### INTERNATIONAL HYDROGRAPHIC REVIEW

## Article



# Continental Shelf Submissions: an Updated Record

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### Abstracts

To date, nine coastal states have presented a total of eight submissions for continental shelf extensions beyond their 200 nautical mile limits. This paper summarizes the scopes of those submissions and the stages they have attained in their examinations by the Commission on the Limits of the Continental Shelf. The paper also identifies the members of the three Commissions that have been elected since 1997, and of the seven subcommissions that have been established since 2001 for the purpose of reviewing individual submissions.



### Résumé

A ce jour, neuf Etats côtiers ont présenté huit soumissions au total pour des extensions du plateau continental au-delà de la limite des 200 milles marins. Le présent article résume la portée de ces soumissions et les stades atteints dans l'examen par la Commission sur les limites du plateau continental. Cet article identifie également les membres des trois Commissions qui ont été élus depuis 1997, et les sept sous-commissions établies depuis 2001 dans le but de passer en revue chaque soumission.



#### Resumen

Hoy, nueve Estados costeros han presentado un total de ocho propuestas sumisiones para la extensión de la plataforma

continental mas allá del límite de las 200 millas náuticas. Este artículo resume los aspectos de esas sumisiones y las etapas que han logrado en sus exámenes por la Comisión de Límites de la Plataforma Continental. El artículo también identifica los miembros de las tres Comisiones que han sido elegidos desde 1997, y de las siete subcomisiones que han sido establecidas desde el 2001 con el propósito de revisar las sumisiones individuales.

This report outlines the scope and status of the first eight continental shelf submissions to be presented to the Commission on the Limits of the Continental Shelf (CLCS), consisting of: five single submissions from Russia, Brazil, Australia, New Zealand, and Norway; two partial submissions from Ireland and France, and one joint submission from France, Ireland, Spain, and the United Kingdom. It also includes a commentary concerning the compositions and functions of the CLCS, and of the subcommissions that have been established so far to examine the submissions.

Information concerning the first four submissions was described in an earlier report, which also discussed the compositions of the CLCS and its subcommissions (Macnab and Parson, 2006). Portions of that earlier paper are repeated here for the sake of completeness.

In general, detailed contents of continental shelf

submissions are not made public, nor are the deliberations of the CLCS concerning those submissions. In certain cases some of that information can be gleaned through unofficial channels, but for the most part interested parties must be satisfied with material of a more limited nature that is posted on the website of the United Nation's Division of Ocean Affairs and the Law of the Sea (DOALOS): http://www. un.org/Depts/los/clcs\_new/clcs\_home.htm. Most of the information in this presentation is derived from that official source.

## An Overview of Past and Current Submissions

As of this writing, nine coastal States have presented eight continental shelf submissions for consideration by the Commission on the Limits of the Continental Shelf (CLCS). Their submission dates are listed in Table 1.

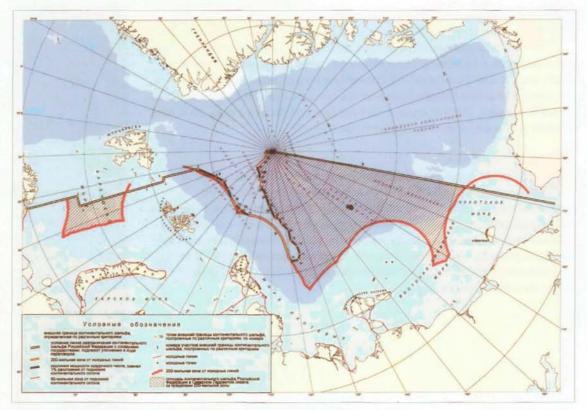


Figure 1: Shaded areas show the locations of the continental shelf extensions sought by Russia in the Barents Sea and in the central Arctic Ocean. The Russian 200 nautical mile limit is portrayed by two line colours - solid red, and red & yellow combined. The double black line is a provisional outer limit of the Russian continental shelf, its final position subject to negotiation with neighbour states. Other components seen in this figure represent elements that figured in the development of the Russian claim. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

State	Submission date
Russian Federation	2001
Brazil	2004
Australia	2004
Ireland (partial)	2005
New Zealand	2006
France, Ireland, Spain, UK (joint)	2006
Norway	2006
France (partial)	2007

The submissions for Russia, Brazil, and Ireland have been subjected to a full review by the CLCS, which issued outer limit recommendations for Russia in 2002, and for Brazil and Ireland in 2007. The Australian, New Zealand, and Norwegian submissions are still undergoing review by subcommissions of the CLCS, as is the joint submission from France, Ireland, Spain, and the UK. The tasks of these subcommissions are to examine submissions and to draft recommendations for review by the Commission at large. As of this writing, a subcommission to examine France's partial submission has yet to be established.

