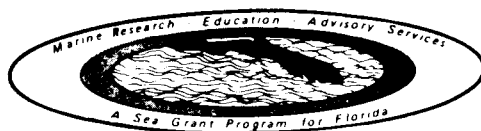


A SURVEY OF SMALL-CRAFT
RECREATIONAL MARINAS IN FLORIDA

BY

P.V. Rao, J.J. Einerson, J.A. Einerson and
A.J. Mehta*

Technical Paper No. 18
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Florida Sea Grant

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1. INTRODUCTION

Recreational marinas for small crafts constitute a major industry in the state of Florida where tourism is a primary source of income. Although exact figures are not available, it is estimated that the marina industry in the state is in excess of one billion dollars.

Despite the large number of marinas, information on the problems associated with their design, maintenance, and impact on the environment and coast of Florida is at best sketchy. No statewide comprehensive study has been made thus far. The study was carried out in two stages. In the first stage the objective was to establish a comprehensive data base to develop an overall picture of the kinds of marinas in Florida's coast and their available facilities. The objective of the second stage was to identify some of the engineering and design problems of Florida coastal marinas and boatyards. Questionnaires were used in both stages of data collection.

2. DATA BASE SURVEY

The questionnaire used in the data base survey was designed to separate marinas on fresh water from those on salt water, marinas with wet slips from those without, and to consider variables such as type of ownership, capacity, primary activity, months of heaviest use, launching facilities and various services offered.

A preliminary version of the questionnaire was tested at the Marina Boatyards Conference held in Spring 1979, and the final version (see Appendix I) was mailed to a list of 633 marina and boatyard addresses throughout the state. This mailing list was compiled by supplementing a list of addresses provided by the Florida Marine Advisory Program with addresses listed in Florida Boating Safety Manual. Only coastal marinas and boatyards were included in the list.

In response to the first mailing, 182 questionnaires were returned. Of these 50 were unopened indicating that these marinas are either non-existent or are public launching facilities. A second mailing of the questionnaire occurred approximately four weeks later. This mailing was accompanied by a joint letter from the president of Marine Industries Association of Florida and the Chairman of Marina Boatyard Conference strongly urging the recipient to return the questionnaire. The response to the second mailing was 150 bringing the total response (excluding

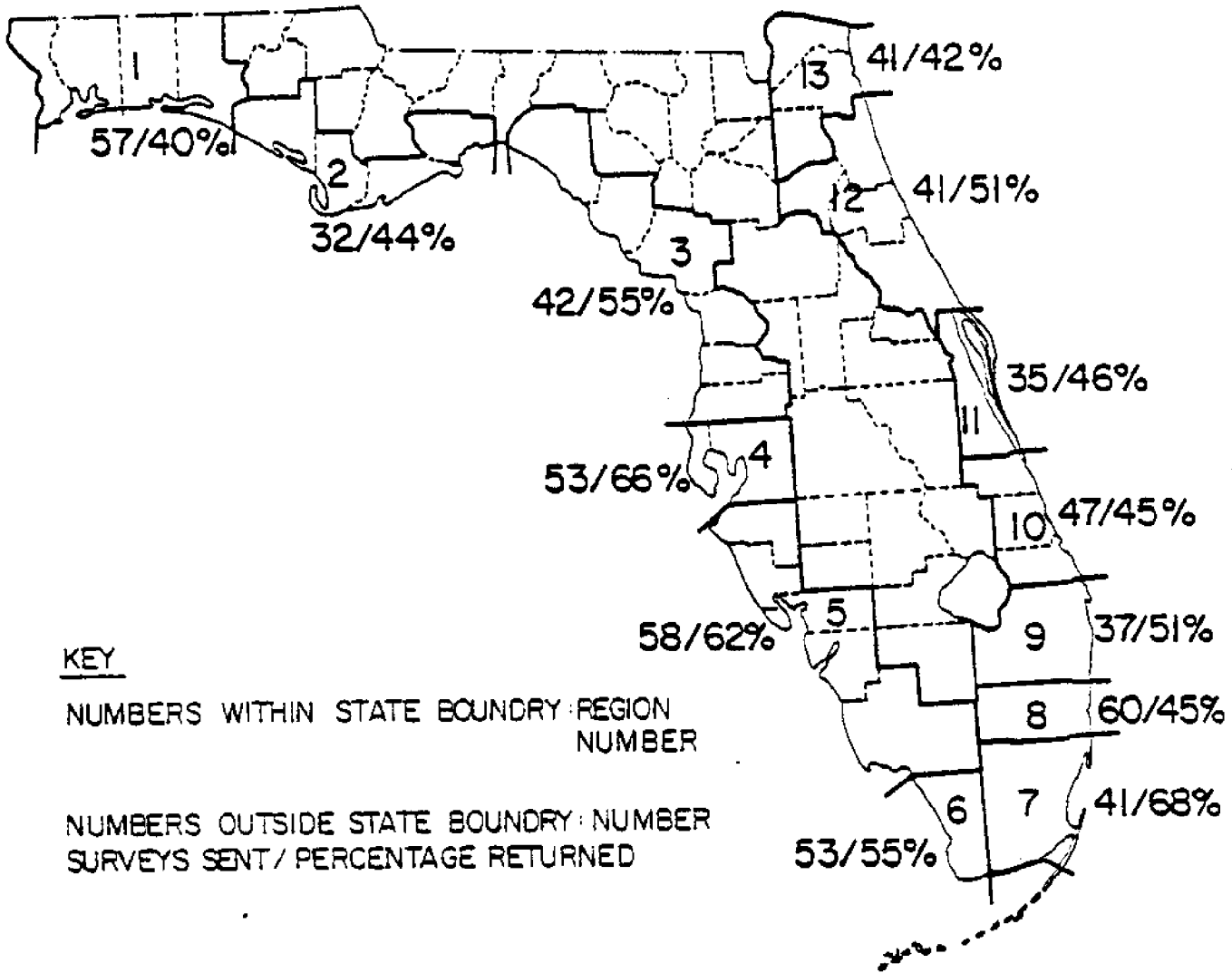
unopened questionnaires) to 282. A third attempt to contact the non-respondents - this time through marine advisory agents and a letter from the statistician yielded 77 more responses, resulting in a total of 309 responses. Table 2.1 shows the geographic distribution of the questionnaires across the state. For the purpose of reporting,

Table 2.1 Geographic Distribution of Questionnaires

<u>Region</u>	<u>Counties in the region</u>	<u>No. sent</u>	<u>No. returned</u>	<u>Percent returned</u>
1	Escambia, Santa Rosa Okaloosa, Walton	57	23	40
2	Bay, Gulf, Franklin Wakulla	32	14	44
3	Taylor, Dixie, Levy, Citrus, Hernando, Pasco	42	23	55
4	Hillsborough, Pinellas	53	35	66
5	Manatee, Lee, Sarasota, Collier, Charlotte	58	36	62
6	Monroe	53	29	55
7	Dade	41	28	68
8	Broward	60	27	45
9	Palm Beach	37	19	51
10	Martin, St. Lucie, Indian River	47	21	45
11	Brevard	35	16	46
12	Volusia, Flagler, Putnam, St. Johns	41	21	51
13	Clay, Duval, Nassau	41	17	42
	TOTAL	597*	309*	52

*The numbers exclude unopened questionnaires

Figure 2.1



as well as sampling in the second stage of the study, the Florida coast was divided into 13 regions by combining adjacent counties to yield regions with approximately the same number of listed marinas. Figure 2.1 displays this assignment of counties into regions. Table 2.1 shows the counties making up each of the regions as well as the number of questionnaires sent and returned for each region.

An inspection of Table 2.1 shows that the marinas and boatyards contacted by the survey were fairly uniformly scattered throughout the Florida coast; between 40 and 60 percent of the marinas responded from each region. Consequently, the information collected from the returned questionnaires may be regarded as representative for the whole area. A detailed discussion of the responses is presented in the next section. Appendix III contains the addresses of marinas responding to the data base survey.

3. DATA BASE SURVEY: QUESTION BY QUESTION RESULTS

In this section, the data base survey results are presented. The actual question is posed as in the questionnaire and is followed by a summary table and brief comments, if any.

QUESTION 1

Is the marina located on:

- a. freshwater b. saltwater

Summary Table 3.1

<u>Type of Water</u>	<u>Percent</u>
Fresh	14
Salt	86

Comments: As expected, the majority of marinas are located on saltwater.

