

# **Mississippi River Commission High Water Inspection Trip**

**Colonel Richard Wagenaar, FINAL  
April 7, 2006  
New Orleans, Louisiana**

## **SLIDE**

## **SCRIPT**

1. Title Slide  
Photo: Aerial,  
Morgan City  
Bullet: MRC  
High Water  
Inspection, New  
Orleans, April 7,  
2006

(Thank you, sir.)

2. Required  
graphic.  
Bullets:  
-2,800 miles of  
navigable channel  
-14,500 miles of  
coast  
-973 MR&T miles  
of levees  
-325 miles of  
hurricane levees  
-18 locks and  
control structures  
-15 pumping  
plants  
-13 recreation  
areas

Good morning, General Crear, members of the  
Mississippi River Commission and distinguished  
guests.

As the New Orleans District commander, it's my  
pleasure to present the status of the Mississippi River  
and Tributaries Project and associated programs in the  
New Orleans District.

3. Graphic:  
Topics:  
\*River Stages  
\*Funding

These are the topics I'll cover this morning...

I'll begin my presentation with river stages in the New  
Orleans District since the low water inspection back in

Program  
\*MR&T Studies  
\*MR&T Projects  
\*Hurricane  
Restoration

August.

4. Graphic: Total  
Latitude Flows

At the latitude of Old River, total flows crested at 1,043,000 cubic feet per second on March 28th. Since that crest, Mississippi River stages and flows have been falling slowly and are expected to continue on a steady fall over the next week.

5. Photo: Old  
River  
Graphic: Crest  
Stages  
March 28, 2006  
1935-2005  
*(crest) Max.*  
*Avg.*  
RRL 42.7 61.0  
40.6  
BR 27.3 43.4  
27.0  
NO 9.6 19.1  
11.1  
Sim 25.5 50.7  
31.7  
MC 3.5 7.3  
3.1

Shown here are the March 28<sup>th</sup> crest stages at various locations on the Mississippi and Atchafalaya rivers, and the corresponding maximum and average stages since 1935.

Today (April 7, 2006) the combined discharge of the Mississippi and Atchafalaya rivers at the latitude of Old River is 575,000 cfs. The average discharge for this date is 1,091,000 cfs, and the stage today at New Orleans is 5.2 feet.

6. Graphic:  
70/30

At present, we're maintaining the 70/30-flow distribution between the Mississippi and Atchafalaya Rivers. The cumulative percent into the Atchafalaya Basin since January 1st is slightly below 30 percent (29.953). The deficit is about 23,400 cfs, and it will be made-up by year-end.

Today, the flows are 405,000 cfs down the Mississippi, and 170,000 cfs down the Atchafalaya, giving us the 70-30 distribution.

Now let's move on to our FY 06 program...

7. Title: FY 2006

The traditional New Orleans civil works program for

Program before  
supp. funding  
Pie Chart

FY2006 was \$360 million for regular civil works projects, including the \$40 million CWPPRA program and supplemental funds that were carried over from FY2005 from previous appropriations for dredging and storm repairs.

8. FY2006  
program with  
supplemental  
funding

The post-Katrina program includes funding for FEMA ESF3 (Emergency Support Function missions debris, blue roof and demolition) of \$2.295 billion. Emergency supplemental funds for hurricane damage to New Orleans District projects were provided in two additional bills. The second emergency supplemental provided \$371 million in September 2005 and the 3rd supplemental provided \$1.9 billion in December 2005. A proposed 4th supplemental for hurricane protection could increase district funding by \$1.46 billion, pushing the total program to \$6.4 billion.

The President's FY 2007 budget of \$225 million is mostly limited to projects with high rates of return. General Investigations will include \$18 million for LCA Ecosystem Restoration, \$5 million for LCA Science and Technology, \$1.5 million for Bayou Sorrel Lock replacement and \$247,000 for the Calcasieu River Basin feasibility study. There is no funding for Construction General because the hurricane protection projects were funded in the 3rd Supplemental, excluding Comite and IHNC lock, which were not budgeted. \$116 million is provided for Operations and Maintenance, General, including funds for Major High Use Waterway Dredging. The exception is that no funds are provided to dredge MRGO. Mississippi River & Tributaries appropriations are down slightly, but money is allocated for a new study on Atchafalaya Basin lands.

