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NAS KEY WEST  
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MINUTES AND AGENDA FROM 20 MAY 1996 RESTORATION ADVISORY BOARD  
MEETING NAS KEY WEST FL  
5/20/1996  
NAVAL FACILITIES ENGINEERING COMMAND SOUTHERN DIVISION

**RESTORATION ADVISORY BOARD  
NAVAL AIR STATION KEY WEST**

**Meeting Agenda  
May 20, 1996; 7:00 PM  
Holiday Inn Beachside**

Welcome and Introductions  
Ron Demes  
Navy Co-Chair

Old Business  
Public Comment Management for This Meeting  
Community Relations Plan  
Susan Loder  
Community Co-Chair

Relative Risk Ranking of NAS Key West Sites  
Dudley Patrick  
Naval Facilities Engineering Command  
Southern Division

Cleanup Budget in Relation to Risk Rankings for NAS Key West Sites  
Dudley Patrick

Update of Interim Remedial Activities  
Rick Akers  
Bechtel Environmental, Inc.

Update of RCRA Facility Investigation/Remedial Investigation  
Kevin Walter  
Brown & Root Environmental

Potential Topics for Next Meeting  
Ron Demes and Susan Loder

Adjournment and Invitation  
Ron Demes

Poster Session and Refreshments

**Naval Air Station Key West  
Restoration Advisory Board  
Public Meeting  
May 20, 1996**





# Agenda

**Ron Demes**

**Welcome and Introductions**

**Susan Loder**

**Old Business**

**Public Comment Management (for this meeting)**

**Community Relations Plan**

**NAS Key West Installation Restoration Coordinator**

**Replacement of RAB Member**

**Dudley Patrick**

**Relative Risk Ranking and Site Prioritization**

**Cleanup Budget for NAS Key West**

**Rick Akers**

**Update of Interim Remedial Activities**

**Kevin Walter**

**Update of RCRA Facility Investigation/Remedial Investigation**

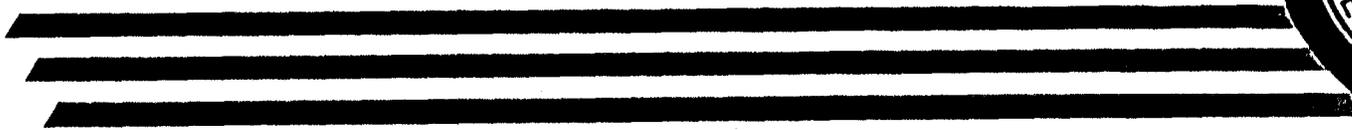
**Ron Demes/Susan Loder**

**Potential Topics for Next Meeting**

**Susan Loder**

**Adjournment**

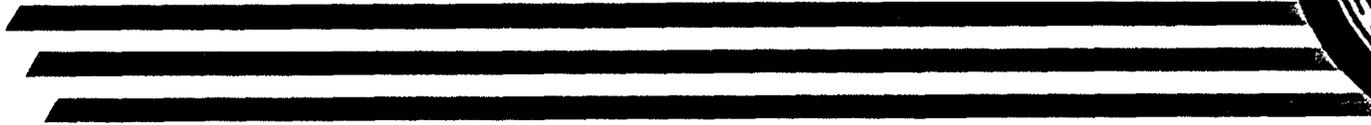
**Poster Session/Questions and Answers**