QUESTION 2

Type of waterbody the marina is located on:

- a. river c. canal e. gulf
b. lake d. bay f. ocean

Summary Table 3.2

<u>Waterbody</u>	<u>Percent</u>
river	41
lake	4
canal	14
bay	32
gulf	6
ocean	3

Comments: Approximately 75% of the marinas are located on rivers and bays. The large percentage for river locations is partly due to the fact that the Intracoastal Waterway is defined as a river. The remainder of the marinas are located on canals, the Gulf, lakes, and the ocean in order of decreasing percentage.

QUESTION 3

Type of marina:

- a. privately owned
- b. municipally owned and operated
- c. municipally owned - privately operated

Summary Table 3.3

<u>Ownership</u>	<u>Percent</u>
privately owned	87
municipally owned and operated	10
municipally owned - privately operated	3

Comments:

Nearly all, i.e. 87%, Florida coastal marinas are privately owned.

QUESTION 4

Primary marina operations:

- a. wet slips
- b. dry stack
- c. boatyard-hull repair
- d. other

Summary Table 3.4

<u>Operations</u>	<u>Percent</u>
wet slips	75
dry stack	32
hull repair	41
wet slips and dry stack	24
wet slips and hull repair	29
dry stack and hull repair	16
wet slips, dry stack, and hull repair	8
other	44

Comments: Wet slips were listed by 75% of the marinas as a primary operation while less than half offer hull repair or dry stack. (Because a respondent may select more than one category when answering the question, percentages in the table do not add up to 100).

QUESTION 5

Size of marina:

- a. number of wet slips
- b. maximum vessel foot capacity _____ ft.
- c. number of dry stack slips
- d. maximum vessel foot capacity _____ ft.
- e. number of moorings
- f. maximum draft at low tide _____ ft.
- g. boatyard-hull repair 1. yes 2. no
- h. hull foot capacity _____ ft.

Summary TablesTable 3.5a

<u>No. of wet slips</u>	<u>Percent</u>
1-50	64
51-100	22
101-150	6
151-200	5
201-250	3

Table 3.5b

<u>Ft. capacity of wet slips</u>	<u>Percent</u>
1-50	48
51-100	40
101-150	7
151-200	2
201-250	2

Table 3.5ab (percentages)

<u>No. of wet slips</u>	<u>Foot capacity</u>		
	<u>1-50</u>	<u>51-150</u>	<u>151+</u>
1-50	40	22	2
51-150	8	19	1
151+	1	6	1

Table 3.5c

<u>No. of dry stacks</u>	<u>Percent</u>
1-50	26
51-100	21
101-150	19
151-200	13
201-250	21

Table 3.5d

<u>Ft. capacity of dry stack</u>	<u>Percent</u>
1-50	89
51-100	11

Table 3.5cd (Percentages)

<u>No. of Dry Stacks</u>	<u>Foot capacity</u>	
	<u>1-50</u>	<u>51-100</u>
1-50	21	5
51-150	37	3
151+	31	3

Table 3.5f

<u>Maximum draft at low tide</u>	<u>Percent</u>
0-10	82
11-30	11
30+	1
do not know	6

Table 3.5h

<u>Hull ft. capacity for boatyard repair</u>	<u>Percent</u>
1-20	4
21-40	38
41-60	31
61-80	16
81-100	11

Comments:

In response to part a of the question, 13% of the marinas do not have wet slips. Of those who do, 64% have fewer than 50 wet slips and 88% have a foot capacity of less than 100 feet. Of the marinas with less than 50 wet slips, 40% have a foot capacity of under 50 feet.

From part c, it was found that 62% do not have dry stacks. For those who do, percentages of dry stack capacities are found in Table 3.5d. And from part e of question 5, responses indicated that most marinas, 87%, do not have moorings.

The majority of marinas reported a maximum draft at low tides of less than ten feet, as seen in Table 3.5f. In response to part g, 55% of marinas do not offer hull repair; of those who do, 73% offer it for boats less than 60 feet and 27% repair boats between 60 and 100 feet.

QUESTION 6

Primary activity of marina customers:

- a. private recreation c. commercial fishing
b. commercial recreation d. cargo

Summary Table 3.6

<u>Activity</u>	<u>Percent</u>
private recreation	92
commercial recreation	16
commercial fishing	15
private & commercial recreation	13
private rec. & commercial fishing	13
commercial rec. & fishing	6
cargo	1

Comments: Almost all, 92%, coastal marinas in Florida are open for private recreation.

QUESTION 7

Which are the months of heaviest user activity?

1. January 4. April 7. July 10. October
2. February 5. May 8. August 11. November
3. March 6. June 9. September 12. December

Summary Table 3.7

<u>Month</u>	<u>Marinas (%) with this as a most active month</u>	<u>Month</u>	<u>Marinas (%) with this as a most active month</u>
January	46	July	62
February	51	August	54
March	62	September	42
April	68	October	47
May	65	November	51
June	64	December	47

Comments: Marinas in Florida are busiest in spring and early summer months, namely March through July. These months generally offer boaters fair sea conditions and temperatures.

QUESTION 8

Is the marina open all year?

- a. yes b. No

Comments: The response indicated that over 99% of Florida marinas are open all year, the remaining 1% only closing for short periods of time. This response was expected due to Florida's year-round fair climate.

QUESTION 10

What are the launching facilities?

- | | |
|------------------------|------------------------|
| a. ramp | f. capacity _____ tons |
| b. forklift | g. mobile hoist |
| c. lift | h. capacity _____ tons |
| d. capacity _____ tons | i. railway |
| e. rail hoist | j. capacity _____ tons |

Summary Table 3.10

<u>Facility</u>	<u>Percent</u>	<u>Average capacity (tons)</u>
ramp	45	N/A
forklift	29	N/A
lift	30	41.4
rail hoist	8	39.4
mobile hoist	16	37.1
railway	7	34.5

Comments: The most popular type of launching facility among Florida marinas is the ramp followed by lifts and forklifts. Few marinas offer mobile hoists, rail hoists, or railway launching facilities. The average capacities for lifts, rail hoists, mobile hoists and railways range in order from 41.4 tons to 34.5 tons.

Percentages of marinas offering various additional services are listed in table 3.11.

Summary Table 3.11

<u>Service</u>	<u>Percent</u>	<u>Service</u>	<u>Percent</u>
Fuel & Lubrication	75	Dock boys	27
Ice	68	Engine repairs	63
Groceries	22	Boat & Engine parts	56
Boating equipment	69	Hull repair	48
Beverage sales	65	Electronic repair	30
Tackle & Bait	41	Dockside electricity	68
Scuba equipment	7	Laundry	24
8 service		Sewage pumpout	12
New boat sales	47	Restaurant	34
Used boat sales	60	Telephone (for boats)	29
Brokerage services	46	Showers & toilets	56
Engine sales	50	24 hour security	44
Boat rentals	24	Picnic area	28
Sail	8	Charter boat fishing	23
Row	6	Head boat fishing	9
Power	17	Tour boat (scenic)	11
Canoe	4	Diving tour boats	8
		Powered ski	3

4. ENGINEERING SURVEY

The questionnaire for the engineering survey was designed to provide information on items such as tide and wake activities, materials used for dock construction and problems due to siltation, storms and materials of construction. A preliminary version of the questionnaire was tested in the Marina Boatyard Conference held in Spring 1979. The final version of the questionnaire is shown in Appendix II.

The engineering questionnaire was mailed to a random sample of 107 marina operators. This random sample was selected by stratifying the 282 respondents to the first two mailings of the data base questionnaire using the 13 regions as the strata. Marinas on fresh water and those without wet slips were deleted from the data base before selecting the sample. Approximately 50% of the marinas in each of the 13 regions (strata) were selected at random.

Response to the first mailing of the questionnaire was about 40%. A second contact, which consisted of a second mailing of the questionnaire and an attempt to directly contact the non-respondents by telephone and/or the marina agents produced a total of 80 responses.

