

THE EXPANSION OF THE PANAMA CANAL AND ITS RULING INTERNATIONAL CONTRACT: A MEGA-PROJECT SAILING IN TROUBLED WATERS?

LA EXPANSIÓN DEL CANAL DE PANAMÁ Y EL CONTRATO INTERNACIONAL QUE LA REGULA: ¿UN MEGA-PROYECTO NAVEGANDO EN AGUAS TURBULENTAS?

Irene Nuviala Lapieza*

Summary: I. INTRODUCTION. II. THE PANAMA CANAL AND ITS EXPANSION: MAIN FACTS. III. THE EXPANSION PROJECT OF THE PANAMA CANAL: SCOPE, ACTORS AND KEY LEGAL ISSUES. IV. CLAUSE 20 OF THE PANAMA CONTRACT: CLAIMS, DISPUTES AND ARBITRATION. V. CURRENT STATUS OF THE CLAIMS ARISEN IN THE PANAMA CONTRACT: DAB AND ARBITRAL PROCEDURES. VI. CONCLUSIONS.

ABSTRACT: The world has recently witnessed the inauguration of the Panama Canal Expansion. This civil engineering mega-project, resulting from a particular historical, political and economic background, is going to globally reconfigure the maritime transport. The Panama Canal Expansion includes the creation of a new lane by the design and construction of the third set of locks, which has undergone to a qualified tender process. The relationships between the parties (the Spanish led consortium Grupo Unidos por el Canal as the contractor and the Panama Canal Authority as the Employer) and the different actors of the project are configured by an extraordinarily complex international contract drawn from a FIDIC form but

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* Irene Nuviala Lapieza holds a Law Degree (Universidad de Zaragoza), a Masters in Taxation (Universidad Pompeu Fabra) and a Masters in Translation (Universidad de Zaragoza). She is currently preparing her doctoral thesis in the Faculty of Law, Universidad de Zaragoza. In the teaching field, Irene Nuviala Lapieza has given several courses of Legal English to law professionals interested in the international practice. She is also a member to the directory of arbitrators of the Bar Association in Zaragoza (Real e Ilustre Colegio de Abogados de Zaragoza), in which she is admitted to the practice. As for her professional activity, Irene Nuviala Lapieza has experience as an in-house lawyer of a multinational company and as a member of the International Mercantile Law department in an outstanding international law firm based in Spain. She is specialized in the contractual practice of industry and construction sector. She has published several scientific contributions in this matter. Irene Nuviala Lapieza is very grateful to Professor Katia Fach Gómez for her generous and accurate inputs, which encourage to excellence. The author also thanks Professor Jesús Astigarraga Goenaga for his always good advice. Comments and suggestions shall be welcome by the author at the following email address: irenenuviala@gmail.com

substantially amended taking into account the particularities of this mega-project. The contractual provision ruling the dispute resolution terms sets forth a multi-tier clause that addresses in first place to the negotiation between the parties, continues with a Dispute Resolution Board (DAB) and finally ends with an arbitration. The referred escalated clause shall be insightfully analyzed in this paper, in light of the *status quo* of the worth million claims filed by the contractor up to this date.

RESUMEN: El mundo ha sido testigo recientemente de la inauguración de la ampliación del Canal de Panamá. Este mega-proyecto de ingeniería civil, producto de un peculiar contexto histórico, político y económico, va a reconfigurar el transporte marítimo a nivel global. La ampliación del Canal de Panamá incluye la creación de una nueva vía mediante el diseño y construcción del tercer juego de esclusas, que se ha sometido a un cualificado proceso de adjudicación. Las relaciones entre las partes (el consorcio liderado por Grupo Unidos por el Canal como contratista y la Autoridad del Canal de Panamá como Empleador) y entre los diferentes actores del proyecto están reguladas por un complejísimo contrato internacional que parte de uno de los modelos FIDIC, pero introduce abundantes modificaciones teniendo en cuenta las particularidades de este mega proyecto. La disposición contractual en materia de resolución de conflictos establece una multitier clause, que remite en primer lugar a la negociación entre las partes, continúa con una junta de resolución de conflictos (DAB) y termina finalmente con un arbitraje. La referida cláusula escalonada va a ser objeto de análisis detallado en el presente artículo, a la luz del status quo de las millonarias reclamaciones formuladas hasta el momento por el contratista.

KEYWORDS Panama Canal, Panama Canal expansion, international contracting, international investments, engineering contracts, FIDIC, international disputes, negotiation, dispute resolution board (DAB), arbitration, ADR, multi-tier clauses.

PALABRAS CLAVE: Canal de Panamá, Expansión del Canal de Panamá, contratación internacional, inversiones internacionales, contratos de ingeniería, FIDIC, disputas internacionales, negociación, Junta de Resolución de Conflictos (DAB), arbitraje, ADR, cláusulas multi-tier.

I. INTRODUCTION

The Panama Canal construction is one of the major feats of civil engineering of the twentieth century in the world. Its construction changed the coined conception of trade and transport worldwide.

The expansion of the Panama Canal, which has roamed for decades in the Central American country and officially rose in 2006, has created a heated debate in technical instances, as well as in the economic and commercial milieu. It is foreseen that upon completion of the expansion works, the commercial load capacity of the passageway shall basically double (from 330 to 600 million Tm per year) and the vessels traffic shall also be considerably increased (from 12.500 to 16.000 ships per year)¹.

¹ VENTOSA, J.R. “Un hito global. La ampliación del Canal de Panamá obra con protagonismo español, reconfigurará el comercio mundial”, *Revista del Ministerio de Fomento*, N° 664, 2016, pp. 10-13 https://www.fomento.gob.es/NR/rdonlyres/67195B33-20A5-4CC8-8256-DA4D7438869B/139298/Se10_17.pdf.

All the websites cited in this paper are up to date as were accessed in May 15th, 2017.

Among the immense works, there is a particular project whose current scenario was not expected to be so discouraging in its conception: the construction of the third set of locks that operationally allow the use of the new maritime passageway in the Panama Canal. This key part of the project has been repeatedly delayed and suspected to have been underrated in the public bid for its adjudication, due to the wealth of the claims that are in dispute up to this date.

This paper aims to highlight the crucial importance of the legal matters in the project for the expansion of the Panama Canal. More specifically, the extraordinarily complex contract for the construction of the third set of locks is the key to properly understand the often brief and inaccurate legal references that are nowadays being published in the news, general and economic press, and several technical forums.

A detailed presentation of the most relevant clauses of the referred contract for the construction of the third set of locks finds an enhanced justification in the international law context. The legal aspect of the expansion presents numerous features of interest such as an international bid process in which multinational lobby groups have been represented; an abundance of different public and private actors –governments, representatives, technocrats, banks and insurance companies–, as well as a reputed neutral gatekeeper that sets the rules in the game: the International Federation of Consulting Engineers (commonly known as FIDIC, acronym for its French name *Fédération Internationale Des Ingénieurs-Conseils*); and a highly technified and legally complex contract that aims to balance the relationships between the various stakeholders.

As will be detailed below, the expansion works of the Panama Canal are foreseen to keep generating important legal and economic consequences in the future. Therefore, this paper deems necessary to carry out a systematic analysis of the contractual grounds of this international project. The present paper is relevant not only to adequately apprehend the legal status quo of this endeavor, but also to contribute to predict the result of the current claims –mainly elucidated in the corresponding dispute adjudication board (DAB) and arbitral court–, which are in dispute up to this date on site as well as in Miami and London. Likewise, this paper may also be useful from an educational innovation perspective, as well as in the context of postgraduate programs for legal and non-legal professionals, due to its eminently practical and multidisciplinary approach.

This paper shall start by presenting a brief historical background to portray the scenario in which the project arose, and to address the process by which the adjudication of the Panama Canal expansion took place (section II). Getting into the contractual terms of the expansion works, Section III shall analyze the most important clauses of the international contract, with a specific focus on the dispute resolution provisions and its practical relevance to this international project. Afterwards, the paper shall reflect an updated vision of the current claims and its state (section IV). Finally, some considerations and perspectives shall be framed around the examined facts (section V).

II. THE PANAMA CANAL AND ITS EXPANSION: MAIN FACTS

The Panama Canal is the most challenging maritime waterway in the world, thanks to which the maritime traffic can sail through the Pacific and the Atlantic oceans. Its construction (1881-1914) qualitatively enhanced the commercial relationships through the American continent since the early twentieth century, which represented a worldwide impact. The Panama Canal not only changed the trade customs conception, but also showed its public relevancy, as it represented one of the main reasons why Panama became an independent republic from Colombia on November 13, 1903.

Almost a century later and upon the increase on the global commercial traffic and technological advantages, the Panamanian government resumed the dormant question of the expansion of the existing canal². The expansion endeavor was also motivated by technical shortcomings of the existing canal project, such as the sea level difference between the Atlantic and Pacific sides. Among other needs, a new set of locks was required for allowing new ships to cross, jumping on the technology bandwagon and solving the referred water problem.

The culmination of the expansion process took place on June 16th, 2016, when the world witnessed the inauguration of the expansion works of the Panama Canal by the sailing through of the Chinese vessel renamed for such aim Cosco Shipping Panama³, which contained 9000 Twenty-foot Equivalent Units (TEUs)⁴.

The Panama Canal expansion is already considered to be the most important engineering and construction project of the present century. However, legal controversy has been present along all the chronology of the project's milestones, as it shall be stated below.

1. Historical Background

After centuries⁵ of pie-in-the-sky that date back to the Spanish colonization, the initial project to avoid the navigation through the dangerous Cape Horn and Strait of Magellan

² An attempt had been frustrated in 1942 due to the World War Second, *Vid. infra* II.1.

³ The Chinese vessel, which belongs to the fleet of China Ocean Shipping (Group) Company (also known as Cosco), was formerly known as Andronikos and it changed its name on the occasion of the inauguration of the Panama Canal expansion. "Un barco chino será el primero en cruzar el Canal de Panamá ampliado", *El País*, April 29th, 2016, http://internacional.elpais.com/internacional/2016/04/29/actualidad/1461948458_426238.html. An old superstition among sailors warns not to change the name of a vessel. Only pirates dared to skip this provision for unspecified grounds. The container ship Andronikos was renamed Cosco Shipping Panama after the auction in which it was awarded to be the first vessel to sail through the Panama Canal. But alas! No one believes in eyewash nowadays!

⁴ The acronym TEU is widely used in international trade for the Twenty-foot Equivalent Unit: a measure unit of cargo capacity.

⁵ The first promoter to the aquatic via in Panama was the Holy Roman Emperor Charles V (1519-1556). Several designs were then formulated, though the project did not come down on earth due to the lack of technological development for such works by that time. PELÁEZ, J., "Diseño y construcción del tercer juego de esclusas del canal de Panamá", *Revista de obras públicas*, No. 3572, January 2016, pp. 70-83, at

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was started by a French company⁶, though unsuccessfully⁷ accomplished. It was continued and completed by the Americans⁸ on August 15th, 1914⁹ under President Wilson's mandate. This change of course came after intense legal and political lurches for the taking over of the works initiated under President Roosevelt's mandate. The titanic works at the time materialized in the Panama Canal. The original construction measured 12,8 meters deep in the Atlantic side and 13,7 in the Pacific one, and it varied from 91 to 300 meters of width along its 80 kilometers of length. After decades of successful operation, an attempt to expand the channel was started on 1939, but it was suspended in 1942 due to the involvement of the United States in the Second World War¹⁰. On 2006, the Republic of Panama went back to the project for good and decided to tender the expansion works of the Panama Canal right after an integral amendment to the regulations of the Panama Canal Authority (abbreviated to ACP¹¹ as in Spanish)¹². It was, in fact, a totally different scenario from the former project and operation, as it shall be analyzed in the following paragraphs.

Back in the original project of the Panama Canal, the American intervention resulted in the signature of the Convention for the Construction of a Ship Canal (Hay-Bunau-Varilla Treaty)¹³ in November 18th, 1903¹⁴. This Convention consolidated the recognition of the Republic of Panama and was therefore needed for the new state to

70, http://www.sacyr.com/es_es/images/Revista%20Obras%20Publicas_Jos%C3%A9Pel%C3%A1ez_Panama_tcm29-25446.pdf.

⁶ In 1876, the scientific company of public utility named Geographic Society of Paris (Société Géographique de Paris) organized a committee for the promotion of international cooperation based on studies on the geographic knowledge of Central America. It aimed to accomplish the construction of an interoceanic canal. The committee was a limited company, the *Société Civile Internationale du Canal Interocéanique de Darien*, and it was presided by Ferdinand de Lesseps. For further information on the Panama Canal French phase, *vid.* “La Construcción del Canal Francés” <https://micanaldepanama.com/nosotros/historia-del-canal/la-construccion-del-canal-frances/>.

⁷ The experts point to several causes to this failure: an even design of the project that did not fit the topographical bed of the canal, the tropical climate that facilitated the spread of diseases and financial problems finally made the works unfeasible. PELÁEZ, J., “Diseño y construcción del tercer juego de esclusas del canal de Panamá”, *Revista de obras públicas*, No. 3572, January 2016, p. 71, http://www.sacyr.com/es_es/images/Revista%20Obras%20Publicas_Jos%C3%A9Pel%C3%A1ez_Panama_tcm29-25446.pdf.

⁸ For further information on the Panama Canal American phase, *vid.* “La Construcción del Canal por los estadounidenses”, <https://micanaldepanama.com/nosotros/historia-del-canal/la-construccion-del-canal-por-los-estadounidenses/>.

⁹ HEREDIA CAMPOS, M. C., “Ampliación del canal de Panamá”, *Revista del Ministerio de Fomento*, No. 652, July-August 2015, pp. 60-62.

¹⁰ *Ibidem*.

¹¹ An ACP overview can be found in the following link: <https://www.pancanal.com/eng/acp/acp-overview.html>.

¹² Official information on the regulations of the ACP is available in the following website: <https://www.pancanal.com/common/registro/reg-pub-vol8-2.pdf>.

¹³ The names of the legal texts referred in this paper shall only be reproduced in English if a translation is officially provided or generally accepted. Otherwise, the Spanish denomination shall be directly noted.

¹⁴ The text of the treaty Convention for the Construction of a Ship Canal (Hay-Bunau-Varilla Treaty), November 18, 1903, can be found in the following website: http://avalon.law.yale.edu/20th_century/pan001.asp.

negotiate independently from Colombia, which was against the project. In exchange, the 1903 Convention stated that Panama had to grant to the United States “*in perpetuity the use, occupation and control of a zone of land and land under water for the construction maintenance, operation, sanitation and protection of said Canal of the width of ten miles extending to the distance of five miles on each side of the center line of the route of the Canal to be constructed*” and “*all the rights, power and authority*” within the adjacent zone, as stated in articles 1 and 2 of the referred Hay-Bunau-Varilla Treaty.

