



# Department of Environmental Protection

0000358

Jeb Bush  
Governor

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

Please respond to:  
Division of State Lands  
Bureau of Survey and Mapping  
Mail Station 105

August 28, 2000

Mr. Michael Crane  
NESDIS Headquarters, E/OC1  
4301 Rickenbacker Cswy  
Miami, FL 33149-1026

Dear Mr. Crane:

I am sending to you a data CD which contains 1998 tide data from the Florida Department of Environmental Protection tide stations.

Please contact me at 850.488.2427 if you have any questions.

Thank you,

*for* Randy Harrell  
PLS II



Jeb Bush  
Governor

# Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

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Please respond to:  
Division of State Lands  
Bureau of Survey and Mapping  
Mail Station 105

August 25, 2000

Mr. Michael Crane  
NESDIS Headquarters, E/OC1  
4301 Rickenbacker Cswy  
Miami, FL 33149-1026

Dear Mr. Crane:

I am sending to you a data CD which contains all available data from the Florida Department of Environmental Protection tide stations. I am also sending some instructions for accessing the data along with a list of tide station information which might be helpful.

Please contact me at 850.488.2427 if you have any questions.

Thank you,

*Joh* Randy Harrell  
PLS II

"More Protection, Less Process"

Printed on recycled paper.

## Instructions for Accessing Tide Station Data

- The data is in ACSII format.
- The file name indicates the data set.
  - The first 4 numbers at the beginning of each file name identifies the tide station. (e.g. 0554jan1.h2o contains data for tide station 0554. Please note that all tide stations numbers have a "872" prefix which is not included in the file name.)
  - The next 4 characters of the file name indicate the time period of data the file contains. These 4 characters include a three letter abbreviation for the month of data the file contains followed by a number. If for instance you see two files for the same month, like "0554jan1.h2o" and "0554jan2.h2o," this means that there was a gap in the water level data for that month and that the "jan1" file contains the data for the first half of January while the "jan2" file contains the data for the last half of January.
  - The extensions indicate the data type that each file contains:
    - ❑ "bar" indicates barometric pressure (measured in mbars)
    - ❑ "h2o" indicates water level (corrected to NAVD 88; measured in meters)
    - ❑ "win" indicates wind data (wind speed and gust measured in meters/second; wind direction is measured in degrees 0-360)
    - ❑ "wcl" indicates water conductivity lower sensor data (measured in microseimens/cm)
    - ❑ "wch" indicates water conductivity high sensor data (measured in microseimens/cm)
    - ❑ "wtl" indicates water temperature lower sensor data (measured in °C )
    - ❑ "wth" indicates water temperature high sensor data (measured in °C )
- The first column in every file contains the date/time in Julian date and decimal time format. All readings are on Greenwich Mean Time. Additionally, instruments do not observe daylight savings time.
- The data is listed in the following format:
  - For files containing water level
    - ❑ The first column contains the Julian date/decimal time value
    - ❑ The second column contains the primary water level mean
    - ❑ The third column contains the standard deviation
    - ❑ The fourth and fifth columns contain the air temperatures inside instrument
  - For files containing wind data
    - ❑ The first column contains the Julian Date/decimal time value
    - ❑ The second column contains the wind direction
    - ❑ The third column contains the wind gust

- **For files containing barometric pressure, water conductivity low, water conductivity high, water temperature low, and water temperature high**
  - ❑ **The first column contains the Julian Date/decimal time value**
  - ❑ **The second column contains the data value.**

## FLORIDA DEP NGWLMS STATIONS

Site Number	Name	LAT	LONG
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### Lower St. Johns River Basin

