Nigeria – The Significance of the Bonga Offshore Oil Platform Attack

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On the heels of this weekend's Saudi Oil summit, Nigerian production has dropped to the lowest level in 25 years. This was in part because militant attacks shut in as much as 345,000 barrels per day of Nigerian production in the past few days. The Nigerian militant group MEND (Movement for the Emancipation of the Niger Delta) has demonstrated a continuing ability to interrupt production from Nigeria's mature, onshore fields. However, the future promise of Nigerian oil is not onshore. Rather, it is the 1.25 million barrels per day of offshore production scheduled to come on line in the next 6 years. Analysts previously believed these offshore facilities were out of MEND's reach.

This assumption--that far offshore facilities are beyond the reach of militants--must now be reconsidered. The week's most successful attack, shutting in 225,000 barrels per day, came against Shell's Bonga facility. At 120 km offshore, the Bonga attack demonstrated a new militant capability in the offshore environment. As Nigeria is one of the few states with the geological potential to significantly increase oil production and exports, the Bonga attack may prove to be an extremely important development.

Shell's $3.6 billion “Bonga” Floating Production, Storage, and Offloading vessel (FPSO), 120km from shore in 1000m deep water, was recently attacked by MEND militants.
Overnight on June 19th, MEND militants struck Shell's offshore Bonga facility, resulting in Shell declaring force majeure for deliveries of 225,000 barrels per day in June and July. Then, on June 20th, militants destroyed a key Chevron pipeline near Escravos, Nigeria, forcing Chevron to shut-in and declare force majeure on 120,000 barrels per day of production. This article will analyze the significance of the Bonga attack in light of Nigeria's efforts to grow its offshore oil production.

What is at Stake?

The Bonga attack is particularly troubling because of the nature of oil production in Nigeria. A February, 2006 Citigroup report noted that "clearly most of the (oil production) growth near-term looks to be in the Nigerian deepwater and as such should be less subject to current disruptions." While offshore production currently only accounts for 16% of Nigeria's oil production, it is expected to account for 90% of future growth. MEND has already demonstrated its capability to shut in large portions of Nigeria's onshore oil production, and now it is threatening to re-attack offshore facilities, urging expatriate workers to abandon them immediately. Nigeria's onshore production is already mature, and government hopes of raising total production to 4 million barrels per day are entirely dependent on the success of the offshore sector. If MEND can continue to interrupt offshore production, the prospects for any increase in production from Nigeria look dim.

The situation in Nigeria is critical as Nigeria is one of the few states with the potential to significantly increase both production and exports. According to the megaprojects list on WikiPedia, Nigeria expects 345,000 bpd of offshore production to come online in 2008 (Agbami field, Oso field); 220,000 bpd in 2009 (Akpo field, Oyo field); 220,000 bpd in 2010 (Bonga North, Bonga Ullage fields); 285,000 bpd in 2011 (Bosi, Ukot, Usan fields); 250,000 pbd in 2012 (Bonga SW, Nsiko fields); and 150,000 bpd in 2013 (Egina field).

That’s 1.25 million barrels per day of new offshore production planned in the next 6 years. None of it was previously considered vulnerable to attack. Now it all appears to be within the demonstrated reach of MEND.

How Vulnerable are Offshore Facilities?

Offshore facilities are highly complex and vulnerable feats of engineering. While they are generally engineered to withstand extreme natural environments, they may not be well fortified against intentional attack. We do not know the extent of fortifications, as the specific security considerations and plans for each platform are not publicly available. It makes sense, however, that to the extent the threat from MEND was considered to be non-existent at the time that all scheduled Nigerian megaprojects entered development, fortification against attack was not a significant design criteria.

There are spectacular examples in the past of the vulnerability of offshore facilities. The most famous is the Piper Alpha platform explosion in the North Sea, which resulted in 167 deaths and one of the largest insured financial losses in history. While I am not an expert in seizure or defense of offshore facilities, I do have some qualifications in the area: I participated in planning of the 2003 GOPLATS operation that successfully seized Iraq's southern offshore oil platforms. For obvious reasons, I won't dissect the vulnerabilities of offshore facilities here, but I will offer my opinion that exploitation of the vulnerabilities are within the reach of a group like MEND. While MEND's attack on Bonga was far short of a textbook attack on an offshore facility, it is probably not beyond MEND's near-term capability to inflict significant, lasting damage to Nigeria's offshore facilities.
The Piper Alpha platform on fire in the North Sea, 1988. Can MEND inflict this level of damage?

MEND: Potential for Innovation & Improved Capabilities

The Bonga attack highlights the recent development's in MEND's offshore capabilities, and demonstrates the group's ability to continue to improve its tactics in the near term. Comments as early as 2006 noted that MEND's offshore capabilities are continuously improving, and that facilities as far as 50-60 km offshore may be at risk. Bonga is twice that far offshore, at 120km.

