Appendix II

This appendix contains the dataset I've created regarding incidents and cases Chinese coercion, as described in Figure 1 in the article. As I stated in the article, this dataset is about reactive and immediate cases of Chinese coercion. Incidents refer to actions taken by other South China Sea disputants to which China could react by pursuing coercion or deciding not coerce. These incidents, which are not cases of coercion, fall into two categories: other disputants' control of land features in the South China Sea and energy exploration in disputed waters. Specifically, incidents regarding control over land features include other claimants seizing and building infrastructure on land features, for example, Vietnam seizing a land feature in the Spratlys in 1991. Incidents regarding resource exploration include oil and gas exploration activities and the signing of production sharing contracts with foreign companies, for example, the Philippines signing such contracts with foreign oil companies.

I code these two categories because an internal document by China's SOA stated clearly in 2002 that defending maritime rights—sovereign, jurisdictional, and administrative rights — are the core of maritime rights and that resource exploration in one's exclusive economic zones (EEZ) and continental shelves is an exclusive right that is "quasi-sovereign," indicating its significance.[1] In order for any incident or case of Chinese coercion to enter the database, I use both Chinese-language materials (some of which internally circulated documents) and English-language media reports to avoid any bias. I include all four kinds of Chinese coercion from 1990 to the present day. By reactive, I do not mean that China is the victim in maritime disputes. Of course, China is not always reactive and does use proactive coercion, including land reclamation and coercion of foreign fishermen in the South China Sea. For data regarding Chinese land reclamation, please see my dissertation.[2]

Also included in this appendix are tables related to foreign countries oil and gas activities in the South China Sea, as well as additional details regarding the Chinese ban on Philippine banana exports to China.

[1] Internal materials edited by the China Institute for Maritime Affairs (CIMA), *Zhuanshu jingji qu he dalujia* (EEZs and the Continental Shelf) (Beijing: Oceanic Press, 2002), pp. 395, 398.
[2] Ketian Zhang, "Calculating Bully: Explaining Chinese Coercion," Ph.D. dissertation, Massachusetts Institute of Technology, 2018.

Appendix II

Incidents and Reactive and Immediate Cases of Coercion in the South China Sea

Table 1. Incidents Regarding Island Control and Oil Exploration

Year /Incidents	No action/rhetorical	Diplomatic Sanctions (Including Duration)	Economic Sanctions	Gray-zone Coercion (Specific kinds: expelling or etc.)	Military coercion (Including Duration)
Control Over Land Features in the South China					
1991.9.1: Malaysia planned to build an airstrip on Layang Layang Island in the Spratlys[1]	Diplomatic protests	No	No	No	No
1991.11.3: Vietnam took the Grainger bank in the Spratlys[2]	No direct diplomatic protests.	No	No	No	No
1990.11.4: Vietnam took the Prince Consort Bank (Bai Phuc Nguyen) [3]	No direct diplomatic protests.	No	No	No	No
1991.11.30: Vietnam took the Alexandra Bank[4]	No direct diplomatic protests.	No	No	No	No

[1] *Herald Sun*, September 2, 1991, Kuala Lumpur.
[2] Hainan Provincial Office, *Hainan shengzhi — xinanzhong sha qundao zhi [Gazetteer of Hainan — Regarding the Paracel, Macclesfield, and Spratly Islands]*, compiled by the government in Haikou in 2005, p. 313. This material is available in the library of NISCSS; cross-checked with Alexander L. Vuving, "South China Sea: Who Claims What in the Spratlys?," *The Diplomat*, May 6, 2016, https://tribunecontentagency.com/article/south-china-sea-who-claims-what-in-the-spratlys/, accessed April 17, 2018.
[3] Hainan Provincial Office, *Hainan shengzhi — xinanzhong sha qundao zhi [Gazetteer of Hainan — Regarding the Paracel, Macclesfield, and Spratly Islands]*, p. 313; cross-checked with Alexander L. Vuving, "South China Sea: Who Claims What in the Spratlys?"
[4] Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, p. 34; cross-checked with Alexander L. Vuving, "South China Sea: Who Claims What in the Spratlys?."

Summer 1992: Malaysia finished the runway on Layang Layang[5]	No action, nor diplomatic mentioning publically.	No	No	No	No
1992.7.19: Vietnam established a small fishing harbor on the Changsha island in the Spratlys[6]	No action, nor diplomatic mentioning; China stressed the need to peacefully resolve issues in the South China Sea.[7]	No	No	No	No
1992.5: Philippines took four land features in the Spratlys[8]	No direct diplomatic protests.	No	No	No	No
1992.3.19: Vietnamese armed fishery boat No. 710 removed Chinese markers in the Spratlys on the Alison Reef[9]	No direct diplomatic protests.	No	No	No	No
1993.5.15: The Philippines ordered its armed forces to expand airports in disputed islands of the Spratlys[10]	Yes, no action, nor diplomatic mentioning	No	No	No	No

[5] Makito Ohashi, *The Nikkei Weekly (Japan)*, May 30, 1992.
[6] Zhang Liangfu, *Nansha qundao dashiji*, p. 230.
[7] *Ibid.*
[8] No specific date was given, see Alexander L. Vuving, "South China Sea: Who Claims What in the Spratlys?;" in 1992, the Philippine Navy rehabilitated the lighthouse and reported it to the International Maritime Organization for publication in the List of Lights (currently, this lighthouse is not operational). See Mark E. Rosen, "Philippine Claims in the South China Sea: A Legal Analysis," A CNA Occasional Paper, August 2014, https://www.cna.org/cna_files/pdf/IOP-2014-U-008435.pdf, acessed April 17, 2018. The Chinese sources provided the month, see Hainan Provincial Office, *Hainan shengzhi — xinanzhong sha qundao zhi [Gazetteer of Hainan — Regarding the Paracel, Macclesfield, and Spratly Islands]*, p. 314.
[9] *Ibid.,* p. 314.
[10] Zhang Liangfu, *Nansha qundao dashiji*, p. 247; for cross-checking, see "Taiwan considering building airfield in Spratly Islands," *Taiwan Economic News*, July 14, 1993.

1993.7: The Philippines removed Chinese markers on the Mischief reef[11]	Yes, no action, nor diplomatic mentioning	No	No	No	No
1993.8.15: Philippine frigate no. 28 removed Chinese markers in Spratlys.[12]	No direct diplomatic protests.	No	No	No	No
Southwest Cay: Song Tu Tay lighthouse is about 320 nautical miles from Nha Trang. The island of Song Tu Tay has an area of about 12 hectares. It is one of the six largest islands in Truong Sa. The lighthouse was built in 1993, with a height of about 36m. [13]	No direct diplomatic protests.	No	No	No	No
1994.5.27: Vietnam established a lighthouse on Ladd Reef.[14]	Yes	No	No	No	No
1994.6.7: Vietnam established lighthouses on the West London Reef.[15] One of which was completed on June 21, 1994, which was	Yes	No	No	No	No

[11] Hainan Provincial Office, *Hainan shengzhi — xinanzhong sha qundao zhi [Gazetteer of Hainan — Regarding the Paracel, Macclesfield, and Spratly Islands]*, p. 314.
[12] *Ibid.*
[13] See "Photos: Nine lighthouses in Truong Sa," *VietNamNet Bridge*, http://english.vietnamnet.vn/fms/vietnam-in-photos/138216/photos--nine-lighthouses-in-truong-sa.html; Russ Rowlett, "Lighthouses of the Spratly Islands," https://www.unc.edu/~rowlett/lighthouse/spr.htm; Vietnam Ministry of Transport, "Song Tu Tay," http://www.vms-south.vn/en/hai-dang-luong-hang-hai/he-thong-hai-dang/song-tu-tay, accessed April 17, 2018.
[14] Zhang Liangfu, *Nansha qundao dashiji*, p. 265; cross-checked: Maritime Briefs, *Journal of Commerce*, July 1, 1994, Friday; Da Lat lighthouse is located on Ladd Reef that belongs to West Pole of Spratly islands, in Truong Sa district, Khanh Hoa province. It was established in 1994. Vietnam Ministry of Transport, "Da Lat," http://www.vms-south.vn/en/hai-dang-luong-hang-hai/he-thong-hai-dang/da-lat, accessed April 17, 2018.
[15] Zhang Liangfu, *Nansha qundao dashiji*, p. 265; The Da Tay Lighthouse is on Da Tay reef, built in June 1994, with a height of 20m. See "Photos: Nine lighthouses in Truong Sa."

presumably the West London Reef.[16]					
1994.8.27:Vietnam finished a fishing harbor on the Spratly island.[17]	No direct diplomatic protests.	No	No	No	No
1994.9.27: Philippines established a marker on land features in the Spratlys[18]	No direct diplomatic protests.	No	No	No	No
1994.9.29: Philippines established markers on land features in the Spratlys[19]	No direct diplomatic protests.	No	No	No	No
1994.12 to 1995.2 Mischief Reef incident: China established infrastructure on the mischief reef first (through China's fishery administration). And in January 1995, Philippine fishers stopped by the reef, and was faced with Chinese coercion[20]	Yes, multiple diplomatic protests[21]; but relations improved soon after; and Chinese FM Qian Qichen met with his Philippine counterpart, stating that SCS issue should not affect the bilateral relations[22]	No – negotiations continued despite all the below episodes.[23] Result: the Philippines accquised Chinese occupation of the mischief reef.	No	Yes: 1995. 1. 10 1995. 1. 17	No

[16] Da Tay lighthouse is located on West London Reef that belongs to Spratly islands, in Truong Sa district, Khanh Hoa province. West London Reef consists of a eastern part is a sand-dune 0,6m in height, a western part us a coral bank that only rises when the tide is coming. West London Reef is a part of London Reefs. It was established on 06/21/1994. Vietnam Ministry of Transport, "Da Tay," http://www.vms-south.vn/en/hai-dang-luong-hang-hai/he-thong-hai-dang/da-tay, accessed April 17, 2018.
For others such as Grainger Bank and Alexandra Bank, see Russ Rowlett, "Lighthouses of the Spratly Islands."
[17] Hainan Provincial Office, *Hainan shengzhi — xinanzhong sha qundao zhi,* p. 316.
[18] Hainan Provincial Office, *Hainan shengzhi — xinanzhong sha qundao zhi,* p. 316. The start date of the Philippine occupation of Commodore Reef remains uncertain. Philippine troops landed on the reef in August 1980 and removed a marker that Malaysia installed there a few months before, but it is unknown whether they stayed or left after the operation. One report states that they deserted it since 1986, but it is currently occupied by a military detachment. See Alexander L. Vuving, "South China Sea: Who Claims What in the Spratlys?"
[19] Hainan Provincial Office, *Hainan shengzhi — xinanzhong sha qundao zhi,* p. 316.
[20] Zhang Liangfu, *Nansha qundao dashiji*, p. 57.
[21] *Ibid.,* p. 279.
[22] *Ibid.,* p. 277 and p. 282.
[23] See Zhang Liangfu, *Nanhai wanlixing — zai nansha qundao xuhang de rizi.*

