



Outer Limit of the Continental Shelf
Argentine Submission





EXECUTIVE SUMMARY

A. Introduction

As a coastal State, Argentina was one of the first countries to underscore the extent of its sovereignty rights over the continental shelf. In 1916 –before the Truman Proclamation – Admiral Storni developed a doctrine favouring the recognition of the rights over the continental shelf and all of the resources therein.¹

In 1944, the continental shelf was declared a mining reserve area.²

Later, in 1946, Decree No. 14.708/46³, based on the Truman Proclamation, went even further regarding its arguments and scope, claiming sovereignty over the “epicontinental sea” and the continental basement. The basis for that Decree was customary law, and it made reference to the notion of natural prolongation of the territory.⁴

In 1966, Law No. 17.094 was enacted.⁵ This law was, in general terms, in line with the 1958 Geneva Conventions on the Law of the Sea. It reaffirmed Argentina’s sovereignty over the seabed and subsoil of the submarine areas adjacent to its territory up to a depth of 200 m or beyond this limit, to a depth where the superjacent waters would allow for the exploitation of the natural resources of such areas.⁶

During the negotiations at the third United Nations Conference on the Law of the Sea, Argentina became one of the members of the “marginalist” States group and supported the proposal made by the Special Committee on the Peaceful Uses of Sea Bed and Ocean Floor beyond the Limits of National Jurisdiction, in 1973⁷, which fostered the extension of the continental shelf to the outer edge of the continental margin.⁸

In 1991, - before the entry into force of the United Nations Convention on the Law of the Sea (UNCLOS) – Argentina enacted Law No. 23.968 on maritime areas⁹ whose Article 6

¹ Lecture “Razón de ser de los Intereses Marítimos Argentinos” given on June 8, 1906 in Buenos Aires, Argentina; published in STORNI, Segundo R., *Intereses Argentinos en el Mar*, 3^d ed., Instituto de Publicaciones Navales, Argentina, 1967, pp. 54-57.

² Order No. 1386/44, Official Gazette (Boletín Oficial – B.O.) No. 17/03/1944. (A.I.1)

³ B.O. 05/12/1946.(A.I.2)

⁴ Cfr. DAVÉREDE, Alberto L., *La plataforma continental*, Editorial Universitaria de Buenos Aires, Argentina, 1983, pp. 32-38. Other countries also claimed this customary nature, and although from a doctrine perspective this Order was criticized, it did contribute to foster the doctrine through similar declarations and it exerted a vast influence on the establishment of the principle of sovereignty of the coastal state over the shelf resources.

⁵ Law N° 17.094 *Soberanía en el Mar Argentino* (B.O. 10/01/1967).(A.I.3)

⁶ Law No. N° 17.094, art. 2: “La soberanía de la Nación Argentina se extiende asimismo al lecho del mar y al subsuelo de las zonas submarinas adyacentes a su territorio hasta una profundidad de doscientos metros o, más allá de este límite, hasta donde la profundidad de las aguas suprayacentes permita la explotación de los recursos naturales de dichas zonas”.

⁷ Argentina: draft articles (16 de julio de 1973) U.N.Doc. A/AC.138/SC.II/L.73

⁸ Summary proceedings of the third United Nations Conference on the Law of the Sea, Second Meeting, 23d Session (July 1, 1974), pages 82/84 of the Spanish version.

⁹ Law N° 23.968 *Espacios marítimos* (B.O. 05/12/1991). (A.I.5)

established the outer limit of the Argentine continental shelf up to the outer edge of the continental margin or up to 200 M when the outer edge was below these limits. Argentina has therefore established the outer limit of its continental shelf in compliance with UNCLOS as adopted in 1982 at Montego Bay and this submission sets out the fixed points establishing this limit.

UNCLOS entered into force for Argentina on December 31, 1995.

B. The continental shelf and the United Nations Convention on the Law of the Sea

The continental shelf regime is enshrined in Part VI (articles 76 through 85) of UNCLOS.

The Convention stipulates that the continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance (art. 76.1).

In order to establish the outer edge of the continental margin and, hence, the outer limit of the continental shelf beyond the 200 M, two criteria must be used, as defined by article 74.4 of the Convention:

- I.** A line delineated in accordance with paragraph 76.7 by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the foot of the continental slope; or
- II.** A line delineated in accordance with paragraph 76.7 by reference to fixed points not more than 60 nautical miles from the foot of the continental slope.

Article 76.5 also sets two constraints. The fixed points comprising the line of the outer limits of the continental shelf and delineated according to the aforementioned criteria shall not exceed 350 nautical miles or 100 nautical miles from the 2,500-meter isobath.

The coastal State shall delineate the outer limits of its continental shelf, where that shelf extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by straight lines not exceeding 60 nautical miles in length, connecting fixed points, defined by coordinates of latitude and longitude (article 76.7)

The Convention has set forth a specific procedure for delineating the outer limits by which the coastal State shall submit information on the limits of the continental shelf beyond 200



nautical miles to the Commission on the Limits of the Continental Shelf (CLCS). The Commission shall make recommendations to coastal States on matters related to the establishment of the outer limit of their continental shelf. The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding. (Article 76.8).

The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation (article 77.3).

The rights of the coastal State over the continental shelf do not affect the legal status of the superjacent waters or of the air space above those waters (article 78.1).

Argentina, in compliance of UNCLOS and other relevant norms, hereby submits to the Commission on the Limits of the Continental Shelf, as and when required, the information regarding the outer limits of its continental shelf¹⁰.

C. State body in charge of the preparation the submission

Once UNCLOS came into force, a special body was created in Argentina for the purposes of preparing the final submission aimed at delineating the outer limit of the Argentine continental shelf pursuant to international law and to national Law No. 23.968.

Law No. 24.815¹¹ established the “Comisión Nacional del Límite Exterior de la Plataforma Continental (COPLA)” [*National Commission on the outer limits of the Continental Shelf*] as an inter-ministerial commission under the authority of the Ministry of Foreign Affairs, International Trade and Worship, and also composed of the Ministry of Economic Affairs and Production as well as the Naval Hydrographic Service.

From the very beginning, the Commission is assisted by a General Coordinator and a Technical Sub-Committee. To fulfill its terms of reference, the commission’s work is supported by the State Secretariat on Public Works, the Ministry on Science, Technology and Productive Innovation, the Secretariat on Industry, Trade and Mining, the National Commission of Geological Charts and the National Commission on Space Activities. Likewise, scientific cooperation and collaboration activities with other national agencies have been carried out: the “Consejo Nacional de Investigaciones Científicas (CONICET)”

¹⁰ Meeting of the State Parties to UNCLOS, “Decision regarding the date of commencement of the ten-year period for making submissions to the Commission on the Limits of the Continental Shelf set out in article 4 of Annex II to the United Nations Convention on the Law of the Sea (May 14 to 18, 2001), U.N.Doc. SPLOS/72. Also bear in mind the “Decision regarding the workload of the Commission on the Limits of the Continental Shelf and the ability of States, particularly developing States, to fulfil the requirements of article 4 of annex II to the United Nations Convention on the Law of the Sea, as well as the decision contained in SPLOS/72, paragraph (a) (June 13 to 20, 2008), U.N.Doc. SPLOS/183.

¹¹ Law No. 24.815 *Comisión Nacional del Límite Exterior de la Plataforma Continental* (B.O. 26/05/1997).(A.I.4)

[*National Scientific Research Council*], the Faculty of Exact Sciences, Engineering and Surveying of the University of Rosario, the Geodetics Institute of the Faculty of Engineering of the University of Buenos Aires, the National Antarctic Directorate and Argentine Antarctic Institute and the Regional Faculty of Río Grande (Ushuaia Division) of the National Technological University, among others.

Argentina has undertaken the task of establishing its longest limit as a State policy and has upheld a continuity of the working team for twelve years. COPLA has carried out its tasks with skilled professionals specifically hired for the purpose, also counting on the other state agencies linked to the subject. Total work has taken up over 432,600 person-hours.