In 1970, the Republic of Panama expressed its willingness to recover the control on the Panama Canal and its adjacent area. After years of negotiations, this query was granted by the signature of the Torrijos-Carter treaties on September 7th, 1977¹⁵, under President Carter’s mandate. This set of legal instruments¹⁶ indicated that the Panama Canal would be recovered by the Republic of Panama on the 12th hour of December 31st, 1999; as it actually occurred¹⁷. That historical December noon was quite busy for the Panamanian public authorities, as the legislative assembly (*Asamblea Legislativa* as known in Spanish) simultaneously published a tailored law¹⁸ to fit the new legal status of the “*inalienable patrimony of the Panamanian Nation*”¹⁹ constituted by the Panama Canal, as set forth in Article 315 of the Panamanian Republic Constitution.

2. The Panama Canal: Main Reasons for the Expansion Itch

The recently inaugurated expansion of the Canal was launched due to the people of Panama’s initiative²⁰, manifested by the absolute majority²¹ in the referendum expressly

¹⁵ The complete text of the Torrijos-Carter treaties is accessible through: <https://micanaldepanama.com/nosotros/sobre-la-acp/historia-del-canal/tratado-torrijos-carter/>.

¹⁶ The Torrijos-Carter treaty is composed by two instruments: The Treaty Concerning the Permanent Neutrality and Operation of the Panama Canal and The Panama Canal Treaty (Tratado concerniente a la neutralidad permanente del canal y al funcionamiento del Canal de Panamá and Tratado del Canal de Panamá). Their text is available in the following link: <https://micanaldepanama.com/nosotros/sobre-la-acp/historia-del-canal/tratado-torrijos-carter>.

¹⁷ This day in History: December 31st, 1999: <http://www.history.com/this-day-in-history/panama-canal-turned-over-to-panama>.

¹⁸ Ley 62 de 1999, del marco fundamental de la gobernabilidad y del mejor ejercicio de los poderes públicos para agilizar la administración pública, dictada por asamblea legislativa el 1999/12/31, promulgada en la gaceta 23961 de 2000/01/04. The text of this act is available in the following website: <http://docs.panama.justia.com/federales/leyes/62-de-1999-jan-4-2000.pdf>.

¹⁹ This mention is included in Article 315 of the Political Constitution of the Republic of Panama. (Constitución política de la República de Panamá, dictada por asamblea legislativa el 2004/11/08, promulgada en la gaceta 25176 de 2004/11/15. http://200.46.254.138/APPS/LEGISPAN/PDF_NORMAS/2000/2004/2004_539_1133.PDF). The text in English can be found in the following website: <http://www.autoridaddelcanal.gob.pa/eng/legal/title/index.html>, even though “*The English translation of the Constitutional Title of the Panama Canal is intended solely for the purpose of facilitating an overall understanding of the content of the original Spanish version. In those cases where differences may be found between the two, the Spanish document must be considered as the authoritative version*”.

²⁰ This procedure was recorded in the corresponding informative documents: “*On April 23, 2006, the ACP presents to the Panamanian people the ACP-developed proposal for expanding the Canal. The Electoral Court, by way of Law 28 of July 17, 2006 and its regulations issued under Decree 8 of July 18, 2006, ordered a national referendum be held to approve or reject the Canal Expansion Program*”. ACP Explicative Document of the Process for the Tender Evaluation and Contractor Selection, Design and

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envisaged in Article 325 of the Panamanian Republic Constitution for this aim,²² which was held on Sunday, October 22nd, 2006; after six years of Panamanian full administration of the Canal. Obviously, the Panamanians voted in favor of enlarging the main source of wealth of their country, even though the estimated budget of the works tripled the Panamanian gross domestic product (hereinafter GDP)²³.

Several factors configured the needs of the project, such as the construction of larger vessels²⁴ that did not fit the existing Canal facilities measures. These new dimensioned vessels²⁵ began to utilize alternative maritime passageways, as they did not fit in the Panama Canal. This was perceived as a big threat to the Panama Canal traffic and therefore, the economic balance of the area. And whilst the traffic of large ships was

Construction of the Third Set of Locks, Department of Engineering and Program Administration, Panama Canal Authority, March 2, 2009, pp. 3-4. <http://www.pancanal.com/eng/expansion/gral-info/selection-process/selection-process-document.pdf>.

²¹ 76.83 % of the Panamanians voted for, versus 21.76 % against. CEREZO DE DIEGO, P., “El Canal de Panamá y su régimen jurídico”, *Anuario Jurídico y Económico Escurialense*, XLIII (2010), pp. 41-58, p. 56.

²² This requirement is set forth in Article 325 of the Political Constitution of the Republic of Panama. (Constitución política de la República de Panamá, dictada por asamblea legislativa el 2004/11/08, promulgada en la gaceta 25176 de 2004/11/15. http://200.46.254.138/APPS/LEGISPAN/PDF_NORMAS/2000/2004/2004_539_1133.PDF): “Any treaties or international conventions signed by the Executive Branch, relative to the Locks Canal, its adjacent zone, and the protection of said Canal, as well as the construction of a sea level Canal or a third set of locks, must first be approved by the Legislative Branch, and, not before the three months following its legislative approval, shall be submitted for approval in a national referendum. No amendment, exception, or agreement relative to such treaties or conventions shall be valid, if the requirements established in the above paragraph are not met. This provision shall also apply to any proposal made by the Panama Canal Authority to build a third set of locks or a sea level Canal through the existing route, through its administration or through contracts entered into with any private firm or firms, or any firms belonging to another country or countries. In these cases, the construction proposal must first be approved by the Executive Branch, then submitted for approval or rejection by the Legislative Branch, and finally submitted for approval in a national referendum. Any project to build a new Canal shall also be submitted for approval in a referendum”.

²³ CONDON, N., “A toda velocidad: los puertos del sudeste se preparan para la ampliación de canal de Panamá”, *Econsouth Federal Reserve Bank of Atlanta*, Volume 12, No. 2, Third quarter 2010, <https://www.frbatlanta.org/-/media/documents/regional-economy/econsouth/10q3southeastportsespanol.pdf>.

²⁴ PELÁEZ, J., “Diseño y construcción del tercer juego de esclusas del canal de Panamá”, *Revista de obras públicas*, No. 3572, January 2016, pp. 70-83, http://www.sacyr.com/es_es/images/Revista%20Obras%20Publicas_Jos%C3%A9Pel%C3%A1ez_Panam_a_tcm29-25446.pdf.

²⁵ The traffic of the Panama Canal was being diverted to the Suez Canal and the transpacific intermodal route of the United States. HERNÁNDEZ GONZÁLEZ, F. L. “La problemática del restablecimiento del equilibrio económico en la contratación pública internacional: La crisis de la ampliación del canal de Panamá”, *Revista de Administración Pública*, núm. 194, May-August 2014, pp. 475-508, at p. 476, <http://www.cepc.gob.es/Controls/Mav/getData.ashx?MAVqs=~aWQ9MzcwNDcmaWRIPTEwMzcmdXJsPTc0Jm5hbWU9RnJhbmNpc2NvX0wuX0hlcml7DoW5kZXpfR29uesOhbGV6X1JBUE5NC5wZGYmZmlsZT0yNjk2NTMxODA0MjYucGRmJnRhYmxhPUFydGljdWxvJmNvbnRlbnQ9YXBwbGljYXRpb24vcGRm>.

starting to decrease in favor of alternative passage ways²⁶, the Panamax²⁷ vessels were detecting a shortage of places as a consequence of the saturation of the traffic. This fact led to the emergence of an auction system for acquiring a Canal pass, which was another sign of the need of new facilities²⁸. The Panama Canal Auction System²⁹ offers the possibility to bid for a place in the Panama traffic to pass the Canal. Due to this auction system, the price of the passages may vary and speculation is a present factor in the traffic.

The shipping companies also played an important role in assessing the ACP³⁰ with regard to the new measurements of international trade vessels and their new needs. Port managers were likewise consulted by the Advisory Board of the Panama Canal³¹ to get information on the size of the ships that can dock in their facilities as well as the demand for larger vessels to dock and, consequently, their expansion plans. Upon the Panama's Canal expansion international works, numerous ports worldwide have similarly undertaken large engineering and construction projects in order to adequate their facilities to host the new dimensioned ships allowed by the expansion³². For such

²⁶ A total of 16,833 vessels transited through the Suez Canal in 2016, with a net weigh of 974,185 tons. These are lower rates than the precedent year. The evolution in the transit can be reviewed in the periodic reports of traffic statistics: <http://www.suezcanal.gov.eg/English/Downloads/Pages/SCReports.aspx>.

²⁷ The term "Panamax" has consolidated as a ship measure. It indicates the maximum dimensions of a vessel to cross the Panama Canal through the former locks: tonnage: 52,500 DWT, length: 289.56 m (950 ft), beam: 32.31 m (106 ft), height: 57.91 m (190 ft), draft: 12.04 m (39.5 ft), capacity: 5,000 TEUs. <http://www.pancanal.com/eng/maritime/notices/n01-05.pdf>.

²⁸ As a result of the shortcomings, the needs were assessed. "Actually, the ACP estimated the need to double the capacity of the existing Canal". SCHMITZ, J. "The Panama Canal Expansion, Executive Sponsor-Panama Canal Expansion Program", *ASCE Structural Engineering Conference and Workshop*, November 4th, 2013.

²⁹ The Panama Canal Auction System website only allows to reach the information upon registration. <http://auction.pancanal.com/Auction/APRegistrationRequired.asp>.

³⁰ Further information on the organic regulation of Panama Canal: "*The Panama Canal Authority (ACP) is an autonomous legal entity of the Republic of Panama, established under public law, established under Title XIV of the National Constitution with exclusive charge of the operation, administration, management, preservation, maintenance, and modernization of the Canal, as well as its activities and related services, pursuant to legal and constitutional regulations in force, so that the Canal may operate in a safe, continuous, efficient, and profitable manner. Organic Law of June 11, 1997, furnishes the ACP with legislation for its organization and operation. Because of its importance and uniqueness, the ACP is financially autonomous, has its own patrimony, and the right to administer it*". It is composed by an eleven member board among which an administrator and a deputy are appointed. This information is available in the following link: <https://www.pancanal.com/eng/acp/acp-overview.html>.

³¹ The Advisory Board is a consultative body for the Canal endeavor with the main responsibility to provide guidance and recommendations to the Board of Directors and the Canal administration. It was created in December 1999, in accordance with Article 19 of the Organic Law No. 19 of June 11, 1997 (Ley Orgánica de la Autoridad del Canal de Panamá por la que se organiza la Autoridad del Canal de Panamá) and it is composed of Panamanian and non-Panamanian citizens, all recognized professionals with broad experience in the business world and the Panama Canal in particular. <https://www.pancanal.com/eng/acp/advisory-board.html>.

³² Other examples of infrastructures adequation can be found worldwide: "*Solo en Vancouver, el mayor puerto canadiense, se han invertido 17.000 millones de dólares en los últimos años, en buena parte para adaptar sus instalaciones y dar cobijo a los nuevos buques de carga que cruzarán el istmo, los New*

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aim and taking into consideration the severe competition among ports, the world is getting ready to host the new vessels and allow them to maneuver in their port facilities. This preparation is intense in the American Southwest³³ and other key areas³⁴. As a consequence, the construction of the new set of locks in the Panama Canal is expected to entail a change in the traffic³⁵ of this key international maritime passageway. Whilst up to now traffic of the West coast on the East coast for the Asiatic-Transpacific trade predominated, the Panama Canal expansion is envisioned to change this trend towards the increase of the route from Asia to the Gulf and East coast of the United States³⁶.

Large capacity logistic platforms for the trade exchanges such as the Colon Free Trade Zone (located at the Caribbean entrance of the Panama Canal)³⁷ were also taken into account for the project conception, as they represent hotspots in the globalization model of trade. The need of transportation of new products through the Canal was another factor taken into account to drive the expansion project. In fact, the initial Canal presented restriction in the transport of relevant trade products, such as liquefied gas³⁸. Just to get the picture of the importance of the new lane that has been created with the Panama expansion works, the world today already makes reference to post-Panamax (also called “new Panamax”) vessels, as the Panama Canal width is a measure itself³⁹.

Panamax, demasiado grandes para el viejo canal”. OLEO, F., “Revolución en el comercio mundial [Ampliación del Canal de Panamá]”, *Actualidad Económica*, 1 de abril de 2016, p.21.

³³ The Southwestern United States (also known as the American Southwest) is a region of the United States. It contains several states located in the southwest of the United States. However, is not easy to give a consistent definition to this area, as it mainly refers to certain common cultural features. Sometimes, even the state of Texas is included in the American Southwest: “. <http://www.americansouthwest.net/map.html>.

³⁴ DENGO, M.; RIVADENEIRA, S., “Puertos Se Preparan para Post Panamax”. This contribution can be found in the Panama Canal website, in the following link: <http://www.pancanal.com/esp/articulos/articulo-002.html>.

³⁵ The two main trade routes that transit the Canal: “*La ruta principal del comercio que atraviesa el Canal se desplaza entre la costa Atlántica de los Estados Unidos y el Extremo Oriente (Japón, Corea, Hong Kong) y la segunda ruta constituye el tráfico en entre Europa y la costa oeste de los Estados Unidos y Canadá*”. CERESO DE DIEGO, P., “El Canal de Panamá y su régimen jurídico”, *Anuario Jurídico y Económico Escurialense*, XLIII (2010), p. 55.

³⁶ Examples of the numerous works that are being promoted along the American Southwest, from New Orleans to Tampa in the Gulf coast and from Miami to Savannah in the East Coast are, among others, the Port of Gulfport, that is currently completing an expansion valued in USD 570 million and Savannah port, that has procured four post-Panamax cranes. CONDON, N., “A toda velocidad: los puertos del sudeste se preparan para la ampliación de canal de Panamá”, *Econsouth Federal Reserve Bank of Atlanta*, Volume 12, No. 2, Third quarter 2010, <https://www.frbatlanta.org/-/media/documents/regional-economy/econsouth/10q3southeastportsespanol.pdf>.

³⁷ This zone has a relevant importance in the global trade: “*The Colon Free Zone is the principal center of distribution in the hemisphere. (...) All the routes of the world are conducted and directed to the Colon Free Zone, which is located at the Caribbean entrance of the Panama Canal which provides access to the Atlantic as well as the Pacific*”. <http://www.zolicol.gob.pa/detalle.php?cid=1&id=75>.

³⁸ HEREDIA CAMPOS, M. C., “Ampliación del canal de Panamá”, *Revista del Ministerio de Fomento*, No. 652, July-August 2015, p. 60-62.

³⁹ The general characteristics of the post-Panamax vessels increase the maximum measures of the Panamax ones. Tonnage: 120,000 DWT, length: 366 m (1,201 ft), beam: 49 m (161 ft), height 57.91 m (190 ft), draft: 15.2 m (50 ft), capacity 13,000 TEU. <http://www.marineinsight.com/types-of-ships/the-ultimate-guide-to-ship-sizes/>.

III. THE EXPANSION PROJECT OF THE PANAMA CANAL: SCOPE, ACTORS AND KEY LEGAL ISSUES

Once the historical background of the Panama Canal endeavor has been exposed and the numerous economic and technical factors that justify the Canal expansion have been introduced; the upcoming section shall address the technical scope of the Panama Canal expansion works -focusing in the third set of locks- and shall study the legal actors and tools to make this mega-project⁴⁰ a reality.

