



Resource Page--UPDATED for Landfall

Posted by [Prof. Goose](#) on September 24, 2005 - 11:48am

Topic: [Supply/Production](#)

One of our industry insiders said: "The worst tracks are those which put landfall between Freeport and Sabine Pass Texas. [...] The big concentrations of platforms are in the West Cameron, High Island, Galveston, and Matagorda Island offshore areas. If you want to know what these areas look like and where they are geographically, try the map resources below. Landfall just east of Houston's center will be right up refinery alley. *Another bad spot is right up through Port Arthur and Beaumont - another big refining center.*"

(VERY) PRELIMINARY DAMAGE ASSESSMENT

-It is very difficult to assess refinery damage this early. It will depend on restoration of power, etc.; the situation could continue to worsen depending on how or if Rita stalls or returns to the Gulf. Flooding could be major portion of this storm, not the hurricane winds. The KAC/UCF numbers (linked below in next section) predict damage to four refineries, totalling around 800-900k BOPD of capacity, but those are pretty experimental.

-There is also an SPR site (Big Hill) close to the damage swath. Won't be word on that for a while.

-Oil and Natural Gas production damage is a bit easier to estimate, thanks to the KAC/UCF predictions on the final hurricane data (linked below, which were quite accurate after Katrina, but do not account for two storms back to back...a lot of crews that were fixing Katrina damage will not be available to fix Rita damage as quickly as these numbers estimate, so I consider these numbers conservative): This is the percentage of capacity "shut in" or lost for <10days, 10-30days, 30-60days

Oil: 66.5%, 20.2%, 14.5%; Nat Gas: 58.2%, 28.4%, 18.1%.

And what does that mean you ask? That means that for 10 days or less, cumulatively from Rita and Katrina, we are predicted to lose around 1M BOPD of oil production and 5.8 BCFPD of Natural Gas production (GOMEX total capacity 1.5M BOPD of oil and 10.0 BCFPD of Natural Gas...for perspective, the US uses 20.4ishM BOPD of the world's 84M BOPD produced...yes, that's PER DAY). For over 30 days, the estimates indicate that, JUST FROM RITA, we will lose 225k BOPD of oil production and 1.8 BCFPD of NG. Add those to the BEST shut in numbers we were experiencing after Katrina (before Rita hit) which were 837k BOPD of oil and 3.375 BCFPD of NG, and, well...that's a lot of US production capacity, around 1M BOPD of oil and about 5.3 BCFPD of NG. Again, I want to emphasize that these numbers are estimates at this point...but those data were pretty darned good last time.

The real questions that press us now are these: how long will it take to get power back? how many rig repair teams exist? how much will flooding impact the refineries as well as the repair

efforts? What happened to the LOOP, how much storm surge hit it? What happened to the pipelines in the area (no way to know until power is restored)? What is the status of inland energy storage, for example gasoline in NJ and winter heating oil inventories? (thanks for that bhyde). We shall see.

DAMAGE MODELS/PREDICTIONS

And here's the latest KAC/UCF GOMEX model predictions for "shut in" (i. e., damaged) oil and natural gas production. Predictions are worse with the strengthening at 0000z

A decent amount of refinery damage forecast with the latest data. (very experimental, but "over 5% damage at an industrial site is BAD NEWS")

And then there's the REALLY experimental toxic substances/other chemicals damage data. Scary.

PRODUCTION/INFRASTRUCTURE MAPS AND REFINERY INFORMATION

And here's the probably the best MMS map I could find. Very detailed and lots of interesting stuff. (big .pdf warning)

Awesome interactive map of rigs and hurricane path from Rigzone. Highly recommended.

Here's another good resource for infrastructure maps and such. (scroll down a bit)

Here's a map from CNN with large and small refineries laid out. (though it is an old storm track)

Here's a list of refining capacity and percentages of overall capacity by area inside the region. (thanks Jaymax) We're talking about 20% of US refining capacity folks.

Here's a listing of all oil related industry (refining, etc) in Texas.

Update [2005-9-23 0:33:24 by Prof. Goose]:Very detailed piece by RIGZONE on rigs and other infrastructure in the area. (thanks mw)

Update [2005-9-23 2:39:56 by Prof. Goose]:Here's a beautiful flash graphic of the oil refineries and rig maps, emphasizing Beaumont and Galveston's importance. Note the many rigs on the east side of the storm that will get the brunt of the damage from the NE quad of the storm...hence the high long-term GOMEX oil production damage estimates below.

Here's the latest MMS shut in numbers. Huge amounts of capacity shut in folks, but for how long?

And here's a mapblast of Houston.

WEATHER MODELS

An easier to see plot of a few of the models... There are chances that Rita could stall completely or even return to the Gulf.

Here's the latest computer models for Rita...all sorts of uncertainty in the models now. If some of those come to pass it would be disastrous. (this should dynamically update throughout the day.)

And here's the latest of the 'big five' models, also turning a bit to the right of the last track

[And here's the latest 3-day track.](#)

Technorati Tags: [peak oil](#), [oil](#), [Rita](#), [Hurricane Rita](#), [gas prices](#)



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