



**Vieques Investigation and Cleanup
Navy Facilities Engineering Command (NAVFAC) Atlantic**

RESTORATION ADVISORY BOARD (RAB)

Meeting Number 49

6:00 p.m. – 8:00 p.m., May 17, 2016, Jorge’s Ice House, Vieques, PR

MEETING MINUTES

Attendees:

Dan Waddill - Ex-Officio RAB member, NAVFAC Atlantic	Lirio Marquez D’Acunti – Community RAB member
Daniel Hood – Ex-Officio RAB member, NAVFAC Atlantic	Donald Shaw – USAE
Kevin Cloe – Ex Officio RAB member, NAVFAC Atlantic	Jim Pastorik – UXO Pro
Madeline Rivera – NAVFAC Atlantic	Dennis Ballam – CH2M
Mike Green – NAVFAC Atlantic	Madeline Almodóvar – CH2M
James Brantley – NAVFAC Atlantic	Daniel G. Concepción – CH2M
Angela Carpenter – Ex-Officio RAB member, EPA	Gypsy Córdova – Municipality of Vieques Assembly
Daniel Rodríguez – Ex-Officio RAB member, EPA	Hector Olivieri – Municipality of Vieques
Julio Vázquez – Ex-Officio RAB member, EPA	Alba A. Avila – Community member
Ramón Torres – EPA	Steve Drui -- Community member
Denise Zeno-- EPA	Ruben Melendez -- Community member
Doug Maddox – EPA	Douglas McHoul – Community member
Susan Silander – Ex-Officio RAB member, US Fish and Wildlife Service	Mitsuka Bermúdez – Community member
Jorge Fernandez Porto – Community RAB member	T. Toaddy – Community member
James Larkins – Community RAB member	S. Toaddy – Community member
Stacie Notine – Community RAB member	William W Miao Hodge – Community member
Myrna Pagán – Community RAB member	Mark Martin – Community Member

These minutes represent a summary of the meeting presentations, comments, questions, and action items and are not a verbatim transcript of the meeting.

Topics Discussed:

Opening and Introductions

Madeline Almodóvar (CH2M/Facilitator) Meeting began at 6:13 p.m. Participants were welcomed to the Vieques Cleanup Program 49th RAB meeting.

Dan Waddill (Navy Program Manager) Dan greeted the participants, discussed the agenda and the meeting protocol, indicating that there will be an open discussion to answer questions from the RAB members and meeting participants.

Open Forum Discussion & Questions from the RAB

Dan Waddill

- James Larkins (RAB member) asked if live video streaming and internet coverage of the meetings will be available.
 - Dan Waddill responded that the RABs are face to face meetings, and that questions or comments may be submitted via email before the meeting. He also indicated RAB meeting minutes are provided for those who cannot attend the meetings, which are made available online.
- Myrna Pagán (RAB member) proceeded to read a list of names of those she claimed are deceased from cancer caused by the Navy.
- A participant asked if the Navy would use Skype to open the meetings to a broader audience.
 - Dan responded that similar to the first question, the Navy believes it is best to establish a face to face communication for the RAB meetings.
- James Larkins added that he believes some people do not attend the meetings for economical or health reasons, or because they are not in Vieques but they are interested in what happens in island.
 - Dan responded that for those who are interested and are not able to attend, the Navy provides meeting minutes and that the meeting presentations are posted to the website.
- A participant asked whether the Navy could provide unedited audio recording from past and future RAB meetings
 - Dan responded that the Navy provides minutes summarizing the topics discussed at the meetings and that documents related to the cleanup may be accessed on the Vieques Administrative Record website.
- A participant asked if the RAB input is taken into consideration for the decision making process.
 - Dan responded that the Navy and the regulatory agencies work together as a team. The Navy, the United States Environmental Protection Agency (EPA), the Puerto Rico Environmental Quality Board (PREQB), the Puerto Rico Department of Natural and Environmental Resources (DNER), and the United States Fish and Wildlife Service (USFWS) work together through the entire cleanup process. This process follows the requirements of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) also known as Superfund, which governs the restoration program for Vieques. The CERCLA process outlines steps where the public can participate. The Restoration Advisory Board (RAB) is an integral part of the decision making process, and is guided by the RAB Rule, a document which can be made available for those interested. The RAB is the link between the cleanup process and the public; part of their mission is to represent the

community, provide input throughout the cleanup process, and share information with the community.