1. Technical Milestones of the Expansion Project

The key to the expansion project of the Panama Canal consisted in the design and construction of a set of locks -two lock facilities forming the set- to be added in each side -the Atlantic and the Pacific- of the Canal. This new set adds a lane to the two existing ones, which keep operating. Each of the new locks' facilities has three consecutive chambers in order to elevate the vessel to the Gatún Lake and back down again, by the construction of three water reutilization basins per each lock chamber. As in the existing locks, no pumps would be needed but gravity would fill and empty the basins to achieve the desired level⁴¹.

The adaptation of the Canal facilities to the new locks would bring accessory works along, to fully adequate the Canal to the sailing of larger vessels. For such aim, the complete project would also include the access channel to the Pacific-side post-Panamax locks, deepening and widening the Pacific entrance access channel, deepening of the Culebra Cut navigational channel, deepening of the Gatun Lake's existing navigational channels, elevation of the Gatun Lake's maximum operating level⁴² and deepening and widening of the Atlantic entrance access channel.

This would sum up to eight main works to be tendered, even though one of them was directly managed by the Panamanian authorities: the design and construction of the third set of locks. Upon completion of the project -initially set in October, 2014 and finally achieved on June 26th, 2016-, the new locks will allow the transit of vessels with a beam of up to 49 m (160'), an overall length of up to 366m (1,200') and a draft of up

⁴⁰ Even though there is not a precise definition of mega-projects, some authors set the threshold in USD 0.5 billion to USD 1 billion. This threshold is widely overcome in the Panama Canal expansion project. "Merrow defines "a megaproject as any project with a total capital cost of more than USD 1 billion... as measured on January 1, 2003" (Merrow 2011: 15), while Brooks terms megaprojects as "projects with a delivered value of greater than \$0.5 billion" (Brookes 2012: 603)". ERBE, A., "Evaluating main order contract forms for Major Industrial Plant Projects (MIPP) with respect to completion and performance of design risk allocation", *Freiberger Arbeitspapiere Technische Universität, Fakultät für 2013*, <http://www.econis.eu/PPNSET?PPN=81534290X>.

⁴¹ This feature was key to the technical rating of the project. ACP Proposal for the expansion of the Panama Canal, Third set of locks Project, April 24th, 2006, <http://www.pancanal.com/eng/plan/documentos/propuesta/acp-expansion-proposal.pdf>, p. 3.

⁴² Further details can be found in the following document: "Third set of locks Project. Fact sheet", <http://www.pancanal.com/esp/plan/documentos/propuesta/acp-proposla-relevant-information.pdf>.

to 15 m (50'). The completion of the project is foreseen to envisage an increase of 40% of the interoceanic transit in the Canal.

2. The International Contract Ruling the Third set of locks Works in the Panama Canal Expansion

The Panamanian government, in compliance with the procedure set forth in the aforementioned Article 325 of the Panama Republic Politic Constitution and its development regulations⁴³, tendered the project of the expansion of the Panama Canal. The project consisted in the construction of the constitutionally foreseen –also in Article 325– third set of locks and the adjacent structures to allow transit through them: a Pacific access channel, an improvement of navigational channels (dredging) and several improvements to water supply. Provided the description of the scenario in which the works had to be fulfilled and the magnitude of the works, the Panamanian government had to resort to several private institutions for satisfying the project needs in several ways, namely: advisory⁴⁴, financial⁴⁵ and contractual, among others⁴⁶. Furthermore, the public tender had to comply with a highly qualified process for the project adjudication⁴⁷, in order to observe the procedure set forth in Article 325 of the Panamanian Constitution for public works related to the Canal and specifically described therein.

⁴³ Ley No. 28 de 17 de julio de 2006 Que aprueba la propuesta de construcción del tercer juego de esclusas en el Canal de Panamá, sometida por el Órgano Ejecutivo, y dicta otras disposiciones. The text of this law can be found in the following website: <http://www.pancanal.com/esp/plan/documentos/referencia/proyecto-224.pdf>.

⁴⁴ Within the bidding process -on June 30th, 2009- the international consultancy group DELOITTE issued a report on the assessment of the bids: “Summary of Technical Scores Obtained by Each Consortium in the Tender for the Design and Construction of the Third Set of Locks”. The document can be found in the following website: <http://www.pancanal.com/eng/expansion/gral-info/selection-process/independent-auditor-report.pdf>.

⁴⁵ The original tender included required a USD 400 million performance bond (which was finally issued by ZURICH AMERICAN INSURANCE COMPANY) and a USD 50 million payment bond. The financing for the project was secured on December 9th, 2008 and it covered USD 2.3 billion out of the program’s USD 5.25 billion estimated budget, allocated as follows: European Investment Bank (EIB), USD 500 M; Japan Bank for International Cooperation (JBIC), USD 800 M; Interamerican Development Bank (IDB), USD 400 M; International Finance Corporation (IFC), USD 300 M; and Andean Development Corporation (CAF), USD 300 M. the negotiated financing structure included very favorable provisions for the ACP, including a 20-year amortization period and a 10-year grace period. Details are available at: <https://www.pancanal.com/eng/expansion/gral-info/selection-process/process.pdf>.

⁴⁶ Financial and legal advisors were gathered in New York (USA) on July 25th, 2008. The ACP engaged the Japanese bank Mizuho and the financial and legal advisors: Shearman & Sterling and Mayer Brown for the accomplishment of the project. This process is portrayed in the following link: <https://www.pancanal.com/eng/expansion/gral-info/selection-process/process.pdf>.

⁴⁷ The public tender process is not to be examined in this paper. However it can be consulted in several documents, duly published by the ACP and so available at its website: “Explicative document of the process for the tender evaluation and contractor selection for the design and construction of the third set of locks”, ACP, July 2009, <https://www.pancanal.com/eng/expansion/gral-info/selection-process/selection-process-document.pdf>; “Tender Receipt and Evaluation of Technical Proposals”, ACP, July 2009, <https://www.pancanal.com/eng/expansion/gral-info/selection-process/co-final-report.pdf>.

The tender competitors' projects were assessed⁴⁸ on technical⁴⁹ and economic grounds according to the bases of the tender⁵⁰. Further to an initial bidding of ten international *consortia*, on July 15th, 2009, Grupo Unidos Por El Canal (GUPC), was awarded⁵¹ with the completion of the Panama project of design and construction of the third set of locks, for a price of USD 3,120 Million⁵².

GUPC⁵³ is formed by Sacyr Vallehermoso, S.A., a Spanish company which led the joint venture with a 48% participation; the Italian Impregilo S.p.A.; the Belgian Jan de Nul n.v.; and Constructora Urbana S.A. These companies filed the corresponding construction project, whilst the design was carried out⁵⁴ by the American company Mont. Watson Harza as the leader, complemented by the Dutch company IV-Groep for Jan de Nul n.v. regarding the works to be accomplished by Sacyr Vallehermoso, S.A. and Impregilo S.p.A., and by the American company Tetra Tech regarding the works to be accomplished by Constructora Urbana S.A. The gates manufacturer for GUPC was the Dutch company Heerema Fabrication Group⁵⁵.

Even though there was not any formal claim filed against the project adjudication, the procedure was not completely smooth, as it was reported that the United States Embassy was suspected to impair the procedure by carrying out anti-competitive practices during the tender process and by stating that the economical content of the bid was not realistic⁵⁶. This affirmation that resulted to be premonitory⁵⁷ due to the subsequent events that led to an abundance of significant economic claims⁵⁸.

⁴⁸ The directions on the assessment process were published in the document: "Executive summary of the contractor-selection process – Third set of locks project", which can be found in the following link: <http://pancanal.com/common/expansion/76161/selection-process/executive-summary.pdf>.

⁴⁹ The system for filling the basins between the locks was crucial for the technical assessment of the filed project proposals. Further technical information can be found in the document: "Explicative document of the process for the tender evaluation and contractor selection, design and construction of the third set of locks, Department of Engineering and Programs Administration, Panama Canal Authority", March 2009, <https://www.pancanal.com/eng/expansion/gral-info/selection-process/selection-process-document.pdf>.

⁵⁰ Technical details' assessment was carefully displayed: <http://www.pancanal.com/eng/expansion/gral-info/selection-process/appendix-2.pdf>.

⁵¹ The recent take-over of the Panama Canal expansion works has not been exempt from controversy during the last years. In fact, since the very beginning of the process of tendering and awarding, the differences among the actors -Panama government, Panama Canal Authority, bidders and their related parties- have threatened the achievement of the improved operation of the new set of locks, which is now a reality.

⁵² This amount represents 60% of the total expansion project. VENTOSA, J.R. "Un hito global. La ampliación del Canal de Panamá obra con protagonismo español, reconfigurará el comercio mundial", *Revista del Ministerio de Fomento*, No. 664, 2016, pp. 10-13.

https://www.fomento.gob.es/NR/rdonlyres/67195B33-20A5-4CC8-8256-DA4D7438869B/139298/Se10_17.pdf.

⁵³ The official letter of tender with the reproduction of the original signatures is published in the following link: <http://pancanal.com/common/expansion/76161/LetterOfTender-Rev.pdf>.

⁵⁴ Subcontracting is a widely used practice in complex construction contracts and in the Panama Canal expansion project subcontracting plays an important role, *Vid. infra* III.3.B.b).

⁵⁵ *Vid. Supra*. III.3.B.b).

⁵⁶ The press echoes this assumption "Según Bechtel, la oferta ganadora de 3.120 millones de dólares de Sacyr no daba ni para "poner el hormigón". La estadounidense había dado un precio de 4.200 millones y

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The legal tool to accomplish this paradigmatic technical project needed to be a reliable, balanced, internationally accepted contract. For such aim, the worldwide known International Federation of Consulting Engineers⁵⁹ (commonly referred to as FIDIC, acronym for its French name *Fédération Internationale Des Ingénieurs-Conseils*)⁶⁰ was trusted.

In this case, among the multiple choices that FIDIC offers to fit the needs of the parties and thirds involved, depending on the scope choices that define the project, the contract form elected by the concurrent actors to set forth the legal regime for the completion of the project⁶¹ was the “Conditions of Contract for Plant and Design-Build For Electrical And Mechanical Plant, And For Building And Engineering Works, Designed By The Contractor”, commonly known as “FIDIC Yellow Book”⁶².

3. Main Amendments to the FIDIC Yellow Book: The Unique Legal Regime of the Panama Canal’s Expansion Works

The FIDIC Yellow Book was conceived by FIDIC for construction works where the design is carried out by the Contractor. This feature actually matches the project of the Canal expansion, as the ACP gave its guidelines on the project demands prior to the

sospechaba que Sacyr intentaría renegociar al alza el contrato durante su ejecución”, JIMÉNEZ, M. “EE UU intentó evitar que Sacyr lograra las obras del Canal de Panamá”, El País, December 17th, 2010 http://internacional.elpais.com/internacional/2010/12/17/actualidad/1292540416_850215.html; whereas the Panama Canal official website denies this rumor: <http://micanaldepanama.com/expansion/myths/>.

⁵⁷ *Vid. infra V.*

⁵⁸ BOGDANICH, W; WILLIAMS, J.; MÉNDEZ, A.G., “El nuevo Canal de Panamá: lo barato sale caro”. June 24th, 2016, New York Times, <https://www.nytimes.com/es/2016/06/24/el-nuevo-canal-de-panama-lo-barato-sale-caro/>.

⁵⁹ A deep study of FIDIC contracts is portrayed in JAEGER, A.; HÖK, G., *FIDIC - A Guide for Practitioners*, Springer Berlin, Heidelberg, 2010. “*FIDIC, also referred to as the International Federation of Consulting Engineers, produces standard forms of contract for civil engineering construction which are used throughout the world. FIDIC contracts are often referred to as the international standard*”, <http://www.ibanet.org/Document/Default.aspx?DocumentUid=E2E811DA-E906-493D-89D1-A6C20BFB0A2C>.

⁶⁰ In compliance with its objectives, FIDIC is a leading institution who offers balanced contracts in such a complex world as international construction. Public institutions worldwide have used its contract forms for the accomplishment of infrastructures, to the point that nowadays, FIDIC is considered to be a world reference in construction contracts. “*FIDIC was founded in 1913 by three national associations of consulting engineers within Europe. The objectives of forming the federation were to promote in common the professional interests of the member associations and to disseminate information of interest to members of its component national associations*”. Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works Designed by the Contractor: The Plant and Design-Build Contract, 1st, Ed., 1999, (commonly known as “FIDIC Yellow Book.”); NUVIALA LAPIEZA, I; FACH GÓMEZ, K., “El contrato llave en mano”, ABRIL RUBIO, A. Coord., *Los contratos mercantiles y su aplicación práctica*, Wolters Kluwer, 1st, Ed., Barcelona, 2017, p. 559.

⁶¹ KLEE, L., *International construction contract law*, Wiley-Blackwell Chichester, 2015, pp. 361-364.

⁶² Hereinafter, this contract shall be referred to as the “FIDIC Yellow Book”.

bidding process. However, the default⁶³ version of the FIDIC Yellow Book had to be highly modified⁶⁴ in order to fit the Panamanian project's needs.

On August 11th, 2009, the Contract Agreement for the third set of locks within the expansion project of the Panama Canal (hereinafter referred to as “the Panama Contract”)⁶⁵ was signed by the parties, namely: ACP (the “Employer”), GUPC as the lead member, and the other members to the *consortium*⁶⁶ (collectively called the “Contractor”). For the sake of simplicity, a single document with general and special conditions was executed in this case, instead of the classical documents forming the FIDIC Yellow Book⁶⁷.

Two essential amendments to the default FIDIC Yellow Book for the Panama Contracts are hereafter exposed, namely, the Contractor's responsibility regime, and the key role of the Employer's Representative, including its role in the variation and changes procedure. Dispute resolution clause as another main contractual disposition shall be studied in subsequent sections⁶⁸.

A) RESPONSIBILITY REGIME OF THE CONTRACTOR

One of the Panama Contract's main amendments consisted in reflecting the contractual relationship among the parties along the Panama Contract, in order to adequate it to the substantial and financial arrangements⁶⁹. For such aim an extense clause (1.7.A. Joint

⁶³ Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works Designed by the Contractor: The Plant and Design-Build Contract, 1st, Ed., 1999, commonly known as “FIDIC Yellow Book” can be found at <http://fidic.org/books/plant-and-design-build-contract-1st-ed-1999-yellow-book> and acquired in several languages for USD 40 (paper version) or USD 195 (downloadable PDF format).

⁶⁴ The signed contract is the Amendment No. 24, as recorded in the original document, which can be found at <http://micanaldepanama.com/expansion/documents/third-set-of-locks-contract/>.

⁶⁵ The whole text of the authentic version of the Panama Contract is available free of charge at: <https://micanaldepanama.com/expansion/wp-content/uploads/2014/04/volume-iii.zip>.