**Ron Demes**  
**Navy Co-Chair**  
**Restoration Advisory Board**

**Welcome and Introduction**

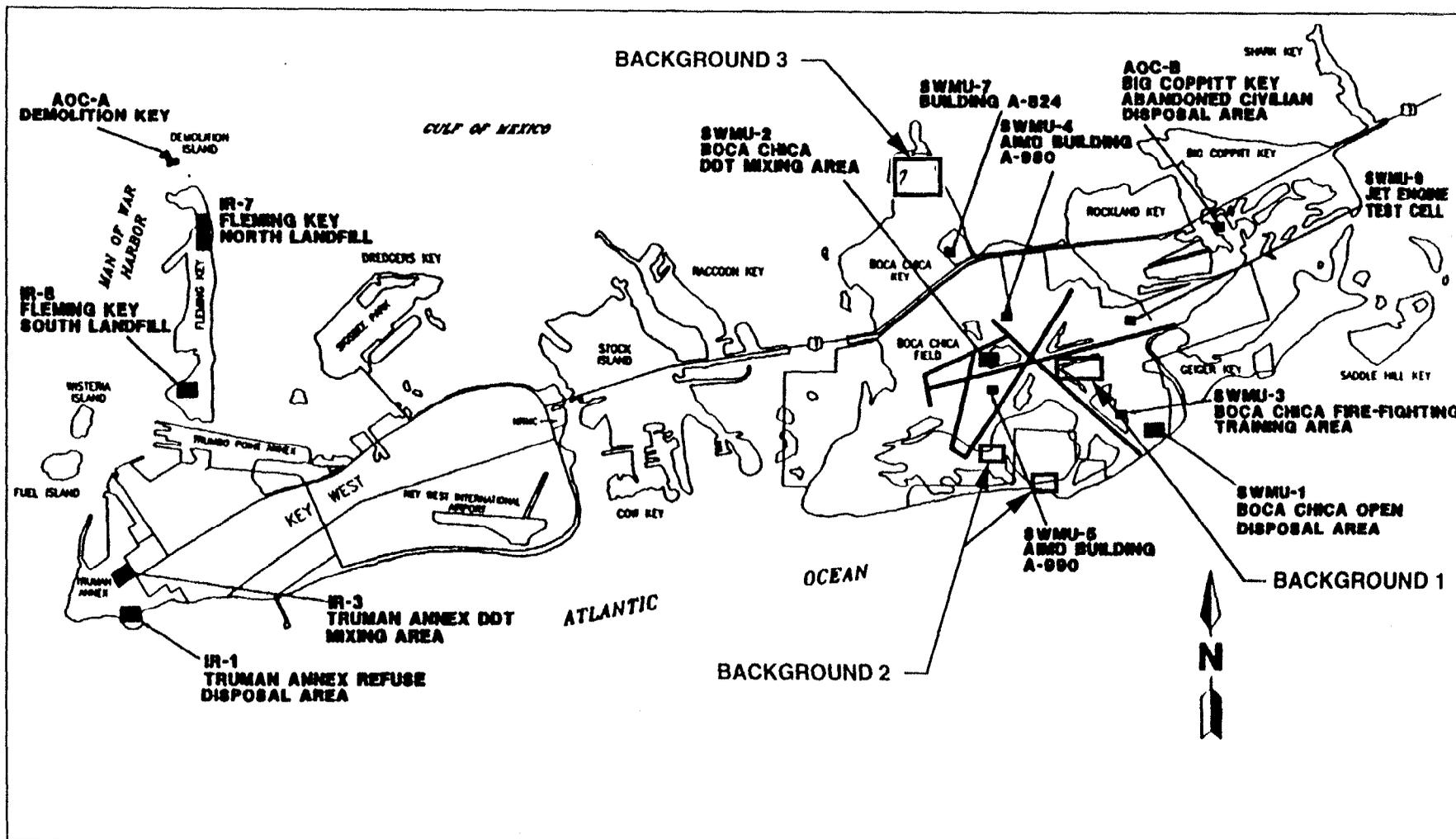




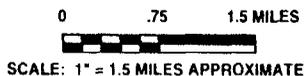
**Dudley Patrick**  
**Naval Facilities Engineering Command**  
**Southern Division**

**Relative Risk Ranking and Site**  
**Prioritization**





**Brown & Root Environmental**



**FIGURE 1. LOCATION OF BOCA CHICA FACILITY-WIDE BACKGROUND LOCATIONS AND SOLID WASTE MANAGEMENT UNITS, AREAS OF CONCERN, AND INSTALLATION RESTORATION SITES**

NAS KEY WEST

KEY WEST, FLORIDA

DRAWN BY:	SCALE: AS NOTED	DATE: 04/29/96	REV.: 0
CHECKED BY:	CONTRACT NO.: 7046	FILE NAME: 7046-1	

## DEFINITION OF TERMS IN THE RELATIVE RISK MODEL

### Contaminant Hazard Factor (CHF)

- Significant: When the sum of contaminant hazard factors for all contaminants for a specific medium is greater than 100.
- Moderate: When the sum of contaminant hazard factors for all contaminants for a specific medium is between 2 and 100.
- Minimal: When the sum of contaminant hazard factors for all contaminants for a specific medium is less than 2.

### Migration Pathway Factor (MPF)

- Evident: Analytical data or observable evidence indicates that contamination is moving away from the source.
- Potential: The possibility exists for contamination to be present at (or migrate to) a point of exposure; or information is not sufficient to make a determination of Evident or Confirmed.
- Confined: Information indicates that the potential for contaminant migration from the source is limited due to geological structures or physical controls).

### Receptor Factor (RF)

- Identified: There is a threatened or potentially threatened water supply downgradient of the source. The groundwater (contaminated or uncontaminated) is a current drinking water source or is equivalent to a Class I or Class IIA aquifer.
- Potential: There is no potentially threatened water supply well downgradient of the source. The groundwater is potentially useable for drinking water, irrigation or agriculture, but it is not presently used (i.e., a Class IIB aquifer).
- Limited: There is no potentially threatened water supply well downgradient of the source. The groundwater is not considered a potential source of drinking water or is of limited beneficial use (i.e., a Class IIIA, Class IIIB or perched aquifer).