Mid to late March 1995: the Philippine navy destroyed Chinese wind-shielding infrastructure on the Mischief reef (China established infrastructure there in the first place); The Philippine naval ships went to the reef[24]	Yes	No	No	No	No
1995 March: As a spin-off from the mischief reef incident, The Philippine navy destroyed the infrastructure of eight of the reefs claimed by China, including Xian'e, Xinyi, Banyue, Ren'ai, and Wufan reefs.[25]	Yes	No	No	No	No
1995.5.13: as a spin-off of the Mischief incident, the Philippines dispatched journalists to the reef	Yes	No	No	Yes: 1995. 5. 13: Chinese fishery's administrative ship no. 34. Result of this incident: on June 1, 1995, both sides reached an agreement on joint development.[26] This incident ended in	No; there was the presence of two Chinese naval frigates – but again, they were 25 kilometers away

[24] Information comes from Zhang Liangfu, *Nanhai wanlixing — zai nansha qundao xuhang de rizi*; Ralf Emmers, *Geopolitics and Maritime Territorial Disputes in East Asia*, p. 71.
[25] Nirmal Ghosh, Manila Correspondent, "No co-operative ventures in Spratlys until atmosphere improves,"*The Straits Times (Singapore)*, Manila, April 7, 1995; Lindsay Murdoch, "Spratly bombing fuels row," *The Age (Melbourne, Australia)*, March 25, 1995, Saturday, Late Edition.
[26] Shen Jindong, "1995nian dongnanya dashini [Chronology of events in Southeast Asia 1995]," *Dongnanya zongheng jikan [Around Southeast Asia, quarterly journal]*, Issue 1 (1996).

				August 1995.[27]	
1995.5: Dr Mahathir visited Layang Layang Island.[28]	No direct diplomatic protests.	No	No	No	No
1996. 5: Dr Mahathir visited Layang Layang.[29]	No direct diplomatic protests.	No	No	No	No
1997.4. 30-5.2: as a spin-off, The Philippine navy disrupted amateur wireless transmission (radio) enthusiasts' trip to the Scarborough shoal – these people come from China, Japan, and the United States.[30]	Yes, diplomatic protest	No	No	Yes: Chinese maritime surveillance ships 74 and 72 faced a standoff with The Philippine navy.[31] Their basic goal seemed to be protecting these wireless transmission lovers. They left peacefully without harm; but The Philippines strengthened control of the Scarborough shoal afterwards. China, as its MFA spokesperson stated, was indeed acting restraint.[32]	No

[27] Zhang Liangfu, *Nanhai wanlixing — zai nansha qundao xuhang de rizi,* p. 73.
[28] "Mahathir: BBC congenitally incapable of truth," *New Straits Times (Malaysia),* May 27, 1995.
[29] *New Straits Times (Malaysia)*, May 1, 1996.
[30] David Lague, *Sydney Morning Herald (Australia)*, May 24, 1997 Saturday, Early Edition; Zhang Liangfu, Nanhai wanlixing — zai nansha qundao xuhang de rizi, p. 29; "Three star Philippines guards shoal from Chinese," St. Louis Post-Dispatch (Missouri), May 19, 1997, Monday, p. 05A.
[31] *Ibid.*
[32] *Ibid.,* p. 148

1997.5.9: Philippine congressmen and reporters visited Thitu island.[33]	No	No	No	No	No (there used to be Chinese naval ships around, but they were not present at that time)
1997.6 The Philippines navy destroyed Chinese infrastructure on Xianbin reef[34]	Yes, diplomatic protest; but relations improved soon after	No	No	No	No
1998.6: Vietnam took Aonan Shoal and Kingston Shoal.[35]	Diplomatic protests: China has protested to Vietnam and demanded that it withdraw at once from a pair of submerged reefs in the disputed Spratly Islands in the South China Sea that its navy ''illegally seized'' recently, a Chinese Foreign Ministry spokesman said Tuesday.[36]	No	No	No	No
1999.5.15: Malaysia established infrastructure on	Yes, diplomatic protest.	No	No	No	No

[33] Xiao Xiqing, *Nansha fengyu – nansha qundao wenti de yanpan yu fenxi [Analyzing the South China Sea issue]* (Taipei: Taiwan Student Press, 2010), p. 361.
[34] "Manila defends Spratly action," *The Weekend Australian*, July 5, 1997, Saturday, Source: AFP, p. 14
[35] Zhang Liangfu, Nanhai wanlixing — zai nansha qundao xuhang de rizi, p. 29.
[36] The reefs in question, known as Orleans Shoal and Kingston Shoal, are called Aonan and Jindun by China. The two shoals lie about 20 kilometers apart in the southwestern portion of the Spratlys. "China demands Vietnam withdraw from reefs in Spratlys," *Asian Political News*, September 14, 1998.

Yulin and Boqi shoals.[37]					
1999.3 The Philippines constructed military infrastructure on Thitu islands	Yes, diplomatic protest; but relations improved soon after	No	No	No	No
1999.5: The Philippine navy occupied the Second Thomas Shoal[38]	Yes, diplomatic protest; but relations improved soon after	No	No	No	No
1999.11.3, the Philippines planned to "sit" naval ship by the Scarborough shoal.	Yes, diplomatic protest	Yes, diplomatic pressure applied.[39] Premier Zhu Rongji was about to visit the Philippines – The Philippines seemed to have caved in on 11. 29.[40]	No	No	No
2000: Vietnam: established Tiên Nữ (Pigeon Reef, Tennent Reef) lighthouse.[41]	No direct diplomatic protests.	No	No	No	No
2003.4: Vietnamese congress members and deputy defense ministers visited the Spratlys.[42]	No direct diplomatic protests.	No	No	No	No
2003.11 : Philippines removed markers	No direct diplomatic protests.	No	No	No	No

[37] "Atolls within Malaysian EEZ," *New Straits Times (Malaysia)*, June 24, 1999.
[38] This case stands in contrast with Chinese behavior in 2014. Alexander L. Vuving, "South China Sea: Who Claims What in the Spratlys?"
[39] Zhang Liangfu, *Nanhai wanlixing — zai nansha qundao xuhang de rizi*, p. 152
[40] "Philippines tows navy ship from disputed shoal near Spratlys," *Agence France-Presse,* November 30, 1999.
[41] Russ Rowlett, "Lighthouses of the Spratly Islands."
[42] Liu Kang et al., "Nanzhongguohai xingshi burong leguan [The dire situation in the South China Sea]," *Xinhua Net*, January 12, 2004, http://news.sohu.com/2004/01/12/00/news218390085.shtml, accessed May 5, 2018.

China placed in the Spratlys[43]					
2003.4: Philippine navy sent local politicians to the Thitu island for a commemoration ceremony.[44]	No direct diplomatic protests.	No	No	No	No
2004.4.20 Vietnamese boats which boarded 100 tourists went to disputed islands in the Spratlys.[45]	Diplomatic protests	No	No	No	No
2007: Vietnam constructed a harbor on the West Reef.[46]	No direct diplomatic protests.	No	No	No	No
2007: Vietnam began constructing a runway on the Spratly island and it was completed in 2008.[47]	No direct diplomatic protests.	No	No	No	No
2008: Vietnam began reclamation on Southwest Cay.[48]	No direct diplomatic protests.	No	No	No	No
2008: the Philippine defense minister went to the Thitu island.[49] (In 2007 the air force announced plans to rehabilitate the	No direct diplomatic protests.	No	No	No	No

[43] Luz Baguioro, "Manila considers Spratlys protest," *The Straits Times (Singapore)*, November 8, 2003.
[44] Fu Ying and Wu Shicun, "The South China Sea: Historical perspectives and contemporary reflections," *Manila Bulletin*, June 24, 2016, http://2016.mb.com.ph/2016/06/24/the-south-china-sea-historical-perspectives-and-contemporary-reflections/, accessed May 5, 2018.
[45] *Ibid.;* cross-checked by "Vietnam to go forward with oil and gas exploration near disputed Spratly Islands," *Associated Press*, October 21, 2004.
[46] For more images, see CSIS Asia Maritime Transparency Initiative (AMTI), Island Tracker, https://amti.csis.org/west-reef-tracker/, accessed April 17, 2018; data regarding the timing is provided by researchers at NISCSS, via email exchange.
[47] "Feiyue zhan nanai daojiao kuojian jichang [The Philippines and Vietnam are building airports on islands in the South China Sea]," *Global Times*, November 10, 2015, http://mil.sohu.com/20151110/n425848377_1.shtml; for cross-checking, see CSIS AMTI, Island Tracker, https://amti.csis.org/spratly-island-tracker, accessed April 17, 2018.
[48] Data regarding the timing is provided by researchers at NISCSS, via email exchange; for cross-checking, see CSIS AMTI, Island Tracker, https://amti.csis.org/Southwest-cay-tracker, accessed April 17, 2018.
[49] Jefferson Antiporda, "Philippines won't provoke confrontation at Spratlys," *Manila Times (Philippines),* March 27, 2008 Thursday.

airstrip with an eye to encouraging development of the island as a beach resort.[50])					
2008.8: Malaysian vice prime minister Najib went to the Layang Layang[51]	No direct diplomatic protests.	No	No	No	No
Vietnamese lighthouse was established in 2009 – active on sand cay[52]	No direct diplomatic protests.	No	No	No	No
2009: Lighthouse by Vietnam: Trường Sa Lớn (Spratly Island).[53]	No direct diplomatic protests.	No	No	No	No
2009.3.5: Malaysian Prime Minister Abdullah Badawi went to Layang Layang.[54]	No direct diplomatic protests.	No	No	No	No
2009.5.6: Malaysia and Vietnam handed over documents claiming sovereign rights to CLCS[55]	Yes	No	No	No	No
2009 The Philippines passed a bill indicating the Scarborough Shoal as its national territory[56]	Yes, diplomatic protest; but relations improved soon after	No	No	No; the MFA spokesperson particularly *ruled out* the rumor that China planned to retaliate by recalling Chinese working in the Philippines.	No

[50] Russ Rowlett, "Lighthouses of the Spratly Islands."
[51] Adrian David, "Modern weapons a must for security, says Najib," *New Straits Times (Malaysia)*, August 13, 2008 Wednesday.
[52] Russ Rowlett, "Lighthouses of the Spratly Islands."
[53] *Ibid.*
[54] K. Kesavapany, "Flashpoint: South China Sea," *The Straits Times (Singapore),* April 15, 2009 Wednesday.
[55] See Carnegiee Endownment report, "Chronology of South China Sea events since 2006."
[56] *Ibid.*

