

Florida Keys National Marine Sanctuary

SAC Discussion of “Artificial Habitat”
Tuesday, February 17, 2015

Permit Holder Agenda Outline

FKNMS-103-98, authorization of Army Corps permit for *Adolphus Busch*

FKNMS-2002-019, FKNMS permit for *Spiegel Grove*.

- ▶ Process to obtain permits
 - ▶ Timeline
 - ▶ Costs
 - ▶ Permit compliance
- 

Sinking of the Adolphus Busch

FKNMS-103-98, authorization for *Adolphus Busch*

- ▶ Builder: Burntisland Shipbuilding Co., Fife, Scotland
- ▶ Completed: March 12, 1951
- ▶ Class: Cargo Ship
- ▶ Characteristics:
 - 706 Tons / 213 Feet Overall / 36 Foot Beam
- ▶ Names:
 - London / Topsail Star / Sophie Express / Ocean Alley
- ▶ Location: Artificial Reef 80' to 110' midway between Looe Key & American Shoals Light
 - 24° 31.841' N / 081° 27.688' W

Process to obtain permits

- ▶ ACOE – Permitted Location
 - Monroe County Application to ACOE
 - Low Impact Site
 - Stability Analysis – 100 Year Storm Event
 - Approved Stability Plan (3 Anchor Deployment)
 - Monroe County Site Permit Holder
- ▶ FKNMS – Permit 103–98
 - Approved Location
 - Approved Stability & Sinking Plan
 - Perimeter Watch (FKNMS/USCG) / Anchor Deployment / Release of Plugs
 - Approved Monitoring Plan
 - Mooring Buoys Maintained by FKNMS
- ▶ USCG – Certifications
 - Clean-up
 - Transport

Timeline / Costs / Compliance

- ▶ Timeline: Approximately 2 Years
 - Change of Ship in Mid-stream
- ▶ Costs – Total Costs Unknown
 - Borne by Adolphus Busch Sr. & Looe Key Artificial Reef Association
 - Clean-up – Miami River
 - Transport – Shurger Brothers (MC Contract)
 - Sinking – Shurger Brothers (MC Contract)
 - \$50,000 TDC Funds
- ▶ Permit compliance (MC MOU with Looe Key Artificial Reef Association – Joe Glenn)
 - Initial Debris watch
 - Assessment of Marine Life
 - Assessment of Boater Activity
 - General Assessment of continuing Stability

Sinking of the Adolphus Busch



Sinking of the Spiegel Grove



Sinking of the LSD 32, U.S.S. Spiegel Grove

FKNMS-2002-019, FKNMS permit for *Spiegel Grove*.

- ▶ Builder: Ingalls Shipbuilding, Pascagoula, MS
- ▶ Completed: November 10, 1955
- ▶ Class: Thomaston-class dock landing ship
- ▶ Characteristics:
 - 8,899 Tons / 510 Feet Overall / 84 Foot Beam / 19 Foot Draft
- ▶ Names: U.S.S. Spiegel Grove / “Top Dog”
- ▶ Location: Artificial Reef 130’ west of Molasses Reef
 - 25° 04.003’ N / 080° 18.012’ W

Process to obtain permits

- ▶ ACOE – Permitted Location (IP–CS 199502550)
 - Monroe County Application to ACOE
 - Low Environmental Impact Site
 - Stability Analysis – 100 Year Storm Event
 - Approved Stability Plan (4 Anchor Deployment)
 - EPA / USCG / State Clean-up Standards applied
 - Asbestos/PCBs/Oil//Lead
 - Virginia & Maryland
 - Texas & California considered
 - Monroe County Site Permit Holder
- ▶ State FWC
 - (Division of Marine Fisheries Management, Artificial Reef Program)
- ▶ MARAD (Maritime Administration)