### The Russian Submission

This submission (United Nations, 2001a) specified extended continental shelf areas in four distinct regions: two in the Arctic, two in the northwest Pacific (portrayed in Figures 1 and 2, respectively). It was

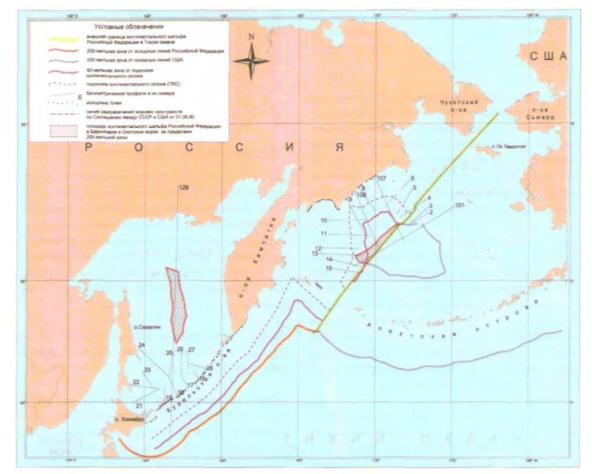


Figure 2: Shaded areas show the locations of the continental shelf extensions sought by Russia in the Sea of Okhotsk and in the Bering Sea. The yellow line portrays the proposed outer limit of the juridical continental shelf of the Russian Federation. The red and blue lines indicate the 200 nautical mile limits of Russia and the USA, respectively. The dashed black line represents the delimitation of maritime zones defined in 1990 by agreement between the former USSR and the USA. Other components seen in this figure represent elements that figured in the development of the Russian claim. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

presented to the UN Secretary-General in 2001, four years after Russia's ratification of UNCLOS in 1997, and eight years ahead of the 2009 deadline. It has been suggested that the early submission date was prompted in large part by circumstances and priorities within the Russian Government (Skaridov, 2003).

The DOALOS website contains the following information that is specific to this submission:

- 1. Press Release SEA/1726 dated December 21, 2001;
- an unofficial English translation of an Executive Summary which consists of four pages containing lists of geographic coordinates accompanied by explanatory notes, three maps, and one page of map captions; and
- 3. a Statement delivered by a senior member of the Russian deputation during the presentation of the Russian submission to the Commission (United Nations, 2002a).

Five States (Canada, Denmark, Japan, Norway, and the United States) responded with communications that addressed several aspects of the submission: the difficulty of assessing the proposed outer limits given the information at hand; problems arising from overlapping jurisdictions or questionable baselines; and the geological and tectonic interpretations that underpinned the proposed outer limits in the central Arctic (United Nations, 2001b). The latter concerns reflect the many uncertainties that prevail in the Arctic geoscientific community with regard to the tectonic history and framework of the Amerasia Basin, which lies between North America and Eurasia: there is still no broad consensus on which scenario best describes the opening of that Basin, and whether or not the geological natures of prominent seabed elevations such as the Lomonosov and Alpha-Mendeleev Ridges qualify them as 'natural prolongations' of the landmasses of adjacent coastal States.

In its recommendations (United Nations, 2002b; paragraphs 38-41), the CLCS expressed no reservations over proposed continental shelf extensions in the Bering and Barents Seas. In the Sea of Okhotsk, the CLCS recommended a partial submission, to be accompanied by efforts to resolve jurisdictional issues with Japan. In the central Arctic Ocean, the CLCS recommended a revised submission.

For a more expansive discussion of the Russian sub-

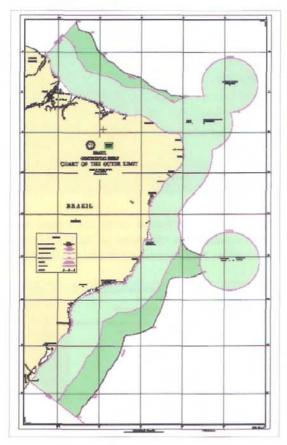


Figure 3: The light green shading represents the extent of Brazil's Exclusive Economic Zone. The dark green areas portray the continental shelf extensions that are described in the 2005 Addendum to the Brazilian submission. In the southern area, the extended continental shelf closes the gap between two EEZ regions: one generated by the mainland, the other by the Martin Vaz Islands. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

mission, of the reactions from other States, and of the Commission's recommendations, the reader is referred to Macnab, 2003.

In 2003, Russia responded to the CLCS recommendations by organizing an international conference in St. Petersburg (Ministry of Natural Resources, 2003). This gathering featured over thirty presentations by Russian and non-Russian speakers who addressed an array of geoscientific topics that were relevant to the implementation of Article 76 in the Arctic.

Of particular interest in the St. Petersburg gathering were concluding presentations by two senior Russian functionaries: speaking in a personal capacity, Y. Kazmin outlined the Russian Federation's reservations concerning the validity of the CLCS recommendations; I. Glumov spoke about his Ministry's intention to mount a new round of field work in the Arctic, for the purpose of obtaining additional data that would counter CLCS concerns.

The first phase of this additional field work was completed during the summer of 2005, examining the geological and tectonic linkages between the Mendeleev Ridge and the continental margin of Siberia; preliminary results were presented at the Fall Meeting of the American Geophysical Union (Kaminsky et al, 2005). Another phase of field work has been mobilized to focus on the linkages between the Lomonosov Ridge and the Siberian margin (Poselov et al,2007).

### The Brazilian submission

This submission (United Nations, 2004a) made a case for extended continental shelves off the country's northern margin and off the southern half of its eastern margin (Figure 3). The DOALOS website pro-

vides an eight-page Executive Summary that comprises a cover page, a page of ship photographs, one page of text, three page-sized maps (also posted separately in a larger format), two pages of geographic coordinates, and one Addendum that was submitted in 2006.

The submission attracted only one response, from the United States of America (United Nations 2004b), which was dismissed by the CLCS on the grounds that it did not originate from a party that was currently involved in a boundary dispute with Brazil (United Nations, 2004c; paragraph 17).