872-0211	Wastewater Treatment Dock	302439N	0812513W
872-0214	Degaussing Structure	302417N	0812414W
872-0218	St. Johns Bar Pilot Association	302429N	0812606W
872-0219	Dames Point	302314N	0813327W
872-0226	Main Street Bridge Hendricks Point	301923N	0813950W
872-0242	Long Branch Corp of Engineers	302144N	0813720W
872-0291	Jacksonville Pier	302403N	0812512W
872-0357	I-295 Bridge Rudder Club	301156N	0814130W
872-0503	Red Bay Point	295858N	0813802W
872-0625	Racy Point	294807N	0813259W
872-0767	Buffalo Bluff	293538N	0814054W
872-0774	Palatka	293854N	0813738W
872-0832	Welaka	292846N	0814031W

### Intracoastal Waterway

872-0398	Palm Valley	300756N	0812307W
872-0554	Vilano Beach	295459N	0811759W
872-0582	St. Road 312	295159N	0811824W
872-0651	Crescent Beach	294606N	0811529W
872-0692A	Mantanzas Inlet	294222N	0811313W
872-0757	Bings Landing	293656N	0811219W

Site Number	Name	LAT	LONG
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Indian River

872-1147	Ponce de Leon	290346N	0805454W
872-1164	New Smyrna Beach	290122N	0805507W
872-1456	Titusville	283714N	0804753W
872-1647	Merritt Island	282126N	0803856W
872-1648	Cocoa	282121N	0804309W
872-1789	Mather's Bridge	280939N	0803628W
872-1843	Melbourne	280500N	0803531W
872-2004	Sebastian Inlet	275141N	0802654W
872-2125	Vero	273754N	0802218W
872-2208	North Beach Causeway	272817N	0801929W
872-2213	Binney Dock	272805N	0801757W

Ft. Pierce Area

872-2219	South Beach Causeway	272725N	0801911W
872-2274A	Ankona-Powerlines	272051N	0801641W
872-2329	St. Road 732	271509N	0801314W
872-2375	St. Lucie Inlet	270955N	0800946W
872-2403	Peck Lake	270955N	0800946W

1997 - 1998 - 1999 (JULIAN DAY)

