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DOTTED LINES IN THE SOUTH CHINA SEA: FISHING FOR (LEGAL) CLARITY*

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Introduction

Almost invariably, attempts of states to consolidate control and jurisdiction over insular features signify the onset of a barrage of cartographic materials. On the one hand, carefully crafted maps can be key in resolving international disputes, indicating the intention of the parties and providing precise geographic data. On the other hand, too eager a resort to maps is dangerous, for "like statistics, they can 'lie'".[1] The dispute over the maritime features in the South China Sea[2] is no exception. Claimant states in Southeast Asia have gathered a wealth of cartographic materials to back up their contentions, varying in substance

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[1] Keith Highet, "Evidence, the Court, and the Nicaragua Case", *American Journal of International Law*, Vol. 81, 1987, p. 19.

[2] Use of the term South China Sea rather than other nomenclature (*e.g.* "Biển Đông" (East Sea)) has no legal implications whatsoever as to entitlements to the waters or insular features. See Erik Franckx, Marco Benatar, Nkeiru Joe & Koen Van den Bossche, *"The Naming of Maritime Features Viewed from an International Law Perspective",* Proceedings of the 16th International Seminar on Sea Names, The Hague, The Society for East Sea & Northeast Asian History Foundation, 2010, pp. 95-130, *available at* <geo.khu.ac.kr/seanames/index.asp>.

and technical quality. One map that has recently resurfaced and made quite a splash is a Chinese official map of the South China Sea portraying the enigmatic "9-dotted-line" or "U-line".[3] The forceful reassertion of this document elicits a host of questions as to its origins, what it means and ultimately what its value is in the ongoing maritime rows.

The aim of this study is to offer an international legal analysis of the aforementioned map. The paper starts off with a brief discussion of the history of the cartographic piece and some recent developments in this regard. Thereafter, the legal merit of various (and at times fickle) interpretations of the U-line will be assessed. We will derive arguments predominantly from the law of the sea to demonstrate that the Chinese claims connected to the 9-dotted-line are debatable as a matter of international law. The focus will then turn to case law pertaining to cartographic evidence. Factors derived from this body of jurisprudence leads us to conclude that the map would in all likelihood be accorded fairly weak probative force before a court of law. Finally, we will show that even if the map were to be legally significant it could not be used against other interested parties in the dispute as a result of the latter's effective protest.

Chinese map

Background

The origins of today's U-line date back to the activities of the Republic of China's (hereafter ROC) Land and Water Maps Inspection

[3] Although sometimes referred to as the "historic claim line", this characterization should be avoided. Most Chinese terms used to describe the line do not include the Chinese symbol for "historic". Daniel J. Dzurek, "The Spratly Islands Dispute: Who's on First?", *Maritime Briefing*, International Boundaries Research Unit (Durham University), Vol. 2, No. 1, 1996, p. 11.

Committee, formed in 1933. Its works included the surveying and naming of islands in the South China Sea and the production of maps showing these islands within Chinese territory.[4]

The first officially endorsed dotted line originates from the aftermath of the Second World War. The cartographic piece in question was produced by the ROC's Department of the Territories and Boundaries of the Ministry of the Interior in December 1946.[5] On this map, the U-line consists of 11 intermittent dashes enclosing the greater part of the South China Sea and its mid-ocean features.[6] Starting at the Sino-Vietnamese boundary, the first two segments pass through the Gulf of Tonkin. The third and fourth parts of the line separate the Vietnamese coastline from the Paracel Islands (Hoàng Sa) and Spratly Islands (Trường Sa) respectively. The fifth and sixth segments on the interrupted line go past the James Shoal (4° N), the southernmost maritime feature claimed by the PRC and the ROC. Moving in the direction of the North-East, the subsequent two dashes are located between the Spratly Islands (Trường Sa) on the one hand and Borneo (Indonesia, Malaysia, Brunei) and the Philippines (Palawan Province) on the other hand. The ninth, tenth and eleventh segments separate the Philippines from the ROC.[7]

Following the removal of the Nationalists from the mainland, cartography illustrating the same dashes can be found emanating from the PRC. Thus, from then onwards, occurrences of the U-line can be observed on either side of the Taiwan Strait. One particular change needs to be noted: since 1953 PRC maps of the South China Sea depict 9 instead of 11 segments (the dashes in the Gulf of Tonkin were erased).[8]

PRC letter to the UN Secretary-General (7 May 2009)

The controversy surrounding the 9-dotted-line came to the fore in 2009 in connection with the Malaysian-Vietnamese joint submission[9] and Vietnamese individual submission[10] to the Commission on the Limits of the Continental Shelf (hereafter CLCS). The Commission issues recommendations to coastal states wishing to establish the outer limit of their continental shelves beyond 200 nautical miles. The timing of the

[4] Li Jinming & Li Dexia, "The Dotted Line on the Chinese Map of the South China Sea: A Note", *Ocean Development and International Law*, Vol. 34, 2003, p. 289.

[5] Zou Keyuan mentions the existence of an even earlier line in the South China Sea drawn up by a Chinese cartographer, Hu Jinjie, in 1914 and subsequently in the 1920s and 30s. Such lines can also be found in some atlases from this period. Nonetheless, it must be stressed that: 1) these earlier apparitions are prior to the first official map depicting the "U-line" and 2) the aforementioned atlases were compiled by individuals, thus acting in personal capacity. See Zou Keyuan, "The Chinese Traditional Maritime Boundary Line in the South China Sea and its Legal Consequences for the Resolution of the Dispute over the Spratly Islands", *International Journal of Marine and Coastal Law*, Vol. 14, 1999, pp. 32-33.

[6] Reproduced in Nien-Tsu Alfred Hu, "South China Sea: Troubled Waters or a Sea of Opportunity?", *Ocean Development and International Law*, Vol. 41, 2010, p. 208.

[7] Kuan-Hsiung Wang, "The ROC's Maritime Claims and Practices with Special Reference to the South China Sea", *Ocean Development and International Law*, Vol. 41, 2010, p. 248.

[8] Li & Li, *supra* 4, p. 290. This view is contradicted by Zou Keyuan, who states that the two segments were removed in the 1960s. See Zou, *supra* note 5, pp. 34-35.

[9] Malaysia-Socialist Republic of Viet Nam, Joint Submission to the Commission on the Limits of the Continental Shelf Pursuant to Article 76, paragraph 8 of the United Nations Convention on the Law of the Sea 1982 in Respect of the Southern Part of the South China Sea, Executive Summary, May 2009, *available at* <www.un.org/Depts/los/clcs_new/submissions_files/mysvnm33_09/mys_vnm2009excutivesummary.pdf>.

[10] Socialist Republic of Vietnam, Submission to the Commission on the Limits of the Continental Shelf Pursuant to Article 76, paragraph 8 of the United Nations Convention on the Law of the Sea 1982, Partial Submission in Respect of Vietnam's Extended Continental Shelf: North Area (VNM-N), Executive Summary, April 2009, *available at* <www.un.org/Depts/los/clcs_new/submissions_files/vnm37_09/vnm2009n_executivesummary.pdf>.

submissions by the Vietnamese and Malaysian governments can be explained by their respective deadlines in May 2009.[11] In response to these initiatives, the PRC issued the following reaction, hereby for the first time backing the U-line at the international level:

"China has indisputable sovereignty over the islands in the South China Sea and the adjacent waters, and enjoys sovereign rights and jurisdiction over the relevant waters as well as the seabed and subsoil thereof (see attached map). The above position is consistently held by the Chinese Government, and is widely known by the international community".[12]

A reading of the note verbale allows one scholar to discern several Chinese assertions:

[11] Because Malaysia and Vietnam ratified the United Nations Convention on the Law of the Sea (Multilateral convention, 10 December 1982, *United Nations Treaty Series*, Vol. 1833, pp. 397-581. This convention entered into force on 16 November 1994 (available at<www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf>); hereinafter 1982 Convention) on 14 October 1996 and 25 July 1994, respectively, the normal deadline for their submissions, according to its Annex II, Art. 4, should have been in 2006 and 2004 respectively. But since many states encountered difficulties in meeting this deadline, the States Parties to the 1982 Convention decided in 2001 to use another starting point to determine this deadline: instead of the entry into force of the 1982 Convention, the date of adoption by the CLCS of its Scientific and Technical Guidelines became the starting point of the 10-year period. See Doc.SPLOS/72 of 29 May 2001, available at <ods-dds-ny.un.org/doc/UNDOC/GEN/N01/387/64/PDF/ N0138764. pdf?OpenElement>. With respect to all states for which the 1982 Convention had entered into force before 13 May 1999, including thus both Malaysia and Vietnam, 12 May 2009 became the new deadline.