⁶⁶ Apart from the *consortium* relationship among them, the companies forming the GUPC are parties to the Contract, as they are jointly and severally liable towards ACP for the completion of the contractual duties. These duties include a USD 50 million payment bond to cover the payments to manpower and supplies and to be extended to 180 days after the date in which the completion of the project is published in the local press. Furthermore, the leading company (Sacyr Vallermosto, S.A.) is empowered to bind the rest of the companies in the group towards the ACP. HERNÁNDEZ GONZÁLEZ, F.L. “La problemática del restablecimiento del equilibrio económico en la contratación pública internacional: La crisis de la ampliación del canal de Panamá”, *Revista de Administración Pública*, No. 194, May-August 2014, pp. 475-508, at p. 489 *et seq.*, <http://www.cepc.gob.es/Controls/Mav/getData.ashx?MAVqs=~aWQ9MzcwNDcmaWRIPTEwMzcmdXJsPTc0Jm5hbWU9RnJhbmNpc2NvX0wuX0hlcm7DoW5kZXpFR29uesOhbGV6X1JBUEDE5NC5wZGYmZmlsZT0yNjk2NTMxODA0MjYucGRmJnRhYmxhPUFydGljdWxvJmNvbnRlbnQ9YXBwbGljYXRpb24vcGRm>.

⁶⁷ JAEGER, A.V.; HÖK, G. S., *FIDIC - A Guide for Practitioners*, Springer Berlin, Heidelberg, 2010, p. 136.

⁶⁸ *Vid Infra*. IV.

⁶⁹ This responds to the compliance of Panamanian Law provisions: Ley No. 28 de 17 de julio de 2006 Que aprueba la propuesta de construcción del tercer juego de esclusas en el Canal de Panamá, sometida

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and Several Liability), was included as an addition to the default version of the FIDIC Yellow Book. By means of this clause, the liability of the project is undertaken in whole by each of the members of the Contractor, even though the leader of the consortium is empowered to bind all its members. A regime of guarantees was also set to comply with the financial requirements of the Panamanian regulations, and it was therefore materialized in Clause 4 (The Contractor), by the joint and several assumption of the general securities and bonds in the project.

B) THE EMPLOYER'S REPRESENTATIVE

In the default version of the FIDIC Yellow Book, the project's administration and the works' supervision –among other meaningful tasks– are carried out by an Engineer who is employed by the Employer⁷⁰. However, the reference to the “Client's Engineer” in the default FIDIC Yellow Book was removed in the Panama Contract, and replaced by the term “Employer's Engineer”. The Employer's Engineer is an agent of the ACP specially appointed for the tasks originally attributed to the Client's Engineer, which in this case is not a party to the Contract⁷¹. For such aim, Clause 3 (The Employer's Representative) of the default FIDIC Yellow Book and all the correlative mentions were amended, and the Client's Engineer⁷² substituted the Employer's Representative. This role is played by Mr. Jorge de la Guardia, a reputable⁷³ engineer who has worked in the preparation of the expansion project for several years before its approval.

The introduction of the above referred Employer's Representative brought important changes to the default legal regimen of the FIDIC Yellow Book to be applied in the Panama Contract. Among the referred changes, detailed attention shall be paid in the

por el Órgano Ejecutivo, y dicta otras disposiciones, which prohibits public financing of the Contract: “Artículo 2. La propuesta que se aprueba mediante esta Ley se regirá por las siguientes disposiciones: (...) 5.El financiamiento del proyecto no contará ni con el aval, ni con garantía de la Nación”.

⁷⁰ For a detailed study of the Engineer's former attributions, *vid.* RUBINO-SAMMARTANO, M., “The role of the Engineer – Myth and Reality”, *Transnational Dispute Management (TDM)*, 2017, number 2, pp. 1 *et seq.*

⁷¹ This issue has been a matter of discussion and a source of impairments in the good of the projects, as former versions of the FIDIC contracts (before the 1999 update) included the engineer as an important factor in the contractual relationship, being responsible, amongst other things, for issuing instructions, certifying payments and determining completion. Its mainly discussed attribution was the compulsory consultancy to the engineer before starting a proper dispute, which interfered with the required impartiality, as the engineer was actually engaged by one of the parties. “Historically, it is quite obvious that in what used to be called “the infernal trio” –the employer, the engineer and the contractor– roles and responsibilities have changed extensively since the fifties”. CUISINIER, J., “Typical Construction Dispute Problems”, *Preventing Delay and Disruption of Arbitration / Effective Proceedings in Construction Cases*, Kluwer Law International, 1991, p. 366.

⁷² LUDLOW, M.R.; REES J.G., “Engineer's Role under FIDIC Standard Conditions of Contract”, (1992) *Int'l Bus. Lawyer*, p. 525; NICKLISCH, F, “The Role of the Engineer as Contract Administrator and Quasi-arbitrator in International Construction and Civil Engineering Projects”, 1990 *I.C.L.R.*, p. 322.

⁷³ Mr. de la Guardia's *curriculum vitae* and some facts about his role in the Panama Contract can be found at the following websites: <http://www.human.cornell.edu/alumni/events/upload/CV-Jorge-A-de-la-Guardia-B.pdf>, <https://revistainversionesynegocios.com/protagonistas-de-la-ampliacion-jorge-de-la-guardia/>.

following paragraphs to the subcontracting procedure and to the variations and changes to the contract.

a) Subcontracting process

Regarding the procedure of subcontracting⁷⁴, three subcontracting modalities can be found in the Panama Contract. Partial subcontracting is generally allowed by means of Clause 4.4.1.1A, upon prior written consent of the Employer's Representative⁷⁵. However, some subcontractors may directly be employed by the Contractor⁷⁶, and in one case the subcontractor is already nominated by Employer: the Lock Gates Fabricator⁷⁷.

b) Approval of Employer's Representative to variations and changes.

The FIDIC's Variations and Changes Clause was also modified on these grounds⁷⁸. Yet again, the Employer's Representative is the key to approve the changes to the Panama

⁷⁴ Sub-Clause 4.5 Nominated Subcontractors. "In this Sub-Clause 4.5, "nominated Subcontractor" means a Subcontractor whom the Employer's Representative, under Clause 13 [Variations and Adjustments], instructs the Contractor to employ as a Subcontractor. The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Employer's Representative as soon as practicable, with supporting particulars".

⁷⁵ The default FIDIC Yellow Book allows partial subcontracting without prior consent of the Engineer for suppliers of materials and nominated contractors, and requires Engineer's consent for any other subcontracts (Sub-Clause 4.4 of the FIDIC Yellow Book). Sub-Clause 4.4 of the FIDIC Yellow Book: "Subcontractors The Contractor shall not subcontract the whole of the Works. The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Particular Conditions: (a) the Contractor shall not be required to obtain consent to suppliers of Materials, or to a subcontract for which the Subcontractor is named in the Contract; (b) the prior consent of the Engineer shall be obtained to other proposed Subcontractors; and (c) the Contractor shall give the Engineer not less than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site".

⁷⁶ Sub-Clause 4.4.1.A "Subject to the foregoing paragraph, with the prior written consent of the Employer's Representative, the Contractor shall be entitled to subcontract parts of the Works, but such prior consent shall not be required for: (a) suppliers of Materials; (b) the fabrication and supply of the lock gates by the Lock Gates Fabricator; (c) the design of any part of the Works by the Design Subcontractor; (d) the performance of the Maintenance Services by the Maintenance Services Subcontractor; and (e) subject to Sub-Clause 5.1 [General Design Obligations], Subcontracts with a total contract value of less than 1 million US Dollars. The Contractor shall not split-up, phase, sequence, break or sub-divide subcontracts to avoid or circumvent this threshold".

⁷⁷ Lock Gates Fabricator is in fact defined in the Contract, as it is a crucial supplier in the project, which is the reason why its appointment is locked to Employer's decision: Sub-Clause 1.1.2.16 "Lock Gates Fabricator": means the Subcontractor (if any) named by the Contractor in relation to, inter alia, the fabrication and supply of the lock gates in the Contractor's response to the RFQ". However, it is only the appointment of the Lock Gates Fabricator accomplished by the Employer, as according to Sub-Clause 4.4.1.1B (a) "For the avoidance of doubt, if the fabrication and supply of the lock gates is to be subcontracted by the Contractor it shall only be subcontracted to the Lock Gates Fabricator". The gates manufacturer for GUPC was the Dutch company Heerema Fabrication Group.

⁷⁸ This sub-section refers to the role of the Employer's Representative. However, the variations and changes clause in general shall be studied below. *Vid. infra* III.3.C).

Contract that modify either the Time for Completion⁷⁹ or any Milestone Dates⁸⁰. Changes on any of these circumstances usually have an impact on the Contract Price. Variation clauses in international construction contracts are often the only way to increase the contract price, which is commonly fixed in the tender and often set forth as a lump-sum amount⁸¹. In fact, a lump sum is the chosen method in the Panama Contract to set the price⁸². The Contract Price includes the completion of the scope of the contract, as well as “all taxes, duties and fees”, as such costs shall not vary the Contract Price as set forth in Clause 14.1.b) of the Contract.

C) VARIATIONS AND CHANGES

According to the restrictions that a lump sum price brings in, the causes for which the Panama Contract Price can be increased without the approval of the Employer’s Representative are highly restricted to two cases that come from the original draft of the default FIDIC Yellow Book and have been reflected in the Contract. That is, the FIDIC Yellow Book allows adjustments to the Price caused by the modification on the laws or changes in raw materials’ cost.

The first possibility is identically recorded in Sub-Clause 13.7⁸³ of the Panama Contract and no substantial amendments have been introduced to the default FIDIC Yellow

⁷⁹ Clause 1, General Provisions: “1.3.14 “Time for Completion” means the time for completing the Works under Sub-Clause 8.2 [Time for Completion], as stated in the Appendix to Tender (with any extension under Sub-Clause 8.4 [Extension of Time for Completion]), calculated from the Commencement Date”.

⁸⁰ Clause 1, General Provisions: “1.1.3.7 “Milestone Dates” means the time for the achievement of the Milestones which times are set out in the Contractor’s Tender Programme and which shall be thereafter incorporated into the Accepted Baseline Programme in accordance with Section 01 31 00 [Project Management and Coordination] of the Employer’s Requirements (with any extension under Sub-Clause 8.4A [Extension of Milestone Dates]), calculated from the Commencement Date and a “Milestone Date” means any of them”.

⁸¹ JENKINS, J., “Chapter two: Key features of construction contracts”, *International construction arbitration law, Arbitration in context series*, vol. 3, Kluwer Law International, 2013, p. 20.

⁸² However, Price adjustment formulas defined for some basic indices; granting of tax exemption for materials supplied directly by ACP. http://www.congrex-switzerland.com/fileadmin/files/2013/fidic2013/Presentations/FIDIC_Infrastructure_JoseManuelLouredaLopez.pdf.

⁸³ Sub-Clause 13.7 of the Panama Contract: “Adjustments for Changes in Legislation. The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract save that there shall be no increase in the Contract Price or adjustment to the Time for Completion or to any Milestone Date where the Contractor exercising Prudent Industry Practices ought reasonably to have foreseen such increases in cost or time at the Base Date and provided further that the Contract Price shall not be adjusted pursuant to this Sub-clause 13.7 as a result of any increase in Labor Costs (as defined in Sub-Clause 13.9.8 [Adjustments for Changes in Local Labor Rates]).

Subject to the first paragraph of this Sub-Clause 13.7, if the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Employer’s Representative and shall be entitled subject to Sub-Clause 20.1 [Contractor’s Claims] to:

...

Book. The second case in which the Contract Price can be modified without the Employer's Representative's approval is due to changes in cost. The default FIDIC Yellow Book contains a complex formula to calculate these adjustments to the price. This possibility has been kept in Clause 18.3 of the Contract, though submitted to other circumstances in favor of the Contractor. Price adjustments are to be calculated according to internationally recognized price indexes of certain raw materials⁸⁴. This adaptation of the initial clause is of particular importance, provided that the steel used to reinforce the third set of locks equates the amount to build 25 Eiffel Towers⁸⁵.

Apart from price adjustments that are exempt from the Employer's Representative's approval, there is also an advantage on the Contract Price that comes allowed from the public dimension of the Contract: by means of Clause 14, a tax exemption is applicable in the delivery of certain key components for the completion of the Contract, provided that they are "*manufactured outside the Republic of Panama and shipped/consigned to the Employer and if the Employer's prior written approval is obtained for such import*"⁸⁶.

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub- Clause 8.4 [Extension of Time for Completion], and/or if completion of a Milestone is or will be delayed, under Sub-Clause 8.4A [Extension of Milestone Dates]; and

(b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Employer's Representative shall proceed in accordance with Sub- Clause 3.5 [Determinations] to agree or determine these matters".

⁸⁴ Clause 13 "Adjustments for Changes in Prices for Specified Materials" sets forth the applicable indices to reinforcing steel, structural steel and diesel fuel: "Clause 13.8.2: The following indices shall be used to determine the Adjustment Prices: (a) Reinforcing Steel: "Platts Steel Markets Daily", "Reinforcing Bar", "Ex-Works, US SE", "Close/Midpoint" Price, in US \$ per short ton; (b) Lock Gate, Valve, and Bulkhead Structural Steel Plate and Shapes: "Platts Steel Markets Daily", "Plate", "Ex-Works, US SE", "Close/Midpoint" Price, in US \$ per short ton; and (c) Diesel Fuel: "Platts Latin American Wire", "Gulf Diesel (No. 2 Oil)", Closing Price, in US \$ per US gallon".

⁸⁵ These data, among others, are offered in the following link: www.gupc.com.pa/es/prensa/comunicados-de-prensa.

⁸⁶ Clause 14 Contract Price and Payment: "14.1 The Contract Price (a) The Contract Price shall be the lump sum Accepted Contract Amount and be subject to adjustments in accordance with the Contract. (b) The Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs, except as stated in Sub-Clause 13.7 [Adjustments for Changes in Legislation]. (c) Any quantities which may be set out in a schedule or elsewhere in the Contract are estimated quantities and are not to be taken as the actual and correct quantities of the Works which the Contractor is required to execute. (d) Any quantities or price data which may be set out in a schedule or elsewhere in the Contract shall be used for the purposes stated in the schedule or elsewhere in the Contract (as applicable) and shall be inapplicable for other purposes. (e) The Contract Price shall include import duties and any other taxes, fees, charges, or contributions required by applicable Laws, for all goods, products, and materials that are imported to be incorporated into the Works. However, the following goods, materials and products will be exempt from import duties and related taxes (including but not limited to ITBMS [Impuesto a las transferencias de bienes corporales muebles y la prestación de servicios]), fees, charges, and contributions, if they are manufactured outside the Republic of Panama and shipped/consigned to the Employer and if the Employer's prior written approval is obtained for such import: (i) gates and gate operating machinery and components; (ii) valves and valve operating machinery and components; (iii) bulkheads; (iv) electrical components; (v) electronic components; (vi) steel; (vii) cement; (viii) petrol; (ix) diesel oil; (x) bunker fuel; and (xi) explosives.

...

