified use is imminent is to determine the value of land and buildings together and deduct out the cost of buildings together with the other costs of development of the land including the time value of money with an allowance in the rate for the uncertainties. This method is sensitive to error and not highly regarded in court proceedings involving condemnation. It can be very useful in conjunction with market comparison techniques and evaluation of investment alternatives.

The other technique for valuing land is by comparing a subject parcel with other parcels which have sold in the market. The sales prices of the comparable parcels are indicators of value. Thus, by analyzing the indicators and evaluating the differences there is substantial evidence of value.

The expectations of future use, speculative as it may be or distant as it may be, are reflected in prices paid by the buyers. Markets are based upon expectations and it is simply a matter of finding out what people reasonably expect. That may be done by examining the transactions, by evaluating expectations, or by both. The techniques are logically connected.

The analyses of this report examine these expectations and evaluate indicators of value. The report presents analyses of forces which affect values and depending upon the level of detail to which each parcel is pursued provides indications of value.

The report is organized in three parts. The first part contains this introduction and a summary of findings together with a report on methodology. The second part contains the location analyses which provide the basis for judgments on potential uses of land because of economic activity extant or emerging. The third part of the study contains analyses dealing with the ability of the land to be used for the purposes being demanded in the economy and the prices that are being paid for land with such uses and potential uses.

Preparatory to the summary of findings, the reader will find a general methodology statement helpful.

Methodology

Statement of the Problem. The statement of the problem varies by the parcel in that the level of detail and degree to which analyses have proceeded for the various parcels differ.

As to the approximately 17,475 acres on the Island of Tinian, the objective of the analyses is to get an estimate of value and/or an indicated value range of the fee simple rights to the land as of September 1, 1974 for the purpose of long term investment and development potential.

The purpose of long term investment and development potential is an assumed purpose as an alternate to the proposed military purpose. What is desired is a market value concept with potential buyers having various segments of a market to serve. The logic then is to assume that the property were available as an investment to appropriate purchasers with an understanding of the potential.

A parcel of 17,475 acres, if available for sale, might in fact not be offered as a single unit. The value of the land would relate to the intended use and since there are various potential uses the parcel might be offered as a series of smaller parcels each of which would be of substantial size. The completion of analyses of land plans indicating exactly which land would be suitable for which uses together with the information relevant to a development program would make this aggregate more valuable. Indeed, a prudent seller wishing to dispose of his land would develop such plans so that the maximum price could be received for the potential which exists. The assumption here is that such plans have not been made but that there is an implicit judgement of such a breakdown and the analyses would be done subsequent to acquisition.

The objective therefore is to arrive at some average per acre price of land which would be reasonable in a market giving consideration to the markets which might be served and the general capability of the land to serve such markets.

As to the approximately 482 acres of land in the Isley Field area of Saipan the objective is to get an estimate of value and/or an indicated value range for the fee simple rights to the land as of September 1, 1974 for the purpose of long term investment and development potential.

The statement of the problem is similar to that of the analyses of the Tinian parcel except for the diversity of uses. An average acreage price is sought to be developed from analyses as a reasonable price to be expected in a market where the purchase would be flexible to such opportunities or would develop without a specific development program. An indicated development program will influence the value as will the expected timing

but the statement of the problem is not to develop a feasibility analysis for the potential, proposed or intended uses. The results then desired would be a range in price which might be expected as a fair price for a sale to a purchaser where the purchaser did not have his feasibility analysis at a stage of assessing the extent of profitability.

The statement of the problem of analysis for the approximately 197 acres of land in the Tanapag Harbor area does not pursue the analysis to a level of detail which finalizes what could be done with the appraisal process. The preliminary analysis indicated that the time to development which would be acceptable in a market was so close that on a realistic basis, potential investors/purchasers may use an analysis of value of land and improvements less improvement costs. Thus, a seller of the 197 acres would ordinarily plan the parcel and sell it off by land use category or combinations of categories. Certainly the valuations would be broken down by intended uses.

Considering the time and resources allocated to this array of complicated value analyses the problem for analysis of the 197 acres is a determination of the various types of uses to which the land might have on allocation and the indicated prices. The residual value approach has not been applied. It might be noted that if data for that approach were developed it might be under a joint scope of work statement prepared with the concurrence of the Marianas Political Status Commission and the U.S. Government representative. The objective of this analysis is thus to provide the basis for a scope of work statement should the usual government appraisal procedure be in order and to give a preliminary indication of value.

Finally, as to Farallon de Medinilla, the 229 acre island, the objective of the analysis is to give some background relevant to the locational developments in the area within which it is located. The general indicated values from the other analyses and/or the indicated development potential will be of use in understanding the limited nature of the uses to which the parcel might be put.

