

THE SPIEGEL GROVE WRECK



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Overview

- *Reasons for Diving the Spiegel Grove*
- *Spiegel Grove Diving Techniques*
 - *Considerations*
 - *Hazards*
- *History of the Spiegel Grove*
- *The Planned Sinking*
- *Hurricane Dennis*
- *The Spiegel Grove as an Artificial Reef*

- *Knowledge Review*

- *Open Water Dives*



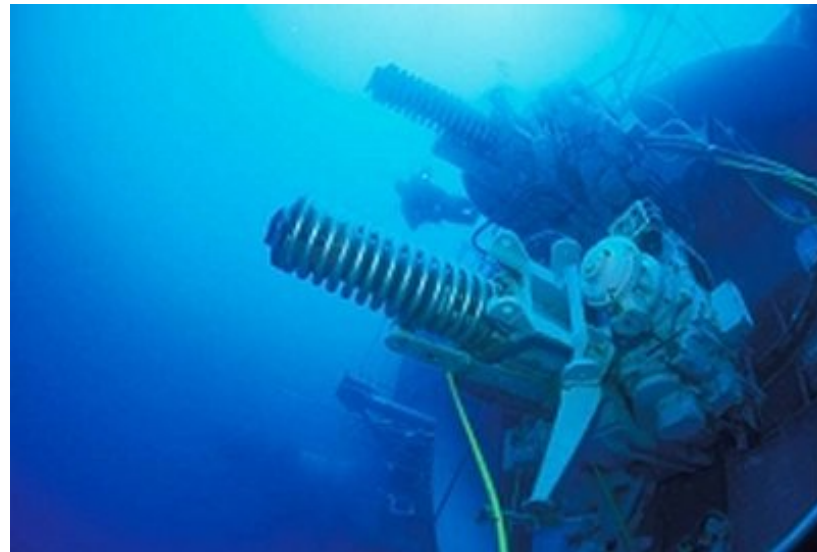
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Reasons for Diving the Spiegel Grove

- *Curiosity*
- *History*
- *Aquatic Life*
- *Photography*



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Spiegel Grove Dive Techniques

Considerations

- *Deep Dive Training*
- *Nitrox Training*
- *Extra Tank at 15 Feet*
- *Nitrogen Narcosis*
- *Shorter Bottom Time*
- *Current*

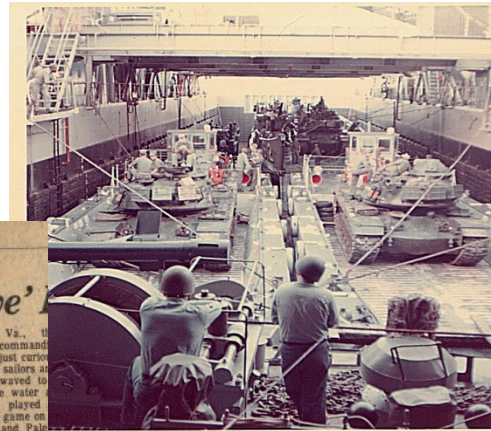
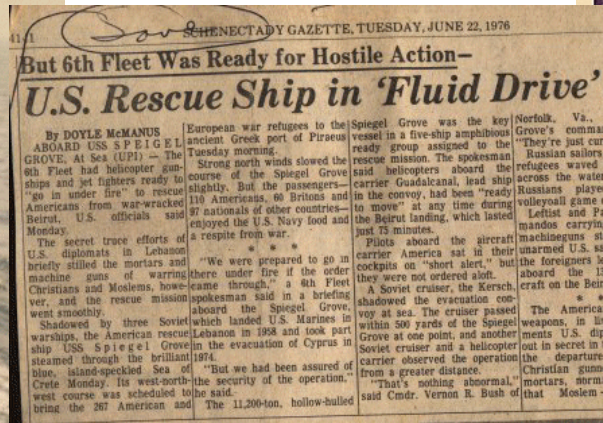
Hazards