[12] People's Republic of China, Letter to the Secretary-General of the United Nations, New York, 7 May 2009, CML/17/2009, *available at* <www.un.org/Depts/los/clcs_new/submissions_files/mysvnm33_09/chn_2009re_mys_vnm_e.pdf>; People's Republic of China, Letter to the Secretary-General of the United Nations, New York, 7 May 2009, CML/18/2009, *available at* <www.un.org/Depts/ los/clcs new/submissions_files/vnm37_09/chn_2009re_vnm.pdf>.

- *Sovereignty* over the South China Sea islands and their adjacent waters (the attached map indicates the following maritime features within the interrupted line by name: Xisha Qundao[13], Nansha Qundao[14], Zhongsha Qundao[15] and Dongsha Qundao[16]).

- *Sovereign rights and jurisdiction* over the relevant waters including their seabed and subsoil.

- *Consistency* of the PRC's official position on maritime and territorial claims in the South China Sea.

- *Knowledge* of third states as regards the PRC's maritime and territorial claims in the South China Sea.

- The U-line *delineates* the Chinese claims of sovereignty, sovereign rights and jurisdiction.[17]

Claims

The aforementioned letter, while novel in its maritime aspects, repeats similar assertions put forward in the past as regards insular features.[18] Furthermore, several mainly Chinese and Taiwanese scholars have proffered their own interpretations of the 9-dotted-line. Amidst the confusion, one can only be certain of the fact that the Chinese pretensions

[13] Paracel Islands/Hoàng Sa.
[14] Spratly Islands/Trường Sa.
[15] Macclesfield Bank.
[16] Pratas Islands.
[17] Hu, *supra* note 6, pp. 204-206.
[18] See *e.g.* the PRC Ministry of Foreign Affairs' piece: "China's Indisputable Sovereignty over the Xisha and Nansha Islands", *Beijing Review*, n° 7, 18 February 1980, pp. 15-24, discussed in Yoshio Otani, "À qui appartient l'archipel des Spratley? Un point de vue sur les revendications chinoises", *Annuaire du droit de la mer*, Vol. 1, 1996, pp. 179-192.

regarding the South China Sea do not surpass this demarcation.[19] These views and their legal merit will now be discussed.

Historic claims

State practice

Although assertions of this ilk do not seem to feature in PRC policy, the ROC has traditionally advocated this position on the U-line quite strongly as evidenced in a host of declarations. For instance, in 1991 at one of the South China Sea Workshops, a representative of the Taipei Economic and Trade Office in Jakarta (Indonesia) declared:

"The South China Sea is a body of water under the jurisdiction of the Republic of China. The Republic of China has rights and privileges in the South China Sea. Any activities in the South China Sea must acquire the approval of the Government of the Republic of China".[20]

The 1993 Policy Guidelines for the South China Sea (endorsed by the Executive Yuan) note that:

"In terms of history, geography, international law and facts, the Nansha Islands [Spratly Islands], Shisha Islands [Paracel Islands], Chungsha Islands [Macclesfield Islands], Tungsha Islands [Pratas

[19] Charles C. Hyde, "Maps as Evidence in International Boundary Disputes", *American Journal of International Law*, Vol. 27, 1933, p. 315; Hasjim Djalal, "South China Sea Island Disputes", in Myron H. Nordquist & John Norton Moore (eds.), *Security Flashpoints: Oil, Islands, Sea Access and Military Confrontation*, The Hague, Nijhoff, 1998, p. 113; F. Münch, "Maps", in R. Bernhardt (ed.), *Max Planck Encyclopedia of Public International Law*, Amsterdam, Elsevier Science, 1995, Vol. III, p. 288; T.S. Murti, "Boundaries and Maps", *Indian Journal of International Law*, Vol. 4, 1964, p. 388.

[20] Dzurek, *supra* note 3, p. 13.

Islands] are part of inherent territory of the Republic of China; the sovereignty over those islands belongs to the Republic of China. The South China Sea area within the *historic water limit* is the maritime area under the jurisdiction of the Republic of China, where the Republic of China possesses all rights and interests" (emphasis added).[21]

In 1994, a Minister of the Executive Yuan, Chang King-yu, stated that "the waters enclosed by the 'U'-shaped line in the South China Sea are our *historic waters* and the ROC is entitled to all the rights therein" (emphasis added).[22]

The Taiwanese policy is further deduced from protests lodged against the conduct of littoral states in the region. In response to the Malaysian occupation of two maritime features in the Spratly Islands and the Philippines' decision to incorporate Scarborough Shoal on its map, the ROC stated:

"*The South China Sea is a body of water of the Republic of China. The Republic of China has all rights and privileges in the South China Sea*. Any activities (including the discussion on joint cooperation or on Code of Conduct, etc.) in the South China Sea region must acquire the approval of the Government of the Republic of China" (emphasis added).[23]

[21] Policy Guidelines for the South China Sea, Point 1, 10 March 1993, in Kuan-Ming Sun, "Policy of the Republic of China Towards the South China Sea: Recent Developments", *Marine Policy*, Vol. 19, 1995, p. 408 (annex I).

[22] Dzurek, *supra* note 3, p. 13.

[23] Republic of China (Taiwan) Ministry of Foreign Affairs, Statement, 1 July 1999, *available at* <www.mofa.gov.tw/webapp/ct.asp?xItem=2353&ctNode=1902&mp=6 >.

Certain pundits have cobbled together legal arguments for this tenuous claim.[24] For instance, Zhao Guocai observes: "China owns the historic right of islands, reefs, shoals, banks, and waters within the 9-dotted line. The South China Sea is regarded as the historic waters of China, which was universally acknowledged at that time. So far it has lasted for half a century".[25]

Legal analysis

An examination of scholarly writings regarding historic claims relative to maritime areas gives rise to a great deal of terminological confusion. Germane concepts such as historic rights/historic title, historic waters and historic bays are not easily distinguished and elucidated.[26] In order to avoid a lengthy and somewhat superfluous inquiry on the distinction between historic rights and historic title, suffice it to make clear that "historic rights" are the *genus* under which one can place the *species* "historic waters". In turn, "historic bays" are a *species* of "historic waters".[27] In the context of the 9-dotted-line, ROC behaviour

[24] Pan Shiying, "South China Sea and the International Practice of the Historic Title", Conference on the South China Sea, American Enterprise Institute, Washington, 7–9 September 1994, referenced in Zou Keyuan, "Historic Rights in International Law and in China's Practice", *Ocean Development and International Law*, Vol. 32, 2001, p. 161, footnote 97; Yann-huei Song & Peter Kien-hong Yu, "China's 'Historic Waters' in the South China Sea: An Analysis from Taiwan, R.O.C.", *American Asian Review*, Vol. 12, 1994, pp. 83-101.

[25] Zhao Guocai, "Analysis of the Sovereign Dispute over the Spratlys under the Present Law of Sea", *Asian Review*, Vol. 9, 1999, p. 22 (in Chinese), translated in Li & Li, *supra* 4, p. 293.

[26] See Andrea Gioia, "Historic Titles", in Rüdiger Wolfrum (ed.), *The Max Planck Encyclopedia of Public International Law*, Oxford, Oxford University Press, 2008, online edition, *available at* <www.mpepil.com>.

[27] Zou, *supra* note 24, p. 152.

seems to imply recognition of historic waters as regards a substantial part of the South China Sea.

