HURRICANE KATRINA INUNDATION EFFECTS AT STENNIS SPACE CENTER

Texas Flat Road

607

Texas Flat Road

Leonard Kimble Road

Main Line Road

Standby Road

Saturn Drive

Trent Lott Parkway

Propellant Boulevard

607

10

Katrina Surge Inundation Estimate:

The FEMA surge inundation estimate is based on high water mark (HWM) surveys contracted by FEMA in September 2005. HWM survey data was processed and interpolated into a surge inundation surface. The surge inundation surface was compared to NOAA contracted LIDAR elevation data acquired in February 2005. The Hurricane Katrina inundation depth, as well as data from previous storms was used to generated Advisory Base Flood Elevations (ABFEs) from which recommended building heights may be derived (below).

Field measurements on the SSC fee area by the Applied Research & Technology Project Office were consistent with HWM survey information and modeled surge inundation provided by FEMA.

Stennis Space Center Impact:

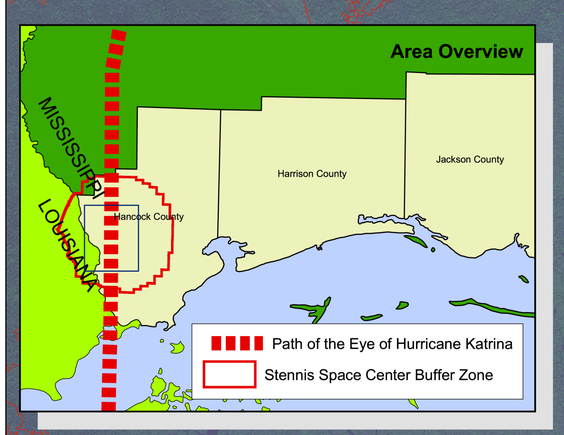
Areas where elevated construction is recommended will require special considerations of flood-related risks. 2 foot contours above the current FEMA recommended reference flood plain have also been included to graphically demonstrate the margin of safety that exists for most SSC infrastructure.

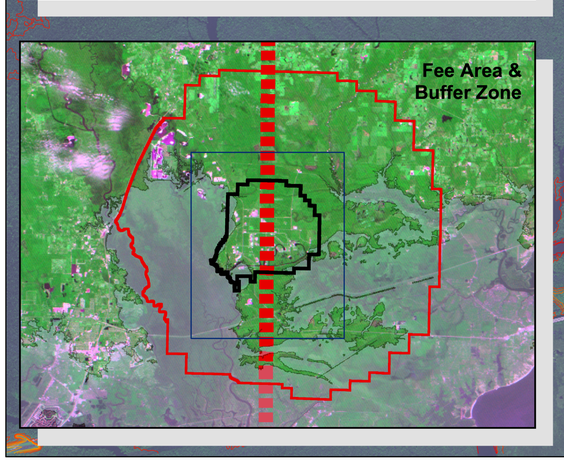
Computation of Recommended Building Elevations:

Because the ABFEs are measured relative to North American Vertical Datum 1988 (roughly sea level), a user needs to know a site's ground elevation to determine how high above grade a structure should be elevated to meet the ABFE.

Once a user knows a site's ABFE and ground elevation values, the user needs only to subtract the ground elevation value from the ABFE to calculate the approximate elevation above grade at which to build a structure on a site.

For example, if a user wants to meet FEMA's recommmended level of flood protection for a site having an ABFE of approximately 21 feet and a ground elevation of approximately 12 feet, the user would elevate any structure built on this site approximately 9 feet above grade (21 feet minus 12 feet).





Data Sources:
Satellite Imagery: Space Imaging, IKONOS, September 2, 2005 (main image)
Disaster Monitoring Constellation, NigeriaSat, September 2, 2005 (inset)
Elevation-Based Data: Derived from LIDAR Flown by EarthData Aviation, LLC
Flown for NOAA Coastal Services Center in February 2005
Storm Track: NOAA National Weather Service

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For insurance rating purposes, please refer to the currently effective FIRM available from your local government or the FEMA Map Service Center (1-800-358-9616 / http://msc.fema.gov)

MAP OF HURRICANE KATRINA INUNDATION AND RESULTING RECOMMENDED BUILDING HEIGHTS

BUILDING HEIGHTS BASED ON NOAA AND FEMA DATA

1:18,000

0 0.5 1 Miles

0 1,000 2,000 Meters

DATA FOR ADVISORY PURPOSES ONLY - NOT FOR INSURANCE RATING PURPOSES

Legend

ABFE Based Building Heights (Feet)	Rise above ABFE Flood Plain* (Feet)
0	Flood Plain +2
3	Flood Plain +4
6	Flood Plain +6
9	Flood Plain +8
12	SSC Fee Area
15	Surge Inundation (transparent)
18	
21	
24	
27	

* FEMA set flood plain elevation in the vcinity of SSC at 18 feet (North American Vertical Datum).

Stennis Space Center, MS
Date of Event: August 29, 2005
Date of Map: March 22, 2006

ABFE: Advisory Base Flood Elevation (elevation that FEMA recommends be used for rebuilding in an area)
FIRM: Flood Insurance Rate Map
Grade: Ground level
HWM: High Water Mark

For more information on FEMA advisory data please see http://www.fema.gov/hazards/floods/recoverydata/index.shtm