- *Sharp Objects*
- *Entanglement*
- *Aquatic Life*
- *Entrapment*



Spiegel Grove a Brief History

- *The Home & Estate in Fremont, Ohio of Rutherford R. Hayes
The 19th President of the USA.*
- *(LSD-32) Keel Laid 7th Sept. 1954 by INGALLS Shipbuilding Corp.
Pascagoula, Miss.*
- *Launched on 10th Nov. 1955.*
- *Commissioned 8th June 1956, Capt. S Filippone in command.*
- *Tours of Duty included; 1956 Cuba, 1957 Mediterranean, 1959/60
Caribbean, 1961 Africa, 1962/70 Europe,
1970- Atlantic fleet.*
- *Decommissioned 2nd October 1989*



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Aboard the Spiegel Grove



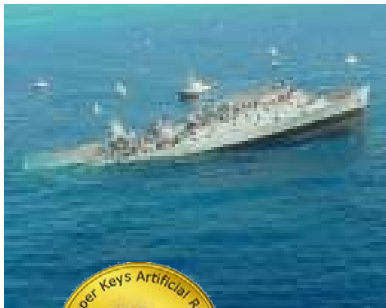
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Planned Sinking of the Spiegel Grove

- *1994 Key Largo NMS visit the mothballed fleet in VA and select the Spiegel Grove.*
- *1995 Fund Raising Begins. Estimated to require \$1 million.*
- *2001 Ocean Reefs Inc. contracted to clean the ship.*
- *2002 The Spiegel Grove is brought to Key Largo.*
- *Sinks Prematurely on May 17th, 2002.*
- *The Ship remains upside down for 3 weeks.*
- *Salvage Company hired to upright the ship at an estimated \$250,000.*
- *Successfully sunk but Laying on her STARBOARD side.*
- *Opened to the Public 24th June 2002.*



To defray the costs of cleanup, preparation, and towing, the Key Largo Chamber of Commerce Artificial Reef Committee will be selling medallions which will be required for divers wishing to visit the artificial reefs off the Upper Keys.

Annual Medallion: \$10.00

Lifetime Medallion: \$250 - Purchaser's name will be engraved on the plaque which will be installed on the USS Spiegel Grove (only 1000 will be cast/sold).



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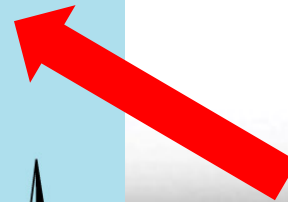


Location



➤ LAT: 25° 4' 0"

➤ LON: 80° 18' 39"

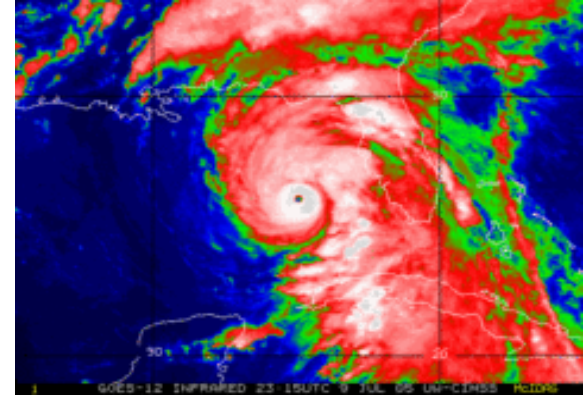


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Hurricane Dennis

Duration [July 4](#) - [13](#), [2005](#)
Highest winds 150 [mph](#) (240 [km/h](#)) sustained
Damages \$5.9 billion
Fatalities 32 direct, 39 indirect



Areas affected [Haiti](#), [Jamaica](#), [Cuba](#), [Florida](#), [Alabama](#), [Mississippi](#), [Georgia](#), [Tennessee](#), [Ohio Valley](#) region



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Hurricane Dennis cont...

