

**MEMORANDUM OF AGREEMENT
BETWEEN
DEPARTMENT OF DEFENSE, DEPARTMENT OF THE NAVY
AND
TEXAS WIND GROUP**

**Subj: MEMORANDUM OF AGREEMENT ON *RIVIERA I WIND TURBINE FARM*,
KINGSVILLE, TX**

Ref: (a) Section 358 of the Ike Skelton National Defense Authorization Act for Fiscal Year
2011, as amended
(b) 32 CFR Part 211
(c) Federal Aviation Administration (FAA) OE/AAA Case No. 2012 WTW 1410-1492

I. Purpose. Per references (a) and (b), one of the objectives of the Department of Defense is to ensure the robust development of renewable energy sources and the increased resiliency of the commercial grid in the U.S. while simultaneously mitigating any adverse impacts on military operations and readiness. The operation of the proposed Texas Wind Group *Riviera I Wind Turbine Farm*, as described in reference (c), is expected to interfere with Navy precision approach and the air surveillance radars in the vicinity of Naval Air Station, Kingsville (NAS Kingsville). However, if the agreements described below are executed, the operation of these wind turbines should have negligible effect on the Department of the Navy's mission.

II. Agreements.

1. The Texas Wind Group will provide a voluntary contribution of funds in the amount of \$500,000 to the Department of Defense, in accordance Section 358(g) of reference (a), as amended. The Texas Wind Group will transfer these funds in the manner to be specified by the Department of Defense, prior to the start of ground disturbing activity.

2. Pursuant to the authority vested in the Secretary of Defense under Section 358(g) of reference (a), as amended, the Department of Defense hereby accepts this voluntary offer of funds from the Texas Wind Group, and will transfer the funds to appropriate Navy accounts for execution.

3. The Navy will use these funds to offset the cost of measures undertaken to mitigate adverse impacts of the *Riviera I* project on military operations and readiness in the following ways:

a. Connect the air surveillance radar located at NAS Kingsville with the Navy-owned air surveillance radar (also a DASR 11) located at Corpus Christi International Airport;

b. Optimize the Navy's air surveillance radars, to account for the *Riviera I* wind turbines, including range-azimuth gate mapping of each turbine;

c. Acquire new air surveillance radar technology (e.g., concurrent beam processing);

Memorandum of Agreement on *Riviera I* Wind Turbine Farm, Kingsville, TX - Signature Version – Friday, February 24, 2012

d. Study the effectiveness of the options listed above; and/or

e. Develop a tool to determine the cumulative impact of wind turbines on the air surveillance radars at NAS Kingsville and the Navy-owned air surveillance radar located at Corpus Christi International Airport.

4. Placement of wind turbines shall be in accordance with Attachments A & B. No changes to placement as illustrated in Attachments A and B are permissible without prior written agreement from Navy and Texas Wind Group, with the exception of micro-siting changes (moving turbines less than 100 feet from the location indicated). Texas Wind Group agrees to provide the Navy, within 30 days of completion of construction, a final "as built" drawing including actual turbine coordinates post construction.

5. The Texas Wind Group agrees to curtail (i.e., temporarily shut down) certain wind turbines at *Riviera I*, when identified by the Navy as having an unacceptably adverse effect on the operation of the precision approach radar. Curtailment shall be limited solely to turbines 1-10 as indicated on attachment B, and shall be limited to not more than 210 hours per turbine per calendar year.

6. The senior Air Traffic Controller at NAS Kingsville will contact the senior Operator at the Texas Wind Group Operations Center when such curtailment is required. The Navy agrees that curtailment of wind turbine operations will be used as a last resort and will allow Texas Wind Group to restore normal wind turbine operations as soon as the precision approach radar is no longer necessary for operations at NAS Kingsville.

7. Department of Defense and Department of the Navy agree not to posit any objection to the construction and operation of the *Riviera I* project provided Texas Wind Group carries out the terms of this agreement.

8. Texas Wind Group also agrees to participate in a working group that will be established to ensure that wind energy development in the South Texas region does not impede the mission of NAS Kingsville, NAS Corpus Christi and the Corpus Christi International Airport. Participants in the working group will include the Navy representatives, wind energy developers, interested state and local officials and other stakeholders. The working group will serve as a forum to review wind energy impacts as further development occurs, and develop the means to mitigate these effects.

