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RECREATIONAL BOATING IN HAWAII

JULY 1961

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I STATEWIDE BOATING ACTIVITIES

A. Comparison with Boating on the Mainland

Hawaii - "The Paradise of the Pacific" - is traditionally visualized as a gentle land where people live the year around on a tropical shoreline enjoying the pleasures and the bounty of the sea. The mental image sees outrigger canoes and bronzed figures on surf boards riding the white capped waves to a palm fringed shore. It sees catamarans and sailboats spread white sails against the blue of the sea and sky. The tourist, on his cruise ship, is greeted off shore by a fleet of small sailboats and cruisers and says to himself, "This is the land of boating".

Against this traditional background, the facts will come as a surprise to many people. The fact is, that Hawaii has far less recreational boating activity than many States on the Mainland. Nationwide statistics for 1959, Table 1, show that in the United States there were 44.0 boats for each 1,000 population. In Hawaii, in 1961, there were only 9.4 boats per 1,000 population. Even if the military population of 52,881 persons is excluded and only the permanent civilian population is considered, the ratio is only 11.3 boats per 1,000 population. This means, that proportionally, over 4 times as many people on the Mainland own boats as do the people of Hawaii.

The wide disparity in boat ownership between Hawaii and the Mainland does not reflect any difference in interest in boating but rather a difference in opportunity. During the past 10 years, participation in activities associated with the recreational use of water has increased at an extremely rapid

rate throughout the United States. The number of recreational boats within the United States has increased from 4.3 million in 1952, to 7.8 million in 1959. In relation to population, this amounts to an increase in the number of boats per 1,000 population from 27.6 in 1952, to 44.0 in 1959. Such tremendous growth in boating has been made possible by both natural and man-made boating facilities. Safe moorings and safe waterways for the amateur boatsman abound in the inland lakes and rivers and intra-coastal waterways of the Mainland. Hawaii has few lakes and rivers suitable for boating, so with limited coastal anchorages, it has less opportunity for recreational boating than many Mainland States.

Hawaii's situation could be more properly compared with California and particularly Southern California, where climate and coastal conditions are similar. Southern California, like Hawaii, has few lakes and rivers. Both have rugged coastlines broken by scattered beaches and a few man-made harbors. Table 2 shows that Hawaii's population is in the same range as Orange and San Diego Counties, but its boating population is only one-half to one-third of theirs. Los Angeles County, however, with nearly 10 times Hawaii's population, has the same ratio of boat ownership. Since the people of these three counties presumably have similar interests in boating, it becomes evident that the number of boats per 1,000 population in Southern California is related primarily to the opportunities afforded by existing facilities.

Ensuing portions of this Section describe existing conditions in Hawaii.

TABLE I*

GROWTH IN RECREATIONAL BOATING WITHIN THE UNITED STATES

Year	Total Number Recreational Boats (1) (thousands)	Total U. S. Population (2) (thousands)	Boats Per 1,000 Population
1952	4,333	157,028	27.6
1956	6,686	168,176	39.8
1957	6,954	171,196	40.6
1958	7,330	174,064	42.1
1959	7,800	177,103	44.0

Sources: (1) Boating, Industry Advisory Committee on Statistics of the National Association of Engine and Boat Manufacturers and Outboard Boating Club of America, 1958 and 1959.

(2) U. S. Department of Commerce, Bureau of the Census.

* Table prepared by Planning Research Corporation, Los Angeles.

TABLE 2*

COMPARISON OF BOATING POPULATION IN UNITED STATES, CALIFORNIA AND HAWAII

Area	Population (thousands)	Total Number of Boats	Boats Per 1,000 Population
U.S. Average 1958(1)	174,064	7,330,000	42.1
U.S. Average 1959(1)	177,103	7,800,000	44.0
State of California	14,893 (2)	225,816 (3)	15.2
Los Angeles County	5,858 (2)	55,178 (3)	9.4
Orange County	619 (2)	17,075 (3)	27.6
San Diego County	942 (2)	13,534 (3)	14.4
STATE OF HAWAII	633 (4)	5,935 (5)	9.4

Sources: (1) See Table 1.