Due to the importance of the activities of COPLA, the Argentine Executive Power declared that the tasks entrusted to COPLA were of “national interest” through Decree No. 1541/99.¹² Subsequently, Decree No. 752/2000,¹³ approved the tasks and budget of COPLA.

COPLA drew up a master plan as well as a schedule of work it developed throughout its 11 years in order to finalize all of the studies needed in time to prepare the present submission.

D. members of the clcs who provided advice during the preparation stage of the submission of the outer limit

Mr. Osvaldo Pedro Astiz, hydrographer, and Dr. Karl Hinz, member and former member of the CLCS respectively, provided advice to COPLA in the preparation of the present submission.

E. Full Submission

Argentina makes a full submission of the outer limit of its continental shelf according to the terms set out in the Rules of Procedure and relevant documents.¹⁴

¹² B.O 13/12/1999.(A.I.6)

¹³ B.O. 14/11/2000.(A.I.7)

¹⁴ SPLOS/183 and CLCS/48 (October 7, 2005)



F. Provisions of article 76 invoked to support the submission

Argentina has gathered and analyzed all the geomorphological, geological, geophysical and hydrographic elements whose results are summarized throughout the different chapters of the Main Body of the present submission and has established the outer limit of its continental shelf in accordance with paragraphs 4 through 10 of Art. 76 of the United Nations Convention on the Law of the Sea (UNCLOS).

These results show that the natural prolongation of the land territory of the Argentine Republic extends beyond 200 nautical miles, thus passing the *test of appurtenance*.

The outer limit of the Argentine continental shelf is based on the combined application of the two *formulae* and two constraints set forth in article 76 paragraphs 4 (a) (i) (ii), 4 (b) and 5 of UNCLOS.

Argentina followed a three-step process to delineate the outer limit as stipulated in paragraph 2.3.3 of the Guidelines:

- It first applied the two affirmative *formulae*, which allowed to delineate the outer envelope or *formulae line*.
- Secondly, the two constraints were applied, which allowed to delineate the *constraint line*.
- Finally, the combination of the aforementioned lines allowed to delineate the *inner envelope* representing the outer limit of the Argentine continental shelf.

G. End points of the outer limit

UNCLOS acknowledges that the competence regarding maritime delimitation between States with opposite or adjacent coasts resides in those States.

The maritime areas of Argentina border to the north those of the República Oriental del Uruguay (Uruguay) and to the south those of Chile.

1- República Oriental del Uruguay

The lateral maritime boundary between Argentina and Uruguay was established by Art. 70 of the Tratado del Río de la Plata y su Frente Marítimo [*Treaty of the Río de la Plata and its Maritime Front*] in 1973.

According to article 70 of that treaty:

The lateral maritime boundary and that of the continental shelf between the Eastern Republic of Uruguay and the Argentine Republic are defined by the equidistance line as determined by the adjacent coasts method, which begins at the center point of the baseline represented by an imaginary straight line connecting Punta del Este (the Eastern Republic of Uruguay) and Punta Rasa del Cabo San Antonio (Argentine Republic).

The boundary between the Argentine and Uruguayan continental shelves beyond the 200 nautical miles from the baselines is still to be demarcated.

In its Executive Summary submitted to the Commission on April 7, 2009, Uruguay claims that point FP 01, i.e., the southernmost point in that country's submission, "is equidistant from Punta Médanos (...), Argentina, and Cabo Santa María (...), according to Article 70 of the Río de la Plata and Maritime Front Treaty (Tratado del Río de la Plata y su Frente Marítimo)".

The abovementioned point FP 01 of the Uruguayan submission cannot be taken as a point of the maritime lateral boundary between the two countries since such boundary has not yet been demarcated in that sector, an operation which must necessarily be bilateral.

On the other hand, Argentina is not cognizant that point FP 01 has been established in accordance with the applicable norms of the United Nations Convention on the Law of the Sea.

The outer limit of the continental shelf of both countries in the bordering area shall be represented by a line connecting the southernmost point of the outer limit of the Uruguayan submission which complies with the norms of the United Nations Convention on the Law of the Sea to the northernmost point of the outer limit of the Argentine submission which complies with to the same norms and respecting the distance between one and the other as set forth in Art. 76.7 of the United Nations Convention on the Law of the Sea.

In view of the above and taking into account that the maritime lateral boundary between the Argentine Republic and Uruguay has not yet been demarcated in the area between the 200 nautical miles from the baselines and the line the outer limit of the continental shelves of both countries in this boundary area as referred to above, Argentina requests the Commission to formulate its recommendations applying Article 4 (a) of Annex I of its Rules of Procedure.



2- Republic of Chile

The maritime boundary between the Argentine Republic and Republic of Chile is set out in article 7 of the Tratado de Paz y Amistad [*Treaty of Peace and Friendship*] entered into by both countries in 1984, which states:

"The boundary between the respective sovereignties over the sea, seabed and subsoil of the Argentine Republic and the Republic of Chile in the sea of the southern zone from the end of the existing boundary in the Beagle Channel, i.e., the point fixed by the coordinates 55°07.3' South latitude and 66°25.0' West longitude shall be the line connecting the following points:"

"From the point fixed by the coordinates 55°07.3' South latitude and 66°25.0' West longitude (point A), the boundary shall follow a course towards the south-east along a loxodromic line until a point situated between the coasts of the Isla Nueva and the Isla Grande de Tierra del Fuego whose coordinates are South Latitude 55° 11.0' and West longitude 66° 04.7' (point B); from there it shall continue in a south-easterly direction at an angle of 45° measured at point B and shall extend to the point whose coordinates are 55°22.9' South latitude and 65° 43.6' West longitude (point C); it shall continue directly south along that meridian until the parallel 56° 22.8' of South latitude (point D); from there it shall continue west along that parallel, 24 miles to the south of the most southerly point of Isla Hornos, until it intersects the meridian running south from the most southerly point of Isla Hornos at coordinates 56°22.8' South latitude and 67°16.0' West longitude (point E); from there the boundary shall continue south to a point whose coordinates are 58°21.1' South latitude and 67°16.0' West longitude (point F)."

"The maritime boundary described above is shown on annexed map No. I."

"The exclusive economic zones of the Argentine Republic and the Republic of Chile shall extend respectively to the east and west of the boundary thus described."

"To the south of the end of the boundary (point F), the exclusive economic zone of the Republic of Chile shall extend, up to the distance permitted by international law, to the west of the meridian 67° 16.0' West longitude, ending on the east at the high sea."

H. Disputes

In compliance with Annex I, paragraph 2 (a) of the Rules of Procedure of the CLCS, Argentina hereby notifies that there is an area envisaged by article 46 of the Rules of Procedure:

Islas Malvinas, Georgias del Sur and Sandwich del Sur

According to the first transitional provision of the Argentine National Constitution:

“The Argentine Nation ratifies its legitimate and imprescriptible sovereignty over the Islas Malvinas, Georgias del Sur and Sandwich del Sur and the corresponding island and maritime areas they are an integral part of the national territory.

The recovery of said territories and the full exercise of its sovereignty, while respecting the way of life of the inhabitants, and according to principles of International Law, constitute a permanent and unwaivable objective of the Argentine people”.

The Argentine Republic has never recognized the illegitimate British occupation of the southern archipelagos, as the presence of the United Kingdom derives from the usurpation in 1833 of a part of the Argentine national territory, which was immediately protested and never consented by Argentina.

The United Nations, the Organization of American States and other international and regional fora and organizations acknowledge the existence of the sovereignty dispute between Argentina and the United Kingdom over the Islas Malvinas, Georgias del Sur and Sandwich del Sur and the surrounding maritime areas (including the continental shelf). Such organizations have made repeated calls to both countries to resume negotiations on sovereignty in order to reach a just, peaceful and definitive settlement of the controversy.