- James Larkins asked at what point does RAB participate in the decision making process
 - Dan responded that the project team considers all comments provided by the RAB and the general public, throughout the CERCLA process at meetings such as these. Within the context of reviewing technical documents prepared by the project team, there is a time period for the RAB to provide specific comments regarding those documents. Also, during specific phases of the CERCLA process, the public (including the RAB) is formally invited to provide comments on cleanup documents.
 - **ACTION ITEM: The Navy will provide the CERCLA process outlining the formal public participation opportunities.**
- James Larkins asked details on the role of each agency within the CERCLA process and which is the lead agency.
 - Dan responded that the Navy, EPA and PREQB work collaboratively as a team, reaching consensus on the cleanup decisions under a Federal Facilities Agreement (FFA) in collaboration with the other agencies and interested parties. The lead agency for the Vieques cleanup is the Navy.
- A participant asked for a discussion regarding the USS Killen and biological growth seen close to the sunken ship.
 - Dan answered that the National Oceanic and Atmospheric Administration (NOAA) had discussed this topic at previous meetings. NOAA and DNER have worked together evaluating the biological aspects related to the USS Killen; unfortunately representatives from those agencies are not present today.
 - **ACTION ITEM: The Navy will follow up with these agencies so they can provide more information on this topic at a later date.**
- A participant asked the Navy to publish the RAB meeting dates in advance.
 - Dan responded that the Navy does provide the meeting dates in advance, keeping in mind that the dates are subject to change based on agencies' participation availability.
- James Larkins asked why the Navy does not use robots or new available technologies to remove unexploded ordnance (UXO).
 - Dan responded that the Navy keeps up with the latest developments in technology and is aware of the technologies used at other munitions sites around the world. He added that on Vieques the Navy is using the safest method for the various areas. With respect to robotics, the Navy is using a remotely-controlled excavator in conjunction with a large motorized head to trim the vegetation in certain areas, and in conjunction with a magnet to lift and move large munitions. The magnet has limited ability to pick up predominantly non-ferrous munitions, such as sub-munitions. The only way to safely detect and remove these items is to burn the vegetation, making them visible and safe for workers to address them.
 - Daniel Hood added that the Navy is using remote controlled equipment on some sites on Vieques. He added that the Navy tested the use of robotic equipment, but that the technology is not effective at all sites.

Nevertheless, the robotic equipment has been used to dig some beaches and roads, avoiding the dangers of a manual dig and, as in the case of beaches, being able to dig deeper than can be done manually.

- Stacie Notine asked the Navy to elaborate on the dangers of the sub-munitions and why the Navy intends to use controlled burning to address these items.
 - Dan stated that the Navy has been able to clear most of the areas without controlled burns, specifically those areas with larger munitions that are visible to workers and that are not that sensitive to being disturbed. For the areas containing small, very sensitive sub-munitions, which pose a significant danger to the field workers, there is the need to have controlled burns so the vegetation can be removed, making the sub-munitions visible and safe to clear.
- Stacie Notine asked why the Navy needs to burn the 75-acre area.
 - Dan responded that the 75 acres proposed for a controlled burn have a large density of sub-munitions. As mentioned before, the workers are equipped with electromagnetic equipment which works for areas where the density is lower. When the munitions density is high, this equipment can't detect the individual sub-munitions as easily due to the interference with the many metallic objects, thus increasing the risk to the workers. In addition, the vegetation within the 75-acre sub-munitions area obscures the sub-munitions, making them difficult to see. That is why burning the vegetation is the safe method to address this area.
- A participant asked about the effects on the CERCLA process related to the Financial Control Board in Puerto Rico, which is currently being reviewed by the US Congress.
 - Dan Waddill responded that regardless of the outcome of this review, the Navy is still responsible for the Vieques cleanup.
- A participant (from the University of Puerto Rico - UPR) asked about a possibility that a bill can be passed transferring back the lands on west Vieques from the Department of Interior (DOI); and if so, how would the cleanup be affected?
 - Dan responded that he is not aware of any transfer-related bill, but any such bill would come from Congress. Dan also stated that the majority of West Vieques has already been cleaned.
- Stacie Notine asked whether there was a possibility that military exercises return to Vieques. This issue is also related to this bill and recent talks in the US Congress.
 - Dan stated that he has no information on this topic; regardless, the Navy will retain the cleanup responsibility.
- A participant (from the University of Puerto Rico -UPR) asked if any other agency is aware or have information on this bill.
 - Susan Silander (USFWS) stated that USFWS is aware of this bill (4900) and has requested information on its status from upper management in Washington. USFWS understands that land ownership legislation is being drafted. Susan added that some of the construction activities you may have seen are related to the Refuge regular trail maintenance efforts.