Lighthouse on Sin Cowe Island: built around 2010. Active; focal plane about 25 m (82 ft); three red flashes, in a 2+1 pattern, every 15 s. 23 m (75 ft) square cylindrical concrete tower with lantern and gallery, rising from a 2-story station building.[57]	No direct diplomatic protests.	No	No	No	No
Lighthouse in 2010: Vietnam: Đá Đông (East London Reef)[58]	No direct diplomatic protests.	No	No	No	No
2010.4: Chinese fishery administrative ship no. 311 was faced with the Malaysian navy around Layang Layang.[59]	No	No	No	Yes: Standoff: showing presence.	No
2010.3: Vietnamese prime minister Nguyễn Tấn Dũng visited a land feature in the Spratlys.[60]	No direct diplomatic protests.	No	No	No	No
Lighthouse in 2010: Vietnam: Phan Vinh (Pearson Reef)[61]	No direct diplomatic protests.	No	No	No	No
Lighthouse in 2010: Vietnam: Nam Yết (Namyit Island)[62]	No direct diplomatic protests.	No	No	No	No
2011: Vietnam started reclamation on the Pearson reef.[63]	No direct diplomatic protests.	No	No	No	No
2011.7 The Philippines naval personnel and	Yes, no action, nor diplomatic mentioning;	No	No	No	No

[57] Russ Rowlett, "Lighthouses of the Spratly Islands;"
CSIS AMTI, Island Tracker, https://amti.csis.org/sin-cowe-island-tracker/, accessed April 17, 2018.
[58] Russ Rowlett, "Lighthouses of the Spratly Islands."
[59] *BBC Monitoring Asia Pacific*, August 26, 2010.
[60] Carnegiee Endownment report, "Chronology of South China Sea events since 2006."
[61] Russ Rowlett, "Lighthouses of the Spratly Islands."
[62] *Ibid.*
[63] Data regarding the timing is provided by researchers at NISCSS, via email exchange; cross-checked by CSIS AMTI, Island Tracker, https://amti.csis.org/pearson-reef-tracker/, accessed April 17, 2018.

politicians boarded the Thitu island[64]	president Aquino visited China for the first time in August 2011				
2011.5: Philippine navy removed markers in the Spratlys.[65]	No direct diplomatic protests.	No	No	No	No
2011.7-8: Philippines strengthened infrastructures on the Thitu island and planned to renovate the airport.[66]	No direct diplomatic protests.	No	No	No	No
Vietnam: Between August 2011 and February 2015 significant upgrades were made to the Sand Cay island in the Spratlys.[67]	No direct diplomatic protests.	No	No	No	No
West reef: Vietnam began land reclamation on the West Reef in the Spratlys starting August 2012.[68]	No direct diplomatic protests.	No	No	No	No
Central reef: Vietnam began land reclamation in 2012.[69]	No direct diplomatic protests.	No	No	No	No
Grierson Reef: Vietnam began land reclamation in 2012.[70]	No direct diplomatic protests.	No	No	No	No

[64] See Wang Shumin, "Analysis of Philippines' Standoff with China on the South China Sea Issue and Factors Influencing this Standoff [Feilvbin zai nanhai wenti shang yu zhongguo de duikang ji yuanyin fenxi — yi ajinuo sanshi shangren yeller weili]," *Journal of Hainan Normal University [Hainan shifan daxue bao],* No. 155, Vol. 28 (2015); AFP and Johanna Paola D. Poblete, "Lawmakers visit Spratly islands despite China warning," *Business World*, July 21, 2011 Thursday.
[65] "Navy and Coast Guard remove Chinese markers," *Gulf News (United Arab Emirates)*, June 16, 2011 Thursday.
[66] AFP, "Filipinos fly flag in South China Sea," *Times of Oman*, July 23, 2011 Saturday.
[67] CSIS AMTI, Island Tracker, http://amti.csis.org/vietnam-island-building/; Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[68] *Ibid.*
[69] Data regarding the timing is provided by researchers at NISCSS, via email exchange; cross-checked by CSIS AMTI, Island Tracker, https://amti.csis.org/central-reef-tracker/
[70] *Ibid.*

2012.6.21: Vietnam passed maritime law confirming the sovereignty over Spratlys and Paracels.[71]	No direct diplomatic protests.	No	No	No	No
2012.4:Scarborough incident[72]	Yes	Yes	Yes: short-term, banana quarantine	Yes[73]	No
2013.1: Philippines handed over case to the tribunal [74]	Yes	No	Diplomatic sanctions?	No	No
2013.5: the Philippines used ships to transport food and water to those guarding the Second Thomas Shoal.[75]	No	No	No	Yes: use of maritime surveillance ships. [76] [77]	No
2013.6.19 The Philippines navy completed the refueling activity on the Thomas reef[78]	Yes, no action, nor diplomatic mentioning	No	No	No	No

[71] "China criticizes Vietnam in disputes over islands," *New York Times,* June 22, 2012, http://www.nytimes.com/2012/06/22/world/asia/china-criticizes-vietnam-in-dispute-over-islands.html, accessed April 17, 2018.
[72] For more information, see "Are maritime law enforcement forces destabilizing Asia?," CSIS China Power Project.
[73] *China Maritime Yearbook 2013*, p. 151.
[74] Ye Jingsi, "Zhongguo fa lichang wenjian bochi feilvbin nanhai zhongcai an [China released a position paper to counter Philippine's South China Sea arbitration]," *BBC News*, December 7, 2014, http://www.bbc.com/zhongwen/simp/china/2014/12/141207_china_philippines_maritime_dispute, accessed May 6, 2018.
[75] "China admits monitoring PH in disputed waters," *Manila Bulletin*, May 30, 2013; "Are maritime law enforcement forces destabilizing Asia?" CSIS China Power Project.
[76] "Zhongguo quzhujian jinru nanhai ren'ai jiao haiyu [Chinese destroyers entered into waters surrounding the Thomas Reef]," *Xinhua News*, May 11, 2013, http://view.news.qq.com/a/20130511/000011.htm, accessed April 17, 2018.
[77] See also MFA, Press Conference, May 30, 2013, http://www.fmprc.gov.cn/web/fyrbt_673021/jzhsl_673025/t1045556.shtml; MFA, Press Conference, May 22, 2013, http://www.fmprc.gov.cn/web/fyrbt_673021/jzhsl_673025/t1042669.shtml; MFA Press Conference, May 28, 2013, http://www.fmprc.gov.cn/web/fyrbt_673021/jzhsl_673025/t1044736.shtml, accessed April 17, 2018.
[78] Manuel Mogato, "Exclusive: Philippines reinforcing rusting ship on Spratly reef outpost - sources," *Reuters*, July 13, 2015, http://www.reuters.com/article/us-southchinasea-philippines-shoal-exclu-idUSKCN0PN2HN20150714, accessed April 17, 2018.

2013: Philippines renovated the airport on the Thitu island.[79]	Yes	No	No	No	No
2014: Vietnam began reclamation on Namyit Island.[80]	No	No	No	No	No
2014: Vietnam began reclamation on Cornwallis South Reef.[81]	No	No	No	No	No
2014: Vietnam began reclamation on Sin Cowe Island.[82]	No	No	No	No	No
2014: Vietnam began reclamation on Amboyna Cay.[83]	No	No	No	No	No
2014.3.9 The Philippines attempt to refuel the Thomas reef (i.e., to strengthen the construction)	Yes, diplomatic protests	Yes?	No	Yes; there were two Chinese maritime surveillance ships trying to blockade and they succeeded.[84]	No
2014.3.29 The Philippine navy attempted to use *civilian* ships to refuel the Thomas reef	Yes, diplomatic protests; protests also on 3.30 for The Philippines handling the case to ICJ (is that why China	Yes?	No	Yes; There were two Chinese maritime surveillance ships; a two-hour standoff.[85]	No

[79] Data regarding the timing is provided by researchers at NISCSS, via email exchange. Major changes, however, did not seem to take place due to budgetary constraints. See Carmela Fonbuena, "Hitches in repair of PH air field in Spratlys," *Rappler*, June 18, 2014, http://www.rappler.com/nation/60918-runway-kalayaan-spratlys, accessed April 17, 2018.
[80] Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[81] CSIS AMTI, Island Tracker, https://amti.csis.org/cornwallis-reef-tracker/; Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[82] CSIS AMTI, Island Tracker, https://amti.csis.org/cornwallis-reef-tracker/; Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[83] Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[84] MFA Press Conference, March 10, 2014, http://www.fmprc.gov.cn/web/fyrbt_673021/jzhsl_673025/t1135809.shtml; for cross-check, see CSIS China Power Project, "Are maritime law enforcement forces destabilizing Asia?," accessed April 17, 2018.
[85] CIMA, *China Maritime Development Report 2015,* p. 87; MFA, Press Conference, March 29, 2014, http://www.fmprc.gov.cn/web/fyrbt_673021/dhdw_673027/t1142204.shtml; for cross-check, see CSIS China Power Project, "Are maritime law enforcement forces destabilizing Asia?," accessed April 17, 2018.

	acted?)				
2015: Vietnam began reclamation on Barque Canada Reef.[86]	No	No	No	No	No
2015: Vietnam began reclamation on Collins Reef.[87]	No	No	No	No	No
2015: Vietnam began reclamation on Grainger Bank.[88]	No	No	No	No	No
2015: Vietnam began reclamation on East Reef.[89]	No	No	No	No	No
2015: Vietnam began reclamation on Discovery Great Reef.[90]	No	No	No	No	No
2015: Vietnam began reclamation on Spratly island.[91]	No	No	No	No	No
Oil and Gas Drilling and Contrast Signing Activities					
1992: Vietnam and Malaysia signed a joint development agreement.[92]	Yes	No	No	No	No
1992: Vietnam's Oil Firm in Joint Venture: Petrovietnam, Vietnam's state oil company, signed an agreement with a Canadian group to set up a joint venture that will build a natural gas pipeline and a gas	No?	No	No	No	No

[86] Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[87] Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[88] Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[89] Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[90] Data regarding the timing is provided by researchers at NISCSS, via email exchange.
[91] Data regarding the timing is provided by researchers at NISCSS, via email exchange. See CSIS AMTI's Island Tracker also for cross-checking, https://amti.csis.org/spratly-island/, accessed April 17, 2018.
[92] Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, appendix; Ismail Kassim, "Malaysia, Vietnam agree on framework for joint oil search,"*The Straits Times,* June 6, 1992.