No universally accepted definition of historic waters exists, but in broad terms it denotes rights that accrue to a coastal state with respect to (a) maritime area(s) that the state would not normally enjoy. The extent of the rights concomitant to the historic waters can vary considerably. The legal conditions for acquiring historic waters were considered in a 1962 study carried out by the UN Secretariat's Office of Legal Affairs (hereafter OLA) at the request of the International Law Commission.[28] In the view of the OLA:

"There seems to be fairly general agreement that at least three factors have to be taken into consideration in determining whether a State has acquired a historic title to a maritime area. These factors are: (1) the exercise of authority over the area by the State claiming the historic right; (2) the continuity of this exercise of authority; (3) the attitude of foreign States".[29]

The ROC, nor the PRC for that matter, meets these criteria. Conditions (1) and (2) require the claimant state to exercise authority via acts displaying sovereignty with a sufficient level of frequency and effectiveness. Only occasionally is authority exercised and when it is, such a display mainly relates to certain islands and not the sea. As a result, the freedom of fishing and navigation of other states remain

[28] UN Secretariat Office of Legal Affairs, "Juridical Regime of Historic Waters, Including Historic Bays", 9 March 1962, UN Doc. A/CN.4/143, *Yearbook of the International Law Commission* 1962, Vol. 2, pp. 1-26.

[29] *Id*., p. 13. The study mentions a potential fourth requirement (justification "on the basis of economic necessity, national security, vital interest or a similar ground") for which there is less agreement.

unencumbered.[30] Consequently, no historic claim can be made. The theoretical requirements needed to fulfil condition (3) are uncertain. Essentially, the discussion pivots on whether other states need to acquiesce or whether the absence of any reaction is enough.[31] But no matter which view one subscribes to, all seem to agree that protest from foreign states can prevent the peaceful and continuous exercise of sovereignty, and this is precisely what has occurred with respect to the South China Sea (see part V.b)).

Some have retorted that claims must be considered in light of the rules of international law that existed when the U-line map was drawn up, *i.e.* 1946 (the so-called doctrine of intertemporal law[32]). This is quite peculiar, as this approach only weakens an already unconvincing contention. At that time, the legally recognized breadth of the territorial sea totalled a mere 3 nm, making historic claims all the more exorbitant.[33] Given the fact that historic waters normally either relate to bays or a range of territorial waters,[34] it is therefore not surprising to note that a recent treatise on historic waters does not find it necessary to make any reference to this nine-dotted line historic claim.[35] Moreover, even if for the sake of argumentation one were to envisage the hypothesis that China were able to make such an unprecedented extensive historic claim

[30] Zou, *supra* note 24, p. 161.
[31] For a treatment of both positions, see UN, *supra* note 28, pp. 16-19.
[32] See Markus Kotzur, "Intertemporal Law", in Rüdiger Wolfrum (ed.), *The Max Planck Encyclopedia of Public International Law*, Oxford, Oxford University Press, 2008, online edition, *available at* <www.mpepil.com>.
[33] See Hasjim Djalal, "South China Sea Island Disputes", *The Raffles Bulletin of Zoology*, Supplement No. 8, 2000, pp. 9-21.
[34] Clive R. Symmons, *Historic Waters in the Law of the Sea: A Modern Re-appraisal*, Leiden, Martinus Nijhoff, 2008, pp. 17-37.
[35] The only time China is mentioned relates to the historic claim of the former U.S.S.R. to Peter the Great Bay (*id.*, p. 144).

(*quod non*), it should be remembered that historic claims do not create an *erga omnes* regime, but rather depend, as stressed by one author recently, on express or implied recognition on a state-to-state basis.[36]

On a final note, the prolific usage of the nomenclature "South China Sea" does not confer historic Chinese sovereignty.[37] Under international law the mere naming of an area does not establish sovereignty over it.[38] The name has been vigorously protested by interested states, including Vietnam.[39] Foreign cartography uses the name South China Sea simply in accordance with the maritime nomenclature published in the International Hydrographic Organization's *Limits of Oceans and Seas* (1953), which "[has] no political significance whatsoever".[40] Thus, this choice of terminology does not imply recognition of Chinese sovereignty on the part of Western states. Also, the Chinese have historically employed different names for this maritime area such as "Giao Chi Sea" (Song and Ming dynasties) and "South Sea"

[36] Tullio Scovazzi, "Book review of 'Historic Waters in the Law of the Sea: A Modern Re-appraisal by Clive Ralph Symmons, Leiden, Martinus Nijhoff, 322 pp., 2008'", *International Journal of Marine and Coastal Law*, Vol. 25, 2010, pp. 637, 642. See also at pp. 639-640 and in the same sense Symmons, *supra* note 34, pp. 242-245, 299-300.
[37] This argument has been made in Wu Fengbing, "Historical Evidence of China's Ownership of the Sovereignty over the Spratly Islands", in China Institute for Marine Development Strategy (ed.), *Selected Papers of the Conference on the South China Sea Islands*, Beijing, Ocean Press, 1992, p. 111 (in Chinese), referenced in Zou, *supra* note 24, p. 161, footnote 98.
[38] Nguyen Hong Thao, *Le Vietnam et ses différends maritimes dans la Mer de Bien Dong (Mer de Chine méridionale)*, Paris, Pedone, 2004, p. 258.
[39] Vietnam refers to this maritime area as "Biển Đông" (East Sea). See National Border Committee under the Ministry of Foreign Affairs of Vietnam, <biengioilanhtho.gov.vn/bbg-vie/home.aspx>.
[40] International Hydrographic Organization, *Limits of Oceans and Seas*, 3rd ed., Monte-Carlo, Imp. Monégasque, 1953, preface and p. 30, *available at* <www.iho-ohi.net/iho_pubs/standard/S-23/S23_1953.pdf>. Old maps also use this denomination merely due to the fact that historically European navigators encountered predominantly Chinese ships. See Y. Lacoste, "Mer de Chine ou mer de l'Asie du Sud-Est", *Hérodote*, n° 24, 1981, p. 13, referenced in Nguyen, *supra* note 38, p. 257.

(Qing dynasty (1905), Republic of China (1913), People's Republic of China (1952 and 1975)).[41]

New developments

Recent developments might render this discussion moot. Indeed, it could very well be that the ROC is steadily abandoning its longstanding thesis. Statements in recent years hint to a change in stance, aligning the ROC's policy on this matter with that of the PRC. References to historic rights/waters are absent whilst the focus seems to be on territorial sovereignty over the islands and their territorial waters.[42] The most recent

[41] Nguyen, *supra* note 38, p. 257.

[42] Republic of China (Taiwan) Ministry of Foreign Affairs, Statement of the Ministry of Foreign Affairs concerning the Declaration on the Conduct of Parties in the South China Sea signed by the Association of Southeast Asian Nations (ASEAN) and the People's Republic of China (PRC) in Cambodia on November 4, 2002, 5 November 2002, *available at* <www.mofa.gov.tw/webapp/ct.asp?xItem=2357&ctNode=1902&mp=6>: "The government of the Republic of China reiterates its territorial sovereignty over Dongsha (the Pratas Islands), Xisha (the Paracel Islands), Zhongsha (the Macclesfield Bank) and Nansha (the Spratly Islands) in the South China Sea, over which it has all lawful rights according to international law"; Republic of China (Taiwan) Ministry of Foreign Affairs, The Position of the Ministry of Foreign Affairs on Taiwan's Sovereignty over Islands in the South China Sea, 20 November 2007, *available at* <www.mofa.gov.tw/webapp/ct.asp?xItem=27782&ctNode =1903&mp=6>: "The Spratly Islands, the Paracel Islands, Macclesfield Bank and the Pratas Islands have always been an intrinsic part of Taiwan's territories, whether looked at from the perspective of history, geography, international law or plain fact. According to the principles of international law, the government of Taiwan's sovereignty over these islands is unquestionable and it enjoys all rights accordingly"; Republic of China (Taiwan) Ministry of Foreign Affairs, The Government of the Republic of China (Taiwan) Reiterates its Sovereignty over the Spratly Islands and has Proposed a Spratly Initiative that Focuses on Environmental Protection Instead of Sovereignty Disputes, 15 August 2008, *available at* <www.mofa.gov.tw/webapp/ ct.asp?xItem=32920&ctNode=1903 &mp=6>: "The Spratly Islands, including the Swallow Reef (Layang-Layang atoll), are located in Taiwan's territorial waters. From either a historical, geographical or international legal perspective, the Spratly Islands, Paracel Islands, Macclesfield Islands, Pratas Islands and nearby waters are part of Taiwan's territory and territorial waters"; Republic of China (Taiwan) Ministry of Foreign Affairs, Solemn Declaration of the Ministry of Foreign Affairs of the Republic of China concerning the Philippine Senate Bill 2699 and House Bill 3216, 6 February 2009, *available at* <www.mofa.gov. tw/webapp/ct.asp? xItem=36914&ctNode=1902&mp=6>: "In terms of either history, geography, reality or international law, the Spratly Islands, Paracel Islands, Macclesfield Islands, Pratas Islands, as well as the surrounding waters, are the existent territories of the Republic of China. The fact that sovereignty of these areas belongs to our government is undeniable, Taiwan enjoys and deserves all rights accordingly. Any sovereignty claims over, or occupation of, these islands and their surrounding waters will not be recognized by the government of the Republic of China".

