

**A COMPARATIVE STUDY OF THE PAPER AND ELECTRONIC BILL OF
LADING UNDER SOUTH AFRICAN LAW**

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Submitted in fulfilment of the requirements for the degree of Masters of Law (Maritime Law)

College of law and Management Studies

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DECLARATION OF ORIGINALITY

DECLARATION

I, Sanelisiwe Princess Ngcobo, declare that:

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Sanelisiwe Princess Ngcobo

Date: 16 October 2017

DEDICATION

This dissertation is dedicated to my late father, Mlungisi “Khehleza” Ngcobo. I miss him every day, but I am glad to know that spiritually he saw this process through to its completion.

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I would like to thank the almighty God in all things.

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ABSTRACT

A bill of lading is a document which is acknowledged as a cornerstone in any sea contract of carriage. It is the most significant document facilitating transportation in international sale contracts. The court recognise it as a document of dignity and integrity demanding judicial protection.

The paper bill of lading is used world-wide to document and effect international trade. Due to its characteristics of being utilized as a receipts, as evidence of contract and as document of title, traders have scrutinised the capabilities of an electronic bill of lading to replicate these functions.

The purpose of this study is to compare the extent to which an electronic bill of lading might be recognised as legally valid under South African law. In so doing, firstly, the functions of the paper and electronic bill of lading will be considered. Relevant legislative and case law issues will also considered where appropriate. Secondly, private registries which have been approved by International groups of P & I clubs governing will be discussed. Finally, the issue of whether an electronic bill is sufficiently competent to replicate the major functions of a paper bill, with specific reference to the document of title function will be discussed.

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CHAPTER ONE

INTRODUCTION

1.1 Brief background of the Bill of Lading

A bill of lading¹ (hereinafter referred to as the “bill”) is a document which is acknowledged as a cornerstone in any sea contract of carriage.² It is the most significant document facilitating transportation in international sale contracts³ and that the court recognised it as a document of dignity⁴ and integrity demanding judicial protection.⁵ There is no prescribed format for the bill of lading that can be described here. When discussing the bill of lading, one cannot isolate it from its historical context. However, it is beyond the scope of this paper to discuss the history of the bill of lading in this research.

Suffice it to state that one can describe the bill of lading as a document that is issued by the master or carrier to the shipper.⁶ The bill of lading deals primarily with the transportation or carriage of goods to the consignee.⁷ It is recognised by English law that a bill of lading performs⁸ three functions, which are receipt, evidence of terms of the contract, and a document of title.⁹ These functions will be dealt with in detail in Chapter two of this dissertation.

As we are living in an electronic age, technology has become advanced in the maritime field, and in particular in electronic commerce. Electronic commerce can be described as buying and selling of goods and services electronically by using the internet without being affected by the barriers of time or distance. A negative consequence of advanced technology is that the cargo may reach the end point quickly while the paper bill of lading may arrive late.¹⁰ However, in order to avoid unnecessary delays, traders may choose the modern technology way of dispatching an electronic bill.

¹ John Hare *Shipping Law and Admiralty Jurisdiction in South Africa* 2 ed (2010) (Cape Town: Juta & Co) 540

² Ibid.

³ Jan-Hendricks Senekal *The Electronic Bill of Lading: A Legal Perspective* (unpublished dissertation submitted in partial fulfilment of the requirements of the degree Magister Legum in Import and Export Law, North-West University, Potchefstroom Campus, 2010) 6.

⁴ Ibid

⁵ Hare op cit note 1 at 540

⁶ Marek Dubovec* ‘The Problems and Possibilities for using Electronic Bills of Lading as Collateral’ (2006) *Arizona Journal of International & Comparative Law* vol. 23 No. 2, 437-466 at 438

⁷ Oluwaseun Ajaja ‘Electronic Bills of lading: An Easier Way to Sea Carriage’ (30 October 2015) available at SSRN: <http://ssrn.com/abstract=2707960> accessed on 15 July 2016. See also Marek Dubovec, Ibid at 440

⁸ Hare op cit note 1 at 540

⁹ Ibid.

¹⁰ Senekal op cit note 3 at 6

The shipping industry is faced with a number of uncertainties in using the electronic bill. One of the crucial issues is that the “functional equivalence” of paper bills of lading is compromised when using electronic bills of lading.¹¹ This means that the replication of the functions of paper bills in electronic versions of the bill has become a controversy among traders. Therefore, to understand the efforts of replacing paper with an electronic version, the functions of the paper bill will be considered for the purposes of providing a historical background. In order to facilitate this investigation, a thorough review of the literature was conducted. It is clear that numerous scholars have attempted to take into consideration a negotiable electronic bill that will replicate the functions of the paper bill in its entirety.¹² However, some scholars argued that the inherent difficulty in embracing the negotiable electronic bill is premised on the fact that most jurisdictions require the bill of lading to be in writing as a means to complying with their requirements.¹³

Various attempts have been made to produce a negotiable electronic bill that will be acceptable to traders and other parties involved in both the contract of sale and the carriage of goods.¹⁴ Moreover, recent developments have raised an enquiry of whether a negotiable electronic bill is still needed¹⁵ and, if the answer is in the affirmative, how the bill can be engendered.

1.2 Purpose of the Research

The main problem concerning electronic bills of lading is that the laws that are applicable to sea transportation documents mainly require that such documents are tangible and written, whereas electronic bills of lading do not comply with these requirements. This study was therefore conducted to compare the extent to which an electronic bill of lading might be recognised as legally valid under South African law. In so doing, relevant legislative and case law issues were considered where appropriate.

1.3 Objective of the Research

¹¹ Ibid.

¹² Dubovec op cit note 6 at 439

¹³ Rev. Fr Stephen Chukwuma ‘Can the Functions of a paper bill of lading be replicated by an electronic bill of lading?’ *Public Policy and Administration Research* vol. 3, no 8, 2013 p 101

¹⁴ Dubovec op cit note 6 at 439

¹⁵ Ibid.

The discussion based on the investigation will first consider the functions of the paper and electronic bills of lading. Secondly, the private registries which have been approved by International groups of P & I clubs governing an electronic bill of lading is discussed. Finally, the discussion examines whether an electronic bill is sufficiently competent to replicate the major functions of a paper bill, with specific reference to the document of title function.

1.4 Terms of Reference

The following pivotal terms are consistently referred to.

Bearer bill: The “bearer” bill may be transferred by mere delivery.¹⁶ The goods may be delivered to the holder by the carrier without the obligation that the bearer be named as consignee or endorsee.¹⁷ The bill made out “to order” may be defined as a “bearer bill”.¹⁸ The said bill is a transferrable document of title because the bearer of the bill can dispose of or transfer the cargo and ownership by delivering the bill of lading to the buyer.¹⁹

Carrier: This is the “owners or operators of vessels providing transportation to shippers”²⁰, referred to in this dissertation as the party contracting to carry the goods.

Consignor: This is the “person named in the bill of lading as the one from whom the goods have been received for shipment”.²¹

Consignee: This is the “person to whom cargo is consigned as stated on the bill of lading”.²²

¹⁶ William Tetley ‘Who may claim or sue for cargo loss or damage?’ (part 1) (1986) 17 *Journal of Maritime Law and Commerce* vol. 2 at 159.

¹⁷ *Ibid.*

¹⁸ *Ibid.* See also *The Ythan* [2006] 1 Lloyd’s Rep 456.

¹⁹ Carol Proctor *The legal Role of the Bill of Lading, Sea Waybill and Multimodal Transport Document: Interlegal’s Pocket-book Series on International Trade Law* Volume 1 (1997) 63.

²⁰ Glossary of Maritime Terms – Ports and Ships available at <http://www.ports.co.za/maritime-terms.php> accessed on 12 January 2017.

²¹ *Ibid.*

²² *Ibid.*

Order bill: An “order bill” is a document according to which the cargo is delivered to the order of a specific person, who may be the shipper himself.²³ Goods delivered to a named consignee or to “his order” appearing on the face of the bill are capable of being sold and handed over to a third party by the named consignee who has authority to do so.²⁴ In an order bill, goods can be delivered “to order” or “are assigned” without mentioning the consignee. This illustrates that the shipper is allowed to hand over the bill to the transferee who will be entitled to custody of the goods delivered by the carrier. That bill is considered as carried out in terms of the shipper’s order.²⁵ By adding the term “order”, the bill obtains a lawful significant feature of becoming a transferrable document of title.²⁶

Shipper: This is an “individual or business [operator] who tenders goods or cargo for transportation; [it is] usually the cargo owner/s or his/their representatives [who should] not be confused with the party issuing the bill of lading or the ship's operator who is the carrier.”²⁷

Straight consigned bill: The straight bill does not constitute the terms which are proficient of conferring its own negotiability; that is, it can only be transferred to a named consignee.²⁸ Under a straight bill of lading the cargo is deliverable only to a named consignee.²⁹ This bill does not have the terms which present transferability by omission of the term “or order” after citing the consignee. Containing the term “not transferable” and the slightly incorrect “not negotiable” thus repudiates transferability.³⁰

A straight bill of lading is issued to a named consignee and is not transferable once it has been delivered to the “notify party”.³¹ In the case *Macwilliam Co Inc. v Mediterranean Shipping Co S.A. (The Rafaela S)*,³² the House of Lords held that the straight bill, although non-negotiable, was none the less a document of title in the hands of the named consignee because it entitles him to take delivery of the goods on production of the bill.

²³ Tetley op cit note 16 at 159.

²⁴ Proctor op cit note 19 at 64.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Glossary of Maritime Terms – Ports and Ships available at <http://www.ports.co.za/maritime-terms.php> accessed on 12 January 2017.

²⁸ Daryl Y H Lee ‘The straight bill of lading: past, present and future’ (2010) 18 *Journal of International maritime Law* at 39 available at http://www.academia.edu/12307850/The_Straight_Bill_of_lading_Past_Present_and_Future/ accessed on 21 October 2016.

²⁹ Proctor op cite note 19 at 64.

³⁰ Judah P Benjamin *Benjamin’s Sale of Goods*, 3 ed (The Common Law Library, Sweet & Maxwell, 1987) 892

³¹ Jason Chuah *Law of International Trade* 3ed (2005) 219.

³² *The Rafaela S* [2005] UK HL II.

1.5 Research Structure

This dissertation comprises seven chapters that are structured as follows:

Chapter one presents the introduction, briefly outlines the problem and the field of study, and introduces the topic.

Chapter two discusses the functions of the paper bill of lading which has received wide historical recognition.

Chapter three examines the functions of the paper bill of lading in comparison to the electronic bill of lading and further examines whether an electronic bill of lading can be considered as a negotiable document.

In Chapter four, the focus falls on a brief analysis of private registry systems approved by the International group of P & I Clubs in facilitating the use of an electronic bill of lading.

In Chapter five, relevant provisions of the UNCITRAL Model Law on Electronic Commerce,³³ the Electronic Communications and Transactions Act³⁴ and the Sea Transport Documents Act³⁵ are analysed to illuminate various attempts that give recognition to the replacement of the paper bill of lading with the electronic bill of lading.

Based on the examination and analyses that were considered in Chapter four and Chapter five, a conclusion is drawn and recommendations are offered in Chapter six.

³³ UNCITRAL Model Law on Electronic Commerce with Guide to Enactment with additional article 5 *bis* (1996) as adopted in 1998 available at http://www.incitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf accessed on 12 January 2017

³⁴ Act 25 of 2002

³⁵ Act 65 of 2002

CHAPTER TWO

PAPER BILL OF LADING

2.1 Introduction

Chapter one has indicated that this chapter will look at the function of a paper bill of lading. There is no prescribed format for a bill of lading, but generally one can describe a bill of lading as a document that records a contract of affreightment. This means that it sets out a contract of carriage between the carrier and shipper and records the description of the goods that the carrier will ship. The carrier will then issue the bill as a receipt that certain goods were loaded. The carrier's responsibility is to load and control the goods. The shipper, in turn, completes the particulars, size and quantity of the goods transported. The exporter or his representative will therefore confirm the details entered into the bill. When goods are loaded onto the vessel, the bill will be signed by the master or his agent who will pass it to the shipper. The bill of lading therefore has three functions: it serves as a receipt, provides evidence of the terms of the contract of carriage, and it is a document of title. These functions will be discussed in detail in this chapter.

The United Nations Commission for International Trade Law (UNCITRAL) states in its guide to the enactment of the Model Law on Electronic Commerce (1996)¹ that its approach is guided by the principle of 'functional equivalence':

“Which is based on an analysis of the purposes and functions of the traditional paper-based requirement with a view to determining how those purposes or functions could be fulfilled through electronic-commerce techniques.”²

Eiselen³ discusses the South African law on replicating the functions of writing, signature, authentication as an original and transmission of data messages, and these concepts are analysed in relation to the electronic bill of lading in chapter 5. However the starting point for such an analysis is to determine what functions a paper bill of lading performs.

¹ UNCITRAL Model Law on Electronic Commerce with Guide to Enactment with additional article 5 *bis* (1996) as adopted in 1998 available at http://www.incitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf accessed on 12 January 2017.

² *Ibid* at 20.

³ Seigfried Eiselen 'E-Commerce' in Dana Van der Merwe, Anneliese Roos W Nel et al *Information and Communication Technology Law* (Lexis Nexis 2016)

2.2 Functions of the Paper Bill of Lading

2.2.1 Receipt for goods shipped

The idea of a bill of lading originated purely as a receipt for the goods being shipped.⁴ It therefore serves as prima facie proof in the hands of the consignor⁵ that the stated cargo has arrived on board. However, this act alone is not conclusive proof. A ship-owner is not precluded from proving that a lesser quantity or no such goods were shipped. Where the shipment is short, the onus is in the owner to contradict the accuracy of that statement enclosed in the bill.⁶

The bill of lading is a receipt as to quantity, leading marks, and quality or condition⁷ of the goods on shipment. The Hague/Hague-Visby Rules provide in Article III Rule 3(a) – (c) “that the shipper can demand that the master or agent of the carrier issue a bill of lading to him showing, inter alia the leading marks, number of packages or pieces, quantity or weight and the apparent order and condition of the goods.”

The proviso to Article III Rule 3 states that the carrier is entitled to refuse to state or show particulars “which he has reasonable grounds for suspecting not accurately to represent the goods actually received, or which he has had no reasonable means of checking”.⁸

Article III Rule 4 of the Hague/Hague-Visby Rules provide that “statements as to quantity in a bill of lading shall be prima facie evidence of the receipt by the carrier of the goods as therein described in accordance with paragraphs 3 (a), (b) and (c)”.⁹ However, “proof to the contrary shall not be admissible when the bill of lading has been transferred to a third party acting in good faith.”¹⁰

⁴ Richard Aikens, Richard Lord & Michael Bools *Bills of Lading* 2 ed (informa: 2006) para 1.7

⁵ John F. Wilson *Carriage of Goods by Sea* 7 ed (2010) 120.

⁶ See for example *Grant v Norway* (1851) 10 CB 665, 138 ER 263 and *Plywoods Ltd v Thesen's Steamship Co. Ltd* 1955 (4) SA 491 (C) at 494 concerning situations where evidence showed that a smaller quantity than what was stated on the bill of lading had in fact been shipped.