9. Graphic: Four  
areas. Alexandria  
Lower  
Atchafalaya Basin  
Morganza  
Donaldsonville

Further on the MR&T, we're currently managing four studies in the New Orleans District:

- Alexandria to the Gulf
- the Lower Atchafalaya Basin Re-evaluation
- Morganza to the Gulf, and
- Donaldsonville to the Gulf.

All are sub-watershed studies that focus on water resource issues.

Now let me give you an update on each project.

10. Graphic:  
Alexandria to the  
Gulf of Mexico  
map  
(19 miles of  
channel;  
2 control  
structures)

The Alexandria to the Gulf feasibility study was initiated in May 2004. We completed the structure inventory and surveys of the existing tributaries in the Alexandria area. We held our first public meeting in June 2005. Questions and comments that followed reveal that farmers below Alexandria believe their water supply will be cut off. The meeting helped to allay these concerns. To increase understanding, we have added an agricultural benefits component to the study. The remainder of this fiscal year will be spent designing the hydraulic model and initiating the agricultural benefits evaluation.

11. Graphic:  
Lower  
Atchafalaya Basin  
Study  
Photo: Atch levee  
system

We're coordinating with Division on the draft report for the Atchafalaya Basin Re-evaluation study.

12. Title:  
Morganza to the  
Gulf  
Graphic: Project  
Area, J-1

Project design is ongoing on the Morganza to the Gulf hurricane protection project. We're conducting a detailed design on the Houma Navigation Canal Lock Complex. The local sponsor is authorized to advance construction on Levee Reach J-1, which was awarded in January 2006.

13. Graphic:  
Donaldsonville to  
the Gulf of  
Mexico map  
Photo: aerial,  
Luling

On our last study, these hurricane levee alignments are being considered for Donaldsonville to the Gulf. (PAUSE) The selected alignment will incorporate lessons learned from Katrina and Rita. And now for construction progress on the Mississippi River levee system in the New Orleans District.

14. Photo:  
Welcome to  
Moonshine  
Bullet: MR levee  
miles  
Completed: 496  
Under  
Construction: .1  
Remaining: 16

We're 98% complete and have less than 16 miles remaining. Except for a short reach in Baton Rouge-- which will be raised this year--only deficiencies in freeboard remain. We have two ongoing construction projects, Baton Rouge Front, Phase II, and West Bank Gap Closures. Once the gap closure contract is complete, work can begin on the St. Charles Parish west bank bike path. We have awarded seven contracts to repair the 96 miles of damaged Mississippi River

Total: 512

levee in Plaquemines Parish. The work was completed March 15 at a cost of \$33 million. Five miles of east-bank levee in Plaquemines Parish are scheduled for improvement in FY 08.

15. Hohen Solms to Modeste Levee

We plan to advertise the contract for the Edgard (Ed-GUARD) Ferry Landing improvements this fiscal year. We will advertise the Hohen Solms to Modeste (mo-DES-ta) levee enlargement contract when funding becomes available.

16. Graphic or Photo: Davis Pond  
Bullets: Davis Pond contracts  
Completed FY05:  
-East Guide Levee  
To be awarded:  
-West Guide Levee

We recently completed the 2<sup>nd</sup> lift for the East Guide Levee and the Gabion Weir modifications at Davis Pond. We're scheduled to award a contract for improvements to the West Guide Levee in July. The contracts will allow us to operate the diversion structure at maximum levels if required by rising salinity.

17. Photo: WABPL-40  
Bullet: Atch Basin levee miles  
Completed: 409  
Under Construction: 9  
Remaining: 31  
Total: 449

These numbers reflect levee progress in the Atchafalaya Basin, where we're about 93 percent physically complete. Based on the findings of IPET, I have directed the Inspection of Completed Works Manager to assess the levees that have already been completed in the Atchafalaya Basin.

18. Graphic: Atchaf.  
Bullet: Atch contracts  
Completed FY05:  
W-52 Levee, E-69/73 Levee, WLOE  
Under

In FY 2006 we completed three contracts, and four additional contracts are now under construction. We plan to advertise one more contract this fiscal year. Two contracts that slipped from this year will be considered next year.

Construction:  
Melville, Krotz  
Springs, E33,  
Gordy P.S.  
discharge lines  
To be advertised:  
W102

19. Photo: Atch  
Basin  
Title: Authorized  
Management  
Units  
Bullets:  
- Buffalo Cove  
- Beau Bayou  
- Cocodrie  
Swamp  
- Flat Lake  
- Henderson Lake

We executed the Buffalo Cove Project Cooperation Agreement with the Louisiana Department of Natural Resources in May 2005. Construction began in February 2006 with 100% federal funding. Approval was also gained to begin the Supplemental Environmental Impact Statement for the five authorized management units.