1	Jan-1	32	Feb-1	60	Mar-1	91	Apr-1	121	May-1	152	Jun-1
2	Jan-2	33	Feb-2	61	Mar-2	92	Apr-2	122	May-2	153	Jun-2
3	Jan-3	34	Feb-3	62	Mar-3	93	Apr-3	123	May-3	154	Jun-3
4	Jan-4	35	Feb-4	63	Mar-4	94	Apr-4	124	May-4	155	Jun-4
5	Jan-5	36	Feb-5	64	Mar-5	95	Apr-5	125	May-5	156	Jun-5
6	Jan-6	37	Feb-6	65	Mar-6	96	Apr-6	126	May-6	157	Jun-6
7	Jan-7	38	Feb-7	66	Mar-7	97	Apr-7	127	May-7	158	Jun-7
8	Jan-8	39	Feb-8	67	Mar-8	98	Apr-8	128	May-8	159	Jun-8
9	Jan-9	40	Feb-9	68	Mar-9	99	Apr-9	129	May-9	160	Jun-9
10	Jan-10	41	Feb-10	69	Mar-10	100	Apr-10	130	May-10	161	Jun-10
11	Jan-11	42	Feb-11	70	Mar-11	101	Apr-11	131	May-11	162	Jun-11
12	Jan-12	43	Feb-12	71	Mar-12	102	Apr-12	132	May-12	163	Jun-12
13	Jan-13	44	Feb-13	72	Mar-13	103	Apr-13	133	May-13	164	Jun-13
14	Jan-14	45	Feb-14	73	Mar-14	104	Apr-14	134	May-14	165	Jun-14
15	Jan-15	46	Feb-15	74	Mar-15	105	Apr-15	135	May-15	166	Jun-15
16	Jan-16	47	Feb-16	75	Mar-16	106	Apr-16	136	May-16	167	Jun-16
17	Jan-17	48	Feb-17	76	Mar-17	107	Apr-17	137	May-17	168	Jun-17
18	Jan-18	49	Feb-18	77	Mar-18	108	Apr-18	138	May-18	169	Jun-18
19	Jan-19	50	Feb-19	78	Mar-19	109	Apr-19	139	May-19	170	Jun-19
20	Jan-20	51	Feb-20	79	Mar-20	110	Apr-20	140	May-20	171	Jun-20
21	Jan-21	52	Feb-21	80	Mar-21	111	Apr-21	141	May-21	172	Jun-21
22	Jan-22	53	Feb-22	81	Mar-22	112	Apr-22	142	May-22	173	Jun-22
23	Jan-23	54	Feb-23	82	Mar-23	113	Apr-23	143	May-23	174	Jun-23
24	Jan-24	55	Feb-24	83	Mar-24	114	Apr-24	144	May-24	175	Jun-24
25	Jan-25	56	Feb-25	84	Mar-25	115	Apr-25	145	May-25	176	Jun-25
26	Jan-26	57	Feb-26	85	Mar-26	116	Apr-26	146	May-26	177	Jun-26
27	Jan-27	58	Feb-27	86	Mar-27	117	Apr-27	147	May-27	178	Jun-27
28	Jan-28	59	Feb-28	87	Mar-28	118	Apr-28	148	May-28	179	Jun-28
29	Jan-29			88	Mar-29	119	Apr-29	149	May-29	180	Jun-29
30	Jan-30			89	Mar-30	120	Apr-30	150	May-30	181	Jun-30
31	Jan-31			90	Mar-31			151	May-31		
182	Jul-1	213	Aug-1	244	Sep-1	274	Oct-1	305	Nov-1	335	Dec-1
