

- A February 6, 2009, FAA email states, **"We are getting considerable pressure to get the Cape Wind cases out on circ. I can't do that without AF's response. It's reached critical mass...I know you're very busy and this is not your only project, but this is very high profile."**
- A May 3, 2010, PowerPoint presentation to Eastern Service Area Directors:
  - **"The Secretary of the Interior has approved this project. The Administration is under pressure to promote green energy production. It would be very difficult politically to refuse approval of this project."**
  - **"The FAA will not be able to see primary targets in the vicinity of the wind farm ... "**
  - **"As a final resort, revise the Cape TRACON airspace and procedures to restrict air traffic in the wind turbine area to only aircraft with beacon transponders."**
  - **"The masking of primary RADAR data along the coast may have national security implications."**
- A May 7, 2010, FAA internal email, **"Who is willing to go tell the White House that we are halting wind development because there might be wake turbulence or microclimate effects?"**
- An October 31, 2011 email: **"I don't think air traffic could keep a low flying search-only VFR from running into a wind turbine."**
- A March 22, 2010 email, **"Who in the agency makes the decision? We gave our recommendations. Who is the decision maker that puts the agency at risk if the TDX-2000 doesn't work? ..."**
- A March 2, 2010 email from Cape TRACON (Air Traffic Control): **"Based on what we observed in the playback test, the radar reflections of the simulated wind turbines would exceed an acceptable level and will be an issue."**
- An April 5, 2010 email states, **"Based on our study it is possible that a plane without a transponder could essentially not be picked up over the wind farm."**

[REDACTED]

all required mitigation alternatives and constraints associated with those such as a reimbursable agreement, etc.

Have you heard anything back from PnR on the ROM you requested?

4  
We have heard on the media that the sponsor is looking to move forward with construction in the next couple of weeks, given the level and cost of the modifications involved to mitigate radar performance impacts, this could very well be a show stopper for the proponent and we have to do everything in our power to be prepared as this is highly political. Our response will be scrutinized by those advocating this renewable energy resource and we must be accurate, clear and concise with what we are providing back as to our response.

Could you please contact me first thing Monday so we can discuss and hopefully formulate a response by COB.

Thank You.  
Elena Marinilli  
Operations Engineering, Boston Office  
AJW-E15A  
[REDACTED]

NOTE: WHEN REPLYING, PLEASE REPLY WITH OUT ORIGINAL ATTACHMENTS TO CONSERVE MAIL SIZE.

----- Forwarded by Elena Marinilli/ANE/FAA on 02/06/2009 05:01 PM -----



Donna O'Neill/ACE/FAA  
AJR-322, Obstruction  
Evaluation Services Team

02/06/2009 12:36 PM

To Elena Marinilli/ANE/FAA@FAA

cc Sheri Edgett-Baron/AWA/FAA@FAA, Angela  
Havens/ANE/FAA@FAA

Subject AF Cape Wind response!!!!

