THE NATION'S CHARTMAKER SINCE 1807

MIAMI TO MARATHON AND FLORIDA BAY

FLORIDA

BROADCASTS OF MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

CITY	STATION	FREQ.	BROADCAST TIMES - EST	SPECIAL WARNING
Miami, FL	NOF	260 kHz	10:50 AM & PM	*On receipt
Key West, FL	NOK	157.1 MHz	7:00 AM & 5:00 PM	*On receipt

*Preceded by announcement on 2182 kHz and 156.8 MHz.
Distress calls for small craft are made on 2182 kHz or channel 16 (156.80 MHz) VHF.

NOAA WEATHER RADIO BROADCASTS

CITY	STATION	FREQ.	BROADCAST TIMES
Miami, FL.	KHB-34	162.550 MHz	24 hours daily
West Palm Beach, FL.	KEC-50	162.475 MHz	24 hours daily
Tearaldo Key, FL.	WWG-60	162.450 MHz	24 hours daily
Sugarloaf Key, FL.	WXJ-95	162.400 MHz	24 hours daily

MARINE WEATHER FORECASTS
NATIONAL WEATHER SERVICE

CITY	TELEPHONE NUMBERS	OFFICE HOURS
Miami, FL	*(305) 229-4522	24 hours daily
Key West, FL	*(305) 295-1316	24 hours daily

*Recording (24 hours daily)

PUBLIC BOATING INSTRUCTION PROGRAMS

The United States Power Squadron and U.S. Coast Guard Auxiliary, national organizations of boatmen, conduct extensive boating instruction programs in communities throughout the United States. For information regarding these educational courses contact the following sources:

USPS - Local Squadron Commander or USPS National Headquarters, Post Office Box 30423, Raleigh, North Carolina 27612

USCGAUX - 7th Coast Guard District, 51 Southwest First Ave., Miami, Fla. 33130, (305) 350-5621 or USCG Headquarters (BAUX62), Washington, D.C. 20590.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

NO	SMALL CRAFT FACILITY	DEPTHS: CHANNEL DEPTH	DEPTHS: APPROACH DEPTH (REPORTED)	DEPTHS: ALONGSIDE DEPTH (REPORTED)	SERVICES: SLIP LENGTH (APPROXIMATE)	SERVICES: GASOLINE (GAL. PER HOUR)	SERVICES: MARINE RAILWAY (LIFT CAPACITY TONS)	SERVICES: BOAT RENTAL	SERVICES: FOOD	SERVICES: LODGING	SERVICES: CAMPING	SERVICES: TOILETS	SERVICES: SHOWERS	SERVICES: LAUNDRY	SERVICES: PUMP-OUT STATION	SUPPLIES: FUEL	SUPPLIES: ICE	SUPPLIES: PROVISIONS	SUPPLIES: SUNDRIES	SUPPLIES: HARDWARE	SUPPLIES: HOTEL OR LODGING
1	MIAMI BEACH MARINA	D	11	14	B	E						M	C	S	FL	TSLP	W	C	WI	GH	BT	DG
4	CRANDON PARK MARINA	A	6	5	BME		S				5		C		F	T	P	WD	WI		BT	DG
16A	HOMESTEAD BAY FRONT PARK MARINA	A	4	4	B	E	S				6				F	TS	P	WD	WI	GH	BT	DG
22	ANCHORAGE RESORT & YACHT CLUB	C	7	7	B	E	N								FL	TSLP			WI			G
34C	KEY LARGO MARINA	C	5	25	B	E	S	HMR	60						C	TSLP	WD	C	WI	H		DG
35D	KEY LARGO RESORT MARINA	C	6	22	B	E	S					M			FL	TSLP			WI	G		DG
36A	PILOT HOUSE MARINA	C	4½	16	B	E									FL	TSLP	W	C	WI		BT	DG
51	HOLIDAY ISLE MARINA	E	4½	6	B	E	S					C	M	C	S	FL	TSLP		C	WI	G	BT	DG
60	WORLDWIDE SPORTSMAN	F	3	4	B	E								C	FL	T	P		C	WI	GH	BT	DG
69	HAWK'S CAY RESORT	G	5	5	B	E	S						M	C	FL	TSLP			C	WI	GH	BT	G
71	KEY COLONY BEACH MARINA	G	7	7	B	E	S					C		C	F	TS	P		C	WI	G	BT	DG
77B	VOIT'S SOMBRERO MARINA	H	9	8	B	E	S	M						CH	F	TS	P	W		WI	G		DG
87	BURDINES WATERFRONT	H	8	8	B	E						R			F	TSLP			C	WI		BT	DG
90	FLAMINGO LODGE MARINA	B	4	5	B	E	S					C	M	CHS	FLC	TSLP			C	WI	GH	BT	DG
95	SOMBRERO RESORT AND LIGHTHOUSE	H	8	10	B	E	S							C	FL	TS	P	W		WI			G