⁷ See for example *The Peter der Grosse* (1875) 1 PD 414, *The Aeneas: Silver v Ocean Steamship* [1929] All ER 611 (CA), *British Imex Industries Ltd v Midland Bank Ltd* [1958] 1 QB 542. Also see Carol Proctor *The legal Role of the Bill of Lading, Sea Waybill and Multimodal Transport Document: Interlegal's Pocket-book Series on International Trade Law* Volume 1 (1997) 49-51, and the discussion in Francis op cit note 12 at 26.

⁸ Article III of the Hague Visby Rules which refers to the Hague Rules 1924, as amended by the ‘Protocol to amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading’ adopted at Brussel, February 23, 1968 and entered into force June 23, 1977. See also Wilson op cit note 6 at 127.

⁹ The Hague Rules as amended by the Brussel protocol (Hague Visby Rules) 1968

¹⁰ John Hare *Shipping Law and Admiralty Jurisdiction in South Africa* 2 ed (2010) (Cape Town: Juta & Co) 692.

2.2.2 Evidence relating to the terms of contract of carriage

During the sixteenth century, the bill of lading acted as a separate record of shipment.¹¹ The original “contract of carriage of goods by sea” was the charterparty. Before the sixteenth century, the bill did not record any terms of the contract and accordingly had no function as evidence in terms of the contract.¹² The second function of the bill is that it serves as evidence of the terms of contract of carriage. This function originated during the sixteenth century when the numbers of shippers who were party to a charterparty increased.¹³

Hare¹⁴ submits that it is common in law that the bill acts as evidence of contracts entered into between the carrier and the shipper.¹⁵ However, these terms only evidence the contract and do not form the contract itself.¹⁶ Although the document has sometimes been regarded as a contract, a bill is in fact not frequently signed and dispensed until after the cargo has been shipped and the contract of carriage has been made. It is therefore open to the parties to adduce further evidence of what has been orally agreed prior to the signing of the bill, or to show that matters that have been advertised and announced formed part of the contract.¹⁷ The concrete “contract of carriage”¹⁸ is completed prior to the bill of lading being issued. Should the cargo become missing or spoiled before the dispensation of the bill, then contractually the transporter may institute legal action for breach of contract in terms of the existing contract.¹⁹

2.2.3 Document of title

¹¹ Aikens, Bools & Lord op cit note 4 para 1.12.

¹² Dust-Lee Donnelly *An Examination of the Application of the Sea Transport Document Act 65 of 2000 to title to Sue under contracts of Carriage evidenced by Sea Waybills and Straight Bills of lading* (unpublished dissertation submitted in fulfilment of the requirements for the Degree of Master of Law, University of KwaZulu-Natal, 2013) 33.

¹³ Nick Francis *Transferring Rights of Suit under Bills of Lading: The Conflict of Laws’ Implications’* (2006) 20 *Australia & New Zealand Maritime Law Journal* 31.

¹⁴ Hare op cit note 10 at 697.

¹⁵ Ibid.

¹⁶ Wilson op cit note 5 at 129.

¹⁷ Clare Dillon & J P Van Niekerk *South African Maritime Law and Maritime Insurance: Selected Topics* (1983) 58.

¹⁸ Miran Marusic *A Gateway to electronic Transport Documentation in International Trade: The Rotterdam Rules in Perspective* (unpublished dissertation submitted in fulfilment of the requirements for the Degree of Master of Laws, University of Lund, 2012) 13.

¹⁹ Carol Proctor *The legal Role of the Bill of Lading, Sea Waybill and Multimodal Transport Document: Interlegal’s Pocket-book Series on International Trade Law* Volume 1 (1997) 53. See also Wilson J F op cit note 5 at 129.

The bill of lading serves as a document of title to the goods and is imperative in relation to the contract of carriage of goods by sea to this crucial function. Under common law, it is a document of title to goods. However, it does not mean that its transfer automatically bestows title to the goods.²⁰

It is important to note that despite being described as ‘negotiable’ the bill of lading in law is not the equivalent of a negotiable instrument, such as a bill of exchange or cheque. This means that the bill of lading cannot transfer a superior title to a consignee better than that of a transferor. The purchaser cannot claim possession of the goods merely by holding the bill, as there is a requirement that he or she should be in possession of a good title. In this way, therefore, the bill of lading is also unlike a bank note.²¹

Therefore to be considered as the owner of the goods, one must be the lawful holder of the bill in good faith under the contract of carriage of goods.²² This function of a bill has important consequences for the rules of delivery.²³ For example, in the case of *Standard Bank of South Africa Limited v Efroiken and Newman*,²⁴ the court held that a bill is a document which transfers symbolic delivery of the goods.²⁵ To acquire transfer of the actual goods from the ship, the original bill must be tendered. The first original bill tendered to the ship-owner discharges the ship-owner from all further responsibility. If the ship-owner delivers without producing the original bill, he will be liable for damages should the holder of the bill be someone else.²⁶

As mentioned above, the document of title function is the most significant function of a bill of lading as it allows the merchant to transfer constructive possession to the consignee and if issued “to order”, the consignee to transfer constructive possession of the goods to a third party and therefore allows the consignee to re sell the goods in transit.²⁷ The transferable “order” bill of lading operates as a means of passing and entitlement of delivery from the time the bill is

²⁰ Aikens, Bools & Lord op cit note 4 para 6.1.

²¹ Ibid. See also *Sunshine Maritime Inc. v Uvisco Ltd (The ‘Hector’)* [1998] 2 Lloyds Rep 287; *Borealis AB v Stargas Ltd (The ‘Berge Sister’)* [2001] Lloyds Rep 663.

²² Dillon & Van Niekerk op cit note 17 at 56.

²³ Portia Fikile Ndlovu *South African Law of Carriage of Goods by Sea: Common Obligations in Charterparties and Bills of lading under English and South African Law* (Durban: Law Book Press, 2008) at 43

²⁴ 1924 AD 171

²⁵ Supra at 190

²⁶ Supra.

²⁷ Raphael Brunner *Electronic Transport Documents and Shipping Practice Not Yet a Married Couple* (unpublished LLM thesis, Zurich, Switzerland, 2007) at 38

issued by the carrier to the time it is presented to the carrier in a call for delivery.²⁸ Unlike the “deed of title”, the bill of lading evidences the right to possession of the cargo, but not necessarily the right to ownership of it.²⁹ It is the means by which possession is transferred, and as such it serves as the surrogate of the goods.³⁰

In *Garavelli and Figli v Gollach and Gomperts (Pty) Ltd*³¹ the court held that “during the period of transit and voyage the bill of lading is, by the law of merchant, recognised as the symbol of goods described in it and the endorsement and delivery of the bill of lading operates as a symbolic delivery of the goods. Property in the goods passes by such endorsement whenever it is the intention of the parties that the property should pass, just as in similar circumstances the property would pass by actual delivery of the goods.”³²

2.2.3.1 Cargo delivery

The holder of the bill is permitted to claim cargo delivery from the ship-owner or the carrier at the terminus port by virtue of the document of title function of the bill of lading.³³ This is an exceptional characteristic of the bill which provides that goods should be delivered to the person who produces it.³⁴ This function is twofold.³⁵ On one hand, the holder of the bill is protected as the bill permits the carrier to transport the goods only to a person who produces one original of the bill as stipulated by the contract. On the other hand, such delivery discharges the carrier from additional obligations in terms of the contract.³⁶

However, carriers do experience some difficulties in delivering the goods. The carrier may usually recognise the shipper; however, in circumstances where the cargo is traded in transit, he may not know who will claim the cargo at the port of destination.³⁷ This problem may be triggered as a result of the bill being dispensed in sets of three to six originals and that delivery

²⁸ Hare op cit note 10 at 700

²⁹ Ibid at 698

³⁰ Ibid.

³¹ 1959 (1) SA 816 (W) at 821-1

³² Ibid.

³³ Boris Kozolchyk ‘Evolution and Present State of the Ocean Bill of Lading from a Banking Law Perspective’ (1992) 23 *Journal of Maritime Law and Commerce* at 170. See also Proctor op cit note 24 at 55.

³⁴ Wilson op cit note 5 at 154.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Judah P Benjamin *Benjamin’s Sale of Goods*, 3 ed (The Common Law Library, Sweet & Maxwell, 1987) at 892. See also Proctor op cit note 24 at 6.

of the goods is to a person who produces the original bill from such a set.³⁸ The carrier needs a single bill from the set and is under no obligation to enquire as to the location of the other bills.³⁹ Should a different party be in possession of another set of an original bill of lading, the ship owner will deliver the goods to the first party who will produce the bill, provided that the consignee confirms that he or she is not cognisant of any claims against the cargo or situations that may advance reasonable doubt that the party demanding the said cargo is not permitted to do so.⁴⁰

This principle was restated in *Numill Marketing v Sitra Wood Products PTE and another*.⁴¹ In this case, the court held that there is no magic in an original bill. The bill of lading is a symbolic delivery. The handing over to purchaser will, if the necessary mutual intention is also present, transfer ownership.⁴² The carrier is not required to have knowledge of the identity of the owner of the goods nor is he compelled to investigate it. His duty is merely to transport the goods to the lawful holder of the bill.

Aikens,⁴³ stated that possession of a bill of lading, in and of itself, gives the transferee a right to delivery of the goods from the carrier⁴⁴. Further, that there are three possible ways in which possession of a bill might, of itself, give rise to a right to delivery.⁴⁵ Firstly, if the possession of the bill gives the holder symbolic possession of the goods and if symbolic possession of the goods is sufficient standing for the purposes of an action in conversion, then possession of the bill might give the holder a right to demand delivery of the goods from the carrier and an action in conversion should delivery be refused.⁴⁶ Secondly, the bill might, as a matter of law, be deemed to give the holder a right to delivery.⁴⁷ Thirdly, possession of the bill might create a bailment relationship between the carrier and the holder⁴⁸

³⁸ Ibid.

³⁹ Proctor op cit note 19 at 57.

⁴⁰ Clive M Schmitthoff *Schmitthoff's Export Trade: The Law and Practice of International Trade*, Stevens 9 ed, 1990 at 544. See also Wilson op cit note 6 at 155, Proctor op cit note 24 at 57.

⁴¹ 1994 (3) SA 460 (C) 473.

⁴² Supra at 474H.

⁴³ Aikens, Bools & Lord op cit note 4 para 5.11

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid.

Brunner⁴⁹ states that possession of the bill represent possession of the goods. The privilege to construction possession of the goods might be epitomized in physical document.⁵⁰ The paper bill is merely a medium for the inclusion of constructive possession.⁵¹ An electronic bill could be utilized to consolidate and transfer constructive possession in the goods, provided that the parties concede to such utilisation and believe in it.⁵²

The consignee must obtain the bill before the goods arrive to enable him or her to produce it before delivery. Though, in practice, usually for a number of reasons it occurs that a vessel reaches the port of destination before the consignee has obtained the bill. In those circumstance, waiting for the bill of lading causes a number of problems to all parties involved and for this reason the use of an electronic bill of lading would be advantageous.

The electronic bill of lading will be forwarded to the receiver of the goods electronically and this will circumvent substantial cost, time and freight could be saved. It will be quicker, more flexible and easy to handle. In cases where there is only a shipper and consignee a seaway bill performs this function adequately and is easily transferable electronically.

The general principle is that the carrier is bound to deliver against the production of the bill and is liable to the holder of the bill if he does otherwise.⁵³ In this circumstances, it is reasonable that the carrier should be “immune” from liability to third parties where he delivers the goods to the presenter of a negotiable bill of lading.⁵⁴ In terms of non-negotiable bill, the carrier is contractually bound to deliver the goods to the consignee named in the non-negotiable bill.⁵⁵ However, a non-negotiable bill is not a bill of lading at all for the purposes of COGSA 1992.⁵⁶

Although electronic technology can now provide alternative release mechanisms, in the case of *Glencore International AG ('Glencore') v MSC Mediterranean Shipping Co SA & Another, (MSC)*,⁵⁷ the carrier was held liable when it released without production of the original paper

⁴⁹ Brunner op cit note 27 at 39

⁵⁰ Ibid.

⁵¹ Ibid at 39

⁵² Ibid.

⁵³ Aikens, Bools & Lord op cit note 4 para 5.42

⁵⁴ Ibid.

⁵⁵ Aikens, Bools & Lord op cit note 4 para 5.52

⁵⁶ s 1 (2) (a) of the Act excludes from the definition of a bill of lading, for the purposes of the Act a document “which is incapable of transfer either by endorsement, or, as a bearer bill, by delivery without indorsement...”

⁵⁷ [2015] EWCHC 1989 (Comm)

bill of lading. The cargo had been released to an unauthorized recipient apparently against presentation of the computer-generated import code, which was a release procedure in place at the discharge port. The Commercial Court found that the duty of a carrier to deliver goods to the person who is allowed only to take possession of them applies notwithstanding the operation of an electronic release system.

The *Glencore*⁵⁸ case illustrates that using a port's electronic release system does not relieve the carrier's obligation to surrender possession of goods to the person who is allowed only to take delivery of them. Where goods are wrongfully released to an unlawful person who has learned of the electronic release code, the carrier may be liable to the bill of lading holder regardless of the cause of the data breach.

2.2.3.2 Cargo controlled while in transit

When goods are in transit, it is not possible to sell or resell them to another buyer by way of physical delivery of goods. Therefore, it is important to wait until the goods arrive at the port of destination before selling or reselling them. This is usually a big hindrance for shippers who have to wait until the completion of the voyage. Sometimes, the ship may be subjected to a prolonged period of transit by sea.⁵⁹ To overcome this hindrance, the need has arisen for the sale process even while goods are in transit, without the immediate physical delivery of the goods.

The consignor has control of disposing of and changing his directives to the carrier.⁶⁰ For example, the consignor, as the holder of the bill, can instruct the carrier to transport a cargo to a different buyer by cancelling the named consignee and substituting it.⁶¹ Again, the shipper may transfer ownership by an agreement with the carrier to withdraw the original bill and to issue a copy suitably endorsed and to deliver it to the new purchaser.⁶² Therefore, in principle, the shipper should be able to give effective possession in any manner with the cooperation of the carrier who is released from his obligation to the shipper to act in terms of the original bill of lading.⁶³

⁵⁸ *Supra*.

⁵⁹ Sarah Dromgoole & Yvonne Baatz *The Bill of Lading as a Document of Title*, chap 22 of *Interest in Goods*, 2 ed (1998) In N. Palmer, & E. McKendrick eds., *Interests in Goods* 2 ed. Lloyd's of London Press 547.

⁶⁰ Proctor op cit note 19 at 60.

⁶¹ *Ibid*. See also *Ishag v Allied Bank International Fuchs & Kotalmibora* [1981] 1 Lloyd's Rep 92.

⁶² *Supra* note 41 above at 474H-J

⁶³ *Supra*.