According to the provisions set forth in Clause 8, the Contractor would only be entitled to a time extension on the completion program and the taking over of the works under restricted circumstances, which include variations to be approved by the Employer's Representative⁸⁷. Even though Clause 13 of the Panama Contract does not include any provisions for the fact that Employer's Representative refuses to approve or remains just silent to a Contractor's proposal of variation, this regime can be found on Clause 20, which shall be hereunder examined in detail. Clause 13 also contains a bonus for the Contractor in case that it proposes a downsizing variation on the Contract Price, which is a possibility that FIDIC Yellow Book offers the parties to include in the contract⁸⁸.

The Contractor shall submit to the Employer's Representative the original invoice of origin, copy of the order or contract and the original shipping documents (bill of lading or other evidence of shipment) and any other documents required by the competent authorities to process the tax exemption. The Employer's Representative will prepare the corresponding customs clearance documents and shall endorse the necessary exemption documents prepared by the Contractor or its Subcontractors for presentation to customs officials and other relevant authorities. The Contractor shall be responsible for processing and filing the simplified customs document.

However, if any part of the Works is to be paid according to quantity supplied or work done, the provisions for measurement and evaluation shall be as stated in the Conditions of Contract. The Contract Price shall be determined accordingly, subject to adjustments in accordance with the Contract. The Employer declares that stamp tax shall not be due or chargeable in respect of the Contract and/or any assignment of the Contract permitted by the Contract, since the Employer is the issuer of this document and according to Title XIV of the Political Constitution of the Republic of Panama, the Employer shall not be subject to the payment of any taxes, duties, tariffs, charges, rates or tribute of a national or municipal nature. Notwithstanding the foregoing and notwithstanding Sub-Clause 1.13.3 [Compliance with Laws] and this Sub-Clause 14.1 [The Contract Price], in the event that for any reason stamp tax does become due or chargeable in respect of the Contract and/or any assignment of the Contract permitted by the Contract, the Employer shall be responsible for such tax”.

⁸⁷ Sub-Clause 8.4, Extension of Time for Completion: *“The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works] is or will be delayed by any of the following causes: (a) a Variation (unless an adjustment to the Time for Completion and/or to a Milestone Date has been agreed under Sub-Clause 13.3 [Variation Procedure]); (b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions of Contract; (c) exceptionally adverse climatic conditions; (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions; and/or (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site. If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Employer's Representative in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1 [Contractor's Claims], the Employer's Representative shall review previous determinations and may increase, but shall not decrease, the total extension of time”.*

⁸⁸ Clause 13.2. Value Engineering *“The Contractor may, at any time, submit to the Employer's Representative a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer. The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure]. The Employer's Representative may in its absolute discretion choose to accept or reject the proposal from the Contractor. Any reduction to the Contract Price resulting from the implementation of an agreed value engineering initiative approved by the Employer's Representative shall be agreed as part of the approval process under Sub-Clause 13.3*

...

It is important to stress that along the completion of the third set of locks in the Panama Canal project and as a consequence of the procedure established in the contract provisions, 188 variation orders have been issued⁸⁹. Among them, some have not been used, some are in progress, some have been superseded by more recent ones, and the majority has been approved by the Employer's Representative. Variations are "*deemed to be incorporated into and form an integral part of the Contract*" as stated in the text of most variation orders, so they modify different aspects of the Contract according to the procedure set forth therein. Among the referred variations issued along the project completion, Variation No. 108⁹⁰ must be highlighted because of its financial context. After several changes claims filed by the contractor and the financial burden GUPC was undertaking upon ACP's silence⁹¹, the continuation of the project got to be threatened if financial decisions were not taken. The parties reached an agreement by means of a memorandum of understanding that was signed on March 13th, 2014⁹². Along with the economic issues, some amendments to the contract were accomplished as for the dispute resolution clause⁹³.

D) INSURANCES

Lastly the default FIDIC Yellow Book Clause 18 (Insurance) was also deeply modified in the Panama Contract in order to allocate the coverage of the abundant risks that such a complex construction contract envisages. In this regard, ACP hired the Construction All Risk Insurance (usually allocated on Contractor's side) and the Third Party Liability Insurance (Excess Loss), whilst Contractor correspondingly engaged the Third Party Liability Insurance, Automobile Liability, Marine Cargo Transportation, Hull and Machinery and Protection and Indemnity. The latter also undertook the duties to procure at its expense to supervise the subcontractors' subscription and maintenance of the policies; within the General Requirements set forth in Sub-Clause 18.1⁹⁴ of the Panama Contract.

[Variation Procedure] and shared 50/50 between the Contractor and the Employer as shall be set out and recorded in the said agreement".

⁸⁹ The whole list of variations to the Contract can be found at: <http://micanaldepanama.com/expansion/documents/variaciones/>. Each of the variations can be consulted free of charge.

⁹⁰ The complete text of the variation can be found in the following website: <http://micanaldepanama.com/expansion/wp-content/uploads/2014/04/variation-108.pdf>.

⁹¹ ACP official position towards this issue can be consulted in the following website: <https://micanaldepanama.com/ampliacion/wp-content/uploads/2014/05/RM-14-672-Acuerdo-de-Entendimiento.pdf>.

⁹² The complete text of the memorandum of understanding can be found in the following link: <http://micanaldepanama.com/expansion/wp-content/uploads/2014/01/MOU-MARCH-13-2014-ingles.pdf>.

⁹³ These amendments shall be studied in the section corresponding to dispute resolution, *Vid. infra*. IV.

⁹⁴ General Requirements of the insurances apply to subjects such as Sum Insured, Limit of Liability, Subcontractors' subscription of risks, duration of the coverage and consequences to the default of insurance duties.

IV. CLAUSE 20 OF THE PANAMA CONTRACT: CLAIMS, DISPUTES AND ARBITRATION

The core of the legal regime in the Contract lies in Clause 20, in which the parties submit their disputes to different instances in a so called multi-tier dispute resolution clause⁹⁵. This type of multi-tier clause comprises different steps, each incorporating a call to a form of alternative dispute resolution⁹⁶ (hereinafter referred to as ADR), to arbitration, or to litigation as the last method of dispute resolution. These multi-tier dispute resolution clauses seek to enable the parties to adopt the best method of dispute resolution at every stage of the dispute. At each level of the clause, the parties may be able to get off the escalator, and reach a satisfactory settlement of the dispute. However, the parties will also proceed in the knowledge that a binding, legal conclusion will ultimately be achieved⁹⁷.

Even though some countries have statutorily introduced the path to ADR multi-tier clauses⁹⁸ –specifically in the construction sector– calling for a sequence beginning with a less adversarial process and ending with the most adversarial one⁹⁹, scholars usually resort to motley methods to draft the “perfect” –if any?– alternative dispute resolution provision¹⁰⁰.

Once again, the Panamanian government turned to the safe-haven that FIDIC contracts offer¹⁰¹, with the corresponding support from the International Chamber of Commerce (ICC). This support is embodied in FIDIC’s contract forms, which include the ICC as the default dispute resolution institution¹⁰². The disputes that this clause refers to are

⁹⁵ Other denominations are: stepped escalation clauses, multi-step alternative dispute resolution clauses, etc. LÓPEZ DE ARGUMEDO PIÑEIRO, A., “Multistep dispute resolution clauses”, *Mondaq*, January 2011, <http://www.mondaq.com/article.asp?articleid=117062>; and the professional guide “Bird & Bird & First for disputes, Knowhow briefs, Escalation clauses”, which can be found in the following link: <https://www.twobirds.com/~media/pdfs/brochures/dispute-resolution/client-know-how/client-briefings---escalation-clauses.pdf?la=en>.

⁹⁶ RAMANI GARIMELA, S.; AHMAD SIDDIQUI, N., “The enforcement of multi-tiered dispute resolution clauses: contemporary judicial opinion”, *Iium Law Journal*, Vol. 24, No. 1, 2016, pp. 157-191.

⁹⁷ TEVENDALE, C.; AMBROSE, A.; NAISH, V., “Multi-tier dispute resolution clauses and arbitration”, *Turkish Commercial Law Review*, Vol. 1, No. 1, February 2015, pp. 31-40, at p. 32.

⁹⁸ An example can be found in Mexico, through the Law on Public-Private Partnerships of 16 January 2012 as revised 14 July 2014 (Ley de Asociaciones Público Privadas del 16 de enero de 2012 - reformado 14 julio 2014), which text is available here: <https://ppp.worldbank.org/public-private-partnership/library/ley-de-asociaciones-publico-privadas-law-public-private-partnerships-mexico>.

⁹⁹ GOMM-SANTOS, M., “What’s new in Latin American ADR?”, *Dispute Resolution Journal*, 65(1), 2010, pp. 10-12.

¹⁰⁰ “Here is the essence and the best advice: If you need an arbitration clause: go and see a fortune-teller at Jackson Square in New Orleans or else: develop your own skills in card -or palm- reading... But in any event: be aware that the skill which is required is that you can predict the future! The second best advice is to carefully study this Report!” BLESSING, M., “Drafting arbitration clauses”, Worldwide Forum on the Arbitration of Intellectual Property Disputes, March 3-4, 1994, Geneva, Switzerland, <http://www.wipo.int/amc/en/events/conferences/1994/blessing.html>.

¹⁰¹ Professional associations often offer guides to dispute avoidance and resolution clauses in construction: https://www.adr.org/aaa/ShowPDF?doc=ADRSTG_010811.

¹⁰² ICC and FIDIC also collaborate together in numerous activities, such as training courses and arbitrator rosters.

based in the right of the Contractor to a variation, which is the fact that triggers the possibility of a dispute, and follow the procedure set forth therein.

Hereunder, this paper is going to analyse in detail the different tiers for the disputes resolution set forth in Clause 20 of the Panama Contract: namely, negotiation, DAB, and arbitration.

1. Sub-Clause 20.1 of the Panama Contract: Negotiation

The Panama Contract states that if the Contractor “*considers himself to be entitled*” to a variation on either the time for completion or on the Contract Price¹⁰³, it¹⁰⁴ shall issue a notice to the Employer’s Representative within 28 days after the Contractor is aware or should have been aware¹⁰⁵ of the event or circumstance in which the notice is based. This term is set forth in the Contract as preclusive, because the absence of this notice blocks the applicability of the next tiers of Clause 20, and expressly denies the possibility of a time extension or an additional payment. These timely-based detrimental consequences liaise with the value of negotiation within multi-step dispute resolution clauses.

Scholars currently reflect on whether the negotiation is a condition precedent to the commencement of arbitration, -that is, a procedural requirement for arbitration-, or just a procedural step whose circumvention would only entail a damages reparation obligation¹⁰⁶. The wording of the Panama Contract solves all doubts when setting forth that “*if the Contractor fails to give notice of a claim within such period of 28 days, neither the Time for Completion nor any Milestone Date shall be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause 20.1 shall apply*”. Therefore, this first tier must be interpreted as a condition precedent, due to the fact that its absence leads to the blockade of the next steps in Clause 20.

¹⁰³ This situation may easily be accrued upon lack of approval or silence from the Employer’s Representative after a request for variation issued by the Contractor.

¹⁰⁴ The Panama Contract refers to the parties in the personal “he” pronoun. However, this paper shall use the neutral form “it”.

¹⁰⁵ In the Civil Law culture systems, knowledge of the circumstances or possibility to have known the circumstances if acting with the due care is the base to the principle of good faith. FIDIC contracts offer internationally balanced legal regimes by the inclusion of concepts like this, which may result unfamiliar to the parties (this example may result unfit to Anglo-Saxon actors). However, the doctrine comes to the conclusion that FIDIC contracts are “*useable and used in Civil Law and Common Law jurisdictions*”. SEPPÄLÄ, C.R., “FIDIC contracts and Latin America”, Simposio Latinoamericano de Arbitraje en la Industria de la Construcción, CAIC – Ensenada, Mexico, September 30th, 2016.

¹⁰⁶ LÓPEZ DE ARGUMEDO PIÑEIRO, A., “Multistep dispute resolution clauses”, *Mondaq*, January 2011, <http://www.mondaq.com/article.asp?articleid=117062>.

As of the issuance of the notice¹⁰⁷, the Panama Contract establishes the Contractor's duty to keep contemporary records on the documents to substantiate the formal claim. Furthermore, the Employer may monitor this duty, inspect the records, and submit copies to the Employer's Representative. However, the exercise of this right shall not imply any admission of Employer's liability¹⁰⁸.

The foregoing notice is a preliminary phase of the formal claim. The latter has to be issued within 42 days¹⁰⁹ as of the date of knowledge of its cause, and it shall contain the detailed claim and the full supporting particulars of the time or price demand. Taking into account the importance of the timing, Clause 20 of the Panama Contract sets forth a special schedule for the claims that have been originated on continuous grounds by the introduction of monthly interim claims that consolidate upon the end of the effects.

Whilst the claim is filed by the Contractor in Clause 20, the Employer is obliged to respond within 42 days or the term that the Contractor approves upon the proposal from the Employer's Representative. The Employer's response must bear the resolution of the claim –approval or disapproval – as well as the detailed comments. With regard to the substantiation of the claim, the key to successfully settle the claim in this first tier of negotiation is, once again, the Employer's Representative. This procedure comes from the reference made in paragraph 8 of Sub-Clause 20.1 to Sub-Clause 3.5 “*Determinations*”. In the latter, the substantial procedure of negotiation is established when the Employer's Representative shall “*endeavor to reach an agreement with the Contractor*”. As a consequence, Sub-Clause 3.5 is -as generally recognized¹¹⁰, the key to the next tier's door: the Dispute Adjudication Board (DAB).

Depending on the resolution of the Employer's Representative, which has to be notified and must include the corresponding supporting particulars, the claims that have been “*reasonably substantiated as due*” shall be immediately included in each payment certificate¹¹¹, and the Employer shall determine the extension of time on the milestones caused by the facts that originated the claim. The diligence of the Contractor is again mentioned in the last paragraph in Sub-Clause 20.1 of the Panama Contract, as it is

¹⁰⁷ According to the provisions of Sub-Clause 1.7A, the notice can be issued with the only signature of GUPC who, as the Lead Member, is empowered to bind the other members of the consortium. *Vid. Supra* III.3.A).

¹⁰⁸ This provisions are set forth in Paragraph 4 of Sub-Clause 20.1: “*The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Employer's Representative. Without admitting the Employer's liability, the Employer's Representative may, after receiving any notice under this Sub-Clause 20.1, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Employer's Representative to inspect all these records, and shall (if instructed) submit copies to the Employer's Representative*”.

¹⁰⁹ LÓPEZ DE ARGUMEDO PIÑEIRO, A., “Multistep dispute resolution clauses”, *Mondaq*, January 2011, <http://www.mondaq.com/article.asp?articleid=117062>.

¹¹⁰ MORTIMER-HAWKINS, M. “Clause 20, Dispute Resolution”, FIDIC Contracts Committee, <http://fidic.org/sites/default/files/24%20CLAUSE%2020,%20DISPUTE%20RESOLUTION.pdf>.

¹¹¹ Clause 1.1.4.8: “*Payment Certificate*” means a payment certificate issued under Clause 14 [Contract Price and Payment]”.

reminded that the proper investigation of the claim is fundamental¹¹². If the resolution does not match the Contractor's interests, the claim can then be filed with the DAB. This procedure constitutes the second tier of the dispute resolution clause, but bearing in mind that the first tier is compulsory for the commencement of a dispute resolution procedure within the terms of the Panama Contract.