Analytical Techniques. ~~The analytical techniques used were mainly~~ a series of connected analyses oriented to the thread of reasoning necessary to forming the opinions on value and value forces. ~~There~~ were, however, some improvisations necessary in developing a comparative view because there were not available a series of comparable sales amenable to traditional techniques of analysis. The underlying traditional logic was, however, applied.

The first location analysis was of the Pacific Islands economy of Micronesia and Guam. ~~The objective of that analysis was to identify~~ the relationship of the area economy to the markets it serves insofar as it would affect the economic base of the same local economies in which the subject parcels are located.

The second locational analysis was of Guam. The development of Guam as the current economic center of the Guam-Micronesia economy is bound to generate an impact on the surrounding areas. The intent of the analysis is to deal with the spatial relationships and linkages which make it the hub of the area. Beyond that the analysis deals

with an evaluation of the changing economic base of Guam. As it grows the components of its economic base change. Patterns in these components repeat in the outlying areas much in the same way as patterns repeat in metropolitan growth where nodal points are separated by land rather than by water. Understanding the basis of changing value of land in Guam is a preview to changing land values in Saipan and to a lesser degree on Tinian.

The next location analysis is of Saipan. Again linkages and changing economic base is explored. These changes in economic activity generate changes in the demand for land. Projections which have been developed by others are utilized to provide the basis for forecasting potential levels of activity which will require land of the character which is being analyzed.

The same type of analyses are conducted for Tinian to the extent that available data permit. These traditional types of analyses when extended to fine level of detail provide the basis of forecasting the requirements for land. Part II is composed of these locational analyses.

The methodology continues with an examination of the physical character of the sites. The intent is to evaluate the types of uses to which the land might be put. The expectations with regard to such uses are prime determinants of value.

The values rise as the sites come closer to development. There are of course different values of land according to the type of

development, its intensity and location. The next series of analyses provides indications of forces of value coming to bear as events occur over time.

The first in this series of analyses is a set of overviews of how land has increased in value as development occurred. This overview is based upon events in Guam. It may be supported by other areas but the essential character is clear. Land values may rise slowly in a use until the timing of development is seen on the horizon. Then it begins an upward climb with an increasing slope reflecting not only the shortening of time but also the increasing confidence in the development. Once the pattern for a type of land is seen one can get a basis for comparison with other land not so far up on the curve.

The next component analysis places the subject land some place on this rising curve. A look at the relative position of the local economy in development indicates where the subject land is in time expectations. A judgment on the place in the scale of economic development affects the judgment of where land values are in the scale of rising values. These holistic views of markets can with trends and points give a range of indicated value.

There are only two basic methods of valuing land and they are related to each other. One is capitalizing its income producing potential and the other is to evaluate what it is worth by what people have paid (and what they have paid is based upon how they have

evaluated the income potential). In the market, the investors usually do not use sophisticated techniques of evaluating the potential. They look to see where the land is in the trend of events which is a hybrid of the two techniques. The methodology used here is also a hybrid but it is obviously focused on a comparison of expectations.

CONCLUSIONS .

The Pacific Islands economy has only recently begun to be opened for development to its economic potential. Historically it was impeded by the dislocation of the native population through the conquests of the Spanish, Germans and Japanese, trade restrictions imposed by the occupying nations, and the lack of adequate transportation linkages to major markets. The significant opening of the area was in 1960 when Guam was opened to commerce.

~~The islands of Micronesia are indeed lands of small size.~~
Guam, with approximately 213 square miles of land has become the hub of the area.

The distribution of economic activity indicates the character of the focal points to be those islands which are supported by inflows of foreign support money, which have modern transportation facilities and climate and natural amenities which are attractive to the tourist industry.

The tourism of the area is heavily dependent upon a Japanese market which has been expanding on Guam since the Tokyo-Guam Air Route opened in 1967, and will likely spill over to Saipan and Tinian with the opening of the Tokyo-Saipan Air Route in 1975.

The early development of Guam as a transportation link received a great impetus with the advent of tourism. It is currently attempting a transition in its economic base. The tourism segment is destined to become but one of a number of components of an economic base which should include light manufacturing (mainly assembly-type activity), and some technical-scientific instrument production.

Saipan shows signs of repeating some of the story of Guam although there are some substantial differences. Some differences are in the political history. Some are in the timing of development which could build on the experiences of Guam. Related is the tourism aspect stemming from a differential attitude of the Japanese to Saipan vis a vis Guam.

Cultural and historical differences between Saipan (and the northern Marianas in general) cannot be ignored in perceptive analogies between Saipan and Guam. Yet, the growth of Saipan as a water enveloped suburb of metropolitan Guam cannot be ignored, especially in light of the Japanese tourist spillover which will shortly be taking place.

The role of Tinian is seen in this process as a suburb of Saipan with some impetus for tourism and some for agricultural development due to the suitability of land on the island for such purposes.

