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1971

Analysis of the
**GUAM, USA
HOUSING
MARKET**
as of August 1, 1971

A Report by the
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL HOUSING ADMINISTRATION
WASHINGTON, D.C. 20411

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DEPARTMENT OF ENERGY
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Housing Market Analysis

Guam, USA, as of August 1, 1971

Foreword

This analysis has been prepared for the assistance and guidance of the Department of Housing and Urban Development in its operations. The factual information, findings, and conclusions may be useful also to builders, mortgagees, and others concerned with local housing problems and trends. The analysis does not purport to make determinations with respect to the acceptability of any particular mortgage insurance proposals that may be under consideration in the subject locality.

The factual framework for this analysis was developed by the Economic and Market Analysis Division as thoroughly as possible on the basis of information available on the "as of" date from both local and national sources. Of course, estimates and judgments made on the basis of information available on the "as of" date may be modified considerably by subsequent market developments.

The prospective demand or occupancy potentials expressed in the analysis are based upon an evaluation of the factors available on the "as of" date. They cannot be construed as forecasts of building activity; rather, they express the prospective housing production which would maintain a reasonable balance in demand-supply relationships under conditions analyzed for the "as of" date.

Department of Housing and Urban Development
Federal Housing Administration
Economic and Market Analysis Division
Washington, D. C.

FHA HOUSING MARKET ANALYSIS - GUAM, USA
AS OF AUGUST 1, 1971

At the time of the most recent previous housing market analysis of Guam,^{1/} the area could have been characterized as a remote military outpost of the United States in which there were early indications of nascent civilian political and economic activity. Stimulated by the attainment of a greater degree of self-government, increased jet air transport facilities, growth in the political and economic infrastructure, and the development of a substantial tourist economy, Guam may now be said to have arrived as a political and economic reality. On the other hand, it remains to be demonstrated that the new entity is viable without the continued economic and physical support provided by the United States military establishment.

The rapid population growth in recent years has resulted in a tight housing market in which vacant rentals of standard quality are negligible in number and in which new subdivisions are sold out in advance of construction. Despite these developments, Guam remains an island of just 209 square miles with a current total population estimated at about 92,000, including military personnel, and the capacity of the area to absorb new housing accommodations at an accelerated rate is limited.

^{1/} July 1969;

Anticipated Housing Demand

Based on anticipated trends in the economic and demographic factors taken into account in this analysis, it is estimated that there will be a demand for 1,700 new housing units a year in Guam between August 1, 1971 and August 1, 1973. The total is distributed as follows:

	<u>Annual total</u>
Single-family sales housing	750
Condominium sales housing	200
Private rental housing	525
Low-rent public housing	<u>225</u>
	1,700

The single-family demand is distributed by sales price in table I. Some portions of the demand in the lower price ranges shown could well be assisted by Section 235 interest-subsidy financing. There has been comparatively little use of Section 235 financing in Guam.

The 525-unit annual demand for rental housing is distributed by rent class and unit size in table I. No separate demand is shown for subsidized rental housing for moderate-income families of the type possible with Section 236 financing; conditions in Guam do not seem to allow for feasible projects under this legislation. There is, however, a successful Section 221(d)(3) BMIR (a now-expired program somewhat similar to Section 236) project in Guam now being operated by a public body, the Guam Rental Housing Corporation. Should this body proceed with plans for a Section 236 project, it might prove feasible; any such project would share in the 525-unit rental demand.

The annual absorptive capacity for low-rent public housing of 225 units a year should be distributed by unit size as follows:

Suggested Unit Size Distribution
Low-rent Public Housing, Guam

<u>Size</u>	<u>Annual total</u>
Efficiency (for elderly)	10
One bedroom	45
Two bedrooms	85
Three bedrooms	55
Four or more bedrooms	<u>30</u>
Total	225

The first public housing project in Guam, of 250 units, is now being completed and occupied. Another project of 100 units is now being designed. When it is built, probably during 1972, it will absorb part of the 225-unit potential shown above.

Sales Housing

The dominant factor in the sales market on Guam has been the Kaiser-Hawaii Kai Project at Dededo. This project is being built on land obtained from the Government of Guam at nominal cost. Begun in 1963, construction to date includes more than 1,100 units. Houses are being sold substantially in advance of construction and it is reported that buyers now have to wait six months to a year for their houses. Current prices range from \$18,500 for an 811 square foot two-bedroom house to \$23,000 for a four-bedroom house of 954 square feet. It is reported that sales may stop in a few months when the supply of lots in the current tract will be exhausted.