Table 4.1 Distribution of Questionnaires in Engineering Survey

<u>Region</u>	<u>No. respondents*</u>	<u>No. in sampling frame</u>	<u>No. sent</u>	<u>No. returned</u>
1	15	9	5	3
2	14	8	4	3
3	23	7	4	2
4	25	23	12	10
5	36	31	16	14
6	29	27	14	7
7	23	21	9	8
8	26	15	8	6
9	19	17	9	5
10	19	14	7	6
11	16	16	8	8
12	19	14	7	4
13	16	7	4	4
TOTAL	282	209	107	80

* Those responding to the first two mailings of the data base questionnaire.

Table 4.1 shows the distribution of marinas in the sampling frame before and after deletion of the marinas on fresh water and those without wet slips. The table also shows the number of questionnaires actually sent out and the number returned.

An inspection of Table 4.1 shows that marinas and boatyards responding to the first two mailings of the data base questionnaire are fairly evenly scattered across the strata (regions). Thus the sample of 80 questionnaires which were actually returned may be reasonably regarded as a stratified random sample of the marinas on the Florida coast.

5. ENGINEERING SURVEY: QUESTION BY QUESTION RESULTS

Section 5 presents a summary of results from the engineering survey. The question is posed as in the questionnaire and is followed by a summary table and comments. Because the percentages are estimated using returns from a random sample of marinas, the summary tables include the standard errors associated with these estimates.

QUESTION 1

Marina size

1. length of marina: _____ ft.
2. width of marina : _____ ft.
3. area _____ acres
4. depth of water below low tide: _____ ft.
5. width of main entrance to marina: _____ ft.

Summary TablesTable 5.1a

<u>Length (ft.)</u>	<u>Percent</u>	<u>Std. error</u>
small (under 200)	14	11.5
medium (200-600)	54	5.0
large (over 600)	18	3.7
don't know	14	3.4

Table 5.1b

<u>Width (ft.)</u>	<u>Percent</u>	<u>Std. error</u>
small (under 200)	36	4.7
medium (200-600)	42	4.5
large (over 600)	8	2.7
don't know	14	3.6

Table 5.1c

<u>Area (acres)</u>	<u>Percent</u>	<u>Std. error</u>
small (less than 3)	31	4.9
medium (3-7)	25	4.5
large (over 7)	20	4.1
don't know	24	4.3

Table 5.1d

<u>Depth below low tide</u>	<u>Percent</u>	<u>Std. error</u>
under 4 feet	23	4.0
4-8 feet	61	5.1
over 8 feet	14	3.4
don't know	2	1.6

Table 5.1e

<u>Width of main entrance</u>	<u>Percent</u>	<u>Std. error</u>
under 40 feet	15	3.4
40-120 feet	48	4.9
over 120 feet	24	4.3
don't know	13	3.0

Comments: Results of Question 2 summarize the sizes of Florida coastal marinas in terms of length and width in feet, area in acres, depth of the water below low tide and width of the main entrance to the marina, both in feet.

Over half the marinas, 54%, are from 200 to 600 feet in length; 14% are less than 200 feet and 18% are longer than 600 feet. The remaining 14% did not know the marina length.

A majority of marinas, 78%, are less than 600 feet wide, as shown in Table 5.1b. Of those, 36% are under 200 feet and 42% are between 200 and 600 feet in width. Again, 14% are unaware of the marina width.

The third part of Question 1 reported similar percentages in each category of area in acres. As shown in table 5.1c, 31%, 25%, and 20% have an area of less than 3 acres, 3 to 7 acres and over 7 acres respectively. A large percentage, 24%, reported they did not know the area. This may be because the question did not make clear whether land area alone or area including water was desired.

Part four of the question indicates that a majority of marinas, 61%, have a depth below low tide of 4 to 8 feet; 23% reported a depth of under 4 feet and 14% indicated a depth of over 8 feet.

Finally, from Table 5.1e, results show that nearly half of the marinas have a main entrance from 40 to 120 feet wide while 15% and 24% have widths of under 40 feet and over 120 feet respectively. 13% did not know the main entrance width.

QUESTION 2

Marina age; ownership and dredging

1. How old is your marina? _____ years
2. How long have you owned marina? _____ years
3. How many times has the marina been dredged by you?

Summary Tables

Table 5.2a

<u>Age of marine (yrs)</u>	<u>Percent</u>	<u>Std. error</u>
less than 15	50	5.0
16-25	32	4.7
over 25	28	4.6

Table 5.2b

<u>Years of current ownership</u>	<u>Percent</u>	<u>Std. error</u>
15 and under	75	4.0
over 15	25	4.0

Table 5.2c

<u>No. times dredged</u>	<u>Percent</u>	<u>Std. error</u>
0	66	5.2
1	19	4.2
2 or more	15	3.9

Comments: Responses to the first part of question 2, age of marina in years, were categorized into three age groups. Results show that 40% of marinas are less than 15 years old, 32% are from 16 to 25 years, and 28% are over 25 years olds.

Table 5.2b indicates that a fair majority of marinas, 75% have been under current ownership for 15 years or less.

Under current ownership, most marinas, 66%, have never been dredged; 34% have been dredged at least once.

QUESTION 3

Maximum range of tide from low water to high water _____ ft.

Summary Table 5.3

<u>Max. range of tide (ft)</u>	<u>Percent</u>	<u>Std. error</u>
under 1	6	1.6
1 to 4	79	3.9
over 4	12	3.3
don't know	3	1.9

Comments: Table 5.3 shows that most marinas, 79%, experience a 1 to 4 foot maximum range of tide from low water to high water. Six percent and 12% claimed the maximum range to be under 1 foot and over 4 feet, respectively.

QUESTION 4

Do you have a siltation problem?

1. yes, problem is severe
2. yes, but problem is not severe
3. no, there is no siltation problem

Summary Table 5.4

<u>Siltation problem</u>	<u>Percent</u>	<u>Std. error</u>
none	25	4.2
not severe	56	5.6
severe	19	5.6

Comments: In Question 4 owners were asked to indicate whether or not a siltation problem existed with their marinas. A large majority, 75%, of owners consider siltation to be a problem in their marinas. Of those, 19% have severe siltation problems and 56% have problems which are not severe. The remaining 25% report they have no siltation problem.

QUESTION 5

Siltation occurs

1. throughout the marina
2. near the main entrance
3. in some parts of the marina only

Summary Table 5.5

<u>Siltation occurrence</u>	<u>Percent</u>	<u>Std. error</u>
throughout	33	5.7
entrance	15	5.6
parts	36	5.7

Comments: Although in the previous question 75% of the owners said they had a siltation problem, 84% responded when asked in Question 5, where siltation occurs. Perhaps some owners do not consider siltation a problem when it does actually occur in their marinas. Of those responses, 33% and 36% have siltation occurring throughout the marina and only in some parts, respectively. Siltation occurs near the main entrance in 15% of the marinas.

QUESTION 6

Have you experienced wake activity that has damaged docked boats, boat movement, or launching?

1. yes
2. no

Summary Table 5.6

<u>Wake activity damage</u>	<u>Percent</u>	<u>Std. error</u>
yes	45	5.6
no	55	5.6

Comments: Damage to docked boats, boat movement, or launching due to wake activity is experienced by 45% of the marinas. 55% reported no damage.

QUESTION 7

Dock construction

1. docks are mostly timber
2. docks are mostly concrete
3. docks are timber and concrete
4. are floating docks used? a. yes b. no

Summary Table 5.7a

<u>Dock construction</u>	<u>Percent</u>	<u>Std. error</u>
concrete	56	5.6
timber	21	5.6
both	23	4.7

Summary Table 5.7b

<u>Floating docks</u>	<u>Percent</u>	<u>Std. error</u>
yes	35	4.8
no	65	4.8

Comments: In table 5.7a, information concerning materials of dock construction is summarized: 56% of marinas in Florida have concrete docks, 21% have timber docks, and 23% have docks constructed of both timber and concrete. 35% of the docks are floating as shown in table 5.7b.

QUESTION 8

Have you experienced storms that partially or wholly inundated the marina?

1. yes
2. no

Summary Table 5.8

<u>Storm damage</u>	<u>Percent</u>	<u>Std. error</u>
yes	33	4.8
no	67	4.8

Comments: In response to Question 8, a majority of owners, 67%, reported no storm damage to their marinas.

QUESTION 9

Do you have a problem with materials of construction deteriorating in water due to weathering or due to marine life?

1. yes 2. no

Summary Table 5.9

<u>water damage</u>	<u>Percent</u>	<u>Std. error</u>
yes	81	4.7
no	19	4.7

Comments: Deterioration of construction materials due to weathering or marine life occurs in 81% of Florida marinas.