Process to obtain permits

- ▶ Before Transport – Clean-up Inspections
 - EPA, U.S.C.G., FKNMS, FWC
- ▶ FKNMS Permission to enter ATBA
- ▶ FKNMS – Permit 2002-19
 - Approved Location
 - Approved Stability & Sinking Plan
 - Perimeter Watch (FKNMS/USCG) / Anchor Deployment / Demolition Plan (MCSO)
 - Approved Monitoring Plan – REEF
 - Mooring Buoys Maintained by FKNMS
- ▶ USCG – Certifications
 - Clean-up Plan
 - Transportation / Towing Plan
 - Establishment of 4 day Notice to Mariners
 - Establishment of ~ a Month Notice to Mariners

Timeline / Costs / Compliance

- ▶ **Timeline: 3 Years / 7 Years Total**
 - Acquisition Issues
 - Change of Clean-up Location
 - Change in Contractors
- ▶ **Costs – Approximately \$1,250,000**
 - Borne by Key Largo Chamber of Commerce
 - Clean-up – Norfolk, Virginia & Maryland
 - Transport – ?
 - Sinking – ?
 - Righting – Resolve Marine Group
- ▶ **Permit compliance (MC MOU with REEF)**
 - Initial Debris watch
 - Assessment of Marine Life / Fish
 - Assessment of Boater Activity
 - Socioeconomic Analysis (FKNMS – Leeworthy)
 - General Assessment of continuing Stability

