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**When is an 'Island' Not an 'Island' in
International Law?
The Riddle of Dinkum Sands in the
Case of *US. v. Alaska***

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The opinions contained herein are those of the authors and are not to be construed as those of IBRU.

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When is an ‘Island’ Not an ‘Island’ in International Law? The Riddle of Dinkum Sands in the Case of *US v. Alaska*

Clive R. Symmons

1. Introduction

This *Briefing* deals with the problem of defining an ‘island’ in international law arising from the United States federal/state case of *US v. Alaska* concerning the disputed status of a small formation in the Beaufort Sea known as ‘Dinkum Sands’. Issues arose here, under Article 10 of the 1958 Convention on the Territorial Sea, on the meaning of “*above water at high tide*” (where the formation itself goes up and down), the relevant tidal datum, the meaning of the term “*land*”, the possible necessity for locational permanence; and whether there is such a phenomenon in international law as a ‘seasonal’ or ‘occasional’ island. Although this was in essence not a case of inter-State litigation, it did directly involve international legal considerations. It is suggested, therefore, that the case has future importance for other insular disputes throughout the world as, to date, such issues concerning the law of the sea have never been judicially determined in any international tribunal.

Under the United States Submerged Lands Act,¹ the constituent States of the Union are entitled to “*the lands beneath navigable waters within the boundaries of the respective States.*” Thus in essence any seabed *outside* this definition is owned by the federal government who are consequently entitled to any revenues from exploitation of resources therein. As the Special Master put it in the case which is analysed in this *Briefing* – *US v. Alaska*:

*These proceedings concern the rights to lands underlying tidal waters off the Arctic coast of Alaska. Important oil and gas reserves have been discovered nearby [e.g. Prudhoe Bay], and the controversy arose from the desire of both sovereigns [sic] to grant leases for exploration of these offshore areas...In general, the Submerged Lands Act grants to the states lands under tidal waters out to three miles from their coastlines, and the United States [i.e. the federal government] retains the rights over resources of the continental shelf beyond the three-mile limit.*²

The vital phrase “*lands beneath navigable waters*” is defined to include:

...all lands permanently or periodically covered by tidal waters up to but not above the line of mean high tide and seaward to a line three geographical miles distant from the coast of each state...

Thus in essence, an individual US state has exclusive rights to revenues from minerals lying in its internal waters or “*within the traditional belt of territorial sea.*”³ In the post-war period much litigation has resulted in the US relating to this provision; and, as the Special Master summed up the matter in the most recent case, *US v. Alaska*:

¹ Chapter 65,67 Statute 29 (1953).

² No. 84 (Original) Supreme Court of the United States (March 1996) (*Report of the Special Master*, p.3). Hereinafter referred to as “Report, 1996.”

³ *Id.*: 3.

*Under the Submerged Lands Act...Alaska is entitled to a three-mile belt of submerged lands measured from its coastline. Under the Court's interpretation...[of the Act], the term 'coast' is in general to conform to the baseline [under the Territorial Sea Convention ('TSC')1958].*⁴

Importantly, it was determined in the earliest case, *US v California*⁵ (referred obliquely to in the above *dictum*), that international law governing the maritime definitions provided “*the best and most workable definitions available*”⁶, at least for most delimitation purposes.⁷ The international law instrument specifically referred to was the *UN Convention on the Territorial Sea and Contiguous Zone* (1958) (hereafter referred to as the TSC) to which the US was then a signatory⁸ and to the rules of which it (allegedly) “*moved...immediately on signing.*”⁹ Because of the international legal features evident in past US litigation, such essentially domestic litigation is of general interest to international lawyers and of direct relevance for delimitation disputes elsewhere between independent States.

For instance, if a particular matter of the law of the sea has not been aired in litigation involving a genuine ‘State-to-State’ situation, any determination of such a matter even in a (federal) domestic US context is of great persuasive value for the same matter when a truly international inter-State dispute arises. As a recent commentator on the case has stated, this latest one, like those federal-state cases previously, offers “*practical interpretations and applications of the baseline-drawing provisions of the law of the sea*”, and is an example of how “*municipal courts can give precise content to treaty rules.*”¹⁰ This is certainly true on the matter of the international legal definition of islands which has hardly been touched on in past inter-State litigation.¹¹

However, in some ways the case of *US v. Alaska* – analysed here in relation to the question of insular definition – has a ‘municipalised’ aspect to it in terms of creating an international precedent. To take one critical example, it seems to have gone unargued in the case that the usual US tidal datum practice¹² should be other than that of ‘mean high tide’ – in effect a very liberal criterion in determining insularity; whereas in this writer’s opinion, an attempt should have been made to discover (if possible) the appropriate international legal criterion, for which there are several possibilities.¹³ Unfortunately the Special Master seems to have uncritically accepted the (essentially domestic precedent) “*mean high tide*” test for the purposes of the case, though he does make occasional reference to the question of “*choice of tidal datum*”, so implying other tidal possibilities.¹⁴ As he states:

⁴ *Id.*: 228.

⁵ 381 US 139 (1965).

⁶ *Id.*: 164-5.

⁷ But see *Report*, 1996: 42.

⁸ The United States signed the TSC on 15 September 1958.

⁹ *Report*, 1996: 134; but note the Special Master’s doubts on this issue (*Id.*: 135). Alaska initially contested application of the TSC in the instant case (*Id.*: 228, fn.3).

¹⁰ Note by Bederman, 1998: 86 and 87 respectively.

¹¹ See the arbitral decision in the *Franco-British Arbitration on the Western Approaches*, *infra* fn.127.

¹² As reflected in the domestic case of *Borax Consolidated v Los Angeles* 296 US 10 (1935).

¹³ For a discussion on these ‘tidal datum’ possibilities before any judgment was given in *US v. Alaska*, see Symmons, 1995: 17-24, 27-28.

¹⁴ See his *Report*, 1996: esp. p.302, referring to the case of the Eddystone Rocks in the *Franco-British Arbitration* (see fn.11 *supra*).

*For a feature of fixed elevation, the application of Article 10 [of the TSC] requires only that one select [sic] an appropriate tidal datum to be used as ‘high tide’ and compare the elevation of the feature with that datum.*¹⁵

Notwithstanding this, the recent decision of the Special Master (in his *Report* of March 1996¹⁶) on the status in international law of a natural formation in the Beaufort Sea called ‘Dinkum Sands’ in *US v. Alaska* – and the confirmation of his findings by the (plenary) Supreme Court in its judgment of 19 June 1997 – is of great interest for the law of the sea. This is because for the first time (as stated above) the definition of an island in international law has been subjected to detailed analysis in a judicial setting.¹⁷

It was aptly stated in the US pleadings that “*naturally formed*” was probably the only criterion of legal insularity which was “*not at issue in this case.*”¹⁸ For example, even though dubious ‘islands’ have featured in at least one earlier state-federal dispute – *US v. Louisiana* – over the status of certain “*mudlumps*” as ‘islands’ in the Mississippi Delta¹⁹, the plenary Supreme Court in *US v. Alaska* considered that the Special Master’s finding there that Louisiana’s *Submerged Lands Act* grant could be measured from “*two mudlumps*” as “*not deciding whether the mudlumps were islands under Article 10(1) or low-tide elevations under Article 11(1) [of the TSC, 1958].*”²⁰

From the early 1980s, the present writer prepared a detailed *Report* on this issue of the legal status of ‘Dinkum Sands’ prior to appearing as an expert witness for the US (federal) side in 1984 when evidentiary hearings were held on the matter²¹ in this federal-state context. This was followed by further briefings from both sides in 1985, and final argument (for the first instance proceedings) in 1986.²² Other matters of international legal interest in this case include the question of drawing of straight baselines off the Alaskan coast²³ and the enclosing, and meaning, of “*bays*”²⁴; but these are considered beyond the scope of this *Briefing*. The Special Master finally made his *Report* in March 1996, followed by a (plenary) Supreme Court judgment of 24 February 1997 in response to the “*exceptions*” raised by Alaska to this *Report*.²⁵

¹⁵ *Report*, 1996: 302.

¹⁶ *Id.*

¹⁷ See fn.13, *supra*. and my critique there of lack of discussion of the totality this issue in many existing academic writings on islands (*Id.*: 17, fn.128 and 27, fn.190).

¹⁸ See US *Post-Trial Memorandum on Issue 5*, 1985: 11.

¹⁹ *Report*, 1996: 292.

²⁰ 138 L.Ed.231, 256 (see fn.25 below).

²¹ *Id.*: 11.

²² *Id.*: 227 and 228, fn.2.

²³ *Id.*: 19-174.

²⁴ *Id.*: 176-276.

²⁵ Reported in 521 USI and in US Supreme Court Reports, Lawyers Edition, Second Series, Vol.138, p.231 (8 August 1997). Hereafter referred to as ‘138, L.Ed., 2nd, 231’.

2. Origins of the Dispute over “Dinkum Sands”

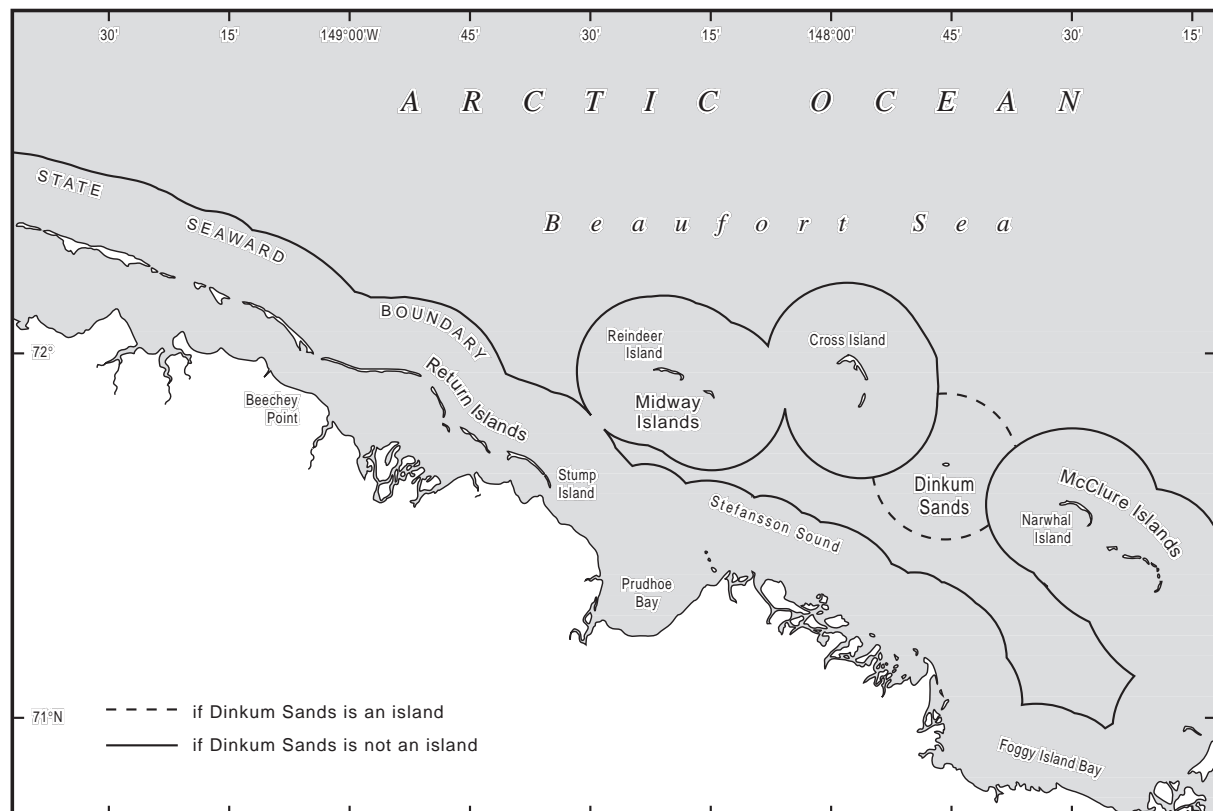
These are well summarised in the Special Master’s 1996 *Report*. Geographically speaking, the North Alaskan coastline is fringed by many barrier islands. The ‘formation’ (to use a neutral term) known as Dinkum Sands lies between the genuinely insular Narwhal and Cross ‘barrier’ islands (approximately 4-5 nautical miles (nm) from each) and about 8nm from the Alaskan mainland (see Figure 1). In size, the exposed part often amounts to about that of a sleeping bag (see Figure 3). But more generally the formation is completely covered by shallow water (see Figure 4).