THE LOCATIONS OF THE ABOVE PUBLIC MARINE FACILITIES ARE SHOWN ON THE CHART BY MAGENTA NUMBERS AND LEADERS.
THE TABULATED "APPROACH-FEET (REPORTED)" IS THE DEPTH AVAILABLE FROM THE NEAREST NATURAL OR DREDGED CHANNEL TO THE FACILITY.
THE TABULATED "PUMP-OUT STATION" IS DEFINED AS FACILITIES AVAILABLE FOR PUMPING OUT BOAT HOLDING TANKS.

SCALE 1:80,000
Nautical Miles

LOGARITHMIC SPEED SCALE

To find SPEED, place one point at dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

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U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE

11451 EDITION 35 FEB 2011
Last Correction: 2/23/2011. Cleared through:
LNM: 4015 (10/6/2015), NM: 4215 (10/17/2015)

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This chart was distributed as a PDF (Portable Document Format). Printing PDFs may alter the chart scale, color, or legibility that may impact suitability for navigation. Printed charts provided by NOAA certified Print on Demand (POD) providers fulfill a vessel's requirement to carry a navigational chart "published by the National Ocean Service" in accordance with federal regulations, including but not limited to 33 C.F.R. 164.33(a), 33 C.F.R. 164.72(b), and 46 C.F.R. 28.225(a). POD charts meet stringent print standards and can be recognized by an official certification of authenticity printed on the chart. A list of POD providers can be found at: nauticalcharts.noaa.gov/pod

THE NATION'S CHARTMAKER SINCE 1807

NAUTICAL CHART 11451
MIAMI TO MARATHON AND FLORIDA BAY
FLORIDA

Mercator Projection
Scale 1:80,000
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET AT MEAN LOWER LOW WATER

HEIGHTS
Heights in feet above Mean High Water.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

For Symbols and Abbreviations see Chart No. 1

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: — — — —

NOTE B
The aids are private and positions are approximate.

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

Distances
The waterway and suggested routes from Key West leading to the Intracoastal Waterway in Florida Bay are indicated by magenta lines. Mileage distances shown along the waterway and routes are in statute miles; southward from Norfolk, Virginia and indicated thus:
Tables for converting statute miles to International nautical miles are given in Coast Pilots 4 and 5. Courses are TRUE and must be CORRECTED for any variation and compass deviation.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

NOTE L
PRECAUTIONARY AREA
A Precautionary Area exists around Miami Lighted Buoy "M". Large commercial ships inbound and outbound of the port will board and disembark pilots within this area and will be severely limited in their ability to maneuver. All vessels are advised to exercise extreme care in navigating within this area.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilots 4 and 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 7th Coast Guard District in Miami, Florida, or at the Office of the District Engineer, Corps of Engineers in Jacksonville, Florida.
Refer to charted regulation section numbers.

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

INTRACOASTAL WATERWAY
Project Depths
12 feet Norfolk, VA to Fort Pierce FL; 10 feet Fort Pierce, FL to Miami FL; 7 feet Miami, FL to Cross Bank, Florida Bay.
The controlling depths are published periodically in the U.S. Coast Guard Local Notice to Mariners.
Additional information can be obtained at nauticalcharts.noaa.gov

INTRACOASTAL WATERWAY AIDS
The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted.
Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways.
When following the Intracoastal Waterway southward from Norfolk, VA to Cross Bank in Florida Bay, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel.
A horizontal yellow band provides no lateral information, but simply identifies aids to navigation as marking the Intracoastal Waterway.

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 4 & 5 for important supplemental information.