Benjamin states that the common law position is that “the shipper may vary his delivery instructions until the moment that the bill is negotiated.”⁶⁴

2.2.3.3 Cargo transferred while in transit

As discussed above, the purpose of the bill is to allow the holder, who has permission to dispose of the cargo despite the fact that it is still in transit.⁶⁵ Wilson⁶⁶ states that “endorsement and delivery of the bill of lading will normally transfer the ownership of the goods covered, provided that the bill of lading is transferrable on its face, the goods are in transit at the time of the endorsement, the bill is initiated by the person with good title, and the endorsement is accompanied by an intention to transfer the ownership of the goods covered by it.”⁶⁷

As mentioned above, possession of the bill represent possession of the goods,⁶⁸ transferring the bill more often has an indistinguishable legitimate outcome as delivery of the goods themselves.⁶⁹ When the bill is transferred, the transferee attains right to possession of the goods. Once the goods are delivered from transferor to the transferee, delivery of the bill of lading which is duly endorsed serves as physical delivery of goods.⁷⁰ A bill of lading may be transferred from holder to another and the propriety rights incorporated in the bill or any rights which the transferor and the transferee intent to pass also passes from one holder to another.⁷¹

While transferring a bill of lading function as a symbolic transfer of possession of the goods, however, it does not automatically transfer the property in the goods.⁷² The transfer of the bill of lading will pass only those rights in the goods that the parties intend to pass.⁷³ In *Lickbarrow v Mason*⁷⁴ the court was found willing to accept that “the transfer of the bill of lading transfers the property in the goods if the transfer was made with that intention.”⁷⁵

⁶⁴ Benjamin op cit note 37 at 893

⁶⁵ Schmitthoff op cit note 40 at 561.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Brunner op cit note 27 at 38

⁶⁹ Proctor op cit note 19 at 62

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Proctor op cite note 19 at 62

⁷³ Wilson op cite not 5 at 145

⁷⁴ (1787) 2 TR 63

⁷⁵ Ibid.

If at the end point, the shipper's agent is the only endorsee or consignee of the bill of lading, transferring the bill of lading will intend to pass the right to claim delivery of the goods only and not the property in them.⁷⁶ In the event where the banker (who is an endorsee or consignee) put security for goods represented in the bill, in the form of money, the intention to transfer the goods is most likely to create a pledge in favour of the banker and not to transfer property in the goods.⁷⁷ If the bill is transferred, the general property will not be affected and the transferee will only have a "special property" or security interest in the goods.⁷⁸

2.3 Conclusion

This chapter presented a discussion on the important functions of the paper bill of lading and considered the role played by the bill of lading in international trade. There is clearly a need to establish whether the paper bill of lading can be replicated by an electronic bill of lading, particularly in terms of its function as a document of title. The attraction of replacing paper documents with their electronic equivalents has been recognised for a number of years. In the following chapter the focus will therefore be on the effects of the electronic age and its impact on the bill of lading.

⁷⁶ Schmitthoff op cit note 40 at 591

⁷⁷ Ibid.

⁷⁸ Benjamin op cit note 37 at 910

CHAPTER THREE

THE ELECTRONIC BILL OF LADING

3.1 Introduction

The previous chapter discussed the paper bill of lading and its functions. It was established that the role played by these functions is vital in international contracts of carriage. The paper bill is used world-wide to “document and effect international trade”¹ Due to its characteristics of being utilized as a receipt, as evidence of contract and as document of title, traders have scrutinised the capabilities of an electronic bill of lading to replicate these functions. The issue whether an electronic bill is capable of replicating the useful functions of this legal paper document remains controversial; in particular, its function as a document of title is contested in many circles.

As discussed in Chapter two, carriers must deliver the cargo being carried upon being presented with an original bill of lading.² However, new challenges have arisen in light of the swiftness of the sea transport and that the goods may be disposed of on several occasions while in transit.³ Consequently, the consignee would not receive the paper bill timeously and the carrier would be compelled to take receipt of a letter of indemnity which does not remove his (the carrier’s) liability under the bill; instead, it creates more administrative work.⁴ An electronic bill can be sent all over the world immediately, which reduces trade administration to a large extent and produces cost savings.⁵ If amendments are required these can be incorporated without issuing another paper document and the bill of lading can be sent immediately to the new receiver without posting it.⁶ Moreover, the storage of records and capturing of electronic documents are easy, and such records require less space compared to hard copies. Thus the necessity for using an electronic system cannot be ignored. Thus, this chapter will examine functions an electronic bill of lading

¹ Indira Carr *International Trade Law* 4 ed (2010) at 109

² See the discussion in the *The Rafaela S* [2003] EWCA Civ 556; [2004] QB 702; [2003] 2 Lloyd’s Rep 113 [27]. While presentation is always required in the case of a negotiable bill of lading, there have been conflicting decisions on whether presentation is required in the case of a non-negotiable bill of lading. It is not required in the case of a sea waybill.

³ John F. Wilson *Carriage of Goods by Sea* 7 ed (2010) at 120

⁴ Ibid.

⁵ Carsteen Schaal & Lex e-Scripta *The 21st Birthday of the Electronic Bill of Lading: With Age Comes Maturity* (unpublished dissertation, University of Leicester, 2003) at 15 available at <http://www.inter-lawyer.com/lex-e-scripta/articles/electronic-bills-os-lading-1.htm> accessed on 9 October 2016.

⁶ Ibid.

3.2 Functions of an Electronic Bill of Lading

Aikens and Bools define an electronic bill of lading as “a series of electronic messages, in a form similar to e-mails, containing information or instructions relevant to the goods concerned and either [refers to] carriage or delivery of the same type as in the paper bill”.⁷ Using a paper bill and not an electronic version means that the completed bill of lading is signed by or on behalf of the carrier, and is issued in a set of three originals to the shipper, who redirects them by post to the consignee.⁸ The use of an electronic bill of lading, however, does not merely mean that a bill is computerized and that it contains similar information to a paper bill. An electronic bill means that computerized information will be conveyed electronically to the carrier, shipper and consignee using electronic messages. Clearly, an electronic bill cannot be disseminated in multiple originals nor can it be endorsed in the same way as a paper bill.⁹ Therefore, to be equivalent to a paper bill, an electronic bill needs to replicate the existing functions of the paper bill of lading and needs to adapt to the requirements of modern-time electronic conventions and practices. How these functions can be replicated by an electronic bill of lading is an issue that causes uncertainties.

3.2.1 Receipt for shipment

As discussed in Chapter two, serving as a receipt is the first function of the paper bill. To replicate this function electronically, the carrier must produce to the shipper a receipt in an electronic format. This will enable the shipper to receive acknowledgment that the cargo is in good condition and that the quantity and quality of the goods when they were loaded on board the vessel are as stipulated on the bill of lading.

3.2.2 Evidence of the terms of contract of carriage

Again, as discussed in Chapter two, a contract of carriage is entered into between the carrier and the shipper. This contract is concluded before the bill of lading is dispensed. To replicate

⁷ Richard Aikens, Richard Lord & Michael Bools *Bills of Lading* 2 ed (informa: 2006) at para 2.118.

⁸ Jafari Farhang *The Concerns of the Shipping Industry Regarding the Application of Electronic Bills of Lading in Practice amid Technological Change* (unpublished dissertation submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy, Division of Law and Philosophy, University of Stirling, October 2015) at 18 available at <http://dispace.stir.ac.uk/bitstream/1893/.../Farhang%20Jafari%20PhD%20Thesis.pdf> accessed on 25 September 2016.

⁹ Ibid.

this function, an electronic bill that is issued by the carrier should contain clauses evidencing the terms of the agreement entered into by the parties.

3.2.3 Document of title

It is not problematic to replicate the receipt and evidence of the terms of the contract functions of the paper bill, because the cargo description and terms of the contract may simply be conveyed by means of electronic messages, as long as proper security and authenticity processes are applied.¹⁰

However, the document of title function poses difficulties in the creation of an electronic bill.¹¹ This function governs the transmission of certain legal rights, for example the right of constructive possession and the right of delivery of the cargo.¹² These rights are founded on physical custody of an original document. The concept of transferability can be applied to paper documents because hard copies are capable of actually being transferred from one party to another. Generating an electronic bill creates obstacles, which in turn results in uncertainty about it being a document of title, because it is impossible to have physical possession of such a document at crucial points.¹³ While any person who receives the bill of lading electronically is able to print a copy, production of an *original* electronic bill of lading on delivery and the endorsement of a bill of lading to a new holder is impossible.¹⁴

Therefore, to overcome the aforesaid obstacles, it is imperative to develop a technology to confer “possession of a document” so that the “negotiability” of the bill of lading as a “document of title” can be replicated.

3.3 The Bill of Lading Issued under Charterparty

¹⁰ Farhang op cit note 8 at 19

¹¹ Ibid.

¹² Wilson op cit note 3 at 124. See Also *the “Rafaela S”*. Although the *Rafaela S* did not concern an electronic bill of lading, the Court of Appeal and House of Lords grappled with the concept of negotiability and how to determine when a bill of lading will be regarded as a document of title. It is therefore important to pay regard to the principles discussed.

¹³ Raphael Brunner *Electronic Transport Documents and Shipping Practice Not Yet a Married Couple* (unpublished LLM thesis, Zurich, Switzerland, 2007) at 40

¹⁴ Ibid.

The bill of lading issued for cargo shipped on chartered vessels is usually a different contract of carriage to that contained in the charterparty.¹⁵ Leaving aside bareboat charters, and hybrid forms such as slot charters, there are two forms of charterparty: time and voyage charters. In both contexts there is a need for electronic bills of lading, but there are different considerations that apply.

In the typical time charter scenario the liner shipping company issues bills of lading to cargo shippers, usually by presenting bills of lading to the Master for signature. Clause 32 of the NYPE 2015¹⁶ now incorporates the BIMCO Electronic Bills of Lading Clause¹⁷, which reads:

- “(a) At the Charterers’ option, bills of lading, waybills and delivery orders referred to in this Charter Party shall be issued, signed and transmitted in electronic form with the same effect as their paper equivalent.*

- (b) For the purpose of Sub-clause (a) the Owners shall subscribe to and use Electronic (Paperless) Trading Systems as directed by the Charterers, provided such systems are approved by the International Group of P&I Clubs. Any fees incurred in subscribing to or for using such systems shall be for the Charterers’ account.*

- (c) The Charterers agree to hold the Owners harmless in respect of any additional liability arising from the use of the systems referred to in Sub-clause (b), to the extent that such liability does not arise from Owners’ negligence.”*

Time charterers therefore have the option to use bills of lading, waybills and delivery orders in an electronic format.¹⁸ Under the charterparty, the use of an electronic format will be equivalent to the use of paper. In this context, the phrase “issued, signed and transmitted in electronic

¹⁵Ibid.

¹⁶ NYPE 2015 ‘Time charterparty explanatory notes’ at 19 available at <http://www.asba.org/wpcontent/.../12/NYPE-2015-Explanatory-Notes-Pages-1-25-a.pdf> accessed on 7 February 2017.

¹⁷ BIMCO ‘Electronic bills of lading clause and Explanatory Note’. Available at <https://www.bimco.org/contracts-and-clauses/bimco-clauses/electronic-bills-of-lading-clause> accessed on 13 July 2017.

¹⁸ Ibid.

form” defines the development of paperless trading.¹⁹ The last part that reads: “...with the same effect as their paper equivalent...” creates an equivalent position for electronic and paper documents.²⁰

When there is no need for a negotiable bill of lading, a non-negotiable sea waybill can be issued electronically. A seaway bill is not a document of title, and the named consignee is the only person entitled to receipt of the goods, upon proof of identity as opposed to production of an original bill of lading.

Where a negotiable bill of lading is required this presents difficulties. As discussed in chapter 4 presently the negotiation of electronic bills of lading can only take place through private registry systems, and all parties to the transaction must be members of the system. Clause 32(b) specifically provides that the system must be one approved by the International Group of P&I Clubs. Presently, as discussed in chapter 4, three systems, Bolero International Limited, essDOCS Limited and E-title Authority Pte Ltd, are approved.

In voyage charter scenario on the other hand, it is common practice for a bill of lading to be issued to the voyage charterer, who is the shipper.²¹ This means that there are three parties whose rights have been considered: the charterer, the ship-owner, and the subsequent holder(s) of the bill.

In the hands of the charterer, the bill of lading satisfies only two functions: first it acts as a receipt of the goods shipped, and it also serves as a document of title. The charter party contains the contract of carriage.²² The nature of the bill of lading is therefore dependent on the type of charter agreed upon by the contracting parties.²³ Once the bill of lading has been negotiated,

¹⁹ NYPE 2015 ‘Time charterparty explanatory notes’ at 19 available at <http://www.asba.org/wpcontent/.../12/NYPE-2015-Explanatory-Notes-Pages-1-25-a.pdf> accessed on 7 February 2017.

²⁰ Ibid.

²¹ Wilson op cit note 3 at 243, discussing art. 1(b) and V of The Hague Rules as amended by the Brussel Protocol (The Hague Visby Rules).

²² Ibid. See also Carol Proctor *The legal Role of the Bill of Lading, Sea Waybill and Multimodal Transport Document: Interlegal’s Pocket-book Series on International Trade Law* Volume 1 (1997) at 61.

²³ Portia Fikile Ndlovu *South African Law of Carriage of Goods by Sea: Common Obligations in Charterparties and Bills of lading under English and South African Law* (Durban: Law Book Press, 2008) at 53. See also Anne Waring, *Charterparties: A Comparative Study of the South African, English and American Law* (1983) 275.

then it evidences the terms of a contract of carriage between the holder of the bill and the carrier.²⁴

Voyage charter parties can now also include the BIMCO electronic bills of lading clause. In this context again it is to be noted that to achieve negotiability of the electronic bill of lading the parties must agree on a private registry system approved by the International Group of P&I Clubs. Skuld note that particularly in the dry cargo chartering sector there has been increased demand for the use of electronic negotiable bills of lading.²⁵

3.4 Bill of Lading and International Trade

In the international trade framework, the bill of lading plays a central role not only in the carriage contract but in the preceding contract of sale.²⁶ The Incoterm chosen by the parties to the contract of sale will determine whether it is the buyer or the seller of the goods who will be required to enter into a contract with the ship-owner for shipping,²⁷ and when risk in the goods will transfer.²⁸ However Incoterms do not govern when ownership of the cargo transfers. As explained above the transfer of a negotiable bill of lading transfers ownership (subject to the intentions of the parties). Incoterms also do not specify whether an electronic bill of lading is required. The 1990 Incoterms, and the 2000, and 2010 updates, provide that parties can agree to use electronic communications in replacement of paper documents. This means that parties must specifically agree to the use of electronic bills of lading.²⁹

3.5 The Bill of Lading as Security for Payment

The bill of lading, when it fulfils a document of title function, can be used as a means of securing payment for the goods,³⁰ often being used as part of a letter of credit transaction where payment is released upon presentation of documents complying with the letter of credit terms.

²⁴ Wilson op cit note 3 at 243.

²⁵ Simone Ingeberg 'Electronic Bills of lading' P & I bulletin published on 27 October 2015 available at <http://www.skuld.com/topics/legal/pi/electronic-bills-of-lading/> accessed on 23 February 2017.

²⁶ Ndlovu op cit note 23 at 53.

²⁷ Dillon & Van Niekerk *South African Maritime Law and Maritime Insurance: Selected Topics* (1983) at 58.

²⁸ Ibid at 69.

²⁹ Ramberg J 'ICC Guide to Incoterms 2010' at 38 available at <http://store.iccwbo.org/content/uploaded/pdf/ICC-Guide-To-Incoterm%20-%202010.pdf>, accessed on 13 July 2017.