plant for $300 million.[93]					
1992.6: Vietnam signed oil contracts with Norwegian company NOPEC.[94]	Yes	No	No	No	No
1992: Vietnam signed contracts with Indonesia petrol company Astra Petronusa.[95]	Yes	No	No	No	No
1993: Malaysia signed contracts with Mobil to explore oil and gas near the Vanguard bank block.[96]	Yes	No	No	No	No
1993.3: Vietnam signed contracts with Mobil.[97]	Yes	No	No	No	No
1993.4.15: Vietnam signed a contract for joint development with BHP, Total, Petronas, and a Japanese company.[98]	Yes?	No	No	No	No
1993.12: PetroVietnam signed a contract with Mobil along with other oil companies.[99]	Yes?	No	No	No	No
1993.5.13: A Chinese seismic survey ship was firing	Yes?	No	No	No	No

[93] Times Staff and Wire Reports, *Los Angles Times,* April 20, 1992, http://articles.latimes.com/1992-04-20/business/fi-506_1_natural-gas, accessed April 17, 2018. The agreement was signed in Hanoi with Liquigaz/SNC, which groups one of Canada's biggest natural gas recovery companies, Liquigaz, with SNC, Canada's biggest engineering and construction firm.
[94] See Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, appendix; Patrick Donovan, "BP to help rebuild Kuwait's oilfields," *The Guardian (London)*, July 28, 1992.
[95] Harish Mehta, "Vietnam to sign oil deals with 3 foreign groups next month," *Business Times (Singapore),* September 14, 1992.
[96] Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, appendix; "Mobil-Malaysia Deal," *The New York Times*, September 30, 1993, Thursday, Late Edition.
[97] Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, appendix.
[98] Carlyle A. Thayer, "Visit by PM marks a high point in bilateral relations," *Australian Financial Review,* June 16, 1993 Wednesday.
[99] Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, appendix; Agis Salpukas, "Mobil Wins Right to Drill for Oil Off Vietnam," *The New York Times*, December 21, 1993, Tuesday, Late Edition.

seismographic air guns into the sea late last week not far from where two companies working for BP were conducting a marine seismic surveys. Mr Yeldham said the Chinese ship left the area on Monday. "The Vietnamese naval vessels appeared. They observed. They left. And soon afterward the Chinese vessel moved on," said Mr Yeldham. "There was no engagement.[100]					
1994.4.18: CNOOC was conducting exploration with Crestone around the Vanguard bank. Vietnam dispatched exploratory ships into the Wan'an area in the Spratlys, disrupting also Chinese exploratory activities with naval and armed ships[101]; Chinese exploratory ships (in contract with Creston) were forced to return[102]	Yes, diplomatic protests; but China eventually gave in, (de facto) postponing the deal made with U.S. company Creston to explore the Wan'an area in 1996 (even though the contract was still effective.) China acted restraint.[103]	No	No	No[104]	No
1994.7.6: the Philippines announced	Yes	No	No	No	No

[100] Wong Joon San, "Chinese seismic ship leaves BP survey area, Business," *South China Morning Post,* May 14, 1993, p. 1; Carlyle A. Thayer, "Sino-Vietnamese Relations: The Interplay of Ideology and National Interest," *Asian Survey*, Vol. 34, No. 6 (Jun., 1994), p. 525.

[101] This seems to stand in contrast with what happens in 2014.

[102] Zhang Liangfu, *Nanhai wanlixing — zai nansha qudao xuhang de rizi*, p. 264; "American Oil Company in Dispute Between Vietnam and China," *The Associated Press*, April 21, 1994.

[103] Wu Shicun, *Nansha zhengduan de qiyuan yu fazhan [Origins and development of the South China Sea disputes]* (Beijing: China Economics Press, 2010), p. 93.

[104] Interviews with Chinese crew on board, see Shan Zhiqiang, "1994nian zhongyue duizhi shijian [the 1994 standoff between China and the Philippines]."

cooperation with Alcom to explore oil resources around Reed Bank.[105][106]					
First half of 1994: Vietnam had drilled 6 wells with BP in the Vanguard basin.[107]	Yes	No	No	No	No
1994.4.19: Mobil and PetroVietnam officially began to implement their contract.[108][109]	Yes	No	No	No	No
1994: Vietnam and Russia engaged in joint exploration in the Spratlys[110] in the same Wan'an 21 area	Yes, diplomatic protests[111]	No	No	No	No
1994.7: Oil analysts said Vietnam established the small oil rig this year in an area of the South China Sea that it calls the Wanan Bei block, about 280 miles off southern Vietnam. The Vietnamese claim, which China had earlier described as illegal, is being developed by a consortium of foreign oil companies led by Mobil.	Yes	No	No	No	Yes. China has deployed two warships in the South China Sea to blockade a Vietnamese oil rig built at a site claimed by both China and Vietnam, diplomats and oil

[105] An Yingmin ed., *Jiyu nanhai zhuquan zhanlue de haiyang xingzheg guanli chuangxin,* p. 177.
[106] Zhang Liangfu, *Nansha qundao dashiji,* p. 257; Bill Hayton, *The South China Sea: Struggle For Power in Asia*.
[107] Wu Shicun, *Nansha zhengduan de qiyuan yu fazhan*, p. 10; Neil Thapar, "Vietnam gas find helps BP turn up heat," *The Independent (London)*, September 11, 1994, Sunday.
[108] Martha M. Hamilton, "Mobil Strikes Oil Deal With Vietnam; Company Gets Go-Ahead for Exploration in Part of South China Sea," *The Washington Post*, April 20, 1994, Wednesday, Final Editiont.
[109] Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, appendix.
[110] *Ibid*., p. 273
[111] Li Guoqiang, *Nanzhongguo hai yanjiu [Analysis of the South China Sea]* (Harbin: Heilongjiang Press, 2003), p. 186.

					industry analysts said today. The Chinese ships have already turned back at least one Vietnamese vessel that was ferrying supplies to the rig, in a dramatic increase in a long-simmering dispute between the two countries over oil rights in the South China Sea. A spokesman for the Vietnamese Embassy in Beijing, Nguyen Hong Hai, said embassy officials were "very concerned" about reports of the blockade, although he said he could not

					confirm that a Vietnamese vessel had been turned back by Chinese ships.[112]
1994: PetroVietnam: with PVEP POC at 05-1a called Dai Hung (Big Bear)[113]	No?	No	No	No	No
1994.7.7: The Exxon Corporation plans to invest $650 million in a Malaysian offshore natural gas project, an executive of the company's Malaysian subsidiary said this week. Rob Fisher, operation manager for Esso Production Malaysia Inc., said work on a platform in the Lawlit gas field, in the South China Sea, would begin in the next six months.[114]	No?	No	No	No	No
1995: PetroVietnam with VSP at 09-1[115]	No	No	No	No	No
1995.4.28: Petronas has signed a new 25-year production sharing contract (PSC) with its exploration and production arm, Petronas Carigali Sdn Bhd, for the Samarang-Asam Paya	No	No	No	No	No

[112] "China sends warships to Vietnam oil site," *New York Times,* July 21, 1994, http://www.nytimes.com/1994/07/21/world/china-sends-warships-to-vietnam-oil-site.html, accessed April 18, 2018.
[113] See Petro Vietnam Website, http://english.pvn.vn/, accessed April 18, 2018.
[114] "Exxon Malaysian Deal," *The New York Times*, July 8, 1994, Friday, Section D, p. 7.
[115] See PetroVietnam Website.

oilfield, offshore Sabah.[116]					
1995.1: According to Shell Malaysia, the field, located in waters up to 500m deep, is part of the Block G production sharing contract awarded by Petroliam Nasional Bhd (Petronas) in 1995 (with Shell).[117]	No	No	No	No	No
1995.12; China reportedly drilling for oil near Spratly Isles.	Yes	No	No	No	China reportedly began oil-drilling operations, well-informed sources here said. One report said that a Chinese naval vessel, which was escorting a ship used for drilling operations, fired warning shots at a Vietnamese vessel that was monitoring the drilling operations. The incident

[116] "Petronas Carigali gets new 25-year contract," *New Straits Times (Malaysia)*, April 28, 1995, p. 16.
[117] "Shell and partners to invest, develop Malikai field," *New Straits Times (Malaysia)*, February 2, 2013 Saturday, p. 2.

					reportedly took place about 400 kilometers southeast of the Vietnamese city of Vung-tau.[118]
1996.4.10 Vietnam gave what was previously the China-Crestone deal to U.S. company Conoco[119]	Yes[120]	No	Yes, threats of sanctions? China warned Conoco off the project before the contract was signed, according to a report earlier this month in the Houston Chronicle. In a letter to former Conoco chief executive Constantine Nicandros obtained by the newspaper, Chen Bingqian, vice president of the China National	No	No

[118] Hiroyuki Sugiyama, Yomiuri Shimbun Correspondent, "China reportedly drilling for oil near Spratly Isles," *The Daily Yomiuri,* January 30, 1996, Tuesday.

[119] Again, this stands in contrast with Chinese behavior to U.S. and British firms in 2007 and 2008. See Reuters, "Hanoi-Conoco Oil Pact Reopens Island Dispute," *The New York Times*, April 13, 1996, Saturday, Late Edition; see also Marcus W. Brauchli, "China, in Sharp Rebuke, Warns Conoco About Plans to Seek Oil With Vietnam," *The Wall Street Journal*, April 23, 1996.

[120] Marcus W. Brauchli, "China, in Sharp Rebuke, Warns Conoco About Plans to Seek Oil With Vietnam."

			Offshore Oil Corp. threatened 'confrontation, losses and liabilities' if the deal was consummated. Conoco's parent company, Dupont, has several joint ventures in China.[121]		
1996.4.6: Petronas yesterday signed a production sharing contract with Sarawak Shell Bhd for the exploration and development of its sixth deepwater block, about 100km off the coast of Miri.[122]	No	No	No	No	No
1997.6.28: Petronas yesterday signed three new Production Sharing Contracts with exploration subsidiary Petronas Carigali Sdn Bhd and three Shell companies for oil and gas exploration, development and production in Sarawak and Sabah.[123]	No	No	No	No	No

[121] "China raps Vietnam over oil contract," *United Press International,* April 17, 1996, https://www.upi.com/Archives/1996/04/17/China-raps-Vietnam-over-oil-contract/4430829713600/, accessed May 6, 2018.
[122] Azman Ibrahim, "Petronas signs second deal with Sarawak Shell," *New Straits Times (Malaysia)*, April 6, 1996, p. 25.
[123] Desmond Ngiam, "Petronas signs new production-sharing contracts," *New Straits Times (Malaysia)*, June 28, 1997, p. 19.