example is a May 2009 statement protesting the Vietnamese and Malaysian-Vietnamese submissions to the CLCS:

"The Government of the Republic of China reiterates that the Diaoyutai Islands, Nansha Islands (Spratly Islands), Shisha Islands (Paracel Islands), Chungsha Islands (Macclesfield Islands), and Tungsha Islands (Pratas Islands) as well as their surrounding waters are the inherent territories and waters of the Republic of China based on the indisputable sovereignty titles justified by historic, geographic and international legal grounds. Under international law, the Republic of China enjoys all the rights and interests over the foregoing islands, as well as the surrounding waters and sea-bed and subsoil thereof".[43]

Insular claims

Interpretation 1: All insular features within the U-line are PRC/ROC territory

An early proponent of this *territorial* interpretation, the Indonesian diplomat Hasjim Djalal, whilst acknowledging the "enigmatic" nature of the Chinese line, based his findings on a careful analysis of the PRC's statements, particularly those formulated during a 1979 meeting of the International Civil Aviation Organization (ICAO).[44]

Smith notes that the mid-ocean features falling within these "lines of allocation" are those for which the Chinese claim sovereignty. He emphasizes that the dashes do not suggest any maritime boundary claims

[43] Republic of China (Taiwan) Ministry of Foreign Affairs, Declaration of the Republic of China on the Outer Limits of Its Continental Shelf, n° 003, 12 May 2009, *available at* <www.mofa.gov.tw/webapp/content.asp?cuItem=38077&ctNode=1036&mp=6>.

[44] Hasjim Djalal, "Conflicting Territorial and Jurisdictional Claims in South China Sea", *The Indonesian Quarterly*, Vol. 7, No. 1, 1979, pp. 41-42.

and would have no impact on the resolution of maritime boundary disputes.[45]

Dzurek too believes that the U-line does not demarcate the borders of Chinese maritime jurisdiction posited on a cartographic argument, namely the fact that the dashes separating Malaysia and the Natuna Islands deviate from the agreed Indonesian-Malaysian continental shelf delimitation line.[46]

As indicated above, contemporary ROC state practice seems to evidence a shift toward this position.

The delicate question to whom the islands in the South China Sea belong, which entails rigorous analysis of a complex factual matrix and the application of manifold legal concepts (such as discovery, critical date and *effectivités*), would take us too far from our present theme.[47] Bearing that in mind, it is appropriate to stress here that the Chinese map *in se* cannot constitute a valid territorial title to the islands. In *Burkina Faso/Mali* the International Court of Justice (hereafter ICJ) provided its

[45] Robert W. Smith, "Maritime Delimitation in the South China Sea: Potentiality and Challenges", *Ocean Development and International Law*, Vol. 41, 2010, p. 224. See also Gao Zhiguo, "The South China Sea: From Conflict to Cooperation," *Ocean Development and International Law*, Vol. 25, 1994, p. 346: "careful study of Chinese documents reveals that China never has claimed the entire water column of the South China Sea, but only the islands and their surrounding waters within the lines". See also Wang Xiguang's statement, who assisted the Geography Department of the Ministry of Internal Affairs in compiling maps in the 1940s: "the dotted national boundary line was drawn as the median line between China and the adjacent states", in Xu Sen'an, "The Connotation of the 9-Dotted Line on the Chinese Map of the South China Sea", in Zhong Tianxiang (ed.), *Paper Selections of the Seminar on "The South China Sea in the 21st Century: Problems and Perspective*", Hainan Research Center of the South China Sea, 2000, p. 80 (in Chinese), translated in Li & Li, *supra* 4, p. 290.

[46] Dzurek, *supra* note 3, p. 11.

[47] For a book-length treatment of these issues, see *e.g.* Monique Chemillier-Gendreau, *Sovereignty over the Paracel and Spratly Islands*, The Hague, Kluwer Law International, 2000.

"definitive"[48] explanation on the evidentiary value of cartographic evidence:

"[M]aps merely constitute information which varies in accuracy from case to case; of themselves, and by virtue solely of their existence, they cannot constitute a territorial title, that is, a document endowed by international law with intrinsic legal force for the purpose of establishing territorial rights. Of course, in some cases maps may acquire such legal force, but where this is so the legal force does not arise solely from their intrinsic merits: it is because such maps fall into the category of physical expressions of the will of the State or States concerned. This is the case, for example, when maps are annexed to an official text of which they form an integral part. Except in this clearly defined case, maps are only extrinsic evidence of varying reliability or unreliability which may be used, along with other evidence of a circumstantial kind, to establish or reconstitute the real facts".[49]

This *obiter dictum* has been approvingly cited in a host of contentious cases[50], and in individual opinions of judges.[51] Some have

[48] Anna Riddell & Brendan Plant, *Evidence Before the International Court of Justice*, London, British Institute of International and Comparative Law, 2009, p. 31.

[49] *Frontier Dispute (Burkina Faso/Republic of Mali), Judgment, I.C.J. Reports 1986*, 22 December 1986, p. 582, § 54.

[50] *E.g. Kasikili/Sedudu Island (Botswana/Namibia), Judgment, I.C.J. Reports 1999*, 13 December 1999, p. 1098, § 84: "The Court will begin by recalling what the Chamber dealing with the *Frontier Dispute (Burkina Faso/Republic of Mali)* case had to say on the evidentiary value of maps"; *Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (Nicaragua* v. *Honduras), Judgment*, 8 October 2007, p. 58, § 215: "The Court reaffirms the position it has previously taken regarding the extremely limited scope of maps as a source of sovereign title (…)"; *Frontier Dispute (Benin/Niger), Judgment, I.C.J. Reports 2005*, 12 July 2005, pp. 119-120, § 44: "This principle [as described in *Frontier Dispute (Burkina Faso/Republic of Mali)*] will also guide the Chamber in its assessment of the maps relied on by the Parties in the present case"; *Sovereignty over Pulau Ligitan and Pulau Sipadan (Indonesia/Malaysia), Judgment, I.C.J. Reports 2002*, 17 December 2002, p. 667, § 88.

read this passage as a "categorical" refutation of the concept of cartographic title.[52] In any event, the small window[53] the Court seems to leave open ("maps annexed to an official text of which they form an integral part") refers to instruments such as treaties[54] and is thus not applicable *in case*.

Interpretation 2: the U-line is the boundary line of the EEZ generated from South China Sea islands

A number of Chinese scholars seem to support this theory, although their reasoning is somewhat dissimilar and often linked to the historic rights/waters thesis. Zhao Lihai notes:

"[T]he nine-dotted line indicates clearly Chinese territory and sovereignty of the four islands in the South China Sea and confirm China's maritime boundary of the South China Sea Islands that have been included in Chinese domain at least since the 15th century. All the islands and their adjacent waters within the boundary line should be under the jurisdiction and control of China".[55]

[51] *E.g. Maritime Delimitation and Territorial Questions between Qatar and Bahrain (Qatar v. Bahrain), Merits, I.C.J. Reports 2001*, Separate opinion of Judge Kooijmans, 16 March 2001, p. 242, § 68.
[52] Patrick Daillier, Mathias Forteau & Alain Pellet, *Droit international public*, 8th ed., Paris, L.G.D.J., 2009, § 301, p. 524.
[53] For a treatment of this limited possibility, see Maurice Kamto, "Le matériau cartographique dans les contentieux frontaliers et territoriaux internationaux", in Emile Yakpo & Tahar Boumedra (eds.), *Liber amicorum Judge Mohammed Bedjaoui*, The Hague, Kluwer, 1999, pp. 371-398.
[54] Riddell & Plant, *supra* note 48, p. 266.
[55] Zhao Lihai, *Studies on the Law of Sea*, Beijing, Beijing University Press, 1996, p. 37 (in Chinese), translated in Li & Li, *supra* note 4, p. 291.