QUESTION 10

If yes, list up to four severely deteriorated items.

Comments: Piling deterioration, both wood and concrete, is the most common problem; docks and seawalls were also frequently listed. Other responses included deterioration of steel materials, plumbing and electrical equipment, hardware, and concrete items.

QUESTION 11

List two construction problems you may have had in your marina.

Comments: Obtaining permits for building docks and dredging is the most common construction problem marinas face. Installation of pilings is also a problem for many marinas as is building seawalls. Other construction problems suggested were the installation of plumbing and electrical fixtures, building docks, and dredging.

6. CORRELATION ANALYSIS

A summary of some of the significant correlations present in the responses to the engineering survey is given in this section. The Kruskal-Goodman measure of association, usually denoted by γ , was used to measure correlation between several pairs of variables, such as

number of dredgings and number of years the marina was owned, the severity of siltation problem and the number of dredgings, and so on. Note that the interpretation of a calculated value of γ is similar to the interpretation of r , the classical product moment correlation coefficient. The value of γ ranges from -1 to +1. A positive association (i.e. a positive value of γ) implies that the values of the two variables tend to increase or decrease together, while a negative association means an increase in the value of one variable is associated with a decrease in the value of the other. The value $\gamma=0$ corresponds to the case where the variables are not associated.

A statistically significant positive association ($\gamma=.62 \pm .22$) was found between the number of years a marina was owned and the number of dredgings. However, no significant association was found between years of ownership and severity of siltation problem nor between number of dredgings and severity of siltation problem (OWN-SILT $\gamma= .00 \pm .32$, DREDG-SILT $\gamma=-.23 \pm .34$). Thus, it is reasonable to conclude that while the number of dredgings increased with ownership years, the length of ownership did not have an effect on the severity of the siltation problem. This lack of correlation could possibly be explained by the fact that those who owned the marinas for a longer period of time have done more dredging (note the positive OWN-DREG γ -value), thereby eliminating the siltation problem. A detailed analysis of the data will be needed if one wishes to explore these and other similar questions concerning the interrelationship of various correlations.

An analysis of association of geographic location of the marinas with severity of siltation problem and number of dredgings was carried out by separating the marinas on the West Coast (Regions 1-6 in Fig. 2.1) from those on the East Coast (Regions 7-13 in Fig. 2.1). The γ -value for marinas on the East Coast were not significant (DREDG-LOC $\gamma=.27 \pm .36$, SILT-LOC $\gamma=.27 \pm .32$), but those for the West Coast were significant (DREDG-LOC $\gamma=.48 \pm .34$, SILT-LOC $\gamma=.47 \pm .34$). These numbers lead to the conclusion that while the severity of siltation problem and the number of dredgings are not associated with geographic location of the marinas (north vs. south) on the East Coast, southern marinas on the West Coast tended to have fewer dredgings and more siltation problem than those located in the north.

Finally, it must be noted that conclusions presented in this section and those in other parts of this report which use owner's subjective answers reflect their perception of the prevailing conditions. Different individuals could well interpret the same conditions in different ways. For example, the same amount of siltation could be viewed as a severe problem by one marina operator and as no problem by another. Objective criteria should be developed and used to further explore the possible problem areas which this pilot study has identified.

APPENDIX I: Data Base Questionnaire

Dear Marina/Boatyard Operator.

Are there improvements you'd like to see in the business, engineering, or legal and regulatory aspects of your operation? With support from the Florida Sea Grant College and the endorsement of the Marine Industries Association, we are starting a project to determine some of the needs of that important Florida industry.

Your answers to the accompanying questionnaire are important as they will assist us later in focusing attention on some of the problems that you have to deal with everyday in your marina. In addition, we hope to use the survey information to compile a directory of Florida marinas and boatyards. So please complete the accompanying form as best as you can and return it to us today. It will take only a few minutes.

At a later date, we plan to send to selected operators followup surveys on some of the legal, business and engineering problems in your marina, so that solutions may be sought to alleviate these problems.

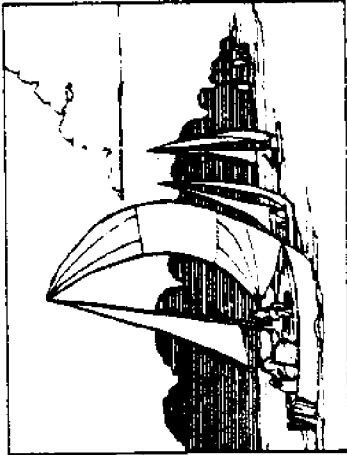
Your prompt attention is appreciated.

Sincerely,

P. V. Rao
P. V. Rao
Statistician

Douglas Crane

Douglas Crane
Chairman, 1979 Florida
Recreational Marina/
Boatyard Conference



Florida Recreational Marina/Boatyard Study

A Cooperative Project of:
University of Florida Engineering & Industrial Experiment
Station, Marine Industries Association, Florida Sea Grant



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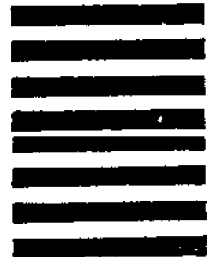
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University of Florida
Gainesville, FL 32611



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Florida Recreational Marina/Boatyard Study

Name of person filling out this form: _____
 Position of the person filling out this form: _____
 Name of the marina/boatyard: _____
 Address of the marina/boatyard: _____
 Name of the waterbody where your marina is located: _____

1. Is the marina location: (Check one)
 - a. Fresh Water Salt Water
2. Type of waterbody marina is located on:
 - (Check one)
 - a. River Canal e. Gulf
 - b. Lake Bay f. Ocean
3. Type of marina: (check one)
 - a. Privately owned
 - b. Municipally owned/Operated
 - c. Municipally own: Privately Operated
4. Primary marina activity: (Check all that apply)
 - a. Wet slip Boatyard - hull repair
 - b. Dry stack i. Other (please describe) _____
5. Size of marina: (in appropriate spaces)
 - a. Number of wet's _____ ft.
 - b. Maximum vessel capacity _____ ft.
 - c. Number of dry stack slips _____ ft.
 - d. Maximum vessel capacity _____ ft.
 - e. Number of moorings _____ ft.
 - f. Maximum draft/low tide _____ ft.
 - g. Boatyard huller: 1. Yes 2. No
 - h. Hull foot cap _____ ft.

6. Primary activity of marina customers:
 - a. Private recreation c. Commercial fishing
 - b. Commercial recreation (charter and head boats) d. Cargo
7. Which are the months of heaviest user activity? (Check all that apply)
 - 1. Jan. 5. May 9. Sept.
 - 2. Feb. 6. June 10. Oct.
 - 3. Mar. 7. July 11. Nov.
 - 4. Apr. 8. Aug. 12. Dec.
8. Is the marina open all year? (Please check)
 - a. Yes
 - b. No - When is the marina closed? (Please check)
 - 1. Jan. 5. May 9. Sept.
 - 2. Feb. 6. June 10. Oct.
 - 3. Mar. 7. July 11. Nov.
 - 4. Apr. 8. Aug. 12. Dec.
9. What are the normal operating hours during the year?
 - a. Open 24 hours b. Open at _____
 - c. Close at _____
10. What are the launching facilities?
 - a. Ramp e. Rail hoist
 - b. Fork lift f. Capacity _____ tons
 - c. Lift g. Mobile hoist
 - d. Capacity _____ tons
 - h. Capacity _____ tons
 - i. Railway
 - j. Capacity _____ tons

11. Please check which services the marina offers:
 - 1. Fuel and lubricants 16. Hull repair
 - 2. Ice 17. Electronic repair
 - 3. Groceries 18. Dockside electricity
 - 4. Boating equipment a. 110/220V
 - 5. Beverage sales b. 220/440V
 - 6. Tackle and bait 19. Laundry
 - 7. Scooter equipment and service 20. Sewage pumpout
 - 8. New boat sales 21. Restaurant
 - 9. Used boat sales 22. Telephone (for boats)
 - 10. Brokerage services 23. Showers & toilets
 - 11. Engine sales 24. 24 hour security
 - 12. Boat rentals 25. Picnic area
 - a. Sail c. Power 26. Charter boat fishing
 - b. Row d. Canoe 27. Head boat fishing
 - 13. Dock boys 28. Tender boat (tender)
 - 14. Engine repairs 29. Diving tour boats
 - 15. Boat & engine parts 30. Powered ski
12. Please list additional services not covered above:
 - 1. _____
 - 2. _____
 - 3. _____
 - 4. _____