# Key West Relative Risk Ranks

<u>SITE</u>	<u>SITE 00001</u>	<u>DESCRIPTION</u>	<u>TRUMAN ANNEX DISPOSAL AREA</u>						
<u>MEDIA</u>		<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water		Significant	Significant	Potential	Potential	Limited	Limited	Med	Med
Sediment Ecological Marine		Moderate	Significant	Evident	Evident	Identified	Identified	High	High
Soil		Significant	Moderate	Potential	Potential	Potential	Potential	High	Med
Surface Water Ecological Marine		N/A	Minimal	N/A	Potential	N/A	Potential	N/A	Low

**OVERALL SITE RANK    WAS    High                      NOW    High**

# Key West Relative Risk Ranks

<u>SITE</u>	<u>DESCRIPTION</u>		<u>TRANSFORMER OIL DISPOSAL</u>					
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water	Significant	Significant	Confined	Confined	Limited	Limited	Low	Low
Soil	Minimal	Minimal	Potential	Potential	Potential	Potential	Low	Low

OVERALL SITE RANK    WAS    Low                      NOW    Low

# Key West Relative Risk Ranks

<u>SITE</u>	<u>SITE 00003</u>	<u>DESCRIPTION</u>	<u>TRUMAN ANNEX DDT MIXING AREA</u>					
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water	Moderate	Moderate	Potential	Potential	Identified	Potential	High	Med
Soil	Moderate	Moderate	Potential	Confined	Identified	Potential	High	Low

OVERALL SITE RANK    WAS    High                      NOW    Medium

# Key West Relative Risk Ranks

<u>SITE</u>	<u>DESCRIPTION</u>		<u>DREDGER KEY REFUSE DISPOSAL AREA</u>					
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Soil	N/A	Moderate	N/A	Potential	N/A	Potential	N/A	Med

OVERALL SITE RANK    WAS    N/A                    NOW    Medium

# Key West Relative Risk Ranks

<u>SITE</u>	<u>SITE 00007</u>	<u>DESCRIPTION</u>	<u>NORTH FLEMING KEY LANDFILL</u>						
<u>MEDIA</u>		<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water		Significant	Significant	Potential	Potential	Limited	Limited	Med	Med
Sediment Ecological Marine		Moderate	Moderate	Evident	Evident	Potential	Potential	High	High
Soil		Moderate	Moderate	Potential	Potential	Potential	Limited	Med	Low
Surface Water Ecological Marine		Moderate	Moderate	Evident	Evident	Identified	Identified	High	High

**OVERALL SITE RANK    WAS    High                      NOW    High**

# Key West Relative Risk Ranks

<u>SITE</u>	<u>SITE 00008</u>	<u>DESCRIPTION</u>		<u>SOUTH FLEMING KEY LANDFILL</u>					
<u>MEDIA</u>		<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water		Significant	Significant	Potential	Potential	Limited	Limited	Med	Med
Sediment Ecological Marine		Moderate	Moderate	Evident	Evident	Potential	Potential	High	High
Soil		Minimal	Minimal	Potential	Potential	Potential	Limited	Low	Low
Surface Water Ecological Marine		Moderate	Moderate	Evident	Evident	Identified	Identified	High	High

OVERALL SITE RANK    WAS    High                      NOW    High

# Key West Relative Risk Ranks

<u>SITE</u>	<u>SITE 00018</u>	<u>DESCRIPTION</u>		<u>BIG COPPET KEY DISPOSAL AREA (AOC B)</u>					
<u>MEDIA</u>		<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water		Significant	Significant	Potential	Potential	Limited	Potential	Med	High
Sediment Ecological Marine		Moderate	Moderate	Evident	Evident	Identified	Potential	High	High
Soil		N/A	Minimal	N/A	Potential	N/A	Potential	N/A	Low
Surface Water Ecological Marine		Moderate	Significant	Evident	Evident	Identified	Potential	High	High

OVERALL SITE RANK    WAS    High                      NOW    High

# Key West Relative Risk Ranks

<u>SITE</u>	<u>SITE 00020</u>	<u>DESCRIPTION</u>		<u>DEMOLITION KEY (AOC A)</u>					
<u>MEDIA</u>		<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water		Significant	Significant	Potential	Potential	Potential	Limited	High	Med
Sediment Ecological Marine		Minimal	Minimal	Potential	Potential	Identified	Identified	Med	Med
Soil		Significant	Significant	Potential	Potential	Limited	Potential	Med	High