In 2006, Brazil submitted an Addendum to its original submission, citing new information that supported a change in the proposed outer limit (United Nations, 2006a). The sub-commission charged with assessing this submission held several sets of deliberations (United Nations, 2005a; United Nations, 2006b; United Nations, 2006c; and United Nations, 2007a), and delivered its recommendations to the Commission in June 2007 (United Nations, 2007a)

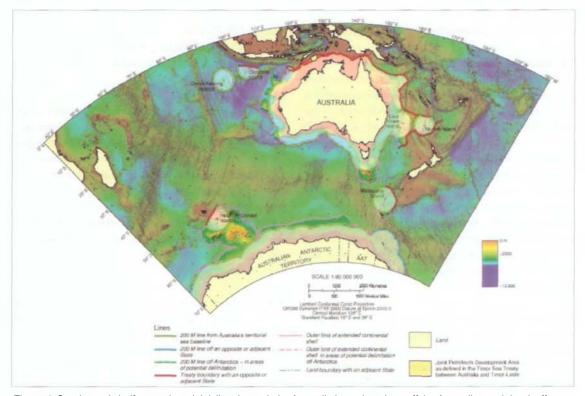


Figure 4: Continental shelf extensions (pink lines) sought by Australia in ten locations off the Australian mainland, off isolated islands, and off the Australian Antarctic Territory. Australia has requested that the CLCS defer consideration of the Antarctic extensions for the time being, in light of the continent's unique legal and political status. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

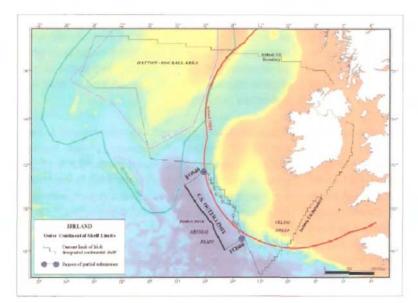


Figure 5: Continental shelf extension in the Porcupine Abyssal Plain, sought by Ireland in its partial submission. The red line denotes the outer limit of Ireland's Exclusive Economic Zone, while the thin black line portrays the current limit of the Irish-designated continental shelf. The extents of the Icelandic and Faeroese claims are portrayed as well. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

where they were accepted with amendments.

### The Australian submission

This submission (United Nations, 2004d) identified continental shelf extensions in ten locations off the Australian mainland, off isolated islands, and off the Australian Antarctic Territory (Figure 4). A detailed and informative 49-page Executive Summary is posted on the DOALOS website, featuring a regionby-region overview, 21 page-sized maps (also posted separately in a larger format), and two separate Annexes containing lists of geographic coordinates. An accompanying Note requests that the CLCS defer consideration of the Antarctic extension for the time being, taking into account the unique legal and political status of that continent according to the provisions of the Antarctic Treaty.

The submission attracted eight responses from other States: Germany, India, Japan, The Netherlands, Russia, and the USA rejected the possibility of establishing an extended continental shelf off Antarctica, while France and Timor-Leste declared that the recommendations of the CLCS would not be prejudicial to the establishment of bilateral boundaries between themselves and Australia (United Nations, 2005b). The sub-commission charged with assessing this submission met several times (United Nations, 2006b; United Nations, 2006c) and submitted its recommendations to the full Commission in March-April 2007; however it was agreed that final adoption of those recommendations would be deferred until the next meeting of the Commission (United Nations, 2007a; paragraph 33).

An interesting sidelight emerged during a requested meeting between the Commission and the Australian deputation in March-April 2007, when spokesmen for the latter declared that Australia would seek an explanation from the Commission if its recommendations did not conform to that country's expectations (United Nations, 2007a; paragraphs

30 and 32). This declaration appears to serve notice that the CLCS should be prepared to defend its decisions against coastal state challenges.

### The Irish Submission

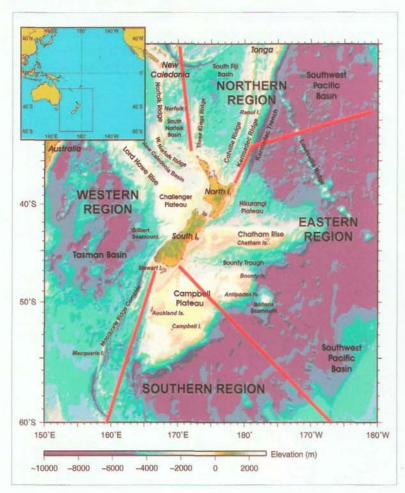
This submission (United Nations, 2005c) was a partial one, in that it proposed an extended continental shelf in the Porcupine Abyssal Plain only (Figure 5). The eight-page Executive Summary posted on the DOALOS website features four pages of mixed text and figures, and a one-page Appendix containing a list of geographic coordinates. The document explains that boundaries with neighbouring states north and south of this shelf extension remain under discussion, necessitating a deferral of Article 76 work in those regions.

The proposed outer limit attracted responses from Denmark and Iceland, declaring that the submission and the recommendations of the CLCS were to be considered as non-prejudicial to their own interests in the region (United Nations, 2005d). The subcommission charged with assessing this submission held two sets of deliberations (United Nations, 2006b; United Nations, 2006c) and presented its draft recommendations to the CLCS for review and consideration. These were subsequently adopted at the first meeting of the CLCS in 2007 (United Nations, 2007a; paragraph 37).