2.1 Cartographic Evidence

Voluminous testimony was made in the proceedings as to the alleged existence of Dinkum Sands²⁶ dating from the early nineteenth century, including in particular cartographic evidence in this century. In 1949 a US Coast and Geodetic Survey encountered a formation described as “a new gravel bar baring about three feet.”²⁷ It was given the unlikely name of “Dinkum Sands” because a boat named *Fair Dinkum* had previously grounded on it. A survey target was then erected on it. At trial, expert testimony estimated it to be, at that earlier time, three to four feet above sea level and hundreds of yards wide and long;²⁸ and the resulting “*Smooth Sheet*” stated that the formation bared “[t]hree feet at mean high water.”

Based on this survey, US maps from the early 1950s showed Dinkum Sands as an island.²⁹ But in 1955, after an inspection of aids to navigation by the USS *Merrick* it was reported in dramatic and laconic fashion that the survey target was “not there.” Accordingly, the Coast and Geodetic Survey revised its charts, so that in the second edition thereof (in 1956), Dinkum

Figure 1: The Location of Dinkum Sands



Sands was now shown as a low-tide elevation and was indicated to be a navigational hazard which might not be visible to shipping.³⁰ However, in 1970, a move was made to change this description back to that of “*island*.” A member of the US Baseline Committee, Admiral Nygren (who was later to be an expert witness for Alaska in 1984), seemingly persuaded the Baseline Committee, purely on the basis of his experience in 1949, to approve a depiction of a three-mile belt of territorial sea around Dinkum Sands. Not surprisingly, Alaska seized on this fact with vigour in the recent litigation, if only because this factor acted as a sort of ‘estoppel’ against the federal government.³¹ It was on the basis of this last-mentioned map that federal and Alaskan State officials recommended approval of a leasing map for a joint oil and gas lease sale in the Prudhoe Bay area, assigning “*ownership of the territory around Dinkum Sands to Alaska*.”³² Unfortunately for Alaska, a marine geologist and expert glaciologist (on Arctic ice), Dr Erk Reimnitz (who was also to be a vital witness for the US federal side in the 1984 proceedings), noticed this designation and complained in 1979 to the Bureau of Land Management that he had not seen the formation in question above water in recent years. As a result, the above-mentioned Bureau proposed to cancel the three mile lease extending from the formation.

The plenary Supreme Court agreed with the Special Master on this issue, namely that the three cartographic sources, which hinged on recollection of a personal observation as early as 1949, were of no avail to Alaska. As the Supreme Court stated: “*visual observations of Dinkum Sands are not dispositive*”³³; and Alaska had not explained “*why the [Special] Master should have relied on a single August 1949 measurement of Dinkum Sands in relation to mean high water rather than on the exhaustive survey expressly designed to determine Dinkum Sands’ status under Article 10(1) of the Convention*.” As will be next discussed, the reference here to the “*exhaustive survey*” is to the jointly commissioned US/Alaskan study in 1981 to calculate mean high water in the feature’s vicinity and to determine the feature’s elevation in relation to the same.

2.2 Tidal Evidence

In view of the abovementioned turn of events, the two parties agreed in 1981 to commission a jointly-funded study to determine the formation’s height “*relative to mean high water*” (the latter being the traditional US charting test).³⁴ This study involved not only periodic topographical profiles of the feature in 1981 (a benchmark set at Dinkum³⁵) but also installation of tidal gauges in the Beaufort Sea to determine tidal measurements in 1980 and 1981 in an attempt to “*determine the level of mean water at Dinkum Sands and to determine the elevation of Dinkum Sands itself*.”³⁶ The basic result of this study – though hotly contested by Alaska – was that on the basis of both tests, Dinkum Sands was “*below mean high water on each of the three occasions when it was surveyed in 1981*”³⁷ (see Figure 2). In Alaska’s view, there should have been “*appropriate corrections*”³⁸ which would have lowered the mean high

³⁰ *Id.*: 232.

³¹ See Alaskan *Reply Brief*, 1985: 4, 8, 10, 44, 53, 66-69, 97, 100; and more generally, Symmons, 1995: 11.

³² *Report*, 1996: 233.

³³ 138, L.Ed., 2nd, 257.

³⁴ *Report*, 1996: 233. See also fn.12, *supra*.

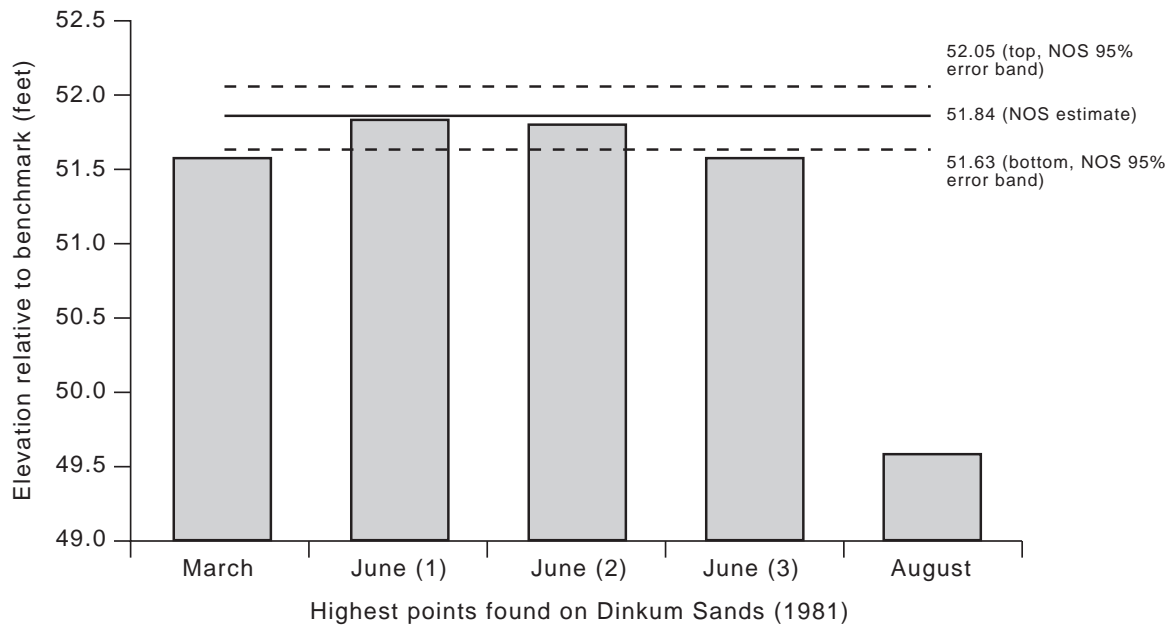
³⁵ *Id.*: 251.

³⁶ *Id.*: 248.

³⁷ *Id.*

³⁸ *Id.*

Figure 2: NOS Estimates of Mean High Water and Error Band Compared to 1981 Measurements of Dinkum Sands



water level, so showing that Dinkum Sands was above mean high water in two of the three 1981 surveys. As well as this, Alaska alleged a lack of precision in the assessment of mean high water. In other words, the contention was that “*the NOS [National Ocean Survey] estimate of mean high water [was] too high and also that the NOS error band [was] too narrow.*”³⁹

On this matter the Master did admit in his *Report*⁴⁰ that “[a]lthough the datum would ideally have been computed from 19 years of tide readings, no American tide station in the Arctic had such a long series of data.” The federal government recognised this as a “tidal epoch”,⁴¹ though Alaska was to argue that rising sea level should result in a retrospective correction downwards at Dinkum Sands.⁴² Such a 19-year period should ideally take into account such matters as changes in sea level (resulting from global warming) as well as glacial melting and vertical movements of the land;⁴³ but the Special Master rejected Alaskan complaints on this ground saying that:

*...in view of the evidence that the trend [in sea level] may vary locally not only in magnitude but in direction, and in view of the lack of evidence of trend specific to Dinkum Sands, I believe that NOS was justified in declining to take sea level trend into effect in making its estimate of mean high water.*⁴⁴

³⁹ *Id.*: 255.

⁴⁰ *Id.*: 249.

⁴¹ *Id.*: 259.

⁴² *Id.*

⁴³ *Id.*: 258. The global warming phenomenon has already been the subject of academic discussion elsewhere with regard to its potential effect on insular status in international law (see, e.g., Prescott and Bird, 1989: 279 and 287).

⁴⁴ *Id.*: 262.

This opinion as to the potential effects of global warming effects on the juridical status of islands – and the adoption of a “*here-and-now*” approach to tidal assessment – will be of interest to States throughout the world owning very low-lying formations in the case of any maritime boundary dispute.

In effect, the abovementioned chosen survey body, the NOS, had to check its estimates of mean high water in the region of Dinkum Sands by comparing data from other tide stations – including those in the Canadian Arctic – where longer-term data was available.⁴⁵ Such statistical analysis showed that the one year’s data was 95% accurate (plus or minus 0.206 of a foot or 2.47 inches). The “*error analysis*” problem, frequently described in the proceedings as the “*error band*”, which the NOS had worked out by looking at trends at the nearest American tidal stations which did have “*long data series*”,⁴⁶ as well as Canadian Arctic stations and those in southern Alaska, was to be (unsuccessfully) attacked by Alaska as being underestimated.⁴⁷ In fact Alaska claimed it should be “*enlarged to plus or minus 0.6 foot.*”⁴⁸ On this the Special Master stated with impeccable common sense;

*The controlling point is the estimate of mean high water, for whatever the width of the error band, the chance that the estimate of mean high water is too high is matched by an equal chance that it is too low. Although there may be more or less uncertainty about how accurate the estimate would prove to be after 19 years of observation it is the best estimate now available.*⁴⁹

In any event, Alaska had effectively agreed, as had the US federal side, in setting up the joint monitoring project, to consciously give up “*some precision of result for the sake of reasonable time and expense.*”⁵⁰ This is not, of course, a problem unique to this case; for in the case of many disputes over ‘marginal islands’ elsewhere in the world it is similarly unlikely that the optimum timescale of tidal monitoring – of, as seen above, 19 years⁵¹ – would be available.

A further adjustment was advocated by Alaska because of weather, the allegation being that during the NOS monitoring project “*abnormal weather caused the water level around Dinkum sands to be exceptionally high*”, so that the estimate of mean high water should be reduced by 0.72 of an inch. This was supported by expert testimony on the Alaskan side.⁵² However the Special Master found this, in effect, not to be relevant as, even if it were true, the adjustment would still leave the formation below the abovementioned error band level.

By way of contrast, *subsequent* to 1981, a number of further observations of Dinkum Sands were made (in 1982 and 1983) when on “*several occasions*” the formation was found to be above mean high water.⁵³ These were also to be taken account of by the Special Master.

⁴⁵ *Id.*: 250.

⁴⁶ *Id.*: 267.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*: 269, fn.34.

⁵¹ See fn.40, *supra* and accompanying text.

⁵² See *Report*, 1996: 263-4.

⁵³ *Id.*: 276. See *infra* fn.79 and accompanying text.

2.3 Variation in the Elevation of the Formation Itself

Determining the high tide level relative to Dinkum Sands involved in this instance more than simply “*measurement of tidal datum.*”⁵⁴ For it was evident that the formation itself was apt to go up and down because of “*changes of elevation*”⁵⁵ – what might be whimsically described as the “*now-you-see-it-now-you-don’t*” phenomenon. As the Supreme Court posed the problem: “*Apart from daily shifts in the tide and seasonal shifts in sea level, the feature itself changes height.*”⁵⁶ So this aspect involved further investigation in the case by subcontractor surveyors of the joint monitors mentioned above. These subcontractors measured the height of Dinkum Sands on three occasions under different conditions, in March, June and August 1981 (Figure 2).

On the first occasion (in March) Dinkum was under the ice – in fact, ice covers the feature for some nine months of the year. As a result, holes were drilled through the ice until gravel was reached and that distance measured.⁵⁷ There is no doubt that in any ice-bound environment like the Arctic, topographic surveys for gauging insularity are attended by added practical difficulties, most particularly the seasonal overlying pack ice.