- Was the fourth named storm of 2005,
- First major hurricane of the 2005 Atlantic hurricane season.
- The hurricane set several records for early season hurricane activity, becoming both the earliest formation of a fourth tropical cyclone and the strongest hurricane ever to form before August.
- Dennis hit Cuba as a Category 4 storm.
- Made landfall in Florida as a Category 3 storm.
- Dennis caused at least 71 deaths in the United States and Caribbean.
- Caused \$5-9 billion in damage, about half of which was in the Caribbean.
- Damage was not as high as expected in the United States, mainly because Dennis was more compact and moved through quicker than initially forecast.



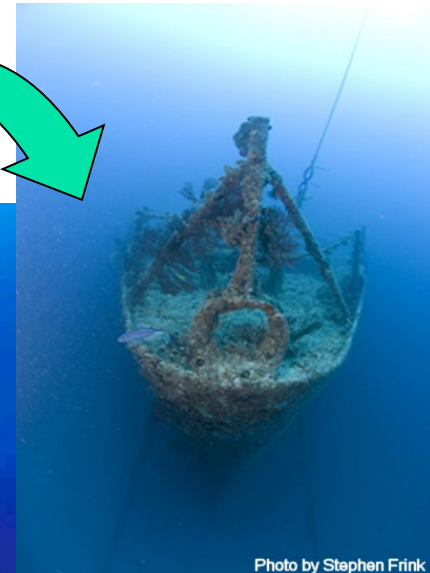
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Hurricane Dennis cont...

- On 11th July 2005 Recorded wind speed 60mph
- Wave height 20 foot.
- Ship Rolls into the channel caused by current erosion.



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The Spiegel Grove as an Artificial Reef

- Relieves Pressure from the Natural Reef
 - Fishing
 - Diving
- Provides a home for Clams, Bristle Worms and Arrow crabs
- as well as the large Pelagic species
- Important Research and Study for REEF



THE REEF ENVIRONMENTAL EDUCATION FOUNDATION



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USS SPIEGEL GROVE LSD 32



Class: Thormaston class dock landing ship

Awarded: March 18, 1954

Laid down: September 7, 1954

Launched: November 10, 1955

Commissioned: June 8, 1956

Decommissioned: October 2, 1989

Builder: Ingalls Shipbuilding, Pascagoula, Miss.

Propulsion system: 2 steam turbines, 23,000 shp

Propellers: two

Length: 510 feet (155.5 meters)

Beam: 84 feet (25.6 meters)

Draft: 19 feet (5.8 meters)

Displacement: approx. 11,525 tons full load

Speed: 22 knots



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USS SPIEGEL GROVE LSD 32

Well deck capacity: 21 LCM-6's or 8 LCAC's

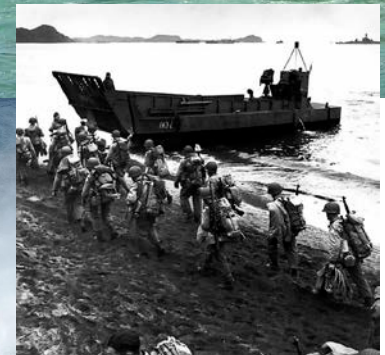
Aircraft: up to 8 helicopters

Crew: Ship: 18 officers, 330 enlisted

Marine Detachment: approx. 330 Marines

Armament: - 4 each twin 3-inch 50-caliber Mk-33 AA gun mounts

- 12 each 20mm AA Guns



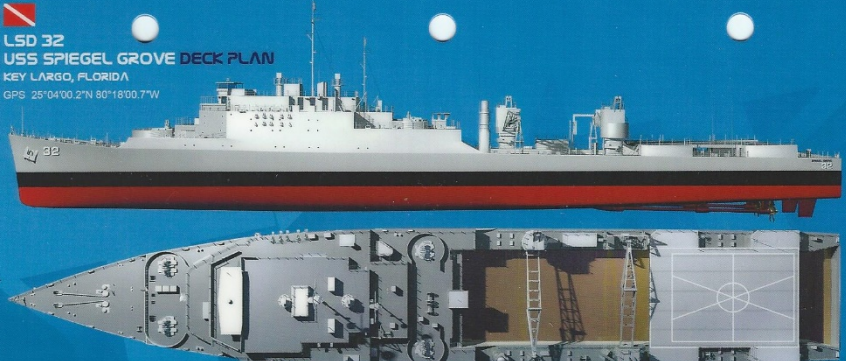
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Planning