I predicted a year ago that MEND would increasingly focus on Nigeria’s offshore facilities for two reasons: 1) to differentiate their ideologically-grounded struggle from the privateers and criminal bunkering that is also interrupting Nigerian production; and 2) as a result of the innovation that naturally results from their decentralized structure. While this most recent attack showcases MEND’s ability to operate in the deepwater environment, it also shows MEND's potential to greatly increase the impact of future offshore attacks. MEND's press release stated that their goal was to gain access to and destroy the facility's main control room, but that they were unable to do so. MEND's limited success, however, most likely identified to the group the specific capabilities, training, and equipment it will need to better succeed in the future. This process of tactical improvement forms a larger cycle of innovation (an OODA Loop).

The recent attack highlights three significant and separate advances by MEND: targeting, naval equipment, and training. By attacking far-offshore infrastructure that was previously considered beyond its reach, and by selecting projects that are key to the Nigerian government’s revenue plans, MEND has accurately identified a very high return on investment target. This demonstrates an advancement in their ability to pursue “effects-based targeting”—that is, the ability to carefully select targets that produce the desired ultimate (here, political) effect. For MEND, the desired effect is to force the Nigerian government to better meet the needs of the Niger Delta peoples. Previous tactics of kidnapping and attacking pipelines were imperfect choices for several reasons: they spawned criminal activity within the Delta, they increased pollution in the already polluted Delta region, and they did not effectively compel the desired action on the part of the Nigerian government. While it is yet to be seen if the current targeting choices will be more successful, in my opinion they represent an advancement in skill.

The Bonga attack also demonstrates a significant advance in MEND’s ability to operate far offshore. While MEND has always been noted for its riverine naval capability, its success 120km offshore suggests an improvement in naval equipment. No information is available on what types of watercraft were used by MEND in the recent Bonga attack, but at a minimum MEND has established that its boats have 120km range.

Additionally, the Bonga attack required a fairly advanced set of navigation skills. Standing in a rigid inflatable boat, at 1.7 meters above the water, the visible horizon is only 5km away. Even if
Shell’s Bonga facility flares at 100m above the surface, the flare is still below the horizon at 40km. Reports that the attack commenced at 1 a.m. suggest that MEND has developed fairly advanced offshore and nighttime navigation skills, that Nigeria’s naval presence in the region is not currently capable of protecting offshore facilities, and that all major Nigerian offshore facilities are within MEND’s reach.

Finally, it is important to discuss the potential tactical race between offshore defenses and militant offensive capability. This is a situation of competing OODA loops--whichever side can innovate and learn from past experiences most quickly will prevail. Here, MEND enjoys two significant advantages over offshore operators. First, the decentralized nature of MEND allows it to try many different approaches, accepting failure of the vast majority of attempts. MEND can try 50 different ways to attack an offshore facility--only one needs to succeed to inflict massive losses that provides a high ROI on its investment. Oil companies, on the other hand, have one opportunity to get their defenses right or they risk losing a multi-billion dollar facility. While oil companies do have the opportunity to learn from past militant mistakes, they don't have the luxury of learning from successful militant tactics without great cost. Second, oil platforms are fixed assets. While MEND can choose the specific target, time of attack, mode of attack, and staging area at will, oil companies must defend all fixed position at all times, and as a result permanently cede the initiative to their opponents. Any armchair general will recognize that this is an unenviable situation that heavily favors MEND.

**Conclusion: Geopolitical Feedback Loops in Action**

The recent attacks in Nigeria should be viewed as a product of geopolitical feedback loops. I’ve written previously about these feedback loops in operation in Nigeria, and will begin to reassess and update them in upcoming posts. These phenomena significantly undermine Nigeria’s ability to deliver on their potential to increase oil production and exports. While it may be tempting to view these geopolitical feedback loops as separate from the geological phenomenon of Peak Oil, it is more accurate to view the geopolitical factors as a direct result of geological peaking—but for geological factors, disruptions in Nigeria would simply cause oil exploration and production to move to other, equally fertile grounds. Instead, the geological reality that there are very few “geologically fertile grounds for increasing oil supply” forces companies to accept the high costs of doing business in Nigeria.

MEND has made it clear that its recent choice of target was not chance. It stated in its press release that "The location for today's attack was deliberately chosen to remove any notion that off-shore oil exploration is far from our reach." Rebels followed up the Bonga attack by announcing a unilateral truce June 22nd to "give peace and dialog another chance." This suggests we will have at least a short break before the next offshore attack. Unfortunately, it will also allow MEND time to integrate lessons learned from the Bonga attack and to prepare for the next wave of operations. This break is also an important political step for MEND to maintain its image as legitimate and principled freedom fighters in the eyes of the Delta peoples, and not merely a group of criminal thugs. It should not be viewed as a sign of either weakness or abandoning plans to conduct further offshore attacks. This reading of the "truce" is supported by the concurrent strike by Nigerian oil workers that named Shell as an "enemy of the Nigerian people." Assuming that the Nigerian government won’t meet MEND's minimum demands, we are likely to find out within a few months just how much offshore capability MEND has...

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