Jiao Yongke alleges:

"The water areas within China's Southern Sea boundary line constitute water areas over which China has a historic proprietary title, they constitute China's specific exclusive economic zone, or historic exclusive economic zone, hence it ought to have the same status as the EEZ under UNCLOS provisions".[56]

Finally, Zou Keyuan believes that the PRC has asserted a historic claim but that this claim is "equivalent to the legal status of EEZ or continental shelf".[57]

This second explanation of the intermittent dashes is entirely contingent upon the first. In other words, it must be premised on Chinese sovereignty over the maritime features in the South China Sea. Proponents of this thesis see the U-line as a *maritime* boundary connecting the limits of the EEZ that originate from the islands. A variety of questions arise. A first thorny problem relates to the delimitation of such sea areas. After all, a coastal state cannot simply impose its delimitation upon others states in a unilateral fashion. The validity of such an action will depend upon compliance with international legal norms.[58]

Furthermore, are the maritime features even able to generate maritime zones (irrespective of who the rightful owner is)? All will

[56] Jiao Yongke, "There Exists No Question of Redelimiting Boundaries in the Southern Sea", *Ocean Development and Management*, Vol. 17, 2000, p. 52 (in Chinese), translated in Michael Strupp, "Maritime and Insular Claims of the PRC in the South China Sea under International Law", *Zeitschrift fur chinesisches Recht*, Vol. 11, 2004, p. 16.
[57] Zou, *supra* note 24, p. 160.
[58] *Fisheries case (United Kingdom* v. *Norway), Judgment, I.C.J. Reports 1951*, 18 December 1951, p. 132.

depend on whether the insular features qualify as islands in the juridical sense. The United Nations Convention on the Law of the Sea (hereafter 1982 Convention)[59] contains a provision to this end, Art. 121:

"1. An island is a naturally formed area of land, surrounded by water, which is above water at high tide.

2. Except as provided for in paragraph 3, the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of an island are determined in accordance with the provisions of this Convention applicable to other land territory.

3. Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf."

Land surfaces in the South China Sea will therefore generate the additional EEZ (and continental shelf) only if they meet the stringent requirements set out above. It so happens that the insular quality of a range of maritime features in South China Sea have been called into question. Oude Elferink cautiously finds that "at least some of the islands in the South China Sea have an EEZ and continental shelf. Other insular formations can almost certainly be considered to fall under the sway of Article 121(3) [rocks]".[60] If it turns out that these land surfaces are not

[59] The 1982 Convention, *supra* note 11, has been ratified by all interested parties in the South China Sea dispute with the exception of Taiwan (Vietnam: 25 July 1994; PRC: 7 June 1996; Philippines: 8 May 1984; Malaysia: 14 October 1996; Brunei: 5 November 1996), *available at* <www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm>.

[60] Alex G. Oude Elferink, "The Islands in the South China Sea: How Does Their Presence Limit the Extent of the High Seas and the Area and the Maritime Zones of the Mainland Coasts?", *Ocean Development and International Law*, Vol. 32, 2001, p. 182. See also Marius Gjetnes, "The Spratlys: Are They Rocks or Islands?", *Ocean Development and International Law*, Vol. 32, 2001, pp. 191-204; Barry Hart Dubner, "The Spratly "Rocks" Dispute: A "Rockapelago" Defies Norms of International Law", *Temple International and Comparative Law Journal*, Vol. 9, 1995, pp. 299-306.

islands, (at least part of) the EEZ interpretation of the U-line is without legal merit. This imperative, but rather fact-laden and technical inquiry exceeds the scope of our study.

Factors weakening the map's probative force

According to a well-documented rule[61], the international adjudicator enjoys particularly wide discretion in determining the weight of evidentiary material.[62] Bearing in mind this principled freedom, we have examined judicial precedents[63] concerning maps in order to infer factors[64] that are typically used by a judge or arbitrator to assess the probative force of cartographic evidence. The following factors demonstrate the inherent evidentiary shortcomings of the Chinese 9-dotted-line.

Cautious approach to cartographic evidence

As a preliminary observation, it should be pointed out that the general tendency is such that international courts and tribunals refrain

[61] See the amply body of case law and scholarly opinion cited in Gérard Niyungeko, *La preuve devant les juridictions internationales*, Brussels, Bruylant, 2005, pp. 322-335.

[62] Raphaële Rivier, "La preuve devant les juridictions interetatiques à vocation universelles (CIJ et TIDM)", in Hélène Ruiz Fabri & Jean-Marc Sorel (eds.), *La preuve devant les juridictions internationales*, Paris, Pedone, 2007, pp. 38-48.

[63] Although there is no doctrine of *stare decisis* in international law, international courts and tribunals will often cite case law. This is particularly true for the ICJ, which is highly self-referential and will only deviate from its past jurisprudence when substantial reasons are present. See Alan Boyle & Christine Chinkin, *The Making of International Law*, Oxford, Oxford University Press, 2007, pp. 293-299.

[64] *Frontier Dispute, supra* note 49, p. 582, § 55: "(…) actual weight to be attributed to maps as evidence depends on a large number of considerations"; *Qatar* v. *Bahrain*, *supra* note 51, Dissenting Opinion of Judge Torres Bernárdez, p. 274, § 37: "The weight of maps as evidence depends on a range of considerations".

from rendering rulings based merely on cartographic findings.[65] Although accurate maps reflecting the intentions of the parties can indeed constitute "a solid and constant basis for discussion" the absence of which "is an inconvenience much to be regretted",[66] they will often play a secondary role of corroborating other evidence that points in the same direction.[67] Returning to the *Burkina Faso/Republic of Mali)* decision:

"[M]aps can still have no greater legal value than that of corroborative evidence endorsing a conclusion at which a court has arrived by other means unconnected with the maps. (…) except when the maps are in the category of a physical expression of the will of the State, they cannot in themselves alone be treated as evidence of a frontier, since

[65] *Island of Palmas case (Netherlands* v. *U.S.A.)*, 4 April 1928, 2 *R.I.A.A.* 829, pp. 852-853: "(…) only with the greatest caution can account be taken of maps in deciding a question of sovereignty (…)", reaffirmed in *Nicaragua* v. *Honduras*, *supra* note 50, p. 58, § 214; *Eritrea/Yemen Arbitration: Phase one: Territorial Sovereignty and Scope of the Dispute*, 9 October 1998, 22 *R.I.A.A.* 209, p. 296, § 388: "The evidence is, as in all cases of maps, to be handled with great delicacy".

[66] *Manica Plateau Arbitration (United Kingdom/Portugal)*, 30 January 1897, 28 *R.I.A.A.* 283, p. 298.

[67] *Indo-Pakistan Western Boundary* (Rann of Kutch) *between India and Pakistan (India* v. *Pakistan)*, 19 February 1968, Proposal of Mr. Nasrollah Entezam, 17 *R.I.A.A.* 1, p. 505: "Maps are only secondary evidence. Only such maps are primary evidence as are prepared by the surveyor on the spot by observation. Even they are primary evidence only of what a surveyor can himself observe"; *Qatar v. Bahrain*, *supra* note 51, Dissenting Opinion of Judge Torres Bernárdez, 16 March 2001, p. 274, § 37: "In general, the value as evidence attached to them by international courts and tribunals is corroborative or confirmatory of conclusions arrived at by other means unconnected with the maps, because the maps as such are not a legal title"; *Island of Palmas*, *supra* note 63, pp. 853-854: "Anyhow, a map affords only an indication - and that a very indirect one - and, except when annexed to a legal instrument, has not the value of such an instrument, involving recognition or abandonment of rights"; *Id.*, p. 853: "If the Arbitrator is satisfied as to the existence of legally relevant facts which contradict the statements of cartographers whose sources of information are not known, he can attach no weight to the maps, however numerous and generally appreciated they may be".

in that event they would form an irrebuttable presumption, tantamount in fact to legal title. The only value they possess is as evidence of an auxiliary or confirmatory kind, and this also means that they cannot be given the character of a rebuttable or *juris tantum* presumption such as to effect a reversal of the onus of proof".[68]

This wary stance has been detected and documented in authoritative scholarly opinion,[69] and in certain instances has been met with considerable approval.[70]

Incompatible maps

When cartographic materials contradict one another, they lose credibility. As stated by the ICJ in the *Kasikili/Sedudu* case:

[68] *Frontier Dispute*, *supra* note 49, p. 583, § 56; See also *Eritrea/Yemen Arbitration*, *supra* note 65, p. 296, § 388: "The evidence is, as in all cases of maps, to be handled with great delicacy".; *The Government of Sudan/The Sudan People's Liberation Movement/Army (Abyei Arbitration), Final Award*, 22 July 2009, p. 256, § 741, *available at* <www.pca-cpa.org>: "The Tribunal is similarly very reluctant to equate the eastern and western limits of the area occupied by the Ngok Dinka transferred in 1905 with the 1933 pencil depiction of Ngok Dinka's dry season grazing area on a sketch map, especially when more comprehensive and specific evidence is available".