Elena,

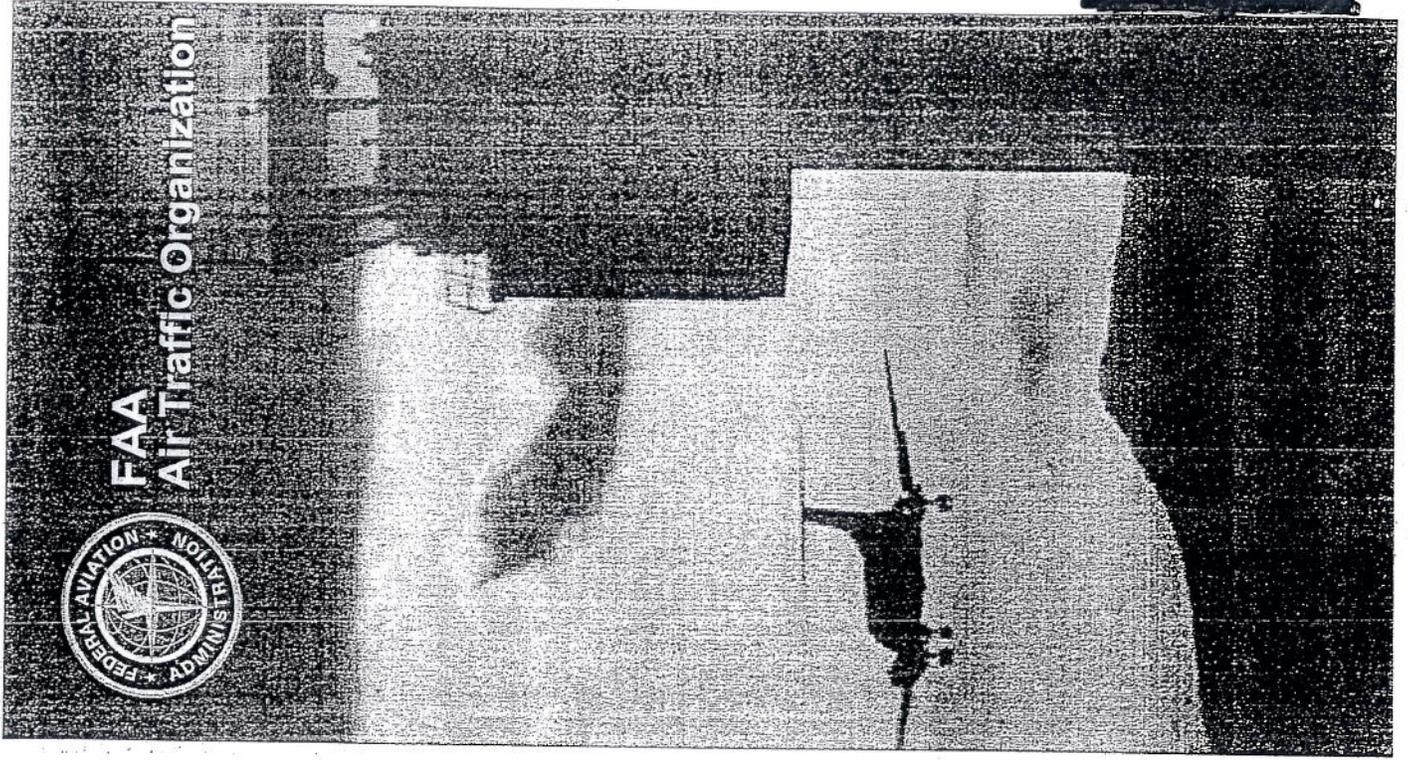
4A  
We are getting considerable pressure to get the Cape Wind cases out on circ. I can't do that without AF's response. It's reached critical mass. AF is the only response we're waiting for. Please do whatever necessary to complete your response very soon, like by next Tuesday. I know you're very busy and this is not your only project, but this is very high profile. Thanks.

ASN 2009-WTE-332 through 461-OE (130 cases)

Donna O'Neill  
FAA Obstruction Evaluation Service  
Airspace Specialist for: MA, CT, RI, VA, ND, NV  
[REDACTED]

# Nantucket Sound Wind Farm Proposal (Cape Wind)

Presented to: Eastern Service Area Directors  
By: Eastern Service Area, P&R Terminal  
Team Manager, Richard Hastings  
Date: May 3, 2010



# Political Implications

- The Secretary of the Interior has approved this project.
- The Administration is under pressure to promote green energy production.
- It would be very difficult politically to refuse approval of this project.



# Worse Case Scenario

- The Sponsor and the FAA will need to review mitigation options. This may include the installation of an ASR-11.
- The FAA can eliminate RADAR returns in the area of the wind farm.
- The FAA will not be able to see primary targets in the vicinity of the wind farm and may have to issue a NOTAM advising pilots that it can not provide advisories in the area of the wind mills.
- Primary IFR aircraft may be required to navigate on the victor airways that go around the wind farm.
- Airspace design might require slight modifications.



# Technical Recommendations

- Install a TDX-2000 to digitize the ASR-8 video output and provide post processing capabilities.
  - Digitizing enables sophisticated processing of radar detections in an effort to reduce the unwanted wind turbine targets to an acceptable level.
  - Unwanted search radar targets that cannot be eliminated by the TDX-2000 will be displayed on air traffic displays at the same intensity as any true target, that is, any leftover unwanted targets will not be intensified.
- Reoptimize the Nantucket ASR-9 utilizing range and azimuth gating of various site parameters to eliminate or reduce any unwanted targets realized from the wind turbines.
- As a final resort, revise the Cape TRACON airspace and procedures to restrict air traffic in the wind turbine area to only aircraft with beacon transponders.

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# National Security Issues

- The masking of primary RADAR data along the coast may have national security implications.
- OES or the appropriate entity will need to coordinate our plans with the appropriate Defense Organizations.



Fw: Fire Island SRM Panel Day 2

Richard W Hastings

o Angela Havens

05/10/2010 11:12 AM

AJV-E39, Requirements (Terminal) Team :

Angela,

Here is the 2nd email. These two sum up the issues.