It must be noted that upon signature and ratification of the UNCLOS, Argentina made two declarations, making an express reservation regarding the “Question of the Malvinas Islands”, in the following terms:

“(…) The ratification of the Convention by the Argentine Government does not imply acceptance of the Final Act of the Third United Nations Conference on the Law of the Sea and, in that regard, the Argentine Republic, as in its written statement of 8 December 1982 (A/CONF.62/WS/35), makes an express reservation to the effect that resolution III, contained in annex I to the said Final Act, in no way affects the “Question of the Malvinas Islands”, which is governed by the specific resolutions and decisions of the General Assembly of the United Nations 2065 (XX)¹⁵, 3160 (XXVIII)¹⁶, 31/49¹⁷, 37/9¹⁸, 38/12¹⁹, 39/6²⁰, 40/21²¹, 41/40²², 42/19²³ and 43/25²⁴, 44/406, 47/408, and 48/408 adopted in the

¹⁵ UNGA Res. 2065 (XX) (December 16, 1965).

¹⁶ UNGA Res. 3160 (XXVIII) (December 14, 1973).

¹⁷ UNGA Res. 31/49 (December 1, 1976), U.N.Doc A/RES/31/49.

¹⁸ UNGA Res. 37/9 (November 4, 1982), U.N.Doc A/RES/37/9.

¹⁹ UNGA Res. 38/12 (November 16, 1983), U.N.Doc A/RES/38/12.

²⁰ UNGA Res. 39/6 (November 1, 1984), U.N.Doc A/RES/39/6.

²¹ UNGA Res. 40/21 (November 27, 1985), U.N.Doc A/RES/40/21.

²² UNGA Res. 41/40 (November 25, 1986), U.N.Doc A/RES/41/40.

²³ UNGA Res. 42/19 (November 17, 1987), U.N.Doc A/RES/42/19.

²⁴ UNGA Res. 43/25 (November 17, 1988), U.N.Doc A/RES/43/25.



framework of the decolonization process. In this regard, and taking into account that the Islas Malvinas, Sandwich del Sur and Georgias del Sur are an integral part of the Argentine territory, the Argentine Government states that it has not and will not recognize an entitlement or exercise of any maritime jurisdiction right by any other State, community or entity intending to build on an interpretation of Res. III that violates the rights of the Argentine Republic over the Islas Malvinas, Georgias del Sur and Sandwich del Sur and the corresponding maritime areas. Therefore, it does not and will not recognize any activity or measure that may be carried out or taken without its consent with respect to this question, that it considers of utmost importance, and will consider any such activity or measure null and void. In this regard, the Argentine Government considers that any such actions go against the aforementioned United Nations resolutions, which are aimed at the peaceful settlement of the sovereignty dispute over the islands through bilateral negotiations and with the good offices of the Secretary General of the United Nations..."

I. Description of the outer limit of the continental shelf

1. Sections:

The Argentine continental margin, besides being one of the largest of the world is, from a geological point of view, a complex margin where different types of margins are involved, as per the Scientific and Technical Guidelines CLCS (Guidelines)

The Argentine margin of the continental and island sectors is made up of three different geo-tectonic and tecto-sedimentary zones and, therefore, it is related to three of the margin types defined by the Scientific and Technical Guidelines. From North to South, the first margin to develop is an extensional continental margin, specifically a volcanic passive continental margin (type E of the Guidelines), which extends from the Río de la Plata up to approximately 48° S. At the northern boundary of the Malvinas Plateau, this margin becomes a transcurrent or sheared continental margin (type F), whose limit is marked by the Malvinas Escarpment up to the northern Ewing Bank/Malvinas Fracture Zone. From the South of Isla Grande de Tierra del Fuego and of Isla de los Estados up to the Islas Georgias del Sur, a combined continental margin is developed. This margin is a combination of a convergent margin and a sheared continental margin (combination of types A and F), which is associated towards the E with the North Scotia Ridge or Arc.

The continental margin of the Argentine Antarctic Sector is about 3,800 km long, from 74° W on the eastern margin of the Bellingshausen Sea up to the easternmost Weddell Sea, at 25° W. The geological and tectonic configuration made it possible to identify five different types of margins in this sector.

Figure 2 shows the location of the different types of margins.

Taking into account both the complexity and the volume of the data provided, and solely for the purposes of facilitating the treatment and charting of the results, the description of the application of the formulae and constraints by virtue of Article 76 has been divided in four sections which coincide with the various types of margins.

a) Passive Volcanic continental margin:

It is located between the boundary with Uruguay until 48° S approximately. This region of the Argentine continental margin encompasses the margins referred to in this submission as the Río de La Plata craton margin and the Patagonian margin.

It encompasses the region between 37° S and 48° S, where the greatest sediment thicknesses are found.

In this sector Argentina selected 16 foot of the slope (FOS) points from which the shortest distance to the fixed points complying with the 1 per cent sediment thickness criterion was calculated.

The 1 per cent formula was applied to the seismic profile of each of the lines named ARG. For each FOS and sediment thickness point, a figure including the geophysical elements that make it possible to assess the reliability of the depth conversion at the point that complies with the 1 per cent formula is provided. For these purposes, the seismic profile includes semblances and gathers corresponding to the closest shot points (SPs), both precedent and subsequent. The corresponding tables which allow to check the correspondence between the depths in time and in meters, as a function of the law of velocity deduced from interval velocities, are also included. For each sediment thickness point, the following is specified: depth, shot point, coordinates and sediment thickness in meters.

Figure 3 shows a map with the fixed points of the outer limit of the Argentine continental shelf along this section. Coordinates are included in Table 1.

b) Sheared Continental Margin:

It is located along the Malvinas escarpment until the northern end of the M. Ewing Bank/Malvinas Fracture Zone. Its articulation with the volcanic passive continental margin is obliterated at its western extreme due to the thick sedimentary record.

Argentina selected 24 FOS points in this region of its continental margin, from FOS-17, located on line ARG-38 in the western sector of the Malvinas Plateau, to FOS-40, on line ARG-66 in the Georgias Basin, east of the M. Ewing Bank.



From the selected FOS, Argentina generated the 60 M arcs and the corresponding envelope.

Figure 4 shows a map with the fixed points of the outer limit of the Argentine continental shelf along this section. Coordinates are included in Table 1.

c) Combined Continental Margin (combination between a convergent accretionary margin and a sheared margin)

It is located from the south of the Isla Grande de Tierra del Fuego and Isla de los Estados in the west, up to the Islas Georgias del Sur in the east. This margin includes the North Scotia Ridge, which represents the eastward extension of the Andes Mountain range. Due to its specific characteristics, this margin is referred to as “Combined Continental Margin - North Scotia Ridge”.

Argentina selected 9 FOS points in this region of its continental margin, from FOS-41, located on line ARG-67 in the North Scotia Ridge eastern sector, to FOS-49, on line ARG-87 in the west, in the prolongation of the Tierra del Fuego shelf.

From the selected FOS, Argentina generated the 60 M arcs and the corresponding envelope.

Figure 5 shows a map with the fixed points of the outer limit of the Argentine continental shelf along this section. Coordinates are included in Table 1.

d) Argentine Antarctic Sector

South of the Scotia Sea, Argentina selected both formulae. Argentina selected 8 FOS points in this area of its continental margin. From FOS-50, located on the ARG-300 line in the central sector of the Scotia Sea, to the north of the Islas Orcadas del Sur up to FOS-57, on the ARG-355 line in the Weddell Sea, to the south of the abovementioned islands. From the FOS points thus selected, Argentina generated the 60 M arcs and the corresponding envelope. The 1 per cent formula on a total of 5 fixed points was also used.

In the region of the Weddell Sea, Argentina selected a total of 12 FOS points: FOS-68 to FOS-79. From these selected FOS, Argentina determined the points with the 1 per cent sediment thickness.

Figure 6 shows a map with the fixed points of the outer limit of the Argentine continental shelf along this section. Coordinates are included in Table 1.

2. Applications of constraints

In order to define the *constraint line*, Argentina applied both constraints in accordance with paragraph 5 of Art. 76, which states:

“The fixed points comprising the line of the outer limits of the continental shelf on the seabed, drawn in accordance with paragraph 4 (a)(i) and (ii), either shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured or shall not exceed 100 nautical miles from the 2,500 metre isobath, which is a line connecting the depth of 2,500 metres.”

