

Hurricane Katrina Update: The Event that Introduces Peak Oil to a Nation

Posted by Prof. Goose on August 29, 2005 - 4:35am Topic: Supply/Production



The map above is old, but gives perspective on location of certain key landmarks and fields, this post was originally put up 26 AUG and updated throughout.

Update [2005-8-29 4:40:26 by Prof. Goose]:Katrina at landfall high Cat 4 at 145 mph winds, 918 mb. (Compare: Andrew 922 mb, Camille 909 mb, low being worse). Storm surge tough to predict, but projected around 18ft. Predictions indicate a 30-40 mile wide, 6-10 hour storm hover over New Orleans, though it will be on the "better" west side of the eye.

Update [2005-8-29 4:35:58 by Prof. Goose]: I urge you to check out these forecasted (and these are very experimental, but made to fit past data including Ivan) disruptions, 86% of Gulf oil production is predicted to be cut for less than 10 days, 51% of oil production is predicted to be cut for 10-30 days, and 23% cut for over 30 days. Natural gas is just about as bad. That, folks, is a big deal if it's right. (Ironically, that little jog Katrina took to the NNE at landfall may benefit NOLA, but may be worse for the oil industry, more rig damage and more exposure to MS and AL)

Katrina **IS** a big deal today and will be for weeks to come, not just because New Orleans is below sea level and not just because she could cause massive loss of life and property, but because Katrina could also disrupt Gulf supplies of petroleum (the GOM supplies around 1.3mbpd, we use around 20mbpd in the US) from rigs, refineries, and pipelines, etc., for a while.

Here's a link to a really good map of oil refining/SPR storage facilities in respect to the current path of Katrina and here is a listing of production and refining capability for the state of LA.

You see, with supply and demand balanced on a knife's edge as it is because of "peak oil," this scenario could lead to huge amounts of volatilty in the oil markets for weeks to come.

There is simply no more extra oil (except maybe the SPR?) we can call upon to put into the system...and with supply and demand balanced as it is (and with demand only growing over time), it only takes one "something" (terror, weather, malevolent world politician) to disrupt the system. This is what Goldman Sachs was saying six months ago when they introduced the idea of a \$105/bbl superspike. NB, I am not saying this is **the** "superspike." However, if this is an event that *really* disrupts supply it could mean a terribly volatile market with a price spike...(and yes,

The Oil Drum | Hurricane Katrina Update: The Event that Inthotpu¢éw@eakh@dilddranklation/story/2005/8/26/22637/7757 that \$105/bbl number probably equals somewhere around \$4/gal or more for gas or even worse, a shortage of supply because of systemic problems).

Our thoughts and prayers are with these people. Even at a strong cat 4, this will be an event that we remember for a very very long time, sadly.

As someone said over at peakoil.com, this sure sounds a lot like the <u>plot of The Oil Storm</u>.

The map above is a probability swath for Katrina with the recently damaged Thunder Horse platform as the red dot, and the other purple dot represents the Mad Dog development that will ramp up to 100,000 bd; the Holstein development that will also produce, at peak, around 100,000 bd of oil; and the Atlantis field that will begin production next year and will ramp up to around 200,000 bd in all. Put together these projects have the potential of around 650,000 bd, but as can be seen, they are sitting in an uncomfortable spot relative to the track of the Katrina.

The white dot is where Port Fourchon is. This is where the Louisiana Offshore Oil Port, or LOOP, is located. Rigzone pointed out that this is where the foreign tankers offload, and as Joseph Palmer has linked to the Google and Terraserve maps you can see that the area is very low-lying. One of the big concerns is that there will be sub-sea landslides or other ground movement that might affect the LOOP. Were this to be disrupted, then foreign tankers would need to be diverted elsewhere, with the likely port being Houston.

Here is a link (from "Rod and Reel" no less) of the LA southern coastline showing Gulf rigs.

Update [2005-8-27 8:23:17 by Prof. Goose]:Here is a CBS MarketWatch article about Port Fourchon, a very important oil port, that says:

With the storm two days away from landfall, its course is still uncertain. The National Hurricane Center now expects the storm to make a second landfall near the major oil and gas hub at Port Fourchon, La., sometime Monday, and then continue inland to New Orleans. About one-sixth of the U.S. oil supply comes through the Port Fourchon facilities. The port, the only one in the region that handles supertankers, accounts for about 13% of U.S. oil imports. About 27% of U.S. domestic production comes through the port's pipelines. Even a minor disruption in production could send gasoline prices sharply higher.

Update [2005-8-27 12:31:50 by Prof. Goose]:Here's a more comprehensive map of the fields on the south coast of LA and a graphic of the different types of platforms (hat tip: peakoil.com).