In brief, Guam has gone through a period of rapid development. Saipan is beginning a similar pattern. Before the 1980s are over it is reasonable to expect that Tinian will also have begun an era of rapid development.

The character of that development on Tinian, as anywhere, will be influenced by the physical character of the land and its environment. Preliminarily our analyses indicate that the following is a reasonable allocation of land among various uses:

<u>Classification</u>	<u>Total Island Acreage</u>	<u>Acreage under Consideration</u>
Residential	2,800	1,500
Commercial	501	200
Industrial	500	500
Resort	700	300
Agriculture	15,307	10,675
Other	5,258	4,300
TOTAL	<u>25,066</u>	<u>17,475</u>

A review of the development of Saipan and the character of the Isley Field parcel indicates the land as potential industrial.

The preliminary analysis of the Tanapag Harbor parcel indicates multi-uses for the 197 acre parcel. The analysis indicates the following allocation:

<u>Classification</u>	<u>Acreage</u>
Residential	127
Hotel	20
Industrial	20
Commercial	10
Marina	<u>20</u>
	<u>197</u>

Value indicators are derived from historical patterns at Guam and recent activity on Saipan and Tinian. On the basis of these indications of value and the reasoning outlined in the report the indications are that the value of the land under consideration is in the range of \$32,000,000 to \$36,000,000 with \$34,000,000 as the indicated value.

The summary of the specific parcels is in Table 1-1.

TABLE 1-1

SUMMARY OF INDICATED VALUES

	<u>Acreage</u>	<u>Value Per Acre</u>		<u>Subtotal By Parcel</u>
<u>Tanapag Harbor</u>				
Residential				
Low Density	67	\$ 12,000	\$ 800,000	
Medium Density	60	15,000	900,000	
Hotel	20	100,000	2,000,000	
Marina	20	40,000	800,000	
Commercial	10	30,000	300,000	
Industrial	20	25,000	500,000	
TOTAL - TANAPAG HARBOR	<u>197</u>			\$ 5,300,000
<u>Isley Field</u>				
Primary	125	\$ 10,000	\$1,250,000	
Secondary	200	7,500	1,500,000	
Tertiary	157	5,000	785,000	
TOTAL - ISLEY FIELD	<u>482</u>			\$ 3,535,000
<u>Tinian</u>				
Industrial				
Harbor	50	\$100,000	\$5,000,000	
Airfield	250	10,000	2,500,000	
Primary	100	10,000	1,000,000	
Secondary	100	5,000	500,000	
Total Industrial	<u>500</u>		<u>\$9,000,000</u>	
Commercial				
Primary	200	\$ 10,000	\$2,000,000	
Secondary	200	5,000	1,000,000	
Total Commercial	<u>400</u>		<u>\$3,000,000</u>	
Resort	300	\$ 10,000	\$3,000,000	
Residential	1,500	\$ 2,000	\$3,000,000	
Agricultural				
Primary	2,500	\$ 800	\$2,000,000	
Secondary	7,275	600	4,365,000	
Tertiary	1,000	400	400,000	
Total Agricultural	<u>10,775</u>		<u>\$6,765,000</u>	
Other				
Construction Land	2,900	\$ 100	\$ 290,000	
Undeveloped Land	1,100	100	110,000	
Total Other	<u>4,000</u>		<u>\$ 400,000</u>	
TOTAL TINIAN	<u>17,475</u>			\$25,165,000
Fallon de Medinilla	<u>229</u>	\$ 100	\$ 22,900	\$ 22,900
				<u>\$34,022,900</u>
			Say	<u>\$34,000,000</u>

Table 3-4

GUAM

PERCENTAGES OF LAND IN USE IN THE PRIVATE SECTOR ONLY

Estimated

Total Area - 213 sq. miles	=	136,320 acres
Federal Government Use - 30%		40,896 acres
Government of Guam Use - 25%		34,080 acres
Private Use - 45%		61,344 acres

Estimated Private Land Uses

R-1 Single Family Residential	- 15%	9,202 acres
R-2 Multi-Family Residential	- 10%	6,134 acres
C Commercial	- 2%	1,227 acres
M Industrial (light & heavy)	- 3%	1,840 acres
A Agricultural	- 65%	39,874 acres
PUD Planned Unit Development	- 5%	3,067 acres

Note: Government of Guam use can be public uses for parks, municipal buildings, public safety, recreation, schools, libraries, refuse disposal, etc.

Source: Metro Metrics, Inc., September 1974
Charles D. Griffin & Associates, September 1974.