OVERALL SITE RANK    WAS    High                      NOW    High

# Key West Relative Risk Ranks

<u>SITE</u>	SWMU 00001	<u>DESCRIPTION</u>		BOCA CHICA OPEN DISPOSAL AREA					
		<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
<u>MEDIA</u>									
Ground Water		Moderate	Moderate	Potential	Potential	Potential	Potential	Med	Med
Sediment Ecological Marine		Significant	Moderate	Evident	Evident	Identified	Identified	High	High
Soil		Moderate	Moderate	Potential	Potential	Potential	Limited	Med	Low
Surface Water Ecological Marine		Moderate	Moderate	Evident	Evident	Identified	Identified	High	High

OVERALL SITE RANK    WAS    High                      NOW    High

# Key West Relative Risk Ranks

<u>SITE</u>	<u>DESCRIPTION</u>		<u>BOCA CHICA DDT MIXING AREA</u>					
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water	Moderate	Moderate	Evident	Potential	Potential	Limited	High	Low
Sediment Ecological Marine	Significant	Moderate	Evident	Evident	Identified	Identified	High	High
Soil	Moderate	Moderate	Potential	Potential	Limited	Limited	Low	Low
Surface Water Ecological Marine	Moderate	Moderate	Potential	Evident	Potential	Identified	Med	High

**OVERALL SITE RANK    WAS    High                    NOW    High**

# Key West Relative Risk Ranks

<u>SITE</u>	<u>DESCRIPTION</u>		<u>BOCA CHICA FFTA</u>					
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water	Moderate	Moderate	Potential	Potential	Potential	Limited	Med	Low
Sediment Ecological Marine	Moderate	Moderate	Potential	Potential	Identified	Potential	High	Med
Soil	Minimal	Minimal	Potential	Potential	Potential	Limited	Low	Low
Surface Water Ecological Marine	Minimal	Minimal	Potential	Potential	Potential	Potential	Low	Low

**OVERALL SITE RANK    WAS    High                      NOW    Medium**

# Key West Relative Risk Ranks

<u>SITE</u>	<u>DESCRIPTION</u>		<u>AIMD BLDG A980</u>					
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water	Minimal	Moderate	Potential	Potential	Potential	Limited	Low	Low
Sediment Ecological Marine	Moderate	Moderate	Potential	Potential	Potential	Potential	Med	Med
Soil	Minimal	Minimal	Potential	Potential	Potential	Potential	Low	Low
Surface Water Ecological Marine	Moderate	Moderate	Potential	Potential	Potential	Potential	Med	Med

OVERALL SITE RANK    WAS    Medium            NOW    Medium

# Key West Relative Risk Ranks

<u>SITE</u>	<u>DESCRIPTION</u>		<u>AIMD BLDG A990</u>					
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water	Minimal	Minimal	Potential	Potential	Potential	Limited	Low	Low
Sediment Ecological Marine	Moderate	Moderate	Potential	Potential	Potential	Potential	Med	Med
Soil	Minimal	Minimal	Potential	Potential	Potential	Potential	Low	Low
Surface Water Ecological Marine	Moderate	Moderate	Potential	Potential	Potential	Potential	Med	Med

OVERALL SITE RANK    WAS    Medium            NOW    Medium

# Key West Relative Risk Ranks

<u>SITE</u> SWMU 00007	<u>DESCRIPTION</u>		BLDG A824		<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
<u>MEDIA</u>	<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>				
Ground Water	Moderate	Moderate	Potential	Potential	Potential	Potential	Med	Med
Sediment Ecological Marine	Moderate	Moderate	Potential	Potential	Potential	Potential	Med	Med
Soil	Moderate	Moderate	Potential	Potential	Potential	Limited	Med	Low
Surface Water Ecological Marine	Minimal	Minimal	Potential	Potential	Potential	Potential	Low	Low

OVERALL SITE RANK    WAS    Medium            NOW    Medium

# Key West Relative Risk Ranks

<u>SITE</u>	<u>SWMU 00009</u>	<u>DESCRIPTION</u>		<u>JET ENGINE TEST CELL</u>					
<u>MEDIA</u>		<u>CHF WAS</u>	<u>CHF NOW</u>	<u>MPF WAS</u>	<u>MPF NOW</u>	<u>RF WAS</u>	<u>RF NOW</u>	<u>RANK WAS</u>	<u>RANK NOW</u>
Ground Water		Moderate	Moderate	Evident	Evident	Identified	Limited	High	Med
Sediment Ecological Marine		N/A	Moderate	N/A	Potential	N/A	Identified	N/A	High
Soil		N/A	Moderate	N/A	Potential	N/A	Potential	N/A	Med
Surface Water Ecological Marine		N/A	*	N/A	Potential	N/A	Identified	N/A	*

\* No risk-based concentrations are provided by the relative risk model for contaminants found in this media. These constituents will be evaluated in the risk assessment.