1997: with TML (seems to be a Malaysian company: Block PM3-CAA (overlapping area between Viet Nam and Malaysia with 50% interest of Viet Nam)[124]	No?	No	No	No	No
1997: with TML (seems to be a Malaysian company) at Block 46-CN[125]	No?	No	No	No	No
1997.4.8: disputes between China and Vietnam over oil drilling in disputed waters.[126]	No.[127]	No	No	No	No
1998: JVPC – a subsidiary of JX Nippon Oil & Gas Exploration – at blocks 15-2[128]	No?	No	No	No	No
1998: with PCVL (a Malaysian joint venture) at blocks 01&02[129]	No?	No	No	No	No
1998.9.14: Petro Vietnam and CONOCO signed contracts regarding 15-1[130]	No?	No	No	No	No
1998.2.24: Petronas yesterday signed production sharing contracts with Amerada Hess of the United States and Petronas Carigali Sdn Bhd for exploration	No?	No	No	No	No

[124] PetroVietnam website.
[125] PetroVietnam website.
[126] Xiao Xiqing, *Nansha fengyu – nansha qundao wenti de yanpan yu fenxi,* p. 503; Jeremy Grant, "China rig leaves the disputed zone," *Financial Times*, April 5, 1997; "China offers to resolve disputes with Vietnam," *The Associated Press*, March 27, 1997; John Chalmers, "Hanoi says China drilling in block it claims as own," *Reuters News*, March 17, 1997.
[127] "China, Vietnam hold talks on offshore oil dispute," *Reuters News*, April 10, 1997.
[128] PetroVietnam website.
[129] PetroVietnam website.
[130] "PEDCO to Join Oil Development Project in Vietnam," *The Korea Herald*, September 17, 1998, Thursday.

activities in two blocks offshore Terengganu and Sarawak. Amerada Hess will be the operator of both Block PM304 located offshore Terengganu, and Block SK306 located offshore Sarawak.[131]					
1998.7.30: Petronas yesterday signed two production sharing contracts with US company Santa Fe Energy Resources Inc and Sarawak Shell Bhd. The PSC with Santa Fe - one of the largest independent oil companies in the US - is for Block PM308 which covers an area of 10,800 sq kilometres within the Penyu Basin, located off the Malaysian coast north of Pulau Tioman.[132]	No?	No	No	No	No
1999: with 46 CNTML at block 46-CN[133]	No?	No	No	No	No
1999.1.28: Murphy Oil Co. is making its first inroads into the upstream sector of Malaysia's energy sector, signing three production-sharing contracts Wednesday with Petroliam Nasional Bhd., the	No?	No	No	No	No

[131] Amerada Hess, "Petronas sign PSC for two blocks," *New Straits Times (Malaysia)*, February 24, 1998, p. 17.
[132] "Petronas signs production sharing deals,"*New Straits Times (Malaysia),* July 30, 1998, p. 23.
[133] PetroVietnam website.

national oil firm known as Petronas.[134]					
2000.7.3: National oil company Petronas has signed a production sharing contract with Amerada Hess International Ltd and Petronas Carigali Sdn Bhd for the exploration of deepwater Block F in offshore Sarawak. This is the 10th and the last of the demarcated deepwater blocks to be awarded by Petronas. Amerada Hess (Malaysia-Block F) Ltd, a subsidiary of Amerada Hess, will operate the block.[135]	No?	No	No	No	No
2001.4: Vietnamese seismic survey ships operating in blocks 05-2, 05-3, and the oilrigs later went to block 12b in May.[136]	Yes	No	No	No	No
2001: with JVPC at 15-2[137]	No?	No	No	No	No
2001.6.26: Petrona has signed a production sharing contract (PSC) with Sabah Shell Petroleum Company Ltd, Shell Sabah Selatan Sdn Bhd and Petronas Carigali Sdn Bhd for the exploration and	No	No	No	No	No

[134] P.T. Bangsberg, "Murphy signs three pacts for Malaysia exploration," *Journal of Commerce*, January 28, 1999, Thursday, p. 9A.
[135] "More oil exploration off Sarawak," *New Straits Times (Malaysia)*, July 3, 2000, p. 24.
[136] Li Jinming, *Nanhai botao — dongnanya guojia yu nanhai wenti*, appendix.
[137] PetroVietnam website.

production of Block SB303 in offshore Sabah. The contract, which is the 16th revenue-over-cost PSC, was signed in Kuala Lumpur yesterday.[138]					
2002: with TNK Vietnam at 06.1[139]	No?	No	No	No	No
2002: with KNOC at 11-2, called Rong Doi/West Rong Doi (natural gas)[140]	No?	No	No	No	No
2002.1.9: PetroVietnam and Indonesia's Pertamina to explore for hydrocarbon resources in Vietnam. The new outfit, Con Son Joint Operating Company, will see the participation of PetroVietnam Investment & Development Company (40 percent), Petronas Carigali Overseas Sdn Bhd (30 percent) and Pertamina (30 percent). The signing of the deal, the first such alliance between the countries, signalled a step towards "a more meaningful and mutually beneficial partnership between three of Asean's national oil companies", Petronas	No?	No	No	No	No

[138] Rupa Damodaran, "Petronas, Shell sign petroleum contract," *New Straits Times (Malaysia)*, June 26, 2001, p. 22.
[139] PetroVietnam website.
[140] PetroVietnam website.

said. Exploration work on the southern continental shelf of Vietnam was scheduled to begin early this year, followed by the drilling of the first two wells next year.[141]					
2003: with CLJOC at block 15-1 called Su Tu Den (Black Lion)[142]	No?	No	No	No	No
2003: with TML&TVL at PM3-CAA & 46-CN called East Bunga Kekwa – Cai Nuoc (natural and associated gas)[143]	No?	No	No	No	No
2003: with TML at PM3-CAA, four wells at West Bunga Kekwa (natural and associated gas), Bunga Raya, Bunga Seroja (natural gas)[144]	No?	No	No	No	No
2003: Philippine minister of energy opened up 46 blocks for bidding.[145]	No?	No	No	No	No
2003.4-end of 2003: Malaysia had dispatched four teams to explore oil and gas in the Spratlys.[146]	Yes	No	No	No	No
2004.10.28: Vietnam signed contracts with three Japanese companies.[147]	Yes	No	No	No	No

[141] "Petronas signs exploration deal," *New Straits Times (Malaysia)*, January 9, 2002, Wednesday, p. 2.
[142] PetroVietnam website.
[143] PetroVietnam website.
[144] PetroVietnam website.
[145] Ralf Emmers, *Resource Management and Contested Territories in East Asia*, p. 58.
[146] Zhang Liangfu, *Nanhai wanlixing — zai nansha qudao xuhang de rizi*, p. 246.
[147] On October 28, 2004, Idemitsu, as an Operator, entered into a Production Sharing Contract together with JX Nippon Oil & Gas Exploration Corporation and Teikoku Oil (Con Son) Co., Ltd. with Vietnam Oil and Gas Group (Petrovietnam) for the Blocks 05-1b and 05-1c offshore Vietnam. See Idemitsu's official website

2004: with PVEP SH at Song Hong basin, called D14&Song Tra Ly (natural gas)[148]	No?	No	No	No	No
2005: more than 20 Malaysian oil exploration ships operated in the Spratlys.[149]	No?	No	No	No	No
2006: Vietnam gave Indian company the right for oil exploration in blocks 127 and 128.[150]	Yes	No	No	No	No
2006: joint ventures with South Korea, gas first produced from this block in December 2006	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No	No
2006.5.15: joint venture signed with U.S. companies	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No	No
2006.11.6 and 12.26: joint venture with British companies	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No	No
2006: Petrofac at PM-304 (Malaysia): 2006.5.3: Petroliam Nasional Bhd (Petronas), together with joint venture partner Chevron Corp, has been awarded a deepwater exploration block offshore Vietnam, the state oil company's first deepwater	No?	No	No	No	No

regarding "Offshore Vietnam - Blocks 05-1b and 05-1c," http://www.idemitsu.com/products/resource/oil/project/vietnam/index.html, accessed April 18, 2018.

[148] PetroVietnam website.

[149] An Yingmin ed., *Jiyu nanhai zhuquan zhanlue de haiyang xingzheg guanli chuangxin.*

[150] "Yindu shiyou gongs cheng buhui yin zhongguo kangyi tuichu nanhai shiyou kaicai [Indian oil company states that it will not back down due to Chinese protests over oil exploration in the South China Sea]," *Global Times*, April 25, 2012, http://energy.people.com.cn/GB/17742165.html, accessed April 18, 2018; "Vietnam: PetroVietnam inks deal with India firm," *Thai News Service*, May 29, 2006.

acreage in the country.[151]					
2006: with TML at PM3-CAA, called Bunga Tulip (associated gas)	No?	No	No	No	No
2006: with KNOC at 11-2, Rong Doi/West Rong Doi (Natural gas)	No?	No	No	No	No
Santos announced its first entry into Vietnam in April 2006 with commencement of drilling at Dua in the Nam Con Son Basin.[152]	Yes	No	No	No	No
October 2006: Santos signed a Production Sharing Contract (PSC) with the Vietnam Oil and Gas Corporation (Petrovietnam) and the Singapore Petroleum Corporation (SPC) for a venture in the Song Hong Basin, continuing its plans to expand its operations in Vietnam.[153]	Yes	No	No	No	No
2006.1.24: Petroliam Nasional Bhd (Petronas) signed yesterday a production sharing contract with Murphy Sabah Oil Co Ltd for the ultra-deepwater Block P, a newly re-demarcated	No	No	No	No	No

[151] "Petronas, Chevron awarded Vietnam contract,"*Business Times (Malaysia)*, May 3, 2006, Wednesday, p. 44
[152] See official website of the Vietnamese embassy in Australia at http://members.webone.com.au/~vembassy/Relations.htm, accessed April 18, 2018.
[153] *Ibid.*

exploration area offshore Sabah.[154]					
2007.6**:** PetroChina exploration ships surrounded by Vietnamese ships.[155]	Yes	No	No	No?	No
2007.3.24: National oil firm Petroliam Nasional Bhd (Petronas) has awarded two production sharing contracts (PSCs) to BHP Billiton Petroleum Sabah Corp (BHPB) and its exploration and production arm, Petronas Carigali Sdn Bhd, for the ultra-deepwater Blocks N and Q, offshore Sabah.[156]	No	No	No	No	No
2007.12.8: Petronas has awarded a production-sharing contract (PSC) to Nippon Oil Exploration Ltd (Noex) and Petronas Carigali Sdn Bhd for onshore Block SK333 in Sarawak.[157]	No	No	No	No	No
2007: ONGC's exploration with Vietnam in block 127 and 128[158]	Diplomatic protests	No	No	No	No

[154] "Murphy gets Petronas contract for ultra-deepwater block," *Business Times (Malaysia)*, January 24, 2006 Tuesday, p. 2.
[155] Li Jinming, *Zhongguo nanhai jiangyu yanjiu,* p. 266.
[156] "Petronas awards 2 deepwater contracts," *New Straits Times (Malaysia)*, March 24, 2007, Saturday, p. 38.
[157] Azlan Abu Bakar, "Noex, Petronas Carigali clinch production-sharing contract," *New Straits Times (Malaysia)*, December 8, 2007, Saturday.
[158] Jyoti Mukul, "China protests OVL deal in Vietnam," *DNA - Daily News & Analysis*, December 1, 2007.