The March survey showed the highest point to be some 0.28 feet below mean high water. However the three apparently highest sites were also excavated for examination of the ice and gravel content. The legal significance of this will be discussed later. The second survey in June was done at a time when the pack ice was melting and the highest readings were barely below estimated mean high water⁵⁸ (i.e. close to the middle of the 95% estimated error band). This survey may have been made inaccurate as a result of gravel disturbance in the course of carrying out the previous survey, so further downgrading its importance,⁵⁹ particularly as the gravel “*was on top of clear ice.*”⁶⁰ Another problematic aspect of the case was that ‘ice rubble pile’ could also be easily confused as being a pile of (terrestrial) gravel.⁶¹

The third survey took place after the melt in “*open-water season*” in mid-August. This produced the most dramatic result that was to flavour important legal aspects of the case; namely that there was an underwater “*slump*” at this time of the season bringing the highest apparent point “*2.90 feet below water.*”⁶² The US federal side’s explanation of this “*decline*”⁶³ was that it was largely due to “*melting of ice embedded in the formation.*” Indeed, one of their expert witnesses, Dr Reimnitz,⁶⁴ estimated that on the basis of “*excess ice*” found in the formation – roughly 50% – the summer thaw would penetrate to a depth of one metre. The effect of this phenomenon would be the reduction of the height of Dinkum Sands by 1.6 feet during the summer. Not surprisingly, the Special Master stressed that “*late season data is necessary to an adequate picture of the behaviour of Dinkum Sands over the year.*”⁶⁵ Anything less would have given a distorted picture and would have led to what may be described as the “*seasonal island*” problem.

⁵⁴ *Id.*: 253.

⁵⁵ *Id.*

⁵⁶ 138, L.Ed. 2nd: 258 (emphasis added).

⁵⁷ *Report*, 1996: 253.

⁵⁸ *Id.*: 254.

⁵⁹ *Id.*: 255.

⁶⁰ *Id.*: 255, fn.25.

⁶¹ *Id.*: 280.

⁶² *Id.*: 254 and 269. See Figure 4.

⁶³ *Id.*: 269.

⁶⁴ *Id.*: 270.

⁶⁵ *Id.*: 280.

On this whole question of the correct elevational height of Dinkum Sands, the Special Master found that even if Alaska's proposed amended adjustments to height were accepted, the elevations found to exist in June (allegedly *above* the critical datum) were "*based on questionable piles of gravel.*"⁶⁶

The Alaskan side attempted to bolster its argument, interrelated as it was with rising sea level trends as mentioned above, by contending that barrier islands (which in Alaska's opinion included Dinkum Sands)⁶⁷ "*adapt to long-term increases in sea level by gaining in elevation and migrating landward.*" This too was rejected by the Special Master, particularly as if it did not occur at Dinkum, adjusting the sea level backwards in time could "*prolong its status fictitiously.*"⁶⁸

3. The Gist of the Legal Dispute

3.1 Was Dinkum Sands an "Island" in International Law?

As seen above, a large part of the *US v. Alaska* litigation centred on what might be described as Alaska's "*methodological objections*";⁶⁹ but international legal factors also figured prominently in the Dinkum Sands problem. The two parties were agreed that for Dinkum Sands to be part of the Alaskan "*coastline*" for the purposes of the US legislation, it had to be "*an island as defined in Article 10(1)*" of the TSC of 1958,⁷⁰ in other words, "*a naturally formed area of land, surrounded by water, which is above water at high tide.*" In identification of the issues to be decided by the Special Master of the Supreme Court, a "*Joint Statement of Questions Presented*" was submitted in 1980 which listed as Question 5 the following:⁷¹

Is the formation known as Dinkum Sands an island constituting part of Alaska's coastline for the purposes of delimiting Alaska's offshore submerged lands?

The basic federal government contention was that Dinkum Sands was nothing more than a low-tide elevation⁷² at best, (or even merely part of the seabed⁷³), whilst the Alaskan contention was that it was an 'island'. As the Special Master summed up the position:

*If Dinkum Sands fails to qualify as an island, it may be only a submerged shoal, or it may be a low-tide elevation [under Art.11 of the TSC],*⁷⁴

in either of which event "*the legal consequences would be the same*", namely,

⁶⁶ *Id.*: 257.

⁶⁷ *Id.*: 263-4.

⁶⁸ *Id.*: 263.

⁶⁹ This was the view taken by the Supreme Court on appeal (the filing of "*exceptions*"). See 138, L.Ed., 2nd, 258.

⁷⁰ *Report*, 1996: 263-4.

⁷¹ See Appendix A of the *Report*, 1996.

⁷² Defined in Article 11 of the TSC as a "*naturally-formed area of land which is surrounded by and above water at low tide but submerged at high tide.*"

⁷³ See Symmons, 1995: 10. In some disputes the States concerned have agreed to designate low-tide elevations as simply part of the seabed for reasons of convenience. See Burmester, 1982: 333.

⁷⁴ *Report*, 1996: 229.

*[b]ecause it lies more than three miles from the nearest point on the coastline [including the nearest islands], status as a low-tide elevation would be insufficient to create Submerged Lands Act rights in Alaska (see Figure 1).*⁷⁵

The Special Master indicated throughout his *Report* that the answer to the Question 5 insular issue lay essentially in the realm of international law; and that the “*significance of the varying measurements of Dinkum Sands depends on interpretation of the standard for an island*” (in international law).⁷⁶

3.2 Particular Problems over Dinkum Sands’ Insular Status

3.2.1 Was it “above water at high tide”?

The main⁷⁷ problem relating to Dinkum Sands’ insular status was whether it was “*above water at high tide*” for the purposes of the TSC in the light of the fact (as seen above) that the formation was likely to have been “*below mean high water continuously*” during the topographic survey mentioned above,⁷⁸ but possibly was above this mean level in July 1982 and from May to September 1983.⁷⁹ In other words, the above-surface manifestation of this formation did vary from time to time; and added to this uncertainty was the masking effect of the Arctic environment, namely that being covered over by pack ice for some nine months of the year, “*very little*” was known “*about the usual elevation of Dinkum Sands during the winter.*”⁸⁰ However, despite the latter ‘climatic factor’ difficulty, the plenary Supreme Court still stated categorically that there was “*no basis*” for concluding that Dinkum Sands “*remains above mean high water during the winter months.*”⁸¹

The Special Master indicated that on this vital question (‘above high water’) there was “*fundamental disagreement*” between the Parties.⁸² Other legal issues also arose, though these might be seen as being only tangentially inter-related with this (and were, in fact, dealt with separately in this writer’s *Report*). These other issues included whether the composition of Dinkum Sands was even “*land*” (discussed below in section 6). However, the Special Master took a different view, opining that “*the extent to which Dinkum Sands qualifies as ‘land’ and the extent to which its characteristics must be permanent*” could “*most readily be treated as questions about aspects of the meaning and application of ‘above water at high tide.’*” Though there is undoubtedly some pragmatic value in this synthetic viewpoint, the present writer disagrees with it on the basis of over-simplification of the problem. Nonetheless, the Special Master’s methodology on this will be followed in the following discussion.

⁷⁵ *Id.*: 230. See also fn.5 where the Special Master describes the fact that the formation was within a 12-mile distance of the nearest baselines “*immaterial.*” This is because for the purposes of the Submerged Lands Act, the former territorial sea distance of 3nms is fossilised as a statutory distance.

⁷⁶ *Id.*: 283.

⁷⁷ *Id.*: 288, the “*critical*” evaluation.

⁷⁸ *Id.*: 287.

⁷⁹ *Id.*: 288.

⁸⁰ *Id.*

⁸¹ 138, L.Ed., 2nd: 258.

⁸² *Report*, 1996: 229.

3.2.2 The Notion of 'Permanence' in the Definition of an Island

Two problems relating to permanence were raised in the case, namely “vertical” permanence and “horizontal” permanence. Horizontal permanence was seen to apply (in its broadest sense) where a formation frequently changes position relative to above-surface manifestation. The other of the types of definitionally-relevant permanence, so-called vertical permanence, is particularly important. This latter, in the Master’s view,⁸³ had two aspects to it in its “several overlapping strands”, including (firstly) “long-term existence” as “an identifiable feature” and, (secondly) “whether the feature must always be above the tidal datum.” He found the first point – long-term existence – to be satisfied. As he said:

*Taking the name ‘Dinkum Sands’ to refer to the entire formation, most of which is always submerged, the US agrees that a permanent feature exists.*⁸⁴

With respect, this is a rather unlegalistic interpretation of the evidence where there is no international dispute as to title as such. From an international legal view, an inquiry as to insular status should be concerned not so much with evidence of the existence of a geographical phenomenon – such as a mere shoal – in a particular locality, as with the continuing existence (in at least a relatively fixed position) of an insular (i.e., *above-water* phenomenon) formation as such. For example, in the Bay of Bengal, practical problems have arisen in the case of some low-lying “chars” as to whether after serious monsoon flooding, a new insular feature is in fact the former “char” or a completely reformed one.⁸⁵ This might have repercussions for ownership of a named phenomenon in appropriate cases, but it seems not to be directly relevant for assessing insular status under the law of the sea.

The Special Master did admit that “[i]t is certainly possible for a **new island** to come into existence and be recognised as such under Article 10 [of the TSC].”⁸⁶ There were several examples of such mentioned in the present writer’s expert witness *Report* in the case, though, of course, many such formations may be transient and lack long-term existence above high water.⁸⁷ In some parts of the world the legal status of such suddenly formed ‘islands’ – e.g. from volcanic eruption – may cause disputes.⁸⁸

Contrariwise, the Special Master stated that it was “possible for an existing island to disappear, changing the waters around it from territorial sea to high seas.”⁸⁹ The problem of the “disappearing”, or indeed, “disappeared” insular formation, is (again) not geographically uncommon; and may indeed ultimately involve a change of basepoints for maritime

⁸³ *Id.*: 288.

⁸⁴ *Id.*: 288.

⁸⁵ See Symmons, 1995: 25-26.

⁸⁶ *Report*, 1996: 305 (emphasis added).

⁸⁷ See Symmons, US Exhibit 84A, 1984: 53-60. This ‘transience’ may relate particularly to ‘ice islands’. For example, it was reported in March 1989, that a German Antarctic expedition failed to find two small “islands” supposedly discovered by an Australian team in 1961 (the so-called “Terra Nova Islands”), thought to be 17 miles off the Antarctic coast (*Daily Telegraph*, 9 March 1989).

⁸⁸ For example, the Icelandic islet of Surtsey (see *Id.*: 58-59; and, Symmons, 1995: 25-26, fn.12). A dramatic example reported in June 1979, happened in the Pacific Tonga island chain between the volcanoes of Kao and Late when the green outline of a (volcanic) mountain peak could be seen from the air just beneath the surface, only to rise dramatically above the surface a few days later as an ‘island’ some 10 miles in diameter (see *Daily Telegraph*, 27 June 1979).

⁸⁹ *Report*, 1996: 305.

delimitation purposes,⁹⁰ unless, possibly, the interested States have provided by agreement for maintenance of such an unstable basepoint in perpetuity.⁹¹

The situation of the “*disappearing island*” is in fact a very real one throughout the world: that is to say a (generally) small formation which undoubtedly (even if only marginally) exists today,⁹² but which may by dint of erosion or similar forces may disappear for ever tomorrow, is somewhat analogous to one which comes and goes in the same location with great regularity, but where there is no imminent danger of complete future disappearance. In either case – as the writer himself has stated in his expert witness *Report* and elsewhere⁹³ – there are definitional problems associated with “*permanence*.” These difficulties have sometimes led States to employ artificial means to prevent such situations arising, either by effectively rebuilding a formation which is only marginal or disappearing (e.g. on some Pacific reefs⁹⁴) or at least taking preventative measures to prevent erosion around the formation.⁹⁵ In the latter case the formation arguably retains its legal insular status. Apart from this, however, in the case of the slowly disappearing ‘island’ it may be difficult to argue – even on the basis (if it is the case) of its pre-existing longevity – that it retains insular status in perpetuity short of “*fossilised*” status in a treaty.⁹⁶

The Special Master did make some brief reference to this problem when he said (implying that insularity may be lost as well as gained):

*It may be that Dinkum Sands did qualify as an island in 1949-50 [see above fn.27]. If so, it has changed its status since then. As noted in section 3(c) another sustained change could conceivably take place in the future.*⁹⁷

The other ‘impermanency’ situation may be dubbed that of the “*occasional*” (or even “*seasonal*” ‘island’. As will be seen,⁹⁸ “*relative permanency*” tests again seem important here in assessing legal insularity – i.e. whether the formation appears for sufficiently long periods and regularity above tidal datum.