[69] Sakeus Akweenda, "The Legal Significance of Maps in Boundary Questions: A Reappraisal with Particular Emphasis on Namibia", *British Yearbook of International Law*, Vol. 60, 1990, p. 212; A.O. Cukwurah, *The Settlement of Boundary Disputes in International Law*, Manchester, Manchester University Press, 1967, pp. 224-225; Hyde, *supra* note 19, pp. 313-315; Victor Prescott & Gillian D. Triggs, *International Frontiers and Boundaries: Law, Politics and Geography*, Leiden, Nijhoff, 2008, pp. 194-195; Durward V. Sandifer, *Evidence before International Tribunals*, 2nd ed., Charlottesville, University Press of Virginia, 1975, p. 235; Guenter Weissberg, "Maps as Evidence in International Boundary Disputes: A Reappraisal", *American Journal of International Law*, Vol. 57, 1963, p. 781.

[70] *E.g.* Ian Brownlie, *The Rule of Law in International Affairs: International Law at the Fiftieth Anniversary of the United Nations*, The Hague, Nijhoff, 1998, p. 156.

"(…) in the light of the uncertainty and inconsistency of the cartographic material submitted to it, the Court considers itself unable to draw conclusions from the map evidence produced in this case". [71]

Maps showing the nine-dotted-line paint a different picture of the South China Sea than cartographic evidence and other materials of the regional littoral states. It would be hard to gain an accurate understanding of maritime and political boundaries based solely on a juxtaposition of these maps. Additionally, portrayals of the U-line are not consistent. As mentioned above, the U-line in PRC cartography prior to 1953 consists of 11 dashes, whereas later versions of the dotted line consist only of 9 segments. No official reasons have been given for the mysterious removal of two dashes.

Incoherent/ambiguous cartographic symbols

Ambiguous cartography has surfaced in arbitral proceedings in the past. In the *Eritrea/Yemen Arbitration*, Eritrea submitted maps depicting

[71] *Kasikili/Sedudu Island*, *supra* note 50, p. 1100, § 87; See also: *Dubai/Sharjah Border Arbitration*, 19 October 1981, 91 *I.L.R.* 543, p. 630, § 168: "In the view of the Court it is necessary to set aside both of the maps prepared by Mr Walker, in so far as the location of Hadlib Azana is concerned, since, although prepared by the same person, they are mutually contradictory on the general line of boundary in this area. It is futile to speculate further on the possible reasons for such a contradiction"; *Eritrea/Yemen Arbitration*, *supra* note 65, p. 296, § 388: "The evidence for this period is beset with contradictions and uncertainties. Each Party has demonstrated inconsistency in its official maps. The general trend is, however, that Yemeni map evidence is superior in scope and volume to that of Eritrea. However, such weight as can be attached to map evidence in favour of one Party is balanced by the fact that each Party has published maps that appear to run counter to its assertions in these proceedings"; *Delimitation of the Border between the State of Eritrea and the Federal Democratic Republic of Ethiopia*, *Eritrea-Ethiopia Boundary Commission*, 1 January 2002, 41 *I.L.M.* 1057, p. 1089, § 4.67: "The map evidence is not uniform and consistent. Much of it supports the existence of a Belesa projection and attributes the territory within it to Eritrea. There are, however, significant maps which do not do so, or do so only in part".

dotted lines in support of their claims. The Tribunal made short shrift of the party's evidentiary approach:

"In some instances the Tribunal cannot agree with the characterization of the maps sought by the Party introducing it. Moreover, the Tribunal is unwilling, without specific direction from the map itself, to attribute meaning to dotted lines rather than to colouration or to labeling. The conclusions on this basis urged by Eritrea in relation to a number of its maps are not accepted". [72]

Naturally, the analogy with the U-line, the lack of a map legend, and cryptic wording contained in the PRC's letter to the UN Secretary-General is readily made. The perplexity is all the greater because the depiction of the 9-dotted-line deviates from international cartographic standards developed by the International Hydrographic Organization precisely for the purpose of clarity. [73]

Unclear intent

As rightly pointed out by Judge Oda in his separate opinion in *Kasikili/Sedudu*: "(…) a claim to territory can only be made with the *clear indication of a government's intention*, which may be reflected in

[72] *Eritrea/Yemen Arbitration*, *supra* note 65, p. 295, § 382.

[73] The dashes used to draw the Chinese U-line do not match chart specifications developed by the International Hydrographic Organization for indicating international maritime boundaries, the territorial sea, the contiguous zone, the EEZ, the continental shelf, fishery zones etc. See International Hydrographic Organization, *Regulations of the IHO for International (INT) Charts and Chart Specifications of the IHO*, Monaco, International Hydrographic Bureau, 4th ed., 2010, B-440, C-407 (International Boundaries and National Limits) *available at* <www.iho-ohi.net/iho_pubs/standard/S-4/S4_v4.000_Sep10.pdf>. This type of argument was advanced by Ukraine against Romania in the *Black Sea* case. See Counter-memorial of Ukraine, *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, 19 May 2006, 5.141-5.149, pp. 123-125.

maps. A map on its own, with no other supporting evidence, cannot justify a political claim" (emphasis added).[74] *In casu*, the criterion of discernible intent on the part of the PRC government is not adequately fulfilled. The variety of interpretations of the U-line offered by legal scholars as well as the PRC's ambiguous note verbale *de dato* 7 May 2009 bear witness to this conclusion. Besides confusing sentences structures, terms employed in the note verbale, namely "relevant waters" and "adjacent waters", are particularly puzzling as they do not appear anywhere in the 1982 Convention. The ostensibly deliberate vagueness is exacerbated for the PRC has yet (*anno* 2010) to pass legislation giving the U-line any effect in its domestic legal order.[75]

Even if one could unearth the PRC's intention behind the map, the legal implications thereof should not be overestimated. Turning back to Judge Oda's aforementioned writings:

"A map produced by a relevant government body may sometimes indicate the government's position concerning the territoriality or sovereignty of a particular area or island. However, that fact alone is not determinative of the legal status of the area or island in question. The boundary line on such maps may be interpreted as representing the maximum claim of the country concerned, but does not necessarily justify that claim".[76]

[74] *Kasikili/Sedudu Island*, *supra* note 50, Separate Opinion of Judge Oda, pp. 1133-1134, § 40. See also: *Frontier Dispute*, *supra* note 49, p. 583, § 57: "The Chamber now turns to the maps produced in this case. Not a single map available to the Chamber can reliably be said to reflect the intentions of the colonial administration expressed in the relevant texts concerning the disputed frontier".

[75] Smith, *supra* note 45, p. 224.

[76] *Kasikili/Sedudu Island*, *supra* note 50, Separate Opinion of Judge Oda, pp. 1133-1134, § 40.