**Richard W. Hastings**

Manager for Terminal Requirements

Planning and Requirements Group (FAA/AJV-E39)

ATO Eastern Service Center

[Link to Eastern Service Center Terminal Requirements Website](#)

----- Forwarded by Richard W Hastings/ASO/FAA on 05/10/2010 11:11 AM -----

From: Sheri Edgett-Baron/AWA/FAA  
AJR-322, Obstruction Evaluation Services Team  
To: Richard W Hastings/ASO/FAA@FAA, Jeff Yarnell/AWA/FAA@FAA  
Cc: James Garrett/ASO/FAA@FAA, Ken CTR Berkey/ASO/CNTR/FAA@FAA, Peter  
Markus/ANM/FAA@FAA  
Date: 05/07/2010 10:04 AM  
Subject: Re: Fw: Fire Island SRM Panel Day 2

Let me be absolutely clear here. The OES process falls under Title 14 Code of Federal Regulations, Part 77. This regulation requires notice of proposed construction so the FAA can study the structure and only the structure, and determine its effect on the navigable airspace. It does not allow for studying anything that could possibly emit from a structure, such as glare, smoke stack emissions, or any other type of emission such as possible wake turbulence or micro climate effects.

Wake turbulence effects or micro climate effects are not applicable under 14 CFR part 77. They are not major changes to the NAS, and should not be part of a SMS process. Even if it were remotely possible that wind turbines generated some sort of wake turbulence or micro climate effects, none of this will be considered under part 77 or OES final agency determinations. The FAA has already issued over 96,000 wind turbine determinations.

Who is willing to go tell the White House that we are halting wind development because there might be wake turbulence or micro climate effects?

Sheri Edgett Baron  
Air Traffic, System Operations  
Acting OES Manager

[www.oaaaa.faa.gov](http://www.oaaaa.faa.gov)

Richard W Hastings Jim, Peter and Sheri, Can any of you tell me w...

05/06/2010 04:31:08 PM

From: Richard W Hastings/ASO/FAA  
AJV-E39, Requirements (Terminal) Team



Re: Cape Wind Update  
Frank Stahler to: Jeff Stern

10/31/2011 08:06 PM

cc: Angela Havens, Elena Marinilli, Richard W Hastings, Matt MacNamara, Barry Streisfeld, Charles Thornton

It seems like I remember someone saying that there were "minimums" for altitude...maybe a thousand feet...? But I suppose a case could always be made for the VFR that's not paying attention to the rules or "impaired". If the VFR is search only air traffic would never know what his altitude is ('cause search doesn't report altitude), therefore, they would just "call traffic" on him for other aircraft in the vicinity. I don't think air traffic could keep a low flying search-only VFR from running into a wind turbine.

Well, we may never have to worry about getting rid of the clutter that may be created by the project if it never happens. That makes it easy for us surveillance geeks.

-----Jeff Stern/AEA/FAA wrote: -----

To: Angela Havens/ANE/FAA@FAA, Elena Marinilli/ANE/FAA@FAA, Frank Stahler/ASO/FAA@FAA  
From: Jeff Stern/AEA/FAA  
Date: 10/31/2011 10:02  
cc: Richard W Hastings/ASO/FAA@FAA, Matt MacNamara/ASO/FAA@FAA, Barry Streisfeld/AEA/FAA@FAA  
Subject: Cape Wind Update

All,

Interesting court ruling:

*(See attached file: Another setback for wind project - Boston.com.url)*

Jeff Stern  
Manager, Operations Engineering Support Center B, Operations Engineering Support Group (OESG),  
Technical Services, Eastern Service Area  
AJW-E24B

[attachment "Another setback for wind project - Boston.com.url" removed by Frank Stahler/ASO/FAA]



Re: Cape Wind

Angela Havens  
AJW-E15A, Operations Support Center - Boston

to: Sheri  
Edgett-Baron

03/22/2010 10:45 AM

Cc: Don Bui

Hi Sheri,

Who in the agency makes the decision? We gave our recommendations. Who is the decision maker that puts the agency at risk if the TDX-2000 doesn't work?

If it doesn't work and no provision is made for ASR-11 then the agency is on the hook to pay for the whole thing?

Angela

Sheri Edgett-Baron Hi Angela, We definitely need to have discussio...

03/22/2010 10:33:12 AM

Sheri Edgett-Baron/AWA/FAA  
AJR-322, Obstruction  
Evaluation Services Team

To Angela Havens/ANE/FAA@FAA

cc Donna O'Neill/ACE/FAA@FAA

03/22/2010 10:33 AM

Subject Re: Cape Wind

Hi Angela,

We definitely need to have discussions on this topic. I think the agency needs to make a decision. Is it the TDX-2000 or the ASR-11? If it is the TDX-2000, then that's what it is. If it is the ASR-11, then there will have to be a cost shared agreement with the FAA sharing the expense. It gets problematic to say let's try one thing, and if that does not work, we'll stop everything and revert to plan B. Once development starts on a wind construction site, you can't shut them down when all their resources are allocated for the project and equipment. Shutting them down mid stream will create an undue burden on the developer and could possibly bankrupt them.