APPENDIX II: Engineering Questionnaire

Florida Recreational Marina/Boatyard Study Engineering Survey



Dear Marina Operator:

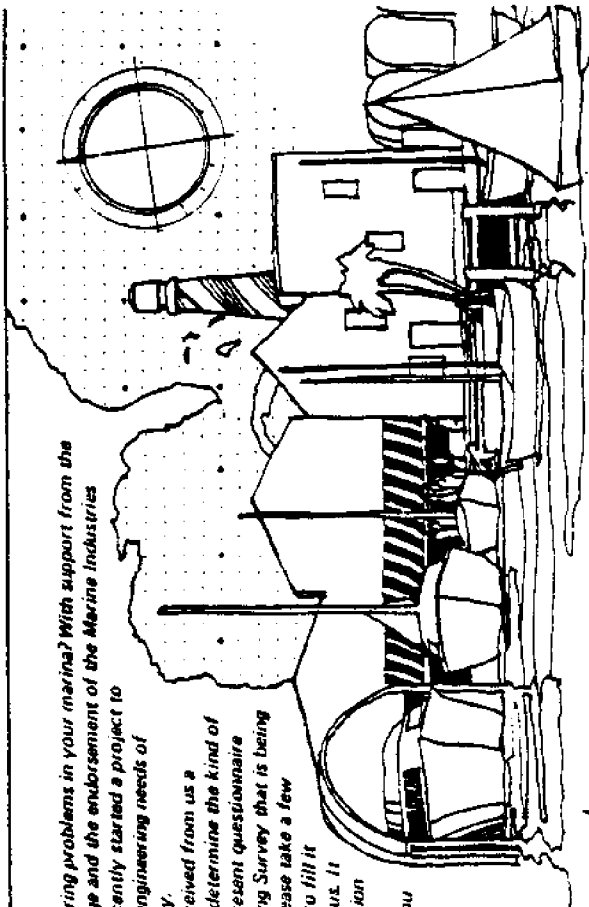
Do you have engineering problems in your marina? With support from the Florida Sea Grant College and the endorsement of the Marine Industries Association, we have recently started a project to determine some of the engineering needs of Florida's marine industry.

You have already received from us a questionnaire meant to determine the kind of marina you own. The present questionnaire is a follow-up Engineering Survey that is being sent to many of you. Please take a few moments of your time to fill it out and send it back to us. It will help us focus attention on the more important engineering problems you have to deal with in your marina.

*Your prompt attention is appreciated.
Sincerely,*

A. J. Mehta
A. J. Mehta
Coastal Engineer

P. V. Rao
P. V. Rao
Statistician

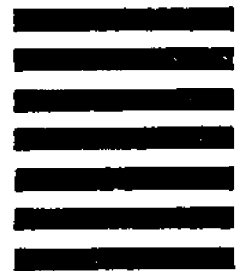


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University of Florida
Gainesville, FL 32611



Engineering Survey

Name of person filling out this form: _____
 Position of the person filling out this form: _____
 Name of the marina/boatyard: _____
 Address of the marina/boatyard: _____
 Name of the waterbody where your marina is located: _____

- Marina size (in water)
 - Length of marina: _____ ft.
 - Width of marina: _____ ft.
 - Area: _____ acres
 - Depth of water below low tide: _____ ft.
 - Width of main entrance to marina: _____ ft.
- Marina age, ownership and dredging
 - How old is your marina? _____ years
 - How long have you owned the marina? _____ years
 - How many times has the marina been dredged by you? _____
 - Maximum range of the tide from low water to high water _____ ft.
- Do you have a situation problem? (check one)
 - Yes, problem is severe.
 - Yes, but problem is not severe.
 - No, there is no situation problem.

- Situation occurs (check one if applicable)
 - Throughout the marina
 - Near the main entrance
 - In some parts of the marina only
- Have you experienced wake activity that has damaged docked boats, boat movement or launching?
 - Yes
 - No
- Dock Construction (check)
 - Docks are mostly timber.
 - Docks are mostly concrete.
 - Docks are timber and concrete.
 - Are floating docks used?
 - Yes
 - No
- Have you experienced storms that wholly or partly inundated the marina?
 - Yes
 - No

- Do you have a problem with materials of construction deteriorating in water due to weathering or due to marine life?
 - Yes
 - No
- If yes, list up to four severely deteriorated items.
 - _____
 - _____
 - _____
 - _____
- List two construction problems you may have had in your marina. (Briefly)
 - _____
 - _____

APPENDIX III: Marina Addresses

BAY

A-1 Marine, Inc.
5601 W. HWY 98
Panama City, FL 32401

Grand Lagoon Marine Services, Inc.
5323 N. Lagoon Drive
Panama City Beach, FL 32407

Harly Marine
1055 E. Bus. 98
Panama City, FL 32401

Panama City Boat Yard, Inc.
5323 N. Lagoon Drive
Panama City Beach, FL 32401

Pier 98 Marina
5904 E. HWY 98
Parker, FL

Treasure Island Marina
3605 Thomas Drive
Panama City, FL 32407

Sun Harbor Lodge and Marina
5505 West HWY 98
Panama City, FL 32401

Val's Bayside Marina, Inc.
6325 Bid Daddy Dr.
Panama City Beach, FL 32407

BREVARD

Anchorage-Eau Gallie Marina
96 E. Eau Gallie Causeway
Melbourne, FL 32937

Banana River Marine Service
1360 S. Banana River Drive
Merritt Island, FL 32952

Cape Marina
800 Scallop Drive
Cape Canaveral, FL 32920

Captain John's Marina, Inc.
505 Commercial Dr.
Cape Canaveral, FL 32920

Diamond 99 Marina Yacht Sales, Inc.
4399 N. Harbor City Blvd.
Melbourne, FL 32951

Dickerson Marine Center, Inc
905 N. Harbor City Blvd.
Melbourne, FL 32935

Indian Harbour Marina
1399 Banana River Drive
Indian Harbour Beach, FL 32937

Indian River Marine Basin, Inc.
2222 S. Front Street
Melbourne, FL 32901

Island Point Marina
P. O. Box 808
Cocoa, FL 32922

Jay's Harbor Light's Marina
Route 3, Box 461A
Merritt Island, FL 32952

Jim Rathman Enterprises, Inc.
705 S. Harbor City Blvd.
Melbourne, FL 32901

Long Point Park
9200 South ALA HWY.
Melbourne Beach, FL 32951

Palm Bay Marina Enterprises, Inc.
P. O. Box 55
Palm Bay, FL 32905

Tingley's Marina and Fish Camp
Route 2, Box 180
Merritt Island, FL 32652

Titusville Marina
P. O. Box 6466
US #1 at Yacht Basin
Titusville, FL 32780

Westland Marine
419 N. Washington Ave.
Titusville, FL 32780

BROWARD

Amity Yacht Center
1915 S.W. 21st Ave.
Fort Lauderdale, FL 33312

Bahia Mar
800 Seabreeze Blvd.
Ft. Lauderdale, FL 33301

Bradford Marine, Inc.
3051 St. Rd. 84
Ft. Lauderdale, FL 33312

Ceebee Marina, Inc.
580 N. Federal HWY.
Deerfield Beach, FL 33441

City of Deerfield Beach
425 N. E. 3rd Street
Deerfield Beach, FL 33441

Complete Yacht Service, Inc.
418 W. Las Olas Blvd.
Fort Lauderdale, FL 33312

Cozy Cove Marina, Inc.
300 N. Federal Highway
Dania, FL 33004

Derector Gunnell Inc.
775 Taylor Lane
Dania, FL 33004

Diplomat Marina
3515 S. Ocean Drive
Hollywood, FL 33022

Graham Boat Yard, Inc.
4451 Herschel Street
Jacksonville, FL 32210

Hatteras of Lauderdale, Inc.
401 S. W. First Avenue
Ft. Lauderdale, FL 33301

Herold Boat Co., Inc.
1112 E. Las Olas Blvd.
Fort Lauderdale, FL 33301

Hollywood Yacht Basin
700 Polk Street
Hollywood, FL 33020

Houston Park
850 N. E. 3rd Street
Dania, FL 33004

Intracoastal Marine, Inc.
1335 S. E. 16th Street
Fort Lauderdale, FL 33316

Lauderdale Marina
1900 S. E. 15th Street
Ft. Lauderdale, FL 33316

Lauderdale Yacht Basin, Inc.
2000 S. W. 20th
Ft. Lauderdale, FL 33312

Lighthouse Point Marina, Inc.
2830 N. E. 29th Avenue
Lighthouse Point, FL

Miller Yacht Sales
1445 S. E. 16th Street
Ft. Lauderdale, FL 33316

Municipal Docks, City of Ft. Lauderdale
14 S. New River Dr. E.
Ft. Lauderdale, FL 33301