OVERALL SITE RANK    WAS    High                      NOW    High

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
<b>SITE 00001</b>	<b>TRUMAN ANNEX DISPOSAL AREA</b>			
<b><u>Media</u></b>	<b>Ground Water</b>			
		Lead	5,700.00	1,425.00
		Mercury and compounds (inorganic)	640.00	58.18
		Antimony and compounds	563.00	38.56
		Arsenic (cancer)	62.20	16.37
		Manganese	2,940.00	16.33
		Copper and compounds	10,200.00	7.52
		Chromium (total)	657.00	3.60
		Cadmium and compounds	54.50	2.98
		Zinc	15,200.00	1.39
		Aluminum	46,500.00	1.27
		Beryllium and compounds	1.60	1.00
		Heptachlor epoxide	0.63	0.85
		Barium and compounds	1,380.00	0.54
<b><u>Media</u></b>	<b>Sediment Ecological Marine</b>			
		PCBs	10.33	206.60
		Lead	134.00	3.83
		Endrin	0.07	3.45
		Antimony and compounds	6.80	3.40
		Copper and compounds	132.00	1.89
		Zinc	150.00	1.25
		Mercury	0.15	1.00
		Dieldrin	0.01	0.60
<b><u>Media</u></b>	<b>Soil</b>			
		Lead	3,700.00	9.25
		Manganese	874.00	2.73
		Arsenic (cancer)	44.70	1.40
		Benzo[a]pyrene	4.30	0.70
<b><u>Media</u></b>	<b>Surface Water Ecological Marine</b>			
		Antimony and compounds	257.00	0.51

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SITE 00002	TRANSFORMER OIL DISPOSAL			
<u>Media</u>	Ground Water			
		Lead	1,200.00	300.00
		Naphthalene	3,250.00	13.54
<u>Media</u>	Soil			
		Polychlorinated biphenyls (PCBs)	4.20	0.64

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>GHF</u>
SITE 00003	TRUMAN ANNEX DDT MIXING AREA			
<u>Media</u>	Ground Water			
		Lead	77.00	19.25
		Naphthalene	2,800.00	11.67
		Arsenic (cancer)	38.80	10.21
		Antimony and compounds	83.20	5.70
		Benzene	220.00	5.64
		Dieldrin	1.20	2.86
		Fluorene	260.00	1.08
		Aroclor	0.80	0.92
<u>Media</u>	Soil			
		Lead	653.00	1.63

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## Contaminants by Site and Media

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<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SITE 00006	DREDGER KEY REFUSE DISPOSAL AREA			
<u>Media</u>	Soil			
		Benzo[a]pyrene	62.00	10.16
		Dibenz[ah]anthracene	27.00	4.43
		Chrysene	76.00	3.17
		Benzo[b]fluoranthene	100.00	1.64
		Anthracene	25.00	1.32
		Benz(a)anthracene	66.00	1.08
		Indeno[1,2,3-cd]pyrene	45.00	0.74

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SITE 00007	NORTH FLEMING KEY LANDFILL			
<u>Media</u>	Ground Water			
		Lead	2,000.00	500.00
		Antimony and compounds	464.00	31.78
		Arsenic (cancer)	61.80	16.26
		Mercury and compounds (Inorganic)	73.00	6.64
		Copper and compounds	5,560.00	4.10
		Chromium (total)	384.00	2.10
		Cadmium and compounds	21.70	1.19
		Vanadium	229.00	0.90
		Zinc	8,790.00	0.80
		Nickel and compounds	409.00	0.56
<u>Media</u>	Sediment Ecological Marine			
		Mercury	0.24	1.60
		Lead	38.00	1.09
		Copper and compounds	46.00	0.66
<u>Media</u>	Soil			
		Antimony and compounds	50.30	1.62
		Lead	337.00	0.84
<u>Media</u>	Surface Water Ecological Marine			
		Mercury	0.63	25.20
		Lead	72.20	8.49