The 350 M arcs were generated from the points of the baseline selected.

Argentina identified three areas of its continental margin where the application of the 100 M constraint beyond the 2,500 m isobath is more favorable than the 350 M constraint.

In each of these areas, the 2,500 m isobath was drawn as detailed in the Main Body, which includes the description of the equipment used, the data processing, the methods and algorithms used as well as the delineation of the 2,500 m isobath, thus providing the best accuracy as this isobath constitutes the basis to draw the 100 M distance.

In order to draw the 100 M distance, Argentina selected the generating points, from which both the arcs and the envelope were generated, on the 2,500 m isobath.

3. Description of the fixed points of the outer limit of the Argentine continental shelf

Argentina has used the denomination “**RA**” for the fixed points of the outer limit of its continental shelf.

The description of the fixed points of the outer limit of the Argentine continental shelf starts with the first of these, located in the northernmost area of the Argentine volcanic passive continental margin, and continues, southwards, following the numbers allocated, until it reaches the last fixed point located on the eastern limit of the Argentine Antarctic Sector, south of 70° S latitude.

The first fixed point of the outer limit of the Argentine continental shelf is RA-01, as determined by applying the 1 per cent formula, and is located close to the boundary -not yet demarcated- between Argentina’s continental shelf and that of Uruguay as per the “Treaty of the Río de la Plata and its maritime front” signed by both countries on November 19, 1973.

It is followed by a group of 7 (seven) fixed points that comply with the 1 per cent formula up to RA-08 (included). Points from RA-09 to RA-179 are part of the 350 M constraint line.



From **RA-180 to RA-481**, the outer limit fixed points become part of the 2,500 m isobath + 100 M constraint line.

From **RA-482 to RA-740**, all fixed points are part again of the 350 M constraint line. Then, the outer limit moves to **RA-741** as determined by the 1 per cent formula.

Fixed point **RA-742** is the first one located in the sheared continental margin region, established by applying the distance formula (FOS+60 M). The same holds true for the following fixed points, up to fixed point **RA-1012**.

From fixed point **RA-1013 to RA-1142**, these are outer limit fixed points determined by the 2,500 m isobath + 100 M constraint line.

From fixed point **RA-1143 to RA-1312**, these are outer limit fixed points which are part of the 350 M constraint line.

From **RA-1313 to RA-1841**, these are outer limit fixed points determined by application of the distance formula (FOS+60 M).

From fixed point **RA-1842 to RA-2069** the outer limit fixed points are part of the 350 M constraint line.

From this last point, the following outer limit fixed points are located in the Georgias Basin area, up to fixed point **RA-2542**.

From fixed point **RA-2070 to RA-2541** are fixed points of the outer limit established by application of the distance formula (FOS + 60 M).

Fixed point **RA-2542** is located on the 200 M line, generated from a point on the baseline located on Isla San Pedro of the Islas Georgias del Sur. It is on the straight line starting from the previous fixed point, **RA-2541**, and ending on the 60 M arc generated from FOS-40, thus fulfilling the condition that distance between fixed points should not exceed 60 M.

Proceeding southwards, in the area of the combined continental margin – North Scotia Ridge, the easternmost fixed point is **RA-2543**, generated by the intersection of the 60 M arc drawn from FOS-41 to the 200 M line.

From fixed point **RA-2544** westwards to **RA-2828**, a number of fixed points have been determined by application of the distance formula (FOS+60 M).

From fixed point **RA-2829 to RA-2976**, the outer limit fixed points are part of the 350 M constraint line.

From fixed point **RA-2977 to RA-3456**, the outer limit fixed points are determined by the application of the distance formula (FOS+60 M).

Fixed point **RA-3457** is the intersection of point of the 60 M arc generated from FOS-48 and the 200 M line drawn from the baseline point located in Isla de los Estados.

To the west of that fixed point, the 60 M arc drawn from FOS-49 generates fixed point **RA-3458** as a the intersection with the 200 M line drawn from the baseline point located in Isla de los Estados..

From fixed point **RA-3459** up to **RA-3839**, the outer limit fixed points are determined by the application of the distance formula (FOS+60 M). From this last fixed point up to **RA-3840** all the points are located on the meridian 67° 16.0' West longitude, which in this sector constitutes the boundary between the respective sovereignties over the sea, seabed and subsoil of the Argentine Republic and the Republic of Chile according to the Peace and Friendship Treaty signed by the two countries on November 29, 1984.

The following fixed points on the outer limit of the Argentine continental shelf belong to the Argentine Antarctic Sector.

The first of these fixed points is **RA-3841**, located on the 200 M line drawn from a point on the baseline of the Islas Orcadas del Sur intersecting the 60 M arc drawn from FOS-50. The fixed points **RA 3842** to **RA 4134** are thus determined by the distance formula (FOS + 60 M). The last fixed point belonging to this arc is **RA-4135** resulting from the intersection with the 200 M line corresponding to points of the baseline of Cormorán and Negra.

The 60 M arc delineated from FOS-55 generates fixed points that go beyond the 200 M drawn from points of the baseline of Islas Sandwich del Sur and Georgias del Sur. Therefore, the resulting fixed points are **RA-4137** to **RA-4224** which are part of the 350 M constraint arc drawn from the points on the baseline of Islas Orcadas del Sur. **RA-4136** and **RA-4225** are to fixed points deriving from the intersection of that arc with the 200 M lines of isles Sandwich del Sur and Georgias del Sur.

The 350 M constraint line drawn from the points of the baseline of the Islas Orcadas del Sur determines the outer limit in the area of the corresponding arc from **RA-4226** to **RA-4398**.

The first fixed point, **RA-4226**, corresponds to the intersection of the 350 M constraint and the 200 M line drawn from the points of the baseline of Islas Sandwich de Sur.

RA-4399 to **RA-4721** are points determined by applying the 60 M formula from FOS-58 to 63, located in the feature referred to as Jane arc.

Fixed point **RA-4721** connects with **RA-4722**. The first one has been determined by the 1 per cent formula, same as the following ones up to **RA-4727**.

The following fixed point is **RA-4728**. It belongs to the 350 M constraint, up to **RA-5513**. From there on, as well as from **RA-5514** to **RA-5668**, the outer limit line is the 2,500 m+100 M restriction.



From fixed point **RA-5669** to **RA-6237** the outer limit fixed points are part of the 350 M constraint line.

The following fixed points of the outer limit from **RA-6238** to **RA-6239** were established by the application of the 1 per cent formula.

From fixed point **RA-6240** to **RA-6328**, these outer limit fixed points are part of the 350 M constraint line.

Fixed points from **RA-6329** to **RA-6332** were determined by the 1 per cent formula. This last one finally connects, through the shortest line, to **RA-6333** located on the 25° W meridian, which is the eastern boundary of the Argentine Antarctic Sector. As the distance between this last point and **RA-6336** -generated by the intersection of the 200 M line and the eastern boundary mentioned above- exceeds 60 M, Argentina has included both fixed points **RA-6334** and **RA-6335**, in accordance with the provisions in paragraph 7 of Art. 76.

4. Maps of the outer limit of the Argentine continental shelf and list of coordinates

The maps contained in Figures 3 to 6 show the outer limit of the Argentine continental shelf in sections, as the result of the combined application of the *formulae* and constraints, generating the inner envelope connecting the fixed points. These figures show the different criteria applied.

Figure 7 shows the outer limit of the continental shelf along the complete Argentine continental margin indicating only the fixed points (**RA**).

The map in Figure 1 shows the area comprised between the baseline and the outer limit of the continental shelf, and figure 8 makes a distinction between the areas comprised between the baseline and the 200 M, on the one hand, and between the 200 M and the outer limit on the other.

