

Dear Mr. New:

Thank you for your presentation before the Mississippi River Commission during the public meeting held in Morgan City, Louisiana, on August 22, 2003. In your statement you discussed several items of interest to your community and industry.

The U.S. Army Corps of Engineers appreciates the fact that you brought to our attention the Notice to Mariners published by the U.S. Coast Guard which shows that the controlling depth in the Atchafalaya River Bar Channel had been set at -11 feet Mean Low Lower Water. The Coast Guard acquires their information from navigation charts created by the National Ocean Service (NOS). NOS utilizes acoustic and lead-line survey data that is provided by the Corps of Engineers to independently interpret channel condition and develop the navigation charts. Lead-line surveys are used to determine the location of hard bottom in areas where fluff is present. Neither NOS nor the Coast Guard consults with the Corps about data interpretation when setting or publishing controlling depth. During the time in question, the survey data revealed that the top of fluff for the shallowest area in the bar channel was at elevation -14 feet Mean Low Gulf (MLG) and the hard bottom was encountered at elevation -15.5 feet MLG. The Corps is working with Coast Guard and NOS personnel to resolve the differences between the Corps of Engineers survey data and the interpretation of the data that is published on the navigation charts. In the interim, we suggest that channel users who are interested in the most current survey data visit the New Orleans District website at [www.mvn.usace.army.mil/ops/odt/nav-cond.htm](http://www.mvn.usace.army.mil/ops/odt/nav-cond.htm).

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In May 2001, the New Orleans District and the Engineer Research and Development Center (ERDC) initiated a study on Fluff. The completion of the study was delayed due to storm events that occurred in September and October 2002. Data collection was completed in March 2003. Four main questions were investigated in the study. The questions and answers are as follows:

**(1) Does moving the disposal area to the west improve channel operability?** With the disposal area on the west side of channel, sediment runback was reduced.

**(2) Does deepening the channel improve channel operability?** Test sections revealed that deepening the channel extended the

period before new shoal was established; however, this period was only for a few weeks or months, not long enough to improve channel operability.

**(3) How are density of fluff and predicted navigable depth to be determined?** In some instances fluff densities measured during the study are considered bed (bottom) in European Ports where density is used to determine navigable depth. As indicated in the ERDC fluff study, navigable depth criterion is based on site-specific information about vessels navigating through the shoal material. Investigations to date have not focused on vessel movement through the fluff material in the Atchafalaya channel. A variety of vessels with different draft requirements and different intake types utilize the navigation channel. The Morgan City Harbor and Terminal District has indicated that Kort nozzle intakes are impacted by fluff and that the engine cooling system is significantly disrupted when fluff enters the system. In some cases, water intakes can be modified to reduce problems with the Kort nozzle system. In the Calcasieu River, fluff is found in the most gulfward reach of the navigation channel. In general, vessels utilizing the Calcasieu River channel plow through the fluff material.

**(4) Will other alternatives, possibly structural, improve channel operability?** Structural alternatives may be of some value by either increasing flow or by reducing transport of sediments into the channel via the Atchafalaya Bay. Possible structural alternatives include rebuilding Point au Fer Reef to reduce sediment input from the bay or building jetties along the bar channel in an effort to increase velocity of flow and keep

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sediments from dropping out of suspension in the navigation channel.

In June 2003, ERDC personnel presented the results of the study to representatives of the Morgan City Harbor and Terminal District and members of the Atchafalaya River Coalition. The study did not identify a final solution to the fluff problem; however, the study did provide other possible alternatives that were not previously considered. When funding becomes available, the New Orleans District will pursue the investigation of these alternatives.

At the request of the Morgan City Harbor and Terminal District, the New Orleans District modified disposal of dredged material removed from the bar channel. Previously, material was placed east of the navigation channel. Since August 2002, dredged material removed from the navigation channel has been deposited west of the navigation channel. Although moving the disposal area did not solve the fluff problem, the study indicates that moving the disposal area to the west was beneficial. Due to this favorable study result, the New Orleans District is pursuing permanently moving the disposal area.

The District continues to strive to maintain the 20-foot project with the funds that are appropriated annually by Congress. We will continue to investigate and evaluate means to improve the operability of the channel at Morgan City and the problem of fluff.

The Commission appreciates receiving your comments and will be pleased to hear from you at our future public meetings.

Sincerely,

Don T. Riley  
Brigadier General, U.S. Army  
President Designee, Mississippi  
River Commission