Nautical Yacht Basin
801 N. E. 3rd Street
Dania, FL 33004

Pier 66 Marina
Drawer 9177
Ft. Lauderdale, FL 33310

Ramgoh Sales Company Inc.
4500 S. State Road 7
Ft. Lauderdale, FL 33316

Ravenswood Marina
4470 Ravenswood Road
Ft. Lauderdale, FL 33312

Starboard Marina, Inc.
2900 N. E. 16th Street
Pompano Beach, FL 33062

Summerfield Boat Works
1500 S. W. 17th Street
Ft. Lauderdale, FL 33312

Sun Power Diesel
413 S. W. 3rd Avenue
Ft. Lauderdale, FL 33301

CHARLOTTE

Marker 7 Marina
7090 Placida Road
Placida, FL 33946

CITRUS

Estuary Marina
Route Box 800
Crystal River, FL 32629

Kings Bay Fishing Village (Bunts Resort)
1625 S. HWY. 19
Crystal River, FL 32629

Knox Bait House
HWY. 19
558 N. W. 3rd Avenue
Crystal River, FL 32629

Lewis Fish Marina
268 N. W. 3rd Street
Crystal River, FL 32629

Macrae's Bait House
Box 318
Homosassa, FL 32646

Plantation Inn and Golf Resort
Kings Bay Road
Crystal River, FL 32629

Port Paradise Marina
P. O. Box 526
Crystal River, FL 32629

Riverhaven Marina
P. O. Box 2150
Homosassa Springs, FL 32647

Three Rivers Marina Inc.
P. O. Box 98
Homosassa Springs, FL 32647

CLAY

Black Creek Marina
Hibernia Ft. Box 445
Green Cove Springs, FL 32043

Pacetti Marina
Box 63 Orangedale Ft.
Green Cove Springs, FL 32403

COLLIER

Bay Marina, Inc.
854 Riverpoint Drive
Naples, FL 33940

Hansen Marine, Inc.
1146 Sixth Ave., S.
Naples, FL 33940

Marco River Marina, Inc.
951 Bald Eagle Drive
Marco Island, FL 33937

Port-O-Call Marine
1312 5th Avenue S.
Naples, FL 33940

Wiggins Pass Marina Co., Inc.
Wiggins Pass Road
Route 2, Box 1612
Naples, FL 33940

DADE

Bayliner Biscayne Marine
13255 Biscayne Blvd.
North Miami, FL 33181

Coastal Marina
13301 Biscayne Blvd.
North Miami, FL 33181

Coconut Grove Sailing Club
P. O. Box 330586
Miami, FL 33133

Coral Reef Yacht Club
2484 South Bayshore
Miami, FL 33133

Crandon Marina
Crandon Blvd.
Key Biscayne, FL 33149

Dinner Key Marina
3400 Pan American Drive
Miami, FL 33133

Eighth Avenue Boat Slips
801 N. W. 4th Street
Miami, FL 33101

Endeavor Marine Service Co., Corp.
201 S. W. 6th Street
Miami, FL 33130

Flamingo Yacht Basin and Marina
1900 79th Street Causeway
Miami Beach, FL 33141

Grove Key Marina
3385 Pan American Drive
Miami, FL 33133

Hardie Yacht Basin
2100 N. W. North River Dr.
Miami, FL 33125

Homestead Bayfront Park
Canal Drive
Homestead, FL

James D. Nail
3195 N. W. 20th Street
Miami, FL 33142

Jones Boat Yard, Inc.
3399 N. W. South River Dr.
Miami, FL 33142

Keystone Point Marina
1950 N. E. 135th Street
North Miami, FL 33181

Little River Marina, Inc.
724 N. E. 79th Street
Miami, FL 33138

Matheson Hammock Marina
1610 Cutler Road
Coral Gables, FL

Maule Lake Marina Inc.
17201 Biscayne Blvd.
North Miami Beach, FL 33160

2640 South Bayshore Drive
Miami, FL 33133

Miamarina
333 Miamarina Parkway Dr.
Miami, FL 33132

Miami Shipyards Corp.
615 S. W. 2nd Avenue
Miami, FL 33130

Park Shore Marine
17501 Biscayne Blvd.
North Miami Beach, FL 33160

Pelican Harbor Yacht Club, Inc.
7905 Pelican Harbor Drive
Miami Shores, FL 33141

Skyway Marine, Inc.
820 N. E. 79th St.
Miami, FL 33138

The Marina Yacht Club at Plaza Venetia
1756 N. Bayshore Drive
Miami, FL 33132

DIXIE

Bill Miller's Marine
P. O. Box 428
Suwannee, FL 32692

Gulf Haven Marina
Box 428
Suwannee, FL 32692

Horseshoe Marina
P. O. Box 241
Horseshoe Beach, FL 32648

Jon's Marina, Inc.
P. O. Box 315
171-8 Canal St.
Suwannee, FL 32692

Middleton Marina and Restaurant
Route 3, Box 81
Old Town, FL 32680

DUVAL

Huckins Yacht Corp.
3482 Lakeshore Blvd.
Jacksonville, FL 32223
Inlet Marine Sales & Service, Inc.
P. O. 1207
Orange Park, FL 32073

Intracoastal Marina, Inc.
14539 Beach Blvd.
Jacksonville Beach, FL 32250

Isle of Palms Marina, Inc.
14603 Beach Blvd.
Jacksonville, FL 32250

Jacksonville Beach Marine, Inc.
2315 Beach Blvd.
Jacksonville, Beach, FL 32250

Julington Creek Marina
12807 San Jose Blvd.
Jacksonville, FL 32217

Lambs Yacht Center Inc.
3376 Lakeshore Blvd.
Jacksonville, FL 32210

Main Street Marina
8137 N. Main Street
Jacksonville, FL 32208

Mandarin Holiday Marina & Fish Camp
12796 San Jose Blvd.
Jacksonville, FL 32223

Mayport Boat Ramp
4870 Ocean St.
Mayport, FL 32233

Mayport Marine
4852 N. Ocean St.
Mayport, FL 32233

Sadler Point Marina, Inc.
4669 Roosevelt Blvd.
Jacksonville, FL 32210

San Jose Marine
8940 San Jose Blvd.
Jacksonville, FL 32210

St. Johns River Park Marina
901 Gulf Life Drive
Jacksonville, FL 32207

ESCAMBIA

Authorized Marine Service
Route 6, Box 960
Warrington, FL 32507

Brown Marine Service, Inc.
P. O. Box 1415
Pensacola, FL 32596

Holiday Harbor Marina
Route 1, Box 9958
Pensacola, FL 32507

Nautical Specialties Marina
3050 Barrancas Avenue
Pensacola, FL 32561

Pensacola Bahia Mar, Inc.
P. O. Box 12482 Cypress & M.
Pensacola, FL 32573

Pensacola Party Boats, Inc.
920 S. Palafox St.
Pensacola, FL 32507

Pier One Marina, Inc.
47 Gulf Breeze PKWY
Gulf Breeze, FL 32561

Rod and Reel Marina
Route 6, Box 918
Pensacola, FL 32507

FLAGLER

Flagler Beach Marina & Boatworks, Inc.
A1A and N. 23rd Street
P. O. Box 66
Flagler Beach, FL 32036