Lack of neutrality

When a map is drawn up by an impartial expert its probative value tends to increase. *A contrario*, cartographic materials produced at the behest of one of the parties in a dispute will be viewed with more suspicion. The arbitrators in the *Beagle Channel Arbitration* commented along these lines:

"While maps coming from sources other than those of the Parties are not on that account to be regarded as necessarily more correct or more objective, they have, *prima facie*, an independent status which can give them great value unless they are mere reproductions of/or based on originals derived from maps produced by one of the Parties, - or else are being published in the country concerned by, or on behalf, or at the request of a Party, or are obviously politically motivated. But where their independent status is not open to doubt on one or other of these grounds, they are significant relative to a given territorial settlement where they reveal the existence of a general understanding in a certain sense, as to what that settlement is, or, where they conflict, the lack of any such general understanding".[77]

The lack of neutrality is patently evident with respect to the 9-dotted-line. As discussed in part II.a), the history of the U-line can be traced back to an internal commission established by the ROC government to update the Chinese map and reassert its position. Such a unilaterally-appointed and staffed governmental body can hardly be deemed impartial vis-à-vis other interested states in the South China Sea

[77] *Beagle Channel Arbitration (Argentina v. Chile)*, 18 February 1977, 21 *R.I.A.A.* 53, p. 167, § 142. See also *Frontier Dispute*, *supra* note 49, p. 583, § 56: "Other considerations which determine the weight of maps as evidence relate to the neutrality of their sources towards the dispute in question and the parties to that dispute".

region. It should not be forgotten that conscientious map-makers can be used for deceitful purposes:

"[A] map-maker (…) may be employed to reveal what a particular State such as his own asserts to be the full measure of its territorial domain, regardless of the propriety of the assertion and without intimation that the portrayal depicts the scope of a claim rather than the position of an accepted boundary. Through subsequent copying and reproduction by unsuspecting cartographers not only are these erroneous accounts perpetuated but the very fact of repetition tends to endow them with legal sanction by producing a large number of maps unanimous in their testimony".[78]

Technical imprecision

In his treatment of the evidentiary value of maps, De Visscher included the following criteria: "(…) les garanties d'exactitude géographique intrinsèques de la carte (…), sa précision au regard des points contestés (…)".[79] According to Brownlie, "a map has probative value proportionate to its technical qualities".[80]

[78] A.O. Cukwurah, *The Settlement of Boundary Disputes in International Law*, Manchester, Manchester University Press, 1967, p. 224. See also Hyde, *supra* note 19, p. 315: "(…) the aggressive territorial aspirations of a state may, in the course of a span of years, be reflected in a progressive series of maps that grimly depict the actual and gradual advance; and the later portrayals may thus differ sharply from the earlier ones, even though no treaty has in fact extended limits or modified a frontier".

[79] Charles De Visscher, *Problèmes de confins en droit international public*, Paris, Pedone, 1969, p. 46.

[80] Ian Brownlie, *African Boundaries: A Legal and Diplomatic Encyclopaedia*, London, Royal Institute of International Affairs, 1979, p. 5.

Case law also points to the requirement of technical precision in maps.[81] In the *Island of Palmas* case, sole arbitrator Max Huber wrote that:

"[T]he first condition required of maps that are to serve as evidence on points of law is their geographical accuracy."[82]

The ICJ opined that:

"The actual weight to be attributed to maps as evidence depends on a range of considerations. Some of these relate to the technical reliability of the maps. This has considerably increased, owing particularly to the progress achieved by aerial and satellite photography since the 1950s. But the only result is a more faithful rendering of nature by the map, and an increasingly accurate match between the two. Information derived from human intervention, such as the names of places and of geographical features (the toponymy) and the depiction of frontiers and other political boundaries, does not thereby become more reliable. Of course, the reliability of the toponymic information has also increased, although to a lesser degree, owing to verification on the ground; but in the opinion of cartographers, errors are still common in the representation of frontiers, especially when these are shown in border areas to which access is difficult".[83]

[81] Cukwurah, *supra* note 78, pp. 217-220.

[82] *Island of Palmas*, *supra* note 63, p. 853. Cited in *Dubai/Sharjah Border Arbitration*, *supra* note 71, p. 630, § 168. See also *Delimitation between Eritrea and Ethiopia*, *supra* note 71, p. 1075, § 3.19: "The Commission is also aware that maps, however informative they may appear to be, are not necessarily accurate or objective representations of the realities on the ground".

[83] *Frontier Dispute*, *supra* note 49, pp. 582-583, § 55. See also *Beagle Channel*, *supra* note 77, p. 174, § 154: "The Court is obliged to conclude therefore that the Pelliza map is of too uncertain a character to have the requisite probative value (…)".

In light of these views, the advent of modern technology could increase judges' recourse to map evidence. An excellent case in point is the ICJ's 2004 advisory opinion on the *Israeli Wall* in which it relied (in part) on an electronic map posted on the Israeli Ministry of Defence website to pinpoint the current and future route of the wall in Palestinian territories.[84] Conversely, it does not seem that the Chinese map can meet stringent technical standards. Although the Chinese interrupted lines generally follow the 200 meter isobath, they have so far never been precisely demarcated, thus lacking accurate geographic coordinates.[85] In addition, there seems to be some slight inconsistency among PRC maritime cartographic materials: the endpoints of the 9 different segments that make up the line vary (variations have been found ranging from 1 to 5 nm).[86]

An additional element contributing to the inaccuracy of the Chinese map is its excessively small scale. The ICJ has lamented maps drawn to an insufficient scale. A prime illustration can be found in *Land, Island and Maritime Frontier Dispute*:

"Honduras has produced a second map, of 1804, showing the location of the ecclesiastical parishes of the province of San Miguel in the Archdiocese of Guatemala. The scale of this map is however insufficient to make it possible to determine whether the course of the

[84] *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, I.C.J. Reports 2004*, 9 July 2004, p. 168, § 80.
[85] Dzurek, *supra* note 3, p. 12; Zou, *supra* note 5, p. 51.
[86] Dzurek, *supra* note 3, p. 11.

last section of the river Goascoran is that asserted by El Salvador, or that asserted by Honduras".[87]

Similar problems have occurred before arbitral tribunals. For instance, the *Eritrea-Ethiopia Boundary Commission* held:

"Moreover, much of the map evidence is on so small a scale, or so devoid of detail, that it can only be treated as ambiguous in this respect".[88]

[87] *Land, Island and Maritime Frontier Dispute (El Salvador/Honduras: Nicaragua intervening), Judgment, I.C.J. Reports 1992*, 11 September 1992, p. 550, § 315. See also: *Kasikili/Sedudu Island*, *supra* note 50, Dissenting Opinion of Vice-President Weeramantry, p. 1176, § 73: "Maps can of course carry varying degrees of weight depending on their authorship and the circumstances in which they were made. Moreover, the scale of the maps is often so small as not to show clearly the particular area which is the subject of the dispute, while other maps which are sufficiently large can indicate the area of dispute in sufficient detail".

[88] *Delimitation between Eritrea and Ethiopia*, *supra* note 71, p. 1089, § 4.67. Earlier on in that case (p. 1076, § 3.21), the Commission also states: "A map (…) on so small a scale that its import becomes a matter for speculation rather than precise observation, is unlikely to have great legal or evidentiary value". See also: *Case concerning the Location of Boundary Markers in Taba (Egypt/Israel)*, 29 September 1988, 20 *R.I.A.A.* 1, p. 48, § 184: "The Tribunal does not consider these map-based indications to be conclusive since the scale of the map (1:100,000) is too small to demonstrate a location on the ground as exactly as required in these instances where the distances between disputed pillar locations are sometimes only of a few metres"; *Dispute concerning the Course of the Frontier between BP 62 and Mount Fitzroy (Argentina/Chile) ("Laguna del Desierto")*, 113 *I.L.R.* 1, 13 October 1995, p. 224: "In the first place, some observations are called for as regard the maps of scale 1: 10.000 submitted by Chile. These maps drawn to a scale considerably greater than that of the Map of the Mixed Boundary Commission or of those attached to the Chilean Submission of 31 January 1995, claim to provide a more accurate representation of the true topography of the ground".