One of the consultants told me they have an agreement with Raytheon for an ASR-11 at a reduced cost. Would tech ops consider this type of arrangement? Also, if it is decided the ASR-11 is the way to go, then the equipment and installation needs to be made an agency priority.

Sheri Edgett Baron  
Air Traffic, System Operations  
Acting OES Manager

[www.oaaaa.faa.gov](http://www.oaaaa.faa.gov)

Angela Havens

Hi Sheri, I received a call from Donna yesterday...

03/19/2010 03:04:27 PM

From: Angela Havens/ANE/FAA  
AJW-E15A, Operations Support Center - Boston  
To: Sheri Edgett-Baron/AWA/FAA@FAA  
Date: 03/19/2010 03:04 PM  
Subject: Cape Wind

Hi Sheri,



Re: Cape Wind Question   
Cully Beasley to: Angela Havens  
TEA-K90, Cape TRACON, MA

03/02/2010 02:32 PM

History: This message has been forwarded.

Angela,

While not the official AT response I offer the following:

Based on what we observed in the playback test, the radar reflections of the simulated wind turbines would exceed an acceptable level and will be an issue.

Cully Beasley  
Acting Air Traffic Manager, K90-1  
Cape TRACON  
Eastern Terminal Service Area  


Angela Havens/ANE/FAA



Angela  
Havens/A  
NE/FAA  
AJW-E15  
A,  
Operations Support  
Center -  
Boston

To Cully Beasley/ANE/FAA@FAA  
cc  
Subject Cape Wind Question

02/24/2010  
09:43  
AM

Hi Cully,

4

Question, when your office reviewed the playback demo from the test that was conducted to simulate the wind turbines, what was AT's opinion as to whether the wind turbines were going to be an issue.

Thanks,

Angela Havens  
Manager, Operations Support - Boston  




Fw: Security Issues (Cape Wind)

Angela Havens  
AJW-E15A, Operations Support Center - Boston

to: Richard W  
Hastings

04/05/2010 01:24 PM

Hi Rich,

Tech Ops would not coordinate security issues under the Obstruction Evaluation either (see email string below). Based on our study it is possible that a plane with out a transponder could essentially not be picked up over the wind farm.

Angela

----- Forwarded by Angela Havens/ANE/FAA on 04/05/2010 01:23 PM -----

Donna O'Neill/ACE/FAA

04/05/2010 08:25 AM

To Angela Havens/ANE/FAA@FAA

cc sheri.edgett-baron [REDACTED]

Subject Re: Fw: Security Issues (Cape Wind)

Security issues are not (at least not up to this point) a part of an airspace study. It is possible that they might be considered under a different avenue, but that's not normally something that OES gets involved in. We do not coordinate with Homeland Security or other law enforcement entities.

Donna O'Neill

FAA Obstruction Evaluation Service

Airspace Specialist for: MA, CT, RI, VA, ND, NV

-----Angela Havens/ANE/FAA wrote: -----

To: Donna O'Neill/ACE/FAA@FAA  
From: Angela Havens/ANE/FAA  
Date: 04/05/2010 06:34AM  
Subject: Fw: Security Issues (Cape Wind)

Hi Donna,

Would OES coordinate security issues?

Angela

----- Forwarded by Angela Havens/ANE/FAA on 04/05/2010 07:32 AM -----

Ri Toangela.havens@faa.gov  
ch ccValerie Thompson/ASO/FAA@FAA, Ron CTR  
ar Hubbard/ASO/CNTR/FAA@FAA, Mark Herrington/ASO/FAA@FAA, Larry  
d Gritti/ASO/FAA@FAA  
W SubSecurity Issues  
H ject  
ast  
in  
gs/

I received a call from Donna yesterday regarding starting the action to set up reimbursable agreements for Cape Wind.

I was told you would be looking at reimbursable for installation of TDX-2000, with a back up plan if that did not work of ASR-11 with the possibility of cost sharing by the FAA.

I did start the ball rolling yesterday but I did want you to take a look at a document that we had put together with Peter Markus last year regarding the possible solutions, cost and time frames. Please keep in mind they are ball park figures. I'm not sure if you had seen this document but think we should discuss just to make sure you understand the road that has been chosen at this point.

[attachment "Cape Wind Recommendation Paper.doc" deleted by Sheri Edgett-Baron/AWA/FAA]

This document is for internal FAA use only.

Angela Havens  
Manager, Operation Support Center - Boston  
[REDACTED]