

## China Seeks to Dominate Off-Shore Energy Resources in the South and East China Seas

By John R. Weinberger\*

On May 2, 2014, without announcement, Chinese vessels floated China National Offshore Oil Corp.'s (CNOOC) state-of-the-art deep water drilling rig into Vietnamese waters and began sea floor drilling operations for natural gas. The location of the rig - within Vietnam's 200 nautical mile exclusive economic zone (EEZ) and only 17 nautical miles from Triton Island in the South China Sea, one of the Paracel Islands that is claimed by Vietnam, China, and Taiwan - was unmistakably set up in maritime territory claimed by Vietnam. The Vietnamese Foreign Minister called the move a violation of Vietnamese sovereignty. The U.S. State Department described the move as "provocative." The deployment of China's first and only home-grown deep-water semisubmersible drilling rig in such a brazen manner illustrates the value that China places on Asia-Pacific off-shore oil and gas resources and the lengths that China will go to assert control over seabed hydrocarbons beneath the far western Pacific Ocean.

### China's Quest for Asia-Pacific Energy Resources Driven by Overall Growth in Energy Demand

Fossil fuels are the lifeblood of China's economy. Affordable, reliable sources of crude oil enable China's transportation sector to grow and thrive. Natural gas is becoming a cornerstone to China's electric power capacity and an alternative transportation fuel.

China's remarkable economic growth over the past three decades is matched by an insatiable thirst for oil. China's 2013 oil consumption of 459 mmt exceeded domestic production by 239 mmt.<sup>1</sup> China's average annual growth in crude oil consumption has been 7.4% over the past ten years. In the ten year period 2001 to 2011, Chinese oil consumption more than doubled from 4.859 billion barrels to 9.758 billion barrels.<sup>2</sup> 58% of China's 2013 crude oil demand was met by imports.<sup>3</sup> By 2020, the CNPC Economic and Technology Research Institute projects that 65% of Chinese crude oil supplies will be imported.<sup>4</sup> 42% of China's imports come from the Persian Gulf region.<sup>5</sup>

Natural gas is quickly emerging as a primary alternative fuel in China for electric power generation and transportation. 30% of China's 2013 natural gas consumption was imported.<sup>6</sup> Demand growth for natural gas is expected to climb. The Institute of Energy Economics of Japan's projection, through the year 2040, forecasts a steep 42% rise in China's natural gas consumption from 2011.<sup>7</sup>

Oil security for China means the assurance of sufficient oil at affordable prices. The fact that most of China's oil requirements must be met by sources outside of China is a simple reality of geography, geology and demand. Given that domestic supplies are insufficient to meet China's energy needs, China's oil security policy is based on the broad goals of supply availability, affordability, reliability and diversity. China's exploitation of East China Sea and South China Sea resources is consistent with those goals. On-shore domestic oil and gas reserves are significant but insufficient to meet China's needs. Off-shore domestic oil represents only 19% of China's domestic oil production and has been limited to shallow waters.<sup>8</sup> China relies heavily on oil and gas reserves in the Persian Gulf, Angola, Russia, Iraq, Iran and Venezuela. These supplies are subject to political risk, civil unrest, sea lane transportation risk, price volatility and supply disruption. The Asian Pacific sea beds, although claimed by multiple countries, contribute to Chinese energy security by providing sources of oil and gas close to home where China has the military and political strength to minimize risks which might result in supply disruptions.

### Conflict in the South China Sea

The South China Sea is an 800,000 sq. km semi-enclosed area of water roughly surrounded by China, Taiwan, Vietnam, the Philippines, Malaysia, Brunei and Indonesia. There is much disagreement about the energy resource potential of the South China Sea because the area is under-explored and hydrocarbon development has been slow. There is no clear authoritative estimate of South China Sea hydrocarbon reserves but U.S. EIA estimates that there is approximately 11 bbl of oil reserves and 190 Tcf of natural gas reserves.<sup>9</sup> These numbers represent both proved and probable reserves, so the estimates may be on the high end.

The lack of hydrocarbon exploration and development in the South China Sea is a function of two factors: (1) international territorial conflict among the countries enclosing the South China Sea and (2) the lack of deep water technology and inexperience in deep water development by the local national oil companies. Overlapping and conflicting maritime claims by China, Taiwan, Malaysia, Viet-

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See footnotes at end of text.

nam and the Philippines have made the South China Sea an unattractive area for NOC investment.

China in particular has taken a highly aggressive stance toward the other South China Sea nations and has essentially claimed hegemony over the waters and uninhabited islands in the region. The Chinese government announced in 2010 that the South China Sea is a “core interest” of China, putting the South China sea on a par with Taiwan and Tibet as a matter of Chinese sovereignty.<sup>10</sup> For the purpose of off-shore oil and gas development, China claims veto power over any new project. Beijing sees unilateral energy development by Vietnam or the Philippines as a territorial challenge, even in areas that are generally recognized as international waters.