Because of the nominal land cost and the mass production techniques made possible by volume production (now ten houses a week) and the pre-cast concrete panel construction, prices at Kaiser-Dededo are very much lower than any other new housing on the island. In three other subdivisions now being developed, with a total of over 600 lots, houses are planned to sell for \$32,000 to \$35,000. These are houses of at least 1,200 square feet and three bedrooms, however. Sales in advance of construction are also reported to be brisk in these subdivisions with a minimum of sales effort by the sponsors.

Assuming that about 500 houses are provided by Kaiser and that these other subdivisions are also developed within the forecast period of this report, a total of over 1,100 sales-type housing units will have been added to the inventory between August 1, 1971 and August 1, 1973.

Since the modern housing inventory on Guam may be said to have begun with the Kaiser development in the mid-1960's, there is no highly developed re-sale market. When available, houses sell quickly, however. Re-sales at Dededo are reported to be at prices exceeding those at which new houses are being sold, the buyers being willing to pay a premium for ready availability.

Rental Housing

Guam is perhaps unique in that the vacancy rate for rentals is lower than for sales-type housing. At about 1.6 percent at the present time, the low vacancy rate may be taken as an indication that there are virtually no standard quality rental units available on the market.

As indicated by the permit data in table VII, there was no recorded multifamily construction in Guam before 1967. Since that time, a very substantial proportion of the rental housing built has been leased by the Government of Guam in order to assure housing availability to stateside contract employees (primarily teachers). A total of 650 units was being leased from private owners as of the date of this report and the total was expected to increase by about 100 by September in order to accommodate arriving teachers. Current market rents are reported to be about \$175 monthly for a one-bedroom unit to \$275 a month for an apartment with three bedrooms and two baths.

While there is now no non-subsidized FHA-insured rental housing in Guam, projects with a total of 452 units have received at least initial endorsement. These projects would require monthly rents of \$225 for one-bedroom units and \$275 to \$300 for two- and three-bedroom apartments. Sponsors have requested FHA consideration of a substantial number of additional rental housing proposals.

Condominium Housing. Resembling sales housing in that the units are owned but tend to resemble rental housing in structural form, condominiums are new to Guam. One such project of 214 units to be built with an FHA-insured mortgage, is now being sold with reportedly good results. Prices range from \$19,600 to \$32,425. Construction is expected to begin in the fall of 1971.

Military Housing. The 1971 family housing survey of Guam military establishments-Andersen Air Force Base and the Navy Complex - revealed that the inventory contained nearly 3,600 units of on-base housing with about 300 additional units under construction. There are, of course, nearly 2,000 military families living off-post. Since the size of the military establishment in Guam is expected to increase, provision of additional on-base family housing is not expected to moderate the impact of the military on the off-base housing market.

Economy. The first thorough survey of employment in Guam was conducted as of the first quarter of FY'71 (July-September 1970). The total paid employment on the payrolls of all licensed business establishments and governmental agencies in Guam was 25,350 at that time. While the scope of this survey was probably more complete than that of November 1967, the data are compared in table II. These data suggest an increase in job totals over a period of about three years at the rate of about 1,500 a year (part of which undoubtedly represents more complete coverage).

In both periods, the basic economic support for the economy of the area was provided by the federal government, with other substantial employment in local government, trade and supportive services. Guam is both the Strategic Air Command and Polaris nuclear submarine headquarters in the western Pacific. It is most significant to note, however, that growth in employment between 1967 and 1970 has not been in the dominant government and construction sectors, but rather in services, trade, and the

transportation and utilities sectors. In other words, growth has not been in the sources of basic economic support, but in those areas which are part of the developing infrastructure of an urban economy such as business and professional services, retail establishments, financial institutions, and utility services. The shifting of the provision of essential services for the civilian economy of Guam (i.e., electricity, telephones, water, sanitary services) from the military establishment to civilian entities has stimulated the economy to a considerable degree.

In one respect, however, the growth in the trade and services sector may be considered to be "basic" and that is the rapidly growing tourist industry. In 1967, direct flights were initiated to Tokyo. During that year, there were 25,000 visitors to Guam and there were 266 hotel rooms. By 1970, a total of 700 rooms had been built and the island accommodated 75,000 visitors, most of whom were Japanese tourists. In the January to March 1971 period, another hotel with 250 rooms was completed and it was reported that the number of visitors was 9,000 higher than in the previous three-month period. Another 450 hotel rooms in two hotels are expected to be completed during 1972.