20. Photo:  
Boating  
Recreation  
Bullet: Future  
boat landings and  
improvements:  
-Millet Point in  
St. Mary Parish -  
negotiating  
*-Bayou Pigeon in  
Iberville Parish  
-Bayou Sorrell in  
Iberville Parish  
-Krotz Springs in  
St. Landry  
-Butte LaRose in  
St. Martin Parish*

We're continuing to conduct right-of-entry negotiations with a non-federal sponsor for the Millet (mee-yet) Point boat launch. A construction contract is ready to be awarded once negotiations are final. We're also in the planning phase for boat landings and related improvements at the four sites shown.

21. Graphic: Pie  
chart  
50K/338K

To date, the Corps has purchased more than 47,000 acres in fee, and acquired another 108,000 acres of easement interests in the basin.

22. Super:  
Channel  
Improvement

As for the district's channel improvement program, we've constructed just over 362 miles, making revetment work about 95% complete on the Mississippi

Bullet:  
381 authorized  
362 completed  
19 remaining

River.

23. Photo: generic  
revetment work  
on Atch  
Bullet: Atch  
Basin Bank  
Stabilization  
(miles)  
Completed: 57.6  
Schl'd this Year:  
.4  
Remaining: 4  
Total: 62

We'll build half a mile of revetment on the right descending bank of the Atchafalaya River at Barberton at mile 23.5 and at Goudeau (Go-DOUGH) at mile 25.5. Completion of this work will leave about four miles of Atchafalaya revetment to be constructed.

24. Photo:  
Hurricane  
recovery –  
dredging  
Chart:  
Maintenance  
dredging  
(Supplemental  
Funds) location-  
activity/cubic  
yards

Following the 2004 hurricane season, we began dredging at these locations. (PAUSE) The Atchafalaya River and Bayous Chene, Boeuf and Black Project received \$15 million in supplemental funding. A \$10.3 million contract was completed in May 2005 for the Atchafalaya River Bar Channel. The balance of the Atchafalaya supplemental funding was used to dredge the horseshoe reach. Work began August 1, 2005 and was completed September 21 after a brief interruption from Hurricane Katrina.

25. Video:  
Katrina  
approaches

Here's Katrina bearing down on the Louisiana and Mississippi coast. Now to bring you up to date on restoration of hurricane protection in the New Orleans area.

26. Hurricane  
protection  
restoration map

At this time, we are constructing \$1.3 billion of repairs to the authorized protection. Damage was severe on 41 levee miles and moderate on 128 miles. And 63 of 74 pump stations were damaged.

27. "Undamaged"  
levee assessment

In addition to these repairs, levee and floodwall assessments will be performed on the "undamaged" portion of the hurricane protection. The assessments have started and will be completed by June 1. The

intention is to determine vulnerability of the rest of the system, the portion not being restored before June 1, and to take corrective action where necessary.

28. IHNC canal map

Restoration is underway on both sides of the Inner Harbor Navigation Canal. The work includes scour repair and erosion protection, new inverted T-wall, installing sheet pile to block under-seepage, cleaning existing relief wells, installing new relief wells, and repairing floodgate seals and concrete sills. And placing rock and ballast. Some contracts are complete. Total completion is expected by May 25. Today, this area is 67 percent complete.

29. New Orleans East map

Now for the hard-hit New Orleans East. Katrina damaged about 10 miles of levees, and all nine pump stations. Breaches of walls and levees are being returned to pre-storm authorized elevations. In the areas of scour, the walls and levees are being repaired accordingly. Other steps include new T- and I-wall, a new RR floodgate, slope paving and the placement of gabion baskets to prevent future erosion. This is 70 percent complete.

30. New Orleans east bank

Temporary repairs on the 17<sup>th</sup> Street and London Ave. canal floodwall breaches have been completed. Work is progressing on time for Phase II work, which includes installation of T-wall at all three sites. Completion is scheduled for August at all three sites. This is 34 percent complete, including closure structures and pumps.

31. N.O. drainage canals: Interim closures

We are installing temporary floodgates and pumps on three drainage canals. The gates will protect 11 miles of Katrina-weakened floodwalls on the three outfall canals. The closures will be complete by 1 June, along with limited pumping capacity, which will be increased throughout the summer.