(2) Survey of Buying Power, Sales Management, May 1959.

(3) California Registered Boats, Division of Small Craft Harbors, State of California, October 1958. In addition to the total number of registered boats shown by county, PRC's estimate of 70,900 unregistered boats in the State is included.

(4) U. S. Department of Commerce, Bureau of the Census, 1960.

(5) Field Census for this report, 1961.

* Mainland data courtesy of Planning Research Corporation, Los Angeles.

TABLE 4

POPULATION DISTRIBUTION - STATE OF HAWAII

STATE OF HAWAII		632,772
1. County of Kauai		28,176
a. Island of Niihau		254
b. Island of Kauai		27,922
Judicial Districts		
Hanalei	1,312	
Kawaihau	6,498	
Lihue	6,297	
Koloa	7,012	
Waimea	6,803	
2. City and County of Honolulu (Island of Oahu)		500,409
Judicial Districts		
Waialua	8,221	
Koolauloa	8,043	
Koolaupoko	60,238	
Honolulu	294,194	
Ewa	78,666	
Waianae	16,452	
Wahiawa	34,595	
3. County of Maui		42,576
County of Kalawao (on Molokai Island)		279
a. Island of Molokai		5,023
Judicial Districts		
Kalawao County	279	
East Molokai	2,230	
West Molokai	2,514	
b. Island of Lanai		2,115
c. Island of Maui		35,717

TABLE 4 (Con't)

POPULATION DISTRIBUTION - STATE OF HAWAII

	Judicial Districts	
	Lahaina	4,844
	Wailuku	19,391
	Makawao	10,409
	Hana	1,073
4. County of Hawaii		61,332
	Judicial Districts	
	North Kohala	3,386
	Hamakua	5,221
	North Hilo	2,493
	South Hilo	31,553
	Puna	5,030
	Kau	3,368
	South Kona	4,292
	North Kona	4,451
	South Kohala	1,538

Source: U. S. Department of Commerce, Bureau of the Census (1960 Census)