9. The terms of this agreement may be made public by any party.

III. Effect & Effective Date. This agreement will be effective as against all parties, including any future owner, lessee, operator, transferee, purchaser, assignee or any successor-in-interest of the *Riviera I* wind turbine assets, for the life of the turbines or until modified or terminated by mutual agreement of the parties. This agreement will be effective upon the date that all parties below have signed.

IV. Dispute Resolution. Any disputes will be initially handled between the Texas Wind Group and Naval Air Stations Kingsville and Corpus Christi. Disputes may be elevated to the Chief of Naval Operations, Director for Energy and Environmental Readiness or the Executive Director of the Defense Siting Clearinghouse, as required.

V. Breach. If a party believes that another party has breached this agreement, it may use any legal means at its disposal to enforce this agreement. Each party reserves the right to enforce the terms of this agreement or waive those terms, as it sees fit under applicable state or federal law.

Attachments

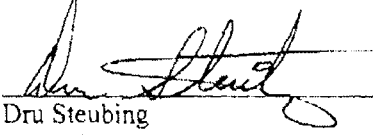
Attachment A: LATS/LONGS, Riviera Wind Project Phase I, Kleberg County, Texas

Attachment B: Department of Defense, Navy and Texas Wind Group Approved Placement of Riviera I Wind Turbines

{To be followed by 9 signatures on separate signature pages. }

AGREED:

For **TEXAS WIND GROUP**:


Dru Steubing
Managing Member
Texas Wind Group

24 Feb 2012
date

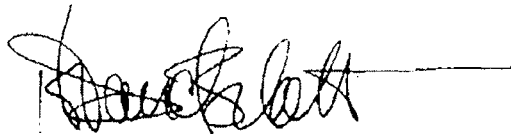
For the **DEPARTMENT OF DEFENSE:**

Signature determined to be unnecessary on 03/08/12

Frank C. DiGiovanni
Director, Training Readiness and Strategy
Office of the Deputy Assistant Secretary
of Defense (Readiness)

date

Also for the **DEPARTMENT OF DEFENSE:**

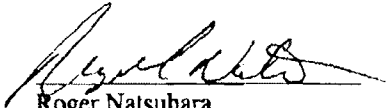


H. David Belote
Executive Director
DoD Siting Clearinghouse

February 27, 2012

date

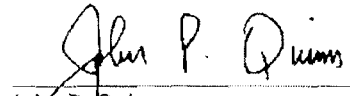
For the **DEPARTMENT OF THE NAVY**:



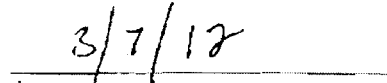
Roger Natsuhara
Principal Deputy
Assistant Secretary of the Navy
Energy, Installations and Environment

3/2/12
date

Also for the DEPARTMENT OF THE NAVY:

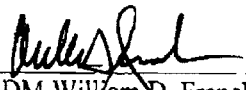


John P. Quinn
Deputy Director
CNO Energy & Environmental
Readiness Division



date

Also for the **DEPARTMENT OF THE NAVY:**




VADM William D. French
Commander
Navy Installations Command

1 MARCH 2012

date

Also for the DEPARTMENT OF THE NAVY:



RADM John C. Scorby
Commander
Navy Region Southeast

24 FEB 2012

date

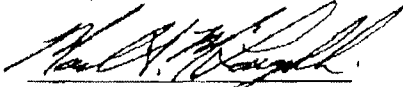
Also for the **DEPARTMENT OF THE NAVY:**