3.2.3 ‘Horizontal’ Permanence

One of the problems with Dinkum Sands was not only that it tends itself to go up and down, but also (and in conjunction with this), to move about. The US federal side argued that there had been “*dramatic movements of the exposed area of Dinkum Sands*”;⁹⁹ and indeed it appears that this ‘shoal’ area in the Beaufort Sea is constantly changing position, often by hundreds of

⁹⁰ See this author’s expert witness *Report* in the case (Symmons, 1984 (*supra* fn.87): 54-55).

⁹¹ As, e.g., by treaty provision as in the Papua New Guinea-Australia delimitation treaty (ILM, 1979: 291) discussed by Burmester, 1982: 321 and 341. More generally it may happen by estoppel.

⁹² A good example would be where a few coral boulders have been thrown up on a low-lying reef (i.e., essentially a low-tide elevation) by storm surges, as, e.g., in some areas of the Pacific. See, e.g., Prescott, 1985: 190 who says in respect of such a phenomenon round the edge of Tokelau and Tele ki Tonga reefs that “[t]hese features are probably impermanent” – for example, a “*prominent boulder*” shown on Admiralty chart BA985(1979) had “*disappeared by June 1980.*”

⁹³ See Symmons, 1995: 25-26.

⁹⁴ *Id.*: 2.

⁹⁵ *Id.*: 3.

⁹⁶ See fn.91, *supra*.

⁹⁷ *Report*, 1996: 309 (emphasis added).

⁹⁸ *Infra* Section 5.

⁹⁹ *Report*, 1996: 289.

feet (and may even be subject to “*long-term drift*”¹⁰⁰). Thus this writer argued, as referred to by the Special Master, that this phenomenon, might, (albeit in a subsidiary sense and only if the formation is of a “*fickle nature*” and “*moves in a haphazard or frequent fashion*”) disqualify a formation from having insular status in international law.¹⁰¹ This could be argued on the basis that there is no such thing as an “*ambulatory island*” in international law,¹⁰² at least where the movement is sudden and dramatic.¹⁰³

The “*policy rationale*” that might be put forward for this for this, as repeated by the Special Master,¹⁰⁴ is that “*mariners need to be sure of the position of the territorial sea, which is arguably impossible if mobile islands are taken into account.*” Indeed, this navigational factor has found isolated mention by commentators such as Fulton¹⁰⁵ who talks of sandbanks (in the context of a 1882 North Sea Fishery Treaty) which “*may not be permanent, and usually vary in extent, configuration and position with lapse of time and even after a single tempest*” so causing the “*extent of appendant sea*” to “*vary likewise.*” And in past US oil and gas leases, this “*ambulatory*” difficulty over baselines generally has been referred to¹⁰⁶ as raising “*extraordinary practical difficulties*” in this context for the lessee.

In the writer’s view (as stated in the case), American precedents arguably exist to bolster a locational ‘permanency’ rule for true islands. In the much-cited *Anna* case involving capture of a ship within three miles of the American “*mudlumps*” in the Mississippi Delta, these formations were described by the captor’s counsel as “*temporary deposits of logs and drift.*”¹⁰⁷ In more recent times, however, these “*mudlumps*” were described in *US v. Louisiana*¹⁰⁸ as “*islands*” despite their “*highly changeable and perhaps mobile nature.*” Although the US federal side argued in the *US v. Alaska* case that “*the appearances of Dinkum Sands*” were “*far more fleeting than those [Mississippi formations]*”, the Special Master paid no special heed to this as he found such insular ‘behavioural’ evidence to be unclear.¹⁰⁹

In fact on this question of horizontal permanence, the Special Master, seemingly influenced by the fact that “[*m*]ore generally, it is clear from the [TSC] that mariners must live with an *ambulatory coastline*”,¹¹⁰ decided that the Supreme Court “*has chosen to accept resource*

¹⁰⁰ The phenomenon of ‘long-shore drift’ was the subject of voluminous evidence from Alaska in the case.

¹⁰¹ *Report*, 1996: 290.

¹⁰² *Id.*

¹⁰³ If a formation’s topographical movement is only *gradual* or virtually imperceptible, then the legal situation may be different. See, for instance, the Special Master’s statement that: “[*i*]t is not, suggested...that this movement [*i.e.* of neighbouring islands migration landward by about 11 metres a year as a result of ‘long-shore drift’] changes the legal status of [those] islands” (*Report*, 1996: 290-291, fn.46). One of the US expert witnesses, Erk Reimnitz, a glaciologist, stated in testimony that “*a typical island would not move about as erratically as I have observed Dinkum Sands to move...*” (see *US Post-Trial Memorandum*, 1985: 105). The *US Post Trial Memorandum* made the valid point (at p.100) that it was important to distinguish between “*the entire shoal*” and the “*small high points on that shoal*” which were known to “*move erratically.*”

¹⁰⁴ *Id.*, p.290.

¹⁰⁵ Fulton, 1911: 634-635 (cited by the Special Master in his *Report*, 1996: 290). See, more recently, Prescott (1981: 490), who points out that cays and rocks formed from the Great Barrier Reef off Australia “*by the accumulation of coral debris*” may be only “*temporary features*” and be destroyed by storms or strong waves; so that some features from which territorial waters might be claimed one year may disappear the next year.

¹⁰⁶ See *Report*, 1996: 291, fn.48.

¹⁰⁷ 165 English Reports 809, 811 (cited by the Special Master in his *Report*, 1996: 291).

¹⁰⁸ Case cited in *Report*, 1996: 292.

¹⁰⁹ See *Report* (1996: 292, fn.49), where he affirms that one, at least, of these ‘mudlumps’ lasted for at least 10 years.

¹¹⁰ *Id.*: 293, citing two previous US cases (*US v. California* (1965) and *US v. Louisiana* (1969)).



Figure 3: Admiral Nygren's 1949 Photograph of Dinkum Sands

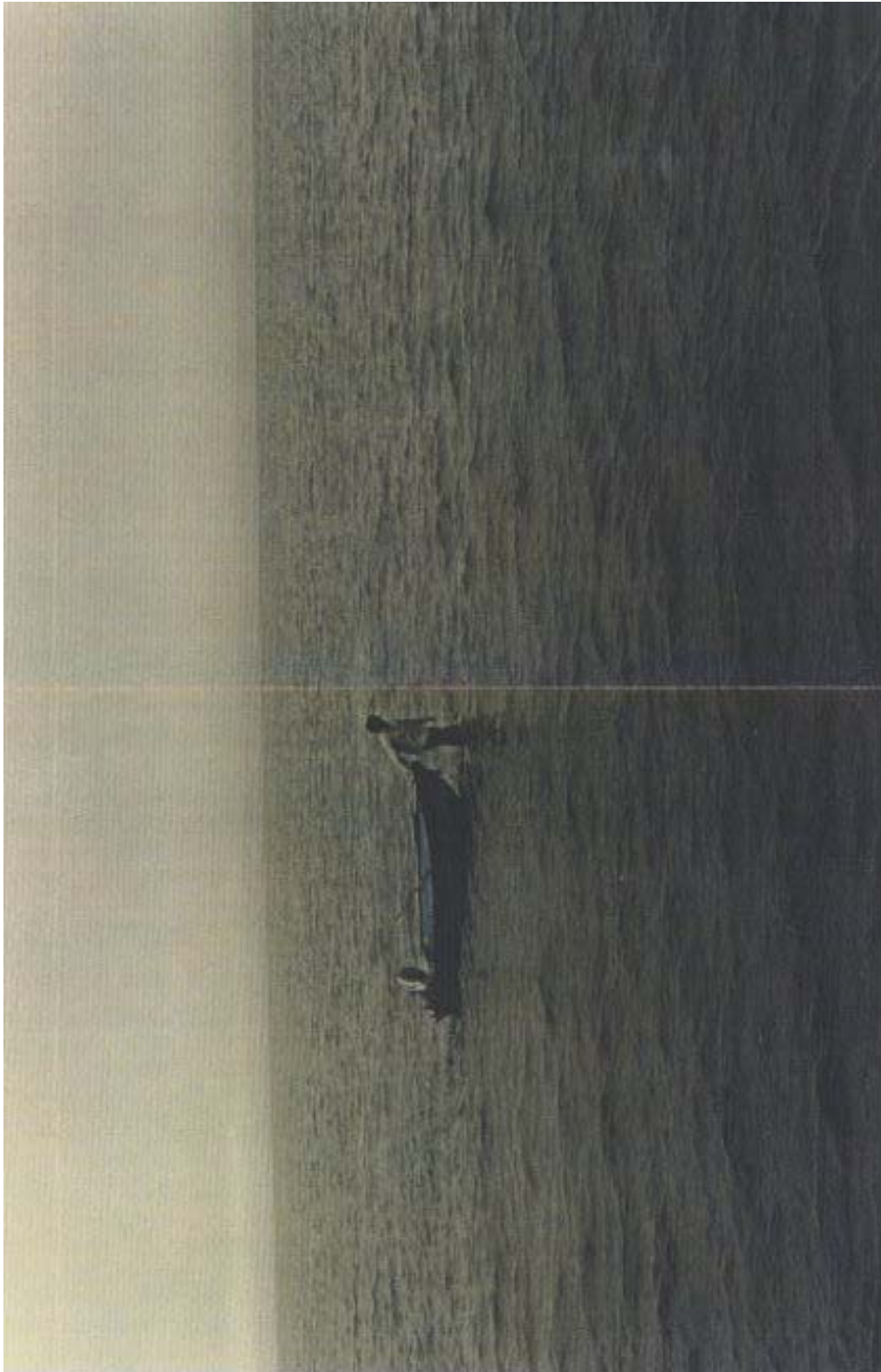


Figure 4: Photograph of Dinkum Sands, 25 July 1979

allocation problems of an ambulatory coastline as an implication of using [the TSC] to interpret the Submerged Lands Act."¹¹¹ Accordingly, he opined that "a requirement of strict locational permanence should not be read into the Convention's definition of an island."¹¹²

This seems to the writer to be an unnecessary over-generalisation. For although it is true the topographical 'permanency' aspect of possible insular definition is not spelt out in the Article 10 TSC definition of an "island", it may still be added by implication for the practical (charting and navigational) reasons given above. This is despite the fact that in more general terms a territorial sea baseline may be ambulatory in effect in the case of a continental territory (or a permanent island); and indeed, in the case of unstable coastlines or deltas in this context there is some explicit endorsement for such ultimate change of baseline in the LOSC, 1982.¹¹³ At least one geographer has suggested that there may be a legal duty on a coastal State to survey offshore areas liable to rapid change at regular intervals,¹¹⁴ and so, by implication, its baselines in consequence.

In this writer's view, and as argued by the US federal side, where the *centripetal feature* of the formation itself – rather than just its accompanying baseline – moves around in a dramatic fashion (and often such a transposition will in any event involve some temporary submergence in the process), this is a quite different legal situation from that relating to 'moving baselines' generally. Indeed, as in the instant case, the US federal side did argue that where there were "intermittent exposure of high points" (as in Dinkum Sands) in "different places", this amounted not to an "ambulatory coastline" but to an "entirely new coastline";¹¹⁵ and, additionally, there may be an insular 'identity' problem here; that is, if "a feature pops up today in one location, disappears, and another feature pops up in another location, we do not have one island...but two."¹¹⁶

In his conclusion, the Special Master seems to have seen some logic at least in the locational 'permanence' argument – but only in the context that "the horizontal movement of Dinkum Sands cannot be considered in isolation from its vertical movement."¹¹⁷ As he had already decided that "vertical permanence" sufficed to resolve the status of Dinkum Sands, he found that it was "unnecessary to consider the effects of vertical and horizontal movement together."¹¹⁸ So as a matter of international law this definitional aspect, in effect, seems to

¹¹¹ *Id.*:293.

¹¹² *Id.*

¹¹³ See Article 7(2) thereof which, where a regression of the low-water line occurs, seems to require an eventual re-drawing of such a baseline. Arguably here the word "coastline" could include an unstable island or low tide elevation. See, e.g., Prescott, 1987: 288 and 306.

¹¹⁴ See Prescott, *supra* fn.105 at p.493 where he states that this may mean that "new surveys will have to be conducted at intervals to take account of features which have been freshly created or recently destroyed." For further discussion on this issue, see the present author's *Report* (*supra* fn.87): 54-65.

¹¹⁵ *Report*, 1996: 293 (emphasis added). See also, e.g., Beazley (1971: 149) who points out that "[e]ven the low-water line of the mainland is liable to large changes...but in general its effect is unlikely to be so great as with a low-tide elevation which actually ceases to exist" (emphasis added). It can be argued analogously that this magnitude of change can be applied to an 'island' in a peripatetic state of transition.