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SITE 00008	SOUTH FLEMING KEY LANDFILL			
<u>Media</u>	Ground Water			
		Lead	1,870.00	467.50
		Mercury and compounds (inorganic)	620.00	56.36
		Arsenic (cancer)	109.00	28.68
		Antimony and compounds	236.00	16.16
		Thallium sulfate	11.60	4.00
		Aluminum	72,000.00	1.97
		Chlorobenzene	71.00	1.82
		Cadmium and compounds	31.00	1.69
		Copper and compounds	1,780.00	1.31
		Manganese	195.00	1.08
		Beryllium and compounds	1.10	0.69
		Chromium VI and compounds	115.00	0.63
<u>Media</u>	Sediment Ecological Marine			
		Lead	1,680.00	48.00
		Zinc	1,620.00	13.50
		Mercury	1.60	10.67
		Antimony and compounds	20.70	10.35
		Nickel and compounds	65.40	2.18
		Arsenic (cancer)	43.50	1.32
		Chromium VI and compounds	70.70	0.88
<u>Media</u>	Surface Water Ecological Marine			
		Aroclor	1.10	36.67
		Lead	155.00	18.24
		Mercury	0.43	17.20
		Silver and compounds	10.20	11.09
		Cadmium and compounds	19.80	2.13
		Arsenic (III)	57.30	1.59
		Chromium VI and compounds	37.20	0.74
		Zinc	62.30	0.72

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SITE 00018	BIG COPPET KEY DISPOSAL AREA (AOC B)			
<u>Media</u>	Ground Water			
		Lead	309.00	77.25
		Arsenic (cancer)	83.40	21.95
		Antimony and compounds	240.00	16.44
		Chromium (total)	428.00	2.35
<u>Media</u>	Sediment Ecological Marine			
		Zinc	2,590.00	21.58
		Antimony and compounds	8.90	4.45
		Cadmium and compounds	15.60	3.12
		Mercury	0.22	1.47
		Lead	44.70	1.28
		Nickel and compounds	38.10	1.27
		Chromium VI and compounds	67.40	0.84
		Arsenic (cancer)	27.10	0.82
<u>Media</u>	Surface Water Ecological Marine			
		Aroclor	8.00	266.67
		Zinc	1,290.00	15.00
		Mercury	0.24	9.60
		Lead	71.00	8.35
		Nickel and compounds	49.60	5.98
		Chromium VI and compounds	115.00	2.30
		Arsenic (III)	70.30	1.95
		Antimony and compounds	268.00	0.54

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SITE 00020	DEMOLITION KEY (AOC A)			
<u>Media</u>	Ground Water			
		Lead	1,610.00	402.50
		Antimony and compounds	249.00	17.05
		Copper and compounds	4,070.00	3.00
		Cadmium and compounds	52.20	2.85
		Zinc	23,500.00	2.15
<u>Media</u>	Soil			
		Lead	46,800.00	117.00
		Lead	46,800.00	117.00
		Antimony and compounds	512.00	16.52
		Arsenic (cancer)	73.80	2.31
		Copper and compounds	1,540.00	0.55

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SWMU 00001	BOCA CHICA OPEN DISPOSAL AREA			
<u>Media</u>	Ground Water			
		Arsenic (cancer)	94.50	24.87
		Lead	74.40	18.60
		Antimony and compounds	251.00	17.19
		Vinyl chloride	16.00	8.00
		Thallium sulfate	20.10	6.93
		Mercury and compounds (inorganic)	66.00	6.00
		Naphthalene	725.00	3.02
		Aluminum	27,000.00	0.74
		Benzene	25.00	0.64
		Chromium VI and compounds	106.00	0.58
<u>Media</u>	Sediment Ecological Marine			
		Mercury	1.90	12.67
		Lead	181.00	5.17
		Copper and compounds	211.00	3.01
		Zinc	216.00	1.80
<u>Media</u>	Soil			
		Lead	436.00	1.09
		Antimony and compounds	21.70	0.70
<u>Media</u>	Surface Water Ecological Marine			
		Mercury	0.32	12.80
		Lead	83.30	9.80
		Zinc	129.00	1.50
		Cadmium and compounds	13.70	1.47

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
<b>SWMU 00002</b>	<b>BOCA CHICA DDT MIXING AREA</b>			
<b><u>Media</u></b>	<b>Ground Water</b>			
		Dichloroethane, 1,2- (EDC)	773.00	64.42
		Aldrin	2.70	6.75
		Antimony and compounds	88.00	6.03
		Thallium sulfate	11.70	4.03
		Chlorobenzene	120.00	3.08
		Vinyl chloride	3.00	1.50
		Benzene	54.00	1.38
<b><u>Media</u></b>	<b>Sediment Ecological Marine</b>			
		DDD,4,4-	17.20	17.20
		DDT	14.80	7.40
		DDE,4,4-	7.50	3.75
		Zinc	170.00	1.42
		Lead	24.00	0.69
<b><u>Media</u></b>	<b>Soil</b>			
		HCH (beta)	51.00	2.04
		HCH (alpha)	7.20	1.01
		Chlordane	24.00	0.71
<b><u>Media</u></b>	<b>Surface Water Ecological Marine</b>			
		Lead	80.40	9.46