Other than growth in tourism, future stimulus to growth may result from the agreement to return Okinawa to Japan which is expected to increase the number of military personnel in Guam. For purposes of this report, employment gains in Guam (not including possible increases in military personnel) are expected to average about 750 jobs a year to a total of 27,500 nonagricultural wage and salary jobs by mid-1973.

Income. Income data, as reported for the 1970 Census, had not yet been released as of the date of this report. Consequently, the closest approximation of off-base family incomes available from official sources is the Chamorro-Filipino family income data as of 1959 which have been utilized in prior market studies. Since the 1969 analysis, however, data on wages in Guam have been included in "County Business Patterns" and, on the basis of these data, it was possible to determine that average wages in employment covered by social security have increased by over 22 percent between the first quarter of 1968 and the first quarter of 1970. On this basis, the estimated current income distributions for families and renter households in Guam have been increased over past estimates. As shown in table III, the median local family after tax income is estimated at \$6,825 currently compared with \$5,575 in 1969 and the median income of renter households at \$6,000 compared with \$4,950 in 1969.

Population. The August 1, 1971 population of Guam is estimated at 92,000, compared with the total of 84,996 enumerated in the April 1, 1970 Census. As shown below, growth in population in the past 1 1/3 years and, indeed, since 1960 has been concentrated in the non-military

portion of the island. The data suggest that growth has been more rapid since 1970 than housing completions in the area in recent years.

Population Trends, Guam, 1960-1971

	<u>April 1, 1960</u>	<u>April 1, 1970</u>	<u>August 1, 1971</u>	<u>August 1, 1973</u>
<u>Total</u>	<u>67,044</u>	<u>84,996</u>	<u>92,000</u>	<u>103,000</u>
Excluding mil. res.	43,805	64,680	71,000	80,000
On military res.	23,239	20,316	21,000	23,000

Data on population changes, by Election Districts, between 1960 and 1970 are shown in table IV. These data indicate that population growth averaged 1,795 a year (2.4 percent) between 1960 and 1970 and was concentrated in Dededo, the site of the Kaiser development, Tamuning and Yigo. These three Election Districts accounted for over 76 percent of the population increase.

Households. It is estimated that there were 17,100 households in Guam as of August 1, 1971, indicating a gain of about 1,500 (1,150 a year) over the April 1, 1970 total of 15,569. As shown below, and in geographic detail in table V, the gains have been confined largely to the "off-military reservation" parts of the island; there are only 500 more households on the military reservations in 1971 than there were in 1960.

Household Trend, Guam, 1960-1971

	<u>April 1, 1960</u>	<u>April 1, 1970</u>	<u>August 1, 1971</u>	<u>August 1, 1973</u>
<u>Total</u>	<u>10,830</u>	<u>15,569</u>	<u>17,100</u>	<u>19,400</u>
Excluding mil. res.	7,680	12,191	13,450	15,250
On military res.	3,150	3,378	3,650	4,150

Future Population and Households. On the basis of current and foreseeable economic trends, including the likelihood of the continued presence of a substantial United States military establishment in Guam, and announced plans for additional on-base family housing, it is estimated that there will be a population of 103,000 in Guam as of August 1, 1973, with an off-base population of 80,000. On the basis of the trend to decreasing household size, it is estimated that there will be 19,400 households in Guam in mid-1973, including 15,250 not living on military reservations, or an increase of 1,800 over the current off-base total.

Housing Inventory. The April 1, 1970 Census enumerated a total of 16,680 housing units in Guam, compared with 12,373 in 1960, a gain of over 4,300. As shown in table VI, there was actually a slight decline in the on-base inventory and the off-base housing inventory increased by over 4,500 units between April 1960 and April 1970.

In the ten fiscal years 1961-1970 (July 1, 1960 to June 30, 1970) which is roughly comparable to the intercensal period, permits were issued for 9,412 single-family houses and (since FY'65) for 116 apartment houses. One local assumption is that there was an average of eight units in each apartment structure in these years, for a total of 928 apartment units and a grand total of 10,340 new units built (see table VII). When this total is compared with the net increase in the off-base inventory, it will be seen that there was a net loss of about 5,800 units. This total includes typhoon losses in the early 1960's, demolitions for urban renewal and other purposes in recent years, and some number of vacant structures which Census enumerators deemed uninhabitable in April 1970.