2. Sub-Clauses 20.2., 20.3 and 20.4 of the Panama Contract: The Dispute Adjudication Board

Dispute Adjudication Boards (DABs) are a contract-based alternative dispute resolution method to issue resolutions¹¹³ onsite and during an ongoing project. The term "adjudication" was statutorily introduced for the first time by the *United Kingdom's Housing Grants, Construction and Regeneration Act* of 1996¹¹⁴ and, even though there is not a legal definition of the term, it is generally understood to be a process in which the parties agree that a third party will make a decision on the issue of entitlement or liability. In principle, this concept may sound close to arbitration¹¹⁵. In fact, some authors classify this ADR method as a non-binding arbitration. However, dispute adjudication leads in fact to a decision of the adjudicator on the merits of the case which becomes temporarily binding until revised by either an arbitral or a state court, depending on if the next step is either arbitration or litigation. Thus, from the referred perspective, DAB decisions may result binding from its issuance¹¹⁶ and therefore some authors define them as interim-binding resolutions¹¹⁷. One of the advantages of DABs is linked to the fact that they are used onsite and in ongoing projects¹¹⁸ whilst arbitration is often attributed as the post-project syndrome¹¹⁹.

In the Panama Contract, after the previous negotiations in Sub-Clause 20.1, if the Employer's Representative decides that Contractor is not entitled to a time extension or to an additional compensation per Sub-Clause 3.5, Contractor, subcontractors, and

¹¹² Y'BARBO, D., "Is extrinsic evidence *ever* necessary to decide claim construction disputes - Part II", 82 *J. Pat. & Trademark Off., Soc'y*, 101, 2000, pp. 101-145.

¹¹³ OVERCASH, A. L., "Introducing a novel ADR technique for handling construction disputes: Arbitration", *The Construction Lawyer*, 35(1), 2015, pp. 22-28, at 49-53.

¹¹⁴ Some authors state that: "*Due to its success in some jurisdictions such as England and Wales, in some jurisdictions of Australia and New Zealand and in Singapore, dispute adjudication legislation has been set in force*". JAEGER, A.V.; HÖK, G. S., *FIDIC - A Guide for Practitioners*, Springer Berlin, Heidelberg, 2010, p. 396.

¹¹⁵ JAFFE, M. E.; MCHUGH, R. J., "U.S. Project disputes: Has the time to consider adjudication finally arrived?", *Dispute Resolution Journal*, 62(2), 2007, pp. 51-55.

¹¹⁶ As affirmed by some authors, "*Thus, contrary to the general practices of the DRBs, which give recommendations to the parties (albeit recommendations that may later be entered in evidence in adversary proceeding), the DABs can function both as advisory and/or adjudicative bodies*". OVERCASH, A. L., "Introducing a novel ADR technique for handling construction disputes: Arbitration". *The Construction Lawyer*, 35(1), 2015, pp. 22-28, at 24.

¹¹⁷ VAN LANGELAR, A., "Dispute boards – An introduction", *Civil Engineering*, August 2014, pp. 72-73.

¹¹⁸ CHERN, C. "A fair fight", *The architects' journal*, Jun 8, 2006, p. 44.

¹¹⁹ OVERCASH, A. L., "Introducing a novel ADR technique for handling construction disputes: Arbitration". *The Construction Lawyer*, 35(1), 2015, pp. 22-28, at 49-53.

unsurprisingly other actors become exposed to a severe financial burden. Generally, the parties – and more concretely the Contractor– cannot afford the suspension of the works until an arbitral court issues a final binding and enforceable resolution. For this aim, DABs are considered a very effective ADR method, as they offer fast and technically accurate¹²⁰ solutions. In fact, the so called standing dispute boards are permanent bodies and they do take regular visits to the site and they keep progress records, minutes of meetings and more useful documentation that make them become familiar with the dispute background and therefore save more time in studying the matter. Generally, a DAB is more pro-active than an arbitral body, which may receive the issue from a passive perspective. In the Panama Canal Contract, the DAB is an *ad hoc* type one and, unless otherwise agreed by the Employer and the Contractor, the DAB shall visit the site once in the first year following the Commencement Date and twice per year thereafter.

Due to the fact that DABs can be accomplished during the completion of the project, an additional advantage of this mechanism consists in the financial protection of the parties, underselling of counsel fees and other legal and ancillary costs¹²¹, foundation of an owner/contractor partnering and sustainment of employee's morale; all of them contributing to the good of the project¹²².

Among the current variety of options, FIDIC chose the DAB as the second scale ADR method in the latest editions of all its contract forms. For the Panama Canal Contract, Sub-Clause 20.2 was slightly modified by the parties in order to set a permanent DAB¹²³ along the completion of the project rather than the default *ad hoc*.

Focusing on the provisions of the Panama Contract, Sub-Clause 20.2 together with the Appendix 1 to the Contract, refers to the general appointment of the DAB, whilst Sub-Clause 20.3 gathers the causes for which the appointment can result failed with the corresponding solution, and Sub-Clause 20.4 sets forth the procedure for the DAB to issue its resolution on the matter filed before this board. This procedure is hereunder thoroughly studied.

¹²⁰ VAN LANGELAR, A., "Dispute boards – An introduction", *Civil Engineering*, August 2014, pp. 72-73.

¹²¹ Ancillary costs may sometimes be under-estimated, in such case it is useful to take into account the GBP 1 million bill on photocopies invoiced in the court procedure held in the construction of the Wembley Stadium. THOMAS, D., "Lessons from the Wembley litigation", *Construction Law International*, Volume 4 No. 1 March 2009, pp. 28-30, <http://www.ibanet.org/Document/Default.aspx?DocumentUid=A277ECDE-64E0-45E6-A0BD-7F7A82AB4C49>.

¹²² JAFFE, M. E.; MCHUGH, R. J., "U.S. Project disputes: Has the time to consider adjudication finally arrived?", *Dispute Resolution Journal*, 62(2), 2007, pp. 51-55.

¹²³ The difference between both types of DAB is the following: "Some DABs are appointed at the start of the project and kept abreast of the project by regular visits ("full term"), while other are appointed only for particular disputes ("ad hoc)". OVERCASH, A. L., "Introducing a novel ADR technique for handling construction disputes: Arbitration". *The Construction Lawyer*, 35(1), 2015, pp. 22-28, at 49-53.

A) SUB-CLAUSE 20.2. APPOINTMENT OF THE DISPUTE ADJUDICATION BOARD

As stated in the Panama Contract, after unsuccessful negotiation, the disputes are adjudicated to a DAB, which must be appointed in the timeframe set forth in the Appendix to Tender¹²⁴, this being 42 days after the Commencement date¹²⁵. Within this deadline, the members of the DAB are to be jointly appointed by the Parties as per the first paragraph of Sub-Clause 20.2. The default FIDIC Yellow Book gives the choice to have one or three members in the DAB, though the parties in this Panama Contract modified the text in order to set a DAB of three members, who shall be elected according to the procedure set forth therein: each party shall nominate one member and both parties shall jointly agree upon the third member, who is appointed as the chairman, and plays an important role in the serving of the claim, as his knowledge is deemed as a proper submission of the claim. Therefore, the suggested list of members to join the DAB as drawn in the default version of the FIDIC Yellow Book is removed in the final version of the Panama Contract. However, the provision for the replacement of a member of the DAB in case of inability remains in the Panama Contract for the events of death, disability, resignation or termination of the appointment of a DAB member. In this regard, the parties must agree such termination and it shall not be valid if carried out by any of the parties on its own or by any other procedure other than the expiration of the appointment by means of discharge¹²⁶. Sub-Clause 20.2 refers to Appendix 1 to the Panama Contract for the formal engagement document to be subscribed by the Parties and the member of the DAB for the appointment to enter into force. The remuneration of the DAB members is also referred in the Contract, stating that it shall be agreed upon the Parties and that each party shall be responsible for paying one-half of the remuneration of each of the members.

B) SUB-CLAUSE 20.3. FAILURE TO AGREE ON THE DISPUTE ADJUDICATION BOARD

The abovementioned procedure leads to the successful appointment of the permanent DAB. However, Sub-Clause 20.3¹²⁷ gathers the causes for which the appointment may result impaired and offers a solution to be decided by an independent third party. If any

¹²⁴ Appendix to tender can be found in the following website: <http://www.pancanal.com/common/expansion/76161/appendix-to-tender.pdf>.

¹²⁵ Sub-clause 1.1.3.3: “Commencement Date” means the date notified under Sub-Clause 8.1 [Commencement of Work]. Sub-clause 8.1: Commencement of Work: “The Employer’s Representative shall give the Contractor not less than 7 days’ notice of the Commencement Date. The Commencement Date shall be within 42 days after the date of the issue of the Letter of Acceptance. The Contractor shall commence the design and execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay”.

¹²⁶ Sub-Clause 14.12 Discharge: “When submitting the Final Statement, the Contractor shall submit a written discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the outstanding balance of this total in which event the discharge will be effective on such date”.

¹²⁷ The original title of Sub-Clause 20.3 is “Failure to Agree Dispute Adjudication Board”.

of the Parties fails to agree on a member or both parties fail to jointly agree on the third member within the deadline set forth as of the Commencement date or upon the inability of the precedent member, the appointment shall be carried out, after consultation to the parties, by an Appointing Entity or Official as set forth in Appendix to Tender of the Panama Contract. As a sign of reliability on the organization, the appointing person was decided to be the President of FIDIC or a person appointed by the referred President¹²⁸.

C) SUB-CLAUSE 20.4. OBTAINING DISPUTE ADJUDICATION BOARD'S DECISION

The variety of matters that can be filed before the DAB is defined in a broad way in the first paragraph of Sub-Clause 20.4 of the Panama Contract. In fact, once the DAB has been appointed, the Contract enables disputes “*of any kind whatsoever*” to be referred to the DAB. Among the broad range of possibilities to file to the DAB, the Panama Contract expressly addresses the disputes regarding the decisions made by the Employer's Representative. This link to the negotiation tier brings forward the escalation process of the multi-tiered clauses: only the disputes that were not satisfactorily settled in favor of the Contractor by means of an Employer's Representative decision shall continue the path set forth in Clause 20. This drafting leads to the point that active legitimation to file claims to the DAB is only attributed to the Contractor. Furthermore, the classification of negotiation as a condition precedent as addressed above, makes it compulsory for the Contractor to initiate that via for exhausting the first tier. Indeed, the escalation is perfectly interlocked.

Form requirements are also introduced in this dispute resolution provision, as claims have to be filed in writing and they must state the reference to Sub-Clause 20.4 of the Panama Contract. The claim is deemed to be formally served when it is received by the chairman.

For the issuance of a DAB decision, the DAB needs further information on the grounds of the dispute. This information usually does not accompany the claim but is to be made available to the DAB afterwards, together with the access to the facilities and any information the DAB may require. This feature differs from the arbitration procedure, in which the information to form the claim is subject to preclusive terms. Indeed, a final mention in the second paragraph of Sub-Clause 20.4 of the Panama Contract states that “*the DAB shall be deemed to be not acting as arbitrators*”.

The fourth paragraph of Sub-Clause 20.4 addresses very important issues on the dispute resolution mechanism of the Contract. Provided that the due remuneration of the members is settled in whole, the DAB is obliged to issue a reasoned decision with a reference to the compliance of Sub-Clause 20.4 within 84 days from the reception of the issue, unless the parties approve a different term, which has to be proposed by the DAB.

¹²⁸ Appendix to tender can be found in the following website: <http://www.panacanal.com/common/expansion/76161/appendix-to-tender.pdf>.

Upon the issuance of the DAB decision, two consequences are derived. The first one links with the nature of the DAB resolutions: the decision shall be binding and come into force immediately for both parties, unless the dissatisfied party subsequently claims for a revision stating an amicable settlement –which can be agreed at any time of the process– or applying for an arbitral award. The second one communes with one of the the main advantages of this ADR method: the Contractor is not entitled to suspend or stop the completion of the works during the time along which the decision is pending. As for the causes of the decision’s revision, the premise is the dissatisfaction of any of the parties with the resolution. In such event, the dissatisfying party shall give notice to the other party of such dissatisfaction within 28 days, expressing the corresponding reasons for dissatisfaction and mentioning that the notice is based on the provisions of Clause 20.4 as formal requirements. Yet again, this notice pulls the trigger to the next step in the multi-tier dispute resolution clause in the Contract, which leads to arbitration¹²⁹.

As indicated, in the absence of a notice of dissatisfaction, upon 28 days, “*the decision shall become final and binding upon the parties*”.

D) AMENDMENTS TO THE DAB INTRODUCED BY VARIATION NO. 108

Variation 108 adds two new sections to Sub-Clause 20.2 for the sake of expediting this dispute resolution first tier. In this regard, the Panama Contract is amended with a fast track DAB for two specific types of claims: lower than USD 50 million and excusable delay claims. The procedure to these fast track dispute resolutions shall be briefly mentioned in the following subsections, as it has not be used by the parties to the Panama Contract so far.

a) Claims lower than USD 50 million

It is common that contracts for mega-projects add dispute resolution thresholds from which certain consequences can be developed. In Variation 108 to the Panama Canal, the parties agree a USD 50 million threshold in order to avoid the regular procedure of the DAB and trigger a fast track DAB so as to avoid retarding the path to dispute resolution of relatively significant controversies. In such case, the parties undertake to carefully comply with the 84 day term to determine and file the claim to the DAB. A longer term shall only be acceptable on the “*rules of natural justice*”. This fast-track DAB procedure is set forth in Clause N.22.6 of the Variation Order No. 108 of the Panama Contract.

¹²⁹ Upon a notice of dissatisfaction, the parties may decide to reach an amicable settlement before arbitration, according to the provisions of Sub-Clause 20.5 *Amicable settlement*. However, this tier is not compulsory to reach neither a final decision nor the final stage of arbitration, as the latter may be commenced 56 days after the notice of dissatisfaction regardless if an amicable settlement attempt has been started. Furthermore, the amicable settlement attempt may even not take place in case of absence of dissatisfaction notice with the DAB decision, if the decision becomes final and binding and if a party fails to comply with the DAB decision, as per Sub-Clause 20.7. The first causes shall finally settle the dispute, whilst the third one would directly entitle the party to refer the matter to arbitration.

b) Excusable delay claims

For this exclusive type of claim, an expert is nominated and compelled to issue a decision in a 45 day term. This expert is Sir Vivian Ramsey. No claims have followed this procedure so far. Clause N.22.7 of the Variation Order No. 108 of the Panama Contract stipulates this second fast-track procedure.

E) THE MEMBERS OF THE PANAMA DAB AND THEIR REMUNERATION

Another advantage of DAB resolutions is liaised with the ability of the parties to choose their members. Therefore, the DAB shall issue qualified decisions, as they are based on technical grounds administered by professionally skilled members.