Annex I shows the list of coordinates of the fixed points defining the outer limit of the Argentine continental shelf under the WGS 84 system. The list has four columns, in turn subdivided into:

- First column: identification of the points as **RA** and continuous numbering. There are 6335 points.
- Second column: geodetic coordinates of each of the points according to the sexadecimal (decimal degrees) and sexagesimal (degrees, minutes and seconds).
- Third column: indication of the provision of Article 76 of UNCLOS invoked for that point, with the specification of the method used.
- Fourth column (divided in two subcolumns): indication of the distance between that point and the previous one, both in nautical miles (M) and in meters (m).

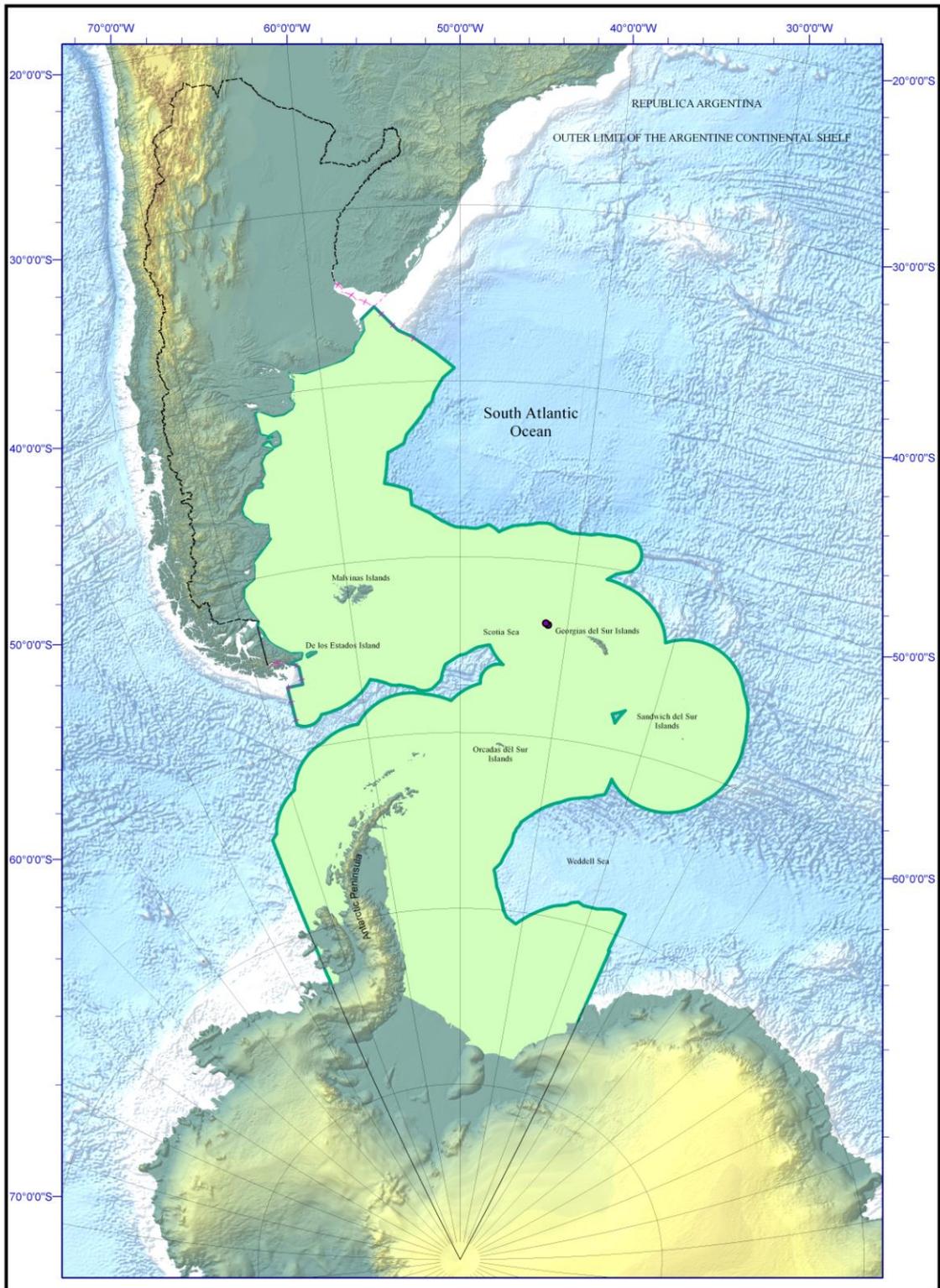


Figure 1 - Map of the zone between the baseline and the outer limit of the continental shelf.

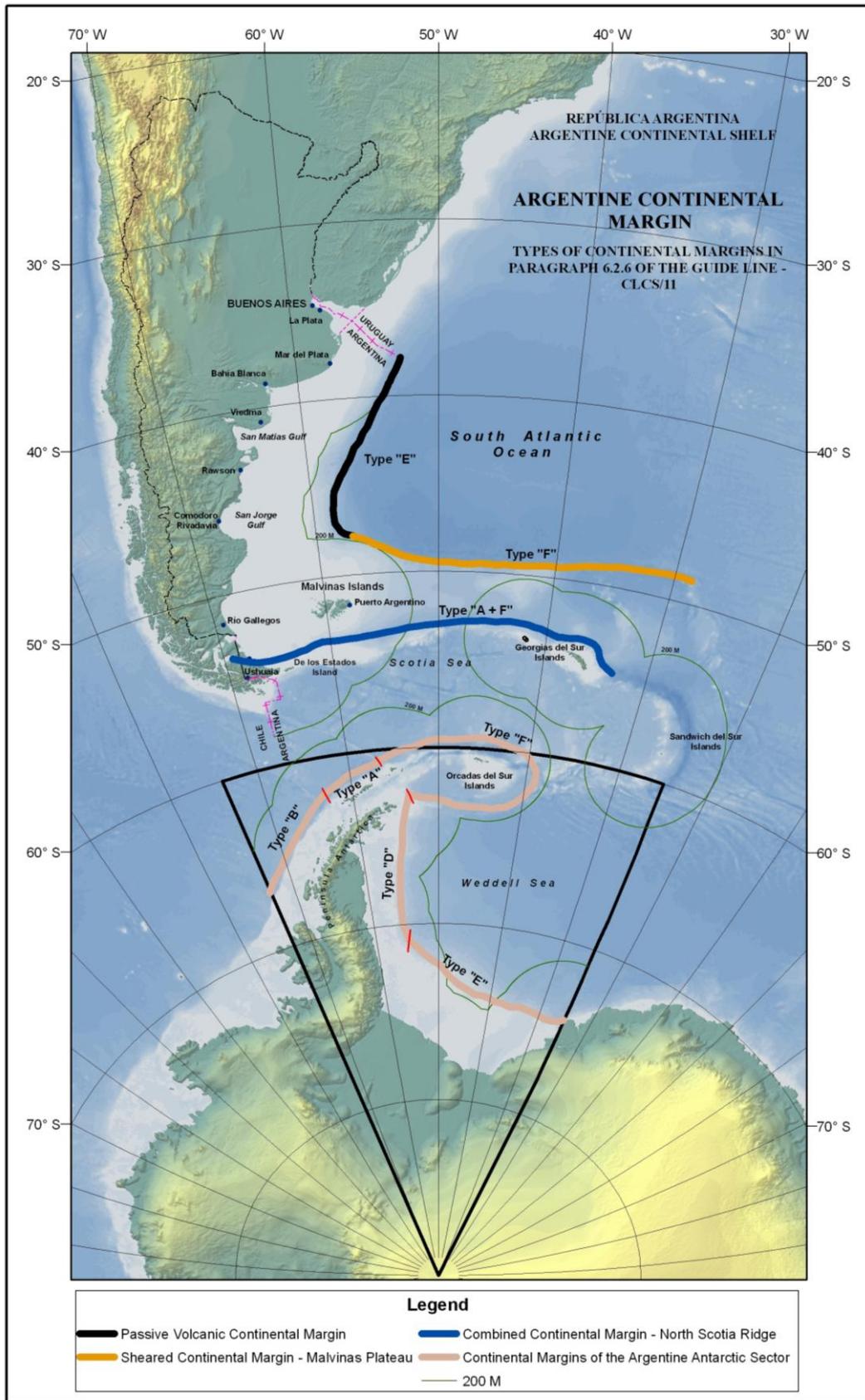


Figure 2 - Map of the different margin types in accordance with paragraph 6.2.6 of the Guidelines.