China claims that its intent is not to exclude any nation from off-shore projects and that it is open to joint development of South China Sea off-shore resources with other countries. The other South China Sea nations are wary. In order to participate in a joint oil or gas development project with China, they would have to accept Chinese sovereignty over the project location. As one analyst put it, “although China has offered joint development to other claimants, its concepts of joint development seems to involve joint development of the producing oil and gas fields on other claimants’ continental shelves – and then only after China’s sovereignty has been recognized.”<sup>11</sup>

The tension between China and its South China Sea neighbors has played out most dramatically with the Philippines and Vietnam – two nations that both contest Chinese claims of sovereignty over the Spratly and Paracel Islands.<sup>12</sup> China mobilized forces against Philippine projects in the Reed Bank in April 2012 with Chinese vessels gaining control of Scarborough Shoal, an uninhabited islet claimed by China and the Philippines, after a standoff between a Philippine navy ship and Chinese commercial vessels.<sup>13</sup> Chinese ships have been patrolling around Thomas Shoal, a reef in the Spratly Islands, since May of 2013. The Philippines claim Thomas Shoal as part of its continental shelf. Manila invited Chinese companies to engage in joint exploration, but has not conceded Chinese sovereignty. Beijing refuses to take part in international arbitration with the Philippines and refuses to recognize Philippine jurisdiction in the area.

Conflict is also evident between China and Vietnam. A Chinese marine surveillance vessel sabotaged a Petrovietnam seismic exploration vessel in May 2011. CNOOC invited foreign oil companies, in June 2012, to bid for blocks in waters claimed by Vietnam. And, as noted above, CNOOC had placed its deep water drilling platform within Vietnam’s EEZ.<sup>14</sup>

If not for conflicting national claims over maritime territory, parts of the South China Sea would be ripe for oil and gas exploration. The waters around the Spratly and Paracel Islands are shallow enough for low-cost exploration and are thought to be resource rich. They are promising areas of exploration but remain neglected. The Philippines National Oil Company has stayed away from the area since Chinese ships started patrolling in 2011 and international oil companies are deterred from getting involved in the area by the conflicting national claims.

Although most of the region’s oil and gas resources are thought to be in deep water, off-shore activity has been limited thus far to shallow water. Other than Japanese companies, and very recently CNOOC, East Asian oil companies haven’t had the technical capability to produce hydrocarbons from deep sea beds. IOCs have been reluctant to invest in deep water development in the area because of the uncertainty of national territorial claims. There has been some recent deep water activity. Beginning in the mid-2000s drilling to depths beyond 1500 meters began. Vietnam’s state oil company signed agreements with Eni SpA, Exxon Mobil, and ONGC Videsh for deep water off-shore development.<sup>15</sup> China’s CNOOC began operating its first deep water drilling platform in 2012. In fact all of CNOOC’s new activities in the South China Sea are in deep water.<sup>16</sup> It appears that deep water exploration and production will continue to be CNOOC’s focus. China Oilfield Services Limited (COSL), a subsidiary of CNOOC, invested heavily in new off-shore platforms in 2013.<sup>17</sup>

### **Sino-Japanese Tension in the East China Sea**

The East China Sea is a 1.2 million square km semi-enclosed body of water bounded on the north by the Yellow Sea and the Korean peninsula, on the south by the South China Sea and Taiwan, on the east by Japan’s Ryukyu and Kyushu islands and on the west by China. The East China Sea contains the deep Okinawa Trough, an arc shaped basin 470 km east of the Chinese coast. Like the South China Sea, it is thought to be rich in sea floor oil and gas but international conflict and difficult terrain have left its hydrocarbon resources largely unexplored.

China and Japan, Asia’s two largest energy consumers, have conflicting territorial claims over the East China Sea and are in competition with each other for access to sea floor natural resources. Both countries make overlapping territorial claims under the United Nations Convention on the Law of the

Sea (UNCLAS). China claims the right to control the continental shelf extending from its coast line 350 nautical miles east to the Okinawa Trough. About 40,000 square kilometers of that same territory is claimed by Japan as being within its EEZ. Japan proposes a north-south Median Line, roughly bisecting the East China Sea from Taiwan north to South Korea, marking the division between China's and Japan's respective EEZs.