LSD 32
USS SPIEGEL GROVE DECK PLAN
 KEY LARGO, FLORIDA
 GPS 25°04'00.2"N 80°18'00.7"W



Type: Thomaston-class of dock landing ship
 Builders: Ingalls Shipbuilding Corp., Pascagoula, Miss.
 Displacement: 8,699 tons, 11,525 tons full load
 Length: 510 ft (160 m)
 Beam: 84 ft (26 m)
 Draught: 19 ft (5.8 m)
 Propulsion: 2 steam turbines, 2 shafts, 23,000 shp (17 MW)
 Speed: 21 knots (39 km/h)
 Crew: 18 officers, 300 crew
 Launched: November 10, 1955
 Commissioned: June 8, 1956
 Date of Sinking: May 17, 2002 on Dixie Shoal, 6 miles off Key Largo

Ships in the same class:

USS Thomaston	LSD-28
USS Plymouth Rock	LSD-29
USS Fort Snelling	LSD-30
USS Point Defiance	LSD-31
USS Spiegel Grove	LSD-32
USS Alamo	LSD-33
USS Hermitage	LSD-34
USS Monticello	LSD-35



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LSD 32
USS SPIEGEL GROVE DECK PLAN
 KEY LARGO, FLORIDA
 GPS 25°04'00.2"N 80°18'00.7"W



The Spiegel Grove is located on Dixie Shoal, in the Florida Keys National Marine Sanctuary, about 6 miles off the Florida Keys. In July 11 2005, Hurricane Dennis shifted the wreck and now sits upright, which was the position originally intended when she was sunk.

WARNING: This representation is designed for illustrative purposes only and is not intended to be use for navigation during penetration of the ship. Wreck diving is an activity requiring specialized scuba training. Even with special training and equipment there is no guaranty of safety to the diver who chooses to engage wreck penetration.

This map is for informational and recreational purposes only. Sizes, structures, compartments, openings and depths are approximated. The publisher assumes no responsibility for any errors, discrepancies and/or omissions; nor does he assume any liability for the use of this map.