The permanent DAB in the Panama Contract for the provision of the third set of locks in the Panama Canal benefits from this advantage, as it is composed by three highly skilled adjudicators. They have accepted their appointments by means of the form in Appendix 1 to the Contract: “Dispute Adjudication Board Agreement”. According to the provisions therein, each Dispute Adjudication Agreement (hereinafter referred to as “DAA”) is a tripartite agreement between the parties to the Contract and the member of the DAB, as mentioned in Sub-Clause 20.2. The signature of this DAA shall constitute the appointment of the member of the DAB as foreseen in the mentioned Sub-Clause, which is an important matter because the absence of appointment of the DAB would entail that the Parties would be entitled to directly file the dispute before arbitration and be deprived from this useful ADR method. The members of the board are engaged personally, cannot assign or subcontract their duties and they warrant they shall act impartial and independently, as well as they are experienced in these matters and fluent in the language in which the procedure shall be conducted¹³⁰. After these general provisions, two lists of duties to be complied by the members of the DAB and the parties to the contract are drawn up in the Appendix. DAB members duties are mainly focused in the granting an independence status¹³¹, and assuring their availability for the site visits, whereas the parties undertake to follow the contractual procedure and secure the remuneration of the DAB members in certain cases.

The actual signed DAA of each of the members of the Panama Contract DAB is not published in the ACP website. However, the members of the DAB are publicly named in diverse press releases.

¹³⁰ These provisions and the following are set forth in the General Conditions of the Dispute Adjudication Agreement, which are set out in the Appendix 1 to the Contract: “Dispute Adjudication Board Agreement”.

¹³¹ The independence of the members of the Board is referred in the Point 4 of the Appendix 1 to the Contract under penalty of termination of its appointment.

As above referred¹³², GUPC was entitled to appoint one of the DAB members and, as a consequence of it, Mr. Pierre Genton¹³³ was elected by the Spanish-led consortium. For its part, the ACP appointed Mr. Robert Smith¹³⁴ as member of the DAB and both parties selected Mr. Peter H.J. Chapman¹³⁵ to serve as chairman of the DAB in the Contract for the construction of the Third set of locks of the Panama Canal¹³⁶.

As indicated above, the remuneration of the DAB members is an important feature in Appendix 1 to the Panama Contract, as the parties must be up to date in its settlement for the submission of a claim. It is in fact a complex remuneration consisting in (i) a monthly retainer fee to be considered as a payment in full for the availability of the members of the DAB, the maintenance of files, overhead expenses and services

¹³² *Vid. supra* IV.2.A).

¹³³ An updated *curriculum vitae* of Mr. Genton can be found in his firm's website <https://www.pmg-ing.ch/genton.php>. According to the information publicly available on his profile, Mr. Pierre Genton is the founder and senior partner in firm Assistance in Prevention and Resolution of Disputes, which was established in 1983 in Lausanne (Switzerland). He holds a Master of Science in Engineering (Lausanne, 1969), a Program for Executive Development (Lausanne and Harvard, 1980) and is a Chartered Engineer, and a fellow of the Institute of Civil Engineers (ICE) in London. He is included in the list of arbitrators in the International Chamber of Commerce (ICC) and the International Arbitral Centre of the Austrian Federal Chamber in Vienna. He is also affiliated to numerous engineering associations, such as the Swiss Association of Engineers and Architects. These associations play an important role in the creation of regulations on the engineering professional field, which are currently being applied and enforced as the new *lex constructionis*. From the late seventies, Mr. Genton has served in numerous boards for engineering and construction contracts around the world. For issues concerning regulations by professional associations, *vid. FACH GÓMEZ, K. "Enforcing Global Law: International arbitration and informal regulatory instruments"*, *Journal of legal pluralism and unofficial law*, 2015, pp. 112-139.

¹³⁴ Mr. Smith's contact details and *curriculum vitae* are available in the directory of FIDIC website (however, FIDIC website does not confirm the date in which the resume was updated, quantitative data may not be up to date). Mr. Smith holds a Bachelor of Science in Civil Engineering (1967, University of Wisconsin), a Bachelor of Naval Science (1967, University of Wisconsin) and he is a Juris Doctor, cum laude (1974; University of Wisconsin). His wide experience of over 20 years of fulltime practice devoted exclusively to engineering and construction law matters led him to serve on 35 Dispute Boards (31 as Chairman), beginning in 1986; aggregate and chair over 300 Dispute Board meetings and hearings. He heard and decided 70 disputes presented to Dispute Boards (disputed sums ranging to US\$67 million). He has also been an arbitrator in more than 100 construction disputes. He has issued various dissenting votes in the actual claims to the DAB, which add an important value in case of a further arbitration procedure. Further information can be found here: <http://fidic.org/civicrm/profile/view?reset=1&id=83&gid=14>.

¹³⁵ Mr. Peter H.J. Chapman is also a member in the official FIDIC list of adjudicators. His contact details and *curriculum vitae* are published therein. Mr. Peter H.J. Chapman holds a Bachelor in Science in Civil Engineering (London, 1972) and a Legum Baccalaureus (London, 1987) which entitled him to join the London Bar in 1989. He is a Chartered Arbitrator since 1990 and, by the time he was appointed, he hoarded a wide experience in building and Civil Engineering, as shown in over 180 decisions given (United Kingdom, Hong Kong, China, India, Pakistan, Iceland, Luxembourg, Lesotho, Indonesia, Romania, Turkey, Ireland and elsewhere). Before the appointment for the Panama Canal DAB, he had served as member (23) and chairman (12) on thirty-five dispute resolution boards (technical and financial) and eight times appointed as sole FIDIC Disputes Review Expert/DAB for contracts covering traditional, design and construct, turnkey and concession contracts. Further details are available here: <http://fidic.org/civicrm/profile/view?reset=1&id=39&gid=14>.

¹³⁶ The background, reputation and skills are important features to take into account in the nomination of DAB members. VAN LANGELAR, A., "Dispute boards – Operation, Part I", *Civil Engineering*, September 2014, pp. 60-64, at p. 62.

performed; (ii) a daily fee to be considered as a payment in full of the travels to the site, working days on site and days preparing hearings; (iii) all reasonable expenses incurred by the DAB members for the rendering of the services, upon receipt; and (iv) any taxes to which the members of the DAB are levied. Apart from the details on invoices, due dates and payment conditions, point 6 of the Appendix 1 sets forth an interesting scale: the remuneration shall be paid in full during the first 36 months of validity of the contract, whilst it shall decrease in the following months and upon the issuance of the Taking-Over Certificate, which is the milestone that constitutes the delivery of the facility—in this case, the successful tests for completion of the project—¹³⁷.

3. Subclause 20.6 of the Panama Contract: Arbitration

The last tier to exhaust the contractual settlement of disputes is the safest to enforce¹³⁸ and most adversarial dispute resolution method: arbitration. According to the provisions of the Panama Contract, this final instance is reserved for (i) the matters on which a DAB decision has been issued but this has not become final and binding, either because a party issues a notice of dissatisfaction, or because any of the parties does not fulfill the decision; and¹³⁹ (ii) matters on which no DAB decision has been issued because of the

¹³⁷ Employer's Taking Over “10.1 Taking Over of the Works: Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Employer when (i) the Works have been completed in accordance with the Contract, including but not limited to complying with all the requirements of Section 01 77 00 [Taking-Over Procedures] of the Employer's Requirement and the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) of this Sub-Clause 10.1, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause 10.1.

The Contractor may apply by notice to the Employer's Representative for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over.

The Employer's Representative shall, within 28 days after receiving the Contractor's application:
(a) *issue the Taking-Over Certificate to the Contractor, stating the date on which the Works were completed in accordance with the Contract, except for any minor outstanding work and defects recorded in the Schedule of Outstanding Minor Work and Defects which will not affect the use of the Works for their intended purpose (either until or whilst this work is completed and these defects are remedied); or*
(b) *reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause 10.1.*

If the Employer's Representative fails either to issue the Taking-Over Certificate or to reject the Contractor's application with the period of 28 days, and if the Works are substantially in accordance with the Contract as aforesaid, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period”.

¹³⁸ Enforcement of arbitral awards may result in principle easier, as according to the 1958 New York Convention, with 156 parties around the world. DRAETA, U., “Dispute resolution in international construction linked contracts”, *Revue de Droit des Affaires Internationales*, No. 1, 2011, pp. 69-83. Direct legal enforcement of DAB decisions raises many complex questions among the scholars: DEDEZADE, T., “The legal justification for the “enforcement” of a “binding” decision under the FIDIC 1999 Red Book”, *Construction law international*, Volume 7 Issue 1 March 2012, pp. 13-20, <http://corbett.co.uk/wp-content/uploads/Taner-CLINT-Article-2.pdf>.

¹³⁹ According to Point 9 of Appendix 1 to the Contract, disputes or claims arising out or in connection with the DAA shall also be finally settled by arbitration. However, this latter procedure is simpler than the general one foreseen in Clause 20.

expiry of the DAB appointment¹⁴⁰. The default FIDIC Yellow Book was slightly modified in order to introduce a reference solely to arbitration in law –and eliminate the possibility of an arbitration *ex aequo et bono*¹⁴¹.

As aforementioned¹⁴², FIDIC relies on the ICC for the dispute resolution under its rules of arbitration. Furthermore, a mention contained in the default FIDIC Yellow Book's wording was introduced in the Panama Contract, in order to add the application of the International Bar Association (IBA) Rules on taking Evidence in International Commercial Arbitration¹⁴³. Another sign of the collaboration between FIDIC and ICC is reflected in the Panama Contract when stating that the arbitrators must be licensed lawyers appointed in accordance with the ICC rules of arbitration (Sub-Clause 20.6.c of the Panama Contract).

Two new provisions were added in the default version of the FIDIC Yellow Book with regard to the Panama Contract arbitration procedure: the arbitration agreement as well as the arbitration shall be governed by the United States Federal Arbitration Act¹⁴⁴, and the venue of the arbitration is settled in Miami, Florida (United States of America), a fact that has been considered as a definitive accolade to the interests of this American city for being a key international arbitration hub.¹⁴⁵

In accordance with the Panama Contract, arbitrators shall have full power to revise disputes of a wide range and even the decisions of the DAB. Consequently, in this case an original DAB decision would not be final for the parties, but it shall be processed as and evidence in the arbitral procedure, according to the Panama Contract relevant provisions (paragraph 3 of Sub-Clause 20.6 *in fine*). Upon this scenario in which the parties in this this stage have already paid the remuneration of the DAB adjudicators since the beginning of the completion of the Contract, the question is if they would somehow take benefit of an arbitral procedure, as a long path has been walked so far.

¹⁴⁰ Sub-Clause 20.8: Expiry of Dispute Adjudication Board's Appointment: “*If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works and there is no DAB in place, whether by reason of the expiry of the DAB's appointment or otherwise: (a) Sub-Clause 20.4 [Obtaining Dispute Adjudication Board's Decision] and Sub-Clause 20.5 [Amicable Settlement] shall not apply; and (b) the dispute may be referred directly to arbitration under Sub-Clause 20.6 [Arbitration]*”.

¹⁴¹ The default version of the FIDIC Yellow Book just mentions that “any dispute in respect of which the DAB's decision (if any) has become final and binding *shall be finally settled by international arbitration*” without specifying whether the arbitration is in law or *ex aequo et bono*.

¹⁴² *Vid. supra* IV.

¹⁴³ IBA Rules on taking Evidence in International Commercial Arbitration are available here: <http://www.ibanet.org/Document/Default.aspx?DocumentUId=68336C49-4106-46BF-A1C6-A8F0880444DC>.

¹⁴⁴ The text of this act is available at: <https://www.gpo.gov/fdsys/pkg/USCODE-2013-title9/pdf/USCODE-2013-title9.pdf>.

¹⁴⁵ Press releases have been published on this assumption: <http://wlrn.org/post/panama-canal-dispute-reflects-miamis-new-role-international-arbitration-hub>.

Sub-Clause 20.6.c) sets for that “*the dispute shall be settled by three arbitrators*” and addresses to the Rules of Arbitration of the ICC¹⁴⁶ for the appointment of the arbitrators, who shall all be licensed lawyers. At early stages of the first claims filed before the arbitral court, the names of the arbitrators were not provided to the press¹⁴⁷. However, as the procedures have developed, their identities have been revealed¹⁴⁸. The arbitral panel is formed by Mr. Bernardo Cremades¹⁴⁹, Mr. Robert Gaitskell¹⁵⁰ and Bernard Hanotiau¹⁵¹, who serves as chairman. This three member arbitral panel conducts the last contractual instance for the dispute resolution¹⁵². All of the arbitrators therein are senior renowned lawyers with a broad experience in international litigation and arbitration. While Mr. Cremades and Mr. Hanotiau have a law degree, Mr. Gaitskell is both a lawyer and a professional engineer. Furthermore, the three arbitrators accredit expertise in construction disputes.

Variation Order No. 108 to the Panama Contract introduces an interesting commitment agreed by the parties in this regard. Both Contractor and Employer state that “*it is their intention that all disputes referred to ICC arbitration pursuant to Sub-Clause 20.6 [Arbitration] of the Contract shall be the subject of final award by no later than*

¹⁴⁶ The referred rules can be found on the following link: <https://iccwbo.org/dispute-resolution-services/arbitration/rules-of-arbitration/>.

¹⁴⁷ Press releases echo the lack of information on the arbitrators identities “*La jornada de este lunes será al menos a cinco bandas, ya que los tres árbitros—uno de España, uno de Inglaterra y uno de Bélgica—participarán en una teleconferencia con los abogados de ACP y los de GUPC. Aunque fueron solicitados por EL PAÍS, los nombres de los jueces no estuvieron disponibles*”. MELÉNDEZ, J., “El arbitraje por el sobrecoste del Canal de Panamá comienza este lunes 21 de julio”, *El País*, July 21st, 2014, San José (Costa Rica) http://internacional.elpais.com/internacional/2014/07/21/actualidad/1405910422_948794.html.

¹⁴⁸ Sub-Clause 20.6.c) sets for that “*the dispute shall be settled by three arbitrators*” and addresses to the Rules of Arbitration of the ICC for the appointment of the arbitrators, who shall all be licensed lawyers.

¹⁴⁹ Mr. Bernardo Cremades leads the Spanish law firm Cremades y Asociados and has chaired over 330 arbitral procedures. He actively participates in construction DABs. Apart from the Panama Canal Project, he plays an outstanding role as the President of a DAB in the construction of Barwa City, an important project for the construction of a city in the outskirts of Doha, Qatar. His *curriculum vitae* is available in the following link: <http://www.cremades.com/pics/contenido/CV%20Bernardo%20M%20Cremades%20e%20spanol.pdf>.

¹⁵⁰ Mr. Robert Gaitskell is a member of the British law firm Keating Chambers and has conducted over 100 arbitrations in different op of the line institutions. His practice specializes in construction and engineering. His *curriculum vitae* can be found in the following link: <http://www.keatingchambers.com/people/dr-robert-gaitskell-qc/>.