¹¹⁶ *Id.*: 293. Volcanic 'instant islets' off Iceland have caused this problem, most particularly the sudden appearance of Surtsey and similar satellite formations in offshore, some of which soon disappeared. See, e.g., Fredricksson, 1975: 26, 29 and 31.

¹¹⁷ *Id.* (emphasis added).

¹¹⁸ *Id.*: 294. There seems, in fact, to be some inconsistency in the Special Master's later finding a propos the related issues on vertical permanence, where he partly supported his finding on navigational grounds as such when he referred to "reliably visible basepoints" (emphasis added) (See fn.167 *infra* and accompanying text). Note also that he decided at the end of his *Report* that his rejection of Alaska's

remain as an open question. In this writer's opinion, though, where these two features of insular 'impermanence' are present *in combination*, as is often the case, this amounts to even more clear-cut evidence of lack of insular status in international law.

It may also be noted that the Special Master rejected Alaskan evidence on a more general matter inter-relating with that of horizontal and vertical permanence.¹¹⁹ This was to the effect that because Dinkum Sands was allegedly in "*long-term equilibrium*" in the barrier island chain, and, because, in that part of the Beaufort Sea such formations above mean high tide maintained their features, therefore Dinkum Sands must itself be above this mean.¹²⁰

3.2.4 *Must the Feature always be above the Tidal Datum?*

What tidal datum?

This directly involved interpretation of the meaning of the phrase "*above high tide*" in Article 10 of the TSC (1958) which, as seen, gives no tidal datum.¹²¹ So that theoretically it might be possible for States to choose their own datum amongst the many possibilities,¹²² which include at the most extreme end of the spectrum (among astronomy-related datums), the highest astronomical tide¹²³ or at the less extreme end the 'median high tide' test which, as seen, forms the basis of US domestic practice and which has, as stated above, been uncritically re-applied in US caselaw to international legal definitions.¹²⁴ As the Special Master pointed out, in essence this criterion is applicable, "*where the top of the formation is in itself stable and constant*", as a sort of 'rule of thumb' by dint of a "*simple comparison between two constant numbers*" (viz., the height of the high tide mean and the height of the formation.¹²⁵ So that, *prima facie*, (apart, as seen, from surveying practicalities and error-banding disputes) no great legal problem resides here once the type of tidal datum is accepted.

In between the parameters of the two possible tidal test extremes mentioned above lie several intermediate possibilities such as, e.g., the mean high spring tide test which has traditionally been the basis of British and common law practice.¹²⁶ Interestingly the Special Master made little reference to this tidal choice aspect of the Article 10 definition, though he did mention one possible international precedent, the case of the *Anglo-French Arbitration on Delimitation of the Continental Shelf* (1977)¹²⁷ as an example of "*an arguably relevant international case*

'occasional island' idea (see below) did *not* contravene the authorities he had cited in section I(2), i.e., with regard to "*horizontal*" permanence" (*Id.*: 306).

¹¹⁹ *Id.*: 284.

¹²⁰ *Id.*: 285 and also 287: "*persistence of Dinkum Sands near mean high water*" does not compel the inference that "*it must be above mean high water for most or all the time.*"

¹²¹ Nor, by the same token, is any tidal datum given in connection with the definition of low-tide elevations. See Aurocochea and Pethick, 1986: 29 and 38 (no definition of the "*lower tidal limit*").

¹²² See Symmons, 1995: 12-24. As Alaska stated (*Reply Brief*, 1985: 8), there is "*no international agreement regarding the appropriate water level datum.*"

¹²³ Alaska argued that "*permanency relating to elevation*", never attained the status of customary international law in terms of sanctioning a "*higher high water mark*" test (See *Reply Brief*, 1985: 26). The word "*is*" in the phrase "*is above water at high tide*" (emphasis added) in Article 10 of the TSC may be said to imply such a permanency requirement above water in a literal sense. See the US argument in its *Post-Trial Memorandum*, 1985: 17 and 27.

¹²⁴ See *supra* fn.12 and accompanying text.

¹²⁵ *Report*, 1996: 302.

¹²⁶ See Symmons, 1995: 22.

¹²⁷ 18 *Review of International Arbitration Awards* 3, 65-74 (1977). For supporting comment on the French tidal position, see Fusillo, 1978: 51, fn.9.

that supports a rather demanding standard [of tidal level].”¹²⁸ In that case – arguably the only truly international case to date where this definitional aspect of an ‘island’ has been raised – the UK had argued that (in the case of the protrusion of the natural rock of the Eddystone) that although other interpretations of the expression “*high tide*” were possible, “*mean high-water spring tides*” was the only “*precise one*” (emphasis added). On this tidal basis the Eddystone was well above high water – by about two feet. But against this the French side argued that the international rule (coinciding with French practice) was that of the “*highest astronomical tide*”, on which basis the Eddystone was, at most, only marginally above high water (by 0.2 feet). In fact the Arbitral tribunal in that case did not have to make a decision as France had already accepted the low-water mark of the Eddystone as a baseline for fishery zone purposes. The Special Master appears to view this case as being, in effect, not just concerned with dispute over choice of tidal datums, but also (and perhaps more importantly) with wider aspects of the ‘permanence above water’ requirement, when he comments:

*[t]he question was the choice of tidal datum (as to which the United States uses mean high water), not the treatment of a formation which rises and falls. Nevertheless, the parties did argue the case as if a formation, to be an island, must be almost never below water.*¹²⁹

The plenary Supreme Court appears to have been equally accepting of this ‘mean’ domestic test for international legal purposes. As it was to say, “*the [TSC] separately categorises features that are below mean high water, but above water at low tide.*”¹³⁰ In other words, the plenary Supreme Court also makes the automatic assumption that the mean high tide test is the acceptable international rule. Even if there is no commonly accepted international rule, this US test seems particularly inapt; and very few States apart from the USA use this test in their domestic legislation for insular definition.¹³¹ The only rationale the Court states for the acceptability of the US test is that the “*problem of abnormal or seasonal tidal activity*”¹³² is fully solved by the United States’ practice of construing “*high tide*” to mean “*mean high water*”; so that (supposedly) “[a]veraging high waters over a 19-year period accounts for periodic variations attributable to astronomic forces; non-periodic, meteorological variations can be assumed to balance out over this length of time.”¹³³ This justification seems doubtful, as it seems a far better argument to use a more stringent tidal test with the proviso of “*exceptional circumstances*”¹³⁴ to allow for wholly abnormal natural events – such conditions seemingly being the ones the Supreme Court is hinting at. Indeed, the Supreme Court somewhat inconsistently concludes discussion on this point by saying: “*In sum, the Convention’s drafting history suggests that, to qualify as an island, a feature must be above high water except in abnormal circumstances.*”¹³⁵

As seen above, although the Special Master accepted the US domestic rule of the “*mean*” high tide test, he did seem to indirectly undermine the validity of such a test by pointing out how it might lead to formations still being islands thereunder even when effectively submerged at high tide for continuous periods during certain seasons, and worse still, **sometimes not even**

¹²⁸ Report, 1996: 301.

¹²⁹ *Id.*: 302.

¹³⁰ See 138, L.Ed. 2nd: 259 (emphasis added).

¹³¹ One of the very few is Kuwait. See Symmons, 1995: 23, fn.23.

¹³² Which a US amendment to the ILC draft in 1954 addressed.

¹³³ See 138, L.Ed. 2nd: 256.

¹³⁴ Fn.123 And accompanying text.

¹³⁵ See 138, L.Ed. 2nd: 256 (emphasis added).

appearing at low tide.¹³⁶ It may be commented that this factor in itself shows the absurdity of having too lax a high tidal test for the purposes of gauging insularity in international law. It was partly because of this factor that he formulated what may be dubbed the ‘normally-appearing-at-high-tide’ rule in the case of formations which themselves go up and down (the ‘variable height’ problem).¹³⁷

At least in *US v. Alaska*, the parties were agreed on the basic tidal datum test. Where, in an inter-State dispute, they are not, the problem of insular definition is obviously further exacerbated.¹³⁸

3.2.5 How Often may the Formation Fall Below Tidal Datum?

The general rule

In effect this was a central – and perhaps the most critical issue – in the dispute over the legal status of Dinkum Sands, bearing in mind that seasonal changes in the water level and seasonal changes in elevation of the formation both appeared to be “*normal processes at Dinkum Sands.*”¹³⁹ In other words, as seen above, the evidence was that Dinkum Sands was subject to frequent erosion and seasonal ‘collapse’, particularly at the end of the open water season. In large part this collapse may have been due to the melting of the *interstitial* ice in the upper formations thereof. Added to this, of course, is that fact that US use of a mean high tide (based on a period of 19 years) in itself is open to criticism in that such a lax test may allow a formation to periodically not show above high water at high tide (or *in extremis*, as seen, not even above low tide). Indeed even the Special Master pointed out the “*seasonal*” implications of such a test:

*In typical circumstances, a feature of fixed height, if just high enough to qualify as an island under United States practice, can be expected to be above water always except at high tides that are higher than the mean. In an atypical situation like that of the Beaufort Sea, where the seasonal changes in the water level are much greater than the twice-daily changes between high tide and low tide, all the high tides of one season may be higher than any of the high tides of another. Here, too, however, a formation of fixed height that is above mean high water can be expected to remain exposed at high tide for considerable periods of the year.*¹⁴⁰

In other words, the emphasised part of the above *dictum* indicates that even on the ‘median’ high tide test, normally a formation constituting a juridical island will have its head above water for a large part (or most) of the year, even if at some seasonal times, it is (by the very nature of this ‘mean’ test) covered at high tide. Indeed, as this writer emphasised in his *Report*, there is no such phenomenon as a “*seasonal island*” in international law.¹⁴¹ However (as seen above) the Special Master went on to add further words to the above *dictum*; namely “[t]hat this is true *despite the fact that, when water levels are at their highest, the feature may not be seen even at low tide.*”¹⁴² If indeed this is statistically possible on such a ‘mean’ test, it

¹³⁶ *Report*, 1996: 303.

¹³⁷ See *infra* fn.180 and accompanying text.

¹³⁸ See Symmons, 1995: 18-19; and (in respect of low-tide elevations) see Beazley, 1994: 6.

¹³⁹ *Report*, 1996: 300, fn.59.

¹⁴⁰ *Id.*: 302-303 (emphasis added).

¹⁴¹ Symmons, 1984: 67 (see fn.87).

¹⁴² *Report*, 1996: 303 (emphasis added).

points up the demerits of such a lax test for the purposes of international law; for it may entail that a formation which periodically does not even constitute, at such times, a low tide elevation – the minimalist type of insular-like formation¹⁴³ and at most a ‘quasi-island’ – is still apparently to be considered to be a true island. Indeed at one stage in his *Report* the Special Master even comes close to implying that a feature may (in theory) technically be a “*seasonal island*” only under such a ‘mean’ test. As he states:

*Such a feature, constantly above mean high tide, but also constantly submerged at some seasons of the year, already strains the definition of an island. Alaska emphasises that although Dinkum Sands may be invisible in summer, when water levels are high, summer submersion is not inconsistent with it being above mean high water...The United States emphasises that Dinkum Sands is invisible in winter, being entirely covered for nine months of the year by the ice pack...These characteristics in a (hypothetical) feature of fixed height, differing from those of a prototypical island that is almost always exposed, do not invite one to relax the definition further by permitting the feature frequently to slump below mean high water.*¹⁴⁴

In effect, this appears to be an indirect indictment (even if unintended) on the US mean high tide test which, as seen, the Special Master seems readily to regard as acceptable as an international standard. But if such a test can mean that a feature (effectively) seasonally disappearing can still retain insular status, such a datum seems fatally flawed as an appropriate standard from the start. Furthermore, it seems to the writer that the reference to the coverage of Dinkum by pack ice for most of the year also merits more analysis than a one-line mention here¹⁴⁵ inasmuch as pack ice is in effect frozen sea water; and so might be taken as part and parcel of the ‘high-tide’ phenomenon. The Special Master seems at times to take in this latter point. For example, as he footnotes: “[t]he location of Dinkum Sands may be distinguishable in winter by ice rubble”, whereas “[a]dmittid islands...were described as having gravel extending above the ice even in winter”.¹⁴⁶

The ‘mean high tide’ test also ill fits in with the basic criterion of visibility to the mariner,¹⁴⁷ as well as the idea of ‘permanence’ which has been discussed above. Indeed later in his *Report*¹⁴⁸ the Special Master effectively returns to this point when he refers to “[a]nother difficulty”, namely that for either an island or a low-tide elevation, their respective territorial seas are measured from the “*low-water line*” under the TSC; so that if a “*feature ‘slumps not only*

¹⁴³ See Symmons, 1995: 6 and 7. Wemelsfelder (1971: 115 and 122) lists how many regional and local influences there may be on mean tidal level, including wind, barometric pressure, storm surges, tectonic movements, sea-bed slopes etc.