Hi-Lift Marina, Inc.
2890 N. E. 187 St.
North Miami Beach, FL 33180

FRANKLIN

Bay City Lodge
Box 172
Apalachicola, FL 32320

Isle of St. James Marina
Box 396
Carrabelle, FL 32322

Rainbow Marina and Motel
123 Water Street
Apalachicola, FL 32320

Randolph Marine Inc.
119 Water Street
Apalachicola, FL 32320

HENDRY

Anglers Lakeview Marina
910 Okeechobee Blvd.
Clewiston, FL 33440

HERNANDO

Weeki Wachee Marina
Route 6, Box 840
Brooksville, FL 33512

HILLSBOROUGH

Bahia Beach Marina
P. O. Box 128
Ruskin, FL 33570

Ballast Point Park Fishing Pier
5300 Interbay Blvd.
Tampa, FL 33611

Davis Island Yacht Club
1315 Severn
Tampa, FL 33606

Imperial Yacht Basin
5002 Gandy Blvd.
Tampa, FL 33611

Interbay Marina Ways, Inc.
5200 W. Tyson Avenue
Tampa, FL 33622

Marjorie Park Marina
City of Tampa
115 Columbia Drive
Tampa, FL 33606

Tampa Yacht Country Club
5320 Interbay Avenue
Tampa, FL 33606

INDIAN RIVER

Indian Shores Marina
19625 Gulf Blvd.
Indian Shores, FL

Mariners Marina
Box 367A
Sebastian, FL 32958

Mays Marina, Inc.
P. O. Box 277
Sebastian, FL 32958

Sebastian Inlet State Recreation Area
P. O. Box 728
Wabasso, FL 32970

Vero Beach Municipal Marina
3611 Rio Vista Blvd.
Vero Beach, FL 32960

Vero Marine Center Inc.
12 Royal Palm Blvd.
Vero Beach, FL 32960

LEE

Cape Marina, Inc.
1516 S. E. 46th Street
Cape Coral, FL 33904

Coastal Marine Mart
5605 Palm Beach Blvd.
Fort Myers, FL 33905

Dolphin Marina
1506 S. E. 46th Street
Cape Coral, FL 33904

Ft. Myers Yacht Basin
P. O. Box 1909
Ft. Myers, FL 33902

Gulf Star Marina
708 Fisherman's Wharf
Ft. Myers Beach, FL 33931

Hurricane Bay Marine
1011 San Carlos Blvd.
Ft. Myers Beach, FL 33931

Marina "31" Service Center
Route 4, Box 630J
Ft. Myers, FL 33905

Olsen's Service Marina, Inc.
1100 Main St.
Ft. Myers Beach, FL 33931

Owl Creek Boat Works Storage, Inc.
Route 4, Box 619
Ft. Myers, FL 33905

Schope Marine, Inc.
1021 N. Tamiami Trail
North Ft. Myers, FL 33903

Snug Harbor Marina
San Carlos Blvd.
Ft. Myers Beach, FL 33931

St. James Marina
P. O. Box 681
St. James City, FL 33956

Tad's Marine Service, Inc.
1510 S. E. 46th Street
P. O. Box 803
Cape Coral, FL 33904

Tarpon Bay Marina
Red Pelican Cove
Sanibel Island, FL 33957

LEVY

Waccasassa Marina and Camp
P. O. Box 184
Gulf Hammock, FL 32639

Yankeetown Boat Co., Inc.
P. O. Box 358
15 Hickory Avenue
Yankeetown, FL 32698

MANATEE

Anna Marina Ways, Inc.
900 S. Bay Blvd.
Anna Maria, FL 33501

Cannons Marina, Inc.
6040 Gulf of Mexico Drive

Cortez Marina
4228 129th Street W.
P. O. Box 36
Cortez, FL 33522

Harrington's Hidden Harbor Marine
Route 3, Snead Island Road
Palmetto, FL 33561

Island Bay Marine-Sales and Service
5501 Marine Drive
Holmes Beach, FL 33510

Longboat Marina
410 Gulf of Mexico Drive
Longboat Key, FL 33548

The Field's Buccaneer Inn
595 Dream Island Road
Longboat Key, FL 33548

MARTIN

Anchorage Marina
999 N. E. Anchorage Dr.
Jensen Beach, FL 33457

Bailey Boat Co., Inc.
P. O. Box 637
Jensen Beach, FL 33457

Casea Rio Boat Motor Sales, Inc.
1050 N. E. Dixie HWY.
Jensen Beach, FL 33457

David Lowe's Boatyard, Inc.
4550 S. E. Robertson Road
Port Salerno, FL 33492

Francis Langford's Outrigger Marina
1405 N. E. Indian River Drive
Jensen Beach, FL 33457

Monterey In-Out Boat Storage
200 S. W. Monterey Road W.
Stuart, FL 33494

Pier 1
285 N. Federal HWY.
Stuart, FL 33494

Pirates Cove Marina
1 Bayview Street

Sand Spirit Park
3443 S. E. St., Lucie Blvd.
Stuart, FL 33494

US-1 Boats, Inc
111 N. Federal HWY.
Stuart, FL 33494

Whiticar Boat Works, Inc.
3636 S. E. Old St. Lucie Blvd.
Stuart, FL 33494

MONROE

Bahia Honda State Recreation Area
Route 1, Box 782
Big Pine Key, FL 33043

Boog Powell's Anglers Marina, Inc.
5 Mile Marker U.S. HWY #1 Stock Island
Key West, FL 33040

Bonefish Harbor Marina
Route 1, Box 131
Marathon, FL 33050

Bow Channel Camp and Marina
Route 2, Box 14A
Sugarloaf Key, FL 33402

Bud Mary's Marina
P. O. Box 628
Islamorada, FL 33036

Caloosa Cove Marina
Box 446
Islamorada, FL 33036

Deep 6 Marina
P. O. Box 14-S
Key Largo, FL 33037

Duck Key Marina
Route 1, Box 1149
Duck Key, FL 33050

Farco Blanco Marine Resort, Inc.
1996 Overseas HWY.
Marathon, FL 33050

Hurricane Resort
4650 Overseas HWY.
Marathon, FL 33050

Joe Bobbi's Boot Key Marina
1000 15th Street
Marathon, FL 33050

Key Largo Oceanside Marina and Airport
MM 100
Key Largo, FL 33037

Key West Oceanside Marina
Foot or Maloney Ave., Stock Island
Key West, FL 33040

Key West Yacht Club
2315 W. Roosevelt Blvd.
Key West, FL 33040

Mandalay Marina
Route 1, Box 90
Key Largo, FL 33037

Marathon Boat Yard, Inc.
2059 Overseas HWY.
Marathon, FL 33050

Max's Marine Inc.
Mile Marker 80.5
Islamorada, FL 33036

Morrays Marine, Inc.
Jr. College Road
Key West, FL 33040

Outdoor Resorts at Long Key
Box 816
Long Key, FL 33001

Perdue-Dean Marina
Ocean Reef
Key Largo, FL 33037

Ship-A-Hoy Motel Marina
903 Eisenhower Dr.
Key West, FL 33040

Sombrero Reef Club, Inc.
19 Sombrero Blvd.
Marathon, FL 33050

Steadman's Boat Yard, Inc.
701 Palm Ave.
Key West, FL 33040

Sugarloaf Marina Inc.
Mile Marker 17
Sugarloaf Key, FL 33044

Summerland Key Marina
P. O. Box 320
MM 25 U.S. HWY. 1
Summerland Key, FL 33042

Sunshine Key Travel Park
Route 1, Box 790
Sunshine Key, FL 33043

The Boat House
12411 Overseas HWY.
Marathon, FL 33050
Unwinder Motel and Marina
272A Route 1
Key Largo, FL 33037

NASSAU

Fernandina Beach Municipal Marina
P. O. Box 668
Fernandina Beach, FL 32034

OKALOOSA

Deckhands Marine
HWY. 98 East
Ft. Walton Beach, FL 32548

Ft. Walton Lodge Yacht Basin
104 Miracle Strip Parkway
Ft. Walton Beach, FL 32548