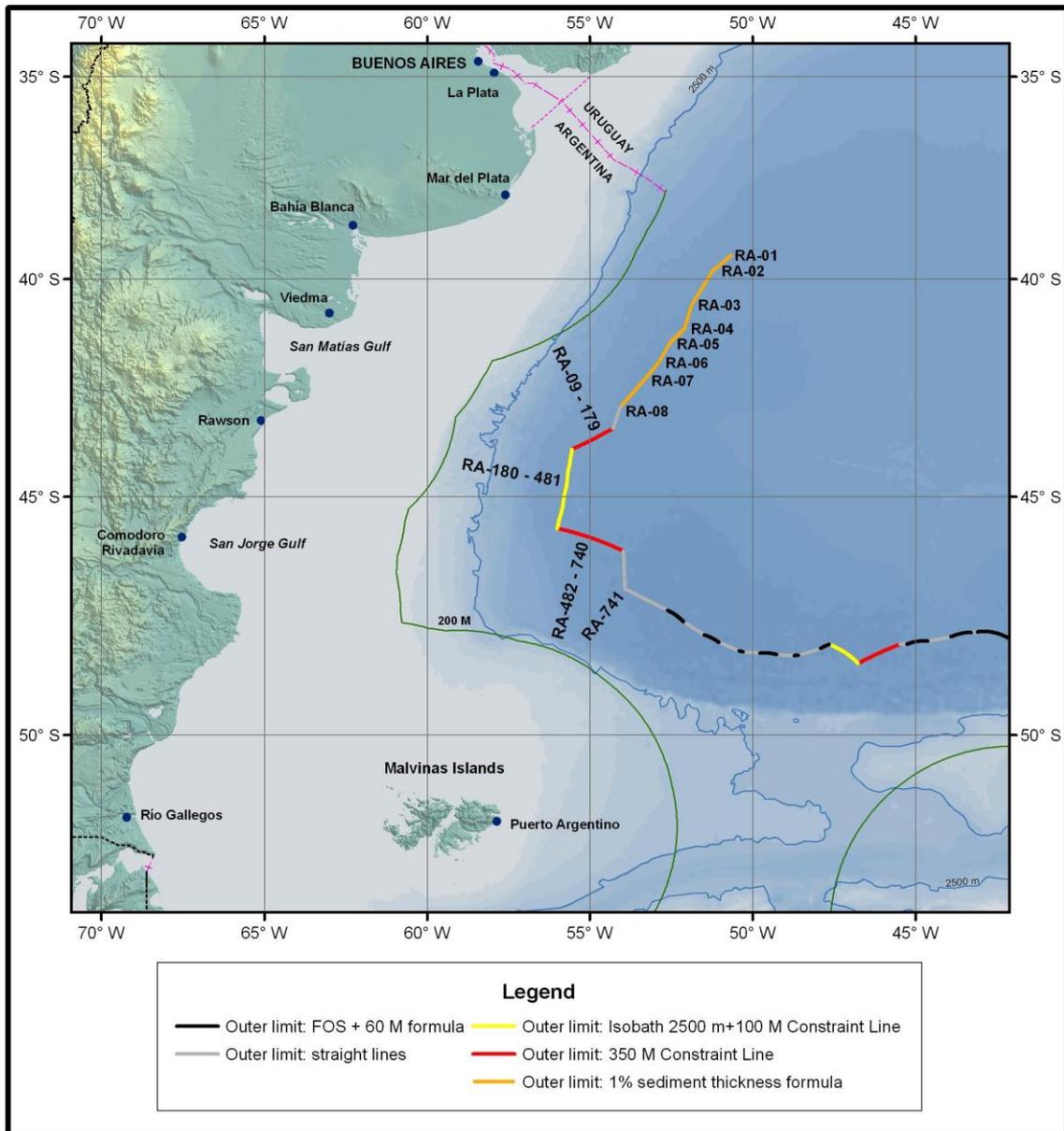


Figure 3 - Map of the argentine continental shelf outer limit fixed points (RA) in the passive volcanic continental margin.

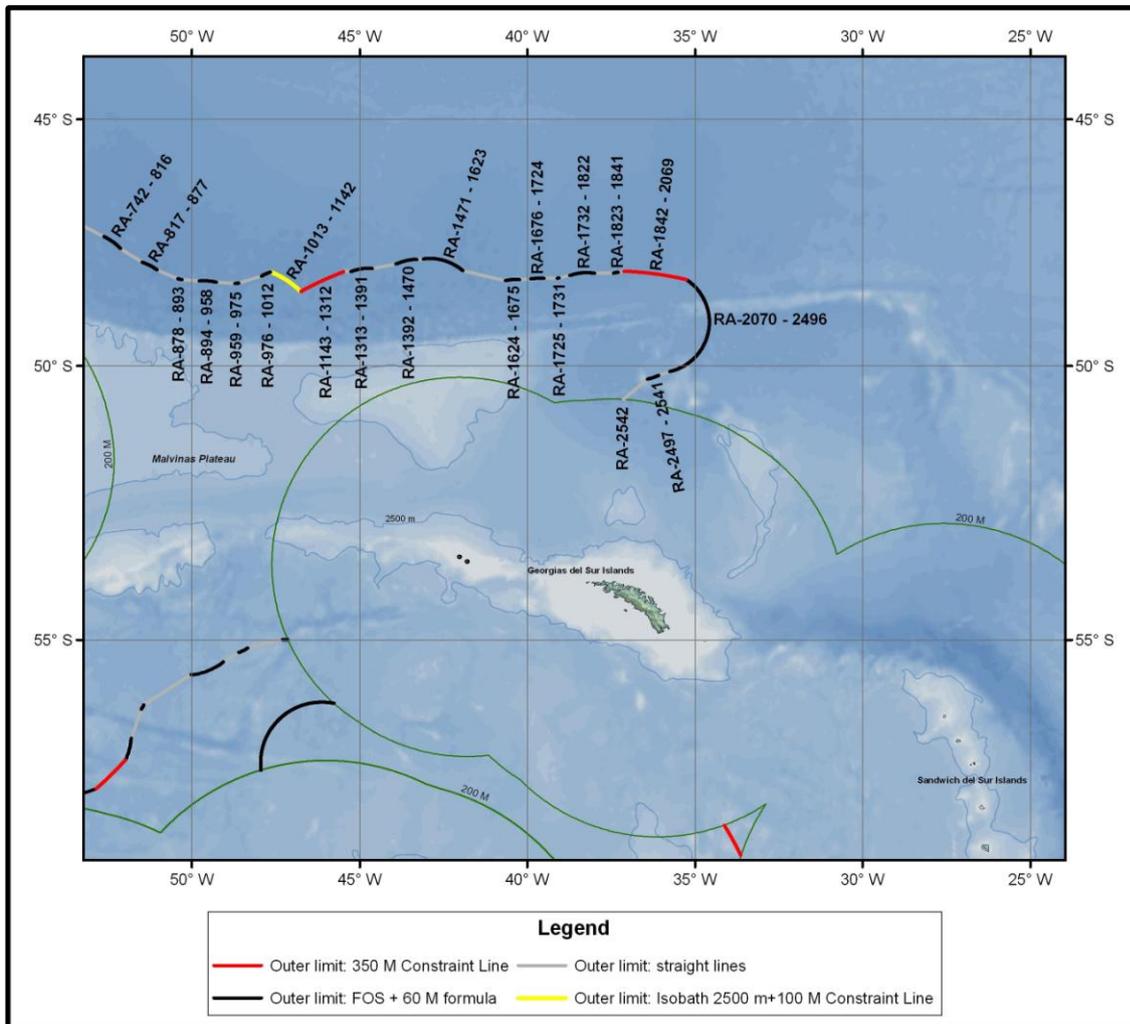


Figure 4 - Map of the argentine continental shelf outer limit fixed points (RA) in the sheared continental margin.