¹⁴⁴ See *Report*, 1996: 303.

¹⁴⁵ In fact this writer’s *Report* was much taken up with this issue (see Symmons, 1984: 67-73). Much argument on this aspect also took place in the written briefs. See, e.g., US *Post-Trial Memorandum* (1985: 12 and 13), indicating that sediment deposited on ‘shorefast ice’ should not be considered insular, spending 9 months of the year under the “*pack ice*” which is “*a layer of frozen sea water*” (*Id.*: 104, emphasis added); and its *Reply Memorandum* (1985: 14), that “*ice is to be treated as water.*” Alaska tended to avoid arguing the possible legal difference between frozen *fresh* water (e.g., glacial ice) and *salt* water; as e.g., in its *Post Trial Brief* (1985: 45-46). In its *Reply Brief* of 6 May 1985, Alaska did, however, admit (at p.5) that “*taken in their proper context, the authorities strongly suggest that features containing subsurface ice do qualify as land [under the TSC], while surface ice may not.*” Pack ice has been legally described elsewhere as being “*generally categorised as sea ice*”, and as being formed by the “*freezing of the sea water*” (Bernhardt, 1995: 330, emphasis added).

¹⁴⁶ *Report*, 1996: 303, fn.61.

¹⁴⁷ *Infra* fn.165 and accompanying text.

¹⁴⁸ *Report*, 1996: 304 (emphasis added).

below the high-water datum but also below the low-water datum...there is during the slump no low-water line from which the territorial sea can be measured.”

The plenary Supreme Court¹⁴⁹ made a similar comment to the effect that if a feature slumped below even the low tide datum on occasions, “*the baseline for measuring the surrounding maritime zone would shift and then disappear.*” The practical repercussion of a periodically disappearing baseline for maritime delimitation is only too obvious.

The History Behind the “above high tide” Test

The Special Master considered the background to Article 10 of the TSC,¹⁵⁰ pointing out that the drafting history “*goes back at least to the League of Nations Conference for the Codification of International Law*” in 1930.¹⁵¹ It was at this Conference that the word “*permanently*” is to be found – in *Basis of Discussion No.14*: “*In order that an island may have its own territorial waters, it is necessary that it should be permanently above the level of high tide.*” It was also at this Conference that the other type of insular formation was differentiated, namely the low-tide elevation, for which it was “*sufficient for it to be above water at low tide*”,¹⁵² it being defined as an “*elevation of the seabed, which is only exposed at low tide*”; this was deemed “*not to be an island.*” However, at this early stage in the law of the sea some confusion still reigned over whether the term ‘island’ could be given to the latter phenomenon, even in US thinking.¹⁵³

When the International Law Commission (ILC) looked into the definition of ‘islands’ from 1951 onwards, Special Rapporteur François initially proposed a legal definition “*in the same language as the 1930 proposal*,”¹⁵⁴ i.e., “*an area of land surrounded by water, which is permanently above high-water mark*”; the only agreed amendment to which was that of Lauterpacht who had inserted “*in normal circumstances*” before the adverb “*permanently*” so as to allow for “*exceptional circumstances.*” This phrase – “*which in normal circumstances is permanently above high-water mark*” – appeared in the final ILC Report of 1956; and the accompanying commentary reiterated that “*except in abnormal circumstances*”, an “*island*” should be “*permanently above high-water mark.*”¹⁵⁵

Then came an ironic twist in 1958 when the United States, no less, tabled two amendments which were to provoke voluminous discussion and argument in the Dinkum Sands litigation; and in historical retrospect, this potentially redounded against its federal-based interest in *US v. Alaska*. For as the US proposal then laconically stated:

*The requirements in the [ILC’s] definition of an island that it should be above the high water mark ‘in normal circumstances’ and ‘permanently’ are conflicting, and since there is no established state practice regarding the effect of subnormal or abnormal seasonal tidal action, these terms should be omitted.*¹⁵⁶

¹⁴⁹ 138, L.Ed., 2nd, 259 – see further below, Section 5.

¹⁵⁰ *Report*, 1996: 294-300.

¹⁵¹ *Id.*: 294.

¹⁵² See the present writer’s *Report* (Symmons, 1984: 13-15).

¹⁵³ See US reply (*Report*, 1996: 294, fn.52).

¹⁵⁴ *Id.*: 297.

¹⁵⁵ See ILC, 1954: 92 (emphasis added).

¹⁵⁶ Official Records, 1958: 242.

In fact both these US amendments were accepted by the ILC. US internal memoranda of 1957 indicate¹⁵⁷ clearly to this writer's mind, and as he put in his expert opinion in the case, that the omission of the word "*permanently*" was merely a tidying-up process of drafting; because the addition of the words "*in normal circumstances*" seemed incompatible with the succeeding word "*permanently*" in the definition. Further, as a US Memorandum went on to say:

*Both terms might well be omitted, since current international law does not purport to solve such minor problems [sic]...as how to treat land which is above sea level at neap high tide but not spring high tide or only at high tides during certain seasons of the year.*¹⁵⁸

In other words what the US amendment of the time seemed to be additionally suggesting was that as there was no accepted State practice on the requisite tidal datum, some types of tidal criteria might allow for periodic submergence of a formation at high tide. This interpretation is further brought out in this US Memorandum which prophetically makes specific mention of Arctic conditions¹⁵⁹ when it asks:

How should elevations in the Arctic regions be treated which appear above sea level at low tide only during the months of the year when the sun appears above the horizon to add to the moon's gravitational pull? The ILC has wisely refused to resolve these questions for which there is little or no legal authority.

On this important issue – concerned with the TSC's *travaux préparatoires* (i.e., "*preparatory materials*") – the US Government argued strongly in the present case (as had the present writer) that "*permanently*" is still implicit in Article 10 [of the TSC], along with an implicit exception for "*abnormal circumstances*."¹⁶⁰ On this federal-side argument the words of rejection by the Special Master are worthy of full citation:

If that is correct, then Dinkum Sands would appear to be disqualified from island status by the August 1981 survey alone. I am not persuaded, however, that the pre-Convention materials lead to such a clear-cut result. Neither do I agree with the United States that the Convention left any previous customary law of islands entirely intact, for the Convention did adopt a distinction between islands and low-tide elevations that had earlier represented only a compromise between inconsistent positions.

With all respect, this is a rather weak analysis of the background to the amendments; and the reference to pre-existing customary law is dubious as one could say that in 1930 at least (i.e. at the time of the Hague Conference), there was, for example, a clear differentiation already developed (or at least developing) between islands on the one hand and low-tide elevations on the other.¹⁶¹

The Special Master did in the end, however, seem to accept in substance the drift of the US federal side argument on the vital point in question, namely the continuing legal importance of some permanent supersurface manifestation. For as he concluded:

¹⁵⁷ See *Report* (1996: 298 and 299) where the Special Master tends to follow the present writer's line of argument in his own *Report* (Symmons, 1984).

¹⁵⁸ *Memorandum on Islands, Drying Rocks and Drying Shoals*, September 1957.

¹⁵⁹ See *Report*, 1996: 299.

¹⁶⁰ *Id.*: 300.

¹⁶¹ See the present author's *Report*, (Symmons, 1984: 10-13).

The 1958 deletion of ‘permanently’ must be read together with the deletion of ‘in normal circumstances’. The two phrases were viewed as conflicting, but in fact any conflict seems to be limited to the case where abnormal circumstances lead to the temporary inundation of a feature that would otherwise qualify as an island. I do not believe the drafters intended, in eliminating supposedly conflicting standards, to adopt yet another standard less demanding than either of the first two. That the drafters declined to say an island must be “permanently above water at high tide” or “normally above water at high tide” does not mean that they intended to insert some weaker qualifier such as “sometimes” or “occasionally”. Even Alaska contends only that Article 10 permits a feature “to slump on occasion” below the tidal datum and still to qualify as an island.¹⁶²

In coming to this conclusion, the Special Master used several ‘make-weight’ subsidiary arguments, including the (apparent) laxity of the US-favoured median high tide rule (see below), and the fact that a “relaxation” of the above-surface aspect of insular definition would not be “consistent with the policies of the [TSC] as a whole.”¹⁶³ These latter policies included the fact that the TSC recognised “a separate character for features which are below the high-water datum, namely low-tide elevations.” He concluded on these latter that, in effect, Article 11 (of the TSC) avoids extending the territorial sea in “close cases”, leaving a larger expanse open to the “freedom of the seas.”¹⁶⁴ Secondly, he mentioned that “[n]avigational interests also favor using reliably visible basepoints”¹⁶⁵ – a point also raised by the writer in his expert witness’ Report,¹⁶⁶ citing in support of this Article 4(3) of the TSC which stipulates that straight baselines shall not be drawn to and from low-tide elevations “unless lighthouses or similar installations which are permanently above sea level have been built on them.” Curiously, this latter point does not rest well (as seen above) with his earlier seeming dismissal of the importance of the broader “navigational” factor concerning ‘horizontal’ permanence in insular definition.¹⁶⁷

The above-cited passage, then, forms the heart of the Special Master’s conclusion as to the historical outcome of the international legal rule on so-called ‘vertical’ permanence in the case of true islands. This is to be welcomed as the first exhaustive judicial analysis of this vital aspect of the definition of an ‘island’ in the Law of the Sea; and in the end he seems largely to have accepted, albeit by a circuitous route, a species of ‘permanency’ requirement which is arguably latent in the pre-1958 Convention deliberations.

¹⁶² Report, 1996: 301 (emphasis added).

¹⁶³ *Id.*, 1996: 303.

¹⁶⁴ *Id.*, 1996: 304. See also Symmons, 1995: 6-8.

¹⁶⁵ *Id.* Academic opinion seems to support this consideration. See, e.g., Jayawardene, (1990: 71) who notes, “it was regarded as obvious that [basepoints] should be visible at all states of the tide.”

¹⁶⁶ See *supra* fn.87: 59-61; and, e.g., Boggs (1951: 240 and 252): “the practice believed best adapted to the requirements of the navigator...is to represent as the land area that which always appears as land above high tide”, a particular difficulty being if the basepoints of straight baselines lie in positions where nothing is visible at many states of the tide.

¹⁶⁷ See above, fn.118.

*The Exception in International Law to Above-High-Tide-Appearance:
“exceptional circumstances”*

As this writer emphasised in his *Report*,¹⁶⁸ the *travaux préparatoires* of the First Law of the Sea Conference seem, as has been discussed in the previous section, to opt for a basic permanence as to supersurface manifestation of a true island above high tidal datum (albeit no tidal datum is specified). But this was with one (initially expressed) exception; and that was to cater for exceptional natural conditions. It was for this purpose that the phrase “*in normal circumstances*” appeared in the earlier ILC drafts in conjunction with the mention of ‘permanent’ appearance above high tide (until the US-inspired exclusion of both).¹⁶⁹ The US federal side’s argument in the present case was that not only was the idea of permanency “*still*” to be implied in the Article 10 (TSC) definition, but so also was the idea of a qualification to this ‘permanency’ above high water in the case of “*abnormal*” or “*exceptional*” circumstances.¹⁷⁰

The “*exceptional circumstances*” phrase was specifically added to the original ILC definition at the suggestion of the UK delegate, Lauterpacht, to cater for “*exceptional cases*”;¹⁷¹ and the commentary to the ILC (International Law Commission) Report in 1956 states that this requirement of permanence above high water applies “*except in abnormal circumstances*.”¹⁷² Indeed, the Special Master makes brief mention of this pre-conference history.¹⁷³ There is no further elaboration in the ILC materials of what such “*exceptional*” or “*abnormal*” circumstances are; but clearly, as this writer stated in his *Report* in the case,¹⁷⁴ the phrase (presupposing it is still a definitional requirement) does not include extremes which are regular or seasonally foreseeable in the way of high tides and weather conditions. For what was envisaged in the *travaux préparatoires* seems to be confined to the category of freakish natural events – such as hurricane surges, or tidal waves following volcanic activity – i.e. an event of ‘Krakatoan’ proportions.