SAIPAN

PROPOSED LAND USE ALLOCATIONS

<u>Classification</u>	<u>Acres</u>	<u>Percent</u>
Residential		
Low Density	1,606	5.4
Medium Density	465	1.6
High Density	200	0.6
Commercial	106	0.4
Industrial	792	2.7
Resort	1,296	4.3
Schools	185	0.6
Public	394	1.3
Recreation	587	2.0
Quasi Public	35	0.1
Agricultural	13,505	45.3
Conservation	8,895	29.8
Airfields	1,758	5.9
TOTALS	29,824	100.0%

Source: Trust Territory Physical Planning Program, Saipan,
Mariana Islands District, Hawaii Architects &
Engineers, Inc., November 1968.

Table 3-6

TINIAN

PROPOSED LAND USE ALLOCATIONS

<u>Classification</u>	<u>Total Acres</u>	<u>Percent</u>	<u>Estimated Acres in Subject Parcel</u>	<u>Percent</u>
Residential	2,800	11.2%	1,500	8.5%
Commercial	501	2.0	400	2.3
Industrial	500	2.0	500	2.9
Resort	700	2.8	300	1.7
Public	3,225	12.9	3,125	17.9
Conservation	2,033	8.1	1,150	6.6
Agriculture	<u>15,307</u>	<u>61.0</u>	<u>10,500</u>	<u>60.1</u>
TOTALS	25,066	100.0%	17,475	100.0%

Source: Metro Metrics, Inc., Estimates, September 1974.

INDICATED VALUES

Tanapag Harbor Parcel

The most valuable portion of the Tanapag Harbor parcel is the beach front suitable for a hotel. Six years ago beachfront land prices in Guam doubled from \$5 to \$10 per square meter in one year as demand for hotel land responded to the opening of the Guam-Tokyo route. Typical prices today are \$100 per square meter or \$400,000 per acre. In Saipan prices are ready to make a similar response to the market forces. In 1972 beachfront land sold for over \$14 per square meter (Sale No. 58). The going rate is now estimated to be between \$20 and \$35 per square meter (or \$80,000 to \$120,000 per acre).

The subject parcel is ripe for development as a hotel. On that basis the land is worth at least \$100,000 per acre which is approximately \$25 per square meter. On the basis of 20 acres for hotel uses, the indicated value is \$2,000,000.

The second most valuable land on the subject parcel is suitable for use as a marina. For purposes of this analysis no data were researched which specifically dealt with values of land for marinas. The use, however, is a valuable commercial use which could reasonably be expected to bring \$1 per square foot or say \$40,000 per acre or \$800,000 for 20 acres. That figure could well be refined by comparative analysis of marinas in other communities.

The commercial land uses would be supportive of hotel and marina uses as well as nearby residential uses. The ten acres might be split into two locations and could well be increased to twenty acres. The total acreage required would depend on the residential population and the competition from a nearby strip development adjacent to Garapan. In the absence of more detailed analyses the ten acre figure is used. The value of that acreage when ready for development would also be in the area of \$20 per square meter.

Allowing six to seven years for development, the current values would be \$8 per square meter or say about \$30,000 per acre. The indicated value is thus \$30,000 per acre. Ten acres at \$30,000 per acre amounts to \$300,000.

This indicated value could well drop to \$20,000 per acre if excess land were zoned for commercial uses. Part of the 10 acres would retain a premium but general land rents would decline. This action is not contemplated in most areas and so has not been assumed.

The industrial land is adjacent to the harbor facilities. Other industrial land is under development north of the harbor so that the time to development for the subject parcel is about five years.

When ready for development industrial land of good quality is currently worth about \$20 per square meter. The subject land is five years off so that if it were prime it would be worth about \$10 per square meter. These figures are in concert with the commercial land values in Saipan. There were no sales or long term leases reported for Saipan.

The \$10 per square meter assumes prime land. The subject land has fill and would be limited in load-bearing quality. Its use might well be restricted to warehouses and the like. On that basis it might only bring about \$6 per square meter or \$25,000 per acre.

The land is of differential quality and work needs to be done to put it to its best use. Also the timing is such that an expenditure of \$25,000 per acre now for purchase could with appropriate investment and time such as five years yield the \$20 or more per square meter values which the location can support. The indicated value is \$25,000 per acre for 20 acres for a total of \$500,000.

The residential land uses for Saipan as previously discussed have a central range of \$3 to \$5 per square meter. That amounts to a per acreage price range of approximately \$12,000 to \$20,000.

The subject property could be developed with low density dwellings in the immediate future. Low density for the area is four units per acre. Thus, the 67 acres classified as low density would bring the \$12,000 per acre on today's market.

The \$12,000 per unit at densities of 4 units per acre is \$3,000 per unit. The general trend is to medium density, so that tripling the density (to 12 units per acre) would even at higher prices reduce the per unit cost.

Medium density housing of say 7 to 15 (or 10 to 16) units per acre would bring the \$20,000 per acre when ready to develop. Because of timing the development of the higher density would probably be deferred a couple of years. Thus, the land would sell for about \$15,000 per acre today.