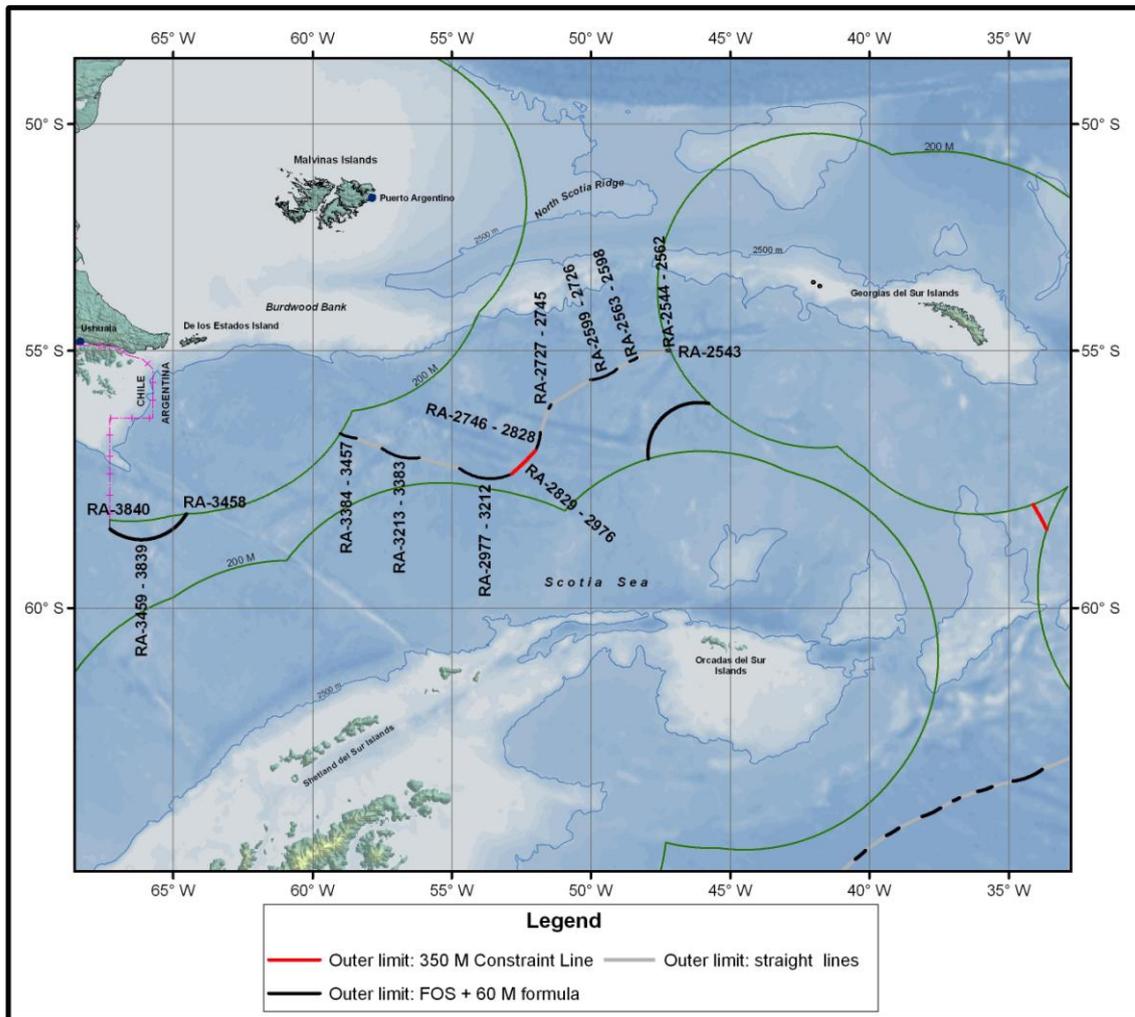


Figure 5 - Map of the argentine continental shelf outer limit fixed points (RA) in the combined continental margin – north Scotia ridge.

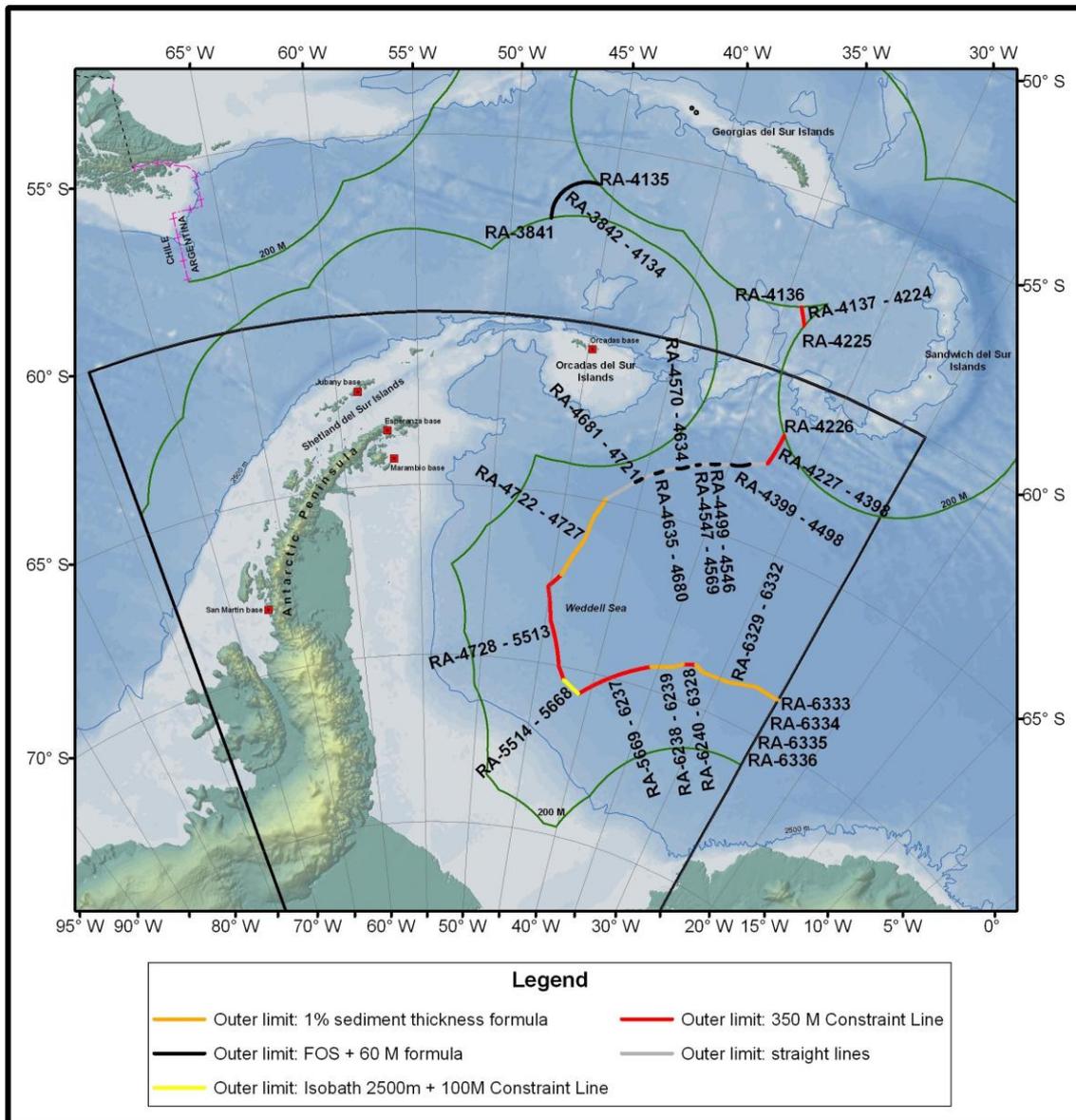


Figure 6 - Map of the Argentine continental shelf outer limit fixed points (RA) in the Argentine Antarctic Sector.