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
<b>SWMU 00003</b>	<b>BOCA CHICA FFTA</b>			
<b><u>Media</u></b>	<b>Ground Water</b>			
		Antimony and compounds	161.00	11.03
		Arsenic (cancer)	39.30	10.34
		Vinyl chloride	17.00	8.50
<b><u>Media</u></b>	<b>Sediment Ecological Marine</b>			
		Lead	136.00	3.89
		Copper and compounds	163.00	2.33
		Zinc	88.90	0.74
<b><u>Media</u></b>	<b>Surface Water Ecological Marine</b>			
		Lead	14.40	1.69
<b><u>Media</u></b>	<b>Surface Water Human</b>			
		Lead	14.40	3.60

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
<b>SWMU 00004</b>	<b>AIMD BLDG A980</b>			
<b><u>Media</u></b>	<b>Ground Water</b>			
		Antimony and compounds	78.70	5.39
		Arsenic (cancer)	11.30	2.97
		Lead	7.60	1.90
		Carbon disulfide	34.90	1.66
		Vinyl chloride	2.70	1.35
<b><u>Media</u></b>	<b>Sediment Ecological Marine</b>			
		Antimony and compounds	8.80	4.40
		Lead	38.10	1.09
<b><u>Media</u></b>	<b>Surface Water Ecological Marine</b>			
		Lead	80.40	9.46

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SWMU 00005	AIMD BLDG A990			
<u>Media</u>	Ground Water			
		Beryllium and compounds	1.30	0.81
<u>Media</u>	Sediment Ecological Marine			
		Lead	966.00	27.60
		Cadmium and compounds	120.00	24.00
		Zinc	824.00	6.87
		Chromium (total)	428.00	5.35
		Antimony and compounds	4.00	2.00
		Nickel and compounds	26.60	0.89
		Copper and compounds	38.90	0.56
<u>Media</u>	Surface Water Ecological Marine			
		Lead	68.90	8.11
		Chromium VI and compounds	58.20	1.16
		Cadmium and compounds	9.70	1.04

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SWMU 00007	BLDG A824			
<u>Media</u>	Ground Water	Lead	9.50	2.38
<u>Media</u>	Sediment Ecological Marine	Silver and compounds	29.10	29.10
		Mercury	1.80	12.00
		Aroclor	0.37	7.40
		Antimony and compounds	7.00	3.50
		Zinc	382.00	3.18
		Lead	86.50	2.47
		Cadmium and compounds	2.80	0.56
<u>Media</u>	Soil	Polychlorinated biphenyls (PCBs)	17.00	2.58

## Contaminants by Site and Media

<u>SITE</u>	<u>DESCRIPTION</u>	<u>Compound</u>	<u>Concentration</u>	<u>CHF</u>
SWMU 00009	JET ENGINE TEST CELL			
<u>Media</u>	Ground Water			
		1,2-Dichloroethylene (cis)	1,560.00	25.57
		1,2-Dichloroethylene (trans)	3,060.00	25.50
		Benzene	56.00	1.44
<u>Media</u>	Sediment Ecological Marine			
		Mercury	1.10	7.33
		Lead	23.10	0.66
		Arsenic (noncancer)	17.80	0.54
<u>Media</u>	Soil			
		Lead	434.00	1.09



**Dudley Patrick**  
**Naval Facilities Engineering Command**  
**Southern Division**

**Cleanup Budget for NAS Key West**



# NAS KEY WEST FY97 BUDGET OUTLOOK

- Maintain continuity
- Close out sites
- Final remedial actions
- High priority sites
- Supported by risk rankings
- IR-1 Truman Annex Ref Disp Area
- IR-3 Truman Annex DDT Mix Area
- SWMU-1 Boca Chica Open Disp
- SWMU-2 Boca Chica DDT Mix Area
- SWMU-9 Jet Eng Test Cell

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UPDATE

*Interim Remediation &  
Source Removal of Contaminants  
NAS Key West Florida*

Dudley Patrick  
SOUTHDIV

# Status: 20 May 96

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● Complete	Qty (cy)	● In Progress	Qty (cy)
» SWMU-1	6275	» SWMU-9	N/A
» SWMU-2	1943		
» SWMU-3	835	● Being Designed	
» SWMU-7	26	» IR-8	1800 <i>If</i>
» IR-1	4878	» Subcontractor selected for design / build.	
» IR-3	735	» Construction scheduled January - March, 1997	
» IR-7	N/A		
» AOC-B	993		
» <b>Total</b>	<b>15,685</b>		