ISBN 978-1-897447-49-9



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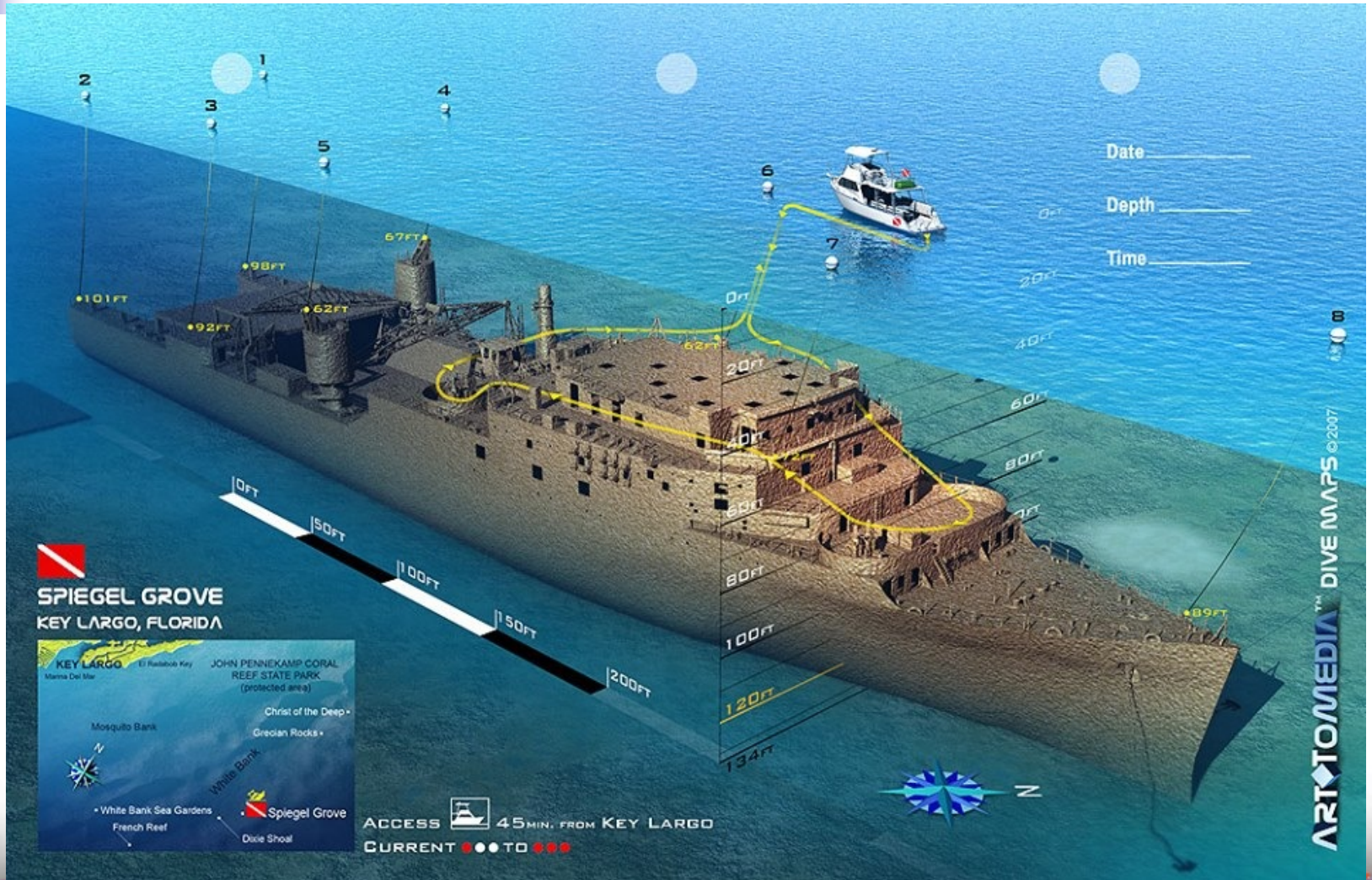
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Planning



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Planning



Date _____

Depth _____

Time _____

 **SPIEGEL GROVE**
KEY LARGO, FLORIDA

USS Spiegel Grove (LSD-32) became a 510 foot long artificial reef on 17 May 2002.

ISBN 978-1-897447-00-0



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Waterproof Dive Map. Art Director *Cito Wagner*. Production Director *Raymond Poudrier*.
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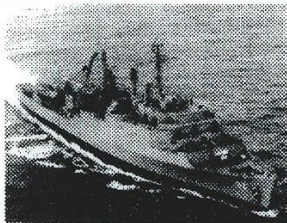


Image Courtesy of Atlantis Dive Center

USS Spiegel Grove (LSD-32) Diving Slate – Side One

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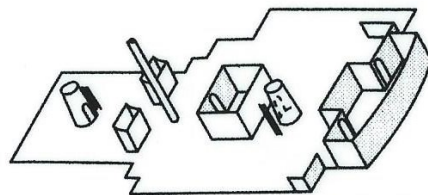
Scale  Feet



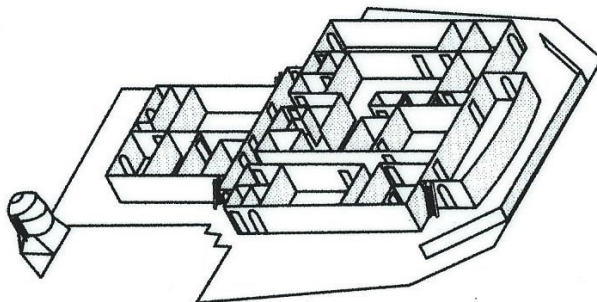
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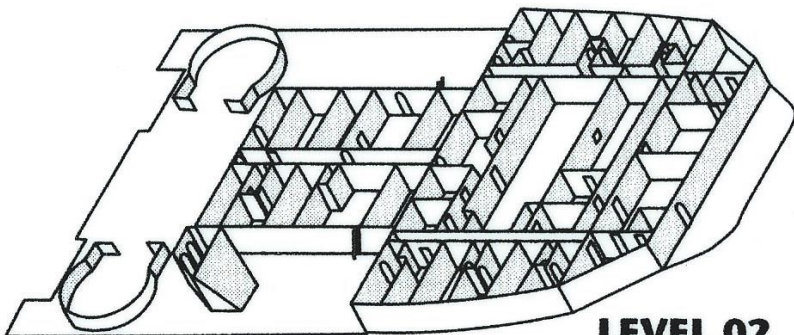
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LEVEL 04