HURRICANES AND TROPICAL STORMS
Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown location.
Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.
Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

FACILITIES
Locations of public marine facilities are shown by large magenta numbers with leaders and refer to the facility tabulation.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

SCALE 1:80,000
Nautical Miles
Statute Miles
Yards

NOTE C
BISCAYNE NATIONAL PARK CLOSED AREA
For the protection of artifacts, this portion of Biscayne National Park is closed to the following activities:
Scuba diving, snorkeling, swimming, floating and any activity that involves placing persons or equipment, on, in or under the water. However, hook and line "drift" fishing is allowed.
Use of any underwater viewing device including, but not limited to, face masks, glass bottom boats, glass bottom buckets or cameras.
Anchoring any vessel at any time unless an emergency exists.

CAUTION
BASCULE BRIDGE CLEARANCES
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

The following symbols were designed especially for this chart. They are not standard nautical chart symbols and are not indicated in Chart No. 1, "Nautical Chart Symbols and Abbreviations."

Camping Area — Ranger Station (NPS) National Park Service

NOTE S
Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

PARTICULARLY SENSITIVE SEA AREA
The Particularly Sensitive Sea Area (PSSA) is indicated by a dashed green limiting line highlighted with a green screened band or by a green screened band used in conjunction with the line symbol for other limits with which the PSSA coincides. A PSSA is an environmentally sensitive area around which mariners should exercise extreme caution. See U.S. Coast Pilot volumes for information regarding this area.

NOTE H
EVERGLADES NATIONAL PARK
PROTECTED AREA
For the protection of wildlife, all Keys in the Florida Bay portion of Everglades National Park are closed to landing except those marked as designated camping areas. A backcountry use permit is required for overnight camping and can be obtained at park Ranger Stations.
The killing, collecting, or molesting of animals, the collecting of plants, and waterskiing are prohibited by Federal Regulation.

CUTHBERT LAKE
Cuthbert Lake is closed to all boat traffic.

NOTE K
PROHIBITED AREAS
(Areas to be avoided)
Under the Florida Keys National Marine Sanctuary and Protection Act, Pub. L. 101-605 and IMO advisory SN/Circ. 145, these areas are to be avoided by tank vessels and vessels greater than 50 meters in length.

NO-DISCHARGE ZONE, 40 CFR 140
All Florida State waters within the Florida Keys National Marine Sanctuary are designated as a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site, http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

SHOALS AND PASSES
Mariners are advised to use caution. The shoals (dark blue areas) and passes (heavy dotted lines) were obtained from reports and have not been verified by field surveys. Stakes and piles, marking passes, are not shown due to their frequent change in position.

NOTE E
Numerous daybeacons marking the channel to Largo Sound are not charted.

NOTE F
The positions of daybeacons in Garden Cove are approximate.

NOTE G
The daybeacons are private and positions are approximate.