Status of Vieques Installation Beach Dynamics Study	
Daniel Hood	Daniel summarized the investigation status and the upcoming work on west and east Vieques. The presentation focused on the Beach Dynamics Study, which evaluates how the sand moves around the Vieques beaches and near-shore areas and how munitions may move with it. He explained that the Navy has been tracking surrogate (“fake”) munitions items for more than one year to see how they move underwater. The data gathered will be used to generate a model to help us understand the munitions’ movements and develop a plan to keep the beaches cleared of munitions and to help determine the level of offshore cleanup needed. The goal is to clean the beaches and keep them clean so USFWS can open certain ones for public use.
Community Feedback	<ul style="list-style-type: none"> • A participant from UPR asked if there is information on how global warming would affect these beaches. <ul style="list-style-type: none"> ○ Daniel Hood responded that the Navy has been logging sea level data from the east part of the island at approximately 80 feet deep and has been measuring the sea surface levels and the currents using transects. Currently, the Navy has no specific studies on global warming and its effect on these beaches. • A participant asked if munitions had reappeared after the beach has been cleaned like the case of Campaña. <ul style="list-style-type: none"> ○ Daniel responded that this phenomenon in Blue Beach is what triggered the Beach Dynamics Study which also aims to evaluate if the items found on the beaches are metallic trash, munitions debris, or actual munitions. The Navy found only one item in 3 years of inspections (on Fanduca Peninsula). • A participant asked for more information on the main trend of the movements. <ul style="list-style-type: none"> ○ Daniel responded that so far the data is showing that the sand moves to and from the beach, but stays close to shore; major storm events may change this pattern.
Status of UXO 16 (Underwater Area) adjacent to SMWU 4 Remedial Investigation	
Daniel Hood	Daniel summarized the approach to characterize the nature and extent of potential munition constituents and assess the potential risks to human health and environment on a site wide basis with emphasis on the areas with the highest potential impact.
Community Feedback	<ul style="list-style-type: none"> • Stacie Notine asked for more explanation of the underwater study area map. <ul style="list-style-type: none"> ○ Daniel showed a map and explained that the blue lines are transects aimed to look for munition items and the circles shown represent the sediment samples taken at 6 inches in depth.
Cayo La Chiva Work Plan	
Daniel Hood	Daniel summarized the Work Plan to address the munitions off Cayo La Chiva, which is a Non-Time Critical Removal Action to remove 9 potential munitions items from this area.
Community Feedback	<ul style="list-style-type: none"> • A participant asked about the kind of bombs found and when the Navy expects to remove them. He also stated that the snorkelers should be informed of these activities. <ul style="list-style-type: none"> ○ Daniel responded that the items found appear to be very old rockets. The Navy has implemented all sorts of warnings and signage, including mailing flyers to make people aware of the dangers and to deter trespassers from

	<p>accessing these areas. He added that the Navy expects to remove these items pending next year's funding.</p> <ul style="list-style-type: none"> • A participant from UPR asked about the Navy's policy to address underwater munitions; are they live munitions? <ul style="list-style-type: none"> ○ Daniel responded that the Navy prefers to remove the items out of the water and demolish them at a set detonation area, if the item is deemed safe to be moved. The Navy relies on UXO experts to determine the safest way to address each item. • A participant stated the community concern about open detonations, and added that he is aware that there are items that are not fuzed, but still are demolished through detonation. He proposes that the Navy separate the live items and the unfuzed items that are moved and shipped outside of Vieques. <ul style="list-style-type: none"> ○ Daniel responded that he would like to clarify that there is a misconception in that there are a lot of unfuzed items on Vieques. He added that it is not true because Vieques was used as a live fire training range and that most items were fired and fuzed munitions. The reality is that there is larger proportion of items that cannot be safely moved.
Wide Area Assessment	
Kevin Cloe	Kevin summarized the Wide Area Assessment, which characterizes the sea floor conditions and the ecological habitats, as well as the areas with a high density of underwater magnetic anomalies that may represent munitions to help plan focused investigations. He explained the function of the equipment used to perform the assessment and the progress made so far.
UXO 15	
Daniel Hood	Daniel summarized the work that is being performed as part of the UXO 15 Remedial Investigation. Daniel showed a map highlighting the location of the investigation, as well as the items that have been found in or close to the berms. Daniel also talked about the approach the Navy is taking for the investigation and the technical capabilities of the equipment used.
Community Feedback	<ul style="list-style-type: none"> • Stacie Notine asked for more information on the geography surrounding the berms. <ul style="list-style-type: none"> ○ Daniel responded that so far the Navy has investigated 43 trenches using an excavator's bucket that is several feet wide. The investigations show no evidence of fired munitions within the berms. • A participant asked about the plan to address the burrows around the berms. He also asked about the sea level assessment work. <ul style="list-style-type: none"> ○ Daniel responded that the plan is take samples after the sampling plan has been reviewed by the regulatory agencies. ○ Kevin Cloe responded that NOAA maintains a series of underwater sensors to keep track of sea level data, and that data set would be the reference for the assessments concerning sea level changes around Vieques. • Stacie Notine asked about the similarities with Cayo Piñero. <ul style="list-style-type: none"> ○ Daniel responded that investigations and remedial actions around Cayo Piñero have been completed showing geographical variations. Based on the nature of the exercises, it is concluded that the investigations around Vieques are unique. • A participant asked about UXO found on the pit areas.