In April 1970, a total of 403 off-base housing units were reported to be vacant and available for rent or sale, equal to 3.2 percent of the available housing inventory. The sales housing vacancy rate was 4.1 percent and the rental vacancy rate a low 2.0 percent.

Changes in the housing inventory since April 1, 1970 are estimated to have resulted in the following off-base housing inventory as of August 1, 1971.

Total off-military-base housing inventory	14,350
Total occupied	13,450
Owner-occupied	8,200
Renter-occupied	5,250
Total vacant	900
Available for rent or sale	370
For sale	285
For rent	85
Unavailable	530

Table I

Estimated Annual Demand for New Housing
Territory of Guam, August 1, 1971-August 1, 1973

A. Sales Housing

<u>Sales Price</u>	<u>Number of single-family houses</u>	<u>Condominium units</u>
\$18,000 - \$19,999	90	25
20,000 - 22,499	260	70
22,500 - 24,999	110	30
25,000 - 29,999	140	35
30,000 - 34,999	75	20
35,000 and over	<u>75</u>	<u>20</u>
Total	750	200

B. Rental Housing

<u>Gross monthly rent^{a/}</u>	<u>One bedroom</u>	<u>Two bedrooms</u>	<u>Three or more bedrooms</u>
\$190 - \$209	100	-	-
210 - 229	40	-	-
230 - 249	20	120	-
250 - 269	(65	35
270 - 289	(35	20
290 - 309	10	25	15
310 and over	<u>(</u>	<u>25</u>	<u>15</u>
Total	170	270	85

^{a/} Gross rent is shelter rent plus utilities.

Table II

Numer of Employees, Licensed Business Establishments
and Government Agencies, by Industry, 1967 and 1970

<u>Industry</u>	<u>1967</u>	<u>1970^{1/}</u>	<u>Change 1967-1970</u>
<u>Total</u>	<u>20,600</u>	<u>25,350</u>	<u>4,750</u>
Agriculture	50	25	- 25
Mining	-	50	50
Construction	4,000	4,375	375
<u>Manufacturing</u>	<u>650</u>	<u>925</u>	<u>275</u>
Food	325	350	25
Other	325	575	250
Transp., comm., pub utilities	400	1,525	1,125
Trade	2,425	3,575	1,150
Fin., ins., real est.	300	550	250
Services	725	2,150	1,425
<u>Government</u>	<u>12,050</u>	<u>12,175</u>	<u>125</u>
Federal	6,425	6,675	250
Local	5,625	5,500	- 125

^{1/} July-September quarter.

Sources: 1967: November report of Department of Commerce, Government of Guam.
1970: FY'71 Survey by Department of Labor, Government of Guam.

Table III

Estimated Percentage Distribution of All Native^{a/} Families and
Renter Households By Income After Deducting Federal Income Taxes
Territory of Guam, 1969 and 1971

<u>Annual after-tax incomes</u>	<u>1969 incomes</u>		<u>1971 incomes</u>	
	<u>All native families</u>	<u>Renter households^{b/}</u>	<u>All native families</u>	<u>Renter households^{b/}</u>
Under \$ 2,000	7.0	7.5	5.0	6.0
\$ 2,000 - 2,999	6.0	9.0	4.0	4.0
3,000 - 3,999	12.0	16.5	7.0	10.0
4,000 - 4,999	16.5	18.0	10.0	15.0
5,000 - 5,999	13.5	14.0	15.0	15.0
6,000 - 6,999	10.0	8.5	11.0	12.0
7,000 - 7,999	8.0	6.0	9.0	9.0
8,000 - 8,999	5.0	4.5	8.0	5.0
9,000 - 9,999	4.0	4.0	5.0	4.0
10,000 - 12,499	8.0	6.5	9.0	9.0
12,500 - 14,999	5.0	2.5	7.0	5.0
15,000 and over	<u>5.0</u>	<u>3.0</u>	<u>10.0</u>	<u>6.0</u>
Total	100.0	100.0	100.0	100.0
Median	\$5,575	\$4,950	\$6,825	\$6,000

a/ Includes those non-Caucasians classified by the government of Guam as local (Chamorro), Filipino, and others.

b/ Renter households of two or more persons, native only.

Source: Estimated by Housing Market Analyst.