³⁰ Ndlovu op cit note 23 at 63; Paul Todd *Modern Bills of Lading* 2 ed (Blackwell law, 1992) 92.

In *Lendlease Finance (Pty) Ltd v Corporacion De Mercadeo Agricola and Others*³¹ Corbett CJ outlined the pivotal role played by a negotiable bill of lading taken by the shipper, to his order, and only transferred against concurrent payment for the goods. Some banks require the bill to be issued to them, as consignee, or to their order, to acquire greater control over the goods as security for the finance being advanced.³² It is particularly important in letter of credit transactions to ascertain whether an electronic bill of lading complies with the letter of credit terms. E-UCP 600 is a supplement to the Uniform Customs and Practice (UCP) 600 and makes provision for the parties to choose whether electronic records, alone or together with paper documents, can be presented.³³

3.6 Title to Sue

The consignee has legal recourse to sue the carrier for delivery if loss or damage occurred to the cargo while in transit.³⁴ In civil law countries, this is not problematic because such countries are familiar with *stipulato alteri*; that is, the contract which favours a third party. However in England, until the enactment of the Carriage of Goods by Sea Act (UK COGSA) of 1992, “there was no common agreement under English law on the legal mechanics of how a party to a bill of lading other than a shipper was able to claim delivery of the goods from the carrier subject to the terms and conditions of the bill of lading.”³⁵ The Act resolved the issue by providing that the lawful holder of the bill of lading will have all the rights that the shipper has against the carrier. In South Africa the Sea Transport Documents Act, 65 of 2000, makes provision for the transfer of rights and liabilities under negotiable bills of lading. This is discussed in chapter 5, with specific emphasis on the fact that there is currently no regulation governing how the Act is to be apply to electronic bills of lading.

3.7 International Carriage Regimes

³¹ 1976 (4) SA 464 (A) at 492 C-D

³² *Laemthong International Lines Co Ltd v Artis (The Laemthong Glory)* (No 2) [2005] EWCA Civ 519; Lloyds Rep. 688 at 6

³³ E-UCP version 1.01, supplement to UCP 600, article 1(a) available at <https://www.law.kuleuven.be/personal/mstorme/eUCPV1.pdf>, accessed on 13 July 2017.

³⁴ Brunner op cit note 13 at 41.

³⁵ Paul Mallon ‘The Use of Contractual Structures to create International Legal Framework for Electronic Commerce’ 6 September 2002 available at <http://www.imf.org/external/np/leg/sem/2002/cdmfl/eng/mallon.pdf> accessed on 28 January 2017 at 17.

An important aspect of carriage of goods law is the international carriage regimes which apply to paper bills of lading and deal with the carrier's minimum responsibilities to cargo owners. In South Africa the Hague Visby Rules,³⁶ as enacted in the Schedule to the South African Carriage of Goods by Sea Act (COGSA),³⁷ are mandatorily applied to all shipments from a port in the Republic,³⁸ or "where the contract of carriage contained in or evidenced by any bill of lading expressly provides that the Rules will govern the contract."³⁹ The Act also provides South African consignees with further protection by stipulating that actions relating to carriage of goods may be brought in a South African court even when the contract of carriage contains an ouster clause, exclusive jurisdiction clause or compulsory arbitration clause.⁴⁰

It is considered below whether The Hague and Hague-Visby Rules apply to contracts of carriage evidenced by an electronic bill of lading, and the provisions of the Hamburg and Rotterdam Rules are compared.

3.7.1 Hague and Hague-Visby Rules

In 1924, the international maritime community ratified a convention known as the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading (known as the Hague Rules).⁴¹ The Convention was signed on 25 August 1924 in Brussel with the aim of prescribing a minimum regulatory framework for international shipping contracts of carriage by sea. ⁴² The rules were updated in the Brussels Protocol, 1968 (known as the Hague-Visby Rules).

The Hague and Hague-Visby Rules only apply to a contract of carriage covered by a "bill of lading or any similar document of title".⁴³ The meaning of this phrase was arguably never

³⁶ Hague Visby Rules as amended by the Protocol to amend the international Convention for the Unification of Certain Rules of Law Relating to Bills of Lading.

³⁷ Act 1 of 1986.

³⁸ Act 1 of 1986 section 1(1)(a).

³⁹ Article 1(1)(b).

⁴⁰ Section 3(1).

⁴¹ Ibid.

⁴² Jafari Farhang op cit note 8 at 95.

⁴³ Article 1 (b) of the Hague Rules

clear⁴⁴ and has become quite controversial.⁴⁵ In *Kum and Another v Wah Tat Bank Ltd*,⁴⁶ the court held that the Hague Visby Rules applied to “any paper treated as the document of title by virtue of customs or trade usage”⁴⁷. At that time electronic documents were unthinkable. Today these rules are outdated and not in keeping with current practices in the modern shipping industry.⁴⁸

3.7.2 Hamburg Rules

In 1978, the Hamburg Rules⁴⁹ were introduced to provide a framework that was to be both modern and less biased in favour of ship-operators, but although the Convention has been in force since 1992⁵⁰, none of the major shipping traders have approved the Rules.⁵¹

An important issue is that the Hamburg Rules do not expressly address the issue of electronic shipping documents.⁵²

A “bill of lading” is defined as “a document which evidences a contract of carriage by sea...” and Article 2(1) (d) of the Rules provides that the Rules will apply inter alia if “the bill of lading or other document evidencing the contract of carriage by sea is issued in a Contracting State”. Neither the definition nor article 2 makes specific provision for the issue of electronic documents.

Article 14(3) provides that “the signature on the bill of lading may be in handwriting, printed in facsimile, perforated, stamped, in symbols, or made by any other mechanical or electronic means if not inconsistent with the law of the country where the bill of lading is issued.”⁵³ This may mean that the Rules can accommodate an electronic bill of lading, provided that the law of the country where the bill of lading is issued recognises an electronic signature.⁵⁴

⁴⁴ Rafaela S [2003] 2 Lloyd’s Report at 121

⁴⁵ Farhang op cit note 8 at 95. Rafaela S discuss the *Travaux Preparatoires* to the Convention and suggested that it has always been a term open to different interpretations.

⁴⁶ [1971] 1 Lloyd’s Rep 439 at 466.

⁴⁷ Farhang op cit note 8 at 96

⁴⁸ *Ibid* at 99

⁴⁹ United Nations Convention on the Carriage of Goods by Sea 1978 (*The Hamburg Rules*) available at http://www.uncitral.org/uncitral/en/uncitral_texts/transport_goods/Hamburg_rules.html? Accessed on 8 October 2016.

⁵⁰ *Ibid*.

⁵¹ *Ibid*.

⁵² Carr op cit note 1 at 290.

⁵³ The Hamburg Rules op cit note 52 art. 14.

⁵⁴ Carr op cit note 1 at 291.

3.7.3 Rotterdam Rules

The UN General Assembly adopted the Convention of Contracts for the International Carriage of Goods Wholly or Partly by Sea on 11 December 2008. However, as at July 2017 these rules have only been ratified by three states, so they are not yet in force.⁵⁵ As time passes it appears increasingly unlikely they the Rules will be successful. In 2014 The Baltic and International Maritime Council (BIMCO) published its position in support of the Rules which it described as “the global cargo liability regime that best reflects the practices of modern trade.”⁵⁶

Electronic transport records are defined in Article 1(18) as:

*“Information in one or more messages issued by electronic communication under a contract of carriage by a carrier that evidenced the carrier’s or a performing party’s receipt of goods under a contract of carriage and evidences, or contains a contract of carriage.”*⁵⁷

Article 8 of the Rotterdam Rules states that the use of an electronic document is governed by the agreement between the carrier and the shipper.⁵⁸ This provision gives functional equivalence to an electronic bill of lading because, if the carrier and the shipper agree, then a paper bill of lading may be substituted by an electronic bill of lading.

Article 9 governs the procedures to be followed when using negotiable electronic transport records but adheres to the principle of technological neutrality.⁵⁹ Thus no specific technology is required by the rules, but the procedures followed must provide an assurance of the “integrity” of the electronic transport record,⁶⁰ the means of demonstrating who is the “holder”

⁵⁵ Status available at http://www.uncitral.org/uncitral/en/uncitral_texts/transport_goods/rotterdam_status.html, accessed on 14 July 2017.

⁵⁶ BIMCO Viewpoint on the Rotterdam Rules available at <http://www.rotterdamrules.com/content/viewpoint-bimco-rotterdam-rules-uncitral>, accessed on 14 July 2017.

⁵⁷ The Rotterdam Rules op cit note 49.

⁵⁸ Art. 8 (a).

⁵⁹ Lee Swales ‘The Regulation of electronic Signature: Time for review and amendment’ (2015) 132 *South African Law Journal* at 285 stated that the principle of neutrality is codified in S 2(f) of the Electronic Transaction Act 65 of 2002

⁶⁰ Art. 9(1)(b)

of the electronic transport record,⁶¹ and a method to confirm that the electronic transport record has been transferred,⁶² or has ceased to have any effect of validity, .⁶³

Even the Rotterdam Rules contains provisions that attempt to deal with technological developments, the security of the information is still a matter of concern. As a result, the Rules has been criticised on how it can prevent hackers obtaining important information about the goods or carriage in the electronic network.⁶⁴ It is true that the use of electronic documents provides a number of advantages but in the other hand, if someone manages to get an electronic copy of the bill of lading and delivery of goods, it would have a devastating effect on all the interested party⁶⁵

3.8 Conclusion

In summary, it is clear that technological advancement in the modern shipping environment has created a need for electronic bills of lading. The Rotterdam Rules provide for electronic transport records but even if the Rules come into force there will still be problems in having electronic bills of lading replicate the functions of the traditional paper bill because technology still has to be developed to provide an accepted method to effect transfer of the electronic bill of lading.

⁶¹ Art. 9(1)(c)

⁶² Art. 9(1)(d), which must be read with Article 57(2) which expressly provides that the holder of a negotiable electronic transport record may “transfer the rights incorporated in the document”.

⁶³ Such as when it has been replaced pursuant to Article 10(2) or has been surrendered to the carrier in return for delivery of the goods pursuant to Article 47.

⁶⁴ Saif Al Mobideen *Bills of Lading in the Modern Shipping Environment: Problems and Solutions* May 2012 at 2 available at <http://www.tamimi.com/en/magazine/law-update/section-6/may-4/bills-of-lading-in-the-modern-shipping-environment-problems-and-solutions.html> accessed on 10 October 2016

⁶⁵ Ibid.

CHAPTER FOUR

PRIVATE REGISTRY SYSTEMS

4.1 Introduction

In the previous chapter, it was shown that obstacles are experienced in terms of the laws governing the bill of lading, particularly in replicating the document of title function of a paper bill in an electronic version. It has been established that the bill of lading plays an important part in international trade transactions and that it is considered as the cornerstone of the international maritime trade. Its functions of serving as a receipt for goods shipped and evidencing the terms of a contract have not been found to be problematic. However, the document of title function has become controversial and has rendered the bill of lading a unique document in international marine trade.

Electronic bills of lading pose difficulties where transferability is an essential requirement. As mentioned in chapter two, the transferability of a paper bill of lading occurs normally through endorsement along with the physical transfer of the document.¹ In the case of electronic bills of lading, the issue of transferability that arose as a result of technological developments can be addressed in the form of electronic signatures for authentication. The Bolero Rules demonstrate how electronic bills of lading can be transferred using a combination of digital signatures and trusted third parties.²

Several attempts have been made by legal practitioners to form systems that will be useful in moving from paper to electronic bills of lading. This chapter will examine these attempts. The chapter will first give a definition of Electronic Data Interchange (EDI) and consider briefly the reasons for failure of two early attempts, being SeaDocs and the Comité Maritime International Rules for Electronic Bills of Lading (CMI Rules).

The chapter will then consider in more detail the provisions made in the rulebook of Bolero International Limited (Rulebook/Operating Procedures 1999) for the electronic bill of lading to perform the three functions of the paper bill of lading. A shorter description will be given of two similar, current systems, essDOCS Limited and -title.

¹ Indira Carr *International Trade Law* 4 ed (2010) 115.

² *Ibid.*

These three systems are discussed because they are the only systems approved by the International Group of P&I Clubs. Prior to 2010 if P&I Club members used electronic bills of lading they were not covered, unless they could prove that the liability would have arisen even if they had issued a paper bill of lading. However, as noted in chapter 3 from 2010 the International Group of P&I Clubs has approved two systems for the use of electronic bills of lading, being Bolero International Limited (Rulebook/Operating Procedures 1999) and essDOCS Exchange Limited (version DSUA 2013.1). By a circular in October 2015 a third system, e-title, was approved.³ Members would therefore be covered for their liabilities when using an approved electronic bill of lading system.⁴ The rules of the three approved systems have been reviewed by the members of the International Group of P&I Clubs, and have been found to make adequate provision for the replication of the three functions of a traditional paper bill of lading.⁵

4.2 Electronic Data Interchange (EDI)

EDI has been in use since the 1980s and still continues to be used.⁶ Rapid advances in computer digital technology have opened up the reality of trading through electronic document interchange.⁷ Since its introduction there have been continuous efforts to develop EDI systems to a point where an electronic bill of lading can fulfil the same three legal functions as a paper bill, more particularly the negotiability that is essential to the document of title function.⁸

³ West of England P&I Circular No. 11 2015/2016 - Electronic (Paperless) Trading Systems - Bolero International Ltd, essDOCS Exchange Ltd and e-title. Available at http://www.westpandi.com/globalassets/pdf/20151026-149162-no.-11-2015_2016---electronic-paperless-trading-systems---bolero-international.pdf. Accessed on 24 July 2017.

⁴ The liabilities covered are those which fall under standard P&I cover terms. The challenge for parties engaged in paperless trade is that cyber-risks, such as hacking and viruses, are not covered by traditional P&I Club cover and must be insured separately. Parties also incur additional obligations in terms of the user agreement which binds them when using an electronic bill of lading system, such as obligations in relation to confidentiality, data protection and maintaining IT standards. These obligations are also not covered by P&I Club cover. See: West of England circular 'Paperless Trading –Electronic Bills of Lading'. Available at <http://www.westpandi.com/globalassets/about-us/claims/claims-guides/claims---electronic-bills-of-lading.pdf>. Accessed on 4 August 2017.

⁵ West of England claims guide. Available at <http://www.westpandi.com/globalassets/about-us/claims/claims-guides/claims---electronic-bills-of-lading.pdf>. Accessed on 24 July 2017.

⁶ Carr op cit note 1 at 103.

⁷ Stephen D Girvin 'Carriage of goods by Sea: The Sea Transport Documents Act 2000 in Historical and comparative perspective' (2002) 317 *SALJ* at 324.

⁸ Florian Gehrke *New Attempts at Electronic Documentation in Transport. Bolero – The End of the Experiment, the Beginning of the Future?* (Research dissertation presented for the approval of Senate in part fulfilment of the requirements for the degree of Master of Laws/Postgraduate Diploma in Law in approved courses and a minor dissertation, University of Cape Town, 2001 at 8.