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

Last Correction: 10/14/2015. Cleared through:
LNM: 4015 (10/6/2015), NM: 4215 (10/17/2015)
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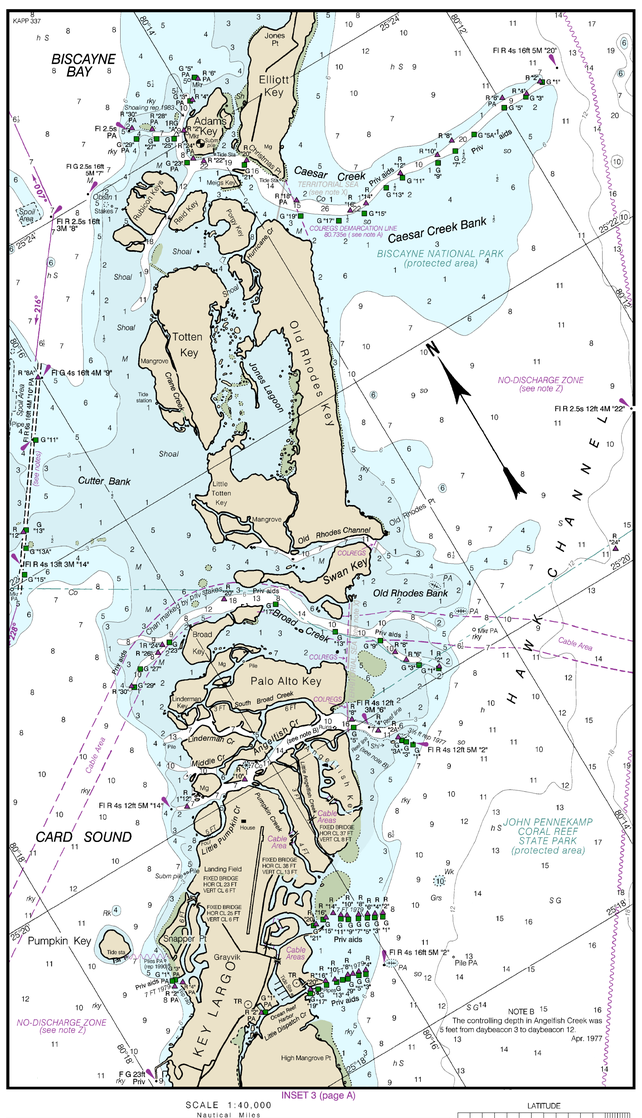
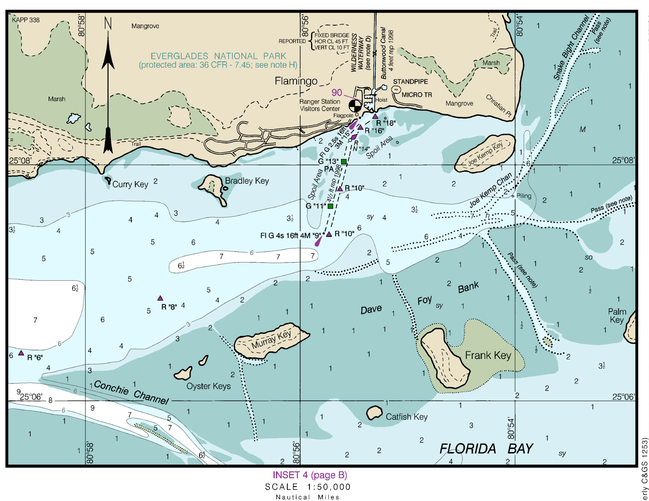


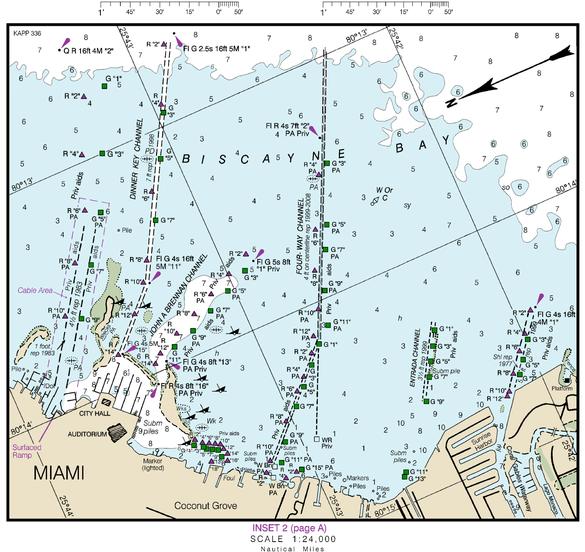
INSET 3 (page A)