¹⁵¹ Mr. Bernard Hanotiau is a member of the Brussels and Paris Bars. He has been actively involved in more than 500 international arbitration cases as party-appointed arbitrator, chairman, sole arbitrator, counsel and expert in all parts of the world since 1978. Mr. Hanotiau is also a *professor emeritus* of the law school of Louvain University (Belgium). He is a member of the ICCA Governing Board and of the Council of the ICC Institute and a member of the ICC International Arbitration Commission. He is also a former vice-president of the Institute of Transnational Arbitration (Dallas) and a former vice-president of the LCIA Court. He is a member of the Court of Arbitration of SIAC and of the Governing Board of DIAC (Dubai). His *curriculum vitae* can be found in the following link: <http://www.hvdb.com/bernard-hanotiau/>.

¹⁵² The press echoed the imminent commencement of the arbitral procedure: <http://www.miamiherald.com/news/nation-world/world/americas/article1976306.html#storylink=cpy>.

October 31, 2018” and agree to collaborate in feasible time schedules to reach that goal¹⁵³.

V. CURRENT STATUS OF THE CLAIMS ARISEN IN THE PANAMA CONTRACT : DAB AND ARBITRAL PROCEDURES

As stated above,¹⁵⁴ and following the contractual provisions that set apart the completion of the works from the claims and ADR procedures, the third set of locks of the Panama Canal was inaugurated on June 16th, 2016, even though the totality of the works had not been concluded at that time, as contractually foreseen¹⁵⁵.

However, the path to the inauguration of the expansion was not smooth and several claims were filed, reaching the point of a unilateral suspension of the project by GUPC on February, 2014. Most of the filed claims are currently being elucidated in different tiers of the above analyzed Clause 20 of the Panama Contract. Up to December 31st, 2016 –date in which the non-audited project progress report corresponding to the fourth quarter of 2016 was issued by the ACP–, the disputed amount summed up to USD 5,633 million claimed by GUPC over the price initially agreed in the Panama Contract. From such amount, USD 351 million had already been solved by DAB decisions¹⁵⁶ in favor of GUPC.

Among the abundance of variation and changes requests raised by the Contractor per Clause 13 of the Panama Contract, only a few have triggered the procedure for dispute resolution set forth in Clause 20. However, these claims seem not to be negligible, as they reach million-dollar sums. Tracking chronologically the progress reports up to this date, this present section of this article is going to present the following disputes have been subject to the multi-tier dispute resolution mechanism set forth the in the Panama Contract. Their current/respective status shall also be indicated, as the majority of them are being elucidated at the moment.

1. Dragging works and cofferdam

Claim number 8 was filed by GUPC in March 2010 based on the grounds of an extra-cost of USD 120 million caused by the additional dragging works to be accomplished by GUPC in order to build a cofferdam in the Pacific side, and the corresponding extra

¹⁵³ Clause N. 22.4 of the Variation Order No. 108 to the Panama Contract.

¹⁵⁴ *Vid. supra* IV.2.

¹⁵⁵ Sub-Clause 1.1.3.10 “*Schedule of Outstanding Minor Work and Defects*” means the schedule described in Sub-Clause 10.1 [Taking Over of the Works] and appended to the Taking-Over Certificate”.

¹⁵⁶ As officially announced by the ACP, “On September 15, 2016, GUPCSA filed its Statement at Completion, which the Contractor was required to file in compliance with Sub-Clause 14.10 of the Contract. In this Statement, the Contractor included the amount that it deems represents the totality of its claims, which adds to USD\$5,633 million pending settlement (including claimed financial costs). To date, a total of USD\$351 million in claims have been settled”. <http://micanaldepanama.com/expansion/documentos/project-progress-report/>.

time for completion -120 days to be added to the contractual completion date¹⁵⁷. The ACP rejected this claim in September 2012¹⁵⁸, and consequently GUPC followed the procedure to raise the claim to the DAB. The DAB decision was also negative for GUPC, so the claim was filed to the arbitral court for an amount of USD 192 million - plus interests and arbitration costs¹⁵⁹. An initial arbitral hearing was held in July, 2016 and the final one was held from 10 to 13th January, 2017. The arbitration award for this case is expected to be rendered during the second half of 2017¹⁶⁰.

2. Quality of the materials

Claim number 43 was filed in February 2011, and rejected by the Employer's Engineer in May, 2013. It was based in the differences in the basalt and concrete quality published in the ACP tender, on which GUPC based its works. This dispute amounted to USD 470 million and was rejected by the Employer's Engineer. Afterwards, the DAB partially admitted the GUPC claim and decided that ACP would pay USD 233 million to GUPC, acknowledging the inaccuracy of the information provided by the Employer¹⁶¹. Both parties submitted the matter to the arbitral court in March 2015, and a hearing was held in February, 2017. According to the official previsions, presentation of the merits of the case are to be prepared during May, 2017¹⁶².

3.Substantial claims

Claim number 78 compiled several claims¹⁶³ filed beforehand, on which the ACP had not given any notice. This Claim number 78 is based in the unilateral substantial

¹⁵⁷ Current audited facts to the date of the end of the fiscal year (September 30th) can be found in the annual reports issued by Ernst & Young. <https://www.panacanal.com/eng/general/fin-statements/FY-2016.pdf>.

¹⁵⁸ Sub-Clause 20.1 of the Panama Contract foresees a term of 42 days for the Employer to respond to the request unless otherwise agreed by the Parties. Note the time deviation in the studied cases.

¹⁵⁹ Claims amounts increase in each tier of Clause 20 and are subordinated to interests and costs, so the final amount that will be considered by the arbitral court is difficult to ascertain.

¹⁶⁰ The newest update refers to the situation on the first quarter of the year 2017, issued on March 31st, 2017, and its text is available here: <http://micanaldepanama.com/expansion/documents/project-progress-report/>.

¹⁶¹ "El Canal de Panamá deberá pagar parte de los sobrecostos de la ampliación por 'negligencia'", El Mundo, January 6th, 2015, <http://www.elmundo.es/economia/2015/01/06/54abdd20268e3e23688b4572.html>.

¹⁶² Periodically progress reports issued by the ACP record the track of the claims. Therefore, in the last but one this procedure was thoroughly portrayed: "*The arbitration is currently at the jurisdictional stage, in which the Arbitral Tribunal will decide on the right of the GUPCSA shareholders to act as plaintiffs in the arbitration. The Contractor requested the inclusion of Dispute 13A for USD\$99 million in this arbitration. The jurisdiction hearing is scheduled to take place on February 14 and 15, 2017*". Up to this date, the last non-audited quarterly report confirms that "*The hearing on Jurisdiction and Standing for the Concrete/Aggregate and On-site Laboratories arbitration was held in February 2017 and the Arbitral Tribunal is expected to award jurisdiction in June 2017. Presentation of the merits of the case will start in May 2017*".

¹⁶³ The complete compilation of the claims can be consulted at the corresponding progress record: "*Durante el presente trimestre, el oficial de contrataciones de la ACP rechazó en su totalidad seis*

...

changes accomplished in the Contract by the ACP, which led to GUPC to incur in extra works and costs in order to adequate the project to the new conditions. This claim was filed in December 2013 and it summed up to USD 880 million. However, this claim did not follow the procedural rules of Clause 20, but it led to a fiery negotiation by the parties. The environment reached to be so hostile that the GUPC served a notice to the ACP on December 30th, 2013, in which GUPC announced its aim to suspend the works on the locks on January 20th, 2014. The ACP stated it would not "yield to the pressure"¹⁶⁴, and held several meetings with the entities that granted the bonds for the project, in which the insurance company Zurich played an important role. The works were in fact suspended and only resumed after the signature of Variation number 108, which reflected the provisions of the Memorandum of Understanding agreed by the parties and ZURICH on March 13th, 2014¹⁶⁵.

4. Recent claims based on compilation

On December 19th, 2016, GUPC filed two economically relevant claims which are at an early stage at the current date¹⁶⁶. The minor works to be accomplished according to the Schedule of Outstanding Minor Work and Defects contained in the Panama Contract were expected to be completed by February 2017. However, these claims will certainly retard this date, as they include time extension pretensions. These last claims increased the total disputed amount from USD 3,277 million to USD 5,673 million and they are the result of a compilation of claims that had been reflected in the account report that GUPC filed to ACP for the determination of receivables and financial restructuring of

reclamos del contratista a cargo del proyecto CAP4 en correspondencia a la primera instancia para resolución de conflictos. Estos reclamos se refieren a: 1) costos de movilización por la ejecución de barrenos adicionales para los tratamientos de la fundación de la presa; 2) atraso en el inicio de la construcción de la presa; 3) la ejecución e inyección de barrenos; 4) la extracción de revestimientos metálicos utilizados durante la perforación de barrenos para los tratamientos de la fundación de la presa; 5) al sistema de desalojo de aguas superficiales y subterráneas; 6) una interpretación del contrato relacionada con la aplicación de multas por daños liquidados – el contratista no recurrió a la instancia de apelación". Autoridad del Canal de Panamá Informe Trimestral XXIX Avance de los Contratos del Programa de Ampliación, December 31st, 2013. <https://micanaldepanama.com/wp-content/uploads/2013/12/20131231.pdf>.

¹⁶⁴ These statements are officially recorded in one of the progress records periodically issued by the ACP: "En una carta recibida el 30 de diciembre, GUPCSA indicó su intención de suspender los trabajos en el proyecto de esclusas el día 20 de enero, alegando que la ACP no había cumplido con obligaciones contractuales ni honrado su compromiso de discutir los retos financieros que enfrenta el proyecto. La ACP manifestó que los argumentos de GUPCSA no constituyen base legal para suspender los trabajos e indicó que no cederá ante ninguna presión para que negocie fuera de los términos del contrato, señalando que dos de los tres mecanismos contemplados en el contrato para resolver reclamos se basan en la mediación de terceros. Actualmente se realizan esfuerzos para encontrar una solución dentro del marco contractual, que ambas partes encuentren aceptables". Autoridad del Canal de Panamá Informe Trimestral XXIX Avance de los Contratos del Programa de Ampliación, December 31st, 2013. <https://micanaldepanama.com/wp-content/uploads/2013/12/20131231.pdf>, p. 9 *et seq.*

¹⁶⁵ This document is published in the following link: <https://micanaldepanama.com/expansion/wp-content/uploads/2014/01/MOU-MARCH-13-2014-ingles.pdf>.

¹⁶⁶ Autoridad del Canal de Panamá Informe Trimestral XLII Avance de los Contratos del Programa de Ampliación, March 31st, 2017, <http://micanaldepanama.com/ampliacion/wp-content/uploads/2017/04/20170331.pdf>, p. 9.

the project. The claims sum up to USD 4,448,676,265 and USD 541,141,302 respectively and, at a first glance, suffer from several flaws that ACP shall predictably bring to light. Indeed, they consist in the compilation of several claims that are in different stages of the ADR mechanisms set forth in the Panama Contract. As a matter of fact, the claims have been directly filed before the arbitral court, disregarding the contractual directions in Clause 20 that establishes the escalation of the different tiers for the dispute to be eligible for arbitral resolution. Some of the claims have not even been presented to the Employer's Engineer, and others have not been examined by the DAB. Therefore, the ACP is likely to plead the formal defect that shall eventually prevent these claims from being duly settled and a prolonged period of procedural paperwork is foreseen from now on.

VI. CONCLUSIONS

As it has been exposed along this article, the historical, political and economic background that led to the construction of the Panama Canal in the early twentieth century decades needs to be understood in depth. All of these circumstances show as a whole the colossal relevance of this engineering giga-project in the Panamanian and Latin American commercial framework.

The consideration of such scenario allows to comprehend and justify the Panama Canal expansion project, which began to take shape in the 1930s. The completion of this pharaonic feat has faced multiple pitfalls, several of which do persist at this date. Due to these reasons, a proper understanding of the Panama Canal expansion works and its unforeseen difficulties necessarily requires to carry out a detailed analysis of the most relevant clauses shaping the legal regime of the project –more specifically in the Panama contract for the provision of the third set of locks, which letter of acceptance to the tender was signed in July 15th, 2009.

As set out in this article, even on the basis of such a specialized contract form as the FIDIC's "Conditions of Contract for Plant and Design-Build For Electrical And Mechanical Plant, And For Building And Engineering Works, Designed By The Contractor" –commonly known as "FIDIC Yellow Book"–, the unique and extremely complex context of the Panama Canal expansion works is clearly reflected in the relevant amendments to the FIDIC default text.

The parties to the contract for the design and construction of the Panama Canal's new set of locks -the Spanish led consortium Grupo Unidos por el Canal as the contractor, and the Panama Canal Authority as the employer– amended the default wording of the FIDIC Yellow Book up to twenty-four times in order to correctly adequate aspects as important as the responsibility of the consortium members towards the employer, the variations and changes to the contract scope, subcontracting works, insurance requirements, and as many others as to perfectly fit the needs of the parties.

The fact that a non-negligible deviation of a 182% of the initial price in the Panama project adjudication has been so far accrued has also engendered the need to reflect in this article on the efficacy of the contractual ADR methods nowadays. In the Panama case, an extensive clause for the cases of conflict was drafted by the parties, following the three-tier structure proposed by FIDIC and supported by the ICC and adapted to the project's needs. This worldwide reputed institution excels for the dispute management and offers its own list of competent arbitrators and members of dispute resolution boards, so it is expected to be a safe bet.

In the case of the Panama Canal, the process to the final wording of the contract for the provision of the third set of locks was actively managed and supervised by public institutions such as the Panamanian government and private parties and investors, as well as their legal advisors. All of them were supposed to be willing a fast and cost effective dispute resolution procedure¹⁶⁷ and they had all the resources to succeed.

However, in the present case, it is difficult to affirm that the dispute resolution procedure has resulted decisive, satisfactory and cost-effective for the parties, as the DAB resolutions have led to automatic and even extemporaneous notices of dissatisfaction that have increased the cost of the claims and their procedures for resolution. This situation has implied the commencement of complex arbitral procedures which are currently being elucidated –some in preliminary phases and expected to take a representative term– and which have also brought additional conflicts between the parties as well as considerable overrun costs.

It will still take at least until October 31, 2018 –as committed by the parties in Variation No 108 to the Panama Contract– until the totality of the pending processes in DAB and arbitration instances are finally resolved¹⁶⁸, and therefore a conclusive assessment can be drawn of which ones have been the more controversial clauses of this international contract. To this day, after the legal analysis performed in this article, it seems that Clause 20 of the contract for the provision of the new set of locks has been the true Achilles heel of this mega-project for the expansion of the Panama Canal.

¹⁶⁷ Cost-effectiveness is an important issue in construction dispute resolution. WIEZEL, J.P., “Cost-effective construction arbitration”, *The construction lawyer*, 2011, pp. 15-45; ZUCKERMAN, S., “Comparing cost in construction arbitration and litigation”, *Dispute resolution journal*, May/July 2007, pp. 70-75, CHERN, C. “A fair fight”, *The architects' journal*, Jun 8, 2006, p. 44.

¹⁶⁸ Additionally, it is not completely excluded that that arbitral awards rendered in Miami might be challenged by an arbitration party, requesting either a state or federal court to set it aside for egregious procedural shortcomings in the arbitral process, <http://www.law.miami.edu/press/2016/july/source-alert-sandra-friedrich-explains-panama-canal-dispute>.