The introductory note to the Uniform Rules of conduct for interchange of trade data by teletransmission (UNCID) commences with the observation that:

*“Because of its physical characteristics, the traditional paper document is accepted as evidence. It is durable, and changes or additions will normally be clearly visible. The electronic document is quite different. It takes the form of a magnetic medium whose data content can be changed at any time. Changes or additions will not appear as such.”*⁹

However, the introduction notes that the work of the last decade and a half has focussed on making paperless trade not only faster and cheaper, but also more secure than traditional paper-based trade.

Within this context electronic data interchange (EDI) in the UNCID means “the direct transfer of structured business data between computers by electronic means, i.e. the paperless transfer of business documentation.”¹⁰ The rules apply to the Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT) which is the EDI standard approved within the United Nations and dating back to 1987.¹¹ This is one of the standards for EDI that parties implementing EDI can agree to use.¹²

Article 2 of the Comité Maritime International Rules for Electronic Bills of Lading, 1990, (CMI Rules)¹³ defined EDI as “the interchange of trade data effected by teletransmission”.¹⁴ The CMI Rules provided in rule 3(1) that UNCID would govern the conduct between the parties when it was not in conflict with the CMI Rules.

⁹ Uniform Rules of conduct for interchange of trade data by teletransmission (UNCID) part 2, chapter 1 (Introductory note). Available at <https://www.unece.org/tradewelcome/un-centre-for-trade-facilitation-and-e-business-uncedfact/outputs/standards/unedifact/tradeedifactrules/part-2-uniform-rules-of-conduct-for-interchange-of-trade-data-by-teletransmission-uncid/part-2-uncid-chapter-1-introductory-note.html>. Accessed on 24 July 2017.

¹⁰ Ibid. Also see UNCID Part 3 which contains the following definition: “the computer-to-computer transmission of (business) data in a standard format.”

¹¹ Introduction UN/EDICACT. Available at <https://www.unece.org/cefact/edifact/welcome.html>. Accessed on 24 July 2017.

¹² Gehrke op cit note 8 refers to “a growing lack of uniformity” as a problem.

¹³ Comité Maritime International Rules for Electronic Bills of Lading available at <http://www.comitemaritime.org> accessed on 16 January 2017.

¹⁴ Ibid.

The United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce, 1996,¹⁵ defines EDI as “the electronic transfer from computer to another [system] of information using an agreed standard to structure the information”.¹⁶

The main aim of EDI is to automatically perform the functions of the business without human intervention.¹⁷ Because computers are unlike human beings, they are unable to arrange information sent in free text into an intelligible format. This has made it necessary to adopt standards in relation to pertinent information such as mailing or shipping information, order numbers, and price and quantity that would enable a computer to recognise and process the incoming data.¹⁸ The way it works is that a message is sent from one computer to another. Computers using the same standards usually do not experience difficulties and the recipient receives the message in the same format as it was sent.¹⁹

However, electronic transfer through the use of EDI has caused legal obstacles and uncertainties.²⁰ These obstacles in the use of EDI for electronic bills of lading are characteristics such writing, signature and authenticity of the document.²¹ These issues will be discussed in detail in the next chapter.

Furthermore EDI is a technical standard, but it does not contain the legal rules that govern the relationship between users or groups of users. A specific communication agreement is needed.²² In the shipping industry there have been a number of attempts to create workable systems. These systems are discussed below.

¹⁵ UNCITRAL Model Law on Electronic Commerce with Guide to Enactment with additional article 5 *bis* (1996) as adopted in 1998 available at http://www.uncitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf accessed on 12 January 2017 at 4.

¹⁶ *Ibid.* Art. 4.

¹⁷ Carr op cit note 1 at 104.

¹⁸ *Ibid.*

¹⁹ Gherke op cit note 8 at 8-9 discusses some of the technical aspects of EDI. If parties do not use the same standard a value added network (VAN) service provider becomes a convertor between the different standards to avoid any negative impact on the message sent.

²⁰ A Holtzhausen *Electronic Bill of Lading* (mini-dissertation submitted in partial fulfilment of the requirements of the degree Magister Legum in Import and Export Law at the North-West University, Potchefstroom Campus, 2006) 2, available at dspace.nwu.ac.za/bitstream/handle/10394/1388/holtzhausen_ankia.pdf;sequence=1 accessed on 12 January 2017.

²¹ *Ibid.*

²² Uniform Rules of conduct for interchange of trade data by teletransmission (UNCID) part 2, chapter 1 (Introductory note).

4.3 SeaDocs

SeaDocs, introduced in 1986, is known as the first instrument that was used for governing electronic bills of lading. It was used as a system of dominant registry where the original paper bill was deposited in a central registry. This system was used as a way of finding a middle ground between paper and electronic versions and used the law of agency to create a system that would expedite the transfer of ocean bills of lading.²³ Paper bills would be sent by courier to a central facility instead of being exchanged by parties. Once goods had been sold, SeaDocs would be advised, as the agent of the seller, to endorse the bill to the buyer, and used a system of issuing secure PIN codes to the parties to authenticate instructions.²⁴ Thereafter, it would accept delivery of the bill on behalf of the buyer. The parties involved in the carriage of goods would appoint SeaDocs as their agent.

A number of writers have considered the reasons why SeaDocs failed. Writing in 1987, Merges and Reynolds noted that the system was not as fast as a completely computerised system.²⁵ Gehrke²⁶ and Dubovec²⁷ indicate that other principal concerns were the risks associated with the system, and cost or availability of insurance for those risks, and concerns about information in a central registry being available to competitors, and governments. Additionally Dubovec indicates that the rules made no provision for transfer of contractual rights and liabilities to transferees of the bill.²⁸

4.4 The Comité Maritime International (CMI) Rules for Electronic Bills of Lading

Comité Maritime International (CMI) adopted a set of rules for electronic bills of lading in 1990.²⁹ The Rules were voluntary and stated that they “apply whenever the parties so agree” if they do not have the force of law.³⁰ Thus the CMI Rules operated by incorporation of the

²³ Robert P Merges & Glen H Reynolds ‘Towards a Computerized System for Negotiating Ocean Bills of Lading’ 6 *J.L. & Com* 23 (1989) at 36.

²⁴ *Ibid.*

²⁵ Merges & Reynolds *op cite* note 23 at 37.

²⁶ Gherke *op cite* note 8 at 11. Also see Jan-Hendrik Senekal *The Electronic Bill of Lading: A Legal Perspective* (unpublished dissertation submitted in partial fulfilment of the requirements of the degree of Magister Legum in Import and Export Law at the North-West University, Potchefstroom Campus, 2010 at 46 who refers to the reasons given by Gherhke.

²⁷ Marek Dubovec ‘The problems and Possibilities for using electronic bills of lading as collateral’ (2006) vol. 23 no 2 *Arizona Journal of International & Comparative Law* at 450.

²⁸ *Ibid.*

²⁹ Comité Maritime International Rules for Electronic Bills of Lading available at <http://www.comitemaritime.org/Rules-for-Electronic-Bills-of-lading/0,2728,12832,00.html> accessed on 11 January 2017.

³⁰ Art 1 of CMI Rules

rules into the contract of sea carriage. It was hoped that this might lead to the rules being widely adopted as parties would not need to be “members of a club”, which may require registration fees, but they only need access to the essential technology to convey messages to one another.³¹

The CMI set of rules provided for a “private key” system which Dubovec states was intended to replace bills of lading but was a “doubtful” legal substitute³². Article 2 defines “private key” as “any technically appropriate form, such as a combination of numbers and/or letters which the parties may agree on for securing the authenticity and integrity of a transmission.”³³

Thus the CMI Rules determine that agreements between parties regarding the contract of carriage may voluntarily incorporate a clause that communication may be made by way of transmissions or electronic messages. Such contracts will not only contain the information that appears in the paper bill of lading, but will also include the private key which will be used in subsequent transmissions.³⁴ This private key is not transferable and is distinctive to each successive holder.³⁵

4.4.1 The bill of lading as a receipt

According to Article 4 of the CMI Rules, “the carrier shall notify the shipper by a message at the electronic address specified by the shipper once he or she is in receipt of the goods”.³⁶ The receipt message shall include “the name of the shipper, a description of goods with any representation in the same tenor as would be required if a paper bill of lading was issued, date and place of the receipt of goods, terms and conditions of carriage, and the private key to be used in subsequent transmission”.³⁷ The receipt of the shipped function is easily replicated by the CMI Rules for electronic bills of lading. Article 4(d) stipulates that “the information contained in the receipt shall have the same force and effect as if the receipt message were contained in a paper bill of lading.”

4.4.2 Bill of lading as evidence of the term of the contract

³¹ Dubovec op cite note 27 at 451.

³² Senekal op cite note 26 at 33.

³³ Art. 2 of the CMI Rules

³⁴ J P Van Niekerk & W G Schulze *The South African Law on International Trade: Selected Topics* (2000) 125.

³⁵ Ibid.

³⁶ Art. 4

³⁷ Art. 4 (b)(i)–(v)

Article 4(b)(iv) stipulates that the receipt message shall refer “to the carrier’s terms and conditions of carriage.”³⁸ The Rules also provide a solution to the legal requirement of writing and signature, in that:

“...the carrier, shipper and all subsequent parties utilising these procedures agree that any national or local law, custom or practice requiring the contract of carriage to be evidenced in writing and signed, is satisfied by these procedures.³⁹ In agreeing to adopt these, the parties shall be taken to have agreed not to raise the defence that this contract is not in writing”⁴⁰

Clearly, an electronic bill of lading acts as evidence of the contract of carriage. Once the shipper is in receipt of an electronic message and its private key, such an electronic message is prima facie evidence of the contract of carriage. Voluntary acceptance of the electronic data as a written document validates the contract.

4.4.3 A bill of lading as a document of title

The CMI Rules are operated by the carrier who issues an electronic bill of lading to the shipper using an electronic message together with a private key, possession of which entitles the holder to control the cargo.⁴¹ The private key is defined by Article 8 as being “unique to each successive holder. It is not transferrable by the holder; the carrier and the holder shall each maintain the security of the private key.”⁴²

In this instance, the right of control is passed once the shipper, or a subsequent holder, has notified the carrier that wishes to transfer the right of control, upon which the carrier will cancel the private key and issue a new private key to the new holder, which entitles the new person to control the cargo.⁴³ The private key will be different to each successive holder and is not transferable as it can only be issued by the carrier.

Article 7(a) of the CMI Rules defines the right of control as follows:

“The Holder is the only party who may, as against the carrier:

³⁸ Art. 4 (b)(iv)

³⁹ Art. 11

⁴⁰ Ibid.

⁴¹ Art. 7

⁴² Art. 8

⁴³ Art. 4(a)

- (1) claim delivery of the goods;*
- (2) nominate the consignee or substitute a nominated consignee for any other party, including itself;*
- (3) transfer the Right of Control and Transfer to another party;*
- (4) instruct the carrier on any other subject concerning the goods, in accordance with the terms and conditions of the Contract of Carriage, as if he were the holder of a paper bill of lading.”*

Article 7 (b) of the CMI Rules provides that:-

“A transfer of the Right of Control and Transfer shall be effected:

- (i) by notification of the current Holder to the carrier of its intention to transfer its Right of Control and Transfer to a proposed new Holder, and*
- (ii) confirmation by the carrier of such notification message, whereupon*
- (iii) the carrier shall transmit the information as referred to in article 4 (except for the Private Key) to the proposed new Holder, whereafter*
- (iv) the proposed new Holder shall advise the carrier of its acceptance of the Right of Control and Transfer, whereupon*
- (v) the carrier shall cancel the current Private Key and issue a new Private Key to the new Holder.”*

The carrier is always part of the transfer procedure whenever the bill is negotiated and acts as registrar.⁴⁴ The CMI Rules provide that “the transfer of the right of control shall have the same effects as the transfer of such rights under a paper bill of lading”.⁴⁵

The CMI Rules turned out to be “unpopular in the trading world” and not an adequate solution to the problem of creating a negotiable electronic bill of lading.⁴⁶ The problems that critics have noted include that transfer of title was complicated, and placed huge responsibility on the

⁴⁴ Art. 7(b)

⁴⁵ Art. 7(d)

⁴⁶ Dubovec op cite note 27 at 451

shoulders of the carrier. The carrier is accountable for cancelling, issuing, sending or reissuing and resending the private key to the new holder,⁴⁷ and carriers would be understandably reluctant to assume such new risks and liabilities.⁴⁸

Farhang also noted that the CMI Rules do not provide for the transfer of contractual rights and liabilities from the original shipper.⁴⁹

4.5 Bolero International Limited

As mentioned above, the CMI Rules have shortcomings in that the transfer of title is more complicated compared to that of a paper bill and that it places an extreme responsibility on the shoulders of the carrier. This failure did not deter the maritime industry from attempting to create a system that could accommodate the electronic bill of lading.

The Bill of Lading Electronic Registry System (Bolero) project commenced in around 1994,⁵⁰ but had a slow and shaky start. From 1996 the project received backing from SWIFT (Society for Worldwide Interbank Financial Transactions) and the TT Club (Through Transport Mutual Insurance Association Ltd).⁵¹ Bolero Operations Limited, now known as Bolero International Limited, was incorporated in 1998.⁵²

Although criticised in 2006 as a failure by Dubovec,⁵³ in fact Bolero remains in operation and the operating provisions of the 1999 Rulebook are one of the systems that has been approved the International Group of P&I Clubs for use with electronic bills of lading.

The Bolero system uses a process of a Title Registry and a messaging infrastructure or platform known as the Bolero Exchange. This involves an “extra step” when compared to the transfer

⁴⁷ Jafari Farhang *The Concerns of the Shipping Industry Regarding the Application of Electronic Bills of Lading in Practice Amid Technological Change* (unpublished thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy, Division of Law and Philosophy, University of Stirling, 2015) 195.

⁴⁸ A G Hamid and K M Sein ‘The legal implications of Electronic Bills of Lading: How imminent is the Demise of Paper Documents?’ (2004) XXXIII No 3 *The Journal of the Malaysian Bar* at 11.

⁴⁹ Farhang op cit note 47 at 195.

⁵⁰ E.T. Laryea ‘Paperless Shipping Documents: An Australian Perspective’ 25 (2000-2001) *Tul. Mar. L.J.* 255 at 286.

⁵¹ Farhang op cit note 47 at 196 and Laryea at 286.

⁵² Laryea op cit note 50 at 286. As to the change of name see the registered company particulars available at <https://beta.companieshouse.gov.uk/company/03523400>. Accessed on 4 August 2017.

⁵³ Dubovec op cit note 10 at 452.

of paper bills of lading, as each time a message is sent on the Bolero system it is authenticated and digitally signed before being transferred to the message recipient.⁵⁴

These electronic bills of lading may be called a “functional equivalent” to a paper bill of lading; however, because these bills are in electronic form, they do not rely on the statutes and conventions that prevail for the use of paper bills of lading.⁵⁵

4.5.1 A bill of lading as receipt for goods shipped

A bill of lading that is transmitted in electronic format should be considered as having the same consequences as a paper receipt. The Bolero system has a messaging platform. The messaging platform describes the shipped cargo in the same manner as the paper bill does. It replicates “sending” of the document from one party to another and delivers it to the next holder.⁵⁶

4.5.2 A bill of lading as evidence of the contract

The bill of lading evidences the terms of the contract of carriage. In order to replicate the above function, Rule 2.2.3(1) of the Rule book states the following:

“2.2.3. Messages as Evidence

- (1) Admissibility. Each User agrees that a Signed Message or a portion drawn from a Signed Message will be admissible before any court or tribunal as evidence of the Message or portion thereof.*
- (2) Primary Evidence. In the event that a written record of any Message is required, a copy produced by a User, which Bolero International has authenticated, shall be accepted by that User and any other User as primary evidence of the Message.*

⁵⁴ Laryea op cit note 50 at 287-288. Also see ‘Bolero Exchange’. Available at <http://www.bolero.net/integration/bolero-exchange>. Accessed on 4 August 2017, and ‘Electronic Bill of Lading’. Available at <http://www.bolero.net/component/content/article?id=10>. Accessed on 4 August 2017.