SCALE 1:40,000



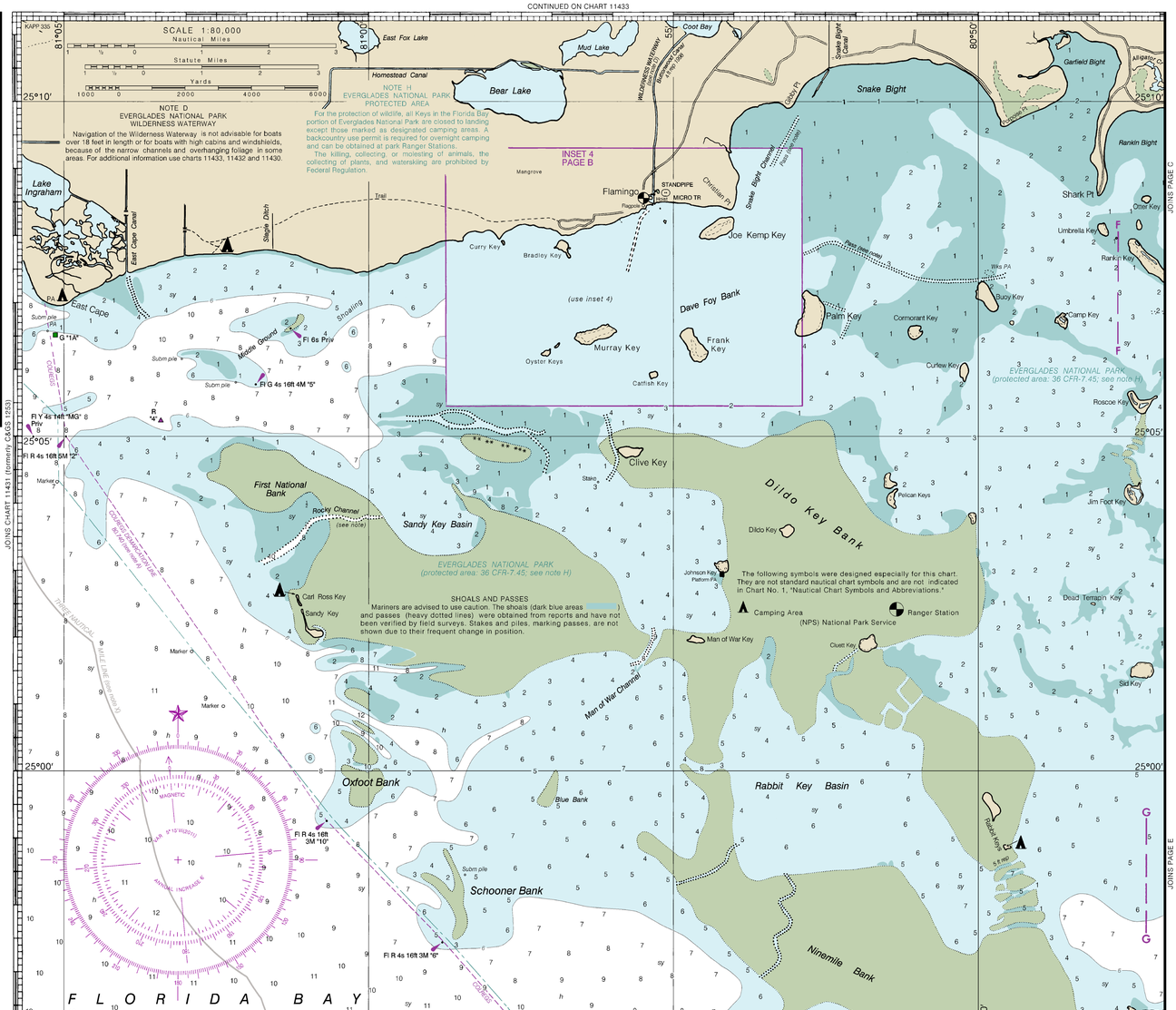
INSET 4 (page B)

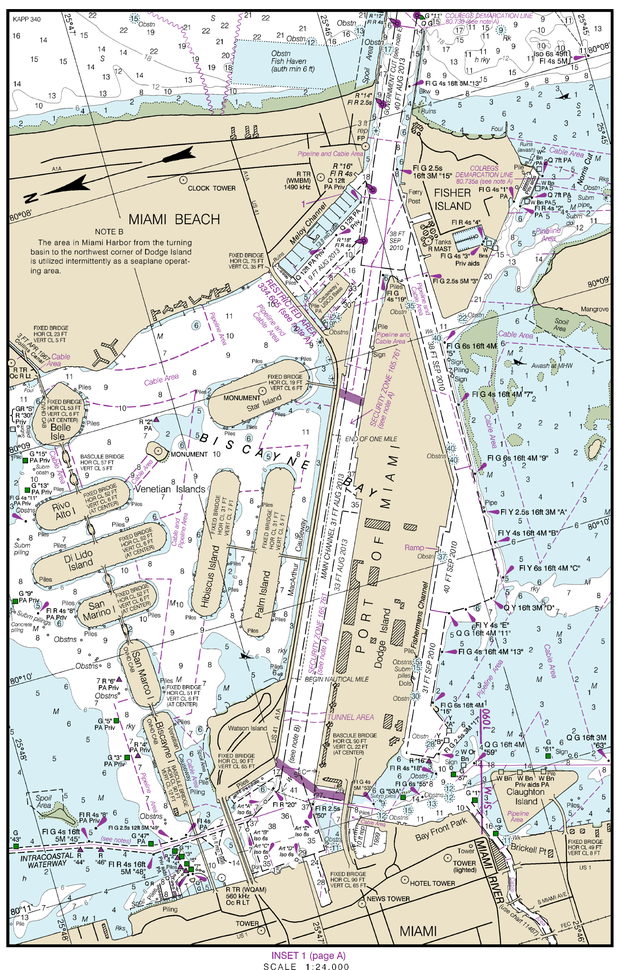
SCALE 1:50,000



INSET 2 (page A)