Sinking Plan

OPERATIONS MANUAL

FOR THE SINKING OF THE

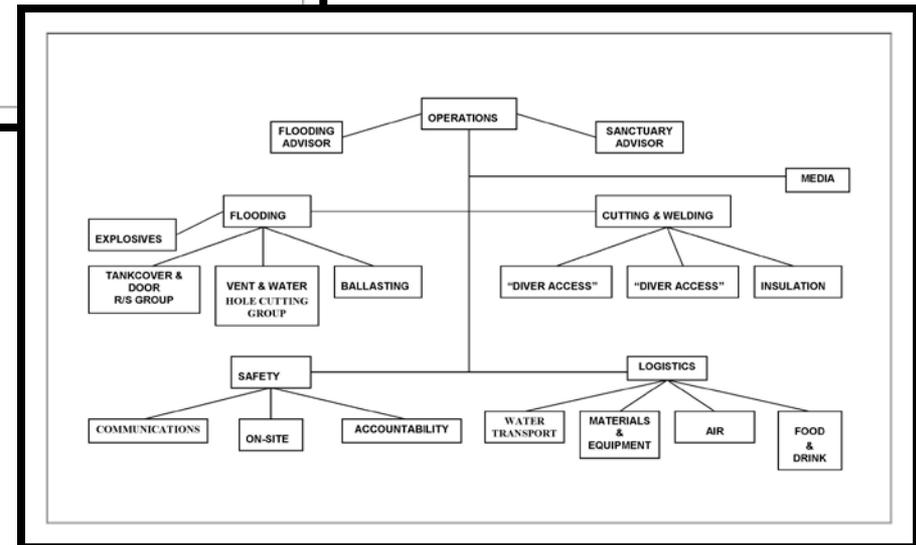
EX – U.S.S. SPIEGEL GROVE



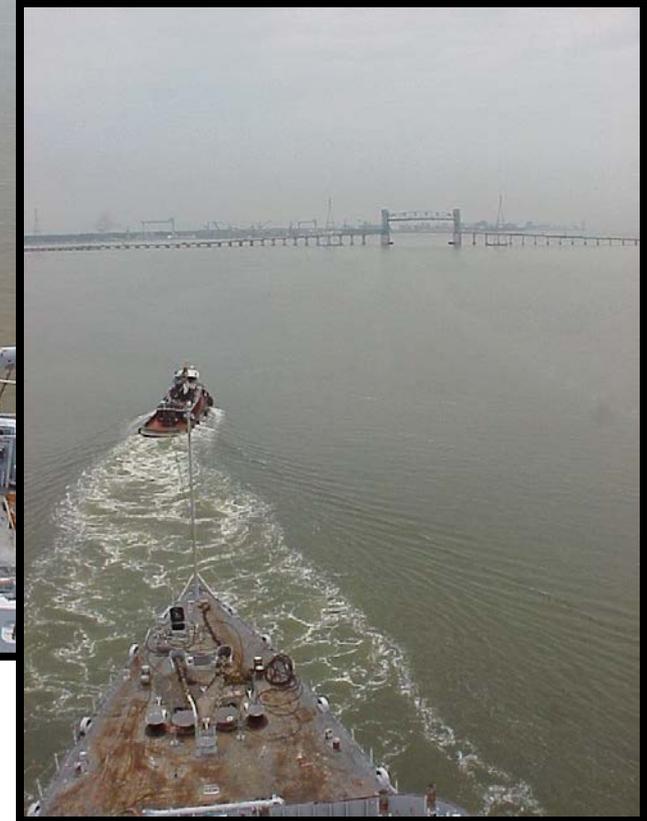
TABLE OF CONTENTS

OBJECTIVE	4
DESCRIPTION OF VESSEL	4
VESSEL CONDITION	4
SAFETY OF PERSONNEL	5
FIRE AND FLOODING SAFETY CONSIDERATIONS	5
ENVIRONMENTAL SAFEGUARDS AND PRECAUTIONS	6
PERSONNEL AWARENESS REQUIREMENT	6
CONTROLLED SPACE CONCERNS	6
INITIAL AND DAILY BRIEFS	6
TEMPORARY SHOROT CRITERIA	7
EMERGENCY ACTION PLAN	7
UNDERWATER INSPECTION	7
OPERATIONS CONTROL CENTER	8
COMMAND AND CONTROL	8
ASSIGNMENTS – DESCRIPTION OF POSITION	8
Operations Command	8
Flooding Advisor	8
Sanctuary Advisor	8
Flooding Supervisor	8
Cutting	9
Welding Supervisor	9
Safety Oversight	9
Logistics	9
ASSIGNMENTS – DESCRIPTION OF ACTION GROUPS	10
Tank Cover and Door R/S Group	10
Vent and Water Hole Cutting Group	10
Ballasting Group	10
Explosives Group	11
“Diver Access” Welding Group	11
“Diver Access” Cutting Group	11
Insulation R/S Group	12
Communications	12
On-Site Emergency Medical Services	12
Accountability	12
Water Transport	13
Materials and Equipment	13
Air Transport	13
Food and Drink	13
GENERAL SEQUENCE OF EVENTS	13
HOURS OF OPERATION	14
SAFETY PERMITS	14
ORGANIZATIONAL FLOWCHART	15
FLOODING PLAN	19
DESIGNATIONS PLAN	20

WELL DECK PENETRATIONS	21
CRITICAL BOW FLOODING & VENTING	22
PRE-FLOODING GENERAL SEQUENCE OF EVENTS	24
LIST OF WATER TIGHT DOORS, HATCHES, SCUTTLES, AND MANHOLE COVERS – DECK 2	25
LIST OF WATER TIGHT DOORS, HATCHES, SCUTTLES, AND MANHOLE COVERS – DECK 3	29
LIST OF WATER TIGHT DOORS, HATCHES, SCUTTLES, AND MANHOLE COVERS – DECK 4	32
LIST OF DOUBLE ENGINES OPENINGS	34
LIST OF TANKS AND SPACES BALLASTED FOR TOW	38
COMMUNICATIONS WORKSHEET	39
ACCOUNTABILITY WORKSHEET	40
VEHICLE WORKER'S STATEMENT	41
HOLD HARMLESS AGREEMENT	42
LIST OF MATERIALS, TOOLS AND EQUIPMENT	43