2007.4.20 Vietnam planned to work with BP in Spratlys[159]	Diplomatic protests	No	Yes, threats of sanctions regarding BP in June 2007; BP eventually gave up the bid in 2009; note that this falls into targeted sanctions	No	No
2007. 4: with Vietnam-backed Russian exploration ships[160]	Yes	No	No	Yes, use of maritime surveillance ships	No
2007.5.16: U.S. company Conoco announces ten year investment plan in 2006	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No?	No
2007.6.27, 7.27, and 8.2: France company conducting surveys for VietsoPetro in Nam Con Son	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No?	No
2007.7.10: Japanese company Idemitsu first exploratory well drilled in 2007	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No?	No
2007.8.6: Norwegian company conducted seismic survey for VN	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No?	No
2007.8.6: joint venture with U.S. company Chevron	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No?	No
2007.11.6: joint venture with AUS company	Yes, diplomatic protests (See Fravel 2011 table)	No	No	No?	No

[159] This seems to signify a change. Note also that China protested 11 times in 2007 regarding oil exploration deals made between Vietnam and foreign companies, including British, Russian, French, Norwegian, U.S., and Australian companies (see Fravel's table below). However, it does seem that China only picked on BP for sanctions threats.

[160] Li Jinming, *Zhongguo nanhai jiangyu yanjiu*, p. 266.

2007.11: Vietnam signing PSCs with Nippon Oil.[161]					
2008.7 Vietnam planned to work with ExxonMobil	Diplomatic protests	No	Yes, threats of business interests with ExxonMobil [162]	No	No
2008: with JVPC at 15-2[163]	No?	No	No	No	No
2008: with TML at PM3-CAA, called Bunga Orkid (natural gas)[164]	No?	No	No	No	No
2008: with CLJOC at 15-1 (Su Tu Vang)[165]	No?	No	No	No	No
2008: with TSJOC at 46/02[166]	No?	No	No	No	No
2008: with HVJOC at 09-2, called Ca Ngu Vang[167]	No?	No	No	No	No
2008.1.2: Petroliam Nasional Bhd (Petronas) has signed a production sharing contract (PSC) with Shell Energy Asia Ltd, ConocoPhillips Sabah Gas Bhd and its Petronas Carigali Sdn Bhd (PCSB) unit to conduct exploration and production (E&P) activities in the	No?	No	No	No	No

[161] Official website of JX compamy, "Nippon Oil Exploration Limited Entered into Block 16-2 Production Sharing Contract Offshore Vietnam," November 16, 2007, http://www.nex.jx-group.co.jp/english/newsrelease/2007/e71_enpr_071116.html, accessed April 18, 2018.
[162] Yee Kai Pin, "China Pressures Exxon, Vietnam Beijing Concerned Over Small Project In South China Sea," *The Wall Street Journal*, July 24, 2008, https://www.wsj.com/articles/SB121683746072777899, accessed May 6, 2018.
[163] PetroVietnam website.
[164] PetroVietnam website.
[165] PetroVietnam website.
[166] PetroVietnam website.
[167] PetroVietnam website.

offshore Kebabangan Cluster fields.[168]					
2008.3.27: Exploration and Production Malaysia Inc (EMEPMI), a subsidiary of Exxon Mobil Corp, has signed a deal with Petroliam Nasional Bhd (Petronas) to renew its production sharing contract (PSC) for another 25 years.[169]	No?	No	No	No	No
2008.4.8: Petronas has awarded three offshore exploration blocks, two offshore West Malaysia and the third offshore Sabah, to joint ventures (JVs) led by Sweden's Lundin Petroleum AB.[170]	No?	No	No	No	No
2008.5.23: National oil and gas company Petroliam Nasional Bhd (Petronas) has awarded a production sharing contract (PSC) for blocks PM303 and PM324 offshore Peninsular Malaysia to Total E&P Malaysia, a subsidiary of Total SA, and Petronas Carigali Sdn Bhd.[171]	No?	No	No	No	No
2009.6.4: Petroliam Nasional Bhd (Petronas) yesterday	No?	No	No	No	No

[168] Alfean Hardy, "ConocoPhillips, Shell, PCSB secure Petronas deal," *The Malaysian Reserve*, January 2, 2008 Wednesday, p. 4.
[169] "ExxonMobil unit, Petronas renew contract," *New Straits Times (Malaysia)*, March 27, 2008 Thursday, p. 40.
[170] Alfean Hardy, "Petronas awards drilling areas to Sweden's Lundin," *The Malaysian Reserve*, April 8, 2008 Tuesday, p. 8.
[171] "Total unit, Petronas Carigali get production deal," *New Straits Times (Malaysia)*, May 23, 2008 Friday, p. 37.

signed a $2US.1 billion (RM7.3 billion) production sharing contract (PSC) with a unit of ExxonMobil to develop seven existing oil fields offshore Peninsular Malaysia.[172]					
2009.10.29: Petroliam Nasional Bhd (Petronas) has awarded two production sharing contracts (PSCs) for two offshore Sabah blocks to a partnership between its Petronas Carigali Sdn Bhd unit and Talisman Malaysia Ltd, which have a combined minimum financial commitment of RM650 million.[173]	No?	No	No	No	No
2009: with CLJOC at 15-1 called Su Tu Den/Su Tu Vang/Northeast Su Tu Den (associated gas)[174]	No?	No	No	No	No
2009: with PCPP at SK305, D30 (Malaysia)[175]	No?	No	No	No	No
2010: with PCPP at SK305, D30 (Malaysia)[176]	No?	No	No	No	No
2010: with VRJ/VSP at 09-3[177]	No?	No	No	No	No

[172] "Petronas, ExxonMobil in $2USb PSC deal," *New Straits Times (Malaysia)*, June 4, 2009, Thursday, p. 1.
[173] Alfean Hardy, "Petronas awards two PSCs valued at RM650m minimum," *The Malaysian Reserve*, October 27, 2009 Tuesday, p. 2.
[174] PetroVietnam website.
[175] PetroVietnam website.
[176] PetroVietnam website.
[177] PetroVietnam website.

2010: two wells with PCVL at blocks 01&02[178]	No?	No	No	No	No
2010: with CLJOC at block 15-1 called Su Tu Den Dong Bac[179]	No?	No	No	No	No
2010: with PCPP at SK305 (Malaysia)[180]	No?	No	No	No	No
2010: the Vietnamese government and Russia signed an agreement on further cooperation in geological exploration and petroleum production on Vietnam's continental shelf within Vietsovpetro joint framework.[181]	No?	No	No	No	No
2010: Block 105-110/04 (Neon Energy)[182]	No?	No	No	No	No
2010: Block 04-2 (Pearl Oil)[183]	No?	No	No	No	No
2010: Block 51 (Mitra/Kufpec/PVEP) [184]	No?	No	No	No	No
2010: Block 46/07 (Mitra/PVEP)[185]	No?	No	No	No	No
2010: Block 01&02/10, Block 09-2 (PVEP)[186]	No?	No	No	No	No

[178] PetroVietnam website.
[179] PetroVietnam website.
[180] PetroVietnam website.
[181] "Vietnam, Russia boost links in oil and gas production," *Vietnam News Agency*, July 5, 2016, http://en.vietnamplus.vn/vietnam-russia-boost-links-in-oil-and-gas-production/95702.vnp, accessed April 18, 2018.
[182] PetroVietnam website.
[183] PetroVietnam website.
[184] PetroVietnam website.
[185] PetroVietnam website.
[186] PetroVietnam website.

2010: Vietnam carved out block 113.	Yes	No	No	Conducted patrol around the block.[187]	No
2010.2.23: Malaysia has awarded a production sharing contract for an oil block to Abu Dhabi's Mubadala Development Co. and Petronas Carigali, the exploration and production arm of the state oil firm.[188]	No	No	No	No	No
2010.5.20: National-oil company, Petroliam Nasional Bhd (Petronas) has awarded two exploration blocks in offshore Sabah under a single Production Sharing Contract (PSC) to a partnership comprising Lundin Malaysia B V, Nio Petroleum Ltd, and Petronas Carigali Sdn Bhd.[189]	No	No	No	No	No
2010.12.14: Malaysia and Brunei Monday signed a deal to jointly develop two oil areas off Borneo, ending a border dispute dating from 2003 which had held up exploration. The agreement will see the national oil firms of Malaysia and Brunei take part in exploration and production in the potentially oil-and-gas	No	No	No	No	No

[187] *China Maritime Yearbook 2011,* p. 151.
[188] "UAE's Mubadala, Petronas Carigali Get Malaysian Oil Block Contract," *Khaleej Times (United Arab Emirates),* February 23, 2010 Tuesday.
[189] "Petronas awards 2 offshore exploration blocks in Sabah," *The Malaysian Reserve,* May 20, 2010 Thursday, p. 2.

rich blocks over the next 40 years, Malaysian state news agency Bernama said. The signing ceremony in Brunei was witnessed by Brunei's Sultan Hassanal Bolkiah and Malaysian Prime Minister Najib Razak. In a bid to end the spat, the two countries agreed in March last year that the disputed areas are no longer part of Malaysia but allowed Malaysia's state-owned Petronas to enter into new production-sharing contracts.[190]					
2011.8.22: Its general manager for corporate affairs and planning, Matthew Gerber, said the award of the RSC for Balai cluster field offshore Bintulu, Sarawak, by Petroliam Nasional Bhd (Petronas) to the ROC-Dialog Group Bhd-Petronas partnership last Tuesday marks the Australian company's entry in the Malaysian market.[191]	No	No	No	No	No
2011.3: Philippine oil exploration ships exploring around Reed bank[192]	Yes	No	No	Yes Chinese forces expelled the ships.	No

[190] "Malaysia, Brunei end fight over oil blocks," *The Financial Express (Bangladesh)*, December 14, 2010 Tuesday.

[191] Kamarul Yunus, "Balai deal marks the first step," *New Straits Times (Malaysia)*, August 22, 2011 Monday, p. 4.

[192] CSIS China Power Project, "Are maritime law enforcement forces destabilizing Asia?"