Non-opposability of the map vis-à-vis other regional states

Applicable standard

Even if one accepts that the 9-dotted-line is an erroneous portrayal of reality, that does not mean that it can be cast aside forthwith. This point was elucidated in the *Beagle Channel*:

"(…) the importance of a map might not lie in the map itself, which theoretically might even be inaccurate, but in the attitude towards it manifested or action in respect of it taken by the Party concerned or its official representatives".[89]

The judges in *Temple of Preah Vihear* had a more pronounced take, sending a clear warning signal as to the potential effects of inadvertence in the face of cartographic assertiveness:

"(...) it is clear that circumstances were such as called for some reaction, within a reasonable period, on the part of the Siamese authorities, if they wished to disagree with the map or had any serious question to raise in regard to it. They did not do so, either then or for many years, and thereby must be held to have acquiesced. *Qui tacet consentire videtur si loqui debuisset ac potuisset*".[90]

Another instance of the linkage between maps and acquiescence was restated more recently by the *Eritrea-Ethiopia Boundary Commission*:

[89] *Beagle Channel*, *supra* note 77, p. 164, § 137.
[90] *Temple of Preah Vihear (Cambodia* v. *Thailand)*, *Merits*, *I.C.J. Reports* 1962, 15 June 1962, p. 23.

"A map *per se* may have little legal weight: but if the map is cartographically satisfactory in relevant respects, it may, as the material basis for, e.g., acquiescent behaviour, be of great legal significance".[91]

Of course, the fact patterns underlying the above-mentioned cases are wholly different from that with which we are faced, making it debatable whether the precedents could even apply here. *In casu* we are dealing with a purported maritime boundary, the establishment of which is, in the words of the ICJ, "a matter of grave importance and agreement is not easily to be presumed".[92] Furthermore, as rightly observed by Strupp:

"[T]his strange U-shape claim was so abnormal and so exorbitantly outside reality during the decades 30 to 60 that it is not conceivable that by way of "acquiescence with regard to map claims" a (tacit) recognition by the foreign states community of those "extremely irregular" pretensions, by application of rule *qui tacet consentire videtur si loqui debuisset ac potuisset* or else, could seriously come under examination".[93]

"In the utterly eccentric 'moon claim'-like circumstances of the SCS [South China Sea] 'U-shaped line' evidently exists no rational basis

[91] *Delimitation between Eritrea and Ethiopia*, *supra* note 71, pp. 1075-1076, § 3.22. The Commission similarly observes (p. 1076, § 3.21): "But a map produced by an official government agency of a party, on a scale sufficient to enable its portrayal of the disputed boundary area to be identifiable, which is generally available for purchase or examination, whether in the country of origin or elsewhere, and acted upon, or not reacted to, by the adversely affected party, can be expected to have significant legal consequences".
[92] *Nicaragua* v. *Honduras*, *supra* note 50, p. 735, § 253.
[93] Strupp, *supra* note 56, p. 17.

at all for such enormously high degree of 'hyper-sensitivity' on behalf of states confronted with adverse map claims in terms of 'acquiescence'".[94]

It would however be prudent to adopt an intermediate approach. Having examined a large body of state practice, Blum, in his influential work on historic titles, comes to the following conclusion:

"[R]ecent instances of protests lodged against 'map claims' seem to indicate that States do, in fact, 'keep a vigilant watch over the maps published by the civilized nations' (…). On the whole, it seems to emerge that States will be imputed with knowledge of each other's domestic legislative activities and other acts done under their authority, and that the plea of ignorance will be accepted only in the most exceptional circumstances. States desirous of reserving their rights will therefore be well advised to follow with a substantial amount of self-interested awareness the official acts of other States and to raise an objection to them - through the legitimate means recognized by international law - should they feel that their rights have been affected, or are likely to be affected, by such acts".[95]

Protest/lack of acquiescence

Assuming that the danger of implied acquiescence looms large, it must be demonstrated that coastal states have expressed their disapproval of the Chinese U-line policy and its underlying contentions. Some Chinese scholars have alleged that the international community has not voiced its dissent so as to prevent the solidification of Chinese pretensions in the South China Sea:

[94] *Id.*, p. 17, footnote 98.
[95] Yehuda Z. Blum, *Historic Titles in International Law*, The Hague, Nijhoff, 1965, p. 150.

"Upon the declaration of the nine-dotted line, the international community at no time expressed dissent. None of the adjacent states presented a diplomatic protest. This silence in the face of a public declaration may be said to amount to acquiescence, and it can be asserted that the dotted line has been recognized for half a century. In recent years, however, several Southeast Asian countries, which have been involved in sovereignty disputes of the South China Sea, have questioned the juridical status of the nine-dotted line".[96]

Zhao Guocai maintains: "Since the declaration of the 9-discontinued-and-dotted line, the international society at that time had not put forward any dissents. Neither had the adjacent States raised any diplomatic protests on the 9-dotted line. These amounted to acquiescence".[97]

Taking Vietnam as a case study, we can observe that these statements are unconvincing. An illustration of this point is Vietnam's objection to China's pretensions by stating that it would "not recognize any so-called 'historical interests' which are not consistent with international law and violate the sovereignty and sovereign rights of Vietnam and Vietnam's legitimate interests in its maritime zones and continental shelf in the East Sea".[98] More recently the Vietnamese government issued the following declaration in response to the PRC's 2009 note verbale:

[96] Li & Li, *supra* note 4, p. 290.
[97] Zhao, *supra* note 25, p. 22, translated in Li & Li, *supra* note 4, p. 292.
[98] UN Secretariat Office of Legal Affairs (Division for Ocean Affairs and the Law of the Sea), "Vietnam: Dispute regarding the Law on the Exclusive Economic Zone and the Continental Shelf of the People's Republic of China which Was Passed on 26 June 1998", *Law of the Sea Bulletin*, No. 38, 1998, p. 55.

"The Hoang Sa (Paracels) and Truong Sa (Spratlys) archipelagoes are part of Viet Nam's territory. Viet Nam has indisputable sovereignty over these archipelagoes. China's claim over the islands and adjacent waters in the Eastern Sea (South China Sea) as manifested in the map attached with the Notes Verbales CLM/17/2009 and CLM/18/2009 has no legal, historical or factual basis, therefore is null and void".[99]

Such conduct must comply with the international legal criteria necessary to imbue acts of protest with legal effect such that the U-line cannot be used against the protesting state. The temporal criterion[100] has been met in that the aforementioned examples quickly followed the Chinese acts it disapproved of. The requirement of clear intent has also been fulfilled in that the Vietnamese declarations are unequivocally aimed at preventing the coming into being of new Chinese legal entitlements. Another criterion also exists, namely that protest must be consistent and uninterrupted.[101] Nevertheless, as concerns the PRC, it seems unfeasible to apply this test in light of its ambiguous position vis-à-vis the map and what it truly signifies. After all, it is only possible to act by way of protest once the opposing state has made an official and intelligible claim. We have dealt in detail with the enigmatic character of the 9-dotted-line and the repercussions of ambiguous intent on the Chinese side. Thus, it is only possible to object to visible and comprehensible Chinese U-line assertions in the rare instances that they occur (*e.g.* the 2009 PRC letter to the UN Secretary-General).

[99] Vietnam, Letter to Secretary-General of the United Nations, New York, 8 May 2009, 86/HC-2009, *available at* <www.un.org/Depts/los/clcs_new/submissions_files/vnm37_09/vnm_re_chn_2009re_vnm.pdf>.
[100] *Land, Island and Maritime Frontier Dispute*, *supra* note 87, p. 577, § 364.
[101] *Fisheries (United Kingdom* v. *Norway), Judgment, I.C.J. Reports 1951*, p. 138; *Chamizal Case (Mexico, United States)*, 15 June 1911, 11 *R.I.A.A.* 309, p. 329.

Conclusion

In this short contribution we have attempted to uncover some of the legal uncertainties shrouding the dashes on the Chinese map of the South China Sea. Our analysis has brought us to the conclusion that as a matter of international law, the U-line lacks a solid basis, and thus poses problems if maintained as part and parcel of PRC as well as ROC official policy. Adherence to the nine-dotted-line is also out of step with the current management regime, which includes workshops, confidence-building measures and cooperation through joint development.[102] Fortunately, the PRC, the ROC and other regional actors have made use of these multilateral mechanisms and continue to do so in a fruitful manner. Our hope is that claimant states abandon unilateral cartographic assertions and focus their energies on mutually beneficial outcomes as regards the South China Sea.

[102] Hasjim Djalal, "The South China Sea: The Long Road Towards Peace and Cooperation", in Sam Bateman & Ralf Emmers (eds.), *Security and International Politics in the South China Sea: Towards a Cooperative Management Regime*, Abingdon, Routledge, 2009, pp. 186-188.