CAPT David Edgecomb
Commanding Officer
NAS Corpus Christi

02 MAR 12
date

Also for the **DEPARTMENT OF THE NAVY:**



CAPT Mark McLoughlin
Commanding Officer
NAS Kingsville

8 MAR 2012
date

ATTACHMENT A: LATS / LONGS
RIVIERA WIND PROJECT PHASE 1
KLEBERG COUNTY, TEXAS

12/21/11

Geographic coordinates, NAD 83

State Plane, NAD 83, Texas South U.S. Survey feet

TURBINE #	LAT. NAD 83 (D M S)	LONG. (D M S)	NORTHING	EASTING	GROUND ELEVATION NAVD 88, U.S. survey feet	OVERALL TURBINE HEIGHT (415ft)
1	27 19 20.36788	97 48 16.28981	17006604.7236	1210052.9766	36	451
2	27 19 24.95303	97 48 11.09924	17007070.2864	1210518.5394	37	452
3	27 19 29.53811	97 48 05.90855	17007535.8491	1210984.1021	36	451
4	27 19 34.12315	97 48 00.71774	17008001.4119	1211449.6649	35	450
5	27 19 38.70813	97 47 55.52681	17008466.9747	1211915.2277	35	450
6	27 20 01.63220	97 47 29.57041	17010794.7885	1214243.0415	30	445
7	27 20 06.25971	97 47 24.33025	17011264.7029	1214712.9559	30	445
8	27 20 10.80145	97 47 19.18703	17011725.9140	1215174.1670	29	444
9	27 20 15.38600	97 47 13.99516	17012191.4768	1215639.7298	30	445
10	27 20 19.97049	97 47 08.80318	17012657.0396	1216105.2926	31	446
11	27 18 38.88245	97 48 21.62439	17002413.1295	1209594.9063	39	454
12	27 18 43.74345	97 48 16.12224	17002906.6946	1210088.4714	40	455
13	27 18 48.60438	97 48 10.61995	17003400.2597	1210582.0365	40	455
14	27 18 53.46526	97 48 05.11754	17003893.8248	1211075.6016	41	456
15	27 18 58.32607	97 47 59.61499	17004387.3899	1211569.1668	41	456
16	27 19 03.18682	97 47 54.11231	17004880.9550	1212062.7319	41	456
17	27 19 08.04751	97 47 48.60950	17005374.5202	1212556.2970	41	456
18	27 19 12.90814	97 47 43.10655	17005868.0853	1213049.8621	41	456
19	27 19 17.76871	97 47 37.60348	17006361.6504	1213543.4272	40	455
20	27 19 22.62921	97 47 32.10027	17006855.2155	1214036.9923	39	454
21	27 19 27.48966	97 47 26.59693	17007348.7806	1214530.5574	35	450
22	27 19 32.35004	97 47 21.09346	17007842.3457	1215024.1225	35	450
23	27 19 37.21049	97 47 15.58681	17008336.0108	1215517.6876	33	448
24	27 19 42.07094	97 47 10.08006	17008829.6759	1216010.2427	32	447
25	27 19 46.93139	97 47 04.57321	17009323.3410	1216502.7978	34	449
26	27 20 01.78504	97 46 59.06646	17010817.0061	1217095.3529	34	449
27	27 20 06.64549	97 46 53.55971	17011310.6712	1217587.9080	33	448
28	27 20 11.50594	97 46 48.05296	17011804.3263	1218080.4631	30	445
29	27 20 16.36639	97 46 42.54621	17012297.9814	1218572.0182	28	443
30	27 18 26.65194	97 47 27.77239	17001205.1681	1214459.0590	35	450
31	27 18 31.51239	97 47 22.26564	17001698.7332	1214951.6141	31	446
32	27 18 36.37284	97 47 16.75889	17002191.2883	1215443.1692	30	445
33	27 18 41.23329	97 47 11.25214	17002684.8434	1215935.7243	30	445
34	27 18 46.09374	97 47 05.74539	17003177.3985	1216427.2794	30	445