China's national oil companies are developing oil and gas fields just to the west of Japan's claimed Median Line. Specifically, China's NOCs are producing oil and gas in three fields – Pinghu, Chunxiao (called Shirakua by Japan) and Tianwaitian (called Kashi or Kashiide by Japan). The Chunxiao field is at the center of Sino-Japanese undersea resource conflict in the East China Sea. Chinese drilling rigs exploiting Chunxiao gas have been operating 5 kilometers west of the Median Line since 2003 – close enough to the line to make Japan uncomfortable. Furthermore, the Chunxiao gas field extends into Japanese territory. Japan's position is that energy resources on or near the Median Line should be developed jointly and the Chunxiao field should be a shared resource. China's position is that the only area for joint development is east of the Median Line to the Okinawa Trough, including the area around the disputed Diaoyu/Senkaku islets.<sup>18</sup>

After four years of bilateral talks, in June 2008 China and Japan agreed that (1) there should be a joint development zone straddling both sides of the Median Line proposed by Japan, and (2) Japan would participate in the Chunxiao gas field. However no progress toward joint development has been achieved and China continues its unilateral development of the Chunxiao field.

Almost all of the East China Sea oil and gas development to date has been on the west side of the Median Line and has been conducted by Chinese NOCs. Japanese companies and other IOCs have shown little interest in the East China Sea. There was some exploratory drilling in the 1990s on the Japanese side of the Median Line but production was disappointing.<sup>19</sup> China is in a better position than Japan to exploit East China Sea hydrocarbon resources. Most of the East China Sea oil and gas fields are entirely or mostly within undisputed Chinese territory. All of Japanese seabed claims by contrast are west of the Okinawa Trough in contested territory. Proven hydrocarbon reserves are closer to China's coast and more readily accessible by China's undersea pipeline that runs from the Pinghu gas field to Shanghai. Proven gas reserves are farther from Japan's main islands and the Okinawa Trough makes pipeline transportation to Japan expensive and technically challenging.

China's approach to Japan in the East China Sea is less aggressive than its approach to Vietnam and the Philippines in the South China Sea. In the South China Sea, China asserts hegemony over the region, requiring other countries to recognize Chinese sovereignty as a condition of joint development of sea bed resources. By contrast, in the East China Sea, China does seem to respect Japan's assertion of the Median Line and narrows the area under dispute to the waters and sea floor between the Median Line and the Okinawa Trough.

By not working cooperatively with its East and South China Sea neighbors, China is inhibiting energy security for itself and its region. Energy security among Asia Pacific countries is not a zero-sum game. China and its neighbors achieve the greatest energy security when: (a) there is stability and economic integration in the Asian Pacific region and (b) where Asian Pacific countries are open to foreign investment in oil and natural gas production. China's aggression and unwillingness to work towards a settlement of claims in the western Pacific seas are, therefore, counter-productive to China's energy security.

#### **Footnotes**

<sup>1</sup> CNPC Economic and Technology Research Institute, November 21, 2014.

<sup>2</sup> BP Statistical Review of World Energy, June 2012.

<sup>3</sup> CNPC Economic and Technology Research Institute, November 21, 2014.

<sup>4</sup> CNPC Economic and Technology Research Institute, November 21, 2014.

<sup>5</sup> BP Statistical Review of World Energy, June 2012.

<sup>6</sup> Institute of Energy Economics Japan, Status and Prospects of China's National Gas Market, November 21, 2014.

<sup>7</sup> Institute of Energy Economics Japan, Status and Prospects of China's National Gas Market, November 21, 2014.

<sup>8</sup> U.S. EIA China Analysis, February 4, 2014.

<sup>9</sup> U.S. EIA South China Sea Analysis Brief, Feb. 7, 2013.

<sup>10</sup> "South China Sea part of core interests: Beijing," The Strait Times, July 12, 2010.

<sup>11</sup> Zhao Suisheng, "China's Global Search for Energy Security: Cooperation and Competition in the Asia-Pacific," The Asia-Pacific Journal, Vol. 49-4-08, December 2008.

<sup>12</sup> Jonas Gratz, “Energy Cooperation in the South China Sea,” ISN, ETH Zurich.

<sup>13</sup> “Reed Bank: South China Sea Flashpoint,” Asia Times, June 3, 2014.

<sup>14</sup> Erica S. Downs, “Business and Politics in the South China Sea: Explaining HYSY 981’s Foray into Disputed Waters” Brookings, China Brief, June 24, 2014.

<sup>15</sup> Will Rogers, “Finding Common Ground: Energy, Security and Cooperation in the South China Sea,” East and South China Seas Bulletin 9, Center for a New American Security, February 12, 2013.

<sup>16</sup> U.S. EIA, Country Analysis, China, February 4, 2014.

<sup>17</sup> Platt’s Oilgram News, February 1, 2013.

<sup>18</sup> Guo Rongxing, “Territorial Disputes and Seabed Petroleum Exploration: Some Options for the East China Sea,” The Brookings Institution, September 2010.

<sup>19</sup> James Manicom, “The Sino-Japanese Energy Dispute in the East China Sea: Strategic Policy, Economic Opportunities and Cooperation,” The Economics of Peace and Security Journal, Vol. 4 No. 2, (2009).