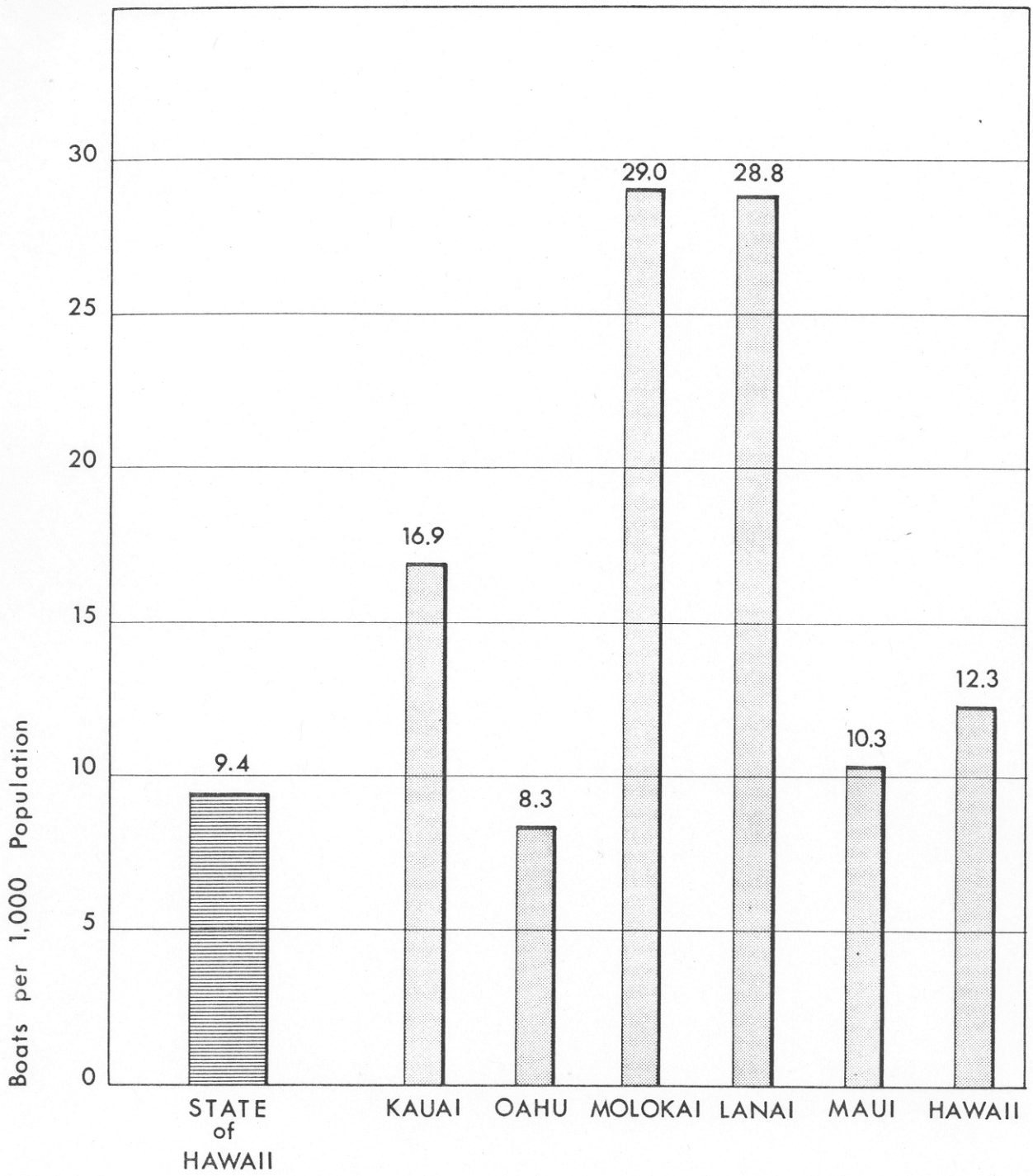
TABLE 5

BOATS PER 1,000 POPULATION

	Population (1)	Total Number of Boats (2)	Boats Per 1,000 Pop.
STATE OF HAWAII	632,772	5,935	9.4
Kauai	28,176	473	16.9
Oahu	500,409	4,133	8.3
Molokai	5,023	146	29.0
Lanai	2,115	61	28.8
Maui	35,717	369	10.3
Hawaii	61,332	753	12.3

Sources: (1) U. S. Department of Commerce, Bureau of the Census, 1960

(2) Field Census for this report, 1961



RATIO OF BOATS TO POPULATION

DATA SOURCE: POPULATION - 1960 U. S. CENSUS
BOATS - 1961 FIELD CENSUS
FOR THIS REPORT INCLUDING ALL TYPES AND USES OF CRAFT.

CHART I

C. Distribution of Craft

Table 3 shows that out of 5,935 craft of all types in the State, 4,133 (or approximately 70 percent) are located on the Island of Oahu. The remaining 30 percent are distributed between the neighbor counties roughly in proportion to their population as follows:

	Population	Percent Population	Total Boats	Percent Boats
Kauai	27,922	21	473	26
Maui (including Molokai & Lanai)	42,576	32	576	32
Hawaii	61,332	47	753	42
Total for 3 Counties	131,830	100	1802	100

The distribution of craft as to their location within harbors, along the coast or on trailers is shown in Table 6. These figures can be more readily analyzed when converted into percentages as follows:

Island	In Harbors	Along Coast (Percentages Rounded)	On Trailers
STATE OF HAWAII	36	24	40
Kauai	17	26	57
Oahu	41	22	37
Molokai	48	38	14
Lanai	53	21	26
Maui	18	22	60
Hawaii	28	30	42

Comparing the percentage of craft in each catagory with the State average, it is seen that Oahu, Molokai and Lanai have the largest percentage of craft in harbors. On Oahu this results from the fact that there is relatively more harbor space for small craft than on the other Islands. On Molokai and Lanai, however, the higher percentage results primarily from the fact that these Islands have few trailer-mounted craft.

The percentage of craft located along the shoreline is relatively uniform for all Islands, although slightly higher on Hawaii and Molokai. Trailer-boats are discussed below.