### The New Zealand Submission

This submission (United Nations, 2006d) proposed extended continental shelves in four regions radiating outward from the land area of New Zealand (Figure 6). For the present, New Zealand excludes a prospective continental shelf adjacent to Antarctica, but it does reserve the right to present a supplementary submission for that region at a future date.

An eighty-page Executive Summary posted on the DOALOS website features twenty pages of mixed text and maps, and four Appendices listing fixed points which comprise the outer limits of the four regions. A corrigendum lists corrections to a number of fixed





points. A covering letter acknowledges a potential delimitation issue with France in the area of the Three Kings Ridge.

The proposed outer limits attracted responses from Fiji, Japan, and France (United Nations, 2006e). Fiji and France alluded to boundary delimitation issues in the continental shelf areas described in New Zealand's submission, stating that the recommendations of the CLCS should be without prejudice to upcoming submissions from either country. Japan declared that it did not recognize the sovereignty of any state over the submarine areas adjacent to Antarctica. The sub-commission charged with assessing this submission began its deliberations in 2006 (United Nations, 2006b; paragraph 24), and presented its preliminary findings during the first meeting of the CLCS in 2007, with an understanding that members would continue

> to work on the submission until the end of the term of office of the present Commission (United Nations, 2007a; paragraph 37).

# The Joint Submission from France, Ireland, Spain, and the UK

Prepared 'collectively and collaboratively' by France, Ireland, Spain, and the United Kingdom, this submission defines a zone (Figure 7) seaward of the Bay of Biscay (United Nations, 2006f). Delimitation within the zone will be resolved by the four parties at a later date. An eight-page Executive Summary posted on the DOALOS website features two maps and a list of fixed points which circumscribe the outer limit of the zone.

The submitting states consider that their proposed outer limit does not infringe upon the interests of other coastal states. This would appear to be borne out by the lack of reactions from other parties. The subcommission charged with assessing this submission began its work in 2006 (United

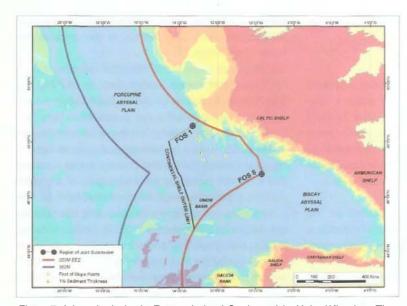


Figure 7: Joint submission by France, Ireland, Spain, and the United Kingdom. The northern edge of this continental shelf segment abuts the southern edge of the Irish segment shown in Figure 5. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

Nations, 2006c; paragraph 34) and met several times with representatives of the submitting states, who were asked to present additional material. This material was duly furnished, and the subcommission proposed to draft its final recommendations following examination of the new information (United Nations, 2007a; paragraph 40).

### The Norwegian Submission

This submission (United Nations, 2006g) proposes outer limits in three separate areas: the 'Loop Hole' in the Barents Sea; the Western Nansen Basin in the Arctic Ocean; and the 'Banana Hole' in the Norwegian Sea (Figure 8). Norway

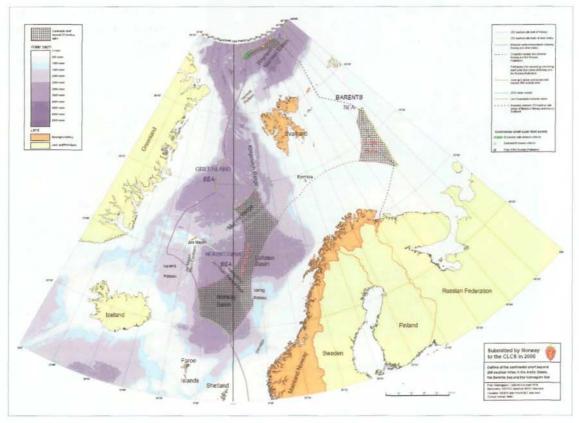


Figure 8: Continental shelf limits proposed by Norway in the Barents Sea, in the Western Nansen basin, and in the Norwegian Sea. Norway reserves the right to propose extensions in other areas. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

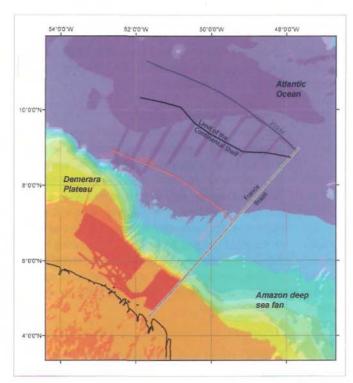


Figure 9: Continental shelf limit proposed by France off French Guiana, in a partial submission that also proposes two extensions off New Caledonia. This Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

reserves the right to make future submissions in other areas. A 22-page Executive Summary posted on the DOALOS website contains six maps, two technical figures, and an Appendix listing fixed points which circumscribe the outer limit of the zone.

Norway refers to current or anticipated bilateral delimitations with neighbouring states: with Russia in the 'Loop Hole'; with Greenland and Russia in the Western Nansen Basin; and with Denmark, Faroes and Iceland in 'Banana Hole' (already agreed).