In *US v. Alaska* the Special Master ruled out any such abnormal conditions as applying in the context of Dinkum Sands (although application of this was argued by Alaska¹⁷⁵), as he found seasonal changes in both water level and elevation concerning Dinkum Sands to be “*normal processes*.”¹⁷⁶ And he specifically found, as already seen above,¹⁷⁷ that when, in the end, both amending phrases were deleted, the drafters did not intend “*yet another standard less demanding than either of the first two*”; and that, more specifically, “*in fact any conflict seems to be limited to the case where abnormal circumstances lead to the temporary inundation of a feature that would otherwise qualify as an island*.”¹⁷⁸

¹⁶⁸ See Symmons, 1984: 40-44.

¹⁶⁹ See above fn.156 and accompanying text.

¹⁷⁰ See *Report*, 1996: 300.

¹⁷¹ See ILC, 1954: 92.

¹⁷² See ILC, 1956: 270.

¹⁷³ *Report*, 1996: 297, esp. fn.56 where he cites examples which the present writer gave in his own *Report*.

¹⁷⁴ Symmons, 1984: 41-44.

¹⁷⁵ *Report*, 1996: 300, fn.59.

¹⁷⁶ *Id.*

¹⁷⁷ *Supra* fn.162 and accompanying text.

¹⁷⁸ *Report*, 1996: 301(emphasis added).

4. The Application of the Law to Dinkum Sands

In the relevant section of his *Report*,¹⁷⁹ the Special Master does not initially say what particular single qualifying phrase or adverb he was applying in place of the word “*permanently*.”¹⁸⁰ As one reads in his *Report*, he at one stage uses the adverb “*generally*” to qualify “*above high tide*”,¹⁸¹ but finally returns to the ‘trilogy’ of “*generally, normally or usually*.” As he says:

...Article 10(1) [of the TSC] requires an island to be “*above water at high tide*” at least “*generally*”, “*normally*” or “*usually*.”¹⁸²

The mention of “*generally*” (or either of the other two epithets for that matter) obviously leaves straws in the wind as it has a built-in ambiguity and subjectivity contained in it. For what statistical frequency of appearance above high tide does it imply? It seems that in its final argument the US federal side did mention some statistical figures, namely above-surface appearance “*seventy-five or eighty percent of the time as a range for argument*.”¹⁸³ However the Special Master is careful not to endorse any detailed percentage figures on this as he merely refers to some rather vague “*further comparisons*” which might “*help to determine the meaning of the requirement*.”¹⁸⁴

The Special Master does, however, also conversely indicate, albeit in equally broad terms, that if a “*feature frequently slumps below the high-water [tidal] datum, it should not be treated as an island*”; or – as both parties agreed – it should be “*almost never below water*.”¹⁸⁵ Thus he concludes on the evidence before him that “*Dinkum Sands is frequently below mean high water and therefore does not meet the standard for an island*.”¹⁸⁶ In the Supreme Court, the Alaskan challenge to the Special Master’s finding on this issue was firmly rejected in terms that the Court “*found no error*” in his conclusion.¹⁸⁷

The Special Master concluded that:

*The evidence shows that Dinkum Sands is sometimes above mean high water and sometimes below; but not every such change in elevation is automatically to change its status as an island or not. The question remains how the evidence of its varying elevation is to be combined to yield a conclusion.*¹⁸⁸

In other words, he appeared to accept that any kind of “*snap-shot*” consideration of Dinkum Sands’ status problem would not yield the right legal result; and that in effect a longer time-frame of analysis was necessary – a point already discussed above in terms of the “*relative permanence*” problem¹⁸⁹ – despite the fact that Alaska had stressed a selective viewpoint on the evidence and had stated that the few occasions when the disputed formation was above

¹⁷⁹ Section 3.2.5.

¹⁸⁰ *Report*, 1996: Section 3(b).

¹⁸¹ *Id.*: 302. “*For a feature of varying height like Dinkum Sands, I have just found that the question is whether the feature is **generally** above mean high water*” (emphasis added).

¹⁸² *Id.*: 309.

¹⁸³ *Id.*: 302.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*: 304 and 302 respectively (emphasis added).

¹⁸⁶ *Id.*: 309.

¹⁸⁷ 138, L.Ed., 2nd: 258.

¹⁸⁸ *Report*, 1996: 307.

¹⁸⁹ See above, Section 3.2.2.

mean high water represented “*the true long-term status of Dinkum Sands*” and that its “*behaviour in 1981 during the joint monitoring project, was anomalous.*”¹⁹⁰

In choosing his timeframe, the Special Master decided that his recommendation “*should rest primarily on the most recent period, 1981 through 1983,*”¹⁹¹ during which time, of course, the most extensive surveys in the area had been made. He viewed the 1982 and 1983 measurements to have been just as carefully made as those during the joint project in 1981; and he stated that it was “*important to consider all of the 1982 and 1983 measurements, not just those made early in the season*”, so indicating that mere seasonal evidence is not sufficient to give the full picture. In terms of practicalities, this seems a sensible route to take, particularly as future long-term stability appears to lie at the heart of international legal insular definition.¹⁹²

He found the evidence on this not to be “*conflicting*”,¹⁹³ saying:

It simply shows that the formation does not behave exactly the same way every year. This is not surprising, since it is a creature of natural processes¹⁹⁴ that are themselves not wholly uniform from year to year.

In conclusion, then, the Special Master found the “*loss of elevation during the summer*” to be “*part of a regular pattern*”,¹⁹⁵ though he admitted that not every change of status below mean high water would automatically “*change its status as an island or not.*”¹⁹⁶ But, as seen, his conclusion that Dinkum Sands “*frequently*” slumped below the relevant tidal test meant that he finally found that it did not constitute an “*island*”¹⁹⁷ and accordingly it did not “*constitute part of Alaska’s coastline for the purposes of delimiting Alaska’s offshore submerged lands.*”¹⁹⁸

5. Is There Such a Thing as an “Occasional” or “Quasi-island” in International Law?

In their initial pleadings¹⁹⁹ both parties had used the alternative ‘fall-back’ argument that the Dinkum Sands could in effect be considered to be a ‘periodic’ island formation. As the US federal side pleadings stated, the formation should at least have “*no effect on the extent of Alaska’s submerged lands for such periods as it is submerged at mean high tide.*” And Alaska (in turn) argued in the alternative that it was entitled to the resources around the formation “*within a three-mile radius for such periods as the formation is determined to be above the level of mean high water.*” In fact this mutual claim was “*not briefed*” (i.e. argued at the hearings), though even the US federal side “*returned to it on final argument as a fall-back*

¹⁹⁰ Report, 1996: 307-8 (emphasis added).

¹⁹¹ *Id.*: 308.

¹⁹² See, e.g., Symmons, 1979: 23 and 24.

¹⁹³ Report, 1996: 308.

¹⁹⁴ Such ‘building up’ processes could include (in Arctic areas) such matters as “*ice push*”, transferred sediment washed across fast ice etc. (see *Alaskan Post-Trial Brief*, 1985: 22).

¹⁹⁵ *Id.*: 309, fn.66.

¹⁹⁶ *Id.*: 307.

¹⁹⁷ See fn.186, *supra*, and accompanying text.

¹⁹⁸ Report, 1996: 310.

¹⁹⁹ See *Joint Statement of Questions Presented and Contentions of the Parties*, 1979: 13-14.

position.”²⁰⁰ The Special Master entitled this argument as the “possibility of divided ownership.” As he said:

*Both parties have suggested an alternative to looking at whether Dinkum Sands is often enough above mean high water over the long term. This is to read the Convention [i.e. the TSC] as making Dinkum Sands an island during such periods as it is above mean high water and as not an island the rest of the time...Any revenues from resource exploitation around such a quasi-island would be divided based either on actual continuing measurements of its elevation...or possibly on some formula using past measurements of Dinkum Sands as above or below mean high water.*²⁰¹

The Special Master rejected such a contention, although he accepted the analogy (in the TSC) of a low-tide baseline change (because of shoreline changes) altering in ambulatory fashion such a normal baseline, citing the *Louisiana Boundary Case*.²⁰² As was stated by the Special Master involved in the previous case of *US v. Louisiana*:²⁰³

...it has been recognised by the Supreme Court and throughout these proceedings that any coastline which might be established at any time is necessarily ambulatory, as due to the natural processes of erosion and avulsion the coastal area of Louisiana is in a constant state of flux.

However, in the case of *US v. California* the Supreme Court had first adopted the 1958 TSC “definitions” because they purportedly served to fulfil “the requirements of **definiteness and stability** which should attend any congressional grant of property rights belonging to the United States.”²⁰⁴ In effect the Special Master in the present case accepted the present writer’s contention there that “there is no such thing as an occasional...island” in international law.²⁰⁵ He accepted,²⁰⁶ as already seen, that it was possible “for a **new island to come into existence**” and likewise for “an existing island to disappear.” In the latter event he accepted that the waters around such a disappeared ‘island’ would revert from territorial waters to “high seas”²⁰⁷ and that the “theory would be that these [changes of status] possibilities have been realised repeatedly at Dinkum Sands”;²⁰⁸ but he stressed that “Article 10 [of the TSC] does **not demand an interpretation under which islands may frequently come and go,**” partly because of the obvious “practical problems” which would attach to such a possibility.²⁰⁹ As he said:

*It would invite continued difficult and expensive monitoring, and, as the present dispute demonstrates, possible further litigation over interpretation of the results of that monitoring.*²¹⁰

²⁰⁰ Report, 1996: 305.

²⁰¹ *Id.*: 304-305 (emphasis added).

²⁰² 394 US 11, 32-35 (1969).

²⁰³ No. 9 Original (in the Supreme Court of the United States) (1974): 33-34.

²⁰⁴ 381 US 139, 167 (1965) (emphasis added).

²⁰⁵ Report, 1996: 305.

²⁰⁶ *Id.* (emphasis added).

²⁰⁷ See (for further discussion) Symmons, 1995: 2-3, 25-26 and 1979: 23.

²⁰⁸ Report, 1996: 305.

²⁰⁹ *Id.* (emphasis added). See the US federal side’s *Brief in Opposition to the Exceptions of the State of Alaska* (1996: 5): “Treatment of Dinkum Sands as a temporary island, which would result in unpredictable extensions and contractions of the territorial sea on a weekly or monthly basis, would pose numerous practical problems.”

²¹⁰ *Id.*

Thus the Special Master concluded that “*there appears to be no authority under the Convention for treating a formation as frequently changing between island and non-island status.*”²¹¹ He did, however, proceed to suggest in a footnote to his *Report*²¹² that dividing the ownership of Dinkum Sands would not necessarily be “*undesirable*” as the result of a negotiated settlement between the two parties, but that it was not the Special Master’s function, as an *ad hoc* judge, to “*recommend a compromise solution*” that was “*independent of legal principles.*”

The plenary Supreme Court in turn agreed with the Special Master’s decision here on what it called a “*compromise resolution*”, agreeing with the impracticability of it,²¹³ as well as the legal objections to such a position. As it said:

*What Alaska seeks here...is not an entitlement to submerged lands seaward of a gradually accreting or eroding shore. Rather, Alaska’s ownership of submerged lands around Dinkum Sands would appear and disappear periodically, depending on whether the feature was above or below mean high water. Not only does Article 10(1) of the Convention not support such a reading, but Alaska’s position makes a sensible application of other provisions of the Convention impossible. The Convention separately categorises features that are below mean high water but above water at low tide. See Article 11. In addition, under Articles 10(2) and 3, an island’s belt of territorial sea is measured from the line of low water. As Dinkum Sands elevation slumps toward the mean high-water datum, below the mean high-water datum and possibly below the low-water datum, the **baseline for measuring the surrounding maritime zone would shift and then disappear.***

6. The Meaning of “*Land*” in Article 10(1) of the TSC

Article 10(1) of the TSC – and Article 121 of the LOSC – require an island to be a “*naturally-formed area of land*” (emphasis added). Just what the meaning of “*land*” is in this context has never been subject to much legal examination, except in connection of its qualifying phrase of having to be “*naturally-formed*”;²¹⁴ and in most disputes over islands, the seeming requirement that a formation is of a truly terrestrial character (as the word “*land*” seems to require) is probably not a critical factor. However in exceptional cases it may cause problems insofar as this matter can inter-relate with the type of basic problem in the case of Dinkum Sands; that is, whether the relevantly terrestrial parts of the formation are above the tidal datum; for example, where vegetative matter growing on an ‘island’ (the lone ‘palm tree’ problem!) is the sole part of an insular formation which is always above high water level.