Table 7 lists the types of craft by Island and Judicial District. To provide a uniform method of tabulation, six general types of craft were established to combine over 200 different classifications of boats as reported by owners on their Coast Guard registrations. The six types selected are defined below:

Outboards: This catagory includes all types of craft powered by outboard motors. It includes small sampan type craft, wood rowboats, and sleek aluminum or plastic types of speedboats. Since only a very small percentage of trailer-mounted boats have inboard motors, trailer craft have been listed throughout as outboards.

Sailboats Without Power: This group included catamarans, El Toro class boats and small open sailboats.

Auxiliary Sail: Includes all classes of sailing craft having an auxiliary power unit for propulsion.

Inboards: This group includes all inboard engine types which are not suitable for open ocean cruising nor having sampan configuration. It includes glass-bottom boats, river excursion craft, small cabin skiffs, launches, speedboats and various classes of runabouts.

Cruisers: This catagory includes only those larger enclosed craft equipped with living accommodations and capable of operating in the open ocean on extended cruises. These are generally recreation type craft though some are used for commercial fishing and charter.

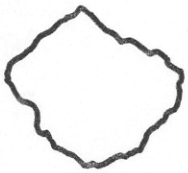
Sampans: A special catagory of larger craft of basic Japanese design extensively used in Hawaii. The rugged type of construction makes this craft particularly suited to commercial fishing in the open sea though a large number have been adapted for charter or recreation - especially for sport fishing. The catagory includes only those sampans with inboard engines.

From Table 7 it can be seen that nearly all sailing craft and over 80 percent of all inboards and cruisers are located on the Island of Oahu. Outboards and sampans are the principal craft used on the other Islands.

Since trailer-mounted craft constitute 40 percent of all boats in Hawaii, special consideration should be given to this type. While exact figures are not available, interviews with owners and observations of the census takers indicate that very few could be classed as inboards or cruisers and practically none as commercial fishing craft. Accordingly, a negligible error is induced in listing all trailer boats as outboards used for recreation purposes.

Table 8 lists the size of trailer boats by Island and Judicial District. It shows that 75 to 80 percent of these craft are 16 feet or under in length. Such craft include both commercially manufactured speedboats or runabouts and locally constructed wood skiffs. From dealers' records and field observations, it is estimated that approximately half of the trailer boats on Oahu are of commercial manufacture whereas on the other Islands 80 to 90 percent are of local construction.

Trailer boats, representing 40 percent of all craft and 45 percent of all craft used for recreation, play a major role in the distribution of craft throughout the Islands. They make recreation boating possible for people who live inland or at coastal locations remote from harbor facilities. This is particularly true for families of modest income who cannot afford the luxury of maintaining larger and more expensive craft in harbors. The trailer boat, therefore, becomes a major consideration in the development of recreational boating facilities in Hawaii.



KAUAI

Population	27,922
Boats	473
Boats/1000 Population	16.9

OAHU

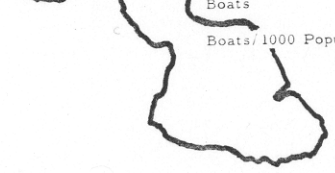
Population	500,409
Boats	4,133
Boats/1000 Population	8.3