SCALE 1:24,000





INSET 1 (page A)

SCALE 1:24,000

LOGARITHMIC SPEED SCALE

To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

Radio Bearing Conversion Table

Table of corrections, in minutes

[DIFFERENCE OF LONGITUDE IN DEGREES]

Mid. Lat.	½°	1°	1½°	2°	2½°	3°	3½°	4°	4½°	5°	5½°	6°	6½°	7°	7½°	8°	8½°	9°	9½°	10°
15°....	4	8	12	16	19	23	27	31	35	40	43	47	50	54	58	62	66	70	74	78
16°....	4	8	12	17	21	25	29	33	37	41	45	50	54	58	62	66	70	74	79	83
17°....	4	9	13	18	22	26	31	35	39	44	48	53	57	61	66	70	75	79	83	88
18°....	5	9	13	19	23	28	32	37	42	46	51	56	60	65	70	74	79	83	88	93
19°....	5	10	15	20	25	29	34	39	44	49	54	59	63	68	73	78	83	88	93	98
20°....	5	10	15	21	26	31	36	41	46	51	56	62	67	72	77	82	87	92	98	103
21°....	5	11	16	21	27	33	38	43	48	54	59	64	70	75	81	86	91	97	102	108
22°....	5	11	17	22	28	34	39	45	51	56	62	67	73	79	84	90	96	101	107	112
23°....	6	12	18	23	29	35	41	47	53	59	64	70	76	82	88	94	100	105	111	117
24°....	6	12	18	24	31	37	43	49	55	61	67	73	79	85	92	98	104	110	116	122
25°....	6	13	19	25	32	38	44	51	57	63	70	76	82	89	95	101	108	114	120	127
26°....	7	13	20	26	33	39	46	53	59	66	72	79	85	92	99	105	112	118	125	131
27°....	7	14	20	27	34	41	48	54	61	68	75	82	89	95	102	109	116	122	129	136
28°....	7	14	21	28	35	42	49	56	63	70	77	84	92	99	106	113	120	127	134	141
29°....	7	15	21	29	36	44	51	58	65	73	80	87	95	102	109	116	124	131	138	145
30°....	7	15	22	30	38	45	53	60	68	75	83	90	98	105	113	120	127	135	143	150
31°....	8	15	23	31	39	46	54	62	70	77	85	93	100	108	116	124	131	139	146	155
32°....	8	16	24	33	40	48	56	64	72	79	87	95	103	111	119	127	135	143	151	158
33°....	8	16	25	33	41	49	57	65	74	82	90	98	106	114	123	131	139	147	155	163
34°....	8	17	25	34	42	50	59	67	75	84	92	101	109	117	126	134	143	151	159	168
35°....	9	17	26	34	43	52	60	69	77	86	95	103	112	120	129	138	146	155	163	172
36°....	9	18	26	35	44	53	62	71	79	88	97	106	115	123	132	141	150	159	168	176
37°....	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	172	181
38°....	9	18	28	37	46	55	65	74	83	92	102	111	120	129	139	148	157	166	175	185
39°....	9	19	28	38	47	57	66	75	85	94	104	113	123	132	142	151	160	170	179	189
40°....	10	19	29	39	48	58	68	77	87	96	106	116	125	135	145	154	164	174	183	193
41°....	10	20	30	39	49	59	69	79	89	98	108	118	128	138	148	157	167	177	187	197
42°....	10	20	30	40	50	60	70	80	90	100	110	120	130	140	151	161	171	181	191	201
43°....	10	20	31	41	51	61	72	82	92	102	113	123	133	143	153	164	174	184	194	205
44°....	10	21	31	42	52	63	73	83	94	104	115	125	135	146	156	167	177	188	198	208
45°....	11	21	32	42	53	64	74	85	95	106	117	127	138	149	159	170	180	191	201	212
46°....	11	22	32	43	54	65	76	86	97	108	119	129	140	151	162	173	183	194	205	216
47°....	11	22	33	44	55	66	77	88	99	110	121	132	143	154	165	176	186	197	208	219
48°....	11	22	33	45	56	67	78	89	100	111	123	134	145	156	167	178	190	201	212	223
49°....	11	23	34	45	57	68	79	91	102	113	125	136	147	158	170	181	192	204	215	226
50°....	11	23	34	46	57	69	80	92	103	115	126	138	149	161	172	184	195	207	218	230
51°....	12	23	35	47	58	70	82	93	105	117	128	140	152	163	175	186	198	210	221	233
52°....	12	24	35	47	59	71	83	95	106	118	130	142	154	165	177	189	201	213	225	236
53°....	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
54°....	12	24	36	49	61	73	85	97	109	121	133	146	158	170	182	194	206	218	231	243
55°....	12	25	37	49	61	74	86	98	111	123	135	147	160	172	184	197	209	221	233	246
56°....	12	25	37	50	62	75	87	100	112	124	137	149	162	174	187	199	211	224	236	249
57°....	13	25	38	50	63	75	88	101	113	126	138	151	164	176	189	201	214	226	239	252
58°....	13	25	38	51	64	76	89	102	115	127	140	153	165	178	191	204	216	229	242	254
59°....	13	26	39	51	64	77	90	103	116	129	141	154	167	180	193	206	219	231	244	257
60°....	13	26	39	53	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260