				(Maritime Surveillance Ships)[193]	
2011.6: the Philippines announced blocks for foreign oil and gas companies to bid[194]	Yes	No	No	No	No
2011: with PCPP at SK305 (Malaysia)[195]	No?	No	No	No	No
2011: with HLJOC at 16-1[196]	No?	No	No	No	No
2011: with POVO at 12W[197]	No?	No	No	No	No
2011: PVEP/Talisman (a Canadian company at blocks 05-2/10, 135-136/03) PVEP/Mitra (a Canadian company at 45)[198]	No?	No	No	No	No
2011: Santos/PVEP (an Australian company at 13/05)[199]	No?	No	No	No	No
2011.4.26: The Arktik mor nefte gazrazvedka (AMNGR) federal state unitary enterprise based in Russia's Murmansk Region, plans to sign new contracts for offshore	No?	No	No	No	No

[193] "Philippines suspends gas, oil exploration in Reed Bank," *Kyodo News,* March 3, 2015, http://news.abs-cbn.com/business/03/03/15/philippines-suspends-gas-oil-exploration-reed-bank, accessed April 18, 2018; *China Maritime Yearbook 2012,* p. 176; Tom Grieder, "Sino-Philippine Tensions Rise in South China Sea As Chinese Patrol Boats Threaten Seismic Vessel," *IHS Global Insight Daily Analysis,* March 8, 2011.
[194] Li Guoqiang, China Sea Oil and Gas Resources, http://www.ciis.org.cn/english/2015Y 05/11/content_7894391.htm, accessed August 26, 2016; for cross-check, see Emilia Narni J. David, "Spratlys dispute unlikely to derail exploration plans," *Business World*, June 15, 2011 Wednesday.
[195] PetroVietnam website.
[196] PetroVietnam website.
[197] PetroVietnam website.
[198] PetroVietnam website.
[199] PetroVietnam website.

drilling in Vietnam. AMNGR plans to finish drilling a third offshore well in the Vietnamese waters of the South China Sea to the order of Vietsovpetro, a Russian-Vietnamese oil and gas joint venture.[200]					
2011.5.26: Vietnam conducted oil exploration activities around the Vanguard bank.[201]	Yes	No	No	Yes, use of maritime surveillance ships to block Vietnamese vessels.[202] Similar action may have been taken in 2010. This includes the cutting of the cable[203] (Chinese marine surveillance vessel on May 26 cut exploration cables of Viet Nam's Binh Minh 02 vessel in Block 148 within Viet Nam's	No

[200] "Russian oil prospectors drill third offshore well in Vietnam," *Russian Financial Control Monitor (RFCM)* : *International Cooperation (English)*, April 26, 2011 Tuesday, by LexisNexis.
[201] "Chinese party-owned daily warns Vietnam over Spratly Islands issue,"*BBC Monitoring Asia Pacific*, June 6, 2011 Monday; CSIS China Power Project, "Are maritime law enforcement forces destabilizing Asia?"
[202] Li Jinming, "Quyu wai daguo jieru yu nanhai zhengyi fazhan qushi [External powers and the South China Sea disputes]," in An Yingmin ed., *Nanhai quyu wenti yanjiu diyiji [Volume 1 of South China Sea Issues]* (Beijing: China Economics Press: 2012).
[203] Joseph Santolan, "Chinese patrol boats confront Vietnamese oil exploration ship in South China Sea," *World Socialist Website*, May 31, 2011, https://www.wsws.org/en/articles/2011/05/chin-m31.html, accessed April 18, 2018.

				continental shelf)[204]	
2011.6.9[205]: Vietnam's foreign ministry says a Chinese fishing boat supported by two Chinese patrol craft cut a cable being used by a seismic survey craft operated by state-run energy company PetroVietnam.[206] The Vietnamese MOFA states they are fishery administrative ships.[207]	Yes	No	No	A Chinese fishing boat similarly rammed the survey cables of another Vietnamese survey vessel. They were Yuzheng 311 and 303.[208]	No
2011.9 Indian national Petro company joined Vietnamese exploration in the Spratlys[209]	Yes, diplomatic protests[210]	No	No	No[211]	No
2012.4.10 Vietnam planned to work with Gazprom of Russia	Yes, diplomatic protests[212]	No	No	No	No
2012: with CLJOC at block 15-1 called Su Tu Trang[213]	No?	No	No	No	No

[204] Vietnamese MOFA Press Conference, June 9, 2011, http://www.mofa.gov.vn/en/tt_baochi/pbnfn/ns110610145220/view, accessed April 18, 2018.
[205] Leszek Buszynski, "The South China Sea: Oil, Maritime Claims, and U.S.—China Strategic Rivalry," *The Washington Quarterly*, Vol. 35, Issue 2 (Spring 2012), p. 139-156; CSIS China Power Project, "Are maritime law enforcement forces destabilizing Asia?"
[206] "China and Vietnam: a timeline of conflict," *CNN,* June 27, 2011, http://www.cnn.com/2011/WORLD/asiapcf/06/27/china.vietnam.timeline/, accessed April 18, 2018.
[207] Vietnamese MOFA Press Conference, June 9, 2011.
[208] *China Maritime Yearbook 2012,* p. 176.
[209] "A pact that may annoy Beijing,"*DNA (Daily News & Analysis),* October 13, 2011 Thursday.
[210] "Yinyue nanhai Haifa you xiangmu qinfan zhongguo zhuquan [Vietnamese-Indian oil and gas projects in the South China Sea encroached upon China's sovereignty]," *People's Daily*, September 22, 2011, http://www.chinanews.com/ny/2011/09-22/3345149.shtml; also confirmed by Petrovietnam, http://english.pvn.vn/?portal=news&page=file_list, accessed April 18, 2018.
[211] Not mentioned.
[212] C. Raja Mohan, "Snubbing Moscow," *Indian Express,* April 18, 2012 Wednesday, via LexisNexis academic.
[213] PetroVietnam website.

2012: with TNK Vietnam at 06-1, called[214]	No?	No	No	No	No
November 30, 2012: Most recently, in early morning of November 30, 2012, while carrying out normal seismic survey activities deep inside Viet Nam's exclusive economic zone and continental shelf (at a latitude of 17o 26,2 North and 1080 02 East, about 43 nautical miles off Con Co island of Viet Nam, Binh Minh 02 seismic survey vessel of Viet Nam was intentionally blocked and its cable was severed by two Chinese fishing vessel (No 16025 and No 16028) which had ignored warning signals from Viet Nam's authorized forces. [215]	Yes	No	No	No	No
2012.7: The Philippines accepted on Tuesday four bids for three oil and gas exploration blocks in the South China Sea, including two prospects in waters claimed by China.[216]	Yes	No	No	No	No
2012.1.18: Petroliam Nasional Bhd awarded two deepwater	No	No	No	No	No

[214] PetroVietnam website.
[215] http://www.mofa.gov.vn/en/tt_baochi/pbnfn/ns121206103459/view
[216] Li Guoqiang, "China Sea Oil and Gas Resources;" Erik dela Cruz, "Philippines gets 4 bids for disputed S.China Sea oil, gas blocks," *Reuters,* http://www.reuters.com/article/southchinasea-philippines-idUSL4E8IV3M420120731, accessed April 18, 2018.

exploration blocks, offshore Sabah, under separate production sharing contracts (PSC) in partnership between JX Nippon, INPEX Corp and Petronas Carigali Sdn Bhd. The PSC for Deepwater Block R was awarded to the partnership of JX Nippon Oil & Gas Exploration (Deepwater Sabah) Ltd (the operator with 37.5 percent stake)[217]					
2012.1.18: the other one: INPEX Offshore South West Sabah Ltd (37.5 percent) and Petronas Carigali (25 percent).[218]	No	No	No	No	No
2012.5.29: Malaysian national oil firm Petroliam Nasional, or Petronas, yesterday signed a US$1 billion production sharing contract (PSC) with the local unit of Canada-based Talisman Energy to develop and recover oil from the Kinabalu Fields, a number of oilfields offshore Sabah.[219]	No	No	No	No	No
2012.6.21: Petronas signs PSCs for North Malay Basin project in Malaysia The first contract is the amended	No	No	No	No	No

[217] "Petronas awards 2 deepwater blocks offshore Sabah," *New Straits Times (Malaysia)*, January 18, 2012, p. 6.

[218] *Ibid.*

[219] "Petronas, Canadian firm in US$1b oil production deal; Joint venture gets incentives for more challenging fields," *The Business Times Singapore,* May 29, 2012 Tuesday.

Production Sharing Contract (PSC) for offshore Block PM302 while the other two contracts are new exploration PSCs for Blocks PM325 and PM326B adjacent to Block PM302. All three PSCs are on a 50:50 equity split between Petronas Carigali and Hess Exploration and Production Malaysia with Petronas.[220]					
On August 19, 2012	No	No	No	Chinese patrol vessels confronted a seismic vessel in Malaysia's Block SR 318 undertaking work under contract to Shell Sarawak. They ordered the vessel to cease and desist and it complied. But it renewed its work after a protective buffer was put in place. Malaysia did not publicly protest because it does not want its disputes with China in the South China Sea to affect their	No

[220] "Petronas signs PSCs for North Malay Basin project in Malaysia," *WMI Company News*, June 21, 2012 Thursday.

				economic relationship.[221]	
2012.10.9: India's private sector drilling contractor, Aban Offshore announced on Monday that it has received a letter of award for the deployment of the jack-up rig Deep Driller 3 (owned by the Company's step down subsidiary) offshore Malaysia, from Petronas Carigali Sdn. Bhd., The drilling contract is for a firm period of three years.[222]	Yes	No	No	No	No
2012.12.7: Lundin Petroleum which engages in the exploration, development, and production of oil and gas properties and holds an 85 percent stake in PM319 via its subsidiary Lundin Malaysia BV along with Petronas Carigali Sdn Bhd with a 15 percent interest stated that it has inked a new production sharing contract (PSC) with Petronas with an aim to increase in	No	No	No	No	No

[221] Wu Shicun, Nong Hong, *Recent Developments in the South China Sea Dispute*, p. 7. Also confirmed by Scott Bentley, "Malaysia's 'Special Relationship' with China and the South China Sea: Not So Special Anymore," *The Asan Forum*, July 31,2015 , http://www.theasanforum.org/malaysias-special-relationship-with-china-and-the-south-china-sea-not-so-special-anymore/, accessed April 18, 2018.