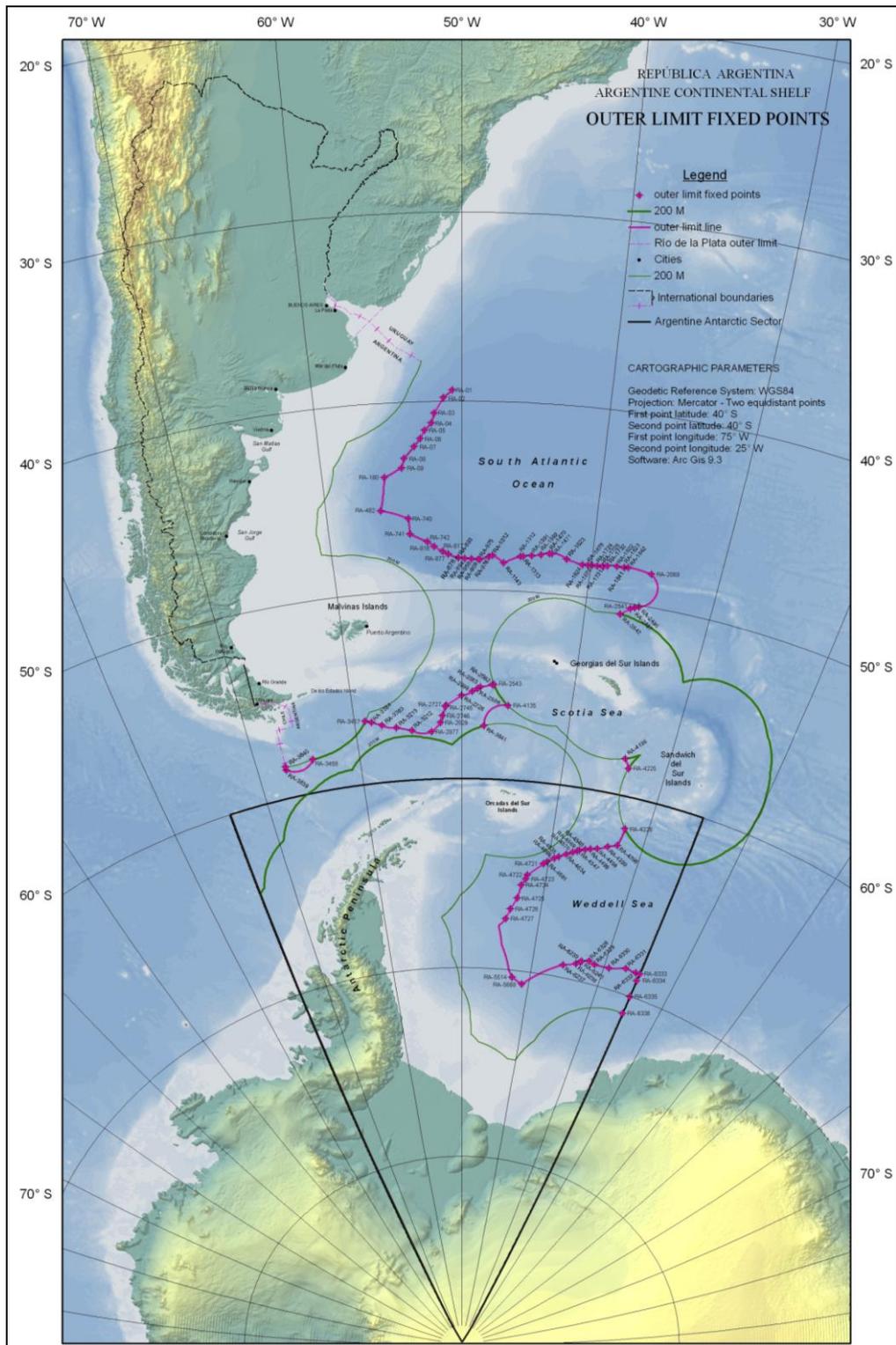


Figure 7 - Map of the argentine continental shelf outer limit fixed points (RA).

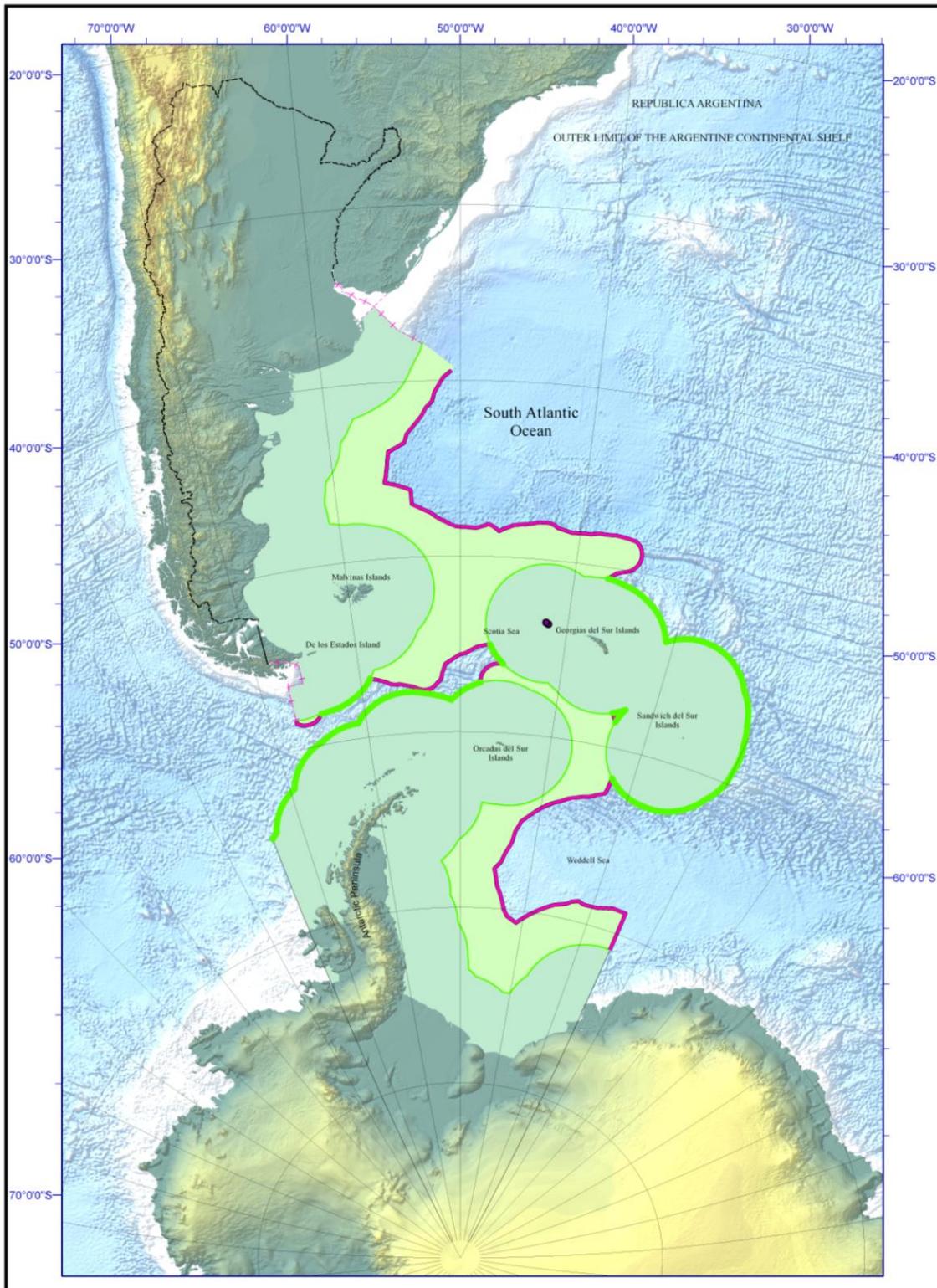


Figure 8 - Map of the zones between the baseline and the 200 M and this and the outer limit.