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35	27 18 53.12174	97 46 57.70948	17003893.2443	1217155.4903	31	446
36	27 18 58.41622	97 46 51.69559	17004430.9345	1217694.8518	30	445
37	27 19 03.71088	97 46 45.68126	17004968.6498	1218234.2384	30	445
38	27 19 07.90811	97 46 25.50256	17005402.8930	1220051.7174	30	445
39	27 19 13.31927	97 46 19.37408	17005952.4628	1220601.2872	30	445
40	27 19 47.82633	97 46 19.23343	17009436.8509	1220593.8727	30	445
41	27 19 52.97954	97 46 13.39635	17009960.2313	1221117.2531	30	445
42	27 20 01.76290	97 46 08.39389	17010849.7341	1221563.2334	28	443
43	27 20 06.88323	97 46 02.59358	17011369.7880	1222083.2873	29	444
44	27 20 12.00349	97 45 56.79312	17011889.8419	1222603.3411	26	441
45	27 20 17.12368	97 45 50.99251	17012409.8958	1223123.3950	25	440
46	27 20 22.24380	97 45 45.19176	17012929.9496	1223643.4489	24	439
47	27 20 02.08228	97 45 31.95173	17010901.1501	1224849.2911	30	445
48	27 20 06.97500	97 45 25.73688	17011398.4829	1225406.8193	25	440
49	27 20 11.87576	97 45 19.51156	17011896.6415	1225965.2732	25	440
50	27 20 16.78459	97 45 13.27575	17012395.6279	1226524.6550	25	440
51	27 18 24.87263	97 46 32.60482	17001053.7619	1219436.1101	25	440
52	27 18 30.55961	97 46 26.16486	17001631.3340	1220013.6822	30	445
53	27 18 35.96219	97 46 20.04670	17002180.0300	1220562.3782	25	440
54	27 18 41.93332	97 46 13.28439	17002786.4783	1221168.8265	25	440
55	27 18 47.62004	97 46 06.84389	17003364.0504	1221746.3987	25	440
56	27 18 53.30669	97 46 00.40320	17003941.6226	1222323.9708	25	440
57	27 18 58.99325	97 45 53.96234	17004519.1947	1222901.5430	25	440
58	27 19 04.72212	97 45 47.56821	17005101.0232	1223474.8587	25	440
59	27 19 10.36611	97 45 41.08007	17005674.3390	1224056.6872	25	440
60	27 19 48.11636	97 45 03.64900	17009506.0236	1227409.9151	30	445
61	27 19 50.82918	97 44 47.71029	17009788.5027	1228845.6324	30	445
62	27 17 58.62222	97 46 20.69971	16998409.3449	1220525.2169	26	441
63	27 18 04.58477	97 46 13.94777	16999014.9194	1221130.7914	25	440
64	27 18 10.54723	97 46 07.19564	16999620.4938	1221736.3659	25	440
65	27 18 16.50959	97 46 00.44331	17000226.0683	1222341.9404	25	440
66	27 18 22.47187	97 45 53.69079	17000831.6428	1222947.5148	20	435
67	27 18 28.43405	97 45 46.93806	17001437.2173	1223553.0893	20	435
68	27 18 34.39614	97 45 40.18513	17002042.7918	1224158.6638	25	440

