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R E P O R T

Promoting International Energy Security

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Summary

Nine nations border the Gulf of Guinea: Cote D'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon, São Tome and Principe, Equatorial Guinea, and Gabon. Certain of these nations important sources of petroleum for the world market, producing a total of 2.9 million barrels per day, which is 3.5 percent of global petroleum production. For logistical reasons, the main destinations of petroleum exports from the Gulf of Guinea are the United States and Europe. Tanker transit to refineries on the East and Gulf coasts of the United States and to Europe is relatively short and has the added advantage of not passing through vulnerable choke points.

The nations of the Gulf of Guinea control roughly the same percentage of proven reserves, although, because large portions of the Gulf's offshore waters are underexplored, reserve estimates may well understate available resources.

The largest producer by far in the region is Nigeria, which produced 2.2 million of the Gulf of Guinea's 2.9 million barrels per day in 2009. Nigeria also has 37.2 billion barrels of proven reserves, the lion's share of the gulf's total proven reserves of 42.9 billion barrels. We estimate total recoverable petroleum resources at roughly triple this amount.

The oil infrastructure in Nigeria is not well secured, and this has two unfortunate consequences:

- The existing infrastructure is underproducing. In 2009, direct attacks on the petroleum infrastructure and pipeline damage stemming from oil theft in the Niger delta shut down an average of 1.1 million barrels per day of production.
- Investments in oil-producing infrastructure are lower than they would be in a secure environment.

It is in the interests of the United States, as well as other oil-importing nations, to encourage greater production and investment that would raise petroleum output in Nigeria and in the other Gulf of Guinea nations with crude oil reserves. Specifically, greater production from this region adds to diversity of supply and weakens the ability of the core nations of the Organization of Petroleum Exporting Countries cartel to maintain high prices.

Until recently, most production in Nigeria has been on land, in the Niger Delta region. Production facilities have tended to be modest in size and widely dispersed. Much of the terrain has heavy foliage cover. In this environment, aviation forces can make only a limited contribution to the security of the oil-producing infrastructure.

In the past decade, however, production has been moving offshore, and by next year, approximately 60 percent of Nigerian production will be from offshore facilities. Installations that tap the offshore fields tend to be larger and have more output, so it is cost-effective to

invest sizable resources to protect them. Second, offshore installations are readily visible from the air, yielding a potentially powerful role for aviation forces. Offshore petroleum development is also taking place in other gulf nations, including Ghana, Benin, Cote D'Ivoire, and Equatorial Guinea.

This growing investment in offshore petroleum production provides an opportunity for the U.S. Air Force to contribute to improved regional energy security. Its primary contribution would be to partner with the air force of Nigeria, the region's largest oil exporter, to build its capacity to secure the oil-producing infrastructure from attack. Specifically, we investigated capabilities that would deter or, if necessary, defeat attacks on oil-producing installations by providing a rapid response capability to interdict the perpetrators.

There are three areas where partnership capacity building could provide a high payoff:

- a command and control center that could receive alerts of an attack on an installation and coordinate a response
- a surveillance capability that could locate and track attackers
- a rapid response transport capability to fly security forces to interdict the attackers.

The report includes an analysis of potential operations, which frames what it would take to achieve a basic level of the above capabilities. Such a demonstrated capability to defeat attackers can be expected to strongly deter groups considering an attack on offshore oil-producing installations.

These three capabilities are core capabilities of the U.S. Air Force and are not the kind of capabilities that could readily be turned against the population—always a consideration in building partner capacity.

There are three obstacles to partnering that the team identified:

1. The Nigerian Air Force has a relatively low level of pilot training. The initial training and assistance would have to aim for a very modest initial capability in each area and build from there.
2. The Nigerian government has in the past been reluctant to partner with the U.S. military. Initial capacity building might have to focus on noncombat missions, such as search and rescue or medical evacuation. These missions demand most of the same basic pilot skills as those described above for defeating an attack.
3. The Nigerian government suffers from corruption, which will make partnering with its military difficult. This indicates adopting a strategy that begins modestly and being prepared to intensify the capacity building in the event that corruption recedes.

Although there are challenges, Nigeria still has good reason to partner with the United States. Increasing the security of Nigerian oil infrastructure would increase oil production, and the vast majority of the country's wealth lies in its hydrocarbon sector. Therefore, Nigeria should be willing to work with the United States. Nevertheless, there are alternatives. One is to work first with other nations in the region, such as Ghana, where governance is considerably better. As the U.S. Air Force gains experience in building capacity with these partners, it could draw on its lessons learned and best practices to partner with other countries, including Nigeria, should governance improve.