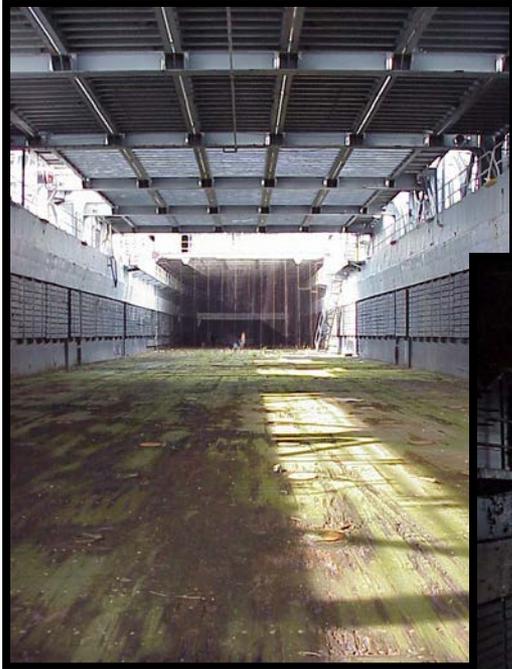
James River Fleet Transfer (6/2001)



Initial Clean-up

(4/2002)

Before



Final Clean-up

(4/2002)

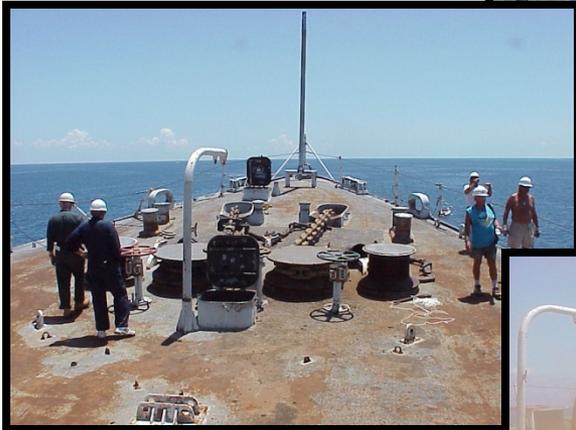
After



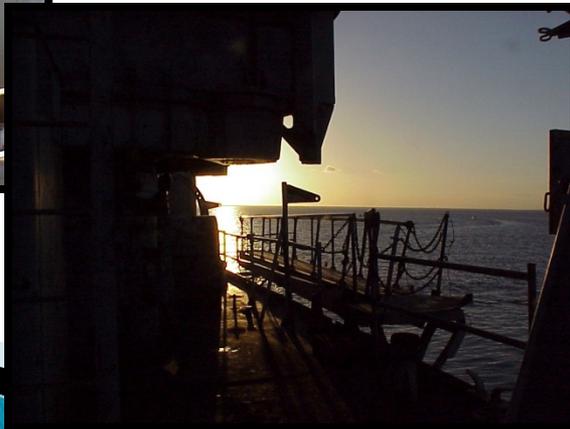
FKNMS ROV Site Recon (5/2002)



Sinking of the Spiegel Grove (5/2002)



Sinking of the Spiegel Grove



Sinking of the Spiegel Grove



Righting of the Spiegel Grove (6/2002)



Spiegel Grove gets help from Dennis

- ▶ **Storm uprights Spiegel Grove!**
- ▶ **July 2005** – Underwater turbulence generated by Hurricane Dennis has uprighted the 510-foot artificial reef known as the Spiegel Grove.

The Florida Keys National Marine Sanctuary is working on an emergency closure of the site while it assesses the ship's stability and its general condition. Workers will be removing the mooring buoys temporarily, sanctuary spokeswoman Cheva Heck said.

The shifted position of the 510-foot ship comes as a surprise because the area experienced minimal tropical-storm force winds during the passage of Hurricane Dennis on Saturday.

On Monday, a boat from Key Largo dive shop Ocean Divers visited the former Navy ship, which was scuttled in 130 feet of water May 17, 2002. When divers arrived at the site six miles offshore, they saw that several mooring balls were missing.

The dive boat tied off on one of the three remaining moorings and instructors Bob Snyder and Steve Schalk descended the mooring lines. At 90 feet, Schalk said he saw nothing and came to the surface. Snyder, who descended to the ship's bow, was stunned by what he saw.

- ▶ "I was in shock," he said Monday. "I had to ask myself, 'Am I narcked [suffering from nitrogen narcosis]?' There was only 10-foot visibility, so I dropped down 10 feet and I could see both sides of the ship. It was sitting upright."