# *Significant Recent Events*

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- Completed IRA SWMU-1 & SWMU-2
- Completed wetlands restoration
  - » AOC-B, SWMU-1, and SWMU-2
- Selected specialty subcontractor for IR-8 Fleming Key Landfill Site
- Completed design SWMU-9 system
- Obtained EPA / FDEP concurrence on completion of IRAs & SWMU-9 design

# *Highlights of Completed Sites*

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- SWMU-1: Reduced highest lead concentration from 12,300 to 436 ppm
- SWMU-2: Reduced DDT in sediment from 2400 to 14.8 ppm
- IR-1: Reduced highest lead concentration from 35,200 to 680 ppm
- IR-3: Reduced DDE in soil from 68 to 11 ppm

***IRA OBJECTIVES ACHIEVED AT ALL SITES***

# *SWMU-9 (Jet Eng Test Cell)*

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**Problem:** Petroleum Product and Chlorinated Solvent Plume

**Solution:** Install Groundwater Pump & Treat System

- » *3 Recovery wells (16 ft)*
- » *1 Deep monitoring well (27 ft)*
- » *Package treatment system with oil/water separator and air stripper*
- » *Infiltration gallery to discharge treated groundwater*
- » *Start June 1996*

# *IR-8 (Fleming Key)*

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**Problem:** Erosion of landfill contents at shoreline

**Solution:** Install Shoreline Protection System

- » *Approx 1800 linear feet west from water treatment plant*
- » *Berm-type structure*
- » *Pre-cast concrete mats on face (Armor Flex)*
- » *Height: 10 ft above Mean Sea Level*
- » *Stone roadway on top; erosion mats for drainage on back*
- » *Construction January - March 1997*



**Kevin Walter**

**Update of RCRA Facility Investigation/  
Remedial Investigation**





# **Supplemental RCRA Facility Investigation/Remedial Investigation (RFI/RI)**

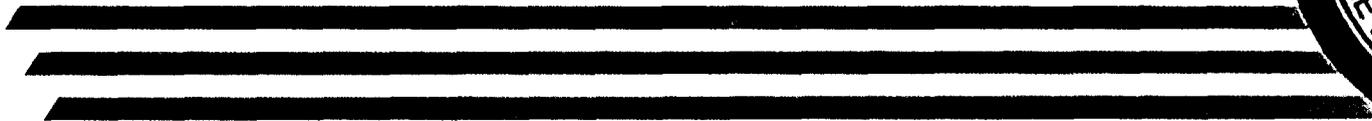
- **Further investigation of four priority sites and three background sites on Boca Chica**
- **Sample analysis and data validation complete**
- **Contaminants of concern: pesticides, metals, petroleum compounds**
- **Will report on data interpretation at July 29 RAB meeting**
- **Draft RFI/RI report finished in 9/96**





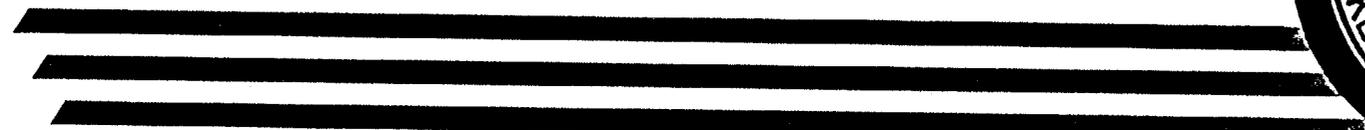
**Ron Demes/Susan Loder**

**Potential Topics for Next Meeting**





# Adjournment Poster Session/Questions and Answers



**LEGAL NOTICES**  
**ENVIRONMENTAL PUBLIC MEETING NOTICE**

The Restoration Advisory Board (RAB) of Naval Air Station, Key West, made up of community members, representatives of the U.S. Navy, and state and regulatory agencies, is holding its third open meeting to discuss environmental cleanup activities at the Station. The meeting will be held on May 20, 1996 at 7:00 PM at the Holiday Inn Beachside (Tortuga Room), 3841 North Roosevelt Boulevard, Key West. The public is invited to attend and participate in an informal question and answer period following the business portion of the RAB meeting. Technical experts on the environmental program will be on hand to meet with community members at that time. Documents on the environmental program at Naval Air Station, Key West, are available for public review and copying at the Monroe County Library, 700 Fleming Street, Key West. They are located in the Local and State History Department. For further information, please call Helen Stanley at (305) 293-2060 or LT Jonathan Hupp at (305) 293-2425. Deaf and Hearing Impaired Persons: A sign language interpreter is available on request. Call LT Jonathan Hupp at (305) 293-2425 using FRS by May 13, to request interpreter services.

May 16th & 19th, 1996

## ENVIRONMENTAL PUBLIC SERVICE ANNOUNCEMENT

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