⁵⁵ Farhang op cit note 47 at 198.

⁵⁶ ‘The Bolero Electronic Bill of Lading (eBL) Overview’ at pg2. Available at <http://www.bolero.net/files/downloads/eBLOverview.pdf>. Accessed on 4 August 2017.

- (3) *Authenticated Copies to Prevail. Each User agrees that if there is a discrepancy between the record of any User and the copy authenticated by Bolero International, such authenticated copy shall prevail.*⁵⁷

As stated above, a Bolero bill of lading is similar to a paper bill, and it is also evidence of a contract of carriage. This function is easy to replicate.

4.5.3 A bill of lading as a document of title

This function is the most challenging one to replicate. Bolero operates as a multi-lateral contract, in that every user of the Bolero system must agree to be bound by the Bolero Rulebook.⁵⁸

The Rule book characterises the nature of the rights that the new holder acquires when obtaining the transfer of the electronic bill of lading⁵⁹. During transfer, the right of control over the cargo passes to the new holder. The new holder becomes the only person who can instruct the carrier.⁶⁰

Negotiation is achieved by means of attornment and novation.⁶¹ In legal terms, “attornment is a traditional part of English Common Law and usually describes a situation where a tenant accepts and acknowledges the new landlord’s rights after the leased property has been sold. It is thus an implicitly or explicitly consent to a transfer of a right.”⁶² In a bill of lading context attornment means the acceptance by the carrier that he is now holding the goods on behalf of the new holder of the bill of lading through transfer of the bill of lading.⁶³ The carrier, by attornment, “agrees to hand over possession of the goods shipped to the new holder as he was

⁵⁷ Bolero International Ltd. *Bolero Rulebook* 1ed. September 1999. Available at <http://resource.bolero.net/bolero-rulebook-access>. Accessed on 30 January 2017.

⁵⁸ Bolero *The Bolero Rulebook*. Available at <http://www.bolero.net/integration/rulebook>. Accessed on 4 August 2017. Also see Carsten Schaal ‘The 21st Birthday of the Electronic Bill of Lading: With Age Comes Maturity’ (1999). Chapter 4. Available at <http://www.inter-lawyer.com/lex-e-scripta/articles/electronic-bills-of-lading.htm> accessed on 23 May 2017.

⁵⁹ ‘The Bolero Electronic Bill of Lading (eBL) Overview’ at pg5. Available at <http://www.bolero.net/files/downloads/eBLOverview.pdf>. Accessed on 4 August 2017.

⁶⁰ Ibid.

⁶¹ Farhang op cit note 47 at 199.

⁶² Schaal op cit note 58 at Chapter 4.

⁶³ Ibid.

otherwise obliged to do in terms of the original holder in the case of a negotiable paper bill of lading in the traditional format”⁶⁴

Novation is the substitution of one contract with another. In the Bolero bill of lading (BBL) context this means that when an instruction is given to transfer an electronic bill of lading to a new holder that transfer, by way of novation, “substitutes a new party for the shipper or holder of the BBL under a new contract between the substituted party and the carrier”.⁶⁵

Dubovec⁶⁶ states that the “Bolero bill of lading is not a document of title because it is not a paper document and most national laws ascribe the character of the document of title to a written physical document.”⁶⁷ As a result, he states that the transferability of the bill of lading cannot be accomplished under the Bolero system.

However, it is submitted that this is possibly overstated. As discussed in the analysis above it can accomplish the document of title function, using the contractual mechanisms of attornment and novation governed by the Bolero Rulebook.

It is submitted that the statement on Bolero International’s website is correct:

*“An electronic bill of lading (eBL) is not simply an electronic version of the paper bill of lading. Rather it is a combination of a legal rulebook and technology which can replicate the functions of a traditional paper bill of lading.”*⁶⁸ (Emphasis supplied).

4.6 EssDOCS Limited

During March 2009, the International Group of P & I Clubs approved essDOCS as the second electronic system for use of electronic bill of lading.⁶⁹ The essDOCS document exchange, known as CargoDocs DocEx, enables users to create, issue and transfer eDocs including an

⁶⁴ Ibid.

⁶⁵ Laryea op cit note 50 at 289. Also see Schaal at Chapter 4.

⁶⁶ Dubovec op cit note 27 at 453.

⁶⁷ Ibid.

⁶⁸ ‘The Bolero Electronic Bill of Lading (eBL) Overview’. Available at <http://www.bolero.net/files/downloads/eBLOverview.pdf>. Accessed on 4 August 2017.

⁶⁹ User Agreements (DSUA) available at <https://www.essdocs.com/solutions/cargodocs/docex/electronic-bills-of-lading> accessed 2 August 2017

electronic bill of lading.⁷⁰ Much like Bolero the essDOCS system works on the basis of a multi-lateral contract,⁷¹ in that users of the system agree to the terms of the Databridge Services & Users Agreement (DSUA).⁷² The DSUA regulates the creation and sending of electronic bills of lading⁷³ and governs the relationship between all users of the CargoDocs DocEx, and between each user and essDOCS.⁷⁴ The system, like Bolero, aims to create a functional equivalent of paper bills of lading,⁷⁵ within a ‘closed system approach’⁷⁶ within which the electronic bill of lading can operate as a receipt for goods shipped, evidence of the terms of the contract of carriage, and a document of title by means of contractual novation and attornment.⁷⁷

Bury doubts the validity of essDOCS’ claim that their electronic bill of lading is a “legal”⁷⁸ equivalent to the paper bill of lading, as opposed to merely “functional equivalent”. Noting that essDOCS cite no authority for their claim, Bury argues that “[f]or a viable electronic bill of lading system to succeed, international conventions or national laws must recognize the legal effect of electronic negotiation”.⁷⁹

4.7 E-title Authority Pte Ltd

In October 2015, the International Group of P & I Clubs advised that it has approved E-title as the third electronic bill of lading solution.⁸⁰ The E-title system has not yet been the subject of academic discussion. Bury refers to it briefly as a central registry system, based on a multiparty user agreement, similar to Bolero International Limited and essDOCS Exchange Ltd.⁸¹ The

⁷⁰ Ibid.

⁷¹ David A. Bury "Electronic Bills of Lading: A Never-Ending Story." *Tul. Mar. LJ*41 (2016): 197 at 228.

⁷² User Agreements (DSUA) available at <https://www.essdocs.com/solutions/cargodocs/docex/electronic-bills-of-lading> accessed 2 August 2017

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ M Comminos ‘Taking a byte out of shipping’ ” (2010) 3 BIMCO Bulletin 46,

⁷⁷ M Goldby ‘Legislating to facilitate the use of electronic transferable records: A case study reforming the law to facilitate the use of electronic bills of lading in the United Kingdom’. Paper prepared for the UNCITRAL Colloquium on Electronic Commerce New York 14th to 16th February 2011. Available at https://www.uncitral.org/pdf/english/colloquia/EC/Legislating_to_facilitate_the_use_of_electronic_transferable_records_-_a_case_study_.pdf. Accessed on 4 August 2017.

⁷⁸ EssDOCS ‘Cargo Docs Electronic Bill of Lading’. Available at <https://www.essdocs.com/solutions/cargodocs/docex/electronic-bills-of-lading>. Accessed on 4 August 2017.

⁷⁹ Bury op cit note 71 at 229.

⁸⁰ Electronic (paperless) trading systems - essDOCS Exchange Ltd (essDOCS), Bolero International Ltd. (Bolero), E-title Authority Pte Ltd. Available at http://www.westpandi.com/globalassets/pdf/20151026-149162-no.-11-2015_2016---electronic-paperless-trading-systems---bolero-international.pdf. Accessed on 24 July 2017.

⁸¹ Bury op cit note 71 at 228.

system requires users to agree to the terms of the Electronic Title User Agreement.⁸² In this respect it appears to operate in a similar way to the Bolero International Limited and essDOCS Exchange Ltd, and is thus still a private registry system. However, there are some technological differences. On its own website E-title is defined as a “patented, peer-to-peer technology that enables the creation and transfer of title and negotiable documents, such as the bill of lading.”⁸³ It is described as an “open and neutral” platform, which does not rely on a central registry. This can be contrasted to Bolero International Limited and essDOCS Exchange Limited. Instead the system uses a hardware security module as a means of registering and digitally signing every record creating or transferring an electronic bill of lading.⁸⁴

4.8 Conclusion

In this chapter the functions of the bill of lading have been examined by considering three private registry systems. Traders and carriers have attempted to use these registries to facilitate transfer of the functions of the paper bill of lading to the electronic version. The said registries are able to easily replicate the receipt and evidence of the terms of the contract functions of the paper bill of lading; however, the document of title function is quite difficult to replicate. It was noted that the CMI Rules were never fully accepted in the shipping industry and that this set of rules has failed to resolve essential issues in constructing a negotiable electronic bill of lading. In the Bolero bill of lading, transfer occurs through attornment and novation. However, it is not governed by national or international legal rules that regulate the transfer of paper bills of lading. Thus on one argument transferability in the legal sense cannot be achieved under the Bolero system.

It is submitted that functional equivalence has been achieved by these systems. The electronic bills of lading offered by Bolero International Ltd, essDOCS Exchange Limited, and E-Title Authority Pte Ltd have been approved by the International Group of P & I Clubs⁸⁵ and are in active use in international, paperless trade.

⁸² E-Title Authority Pte Ltd. “What does the Electronic Title User Group Do?” Available at http://www.e-title.net/etug_what.php. Accessed on 4 August 2017.

⁸³ E-title Authority Pte Ltd. ‘The Electronic Title Solution’. Available at http://www.e-title.net/co_intro.php. Accessed on 24 July 2017.

⁸⁴ E-Title Authority Pte Ltd. “Hardware Security Modules”. Available at http://www.e-title.net/sol_what.php. Accessed on 4 August 2017 and “Creating an Electronic Title”. Available at http://www.e-title.net/sol_work_create.php. Accessed on 4 August 2017.

⁸⁵ Ibid.

It is beyond the scope of this thesis to examine the technology behind these systems. It was noted at the beginning of this chapter that paperless trade began with the development of EDI. While EDI remains in use, technological advances have made it possible to communicate directly over the internet. It is beyond doubt that technology will continue to advance. The important question is thus whether laws are capable of giving legal recognition to the transfer of an electronic bill of lading, regardless of the technology used to achieve that transfer. The legal framework applicable in South Africa is discussed in the next chapter.

CHAPTER FIVE

ELECTRONIC BILLS OF LADING UNDER SOUTH AFRICAN LAW

5.1 Introduction

In previous chapters it was indicated that a global increase in trade has led to electronic commerce and paperless transactions. Bills of lading are now transmitted electronically, and three private registry systems for the use of electronic bills of lading were discussed in chapter 4.

This chapter will commence by setting out relevant provisions of the UNCITRAL Model Law on Electronic Commerce,¹ which set out a framework for the recognition of electronic documents and electronic signatures.² How the provisions of the Model Law can be applied to the three functions of a bill of lading is examined.

Following the lead of the abovementioned frameworks, many countries have interpretational laws and rules of evidence in place to recognise the admissibility of electronic evidence; and Hare argues that in South Africa transactions “cannot be denied legal recognition merely because paper has been eschewed.”³

He further contends that in South African law, there is “no doubt” that an electronic bill of lading would be recognized in law as a document and that an electronic signature would be recognized in law as a signature.⁴ However, it is difficult to prove that it is a document of title.

This chapter will examine these statements by considering the relevant provisions of the Sea Transport Documents Act⁵ and the Electronic Communications and Transactions Act.⁶

¹ United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce with Guide to Enactment 1996, with additional article 5 *bis* as adopted in 1998. New York. 1999.

² United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Signature with Guide to Enactment 2001 New York 2002

³ John Hare *Shipping Law and Admiralty Jurisdiction in South Africa* 2 ed (2009) 607.

⁴ *Ibid* at 726.

⁵ Act 65 of 2000.

⁶ Act 25 of 2002.

5.2 Uncitral Model Law on Electronic Commerce

The UNCITRAL Model Law on Electronic Commerce was implemented by the United Nations Commission on International Trade Law (UNCITRAL) in 1996 “in persistence of its directive to promote the harmonization and unification of international trade law, so as to eliminate unnecessary impediments to international trade triggered by inadequacies and divergences in the law affecting trade.”⁷ The Model Law was prepared to address the major transformation that occurred in terms of the means by which communications are made between parties using computerized technology in doing business. The purpose of the Model Law is to serve as a model to countries for the assessment and transformation of certain phases of their laws and practices in the field of commercial relationships by involving the use of computerized technology, and for the formation of relevant legislation where none presently exists.⁸

The aim of the UNCITRAL Model Law on Electronic Commerce is to facilitate electronic commerce by removing the legal uncertainties that may surround data sent by electronic means.⁹ Furthermore, it developed guidelines for national law makers that may be accepted internationally and that provide guidance that will assist in removing any legal hindrances.

The scope of the Model Law application is explored in Article 1.¹⁰ This article provides that the Model Law shall “apply to any kind of information in the form of data messaging [that is] used in the context of commercial activities”. The term “commercial” is recommended to be widely interpreted so that it covers all matters arising from transactions that are commercial in nature, whether contractual or not.¹¹

5.2.1 The bill of lading as a receipt

A bill of lading that is transmitted in electronic format should be considered as having the same consequences as a paper receipt. Article 2 of the Model Law defines a “data message” as:

⁷ UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996 with additional articles 5 *bis* as adopted in 1998 available at http://www.uncitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf accessed on 12 January 2017 at 17.

⁸ *Ibid.*

⁹ *Ibid* at 2.

¹⁰ Art. 1

¹¹ *Ibid.*

“...information generated, sent, received or stored by electronic, optional or similar means including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy.”¹²

According to Article 5 of the Model Law:

“Information shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of a data message.”¹³

Thus the carrier could produce a receipt in an electronic format to the shipper, confirming that the stated cargo has arrived on board, and the information contained therein would not be denied legal effect as a receipt for the cargo on the basis that it is contained in a data message.

5.2.2 A bill of lading as evidence of the terms of the contract

Once again Article 5 of the Model Law is the solution to the problem.¹⁴ Further when terms of the contract are incorporated by reference article 5bis provides:

“Information shall not be denied legal effect, validity or enforceability solely on the grounds that it is not contained in the data message purporting to give rise to such legal effect, but is merely referred to in that data message.”

This means that the contractual terms can also be incorporated by reference in the electronic bill of lading.

Article 6(1) addresses the issue of when a law requires information to be in writing. It provides that the requirement of writing is met:

“if the information contained therein is accessible so as to be usable for subsequent reference.”