32. Plaquemines Parish

Now to Plaquemines Parish, the slender portion of Louisiana that the Mississippi River built into the Gulf of Mexico. High storm surge rolled over this entrance to America's largest ocean-shipping complex. We are engaged in levee repair from Venice at levee's end almost the entire length up the parish. Being slender, the parish requires work on both the hurricane-protection and Mississippi River levees as previously mentioned. 13 contracts have been awarded at a cost of \$148 million to repair the 54 miles of hurricane-protection back levee and an additional 34 miles of hurricane-protection levee that is also part of the Mississippi River levee. Plaquemines is 77 percent complete.

33. St. Bernard Parish

Now to the adjoining St. Bernard Parish, similarly raked by the Gulf's storm surge. There are 30 miles of hurricane protection levees in the St. Bernard loop, 8 of which were heavily damaged by Katrina. The most severe damage occurred in the reaches from Bayou Bienvenue to Verret (vuh-RETT) along the MRGO, and from Verret to Caernarvon. In addition to major levee elevations, we are repairing two navigation structures that are part of the hurricane protection system: the Bayou Bienvenue Control Structure and the Bayou Dupre Control Structure. And we are repairing the Creedmore Structure on the south perimeter of St. Bernard's protection system. Eleven contracts have been awarded at an estimated cost of \$115 million, including two contracts for repairs on the east side of the IHNC. St. Bernard is 78 percent complete.

34. MRGO Status

The Corps has discontinued dredging on the Mississippi River Gulf Outlet (MRGO). The MRGO is zeroed out by Congress in FY2006 and in the FY2007 President's Budget, which are messages that the administration and Congress do not want the channel to be maintained. The MRGO is not open to deep-draft navigation, as the 2005 hurricanes reduced the depth to 24 feet in the Breton Sound reach. The authorized deep-draft depth is 36 feet. On the MRGO inland, the depths were reduced to 29 and 30 feet in reaches near the junction with the GIWW. All of the bottom widths are also narrower than the authorized 500 feet. However, the 3<sup>rd</sup> Supplemental provided \$75 million for foreshore bank protection with revetment and rock to

protect endangered wetlands and provide erosion protection.

35. West Bank:  
--Harvey Canal floodgate  
--Floodwall on Harvey Canal: award by early fall  
--Raising West Bank levees

The West Bank & Vicinity Hurricane Protection Project is not part of Katrina recovery. But it is important, as the West Bank, which got started later than other federal projects, is not a closed system. And we are accelerating the work. This includes getting the Harvey Canal hurricane floodgate on-line to prevent storm surge moving up the canal by August 2006. The canal was closed on February 13 to facilitate completion of the gate. Also, a 4.5-mile floodwall will be constructed on the canal's east side. Contract awards are expected by late summer/early fall. The target date to complete construction is September 2007.

Meanwhile, levees are being raised on the Algiers Canal (GIWW) from 7.5 to 9.5 feet. Most construction is complete along the east side, and contract awards are anticipated by October to raise the levee on the west side to match. Design is underway to raise other levees at Lake Cataouatche (cat-ah-WATCH-ee) and investigations are underway to construct new levee and floodwall near the Hero Canal at Oakville.

36. Pump station Capacity

We're making progress on increasing pump station capacity. Jefferson Parish is at 100 percent of capacity, and all four of the other areas have more than three quarters of capacity back on-line. Two areas, St. Bernard and Orleans East now can pump at well over 80 percent of capacity.

37. Summary: SE La. hurricane protection

In summary, repair of hurricane damage will be complete by June 1. We will restore levees and floodwalls to authorized elevations by September 2007. And we are accelerating other hurricane protection projects for completion by September 2007.

38. Proposed permanent gates/pumps on drainage canals

Now to look ahead to proposals for the Fourth Supplemental. First are permanent gates and pumps at the three outfall canals. This \$530 million plan would equip the 17<sup>th</sup> Street, Orleans Avenue and London Avenue canals with permanent structures to keep storm surges in the lake and pump out rainwater while closed.