Update [2005-8-28 0:4:21 by Prof. Goose]:Here's a modeled map from NOLA done by LSU on the results of the hurricane if the forecast holds PDF WARNING

Update [2005-8-28 11:15:6 by Prof. Goose]: This link sadly, says it all, here's a snippet:

URGENT - WEATHER MESSAGE NATIONAL WEATHER SERVICE NEW ORLEANS L A 1011 AM CDT SUN AUG 28 2005 ..DEVASTATING DAMAGE EXPECTED HURRICANE KATRINA A MOST POWERFUL HURRICANE WITH UNPRECEDENTED STRENGTH...RIVALING THE INTENSITY OF HURRICANE CAMILLE OF 1969. MOST OF THE AREA WILL BE UNINHABITABLE FOR WEEKS...PERHAPS LONGER. AT LEAST ONE HALF OF WELL CONSTRUCTED The Oil Drum | Hurricane Katrina Update: The Event that Inthotpuces Reakhedilter an Lation/story/2005/8/26/22637/7757 HOMES WILL HAVE ROOF AND WALL FAILURE. ALL GABLED ROOFS WILL FAIL...LEAVING THOSE HOMES SEVERELY DAMAGED OR DESTROYED. THE MAJORITY OF INDUSTRIAL BUILDINGS WILL BECOME NON FUNCTIONAL. PARTIAL TO COMPLETE WALL AND ROOF FAILURE IS EXPECTED. ALL WOOD FRAMED LOW RISING APARTMENT BUILDINGS WILL BE DESTROYED. CONCRETEBLOCK LOW RISE APARTMENTS WILL SUSTAIN MAJOR DAMAGE...INCLUDING SOME WALL AND ROOF FAILURE. HIGH RISE OFFICE AND APARTMENT BUILDINGS WILL SWAY DANGEROUSLY ... A FEW TO THE POINT OF TOTAL COLLAPSE. ALL WINDOWS WILL BLOW OUT. AIRBORNE DEBRIS WILL BE WIDESPREAD...AND MAY INCLUDE HEAVY ITEMS SUCH AS HOUSEHOLD APPLIANCES AND EVEN LIGHT VEHICLES. SPORT UTILITY VEHICLES AND LIGHT TRUCKS WILL BE MOVED. THE BLOWN DEBRIS WILL CREATEADDITIONAL DESTRUCTION. PERSONS...PETS...AND LIVESTOCK EXPOSED TO THE WINDS WILL FACE CERTAIN DEATH IF STRUCK. POWER OUTAGES WILL LAST FOR WEEKS ... AS MOST POWER POLES WILL BE DOWN AND TRANSFORMERS DESTROYED. WATER SHORTAGES WILL MAKE HUMAN SUFFERING INCREDIBLE BY MODERN STANDARDS. THE VAST MAJORITY OF NATIVE TREES WILL BE SNAPPED OR UPROOTED. ONLY THE HEARTIEST WILL REMAIN STANDING...BUT BE TOTALLY DEFOLIATED. FEW CROPS WILL REMAIN. LIVESTOCK LEFT EXPOSED TO THE WINDS WILL BE KILLED. AN INLAND HURRICANE WIND WARNING IS ISSUED WHEN SUSTAINED WINDS NEAR HURRICANE FORCE... OR FREQUENT GUSTS AT OR ABOVE HURRICANE FORCE...ARE CERTAIN WITHIN THE NEXT 12 TO 24 HOURS. ONCE TROPICAL STORM AND HURRICANE FORCE WINDS ONSET ... DO NOT VENTURE OUTSIDE!

Update [2005-8-28 12:55:55 by Prof. Goose]: Here's a link to information about the Strategic Petroleum Reserve from the DoE.

In sum, this will be a very major event. <u>Here's a link to current forecast maps, etc., for Katrina</u>.

Update [2005-8-28 20:28:11 by Prof. Goose]:Don't forget to click back to the front page, we're updating above and in other posts now.

Here's a list of stories related to our last Hurricane Dennis/Thunder Horse story:

Story 1, Story 2, Story 3

J said yesterday: The eastern GOM is already under evac, and central GOM due to follow suit shortly. If the storm follows the western Florida coastline, damage will be minimal or nonexistent to everything except possibly the Mobile Bay deep gas wells. If you look at a map, you can see there is a large bay-like area between the "boot" of Louisiana and Mobile Bay. This is the Main Pass area, and it is home to a lot of oil production. Water depth in most of this area is less than 50 feet. The wellheads, caissons and platforms are numerous enough to swim from one to another most of the way to Mississippi. The more critical stuff (TLP's, FPSO's, Thunderhorse, etc) are clustered in the deep water offshore of the mouth of the Mississippi River. It will not take much change in direction to impact these structures. But as long as the storm is east of these areas, the worst will be avoided.

Technorati Tags: peak oil, oil, Katrina, Port Fourchon, weather, hurricane.

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