¹² Art. 2

¹³ Art. 5

¹⁴ Ibid.

The guide to the enactment states that this article refers to a requirement contained in statute, regulation or judge-made law that information be “in writing” or contained in “a document”.¹⁵

Articles 16 and 17 further provide in relation to contracts of carriage of goods, including “issuing a receipt for goods”¹⁶ and “notifying a person of terms and conditions of the contract”,¹⁷ that the requirement for writing “*is met if the action is carried out by using one or more data messages.*”

In the Carriage of Goods by Sea Act¹⁸ the Hague-Visby Rules set out in the Schedule to the Act apply to a contract of carriage when it is “covered by a bill of lading or any similar *document* of title...” (emphasis supplied). The requirement that a contract of carriage be a document, is thus met through the recognition of electronic documents as being able to fulfil the function of writing. The Guide to Enactment explains the purpose of article 6 as being to focus on “the basic notion of the information being reproduced and read,”¹⁹ and article 17 should be read together with article 6.²⁰

Another common legal requirement in contracts is signature. Article 7 provides that this requirement is met if:

- “(a) *a method is used to identify that person and to indicate that person’s approval of the information contained in the data message; and if*

- (b) that method is as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement.*”²¹

In the first instance, the above proviso acknowledges the general principle that, electronically, the basic legal functions of signature are executed by way of a method or system that identifies the originator of a data message and confirms that the originator accepted the content of that

¹⁵ Guide to Enactment para 47.

¹⁶ Art. 16(a)(iii)

¹⁷ Art.16(b)(i)

¹⁸ Act 1 of 1986

¹⁹ Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996) para 50. Also see Indira Carr *International Trade Law* 4 ed (2010) at 108.

²⁰ Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996) para 113 – 115.

²¹ Art .7 of the UNCITRAL Model Law on e-commerce.

data message.²² Secondly, it acknowledges a flexible approach to the security level to be attained by the method of identification as stipulated in Article 7(1)(a).²³

Article 8 of the Model law deals with the requirement for an “original” document by providing that such requirement is met if:

- “(a) *there exists a reliable assurance as to the integrity of the information from the time it was first generated in its final form, as a data message or otherwise; and*
- (b) where it is required that the information be presented, that information is capable of being displayed to the person to whom it is to be presented.”*

Article 9 of the Model Law makes it clear that its purpose is to establish that data messages can be admissible and given due weight as evidence in legal proceedings.²⁴

Therefore, an electronic bill of lading which accurately reflects the terms entered into amongst the contracting parties in the contract of carriage of goods by sea is capable of being accepted as proof of such contract.

5.2.3 A bill of lading as a document of title

Article 17(1) and (2) of the Model Law permits the replacement of a paper document through electronic means.²⁵ Although Articles 17(1) and 17(2) permit the replacement of a paper document with an electronic one, a hindrance is establishing that the rights or obligations associated with the carriage document are those of the intended person. Article 17(3) provides that:

“If a right is to be granted to, or an obligation is to be acquired by one person and no other person, and if the law requires that, in order to effect this, the right or obligation must be conveyed to that person by the transfer, or use of, a paper document, that requirement is met if the right or obligation is conveyed by using one or more data messages, provided that a reliable method is used to render such data message or messages unique.”²⁶

²² Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996) para 53.

²³ Ibid. Para 57.

²⁴ Art. 9 of the UNCITRAL Model Law.

²⁵ Art. 17. See also Carr op cit note 19 at 115.

²⁶ Art. 17

As an example, Carr states that where a paper bill of lading is used, the right to claim for cargo delivery is acquired and established as an outcome of the transfer of the paper document.²⁷ The right to claim belongs to a particular person and to no other.²⁸ This “guarantee of singularity”, namely that one person and no other can lay claim to the rights in the electronic environment, is established by the use of a reliable method that renders these data messages unique. A “reliable method” is not further defined in the model law; however Senekal submits that one must assume it is a method “that has been tested and verified to be reliable.”²⁹

Article 17(4) intends to ensure that a right can be transferred to one person only and that only one person at a time can lay claim to it.³⁰ The UNCITRAL Model Law guide interprets the words “one person and no other” not excluding situations where more than one person might jointly hold title to the goods.³¹

Rights and obligations can be transferred by means of a data message to satisfy the requirement of negotiability. However, although the Model Law approves the use of data messages as a means of transferring rights or obligation, there are uncertainties as to whether such transfer has been acknowledged as a mercantile practice.³² Proctor submits that documents become documents of title either through the practice established in mercantile custom or by statutory enactment.³³ The transferability of a paper bill of lading was recognized as a custom of merchants in *Lickbarrow v Mason*,³⁴ in which case the court found that the bill of lading acted as a document of title and thus entitled its holder to transfer the goods by transferring the bill.³⁵ Currently an electronic bill of lading has not reached a stage where it is regarded as a similar document of title, under mercantile custom.

²⁷ Carr op cit note 19 at 115

²⁸ Ibid.

²⁹ Jan Hendrik Senekal *The Electronic Bill of Lading: A Legal Perspective* (unpublished dissertation submitted in partial fulfilment of the requirements of the degree Magister Legum in Import and Export Law at the North-West University, Potchefstroom Campus, 2010) at 31.

³⁰ Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996) The UNCITRAL para 115.

³¹ Ibid at para 116.

³² Senekal op cit note 29 at 31.

³³ Carol Proctor *The legal Role of the Bill of Lading, Sea Waybill and Multimodal Transport Document: Interlegal's Pocket-book Series on International Trade Law* Volume 1 (1997) 112.

³⁴ (1787) 2 TR 63.

³⁵ Proctor op cit note 33 at 112.

An analysis of the legal basis of the negotiability of documents of title has established that “there is generally no statutory means in place by which parties, through the exchange of electronic messages, can validly transfer legal rights in the same manner that is possible with paper documents. In the present state of legislation, negotiability cannot be divorced from the physical possession of the original paper document”.³⁶

5.3 The Sea Transport Documents Act 65 of 2000

South Africa needed modern legislation to govern the transfer of rights and obligations when negotiating a bill of lading.³⁷ In 2003, the 1855 Bill of Lading Act³⁸ was replaced by the South African statute, the Sea Transport Documents Act (hereinafter referred to as STDA).³⁹ In its preamble, the STDA states that its aim is to “make provisions with regards to certain documents relating to the carriage of goods and the title to sue with regard to goods carried and for related matters”.⁴⁰

Section 1 of the STDA defines a sea transport document as:

- “(a) a bill of lading;*
- (b) a through bill of lading;*
- (c) a combined transport bill of lading;*
- (d) a sea waybill;*
- (e) any consignment note, combined transport document or other similar document relating to the carriage of goods either wholly or partly by sea, irrespective of whether it is transferable or negotiable.”*⁴¹

Section 2 provides that the STDA applies to any sea transport document with regard to which proceedings are to be taken in any court or arbitration in the Republic of South Africa,⁴² Thus the STDA applies widely⁴³ irrespective of any rule of private international law or choice of law

³⁶ A G Hamid and K M Sein ‘The legal implications of Electronic Bills of Lading: How imminent is the Demise of Paper Documents?’ (2004) XXXIII No 3 *The Journal of the Malaysian Bar* at 9

³⁷ S F Du Toit ‘Comments on the Sea Transport Documents Act 65 of 2000’ (2003) *TSAR* 731 at 731.

³⁸ 1855 c111.

³⁹ Hare op cit note 3 at 669.

⁴⁰ Ibid. See also preamble of Act 65 of 2000.

⁴¹ Act 65 of 2000.

⁴² Ibid.

⁴³ Hare op cit note 3 at 670.

clause as long as it is a sea transport document issued in the Republic, or if the proceedings are instituted in the Republic.⁴⁴

Senekal states that the issue to be considered is whether the provisions of the STDA also apply to a document in an electronic form.⁴⁵ Holtzhausen argues that the STDA was designed to regulate not only the traditional “to order” bill of lading but also various other similar documents including electronic bills of lading.⁴⁶ The Carriage of Goods by Sea Act⁴⁷ which incorporates the Hague Visby Rules have not been amended in line with the STDA.⁴⁸ In other words, she argues that electronic documents dealing with carriage of goods by sea will be governed by STDA but will fall outside the provisions of COGSA.⁴⁹

Senekal regards the position as less clear because neither the definition of sea transport document, nor the provisions of section 2 of the STDA, make express reference to electronic sea transport documents.⁵⁰

The Minister of Transport is empowered to draft regulations extending the provisions of the STDA to cover any electronic transmission of information which might replace written documentation. Section 9 provides that:

“(1) (a) Subject to subsections (2) and (3), the Minister may make regulations prescribing the circumstances in which and the conditions subject to which a record or document produced by a telecommunication system or an electronic or other information technology system, and effecting transactions such as those effected by any sea transport document, is to be regarded as a sea transport document;

(b) regarding generally all matters that are reasonably necessary or expedient to be-prescribed in order to achieve the objects of this Act.”⁵¹

⁴⁴ Du Toit op cit note 37 at 731.

⁴⁵ Senekal op cit note 29 at 48

⁴⁶ A Holtzhausen Electronic bills of lading (mini-dissertation submitted in partial fulfilment of the requirements of the degree Magister Legum in Import and Export Law at the North-West University 2006) at p 31 Available at dspace.nwu.ac.za/bitstream/handle/10394/1388/holtzhausen_ankia.pdf;sequence=1 accessed on 12 January 2017.

⁴⁷ *ibid*

⁴⁸ *Ibid.*

⁴⁹ *Ibid* at p 32

⁵⁰ Senekal op cit note 29 at 48

⁵¹ s 9 of the Sea Transport Documents Acts 65 of 2000

This appears to indicate that it is dependent upon regulations being made by the Minister of Transport to determine whether an electronic bill of lading “is to be regarded as a sea transport document” for the purpose of the STDA, but so far no such regulations have been made. Therefore without such regulations it is not clear that the STDA does apply to electronic bills of lading.

5.3.1 The bill of lading a receipt

Section 6(a) of the STDA applies to:-

“A sea transport document that—

(a) represents that goods have been shipped on board a vessel or have been received for shipment on board a vessel; and

(b) has been signed by the master of the vessel or by another person who had the actual authority, whether express or implied, or the ostensible authority of the 50 carrier to sign that document...”⁵²

Thus in terms of the STDA a bill of lading is a receipt when it contains a representation that the goods, described in the bill of lading, have been shipped on board or received for shipment, and the bill of lading has been signed. Although Senekal states that it is unclear whether the provisions of the STDA will apply to electronic bill of lading, with the receipt function this provision is capable of being applied as our law recognises the electronic document as being a written document and recognises the electronic signature (as discussed in section 5.4 below).

5.3.2 A bill of lading as evidence of the terms of the contracts

The proviso to section 6 of the STDA deals with the evidence function of the bill of lading. It provides that:

“A sea transport documents that-

(a) represents that goods have been shipped on board a vessel or have been received for shipment on board a vessel; and

⁵² s 6 of the Sea Transport Documents Act 65 of 2000

(b) has been signed by the master of the vessel or by another person who had the actual authority, whether express or implied, or the ostensible authority of the carrier to sign such a document,

is, as against the carrier-

- i. prima facie evidence in favour of the holder of the document, who is the shipper or the person to whom it was issued; and*
- ii. conclusive evidence in favour of a subsequent holder, of the shipment of the goods or their receipt for shipment as the case may be.”*

The provision however, does not make further reference to evidence of the contract of carriage.⁵³ Usually, the terms evidencing the contract of carriage of goods are incorporated at the back of bill of lading.⁵⁴ Like the receipt function, there is no difficulty in recognising the electronic bill of lading as providing evidence of the contract of carriage.

This would mean that the shipper or person to whom an electronic bill of lading has been issued could rely on the bill of lading as prima facie evidence against the carrier of the shipment of the goods (or receipt for shipment). However, such a bill of lading would only be conclusive evidence in the hands of a subsequent holder. This requires that the bill of lading must be capable of being transferred, in a manner recognised by the STDA.

5.3.3 A bill of lading as a document of title

Section 3(1), which only applies to documents that are transferable and negotiable,⁵⁵ stipulates that:

“A sea transport document may be transferred by the holder, either—

(a) by delivery of the document, endorsed as may be necessary; or

(b) subject to section 9(1)(a), through the use of a telecommunication system or an electronic or other information technology system.”

The question to be answered is whether section 3(1)(b) has any force and effect if no regulations have not been made under section 9(1)(b). Sub-section 3(1)(b) is stated to be “subject to section

⁵³ Senekal op cit note 29 at 50

⁵⁴ *ibid*

⁵⁵ s 2(2) of the Sea Transport Documents Act 65 of 2000.

9(1)(a). Writing on the United Kingdom Carriage of Goods by Sea Act,⁵⁶ which contains a similar provision empowering the State Secretariat to make regulations for electronic bills of lading,⁵⁷ Goldby argues this “implies that the application of the Act to electronic bills of lading would depend upon the regulations being issued”.⁵⁸ Holtzhausen⁵⁹ on the other hand stated that the issue of whether the enactment of regulations under the STDA is still necessary is “debatable” since the Electronic Communications and Transactions Act⁶⁰ “effectively provides for the use of the equivalent of electronic bills of lading”.⁶¹ Hare puts forwards a similar view.⁶²

In relation to transferable or negotiable documents, a holder is described in section 3(2) of the STDA as being the person “in possession of an original sea transport document.” or the document is held by someone else on their behalf, and they are the person to whom the document is issued, the named consignee, or a transferee.⁶³ The section does not make an express reference to electronic bills of lading, but it does require our law to have a clear concept of when an electronic document can be regarded as the ‘original’.

Section 4 is the provision that deals with the transfer of rights and obligations. This section applies to the “holder of a sea transport document”, namely the person described in section 3(2) discussed above.

5.4 The Electronic Communications and Transactions Act 25 of 2002

The Electronic Communications and Transactions Act No. 25 of 2002 (hereinafter referred to as the ECTA) was promulgated on 30 August 2002. The ECTA is in line with 1996 Model law and is regarded as the primary answer to electronic commerce and transactions concluded electronically.⁶⁴ Amongst other things the ECTA is aimed “at facilitating and regulating

⁵⁶ 1992

⁵⁷ John F Wilson *Carriage of Goods by Sea* 7 ed (2010) 137

⁵⁸ M Goldby ‘Legislating to facilitate the use of electronic transferable records: A case study reforming the law to facilitate the use of electronic bills of lading in the United Kingdom’. Paper prepared for the UNCITRAL Colloquium on Electronic Commerce New York 14th to 16th February 2011. Available at https://www.uncitral.org/pdf/english/colloquia/EC/Legislating_to_facilitate_the_use_of_electronic_transferable_records_-_a_case_study_.pdf. Accessed on 4 August 2017.

⁵⁹ Holtzhausen op cit note 44 at 32

⁶⁰ 25 of 2002

⁶¹ Holtzhausen op cit note 44 at 32

⁶² Hare op cit note 3 at 725.

⁶³ s 3(2) of the Sea Transport Act 65 of 2000.