The proposed outer limits attracted responses from Denmark (United Nations, 2007b), Iceland (United Nations, 2007c), the Russian Federation (United Nations, 2007d), and Spain (United Nations 2007e); the first three reactions stated that the recommendations of the CLCS should be without prejudice to upcoming submissions from either country, while the last reiterated Spain's view that parties to the Svalbard Treaty of

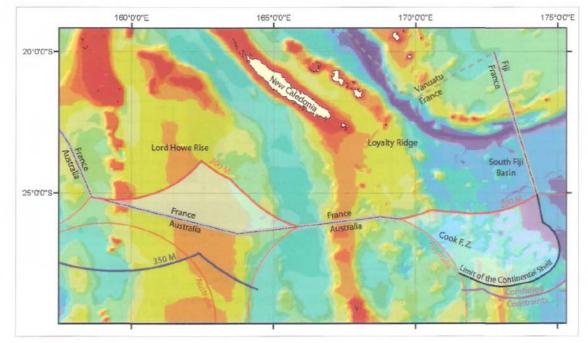


Figure 10: Continental shelf limits proposed by France in two areas off New Caledonia, in a partial submission that also proposes an extension off French Guiana. Source: website of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS).

1920 were entitled to enjoy access to the resources of the extended continental shelf. A subcommission was established during the first CLCS meeting of 2007 and began its review of the submission, however it was determined that work would need to be continued in the intersessional period, or at least until the election of a new Commission in June 2007 (United Nations, 2007a; paragraphs 52 and 54).

### The French Submission

This partial submission (United Nations, 2007f) proposes outer limits for three continental shelf extensions: one off French Guiana, and two off New Caledonia (Figures 9 and 10, respectively). A 22page Executive Summary posted on the DOALOS website contains four maps and three appendices. The first two appendices consist of tables that list the geographical coordinates of the outer limit points off French Guiana and southeast of New Caledonia; the third appendix consists of a simple declaration that the outer limit off southwest New Caledonia coincides with a bilateral limit that was established by France and Australia in 1982.

The Executive Summary also declares that the proposed extension off French Guiana is not subject to any dispute with neighbouring states, while the extension southeast of New Caledonia is the subject of exchanges with Australia and New Zealand. As of this writing, the submission has attracted no reaction from any other state.

### Other Submissions in Waiting

The submissions described above are expected to be augmented by submissions from ten or so States that have declared their intentions of completing their preparations prior to 2009 (United Nations, 2004c; paragraph 46). In a targeted survey of state practice in the sharing of technical information, another nine States confirmed that they were engaged in activities related to Article 76 (Sorensen et al, 2005). Over and above these States, there remain an undetermined number of prospective continental shelf claimants for whom the May 2009 submission deadline applies.

# Submissions and Subcommissions: a Snapshot

YEAR 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 **CLCS** Term First (1997-2002) Second (2002-2007) Third (2007-2012) Russia Brazil Australia Ireland New Zealand Fr-Ir-Sp-UK Norway France Initial 10-year time period: May 1999 to May 2009 1997 YEAR 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 Submission reviewed Follow-up action by Submission under Key & adopted by CLCS coastal State review by CLCS

**Current Status of Submissions: a Recapitulation** Table 1 illustrates the status, at the midpoint of

Table 1: Status of the eight continental shelf submissions as of mid-2007. Also portrayed along the top edge are the terms of the Commission on the Limits of the Continental Shelf (CLCS), and along the bottom edge the 10-year time frame that precedes the deadline for initial submissions. The CLCS has reviewed and adopted recommendations for Russia, Brazil, and Ireland. Russia has mounted field expeditions to acquire additional data. The CLCS has not completed its consideration of submissions from Australia, New Zealand, and Norway, nor the joint submission from France, Ireland, Spain, and the United Kingdom. A subcommission has yet to be established for reviewing the French submission.

<b>CLCS Member Information</b>		CLCS Terms			Subcommission Members and State Assistants								
Name	Sponso	or State	1997-2002	2002-2007	2007-2012	Russia 2001	Brazil 2004	Australia 2004	Ireland 2005	N Zealand 2006	Fr-Ir-Sp-UK 2006	Norway 2006	France 2007
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Table 2: Chart identifying past and present members of the Commission on the Limits of the Continental Shelf (CLCS) along with their sponsor States, and listing those who have been appointed to the first seven subcommissions (as of this writing, no subcommission has been established to review the French submission). Also identified are past and current CLCS members who have rendered assistance to submitting states. A change in the membership of the Russian subcommission was necessitated when two members did not stand for re-election in 2002; similarly, six Commission members were not re-elected in 2007, which could necessitate changes in the memberships of six subcommissions.

2007, of the eight submissions that have been presented so far. The CLCS has reviewed the Russian submission, and has issued recommendations which have prompted follow-up fieldwork by Russian agencies to acquire additional data that is intended to buttress their case (Kaminsky et al, 2005; Poselov et al, 2007). Presumably this new information will be used to formulate revisions to the existing submission, which will then have to undergo renewed scrutiny by the CLCS.

Meanwhile, the Brazilian and Irish recommendations have been adopted and are under consideration by those two submitting states. The Australian, New Zealand, and Norwegian submissions as well as the joint submission from France, Ireland, Spain, and the United Kingdom, are in various stages of review by their respective subcommissions or by the Commission at large. As of this writing, no subcommission has been established to review the French submission.

# Membership of the First Three Commissions and of the First Seven Subcommissions

Table 2 illustrates the memberships of the first three Commissions that have been elected, and of the first seven subcommissions that have been appointed so far. Annex II of the Convention specifies that unless the CLCS decides otherwise, a subcommission will consist of seven members. It will be noted that the subcommissions for Brazil, Australia, Ireland, and Norway actually consist of eight members: in each instance, the eighth member is a specialist advisor drawn from the ranks of the Commission.