39. Proposed pump station upgrades, Orleans and Jefferson
- The proposed Fourth Supplemental also includes a \$250 million upgrade of pump stations in Jefferson and Orleans parishes. The goals are to add strength and equip pump stations better to survive a storm's surge and winds, and to be able continue pumping quickly afterward. Floodproofing is a good example.
40. Proposed gates on IHNC and GIWW
- Another proposal is for hurricane floodgates on two navigation canals. This \$350 million project would place the closures on the IHNC at Lake Pontchartrain and on the GIWW just west of its junction with the MRGO.
41. Armoring the levees
- We would also go beyond the originally authorized project by providing additional protection at key locations from overtopping of the levees. This \$170 million project would emplace armor to protect the earthen structures from scour during the minutes or hours of overtopping. Examples of armoring include rock, gabion baskets, and revetment.
42. Incorporate Plaquemines non-federal levees
- In Plaquemines Parish, we propose to close a gap between the federal protection in the West Bank & Vicinity project and the federal project further down the Mississippi. This \$60 million project would incorporate the non-federal levees on the West Bank into the federal system and upgrade them accordingly.
43. Coastal wetlands ecosystem restoration
- An important proposal for the Fourth Supplemental is for Coastal Wetlands Ecosystem Restoration. This would provide \$100 million for such things as barrier island restoration, marsh and natural ridge restoration. This environmental stewardship would tie into our investigation for Category 5 comprehensive protection in south Louisiana. Coastal restoration is a key element of hurricane protection and an integral part of Category 5 efforts.
44. Category 5 and coastal restoration
- We are well underway on a draft report that will recommend Category 5 Hurricane Protection for south Louisiana. And integrate it with coastal restoration and flood control. We've completed public involvement, with four scoping meetings in March 2006. The initial allocation was \$8 million. The Corps is also awaiting clarification by Congress on \$12 million previously authorized, which could bring the total authorized to

\$20 million.

45. Workshops:  
Wind, waves,  
water  
Plan formulation  
Innovative  
technology

Three workshops were held. On wind, waves and water in December 2005. On Plan Formulation in February 2006. And on Innovative Technology in March 2006. The workshops have brought together the talents of engineers and scientists from around the world.

46. Reports:  
--Preliminary  
Technical, June  
2006  
--Final Technical,  
December 2007

We are on time for delivery of the key technical reports. The Preliminary Technical report is due June 30 of this year. And the Final Technical Report is due Dec. 30, 2007.

47. Call to Duty

Finally, I must tell you how the people of the New Orleans District have fully and honorably answered the Call to Duty. In response to two of the greatest hurricanes to strike the U.S. coast, in restoring hurricane protection under pressure, doing their part in the GWOT and serving in the U.S. military. Many have lost their homes, and grieved over the deaths of friends and family, surmounted other hardships—and still done their jobs faithfully.

As of March 31, eight of our employees were deployed in Iraq and Afghanistan, one reservist and seven civilians. The latter include project managers, an area engineer and administrative assistants.

The face you see is that of Danny Thurmond of our Levee Section. He's covered all the bases. Last year, from April into September, he was an area engineer in Fallujah. He helped to restore electrical power and fresh water there and oversaw other humanitarian projects in Al Anbar Province. He returned between hurricanes Katrina and Rita to deal with damage to his home. After a week of administrative leave to wait out Rita's passage, he returned to duty immediately.

Danny reported to Task Force Guardian and was assigned as a lead project manager. Danny has been the project manager for some honorable dealings in dirt: His team had to find 8 to 10 million yards of clay

to restore levees, especially along the MRGO and in Plaquemines Parish. It was a challenge: Of 60 sources investigated, only half were usable. Local sponsors had traditionally supplied the borrow areas, but the hurricanes had sapped their resources. Danny's team overcame severe problems of time and preparing the material: The clay had to be compacted to 5/8ths of original volume. Today, Danny's dirt is still arriving.

Now, Danny has redeployed to Iraq. This time as Lt. Colonel Danny Thurmond, U.S. Army Reserve. He will be on a team of engineers supporting the Gulf Regional Division throughout Iraq. If he gets any spare moments, Danny will be able to see his son-in-law, an active duty Soldier in the U.S. Army, as well as my predecessor, COL Pete Rowan.

48. Photo: Aerial of New Orleans

In closing, I'd like to thank the levee districts, state and local representatives, *other partners and stakeholders*, district employees and the Mississippi River commissioners, who, working together, ensure the continued safety and economic benefits to citizens and businesses in south Louisiana.

Thank you for joining us here today.

49. NOD mission map

*(Used for reference by the public in follow-up statements)*