183	Jul-2	214	Aug-2	245	Sep-2	275	Oct-2	306	Nov-2	336	Dec-2
184	Jul-3	215	Aug-3	246	Sep-3	276	Oct-3	307	Nov-3	337	Dec-3
185	Jul-4	216	Aug-4	247	Sep-4	277	Oct-4	308	Nov-4	338	Dec-4
186	Jul-5	217	Aug-5	248	Sep-5	278	Oct-5	309	Nov-5	339	Dec-5
187	Jul-6	218	Aug-6	249	Sep-6	279	Oct-6	310	Nov-6	340	Dec-6
188	Jul-7	219	Aug-7	250	Sep-7	280	Oct-7	311	Nov-7	341	Dec-7
189	Jul-8	220	Aug-8	251	Sep-8	281	Oct-8	312	Nov-8	342	Dec-8
190	Jul-9	221	Aug-9	252	Sep-9	282	Oct-9	313	Nov-9	343	Dec-9
191	Jul-10	222	Aug-10	253	Sep-10	283	Oct-10	314	Nov-10	344	Dec-10
192	Jul-11	223	Aug-11	254	Sep-11	284	Oct-11	315	Nov-11	345	Dec-11
193	Jul-12	224	Aug-12	255	Sep-12	285	Oct-12	316	Nov-12	346	Dec-12
194	Jul-13	225	Aug-13	256	Sep-13	286	Oct-13	317	Nov-13	347	Dec-13
195	Jul-14	226	Aug-14	257	Sep-14	287	Oct-14	318	Nov-14	348	Dec-14
196	Jul-15	227	Aug-15	258	Sep-15	288	Oct-15	319	Nov-15	349	Dec-15
197	Jul-16	228	Aug-16	259	Sep-16	289	Oct-16	320	Nov-16	350	Dec-16
198	Jul-17	229	Aug-17	260	Sep-17	290	Oct-17	321	Nov-17	351	Dec-17
199	Jul-18	230	Aug-18	261	Sep-18	291	Oct-18	322	Nov-18	352	Dec-18
200	Jul-19	231	Aug-19	262	Sep-19	292	Oct-19	323	Nov-19	353	Dec-19
201	Jul-20	232	Aug-20	263	Sep-20	293	Oct-20	324	Nov-20	354	Dec-20
202	Jul-21	233	Aug-21	264	Sep-21	294	Oct-21	325	Nov-21	355	Dec-21
203	Jul-22	234	Aug-22	265	Sep-22	295	Oct-22	326	Nov-22	356	Dec-22
204	Jul-23	235	Aug-23	266	Sep-23	296	Oct-23	327	Nov-23	357	Dec-23
205	Jul-24	236	Aug-24	267	Sep-24	297	Oct-24	328	Nov-24	358	Dec-24
206	Jul-25	237	Aug-25	268	Sep-25	298	Oct-25	329	Nov-25	359	Dec-25
207	Jul-26	238	Aug-26	269	Sep-26	299	Oct-26	330	Nov-26	360	Dec-26
208	Jul-27	239	Aug-27	270	Sep-27	300	Oct-27	331	Nov-27	361	Dec-27
209	Jul-28	240	Aug-28	271	Sep-28	301	Oct-28	332	Nov-28	362	Dec-28
210	Jul-29	241	Aug-29	272	Sep-29	302	Oct-29	333	Nov-29	363	Dec-29
211	Jul-30	242	Aug-30	273	Sep-30	303	Oct-30	334	Nov-30	364	Dec-30
212	Jul-31	243	Aug-31			304	Oct-31			365	Dec-31