MOLOKAI

Population	5,023
Boats	146
Boats/1000 Population	29.0

LANAI

Population	2,115
Boats	61
Boats/1000 Population	28.8

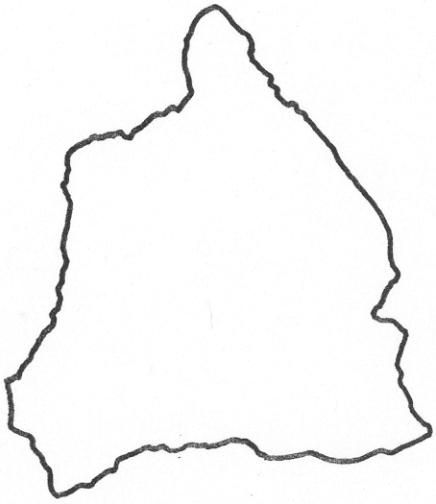


MAUI

Population	35,717
Boats	369
Boats/1000 Population	10.3

HAWAII

Population	61,332
Boats	753
Boats/1000 Population	12.3



STATE OF HAWAII

Population & Small Boat Distribution

CHART II

TABLE 6

LOCATION OF CRAFT IN HARBORS, ALONG SHORE AND ON TRAILERS *

Judicial District	In Harbor	Along Coast	On Trailers	Total
STATE OF HAWAII	2,135	1,426	2,374	5,935
1 - KAUAI	81	122	270	473
Hanalei	19	8	10	37
Kawaihau	-	18	44	62
Lihue	20	68	90	178
Koloa	39	2	63	104
Waimea	3	26	63	92
2 - OAHU	1,675	925	1,533	4,133
Waialua	73	23	12	108
Koolauloa	-	80	17	97
Koolaupoko	359	714	288	1,361
Honolulu	1,100	62	912	2,074
Ewa	77	11	169	257
Waianae	66	27	97	190
Wahiawa	-	8	38	46
MAUI COUNTY (3 Islands)	164	152	260	576
3 - MOLOKAI	70	56	20	146
4 - LANAI	32	13	16	61
5 - MAUI	62	83	224	369
Lahaina	26	10	24	60
Wailuku	36	46	130	212
Makawao	-	10	58	68
Hana	-	17	12	29
6 - HAWAII	215	227	311	753
North Kohala	6	14	31	51
Hamakua	-	9	32	41
North Hilo	-	4	16	20
South Hilo	67	9	125	201
Puna	-	1	12	13
Kau	20	-	11	31
South Kona	42	81	43	166
North Kona	53	43	21	117
South Kohala	27	66	20	113

* 1961 Census Count for all types of small craft.

TABLE 7 *

TYPES OF CRAFT BY JUDICIAL DISTRICT

Judicial District	Outboard	Sail w/o Power	Aux. Sail	Inboard	Cruiser	Sampan	Total
STATE OF HAWAII	4637	392	133	175	330	268	5,935
1 - KAUAI	419	-	3	15	2	34	473
Hanalei	37	-	-	-	-	-	37
Kawaihau	59	-	-	-	-	3	62
Lihue	152	-	3	14	2	7	178
Koloa	83	-	-	1	-	20	104
Waimea	88	-	-	-	-	4	92
2 - OAHU	3038	386	126	151	273	159	4,133
Waialua	76	-	1	1	5	25	108
Koolauloa	95	2	-	-	-	-	97
Koolaupoko	1095	185	18	15	36	12	1,361
Honolulu	1352	170	102	115	220	115	2,074
Ewa	306	28	5	11	7	-	257
Waianae	168	1	-	9	5	7	190
Wahiawa	46	-	-	-	-	-	46
COUNTY OF MAUI (3 Islands)	516	3	2	5	21	29	576
3 - MOLOKAI	138	1	-	3	3	1	146
4 - LANAI	55	-	-	1	1	4	61
5 - MAUI	323	2	2	1	17	24	369
Lahaina	43	-	2	-	3	12	60
Wailuku	183	2	-	1	14	12	212
Makawao	68	-	-	-	-	-	68
Hana	29	-	-	-	-	-	29
6 - HAWAII	664	3	2	4	34	46	753
North Kohala	51	-	-	-	-	-	51
Hamakua	41	-	-	-	-	-	41
North Hilo	20	-	-	-	-	-	20
South Hilo	160	2	1	1	11	26	201
Puna	13	-	-	-	-	-	13
Kau	31	-	-	-	-	-	31
South Kona	162	-	-	-	1	3	166
North Kona	88	-	1	-	17	11	117
South Kohala	98	1	-	3	5	6	113

NOTE: All figures from 1961 Census count for all uses of small craft.