The 67 acres are at \$12,000 per acre worth \$804,000 or say \$800,000 and the 60 acres at \$15,000 per acre are worth \$900,000.

In summary the total value for the Tanapag parcel is as follows:

	<u>Acres</u>	<u>Value Per Acre</u>	<u>Total</u>
Residential			
Low Density	67	\$ 12,000	\$ 800,000
Medium Density	60	15,000	900,000
Hotel	20	100,000	2,000,000
Marina	20	40,000	800,000
Commercial	10	30,000	300,000
Industrial	20	25,000	<u>500,000</u>
Total			<u>\$5,300,000</u>

Isley Field

The Isley Field parcel has its best potential use in an industrial use. The best portion of the land is less desirable than the better located industrial.

Continuing the industrial land analysis from the discussion of Tanapag, the following points were made. Top quality industrial land could bring \$20 per square meter. Inferior land would average about \$10 per square meter. The subject parcel by virtue of its location is in the second class.

The \$10 per square meter is on a when ready for development basis. The average estimate time to development for the subject property could well be as long as a decade. Thus the present value of that \$10 would be about \$2.50 per square meter. That amounts to approximately \$10,000 per acre.

The \$10,000 per acre may be applied to the best acreage of the subject parcel. The secondary developable portion is valued at three-fourths of the value of the best or \$7,500 per acre. The portion affected by FAA requirements is valued at one-half the \$10,000 per acre price or \$5,000 per acre. Rounding the acreage out the following is the summary for the Isley Field parcel:

125 acres at \$10,000	=	\$1,250,000
200 acres at 7,500	=	1,500,000
<u>157 acres at 5,000</u>	=	<u>785,000</u>
482		<u><u>\$3,535,000</u></u>

The \$3,535,000 may be rounded out to \$3,500,000.

Tinian Parcel

The economic development potential of Tinian indicates an economic base significantly different from its current economy. The earlier discussion has evaluated the economic base and the implied distribution of land uses. The values of the land are, however, predicated on timing to development.

The development of Tinian is to be reasonably expected to commence well within the decade. Tinian is, in general, about one decade behind Saipan much in the same way as Saipan is about two-thirds of a decade behind Guam.

Industrial land in Tinian is of course related to and tied to the development of the harbor and airport. The harbor with 50 acres of land is worth about \$5,000,000. The airport with 250 acres of land is worth about \$2,500,000. The airport is half the value of the harbor because of the alternative land for the airport. The \$10,000 per acre is a reasonable price for that type of land use.

The other industrial land is largely ancillary to harbor and airport uses. The timing of development for the prime 100 acres might well be a decade or longer. When ready, the land would be worth about \$20 per square meter. Most investors looking at industrial potential before the inception of development would discount the future heavily. Thus instead of paying about \$5 per square meter the price would be about half that or say \$10,000 per acre (about \$2.50 per square meter). The secondary

industrial land would bring about half the price of prime land or say \$5,000 per acre.

The commercial land is about of equal value to the industrial land. Restrictive zoning policies could drive the price up substantially. But, since the value is based upon a large scale transaction where there is substantial fluidity in what land would be commercially the lower figures are a more reasonable expectation. On that basis, the 200 acres prime commercial land is now worth \$10,000 an acre and the secondary quality land is worth \$5,000 per acre for the next 200 acres of potential commercial.

~~The resort land of 300 acres includes the 17 acres of beach front and~~ such other commercial recreational land as is ancillary to the beach and whatever tourist industry develops. In the absence of a specific plan it is difficult to relate price per acre and number of acres except to say that land for resort activities is probably worth about \$3,000,000. Use of a little less acreage would not proportionately affect the total value. What typically happens is that as the demand for such land increases the price per unit of land rises so high that the land per hotel room declines. At present, sufficient land is available to provide low density resort development.

The residential land is given on an acreage value of \$2,000 per acre. In arriving at that value consideration was given to the timing to development. Some of the residential land is now worth \$6,000 per acre because it is close to development. But, at a scale of 500 acres or

larger, the price would be as little as \$3,000 per acre. Thus with 1,500 acres of land allocated for residential, the prime land would average about \$3,000 per acre, the secondary land about \$2,000 per acre and the tertiary land, as little as \$1,000 per acre. Beyond that, the price has little premium on agricultural land.

The agricultural land has been divided into several classes by virtue of the soil and slope characteristics. The prime land at \$0.30 per square meter amounts to \$1200 per acre. At \$0.20 per square meter it amounts to about \$800 per acre. The \$800 per acre for the allocated 2500 acres amounts to \$2,000,000. The secondary agricultural land is probably worth about \$0.15 per square meter or \$600 per acre. On the basis of 7,175 acres, the secondary agricultural land is worth \$4,305,000 or say \$4,300,000. The marginal agricultural land at about \$10 per square meter is about \$400 per acre. On the basis of the 1000 acres that land is worth \$900,000. Thus, the total of 10,475 acres (2,500 acres, 7,175 acres and 1,000 acres) is worth \$1,830,000.