Table IV

Total Population^{1/} by Election Districts
Guam, 1960 and 1970

<u>Election Districts</u>	<u>Population</u>		<u>Average annual change</u> <u>1960-1970</u>	
	<u>1970</u>	<u>1960</u>	<u>Number</u>	<u>Percent^{2/}</u>
<u>Guam</u>	84,986	67,044	1,795	2.4
Agana	2,119	1,642	48	2.5
Agana Heights	3,156	3,210	- 5	0.2
Agat	4,308	3,107	120	3.3
Asan	2,629	3,053	-42	1.5
Barrigada	6,356	5,430	93	1.6
Chalan Pago, Ordot	2,931	1,835	110	4.7
Dededo	10,780	5,126	565	7.4
Inarajan	1,887	1,730	17	0.9
Mangilao	3,228	1,965	126	5.0
Merizo	1,529	1,398	13	0.9
Mongmong, Toto, Maite	6,057	3,015	304	7.0
Piti	1,284	1,467	-18	-1.3
Santa Rita	8,109	12,126	-402	-4.0
Sinajana	3,506	3,862	-36	-1.0
Talofof	1,935	1,352	58	3.6
Tamuning	10,218	5,944	427	5.4
Umatac	813	744	7	0.9
Yigo	11,542	7,682	386	4.1
Yona	2,599	2,356	24	1.0

^{1/} Includes population on military reservations.

^{2/} Compound rate.

Sources: U.S. Department of Commerce, Bureau of the Census.

Table V

Households by Election Districts, Guam, 1960-1970

	1960			1970			Change 1960-1970 Total
	Total	Excluding mil. res.	On military reservations	Total	Excluding mil. res.	On military reservations	
Total Guam	10,830	7,680	3,150	15,569	12,191	3,378	4,739
Agana	318	318	-	453	453	-	135
Agana Hts.	615	548	67	625	563	62	10
Agat	529	529	-	780	776	4	251
Asan	539	383	156	552	416	136	13
Barrigada	1,020	725	295	1,230	937	293	210
Chalan Pago, Ordot	285	285	-	512	512	-	227
Dededo	948	486	462	2,067	1,806	261	1,119
Inarajan	259	259	-	307	307	-	48
Mangilao	304	242	62	667	667	-	363
Merizo	222	222	-	266	266	-	44
Mongmong, Toto, Maite	586	447	139	843	714	129	257
Piti	262	223	39	236	236	-	- 26
Santa Rita	1,241	310	931	1,529	481	1,048	288
Sinajana	633	633	-	633	633	-	-
Talofofu	193	193	-	322	322	-	129
Tamuning	1,159	1,125	34	2,039	1,988	51	880
Umatac	109	109	-	130	130	-	21
Yigo	1,202	237	965	1,946	552	1,394	744
Yona	406	406	-	432	432	-	26

Source: 1960 and 1970 Censuses of Housing.

Table VI

Housing Inventory By Occupancy Status and Tenure
Guam, 1960-1970

	1960			1970			Change 1960-1970		
	<u>Total</u>	<u>Excluding mil. reservations</u>	<u>On military reservations</u>	<u>Total</u>	<u>Excluding mil. res.</u>	<u>On military reservations</u>	<u>Total</u>	<u>Excluding mil. res.</u>	<u>On military reservations</u>
Total inventory	12,373	8,578	3,795	16,680	13,125	3,555	4,307	4,547	-240
Total occupied	10,830	7,680	3,150	15,569	12,191	3,378	4,739	4,511	228
Owner occupied	5,028	5,028	-	7,165	7,165	-	2,137	2,137	-
Pct. of all occupied	46.4%	65.5%	-	46.0%	58.8%	-	-	-	-
Renter occupied	5,802	2,652	3,150	8,404	5,026	3,378	2,602	2,374	228
Vacant	1,543	898	645	1,111	934	177	- 432	36	-468
Available for rent									
or sale	941	318	623	521	403	118	- 420	85	-505
Percent vacant	8.0%	4.0%	16.5%	3.2%	3.2%	3.4%	-	-	-
Not available	602	580	22	590	531	59	- 12	- 49	37

Source: 1960 and 1970 Censuses of Housing.

Table VII

Building Permits Issued for New Construction
Guam 1961-1971

<u>Fiscal</u> <u>Year</u>	<u>Residences</u>	<u>Apartment</u> <u>structures</u>
1961	733	0
1962	661	0
1963	1,500	0
1964	1,483	0
1965	1,061	0
1966	715	0
1967	898	15
1968	890	30
1969	631	18
1970	840	53
1971	846	61

Source: Guam Department of Commerce, Economic Research Center.

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