Gap Creek Marine
666 Beak PKWY.
Ft. Walton Beach, FL 32548

Marlborough Marina
Box 731
Destin, FL 32541

Mohl's Marina, Inc.
14 Marina Drive
Ft. Walton Beach, FL 32548

Playground Sails
32 Miracle Strip PKWY.
Ft. Walton Beach, FL 32548

Robroy Lodge and Marina
P. O. Box 725
Destin, FL 32541

Shalimar Yacht Basin, Inc.
P. O. Box 188
Shalimar, FL 32579

Sound Marina
225 Amberjack Drive
Ft. Walton Beach, FL 32548

The Boat
32 Miracle Strip
Ft. Walton Beach, FL 32548

OKEECHOBEE

T. J. Marine, Inc.
305D S. 441
Okeechobee, FL 33472

PALM BEACH

Cannonsport Marina
178 Lake Drive
Palm Beach Shores, FL 33404

Del-Mar Marine, Inc.
1025 S. Federal HWY.
Delray Beach, FL 33444

E & H Boat Works, Inc.
2180 Idlewilde Road
Lake Park, FL 33410

Gundlach's Marina, Inc.
870 Federal HWY.
Lantana, FL 33462

Hypoluxo Marina, Inc.
8250 U. S. 1
Hypoluxo, FL 33462

Jib Club
State Road 707
Jupiter, FL 33458

Lake Park Marina
535 Park Ave.
Lake Park, FL 33403

Lantana Boatyard, Inc.
808 N. Dixie HWY.
Lantana, FL 33462

Lott Tackle and Marina, Inc.
631 Northlake Blvd.
Lake Park, FL 33408

Marineway Boat and Auto Service
8th Street & Intracoastal Bridge
Delray Beach, FL 33444

Merritt's Boat Engine Works, Inc.
2931 N. E. 16th Street
Pompano Beach, FL 33062

Moffitt Inlet Marina
255 East 22nd Court
Riviera Beach, FL 33404

Murrelle Marine, Inc.
P. O. Box 3585
Lantana, FL 33462

Palm Harbor Marina
400 N. Flagler Drive
West Palm Beach, FL 33401

Riviera Beach Municipal Marina
c/o Municipal Complex
Blue Heron Blvd.
Palm Beach Shores, FL 33404

Sailfish Marina and Motel
98 Lake Drive
Palm Beach Shores, FL 33404

Spencer Boat Co., Inc.
4000 North Dixie Drive
West Palm Beach, FL 33407

Wharfside Marine
U.S. 1 AIA
Jupiter, FL 33458

PASCO

Gooney Bird Marina
970 Gulf Dr. Blvd.
Port Richey, FL 33568

Staley's Hudson Marina, Inc.
148 Clark St.
Hudson, FL 33568

PINELLAS

Bayboro Marina, Inc.
110 Third Street South
St. Petersburg, FL 33701

Bay Pines Marina
9293 Bay Pines Blvd.
St. Petersburg, FL 33708

Bay West Boat Works, Inc.
12022 Gandy Blvd.
St. Petersburg, FL 33702

Clearwater Bay Marine Ways, Inc.
900 North Osceola Avenue
Clearwater, FL 33515

Clearwater Marina
25 Causeway Blvd.
Clearwater, FL 33515

Commodores International Yacht Club
343 Causeway Blvd.
Dunedin, FL 33528

Cruising World, Inc.
12030 Gandy Blvd.
St. Petersburg, FL 33703

Dunedin Municipal Marina
51 Main Street
Dunedin, FL 33528

Ed's Landing Blue Finn Bait Tackle
105 Oscar Hill Road
Tarpon Springs, FL 33589

High and Dry Marina, Inc.
202 Windward Passage
Clearwater, FL 33515

Home Port Marina, Inc.
P. O. Box 1133
Dunedin, FL 33528

Huber Yacht Harbor
5950 34th Street South
St. Petersburg, FL 33711

Indian Springs Marina
15151 113th Avenue N.
Largo, FL 33540

John's Pass Marina, Inc.
12795 Kingfish Drive
Treasure Island, FL 33706

Largo Intracoastal Marine
12458 145th Lane N.
Largo, FL 33540

Minnow Creek Marine Ways
Old Route 19
Dunedin, FL 33528

Pirate's Cove Marina
24000 Bayshore Blvd.
Dunedin, FL 33528

Port Tarpon Marina
P. O. Box 1486
Tarpon Springs, FL 33589

Port Tarpon Marina, Inc.
Anclote Road
Tarpon Springs, FL 33589

Ross Yacht Service, Inc.
279 Windward Passage
Clearwater, FL 33515

Sailport
42000 HWY. 19 South
Palm Harbor, FL 33563

Snug Harbor Marine Ways
13625 Gulf Blvd.
Madeira Beach, FL 33708

Stoller's Pass-A Grille Hi Dry Marina
1901 Pass-A-Grille Hi Dry Marina
St. Petersburg Beach, FL 33706

St. Petersburg Municipal Marina
400 2nd Avenue N.E.
St. Petersburg, FL 33701

Suncoast Rent-A-Boat
17813 Gulf Blvd.
Redington Shores, FL 33708

Tarpon Springs City Marina
100 Dodecanese Blvd.
Tarpon Springs, FL 33589

Walter K. Prior Boat Builder
P. O. Box 645
4100 Bayshore Blvd.
Dunedin, FL 33528

Yacht Yard South
241 Windward Passage
Clearwater, FL 33515

PUTNAM

Boathouse Marina
329 River Street
Palatka, FL 32077

Cypress Point
Route 2, Box 281
East Palatka, FL 32031

Gibson Dry Docks
P. O. Box 293
San Mateo, FL 32088

SANTA ROSA

Nichols Seafood Restaurant & Marina
P. O. Box 246
Bagdad, FL 32530

U. S. Navy Water Recreations Area
NAS Whiting Field Special Services
Milton, FL 32570

SARASOTA

Chuck's Marina, Inc.
1991 Placida Road
Englewood, FL 33533

Hansen Marine, Inc.
1201 N. Tamiami Trail
Sarasota, FL 33577

Helsmen Marina
1139 10th Street
Sarasota, FL 33577

John Homes, Inc.
480 Blackburn Point Road
Osprey, FL 33559

Lemon Bay Marina
779 W. Wentworth Street
P. O. Box 1028
Englewood, FL 33533

Marlow Marine
1775 Lowe Drive
Sarasota, FL 33580

Nokomis Marine Ways
Circuit and Albee Road
Nokomis, FL 33555

Venice Marine Center Inc.
P. O. Box 696
1485 S. Tamiami Trail
Venice, FL 33595

ST. JOHNS

Marineland Marina
Route 1, Box 122
St. Augustine, FL 32084

North Beach Camping Park
610 Euclid Avenue
St. Augustine, FL 32084

St. Augustine Municipal Pier
P. O. Box 97
100 Avenida Menendez
St. Augustine, FL 32084

Sunrise Marina, Inc.
801 S. Ponce De Leon Blvd.
St. Augustine, FL 32084

ST. LUCIE

Fort Pierce City Marina
One Avenue A
Ft. Pierce, FL 33450

Simonsen's Restaurant
201 Fisherman's Wharf
Ft. Pierce, FL 33450

Taylor Creek Marina
1600 North 2nd Street
Ft. Pierce, FL 33450

TAYLOR

Ideal Fish Camp
Box 24
Steinhatchee, FL 32359

Paces Marina and Motel
Highway 51, Box 26
Steinhatchee, FL 32359

Palm Grove
P. O. Box 324
Steinhatchee, FL 32359

VOLUSIA

Aloha Marina, Inc.
10 Second Street
Holly Hill, FL 32017

Causeway Marine Corporation
4 North Causeway
New Smyrna Beach, FL 32069

Granada Riverfront Park
22 South Beach Street
Ormond Beach, FL 32074

Howard Boat Works, Inc.
633 Ballough Road
Daytona Beach, FL 32014

Lighthouse Boatyard
4958 S. Peninsula Drive
Ponce Inlet, FL 32019

Municipal Yacht Basin
401 South Beach Street
Daytona Beach, FL 32015

Ormond Marina
1618 John Anderson Drive
Ormond Beach, FL 32036

Pelican Island Marina Fishing Camp
3226 Riverview Lane
Daytona Beach, FL 32019

Sailboat Headquarters, Inc.
94 Halifax Drive
Port Orange, FL 32019

Sea Harbest Marina
201 N. Peninsula Drive
New Smyrna Beach, FL32069

Smyrna Yacht Club
P. O. Box 7G
New Smyrna Beach, FL 32069

South Peninsula Marina, Inc.
3948 S. Peninsula Drive
Daytona Beach, FL 32019

WAKULLA

Alligator Point Marina
Route 1, Box 200
Crawfordville, FL 32327

WALTON

Black Creek Lodge, Inc.
Route 2, Box 302
Freeport, FL 32439

Dulls Marine-O-Rama
Route 2, Box 77
Freeport, FL 32439