The total agricultural acreage of 10,275 is less than the total amount suitable for agriculture because some of the agricultural acreage is allocated to urban uses.

There are 2,950 acres of construction land which is currently not usable for anything. The land, rounded out to 2,900 acres, could be treated in several ways. One, it could be valued as though it were in its natural state. Thus, as secondary agricultural land it would be worth \$600 per acre or \$1,940,000, or say \$2,000,000. That would be a

change in assumption from the rest of the analysis. A second approach would be to value the land in its present state; that would likely yield a zero value. A third option is a compromise which will assign a nominal value, say \$100 per acre, for a total of \$290,000. That compromise is either too high or too low depending upon whether or not the buyer bears the burden of the present condition of the land. In order to complete the valuation the compromise figure is used, although the reader can adjust it to whatever set of assumptions are relevant.

The 1,100 acres of undevelopable land are not totally without value. They could be used in relation to other land for some purpose be it ecological or aesthetic. For simplicity's sake the analysis is assuming a nominal value of \$100 per acre for a total of \$110,000.

In summary the indicated values for the Tinian parcel are as follows:

<u>Land Use</u>	<u>Acreage</u>	<u>Per Acre</u>	<u>Total</u>	
<u>Industrial</u>				
Harbor	.50	\$100,000	\$5,000,000	
Airfield	250	10,000	2,500,000	
Prime	100	10,000	1,000,000	
Secondary	100	5,000	500,000	
				\$ 9,000,000
<u>Commercial</u>				
Prime	200	\$ 10,000	\$2,000,000	
Secondary	200	5,000	1,000,000	
				\$ 3,000,000
Resort	300	\$ 10,000	\$3,000,000	\$ 3,000,000
Residential	1,500	\$ 2,000	\$3,000,000	\$ 3,000,000
<u>Agricultural</u>				
Primary	2,500	\$ 800	\$2,000,000	
Secondary	7,275	600	4,365,000	
Tertiary	1,000	400	400,000	
				\$ 6,765,000
<u>Other</u>				
Construction Land	2,900	\$ 100	\$ 290,000	
Undevelopable land	1,100	100	110,000	
				\$ 400,000
	<u>17,475</u>			<u>\$25,165,000</u>

Farallon de Medinilla

No attempt was made to place value on the Farallon de Medinilla parcel. However, in order to provide a suitable summary the figure proposed by Mr. Roy Markon of \$100 per acre seems reasonable for present purposes.

On that basis, the 229 acre parcel is worth \$22,900.

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October 21, 1974

MEMORANDUM

TO: Mr. James R. Leonard

FROM: Maury Seldin
Metro Metrics, Inc. *Maury Seldin* MAB

SUBJECT: SUPPLEMENTAL COMMENT

As a supplement to the report which we have developed to provide a basis for my formulating an opinion of value of the various parcels which are the subject of the Marianas Political Status Commission negotiation with the government of the United States, I herewith submit comments on three aspects relevant thereto. These areas are (1) Prices for leasehold interests instead of fee simple interests; (2) Adjustments in prices for conveyance of lesser interests, and (3) comment on the presentation of the U.S. representative Mr. Roy Markon.

Price of Leasehold Instead of Fee Simple Interest

The value indicated by analyses submitted in the study is summarized in Table I. That value, as noted in the study, is of a fee simple interest.

I surmise that the people of the Marianas desire to retain title to the land even though they are willing to make certain land available to the United States for certain purposes. The holding of title has a

strong emotional benefit which would be difficult to value. Under the circumstances the people would value title more than a user would value the same title. Thus, it is in all likelihood most economically advantageous to both parties to deal with a lease rather than a sale.

Lease values are generally predicated on market values. The usual process is for the owner and the prospective user to agree on an annual rent which reflects either a competitive price for use of like property and/or a price which provides a fair return to the owner based upon the value of the property. The rent for such a fair return is calculated by multiplying the value of the property by the competitive rate of return.

The competitive rate of return is what similar owners are able to get in the market considering the risk associated with the tenant's ability to pay and other factors such as adjustment for changing productivity of the land and changing price levels. Leases are made in a variety of patterns including step up leases (prearranged increasing rentals), index leases (rentals varying with some price or cost index), percentage leases (rentals varying with sales volume) and reappraisal leases, among others. The simplest, of course, is a level payment lease, i.e. same rental for the entire term.

Computations for such leases if based upon value start with a basic rent for rate of return to which an amount is added to cover taxes and other costs. Sometimes renewal options are included in the agreement with varying provisions for new rental schedules upon renewal.