SET GAGE TO GREENWICH MEAN TIME (GMT), ALSO CALLED UNIVERSAL COORDINATED TIME (UCT) OR ZULU TIME (Z)  
 GMT IS 5 HOURS GREATER THAN EASTERN STANDARD TIME (EST) & 4 HOURS GREATER THAN EASTERN DAYLIGHT TIME (EDT)  
 EXAMPLE: 18:00 GMT IS = TO 13:00 EST OR 14:00 EDT YOU CAN CALL (303) 499-7111 FOR GMT (UCT)

Randy Harrell

FDEP

2/13/97

from (+0.04167)

DECIMAL TIME (DT) (0.0000)			MILITARY TIME (MT) (24-HOUR TIME)			STANDARD TIME (ST) (12-HOUR TIME - AM/PM)					
DT	MT	ST	DT	MT	ST	DT	MT	ST	DT	MT	ST
0.0000	0:00	12:00 AM	0.2500	6:00	6:00 AM	0.5000	12:00	12:00 PM	0.7500	18:00	6:00 PM
0.0042	0:06	12:06 AM	0.2542	6:06	6:06 AM	0.5042	12:06	12:06 PM	0.7542	18:06	6:06 PM
0.0083	0:11	12:11 AM	0.2583	6:11	6:11 AM	0.5083	12:11	12:11 PM	0.7583	18:11	6:11 PM
0.0125	0:18	12:18 AM	0.2625	6:18	6:18 AM	0.5125	12:18	12:18 PM	0.7625	18:18	6:18 PM
0.0167	0:24	12:24 AM	0.2667	6:24	6:24 AM	0.5167	12:24	12:24 PM	0.7667	18:24	6:24 PM
0.0208	0:29	12:29 AM	0.2708	6:29	6:29 AM	0.5208	12:29	12:29 PM	0.7708	18:29	6:29 PM
0.0250	0:36	12:36 AM	0.2750	6:36	6:36 AM	0.5250	12:36	12:36 PM	0.7750	18:36	6:36 PM
0.0292	0:42	12:42 AM	0.2792	6:42	6:42 AM	0.5292	12:42	12:42 PM	0.7792	18:42	6:42 PM
0.0333	0:47	12:47 AM	0.2833	6:47	6:47 AM	0.5333	12:47	12:47 PM	0.7833	18:47	6:47 PM
0.0375	0:54	12:54 AM	0.2875	6:54	6:54 AM	0.5375	12:54	12:54 PM	0.7875	18:54	6:54 PM
0.0417	1:00	1:00 AM	0.2917	7:00	7:00 AM	0.5417	13:00	1:00 PM	0.7917	19:00	7:00 PM
0.0458	1:05	1:05 AM	0.2958	7:05	7:05 AM	0.5458	13:05	1:05 PM	0.7958	19:05	7:05 PM
0.0500	1:12	1:12 AM	0.3000	7:12	7:12 AM	0.5500	13:12	1:12 PM	0.8000	19:12	7:12 PM
0.0542	1:18	1:18 AM	0.3042	7:18	7:18 AM	0.5542	13:18	1:18 PM	0.8042	19:18	7:18 PM
0.0583	1:23	1:23 AM	0.3083	7:23	7:23 AM	0.5583	13:23	1:23 PM	0.8083	19:23	7:23 PM
0.0625	1:30	1:30 AM	0.3125	7:30	7:30 AM	0.5625	13:30	1:30 PM	0.8125	19:30	7:30 PM
0.0667	1:36	1:36 AM	0.3167	7:36	7:36 AM	0.5667	13:36	1:36 PM	0.8167	19:36	7:36 PM
0.0708	1:41	1:41 AM	0.3208	7:41	7:41 AM	0.5708	13:41	1:41 PM	0.8208	19:41	7:41 PM
0.0750	1:48	1:48 AM	0.3250	7:48	7:48 AM	0.5750	13:48	1:48 PM	0.8250	19:48	7:48 PM
0.0792	1:54	1:54 AM	0.3292	7:54	7:54 AM	0.5792	13:54	1:54 PM	0.8292	19:54	7:54 PM
0.0833	1:59	1:59 AM	0.3333	7:59	7:59 AM	0.5833	13:59	1:59 PM	0.8333	19:59	7:59 PM
0.0875	2:06	2:06 AM	0.3375	8:06	8:06 AM	0.5875	14:06	2:06 PM	0.8375	20:06	8:06 PM
0.0917	2:12	2:12 AM	0.3417	8:12	8:12 AM	0.5917	14:12	2:12 PM	0.8417	20:12	8:12 PM
0.0958	2:17	2:17 AM	0.3458	8:17	8:17 AM	0.5958	14:17	2:17 PM	0.8458	20:17	8:17 PM
0.1000	2:24	2:24 AM	0.3500	8:24	8:24 AM	0.6000	14:24	2:24 PM	0.8500	20:24	8:24 PM
0.1042	2:30	2:30 AM	0.3542	8:30	8:30 AM	0.6042	14:30	2:30 PM	0.8542	20:30	8:30 PM
0.1083	2:35	2:35 AM	0.3583	8:35	8:35 AM	0.6083	14:35	2:35 PM	0.8583	20:35	8:35 PM