TABLE 8

SIZE AND DISTRIBUTION OF TRAILER BOATS

PART I (Island of Kauai)

JUDICIAL DISTRICT	10 - 12'	14 - 16'	17 - 18'	18 - 21'	Up to 25'	Total
Island of Kauai (Total)	29	162	47	26	6	270
Hanalei	1	7	1	-	1	10
Kawaihau	4	31	5	3	1	44
Lihue	16	55	11	7	1	90
Koloa	5	30	17	9	2	63
Waimea	3	39	13	7	1	63

NOTES:
1. Total of all types of registered trailers = 674 from County Treasurer's records
2. Boat-trailers estimated at 40% of total = 270

TABLE 8 (Con't)

SIZE AND DISTRIBUTION OF TRAILER BOATS

PART II (Island of Oahu)

JUDICIAL DISTRICT	10 - 12'	14 - 16'	17 - 18'	18 - 21'	Up to 25'	Total
Island of Oahu (Total)	210	1087	146	64	26	1,533
Waialua	1	6	5	-	-	12
Koolauloa	2	10	2	2	1	17
Koolaupoko	50	192	26	15	5	288
Honolulu	122	660	75	37	18	912
Ewa	24	118	20	5	2	169
Waianae	2	79	12	4	-	97
Wahiawa	9	22	6	1	-	38

NOTES: 1. Data compiled from records of City and County Treasurer's Office. Records indentified boat trailers as distinguished from commercial and other types.

TABLE 8 (Con't)

SIZE AND DISTRIBUTION OF TRAILER BOATS

PART III - Maui County
(Including Molokai, Lanai and Maui)

JUDICIAL DISTRICT	10 - 12'	14 - 16'	17 - 18'	18 - 21'	Up to 25'	Total
Maui County (Total	15	167	43	31	4	260
Molokai Island	1	14	2	2	1	20
Lanai Island	7	8	1	-	-	16
Maui Island	7	145	40	29	3	224
Lahaina *	2	15	4	3	0	24
Wailuku	2	84	24	19	1	130
Makawao	1	38	11	6	2	58
Hana	2	8	1	1	-	12

NOTES:
1. Total of all types of registered trailers from County Treasurer's records = 649
2. Boat trailers estimated at 40% of total = 260
3. * Excludes Island of Lanai

D. Use of Craft

Small craft may be classed as to usage as, Recreation, Charter, Commercial Fishing and Work Boats. These usages are defined as follows:

Recreation: All types of craft used by their owners and friends for cruising, a day's outing, sport fishing, water skiing, racing and similar forms of relaxation. Included in this catagory are many craft owned by persons of modest income in remote coastal areas. While such craft may be used to supplement food supplies or income through sale of fish to local markets, they cannot be considered commercial fishing craft in the same sense as the large aku sampans.

Charter: Boats available for hire for sightseeing, pleasure cruises, sport fishing or other recreational purposes.

Commercial Fishing: Boats used primarily in the business of catching fish for sale. As stated above, the small rural boatman who uses his boat to fish for food or occasional sale to local markets is not included. This catagory includes only those boats used by owners engaged in fishing as a means of livelihood.

Work Boats: This catagory includes craft used for towing, transportation of goods, scientific research, etc.

Table 9 shows the uses of craft by locality and Table 10 shows the uses of craft by type of boat. If charter boats are added to those classed as purely recreational, over 90 percent of all small craft in Hawaii are used for recreational purposes and somewhat less than 10 percent for commercial fishing.

Work boats constitute an insignificant element in the small boating activities of the Islands. The tabulation lists all work boats except those operating in Honolulu Harbor as tugs and harbor craft. The latter are not included since they would have no influence on small craft harbor requirements.

The range of operations of small craft is generally a function of their size and type. Few outboards and sailboats without power have the capability of operating on the long open-sea runs between Islands. Similarly, inboards as classified in this survey, would seldom make the run from one Island to another. Inter-Island traffic of small craft is therefore limited to auxiliary sailboats, cruisers and sampans. The total number of recreational craft in these catagories is 483 (Table 10). Personal interviews with 183 owners (38 percent) of such craft disclosed that 47 percent operate locally or coastwise and 53 percent engage in Inter-Island operations. On this basis, of the 483 craft capable of Inter-Island operations, approximately 255 may actually do so.