	<ul style="list-style-type: none"> ○ Daniel responded that this issue is what prompted the Navy to perform investigations on these areas; it is likely that these munitions were not fired. He also added that the Navy is combining the analysis of aerial photographs and geophysical studies in order to better discern the past use of these areas. ● Stacie Notine asked the date of the most recent photos showing an active training operation. <ul style="list-style-type: none"> ○ Daniel responded that most of the photos are from the 1970s. ● A participant asked about the most likely used of those areas. <ul style="list-style-type: none"> ○ Daniel responded that the Navy has performed transects surveys in the past to determine with better accuracy what type of material it is possible to find within the pits. The data showed that the area was most likely used as recycling facility. The next step in the characterization process is to take samples. ● Stacie Notine asked about additional availability of maps or aerial photographic records on these areas. <ul style="list-style-type: none"> ○ Daniel responded that there are aerial photographs, the earliest dating from the 1930s, but that the Navy does not solely rely on these photographs for the purpose of remedial investigations, and that is the reason the Navy performs field work and sampling.
Site Status Updates, Upcoming Field Activities, and RAB Document Review	
Kevin Cloe	Kevin summarized the Vieques site status, upcoming activities and listed the documents which will be available for RAB review.
Community Feedback	<ul style="list-style-type: none"> ● James Larkins asked about the location of the cleanup reports and the dates for the public comment period. <ul style="list-style-type: none"> ○ Kevin responded that the reports will be available for RAB review at the draft final stage and that public notice is provided for all documents available for public comment. ● Stacie Notine asked what is term “TEMTADS”? <ul style="list-style-type: none"> ○ Dan Waddill responded that is the term used to describe a geophysical technique to differentiate UXO in the subsurface from metallic trash.
Regulatory Agencies Update	
US Environmental Protection Agency	
Julio Vázquez	<ul style="list-style-type: none"> ● Julio provided information on several topics about the detonation chambers: <ul style="list-style-type: none"> - He summarized the subjects covered in an EPA presentation the agency hosted on May 16th with the community. Subjects included how the EPA reviews documentation and data. He added that Doug Maddox addressed the regulatory aspects of using detonation chambers and technical differences between the Vieques site and other sites where UXO remediation is being performed.
Community Feedback	<ul style="list-style-type: none"> ● A participant asked EPA for more information on this subject. <ul style="list-style-type: none"> ➤ ACTION ITEM: EPA will forward EPA’s presentation to the RAB members. ● James Larkins asked about the community feedback on this topic and the reasons behind not using detonation chambers. <ul style="list-style-type: none"> ○ Julio responded that the public showed concern for the open detonation process. He discussed the reasons for not using the chamber were included

	<p>as part of three presentations that the EPA shared with the community and he is available for clarifications and further discussion of the material.</p> <ul style="list-style-type: none"> • A participant suggested that there should be a refresher informational session where the agencies and the Navy communicate to the public and tourists about the dangers of UXOs close to Cayo la Chiva and other areas in general. • A participant asked the status of the air quality monitors. <ul style="list-style-type: none"> ○ Dan Waddill responded that this topic is currently under discussion by the Vieques Technical Subcommittee, which is made up of the various agencies. <ul style="list-style-type: none"> ➤ ACTION ITEM: Navy and PREQB will provide more information on this topic at a later date.
Adjournment	
Dan Waddill	Dan thanked all the participants for attending the meeting. The meeting was adjourned at approximately 8:34 p.m. The next meeting will be held in August 2016.