LEVEL 03



LEVEL 02

IMPORTANT WARNING:

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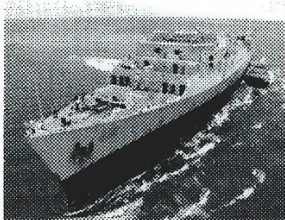


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USS Spiegel Grove (LSD-32) Diving Slate – Side Two

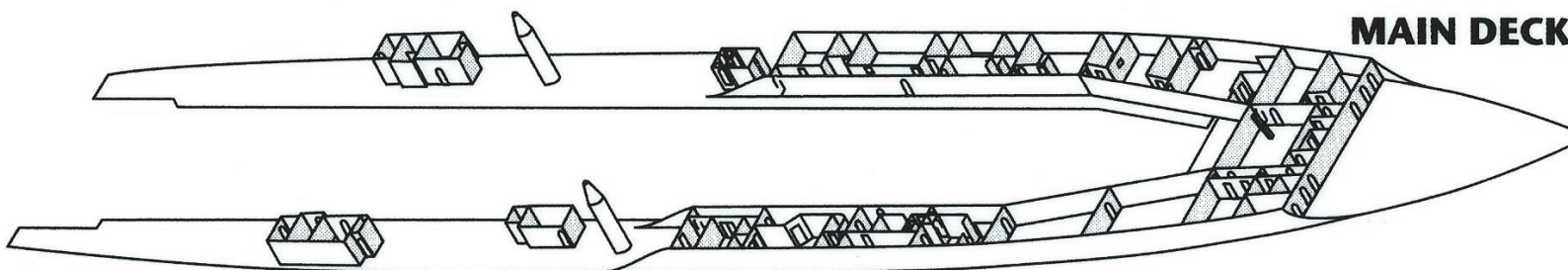
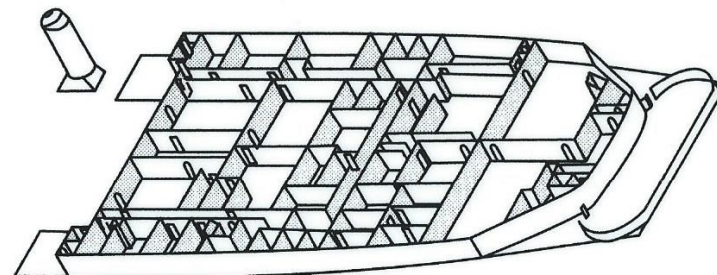
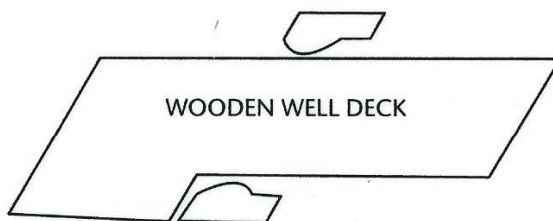
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Scale  Feet

LEVEL 01



MAIN DECK

SPIEGEL GROVE WEBSITES: www.fla-keys.com/spiegelgrove/ • www.kevinflatley.com/lsd-32.htm • www.spiegelgrove.com

Acknowledgements: Harvest Printing & Copy Center, Inc. (Tallahassee, FL) and Bay Bridge Enterprises, LLC (Chesapeake, VA)



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Questions ?

The End



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