To show how much time boat owners use their craft for recreation, Table 11 was compiled. Answers were received from 445 boat owners. While usage ranged widely from 10 to 365 days per year, the average for all owners shows an understandable consistency. Less expensive craft, such as outboards, trailer-boats and sailboats without power, are used on the average of 76 to 78 days per year, whereas the larger expensive craft such as auxiliary sailboats, cruisers and sampans are used approximately 100 days per year. The larger figure for inboards reflects charter boat operations. Similarly the amount of the owner's available recreation time is related to value. Owners of less expensive craft give only half to two-thirds of their free time to boating, whereas

TABLE 9

USES OF CRAFT BY JUDICIAL DISTRICT

Judicial District	Recreation Trailer	Recreation Other	Charter	Commercial Fishing	Work Boats	Total
STATE OF HAWAII	(2374)	2922	83	532	24	5935
1 - KAUAI	(270)	155	12	31	5	473
Hanalei	(10)	27	-	-	-	37
Kawaihau	(44)	18	-	-	-	62
Lihue	(90)	65	12	7	4	178
Koloa	(63)	20	-	20	1	104
Waimea	(63)	25	-	4	-	92
2 - OAHU	(1533)	2256	54	276	14	4133
Waialua	(12)	77	-	19	-	108
Koolauloa	(17)	78	-	2	-	97
Koolaupoko	(288)	1012	2	55	4	1361
Honolulu	(912)	923	52	178	9	2074
Ewa	(169)	83	-	4	1	257
Waianae	(97)	75	-	18	-	190
Wahiawa	(38)	8	-	-	-	46
MAUI COUNTY (3 Islands)	(260)	241	2	70	3	576
3 - MOLOKAI	(20)	73	-	51	2	146
4 - LANAI	(16)	44	-	1	-	61
5 - MAUI	(224)	124	2	18	1	369
Lahaina	(24)	31	2	2	1	60
Wailuku	(130)	68	-	14	-	212
Makawao	(58)	8	-	2	-	68
Hana	(12)	17	-	-	-	29
6 - HAWAII	(311)	273	15	152	2	753
North Kohala	(31)	14	-	6	-	51
Hamakua	(32)	9	-	-	-	41
North Hilo	(16)	4	-	-	-	20
South Hilo	(125)	46	-	30	-	201
Puna	(12)	1	-	-	-	13
Kau	(11)	-	-	20	-	31
South Kona	(43)	70	-	53	-	166
North Kona	(21)	54	15	27	-	177
South Kohala	(20)	75	-	16	2	113

NOTE: All trailer-boats listed as recreational craft and shown in ( ).

TABLE 10

USES OF CRAFT BY TYPE

Type	Recreation	Charter	Commercial Fishing	Work Boats	Total
ALL TYPES	5296	83	532	24	5935
OUTBOARDS	4311	8	309	9	4637
Kauai	416	-	1	2	419
Oahu	2895	7	131	5	3038
Molokai	87	65 -	51	-	138
Lanai	55	-	-	-	55
Maui	306	1	15	1	323
Hawaii	552	-	111	1	664
SAIL W/O POWER	389	3	-	-	392
Kauai	-	-	-	-	-
Oahu	383	3	-	-	386
Molokai	1	-	-	-	1
Lanai	-	-	-	-	-
Maui	2	-	-	-	2
Hawaii	3	-	-	-	3
AUXILIARY SAIL	131	2	-	-	133
Kauai	3	-	-	-	3
Oahu	125	1	-	-	126
Molokai	-	-	-	-	-
Lanai	-	-	-	-	-
Maui	2	-	-	-	2
Hawaii	1	1	-	-	2
INBOARDS	121	29	17	10	177
Kauai	-	12	-	3	15
Oahu	115	17	16	4	152
Molokai	2	-	-	2	4
Lanai	1	-	-	-	1
Maui	1	-	-	-	1
Hawaii	2	-	1	1	4
CRUISERS	283	39	3	5	330
Kauai	2	-	-	-	2
Oahu	241	25	2	5	273
Molokai	3	-	-	-	3
Lanai	-	-	1	-	1
Maui	16	1	-	-	17
Hawaii	21	13	-	-	34
SAMPANS	69	2	197	-	268
Kauai	4	-	30	-	34
Oahu	31	1	127	-	159
Molokai	-	-	1	-	1
Lanai	4	-	-	-	4
Maui	21	-	3	-	24
Hawaii	9	1	36	-	46

NOTE: All trailer-boats listed as outboards for recreation.