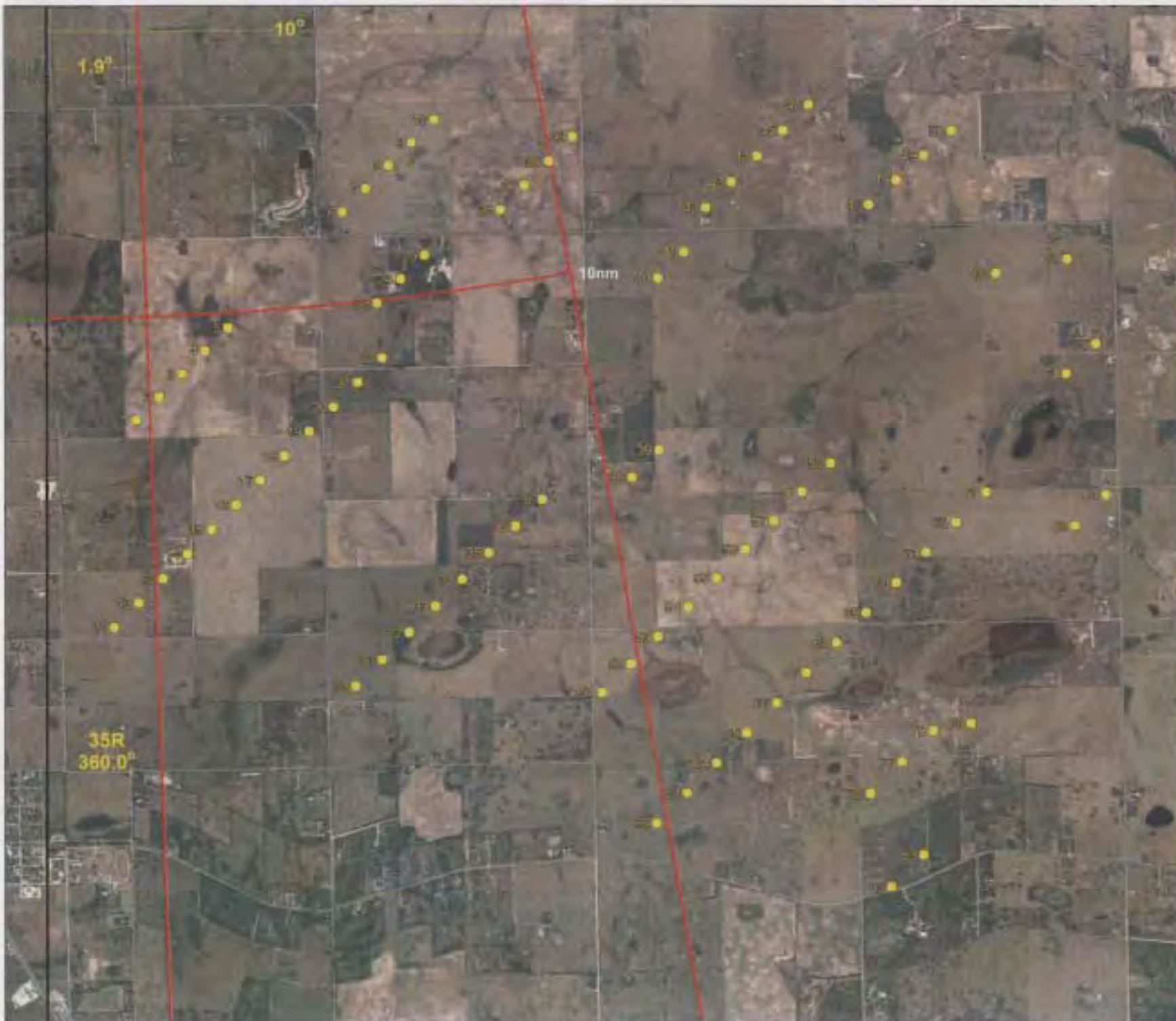
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69	27 18 40.35813	97 45 33.43201	17002648.3663	1224764.2383	25	440
70	27 18 46.32004	97 45 26.67869	17003253.9407	1225369.8128	25	440
71	27 18 52.28185	97 45 19.92517	17003859.5152	1225975.3873	25	440
72	27 18 58.24357	97 45 13.17145	17004465.0897	1226580.9617	30	445
73	27 19 04.20520	97 45 06.41753	17005070.6642	1227186.5362	23	438
74	27 19 27.87715	97 44 48.18100	17007470.6935	1228817.0179	25	440
75	27 19 33.78161	97 44 41.49060	17008070.4962	1229416.8206	25	440
76	27 18 04.11239	97 45 32.85007	16998988.8167	1224838.2125	26	441
77	27 18 10.34998	97 45 25.78508	16999622.3935	1225471.7894	30	445
78	27 18 16.58747	97 45 18.71988	17000255.9703	1226105.3662	25	440
79	27 18 17.94763	97 45 10.28519	17000397.8072	1226865.3655	26	441
80	27 18 57.34104	97 44 46.60224	17004388.1995	1228977.8133	25	440
81	27 19 03.48496	97 44 39.64100	17005012.3277	1229601.9414	25	440
82	27 17 45.38959	97 45 28.39052	16997100.6783	1225251.5953	25	440
83	27 17 51.79707	97 45 21.13331	16997751.5171	1225902.4341	25	440



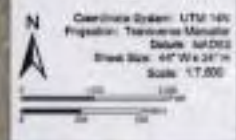
NAS Kingsville
Radar Site
Analysis -
Rivera



LEGEND

- Turbine Locations
- Radar Coverage**
- Runway Centerline
- Left
- Right

NO WARRANTY
 The Navy authority to provide the safe and efficient use of the navigable airspace within existing zoning or proposed structures is promulgated under Part 47 of the Code of Federal Regulations (47 CFR, Part 47, Subpart 47.101). It should be noted however, that Part 47.101 does not provide specific authority for the FAA to regulate or control low level (and possibly) high level operations in situations that may present a navigable airspace.
 Title 14 of the Code of Federal Regulations (14 CFR, Part 77, Obstacle Clearing) Kingsville, was subject to existing zoning standards for proposed construction or alteration that would present a hazard to navigation.



NAVAC
 Date: 2/15/12
 Naval Facilities Engineering Command (NAVFAC)
 3000 ...
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