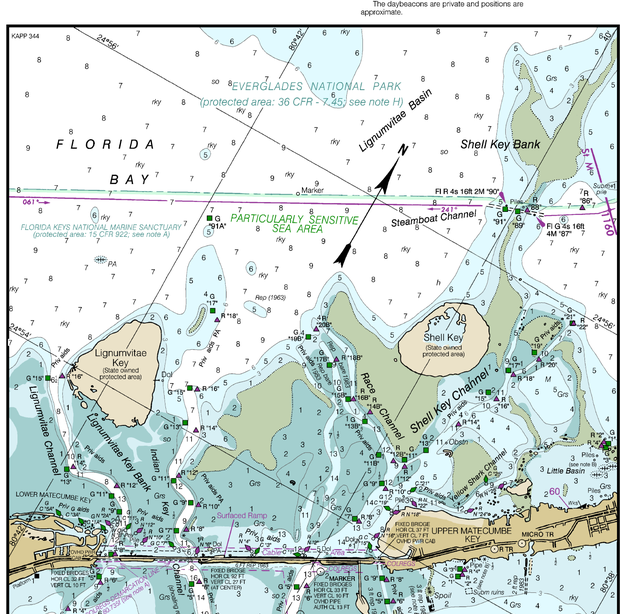
Example. A ship in latitude 39°51′. N., longitude 67°35′ W., by dead reckoning, obtains a radio bearing of 299° true on the radiobeacon located in latitude 40°37′. N., longitude 69°37′ W.

Radiobeacon station	Latitude	40°37′ N.
Dead-reckoning position of ship	Latitude	39°51′
Middle latitude		40°14′
Radiobeacon station	Longitude	69°37′ W.
Dead reckoning position of ship	Longitude	67°35′
Longitude difference		2°02′

Entering the table with difference of longitude equals 2°, which is the nearest tabulated value and opposite 40° middle latitude, the correction of 39′ is read.

As the ship is east of the radiobeacon, a minus correction is applied. The Mercator bearing then will be 299°−000°39′=298°21′. To facilitate plotting, subtract 180° and plot from the position of the radiobeacon the bearing 298°21′−180°, or 118°21′ (Mercator bearing reckoned clockwise from true north).

DETERMINATION OF WIND SPEED FROM SEA CONDITION				
Wind Speed (knots)	Wind Description	Sea Conditions	Wind Force (Beaufort)	Probable Wave Height (feet)
0-1	Calm	Sea smooth and mirror-like.	0	-
1-3	Light air	Scale-like ripples without foam crests	1	¼
4-6	Light breeze	Small, short wavelets; crests have a glassy appearance and do not break.	2	½
7-10	Gentle breeze	Large wavelets; some crests begin to break; foam of glassy appearance. Occasional white foam crests.	3	2
11-16	Moderate breeze	Small waves, becoming longer; fairly frequent white foam crests.	4	4
17-21	Fresh breeze	Moderate waves, taking a more pronounced long form; many white foam crests. there may be some spray.	5	6
22-27	Strong breeze	Large waves begin to form; white foam crests are more extensive everywhere; there may be some spray.	6	10
28-33	Near gale	Sea heaps up and white foam from breaking waves begin to be blown in streaks along the direction of the wind; spindrift begins.	7	14
34-40	Gale	Moderately high waves of greater length; edges of crests break into spindrift; foam is blown in well-marked streaks along the direction of the wind.	8	18