0.1125	2:42	2:42 AM	0.3625	8:42	8:42 AM	0.6125	14:42	2:42 PM	0.8625	20:42	8:42 PM
0.1167	2:48	2:48 AM	0.3667	8:48	8:48 AM	0.6167	14:48	2:48 PM	0.8667	20:48	8:48 PM
0.1208	2:53	2:53 AM	0.3708	8:53	8:53 AM	0.6208	14:53	2:53 PM	0.8708	20:53	8:53 PM
0.1250	3:00	3:00 AM	0.3750	9:00	9:00 AM	0.6250	15:00	3:00 PM	0.8750	21:00	9:00 PM
0.1292	3:06	3:06 AM	0.3792	9:06	9:06 AM	0.6292	15:06	3:06 PM	0.8792	21:06	9:06 PM
0.1333	3:11	3:11 AM	0.3833	9:11	9:11 AM	0.6333	15:11	3:11 PM	0.8833	21:11	9:11 PM
0.1375	3:18	3:18 AM	0.3875	9:18	9:18 AM	0.6375	15:18	3:18 PM	0.8875	21:18	9:18 PM
0.1417	3:24	3:24 AM	0.3917	9:24	9:24 AM	0.6417	15:24	3:24 PM	0.8917	21:24	9:24 PM
0.1458	3:29	3:29 AM	0.3958	9:29	9:29 AM	0.6458	15:29	3:29 PM	0.8958	21:29	9:29 PM
0.1500	3:36	3:36 AM	0.4000	9:36	9:36 AM	0.6500	15:36	3:36 PM	0.9000	21:36	9:36 PM
0.1542	3:42	3:42 AM	0.4042	9:42	9:42 AM	0.6542	15:42	3:42 PM	0.9042	21:42	9:42 PM
0.1583	3:47	3:47 AM	0.4083	9:47	9:47 AM	0.6583	15:47	3:47 PM	0.9083	21:47	9:47 PM
0.1625	3:54	3:54 AM	0.4125	9:54	9:54 AM	0.6625	15:54	3:54 PM	0.9125	21:54	9:54 PM
0.1667	4:00	4:00 AM	0.4167	10:00	10:00 AM	0.6667	16:00	4:00 PM	0.9167	22:00	10:00 PM
0.1708	4:05	4:05 AM	0.4208	10:05	10:05 AM	0.6708	16:05	4:05 PM	0.9208	22:05	10:05 PM
0.1750	4:12	4:12 AM	0.4250	10:12	10:12 AM	0.6750	16:12	4:12 PM	0.9250	22:12	10:12 PM
0.1792	4:18	4:18 AM	0.4292	10:18	10:18 AM	0.6792	16:18	4:18 PM	0.9292	22:18	10:18 PM
0.1833	4:23	4:23 AM	0.4333	10:23	10:23 AM	0.6833	16:23	4:23 PM	0.9333	22:23	10:23 PM
0.1875	4:30	4:30 AM	0.4375	10:30	10:30 AM	0.6875	16:30	4:30 PM	0.9375	22:30	10:30 PM
0.1917	4:36	4:36 AM	0.4417	10:36	10:36 AM	0.6917	16:36	4:36 PM	0.9417	22:36	10:36 PM
0.1958	4:41	4:41 AM	0.4458	10:41	10:41 AM	0.6958	16:41	4:41 PM	0.9458	22:41	10:41 PM
0.2000	4:48	4:48 AM	0.4500	10:48	10:48 AM	0.7000	16:48	4:48 PM	0.9500	22:48	10:48 PM
0.2042	4:54	4:54 AM	0.4542	10:54	10:54 AM	0.7042	16:54	4:54 PM	0.9542	22:54	10:54 PM
0.2083	4:59	4:59 AM	0.4583	10:59	10:59 AM	0.7083	16:59	4:59 PM	0.9583	22:59	10:59 PM
0.2125	5:06	5:06 AM	0.4625	11:06	11:06 AM	0.7125	17:06	5:06 PM	0.9625	23:06	11:06 PM
0.2167	5:12	5:12 AM	0.4667	11:12	11:12 AM	0.7167	17:12	5:12 PM	0.9667	23:12	11:12 PM
0.2208	5:17	5:17 AM	0.4708	11:17	11:17 AM	0.7208	17:17	5:17 PM	0.9708	23:17	11:17 PM
0.2250	5:24	5:24 AM	0.4750	11:24	11:24 AM	0.7250	17:24	5:24 PM	0.9750	23:24	11:24 PM
0.2292	5:30	5:30 AM	0.4792	11:30	11:30 AM	0.7292	17:30	5:30 PM	0.9792	23:30	11:30 PM
0.2333	5:35	5:35 AM	0.4833	11:35	11:35 AM	0.7333	17:35	5:35 PM	0.9833	23:35	11:35 PM
0.2375	5:42	5:42 AM	0.4875	11:42	11:42 AM	0.7375	17:42	5:42 PM	0.9875	23:42	11:42 PM
0.2417	5:48	5:48 AM	0.4917	11:48	11:48 AM	0.7417	17:48	5:48 PM	0.9917	23:48	11:48 PM
0.2458	5:53	5:53 AM	0.4958	11:53	11:53 AM	0.7458	17:53	5:53 PM	0.9958	23:53	11:53 PM