The term of an individual subcommission extends from the date of its appointment to the time that the submitting coastal State deposits charts and relevant information regarding its outer continental shelf limits (United Nations, 2004e; rule 42, paragraph 2). Where a revised submission has been recommended, as in the case of Russia, the subcommission presumably remains on a standby status in the expectation of resuming its examination at a later date. If a member of that subcommission becomes unavailable for service during this interval, it may be necessary to appoint a replacement. This in fact was done in 2004 in the case of the Russian subcommission, in which two of the original members had to be replaced because they did not stand for re-election to the CLCS in 2002 (United Nations, 2004c; paragraph 47). Similarly, four subcommission members were not re-elected in 2007, leaving six subcommissions under strength by one or two members apiece; presumably it will be necessary to consider replacing some or all of these members at a future date.

A member of the CLCS can be appointed to more than one subcommission (United Nations, 2004e; rule 42, paragraph 3). A perusal of Table 2 will indicate that this is in fact happening. As more submissions are presented, it can be anticipated that the CLCS will need to engage in a balancing act: (a) to avoid overloading its members with appointments to multiple subcommissions; (b) to ensure that each subcommission possesses an appropriate mix of expertise; (c) to provide each subcommission with the necessary financial resources and support facilities; and (d) to allow for the possibility that some members may not be available for extended service if the terms of their subcommissions straddle the election of a new Commission. This will no doubt unleash significant internal stresses and strains as the CLCS strives to accommodate its growing workload.

At the request of the Meeting of States Parties (SP-LOS), the CLCS has proposed a set of rules to ensure that the anticipated flow of submissions will be handled in the most effective way. Foremost is the decision to limit the number of active subcommissions to three at any one time, with a new subcommission to be established only when an existing subcommission has delivered its draft recommendations to the Commission (United Nations, 2006c; paragraphs 36-38). Additional measures have also been proposed to increase the efficiency of the Commission's internal operations (United Nations, 2006b; paragraphs 40-41).

Mindful of the financial burden that must be borne by sponsoring parties (particularly developing states) in defraying the not inconsiderable expenses incurred by Commission members in the performance of their official duties, the CLCS has proposed to the Meeting of States Parties that such reimbursements be funded from the regular UN budget (United Nations, 2007a, paragraphs 55-58).

# Services Rendered to Submitting States by CLCS Members

Members of the CLCS are sponsored by their respective coastal States, but they are meant to serve in their personal capacities, and not as national representatives. A member of the CLCS is permitted to advise his sponsor State on the preparation of its continental shelf submission. Whether or not he provides this advisory service, he cannot serve on a subcommission that is examining his sponsor's submission, but he is allowed to participate in the deliberations of the full Commission concerning that submission.

Similarly, a member of the CLCS is free to advise any State in the preparation of its continental shelf submission, and while he cannot serve on the subcommission that examines that submission, he can participate in the deliberations of the full Commission concerning that submission.

In either of the above cases, the submitting State must identify current member(s) of the CLCS from whom it has received assistance. It is probably no coincidence that of the nine states which have so far submitted seven single submissions and one joint submission, two-thirds are past or current sponsors of CLCS members: while developing their proposed outer limits, it is understandable that submitting States would seek to have an inside look at the workings of the Commission by sponsoring members who could provide insights on how the review process might impact their own submissions.

Information posted on the DOALOS website makes no mention of CLCS members (former or current) who might have been involved in the preparation of the Russian, New Zealand, and French submissions, although in the case of New Zealand, it has been reported informally that a past Commission member assisted with the development of that country's proposed outer limits. Only one sponsor state was involved in the joint submission from France, Ireland, Spain, and the UK, but the CLCS member from that state was recruited to render advice to all four states.

Of the eight submissions presented so far, six have

benefited from advice rendered by sponsored members (past or current) of the CLCS: these are identified in Table 2.

### The Advantages of Sponsoring a CLCS Member

There can be little doubt that a submitting State which sponsors a CLCS member who is also a contributor to that State's continental shelf program enjoys a significant advantage over a State which doesn't. This advantage transcends the purely technical sphere, because a CLCS member can offer unique perspectives on the Commission's internal procedures and dynamics. This information can be potentially helpful to the sponsoring State in the formulation of its own continental shelf submission, and in the development of a strategy for its presentation.

Conceivably, a sponsored member could also have some influence on the formulation of the Commission's final recommendations by commenting upon certain aspects of the subcommission's draft recommendations while under review by the full Commission. In a court of law, this would be akin to having a member of the defence team participate in the closing deliberations of the jury. This could cast doubt on the Commission's impartiality, and potentially weaken the credibility of its recommendations.

The factors outlined in the two preceding paragraphs could provide legitimate grounds for non-sponsor States to be concerned about the prospects for manipulation of the submission process by sponsor States - it could prove difficult and costly (if not impossible) for a non-sponsor State to benefit from inside knowledge, or to participate in the review of recommendations prior to their release. This would appear to be an area where full disclosure of the Commission's deliberations - including sponsored members' interventions - would be a significant contribution to the transparency of the overall process (Macnab, 2004). It would be desirable therefore if the CLCS - in consultation with the Meeting of States Parties - considered the potential inequities that could arise from the apparent imbalance between sponsor and non-sponsor States, and took appropriate steps to eliminate this asymmetry.