[222] "Aban Offshore bags drilling contract from Petronas," *Dion Global Solutions Limited,* October 9, 2012 Tuesday.

footprint to 7 blocks.[223]					
2012.12.13: ConocoPhillips, Anglo-Dutch supermajor Shell and Petronas Carigali have bagged the production sharing contract for Block SB311, off Sabah from Malaysia's state-run oil company Petronas.[224]	No	No	No	No	No
2013.11.21: Vietnam awarded five blocks to India	Yes, diplomatic protests[225]	No	No	No	No
2013 January: with Malaysia	No	No	No	By January 2013, similar incidents had occurred "involving Chinese ships and a Shell-contracted survey vessel" in areas proximate to South Luconia Shoals.[226]	No
2013.2.2: Shell Malaysia and its exploration and production partners Petronas Carigali Sdn Bhd and ConocoPhillips Sabah Ltd have agreed to invest and develop	No	No	No	No	No

[223] "Lundin Petroleum wins PSC contract India," *Dion Global Solutions Limited*, December 7, 2012 Friday.
[224] "Petronas inks PSC with ConocoPhillips, Shell & Petronas Carigali off Sabah,"*Dion Global Solutions Limited*, December 13, 2012 Thursday.
[225] "India-Vietnam ink pact to expand oil exploration in South China Sea," *New Indian Express*, November 21, 2013, http://www.newindianexpress.com/nation/India-Vietnam-ink-pact-to-expand-oil-exploration-in-South-China-Sea/2013/11/21/article1902209.ece, accessed April 18, 2018.
[226] Scott Bentley, "Malaysia's 'Special Relationship' with China and the South China Sea: Not So Special Anymore."

deepwater Malikai oil field, some 100km offshore Sabah.[227]					
2013.12.13: JX Nippon Oil & Gas Exploration's Malaysian subsidiary has signed a production sharing contract (PSC) with Petronas for deepwater Block 3F in the Sarawak region.[228]	No	No	No	No	No
2014.5: Oil rig crisis with Vietnam[229]	Yes, diplomatic protests	Yes, but very briefly; China had a rethink and relations resumed relatively fast[230]	No	Yes, use of civilian law enforcement, with fishing boats at the center, forming a concentric circle	No
2014.6.17: Vietnam Oil & Gas Group, or Petrovietnam, has signed a memorandum of understanding with Russia's JSC Zarubezhneft for joint oil and gas exploration at two blocks offshore central Vietnam[231]	Yes?	No	No	No	No
2014.10: On Tuesday, Vietnam offered India two oil-exploration	Yes, diplomatic protests	No	No	No	No

[227] "Shell and partners to invest, develop Malikai field," *New Straits Times (Malaysia),* February 2, 2013 Saturday, p. 2.
[228] See official Petronas website, "JX Nippon signs PSC with Petronas for Block 3F in Malaysia," http://www.Petronas.com.my/media-relations/media-releases/Pages/article/PETRONAS-CELEBRATES-100-ACTIVE-PRODUCTION-SHARING-CONTRACTS.aspx, accessed April 18, 2018.
[229] Most drastic up till now regarding Vietnam; for information, see CSIS China Power Project, "Are maritime law enforcement forces destabilizing Asia?"
[230] Li Xiangyang ed., *Yatai diqu fazhan baogao 2015,* p. 239-240.
[231] "Vietnam to join China talks but signs oil and gas deal with Russia," *Vietcombank Securities,* June 18, 2014, http://www.vcbs.com.vn/en/Article/4/Vietnam-to-Join-China-Talks-but-Signs-Oil-Gas-Deal-with-Russia-95140, accessed April 18, 2018.

blocks located in disputed South China Sea waters, prompting a sharp reaction from Beijing.[232]					
2015.11.5: Petroliam Nasional (Petronas) has approved SapuraKencana Energy's (SKE) field development plan (FDP) for the SK310 B15 gas field project in offshore east Malaysia. This is the company's first upstream gas development project in the country.[233]	No	No	No	No	No
2015.9: India's plans to conduct oil exploration off Vietnam coast in the South China Sea[234]	Yes, diplomatic protests[235]	No	No	No	No
2015.9.3: Rosneft Vietnam B.V., a company of Rosneft Group, and Japan Drilling Co., Ltd. (JDC) represented by its subsidiary Hakuryu 5, Inc. signed an agreement on provision and operation of the marine drilling rig Hakuryu-5, for the purposes of drilling	No	No	No	No	No

[232] "Philippines gets 4 bids for disputed S.China Sea oil, gas blocks," *International Business Times*, October 29, 2014, http://www.ibtimes.com/vietnam-india-sign-oil-naval-agreement-amid-south-china-sea-disputes-angering-beijing-1715677, accessed April 18, 2018.
[233] "Sapura Kencana secures approval to develop B15 gas field offshore Malaysia,"*Progressive Media - Company News*, November 5, 2015 Thursday.
[234] "Fillip for ONGC arm," *The Telegraph*, August 28 , 2015, http://www.telegraphindia.com/1150828/jsp/business/story_39431.jsp#.VjXEXK4rKT8, accessed April 18, 2018.
[235] "India's oil exploration off Vietnam 'illegal', Chinese mouthpiece says," *The Times of India*, September 1, 2015, http://timesofindia.indiatimes.com/india/Indias-oil-exploration-off-Vietnam-illegal-Chinese-mouthpiece-says/articleshow/48763255.cms, accessed April 18, 2018.

exploration wells within the framework of Rosneft's projects in Vietnam. It is planned to drill two wells in Blocks 06.1 and 05-3/11 in the Nam Con Son basin offshore Vietnam in 2016.[236]					
On August 11, 2015, Idemitsu, as an Operator, entered into a Production Sharing Contract together with Sumitomo Corporation and Vietnam Oil and Gas Group (Petrovietnam) for the Blocks 39 and 40/02 offshore Vietnam.[237]	No	No	No	No	No

Table 2. Number of Oil and Gas Related Incidences Per Year 1990-2015

	Number of PSC Deals Struck/New Wells Being Drilled/Oil Exploration Confrontations with China by Country			Total
Year	Vietnam	The Philippines	Malaysia	
1990	0	0	0	0
1991	0	0	0	0
1992	4	0	0	4
1993	4	0	1	5
1994	6	1	1	8
1995	2	0	2	4
1996	1	0	1	2
1997	3	0	1	4
1998	3	0	2	5
1999	1	0	1	2
2000	0	0	1	1
2001	2	0	1	3
2002	3	0	0	1
2003	3	1	1	5
2004	2	0	0	2

[236] Rosneft company website, "Rosneft and Japan Drilling Co., Ltd. signed an agreement for drilling exploration wells offshore Vietnam," September 4, 2015, https://www.rosneft.com/press/releases/item/176083/, accessed April 18, 2018.
[237] See official website of Idemitsu, http://www.idemitsu.com/products/resource/oil/project/vietnam/v39_40.html, accessed April 18, 2018.

2005	0	0	1	1
2006	8	0	2	10
2007	10	0	2	12
2008	7	0	5	12
2009	2	0	2	4
2010	12	0	3	15
2011	7	2	2	11
2012	4	1	8	13
2013	1	0	3	4
2014	3	0	0	3
2015	3	0	1	4

Table 3. Number of Incidences Around Control of Land Features Per Year 1991-2015

	Number of Incidence of Land Reclamation/Control of New Land Features/Strengthening Control of Features Already Held by Country			Total
Year	Vietnam	The Philippines	Malaysia	
1990	0	0	0	0
1991	3	0	1	4
1992	2	1	1	4
1993	3	3	0	6
1994	1	2	0	3
1995	0	3	1	4
1996	0	0	1	1
1997	0	3	0	3
1998	1	0	1	2
1999	0	3	1	4
2000	1	0	0	1
2001	0	0	0	0
2002	0	0	0	0
2003	1	2	0	3
2004	1	0	0	1
2005	0	0	0	0
2006	0	0	0	0
2007	2	0	0	2
2008	1	1	1	3
2009	2	2	1	5
2010	5	0	1	6
2011	2	3	0	5
2012	4	1	0	5
2013	0	4	0	4
2014	4	2	0	6
2015	6	0	0	6

China's Banana Ban Against the Philippines in May 2012

Regarding China's fruit quarantine against Philippine fruit exports to China in 2012 during the Scarborough standoff, Although scholars such as Angela Poh argue that there is scant evidence that China used the banana ban as a coercive tool, I argue below that the banana ban — especially the timing and the extent of such a ban — indicated that it was indeed a case of economic sanctions.[238] It is true that China's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) issued a warning on March 5, 2012, but it only limited the warning to bananas from Philippines' Sumifru Corporation: the warning explicitly stated that pests were found in bananas from Sumifru Corporation and stipulated a suspense of Sumifru bananas starting from March 6.[239] In particular, the warning demanded more inspections and that Philippine banana exports in inspection were not allowed to enter before the results of inspection, but implied that those that were pest-free would be allowed in.[240] The Philippine Bureau of Plant Industry immediately conducted an investigation on March 10 and informed China's AQSIQ of the implemented corrective measures on March 27, 2012.[241] It is interesting that the Chinese AQSIQ seemed satisfied, as it did not raise the issue of Philippine bananas at all in April. During the height of the Scarborough standoff, however, China issued another much more stringent warning on May 2, which stated that China would strengthen inspections of all Philippine fruit exports to China and that "during this period," Philippines fruit exports would not be allowed to enter China.[242] The wording of this second warning is particularly vague: the first warning in March stated that Philippines bananas were not allowed to enter while they were being inspected, yet this second warning used the curious wording of "during this period" (*zaici qijian*) without an explicit instruction regarding what "this period" meant. Furthermore, the March warning only singled out the specific company — Sumifru Corporation. Yet the May warning extended the inspection to all Philippine fruit exports — not limited to Sumifru bananas — without any specific evidence that fruits from sources other than Sumifru contained pests. Moreover, if AQSIQ found the pest issue to be more serious, it is curious why it was silent for the entire April and waited until early May. Finally, both warnings only asked for "greater inspection," yet what we see empirically after the May 2 warning was an embargo: *all* Philippine banana exports were literally halted and rotten at Chinese exports, which seemed to be the result of AQSIQ's intentionally ambiguous wording "during this period." Thus, the timing and extent of the ban indicated it was a case of economic sanctions. As the figure from the Pilipino Banana Growers and Exporters Association (PBGEA) shows below, banana exports to China (in mega tons) dropped dramatically since 2012 and did not pick up until 2014.[243]

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[238] See Angela Poh, "The Myth of Chinese Sanctions over South China Sea Disputes," *The Washington Quarterly*, Issue 40 (Spring 2017), p. 143-165.
[239] See AQSIQ warning No. 49, available here at http://dzwjyjgs.aqsiq.gov.cn/rdgz/201203/P020120307581874591305.pdf, accessed April 18, 2018.
[240] *Ibid.*
[241] See the slides from Pilipino Banana Growers and Exporters Association, http://appfi.ph/images/2015/presentations/6_Pres_PBGEA_Philippine_Banana_Exports_to_China.pdf, accessed April 18, 2018.
[242] See AQSIQ warning No. 108, available here at http://www.aqsiq.gov.cn/xxgk_13386/jgfl/dzwjyjgs/tsxx/201210/t20121017_279773.htm, accessed April 18, 2018.
[243] Figure available here at slides from Pilipino Banana Growers and Exporters Association, http://appfi.ph/images/2015/presentations/6_Pres_PBGEA_Philippine_Banana_Exports_to_China.pdf, accessed April 18, 2018.

PBGEA Export Volume to China, 1985-2014 (m.t.)
350000
300000
250000
200000
150000
100000
50000
0
1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013