The rate of return used for the present circumstances might well be on the order of 10 percent. Such a rate is lower than the local prevailing rates but of course the credit worthiness of the subject tenant is the finest in the world. Given today's inflationary expectations the prevailing rate for long term United States government loans is about 8.3 to 8.4 percent. Current quotations on selected U.S. Bonds are as follows:

7-1/2%	1988-1993	91.92 - 91.28	8.36% yield
7 %	1993-1994	85.22- 86.22	8.29% yield
8-1/2%	1994-1999	100.02- 100.18	8.44% yield.

These rates are obviously lower than 10 percent, but the owners are, I surmise, considering a 50 year lease without periodic adjustment for inflation. They could well consider a lower rate and opt for a periodic adjustment for inflation in excess of inflationary expectations imputed in the long term United States government rate. Such an approach is complicated and would probably make little, if any, significant difference since a single lump sum payment is being considered.

If a single lump sum payment is considered then the series of future payments (say for 50 years) would be discounted back to the present. Presumably the discount rate would be the same as the interest rate. Thus, almost all of the difference in rent attributed to different rates are removed by the use of a single payment. For example, an asset worth \$1,000,000 would at the varying interest rates provide for an annual rental as follows:

<u>Interest Rate</u>	<u>Annual Rental</u>
7%	\$ 70,000
8%	80,000
9%	90,000
10%	100,000
11%	110,000
12%	120,000

The present value of \$1.00 per year for 50 years would be as follows:

<u>Capitalization Rate</u>	<u>Present Value for \$1.00 Per Year</u>
7%	13.801
8%	12.233
9%	10.962
10%	9.915
11%	9.042
12%	8.305

When the annual rent is multiplied by the present values the capitalization values are as follows:

<u>Capitalization Rate</u>	<u>Annual Rental</u>	<u>Present Value of \$1.00 Per Year for 50 Years</u>	<u>Indicated Value</u>
7%	\$ 70,000	13.801	\$966,070
8%	80,000	12.233	978,640
9%	90,000	10.962	986,580
10%	100,000	9.915	991,500
11%	110,000	9.042	994,620
12%	120,000	8.305	996,600

Thus for every million dollars in value a single lump sum payment of \$990,000 will be the equivalent with relatively minor variations due to the capitalization rate. The 8.3 percent rate gives a present value differing about 1 percent from the recommended rate of 10 percent.

The net result is that if leasehold is used rather than fee simple and a single payment is made the price is about 99 percent of the fee simple price using the 10 percent capitalization rate or 98 percent of the fee simple price using the current long term government bond rate of about 8.3 percent.

Conveyance of Lesser Interest

The negotiations may result in the conveyance of an interest less than a leased fee for exclusive use as assumed in the previous discussion. These are arrangements under consideration, I surmise, for joint use of some of the facilities.

An appropriate position for the landowner is that he should be paid a fair market value that assumes the land will be used at its highest and best use. If the tenant wishes to make a lesser use of the land and forego certain more profitable opportunities that may well be his option, but at his expense. Landowners ordinarily are not prepared to underwrite the underutilization of land by the tenant if that choice is the tenant's choice.

If the landowner negotiates to restrict the use to a desired use then it is reasonable to command a rent only equal to the thus restricted use. The reduction of rent because of a lesser use is then dependent upon who causes the less profitable use.

Irrespective of the use to which the land is put and whether it is a highest and best use or a less profitable use, there may arise a case in which the landowner is a co-user. In that case, the reasonable

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reduction in the rental would relate to what the landowner would be willing to pay for the use to which the land is being put. Using the Tanapag Harbor parcel as a specific case we have the following:

1. The starting rental is a rental based upon a fair price based upon highest and best use.
2. The tenant's desire not to develop to the most economic use is the tenant's choice and should not reduce the rental payment.
3. The choice of land use as made by the tenant then may make available a use to the landowner. The reduction in rent for that use is related to the price the land owner is willing to pay for these benefits. That could be quite nominal in the case of very valuable land.

If we use the Tinian Harbor case the reduction in rent could be substantial because the land would be at highest and best use and the extent of use might be substantial.

In either or both cases the tenant may make substantial improvements at considerable costs. The costs do not necessarily represent value to the landowner. The costs may increase the productivity of the land and the rental might thereby be adjusted. But, the extent of the adjustment is related to benefits rather than costs.

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The value of such benefits is really the value of a lesser interest conveyed. The retention of some rights to use is thus an item of negotiation in the rental price. If these rights are not valuable then the landowner may convey the full leasehold interest and negotiate to buy or not buy use on a competitive basis. A competitive price and the option to use or not to use is a reasonable basis upon which to negotiate a rental rate reduction.