## Conclusions

Nearly eight years have passed since the beginning of the first ten-year time frame for preparing and pre-

senting continental shelf submissions. So far, only nine States have reached the submission stage, and just three have received recommendations from the CLCS. Of the remaining six states, all have presented submissions that are partial, or where the right is reserved to make future submissions. This raises several questions: Does a partial submission 'stop the clock' for a coastal state while that state constructs the rest of its proposed outer limits? Is there a time limit for completing a partial submission? Will the remainder of a partial submission be dealt with by the same subcommission that performed the initial review? If the composition of a subcommission has to change during its term of office, how will the CLCS ensure consistency in its conclusions? The record is still too scanty to suggest answers to such questions, and to support general conclusions concerning how the Article 76 process will unfold in the years ahead.

However it is probably safe to point out that the Russian submission has demonstrated what can happen when attempting to establish an extended continental shelf in a region - in this case the Amerasia Basin in the Arctic Ocean - where a full understanding of the geological framework and tectonic history remains elusive. In such a situation, it would be prudent for the CLCS to proceed cautiously, to seek the views of knowledgeable specialists, and perhaps even to consider deferring a final decision rather than assume the role of scientific arbiter.

With the Commission entering its third term, a total of thirty-five "experts in the field of geology, geophysics, or hydrography" (UNCLOS Annex II) have served or are serving in its ranks. Eight members of the first Commission either did not re-offer, or were not reelected, resulting in a nearly forty percent turnover of membership between the first and second Commissions. Six members of the second Commission did not re-offer or were not re-elected, for a turnover of twenty-nine percent. It is not known whether comparable levels of turnover will occur in future elections, nor whether they will prove sufficient to encourage periodic and healthy renewals of the Commission's membership while ensuring that its recommendations remain consistent and predictable.

Of the thirty-five Commission members, twenty-two have been appointed to serve on subcommissions established to examine individual State submissions. Seventeen of these have served or are serving on more than one subcommission. As the May 2009 deadline approaches and as additional submissions begin to accumulate, Commission members will presumably find themselves pressed into service on a growing number of subcommissions.

Potentially vexing issues are the roles and influence of Commission members during two critical stages in the Article 76 process: (a) the preparation of submissions by their sponsor States, and (b) the review of draft recommendations pertaining to those submissions. In light of the non-disclosure of Commission proceedings, States that are not privy to the internal workings of the Commission may well consider themselves at a disadvantage relative to those that are.

## Citations

- Commonwealth of Australia, 2004. Continental Shelf of Australia. Executive Summary. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/ Depts/los/ clcs\_new/submissions\_files/aus04/ Documents/aus\_doc\_es\_web\_delivery.pdf
- Government of Ireland, 2005. Submission to the Commission on the Limits of the Continental Shelf pursuant to Article 76, paragraph 8 of the United Nations Convention on the Law of the Sea 1982 in respect of the are abutting the Porcupine Abyssal Plain. Part I, Executive Summary. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/ clcs\_new/submissions\_files/irl05/irl\_exec\_sum. pdf
- Kaminsky, VD, VA Poselov, VY Glebovsky, AV Zayonchek, and W Butsenko, 2005. Geophysical and Geological Study of the Transition Zone between the Mendeleev Rise and the adjacent Siberian Shelf: Preliminary Results (abstract only). Posted on the website of the American Geophysical Union, http://www.agu.org/meetings/fm05/
- Macnab, R, 2003. Russia's submission for continental shelf extensions: the first test of UNCLOS Article 76. EEZ International, July 2003.
- Macnab, R, 2004. The case for transparency in the delimitation of the outer continental shelf in accordance with UNCLOS Article 76. Ocean Development and International Law, v. 35, n. 1, p. 1-17, 2004.
- Macnab, R. and L. Parson, 2006. Continental Shelf Submissions: the Record to Date. Symposium on Problems of the Outer Continental Shelf, International Tribunal for the Law of the Sea, Hamburg, September 25, 2005. International Journal of

Coastal and Marine Law, v 21, n 6, pp 309-322.

- Ministry of Natural Resources, 2003. Morphology and Geological Nature of Deep Seabed and Submarine Elevations in the Arctic Basin: Controversial Scientific Issues in Context of UNCLOS/Article 76. Summary of presentations, St. Petersburg, June 30 -July 4, 2003.
- Poselov, V. A., A.N. Minakov, V.Y. Glebovsky, A.A. Lickhachev, 2007. Integrated geological and geophysical study of the Lomonosov Ridge Siberian Shelf transition zone (abstract). Fifth International Conference on Arctic Margins (ICAM V), 3-5 Sept., 2007, Tromsø, Norway.
- Skaridov, A, 2003. Russian perspectives in the Arctic Ocean. Conference on Legal and Scientific Aspects of Continental Shelf Limits, Reykjavik, 25-27 June, 2003.
- Sørensen, K, C. Marcussen, and R. Macnab, 2005. Transparency in the Article 76 process: a survey of state practice in the sharing of technical information pertaining to the development of the outer continental shelf. Proceedings of the Fourth ABLOS Conference, Monaco, October 10-12,2005. Posted on the website of the IAG/IHO/IOC Advisory Board on the Law of the Sea, http://www.gmat.unsw.edu. au/ablos/
- United Nations, 2001a. Submission by the Russian Federation. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/clcs\_new/submissions\_files/submission\_rus.htm
- United Nations, 2001b. Reaction of States to the submission made by the Russian Federation to the Commission on the Limits of the Continental Shelf.
   Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www. un.org/Depts/los/clcs\_new/submissions\_files/ submission\_rus.htm
- United Nations, 2002a. Statement made by the Deputy Minister for Natural Resources of the Russian Federation during presentation of the submission made by the Russian Federation to the Commission, made on 28 March 2002. UN Publication CLCS/31, April 5, 2002. United Nations, New York. Also posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://daccessdds.un.org/doc/UNDOC/GEN/N02/318/60/ PDF/N0231860.pdf?0penElement
- United Nations, 2002b. Report of the Secretary-General to the Fifty-seventh session of the General Assembly under the agenda item Oceans and the Law of the Sea. UN Publication A/57/57/Add.1. United