This problem did, however, arise in *US v. Alaska* and was subject to an analysis in the present writer’s *Report* in the case²¹⁵ as well as to much argument in the pleadings and oral hearings. It arose in this way. The pre-trial geological reports on the composition of Dinkum Sands indicated that the higher part of the formation at least was composed of alternating layers of frozen sea ice and sand or gravel, so that tests showed that melted core samples from the

²¹¹ *Id.*: 306.

²¹² *Id.*: 307, fn 65.

²¹³ 138, L.Ed, 2nd: 258-259 (emphasis added).

²¹⁴ See Symmons, 1995: 3-4.

²¹⁵ Symmons, 1984: 73 *et seq.*

formation were composed of 50% or more free water (perhaps in its “cap” as much as 80% in total).²¹⁶ This so-called “*excess ice*” was of a salt-water origin compared with fresh water onshore. This was in contrast to the so-called true ‘barrier islands’ in the vicinity where such “*free water*” was absent; and a marine geologist testified at the trial that he would have excluded such ice from the term “*mineral*”, because, for example, ice is temperature sensitive and ephemeral.²¹⁷ Thus one might argue that the term “*land*” in Article 10 of the TSC should “*partake of terra firma and have an equal degree of permanence*”, neither of which qualities does frozen sea-ice (as opposed possibly to glacial ice) possess.²¹⁸ As the US federal side argument put it:

*The [TSC’s] requirement that an island be composed of land prevents such results [of impermanence]. Unlike Dinkum Sands, a true island does not lose its elevation through temperature rises and maritime zones do not come and go with changes in the season.*²¹⁹

To the contrary, Alaska argued in the present case that “*under current international law, the composition of a naturally-formed feature is irrelevant to its status as an island*”²²⁰ and that the only legally-relevant consideration was whether such “*land*” was “*naturally-formed*”;²²¹ and that in particular “*sub-surface ice*” did qualify as “*land*” for insular definition.²²² To opposite effect, the US federal side argued that ice in this context was to be “*treated as water*”;²²³ and furthermore (as seen above²²⁴), as Dinkum Sands spent nine months of the year not only surrounded by, but also submerged under, frozen sea-ice (in comparison with other barrier islands), this was a further consideration militating against its insularity.

²¹⁶ See *Report*, 1996: 270.

²¹⁷ The geologist, Erk Reimnitz, mentioned above. See his deposition, US Exhibit 84A, 1984: 1,016, 1,017. Also see the evidence of another expert witness at the trial, Dr Lewellen, who testified that the salinity of “*excess ice*” can vary considerably and it is difficult to tell whether it is “*annual or permanent*” (Alaska’s *Post-Trial Brief*, 1985: 51).

²¹⁸ Symmons, 1979: 21.

²¹⁹ US *Post-Trial Memorandum*, 1985: 91.

²²⁰ *Reply Brief*, May 6 1985: 5.

²²¹ *Id.*: 18.

²²² *Id.* See also Alaska’s argument in *Reply Brief*, 1985: 16 (the “*icy matrix*” of Arctic islands has enough structural strength to resist thermal forces etc; and its *Post Trial Brief* (1985: 10 and 14), arguing that so-called “*excess ice*” is to be considered a terrestrial material, like that in the coastal plain itself. Alaska’s argument here is very dubious. Compare for example, the analogous, but broader, problem relating to the use of sea-ice as baselines, where the present law of the sea is notoriously unsettled, but where suggestions include the iceline in summer, or even disregard of the ice entirely and use only from the position of the bedrock (Green, 1996: 345). See also Boyd (1984: 100, 105 and 119) who points out that “*sea ice usually has been assimilated to sea water for the purposes of international law*” (especially “*pack ice*” and the “*sometimes solid yet transitory character of sea ice*”; and Molde (1982: 164): “[*t*]he Geneva conventions [of 1958] do not mention the question of ice formations” nor does the new LOSC contain any “*particular regulations*” for same; also Prescott (1984: 93), where he states that (arguably) the Antarctic baseline should be from the point of known solid land, whether the rocks are visible or covered by thick layers of ice; but that this would be “*unrealistic*”. Similar problems relate to the requirement of being “*surrounded by water*.” Green (1996: 349) suggests that where an island is “*embedded in an ice shelf*”, it is not necessarily “*surrounded by water*”; whereas if it is only surrounded by sea ice during the winter, it is a true ‘island’. See on this the US argument in US v Alaska (*Reply Memorandum*, 1985: 13-14): “[Alaska] has now specifically taken the view that ice is water for the purpose of one criterion of definition of an island (surrounded by water) but is land for another “*naturally formed area of land*” and c.f. Alaska’s *Post-Trial Brief*, 1985: 54 on this).

²²³ US *Reply Brief*, 1985: 14.

²²⁴ US *Post-Trial Memorandum*, 1985: 104. See fn.145 *supra*.

Quite apart from the broad notion that coverage for a lengthy period by frozen sea-ice is equivalent to the formation being below water at high tide,²²⁵ the legal importance of the ice-influenced compositional aspect is that if one notionally subtracts (as ‘non-land’) the known layers of frozen sea-ice (as opposed to sand/gravel layers) which seemingly make up Dinkum Sands’ elevation, then the formation clearly never qualifies in having the requisite above high water character in any event. It was untypical compared with other features in the Beaufort Sea in that even in the ‘open water’ season, it arguably only stood above high water because of the introduction of seasonal ice.²²⁶ As the US federal side argued: the “*proper test was to measure [Dinkum Sands’] elevation after discounting any height which is attributable to the existence [in it] of excess ice.*”²²⁷ To contrary effect Alaska argued against such a discounting of the sea ice content, partly on the basis of impracticability.²²⁸

In his *Report*, the Special Master in effect accepted the Alaskan argument on the general question, first of all not ruling out “ice” as being dissimilar to “land”. As he stated, but somewhat tentatively:

*The distinction between surface ice and subsurface ice is perhaps not wholly clear-cut. A borderline case was presented by the small piles of gravel that were found in the June 1981 survey...Nevertheless I do not believe that treatment of surface ice features like icebergs or ice shelves should control the analysis of Dinkum Sands, which has been shown to have its origins in the same processes that formed the admitted barrier islands.*²²⁹

The Special Master, having made this finding on the relevant status of Dinkum Sands’ ice component, then went on to stress the practical problems which would be involved in making such any ‘ice deduction’ assessment of the formation’s elevation:²³⁰

*To discount the elevation of Dinkum Sands for ice that melts seasonally would raise practical difficulties. In particular, one would need a reasonably accurate prediction of how far the surface would subside in the summer. Dr Reimnitz [expert Arctic geologist witness for the federal side] did not claim much precision for his estimate of 50 centimetres, either in general, or as a prediction specific to the summer of 1981...In addition, there was evidence that the nature and amount of submerged ice can vary widely across a formation...The witnesses agreed that for an accurate survey of the ice content it would be desirable to have a complete cross-section, as by digging a trench along the feature...But trenching might destroy the feature by changing its balance with the environment...Furthermore, knowing the amount of ice present falls short of knowing how much of it will melt during the summer.*²³¹

In other words, quite apart from the difficulty of assessing the extent of ice in an off-shore Arctic formation, the Special Master seems to have viewed a discounting of frozen sea water at most only if it was in fact temporary and subject to (assessable) summer melt-down. And so he concluded with what, to this writer, is an over-sweeping conclusion to avoid the “difficulties”

²²⁵ See fn.145, *supra*.

²²⁶ US *Post-Trial Memorandum*, 1985: 97.

²²⁷ *Id.*: 92 (emphasis added).

²²⁸ *Reply Brief*, 1985: 23-24.

²²⁹ *Report*, 1996: 274.

²³⁰ Though he did mention that at least one measurement of elevation in the winter months was attempted in March, 1981 (*Report*, 1996: 286).

²³¹ *Id.*: 275.

that would be caused by trying to discount for temporary subsurface ice; namely be recommended “*that Article 10 [of the TSC] be read to assimilate all submerged ice to land.*”²³² However, having taken with one hand here, he effectively gave back with the other by stating the obvious common-sense factor that seasonal melt of the top layers of Dinkum Sands could not be totally ignored as it inter-related with the “*varying height*” problem in assessing a formation’s height above high tidal datum, as discussed above.²³³ As he continued:

*At the same time, where seasonal ice may make the difference as to whether a feature reaches a critical elevation, it must be recognised that the pre-thaw measurement cannot be representative of the whole year. Thus although I would not discount the elevations measured in March and June 1981 [i.e. the ‘early season’ joint surveys] on account of temporary ice, I view the survey of August 1981 [i.e. the late season joint survey] as an essential step in obtaining a fair picture of the height of Dinkum Sands. Similarly for 1982 and 1983,...end-of-summer observations are as important as those from early in the season.*²³⁴

In fact, as seen above,²³⁵ the Special Master found that late summer measurements probably indicated a drop due to “*ice collapse*”²³⁶ in the ‘open water’ season.

7. Conclusion

As stated earlier²³⁷ in this *Briefing*, important aspects of the definition of an island in international law bound up in the innocent phrase “*above water at high tide*” (Article 10 of the TSC; Article 121(1) LOSC, 1982²³⁸) have never in the past been subjected to adequate academic analysis;²³⁹ and least of all to judicial scrutiny before an international tribunal. Even in the *Anglo-French Western Approaches Case*, the question, though raised, was not determined.²⁴⁰ Now for the first time the important analysis of this question in *US v. Alaska* – albeit in a federal maritime delimitation context – has cast some light on this vital aspect of insular definition. However, the optimal high-tide datum requirement for an ‘island’ in international law remains unsettled after the Dinkum Sands case. As this writer has suggested elsewhere, some *intermediate* type of tidal datum – such as mean high-water spring tide – *should* be adopted in international law to avoid a diversity of criteria.²⁴¹

Although it is true that some aspects of the determination of status in the case of Dinkum Sands may be of more limited value for other situations – because, for example, of the

²³² *Id.* (emphasis added).

²³³ See above Section 3.2.5.

²³⁴ *Report* (1996: 275 and esp. 280): “*late-season data is necessary to an adequate picture of the behaviour of Dinkum Sands over the year.*”

²³⁵ *Supra*, Section 2.3.

²³⁶ *Report*, 1996: 282.

²³⁷ See fn.77 and accompanying text.

²³⁸ See also Symmons, 1995.

²³⁹ Most of the existing academic works on islands tend to skate over such definitional problems. See Symmons (1995: 27, fn.190) and the same author’s review of the latest book on the topic, Jayewardene (1990) in *International and Comparative Law Quarterly*, 40 (1991): 740, 741 (who states that an island should be an “*elevation above the surface of the sea*”!).

²⁴⁰ See fn.127, *supra* and accompanying text.

²⁴¹ See Symmons, 1995: 17-24 and 28.

peculiarities of an ice-bound environment²⁴² or the idiosyncratic and lax nature of the domestically-orientated US tidal datum test²⁴³ – there is no doubt that this precedent will be of importance for many other delimitation disputes across the world where ownership of small and dubious insular formations are alleged by one of the contending States to have a vital influence on the direction of a maritime boundary. Low-lying formations exist in rivers²⁴⁴ and seas across the globe²⁴⁵ and it is surely only a matter of time before this question of insular definition arises again in a legal setting, particularly with the gradual advent of ‘global warming’ and consequential rising sea levels. This apart, though, the actual methodology used in the Dinkum Sands saga to determine the appropriate tidal datum in the area – including a so-called “*error band*” – and the topographical efforts of the disputing Parties to determine the feature’s height – may be of practical value to other States in disputes in different oceans.

²⁴² See e.g., Section 6 above.

²⁴³ See Symmons, 1995.

²⁴⁴ See, e.g., Erasmus and Hannum, 1987-88: 49, 52-53 and 55; and in respect of the application of Article 10 of the TSC to low-lying river formations dealt with in a British-Portuguese Accord of 1938 relating to a Tanzanian-Mozambique frontier river, see Dipla, 1985: 589, 616.

²⁴⁵ See e.g., the problems of identifying true ‘islands’ in the low-lying Spratlys in the East China Sea (Gardner, 1994: 61 and 67).