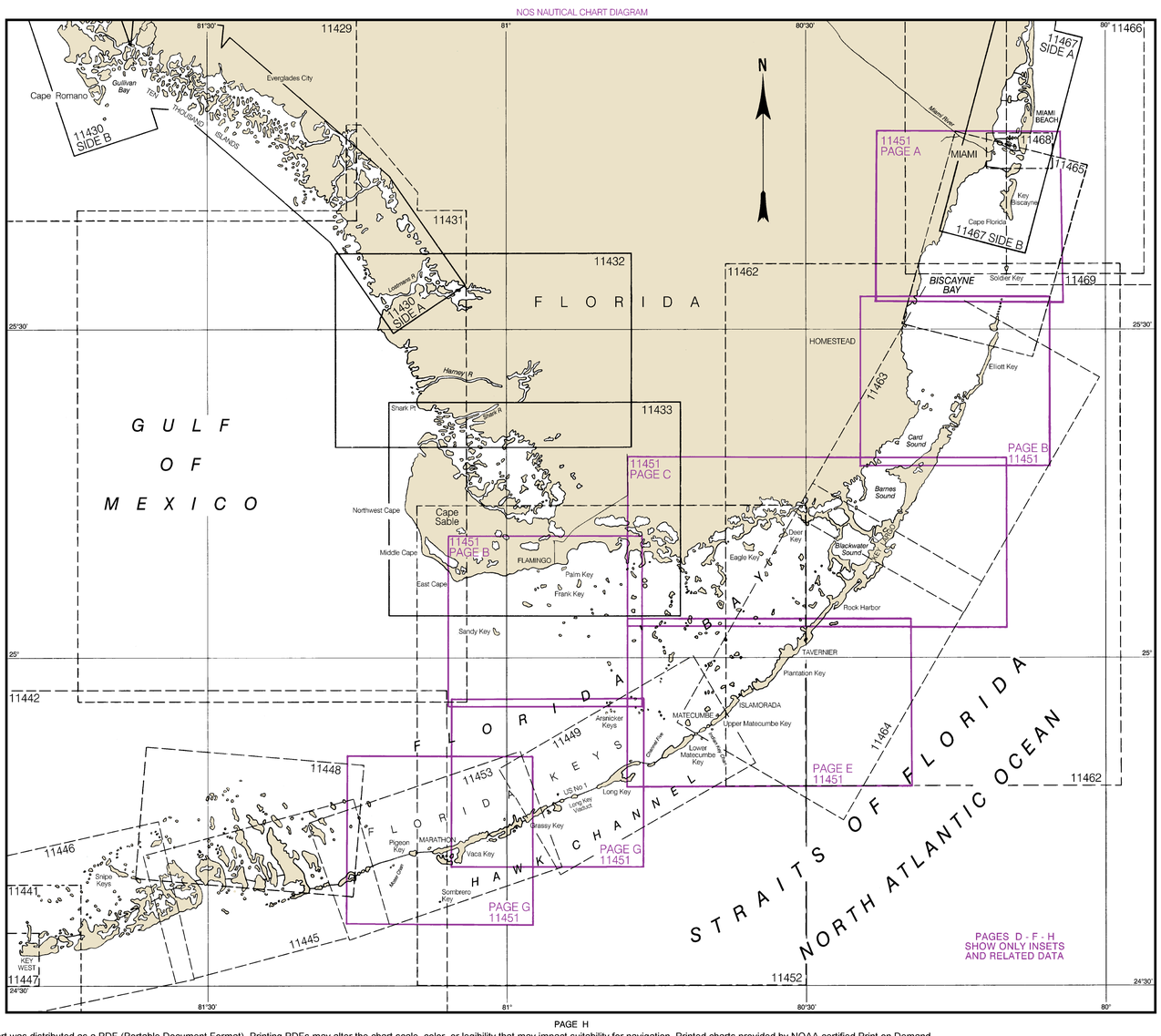


INSET 7 (page E)

SCALE 1:40,000

INSET 8

SCALE 1:40,000



Last Correction: 9/23/2015. Cleared through: LNM: 4015 (10/6/2015), NM: 4215 (10/17/2015)

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