Nations, New York.

- United Nations, 2004a. Submission by Brazil. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/ Depts/los/clcs\_new/submissions\_files/submission\_bra.htm
- United Nations, 2004b. United States of America: Notification regarding the submission made by Brazil to the Commission on the Limits of the Continental Shelf. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/clcs\_new/submissions\_files/bra04/clcs\_02\_2004Jos\_usatext.pdf
- United Nations, 2004c. Statement by the Chairman of the Commission on the Limits of the Continental Shelf on the progress of work in the Commission. UN Publication CLCS/42, September 14, 2004. United Nations, New York.
- United Nations, 2004d. Submission by Australia. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www. un.org/Depts/los/clcs\_new/submissions\_files/ submission\_aus.htm
- United Nations, 2004e. Rules of Procedure of the Commission on the Limits of the Continental Shelf. UN Publication CLCS/40, July 2, 2004. United Nations, New York.
- United Nations, 2005a. Statement by the Chairman of the Commission on the Limits of the Continental Shelf on the progress of work in the Commission. UN Publication CLCS/48, October 6, 2005. United Nations, New York.
- United Nations, 2005b. Reaction of States to the submission made by Australia to the Commission on the Limits of the Continental Shelf. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/ Depts/los/clcs\_new/submissions\_files/submission\_aus.htm
- United Nations, 2005c. Submission by Ireland. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/ Depts/los/clcs\_new/submissions\_files/submissionJrl.htm
- United Nations, 2005d. Reaction of States to the submission made by Ireland to the Commission on the Limits of the Continental Shelf. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/ clcs\_new/submissions\_files/submission\_irl.htm
- United Nations, 2006a. The Brazilian submission to the Commission on the Limits of the Continental

Shelf pursuant to Article 76 of the United Nations Convention on the Law of the Sea; Addendum to the Executive Summary dated 17 May 2004. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/ Depts/los/clcs\_new/submissions\_files/bra04/ bra\_add\_executive\_summary.pdf

- United Nations, 2006b. Statement by the Chairman of the Commission on the Limits of the Continental Shelf on the progress of work in the Commission. UN Publication CLCS/50, May 10, 2006. United Nations, New York.
- United Nations, 2006c. Statement by the Chairman of the Commission on the Limits of the Continental Shelf on the progress of work in the Commission. UN Publication CLCS/52, October 6, 2006. United Nations, New York.
- United Nations, 2006d. Submission by New Zealand.
  Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/clcs\_new/submissions\_files/submission\_nzl.htm
- United Nations, 2006e. Reaction of States to the submission made by New Zealand to the Commission on the Limits of the Continental Shelf. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/ Depts/los/clcs\_new/submissions\_files/submission\_nzl.htm
- United Nations, 20061. Joint Submission to the Commission on the Limits of the Continental Shelf pursuant to Article 76, paragraph 8 of the United Nations Convention on the Law of the Sea 1982 in respect of the area of the Celtic Sea and the Bay of Biscay. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/clcs\_new/submissions\_files/frgbires06/joint\_submission\_executive\_summary\_english.pdf
- United Nations, 2006g. Continental Shelf Submission of Norway in respect of areas in the Arctic Ocean, the Barents Sea and the Norwegian Sea. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/clcs\_new/submissions\_files/nor06/nor\_exec\_sum.pdf
- United Nations, 2007a. Statement by the Chairman of the Commission on the Limits of the Continental Shelf on the progress of work in the Commission. UN Publication CLCS/54, April 27, 2007. United Nations, New York.
- United Nations, 2007b. Reaction of Denmark to the

submission made by Norway. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/clcs\_ new/submissions\_files/nor06/dnk07\_00218.pdf

- United Nations, 2007c. Reaction of Iceland to the submission made by Norway. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/ clcs\_new/submissions\_files/nor06/isl07\_00223. pdf
- United Nations, 2007d. Reaction of the Russian Federation to the submission made by Norway.
   Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www. un.org/Depts/los/clcs\_new/submissions\_files/ nor06/rus\_07\_00325.pdf
- United Nations, 2007e. Reaction of Spain to the submission made by Norway. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/Depts/los/clcs\_

 new/submissions\_files/nor06/esp\_0700348.pdf
 United Nations, 2007f. Submission by France. Posted on the website of the Division of Ocean Affairs and Law of the Sea (DOALOS), http://www.un.org/ Depts/los/clcs\_new/submissions\_files/submission\_fra.htm

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