Comments on the U.S. Presentation

Mr. Markon identified his presentation as one in which he attempted to relay a judgment without having really made an evaluation. He stated that he had "no handle" with which to make an evaluation. What he in fact did is to rework our format with some fragments of his own analysis.

We have considered his comments and submit the comments which follow noting adjustments which we see as appropriate.

As to the restriction on land use adjacent to the airport at Isley Field, we note that he made a valid point in noting the adverse influence of the airport. Additionally, he has a point on access for industrial use. Considering these comments and our review of the situation we have adjusted downward the value of the Isley Field parcel from our preliminary estimate which was indeed preliminary. Thus, our judgment is that a price of \$3,535,000 is more reflective of the value based upon 125 acres at \$10,000 per acre, 200 acres at \$7,500 per acre and 157 acres at \$5,000 per acre.

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As indicated by Mr. Markon's comments, he did not conduct any analysis of the economic and residential development of Saipan with particular attention to the subject area. He has no economic base analysis of the island and indeed his experts as he identified them do not ordinarily deal with making such forecasts. Our analysis indicates that there is a market and that the acreage estimated is reasonable for present purposes. We would agree that additional analysis of the parcel is warranted but would specify that it is essential to include an economic base analysis and to consider a demand analysis for industrial users and not simply a cursory judgment by an appraiser as to the amount of land which could be absorbed and hence a value.

The glaring inadequacy of Mr. Markon's failure to utilize an economic base analysis is even more apparent when he discussed the island of Tinian. He did not indicate any line of reasoning that inferred an analysis of economic base of Tinian beyond a statement of some acreage for various land uses. Our analysis shows a projected economic development. If he wants to debate acreage he should conduct an analysis of the economic potential or better yet engage a disinterested land economist to conduct such an analysis.

A possible explanation for Mr. Markon's under allocation of land in Tinian is that he may be dealing with land to be absorbed (over an unspecified time) rather than land for which there is a market. Ordinarily the land required to make a market will be at least several fold greater than will actually be developed to allow for

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competition. We have considered this in our estimates. I think Mr. Markon has made some judgments on feel without having conducted the analysis or reasoned through the behavior of land markets.

We have reviewed the allocation he made for the Tanapag Harbor parcel and are at a loss to explain how anyone would reasonably allocate 100 acres or 1/2 of the parcel to a public use if they were looking to make the most economic use of the land. It is a presumption on his part to assume that the local government would require a use of land which would make the best case for a low sales or lease price. Our analysis shows that the parcel is suitable for a variety of more valuable uses than he submits. His allocations might carry some questionable weight if they were made by a disinterested party. He cannot really negotiate as an advocate and simultaneously present himself as an objective analyst.

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TABLE 1-1

SUMMARY OF INDICATED VALUES

	<u>Acreage</u>	<u>Value Per Acre</u>		<u>Subtotal By Parcel</u>
<u>Tanapag Harbor</u>				
Residential				
Low Density	67	\$ 12,000	\$ 800,000	
Medium Density	60	15,000	900,000	
Hotel	20	100,000	2,000,000	
Marina	20	40,000	800,000	
Commercial	10	30,000	300,000	
Industrial	20	25,000	500,000	
TOTAL - TANAPAG HARBOR	<u>197</u>			\$ 5,300,000
<u>Isley Field</u>				
Primary	125	\$ 10,000	\$1,250,000	
Secondary	200	7,500	1,500,000	
Tertiary	157	5,000	785,000	
TOTAL - ISLEY FIELD	<u>482</u>			\$ 3,535,000
<u>Tinian</u>				
Industrial				
Harbor	50	\$100,000	\$5,000,000	
Airfield	250	10,000	2,500,000	
Primary	100	10,000	1,000,000	
Secondary	100	5,000	500,000	
Total Industrial	<u>500</u>		<u>\$9,000,000</u>	
Commercial				
Primary	200	\$ 10,000	\$2,000,000	
Secondary	200	5,000	1,000,000	
Total Commercial	<u>400</u>		<u>\$3,000,000</u>	
Resort	300	\$ 10,000	\$3,000,000	
Residential	1,500	\$ 2,000	\$3,000,000	
Agricultural				
Primary	2,500	\$ 800	\$2,000,000	
Secondary	7,275	600	4,365,000	
Tertiary	1,000	400	400,000	
Total Agricultural	<u>10,775</u>		<u>\$6,765,000</u>	
Other				
Construction Land	2,900	\$ 100	\$ 290,000	
Undeveloped Land	1,100	100	110,000	
Total Other	<u>4,000</u>		<u>\$ 400,000</u>	
TOTAL TINIAN	<u>17,475</u>			\$25,165,000
Farallon de Medinilla	<u>229</u>	\$ 100	\$ 22,900	\$ 22,900
				<u>\$34,022,900</u>
			Say	<u>\$34,000,000</u>

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