⁶⁴ Lee Swales ‘The Regulation of electronic Signature: Time for review and amendment’ (2015) 132 *South African Law Journal* at 261

electronic communications and transactions as well as promoting universal access to such communications and transactions.⁶⁵ The facilitation of electronic transactions is dealt with in Chapter 3 of the ECTA.⁶⁶ Unlike the STDA, the ECTA does not make reference to electronic bills of lading, however, section 4 stipulates that the Act applies “in respect of any electronic transaction or data message.”⁶⁷ Schedule 2 of the Act lists documents to which the Act is inapplicable. The electronic bill of lading is not mentioned and can thus be considered under the sphere of the application of the Act.⁶⁸

5.4.1 A bill of lading as receipt for goods shipped

Under the ECTA, a bill of lading transmitted in electronic format should be considered as having the same consequence as a paper receipt. In the definition section, the ECTA defines “data message” as:

“data generated, sent, received or stored by electronic means and includes- (a) voice, where the voice is used in an automated transaction and (b) a stored record.”⁶⁹

According to Section 11 of the ECTA:-

“(1) Information is not without legal force and effect merely on the grounds that it is wholly or partly in the form of a data message.

(2) Information is not without legal force and effect merely on the grounds that it is not contained in the data message purporting to give rise to such legal force and effect, but is merely referred to in such data message.

(3) Information incorporated into an agreement and that is not in the public domain is regarded as having been incorporated into a data message if such information is-

⁶⁵ s 1 of the ECTA.

⁶⁶ Juana Coetzee ‘Incoterms, Electronic Data Interchange, and the Electronic Communications and Transactions Act’ (2003) 15 *SA Merc LJ* at 13.

⁶⁷ s 4 of ECTA.

⁶⁸ Senekal op cit note 29 at 51.

⁶⁹ s 1 of the ECT Act.

(a) referred to in a way in which a reasonable person would have noticed the reference thereto and incorporation thereof; and

(b) accessible in a form in which it may be read, stored and retrieved by the other party, whether electronically or as a computer printout as long as such information is reasonably capable of being reduced to electronic form by the party incorporating it.”

According to the above provisions, if the bill of lading is in the form of a data message and has been sent and received electronically, it would not be denied legal effect that it is equivalent to a paper bill on the grounds that it was in the form of a data message.

5.4.2 A bill of lading as evidence of the terms of the contract

Section 12 of the ECTA provides that:-

“A requirement in the law that a document or information must be in writing is met if the document or information is-

- a) in the form of a data message, and*
- b) accessible in a manner usable for subsequent reference”⁷⁰*

This provision addresses the issue of the requirement that the document or information must be in writing.

What could give rise to some complication, both in relation to the receipt and evidence function of the bill of lading is the requirement for a signature.

Section 13 (1) and (2) of the ECTA provide that:-

“(1) where the signature of a person is required by law and such law does not specify the type of signature, that requirement in relation to a data message is met only if an advanced electronic signature is used.”⁷¹

⁷⁰ s 11 of ECTA

⁷¹ s 13(1) of ECTA

- (2) *Subject to subsection (1), an electronic signature is not without legal force and effect merely on the grounds that it is in electronic form.*”

The ECTA defines an electronic signature as:

“means data attached to, incorporated in, or logically associated with other data and which is intended by the user to serve as a signature”.

Such a signature can take any digital form. Swales states that “[a]n electronic signature is simply electronic data that a sender intends to serve as a signature; and as in the physical world, this can be achieved in any number of ways.”

However, an “advanced electronic signature” “means an electronic signature which results from a process which has been accredited by the Authority as provided for in section 37.” There are two Accreditation Agencies in South Africa: Law Trust and the South African Post Office. However, Eiselen⁷² and Swales⁷³ indicate that their services are not widely used or known.

A signature must meet the requirements of an advanced electronic signature when a signature is “required by law”.⁷⁴ Eiselen⁷⁵, Swales⁷⁶ and Coetzee⁷⁷ have discussed the section but not considered what is meant by “required by law”.

There is no statutory law requiring an electronic bill of lading to be signed and it is submitted that an ordinary electronic signature in a form chosen by the parties should suffice for legal recognition.⁷⁸

5.4.3 A bill of lading as a document of title

⁷² Seigfried Eiselen ‘E-Commerce’ in Dana Van der Merwe, Anneliese Roos W Nel et al *Information and Communication Technology Law* (Lexis Nexis 2016) at 177.

⁷³ Swales op cit note 64 at 262.

⁷⁴ s 13(1) of the ECTA

⁷⁵ Eiselen op cit note 72 at 177.

⁷⁶ Swales op cit note 64 at 262.

⁷⁷ Juana Coetzee ‘Incoterms, Electronic Data Interchange, and the Electronic Communications and Transactions Act’ (2003) 15 *SA Merc LJ* at 13.

⁷⁸ At common law a paper bill of lading will be signed by or on behalf of the Master, as discussed in chapter two.

The ECTA does not have provisions which deal with transferability of a bill of lading⁷⁹.

The ECTA does make provision for an electronic document to be recognised legally as an original.⁸⁰ According to Section 14 (1):-

“(1) Where the law requires information to be presented or retained in its original form, that requirement is met by a data message if-

(a) The integrity of the information from the time when it was first generated in its form as a data message or otherwise has passed assessment in terms of subsection (2); and

(b) That the information is capable of being displayed or produced to the person to whom it is to be presented.”

Section 22 (1) provides that:-

“an agreement is not without legal force and effect merely because it was concluded partly or in whole by means of data messages”

Eiselen states that if an electronic document is capable of identifying and authenticating its issuer, secure in the fact that its content has not been altered but that it is still an original, and if there is no other existing copy to identify the lawful holder of the document, it should thus be regarded as a legal document of title.⁸¹

Coetzee, however, points out that the ECTA does not provide specifically for transport documents and the transfer of rights.⁸² Although she suggests that the ECTA can be interpreted to apply generally to the transfer of rights, she is of the view that it would have been preferable for legal certainty to deal specifically with the issue. By contrast articles 17(3) and (4) of the Model Law on Electronic Commerce⁸³ was enacted to provide such a legal framework. They

⁷⁹ Senekal op cit note 29 at 53

⁸⁰ s 14 of the ECTA. See also Raphael Brunner *Electronic Transport Documents and Shipping Practice Not Yet a Married Couple* (unpublished LLM thesis, Zurich, Switzerland, 2007) at 32.

⁸¹ Eiselen op cit note 72 at 179.

⁸² Juana Coetzee ‘Incoterms, Electronic Data Interchange, and the Electronic Communications and Transactions Act’ (2003) 15 *SA Merc LJ* at 13.

⁸³ Art. 17 of the UNCITRAL Model Law.

provide that transfer of rights and obligations can be conveyed using data messages provided “a reliable method” is used to render the data message “unique”.⁸⁴ The Model Law does not prescribe specific technology as reliable. It is more flexible. If new technology develops it can be used as long as it is “reliable”. This is in accordance with the principle of technological neutrality, that the law should “ideally seek to remain neutral insofar as technology is concerned.”⁸⁵

Article 17(4) specifies a standard of reliability that is dependent upon the purpose of the right or obligation being transferred. In the case of a bill of lading this is an important purpose, namely symbolic delivery of the goods, which can trigger transfer of ownership and payment obligations, if the parties agreed, and enables physical delivery of the goods from the ship (as discussed in chapter two). Article 17(4) also stipulates that the standard is assessed on the basis of all circumstances, including the relevant agreement. This provides a means for parties to agree on a transfer mechanism.

As South African law does not provide a clear position, Coetzee indicates that presently the only means for parties to “effectively and securely” trade with electronic documents is by means of an agreement under one of the private registry systems.⁸⁶

5.5 Conclusion

It has been clarified that the UNCITRAL Model Law on electronic commerce it is not legislation but a proposed set of regulations.⁸⁷ The Model Law does not provide a system that will be used for electronic bills of lading, but it provides for a regulatory system that includes the use of electronic bills of lading. This law also provides for the transfer of a data message, but does not establish a process for such transfer.

South Africa needs legislation that will acknowledge the electronic bill of lading and govern its transferability. As mentioned above, the ECTA deals with numerous issues which are associated with the use of electronic communication such as facilitating electronic

⁸⁴ Art. 17(3) of the UNCITRAL Model Law.

⁸⁵ Swales op cit note 73 at 258 and ECTA section 2(f).

⁸⁶ Coetzee op cit note 82 at 15

⁸⁷ Senekal op cit note 29 at 31.

transactions,⁸⁸ consumer protection,⁸⁹ protection of personal information,⁹⁰ and cybercrime.⁹¹ The Act has removed uncertainty that existed about the validity and enforceability of electronic transactions. It is based on the principle of functional equivalence, of creating legal solutions for electronic communications that facilitate electronic commerce by creating legal consequences which are similar to those encountered when traditional modes of communication are used and do not create any advantage for one other type of communication. However, in this chapter the focus was on the facilitation of was on the three functions of the bills of lading and the conclusion that can be drawn is that neither the STDA nor the ECTA provide for specific, clear rules that would govern the transfer of electronic bills of lading. The next chapter will draw together the conclusions that can be reached from the analysis of the previous chapters.

⁸⁸ Chapter III Part 1 of the ECT Act.

⁸⁹ Chapter VII of the ECT Act.

⁹⁰ Chapter VIII of the ECT Act.

⁹¹ Chapter XIII of the ECT Act.

CHAPTER SIX

CONCLUSION

6.1 Introduction

This study revealed that it becomes a complex issue when attempts are made to replicate a paper bill of lading using an electronic version. This is because a negotiable bill of lading has functions that go beyond it simply being a paper document. In this context, the shipping industry has encountered various functional obstacles in the application of the two different methodologies. First, it is a complex process to convert the paper bill to an electronic version when offering storage and exchange facilities to parties who choose to “deposit” their bill of lading with an independent agency operating as a depository.¹ Secondly, it is difficult to achieve “functional equivalence” between a paper bill of lading and its electronic counterpart.²

To date, the law has been moving slowly in adapting to the modern world of technology. For example, international law has thus far failed in resolving legislative issues involving cargo rights, such as the validity of documents of title in transport documents.

In Chapter four, it was shown that it has been established that traders may contractually agree on a system and procedures that will represent the document of title function and that such documents will therefore function on the basis of sending and receiving messages, in accordance with the rules of the private registry system. Such systems function with a third party registry that represents the right of constructive possession in the cargo.³ In order to be “acceptable and operative, any new system of documentation must therefore be well known and recognised by shippers, carriers, consignees, banks, underwriters, and P & I Clubs”.⁴

The three systems that have been developed thus far are known as Bolero International Ltd, essDOCS Exchange Limited and E-Title Authority Pte Ltd (as discussed in Chapter four). These systems have been ratified by the International Group of P & I Clubs as well as P & I Clubs outside the group.⁵

¹ John Hare *Shipping Law and Admiralty Jurisdiction in South Africa* 2 ed (2009) 724.

² Ibid.

³ Ibid.

⁴ John F. Wilson *Carriage of Goods by Sea*, 7 ed (2010) 171.

⁵ Ibid.

Furthermore, it has been established that outside of such private registry systems an electronic bill which will replicate all three functions of the paper bill and which may be issued by the carrier in electronic format has not yet been developed. Failure of attempts to develop an electronic bill that is capable of replicating the paper bill of lading is not surprising, because the law has been unable to provide legislative provisions for electronic documents of title.

For an electronic bill of lading to be functionally equivalent to its paper counterpart, the law must make proper and unequivocal provisions in this regard. The resolution by UNCITRAL to create model legislation in terms of electronic commerce was an attempt to reply to circumstances facing various countries whose current legislation governing communication and storage of data was insufficient and outdated because it did not allow for consideration of and in-depth thought about the use of electronic commerce. Moreover, in many instances existing legislation implies, or imposes boundaries on, the facilitation of modern means of communication. For instance, current legislation provides for the use of “written”, “signed” or “original” documents and excludes references to practices within the electronic field. In this regard, few countries have adopted specific provisions to deal with particular parts of electronic commerce, because existing legislation lacks provision in dealing with electronic commerce as a whole.⁶

6.2 Recommendations

In order for South African law to address the challenges in providing a legislative green light for the use of electronic documents in trade and commerce, in particular for electronic bills of lading that would be functionally equivalent to paper bills of lading, some amendments are necessary.

With regards to the Sea Transport Documents Act,⁷ the recommendations based on the findings of this study are as follows:

⁶ UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996 with additional articles 5 *bis* as adopted in 1998 available at para 2 http://www.uncitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf accessed on 2 March 2017.

⁷ 65 of 2000.

- The Act must expressly refer to electronic bills of lading and other electronic transport records in the definition of sea transport document.
- The Act must include provisions that deal with the bill of lading's function as a document of title by providing a clear recognition of a negotiable or transferable electronic bill of lading, or the envisaged regulations should be passed.
- The laws must be clear on what constitutes a negotiable electronic bill of lading and an electronic document. The law must differentiate between a transport document and electronic record. It must have a clause dealing with negotiable and non-negotiable electronic documents.

With regards to the Electronic Communications and Transaction Act,⁸ the recommendations based on the findings of this study are as follows:

- If the Act were to be amended, the drafters must include unambiguous reference to the electronic bill of lading when referring to electronic transactions.
- In its definition section, the drafters must clearly differentiate between electronic communication and electronic documents.
- The features of an electronic signature required on an electronic bill of lading should be clarified.

Finally, as discussed in Chapter three, an electronic bill of lading can be transferred as stipulated by the Rotterdam Rules⁹. The Rotterdam Rules are awaiting ratification. Clearly, should this set of rules be ratified, an electronic bill can replicate the functions of the traditional paper bill without any difficulties because these rules will govern electronic bills. The convention requires ratification by at least twenty signatory states and will come into force one year after the twentieth ratification. The rules were signed by 24 states but only three have ratified them. South Africa should consider signing the Rotterdam Rules, as a replacement for The Hague Visby rules presently in force under the Carriage of Goods by Sea Act.¹⁰

6.3 Conclusion

⁸ 25 of 2002

⁹ United Nations Conventions on Contracts for the International Carriage of Goods Wholly or Partly by Sea (New York, 2008) (the 'Rotterdam Rules') available at http://www.uncitral.org/uncitral/en/uncitral_texts/...goods/2008rotterdam_rules.html accessed on 28 February 2017.

¹⁰ 1 of 1986.

In a nutshell, it is clear that there are barriers in the use of electronic bills of lading, particularly in terms of replicating the document of title function of a paper bill of lading.

However, as discussed in this dissertation, the shipping industry is making increasing use of electronic bills of lading, as evidenced by the development of new private registry systems recognised by P&I Clubs and BIMCO and incorporated into charter contracts.

“Technological development is progressing apace. The law is catching up fast. And for the paper bill of lading, unchanged in substance since first issued by the ship's scribe in what are now ancient times, the writing is perhaps on the wall. Or should one rather be bold and say 'the binary code is in cyberspace'.”¹¹

Slowly but surely, it seems, that the law will have to develop to a point where it can provide a functional equivalent for the paper bill of lading.

¹¹ Hare at 726-727

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27 September 2017

Ms Sanelisiwe Princess Ngcobo (206509020)
School of Law
Howard College Campus

Dear Ms Ngcobo,

Protocol reference number: HSS/1770/017M

Project title: A comparative study of the paper and electronic bill of lading in South African Law

Approval Notification – No Risk / Exempt Application

In response to your application received on 21 September 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....
Dr Shenuka Singh (Chair)

/ms

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