

# VTS: lifting the fog of legal liability

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*In November 1998 a Vessel Traffic Services (VTS) system, linked to a Traffic Separation Scheme (TSS), was established at the port of Cape Town. In January 2000 a collision occurred between two vessels within the Cape Town TSS. The parties who suffered losses as a result of this collision sued the Port Authority on the basis that the VTS operator had failed to provide relevant information, recommendations, warnings and directions to either of the vessels. The case settled during the trial. This article examines the liability of VTS for casualties occurring within an area monitored by it, using the facts of this case to highlight the legal issues which arise.*

## I. INTRODUCTION

On the afternoon of 21 January 2000 a motor vessel (referred to in this article as “*Vessel D*”) was reaching the end of her voyage from Bahia Blanca to Cape Town. *Vessel D* was a bulk carrier, with a gross tonnage of 34,839 tons and she was carrying 60,000 tons of wheat. As the vessel approached Cape Town she entered fog which became increasingly thick. Unbeknown to the master and crew of *Vessel D*, a Vessel Traffic Services system (“VTS”), which was linked to a Traffic Separation Scheme (“TSS”), had been introduced at the port of Cape Town on 1 November 1998. The vessel’s Cape Town charts had not been updated since the introduction of the VTS and the TSS.

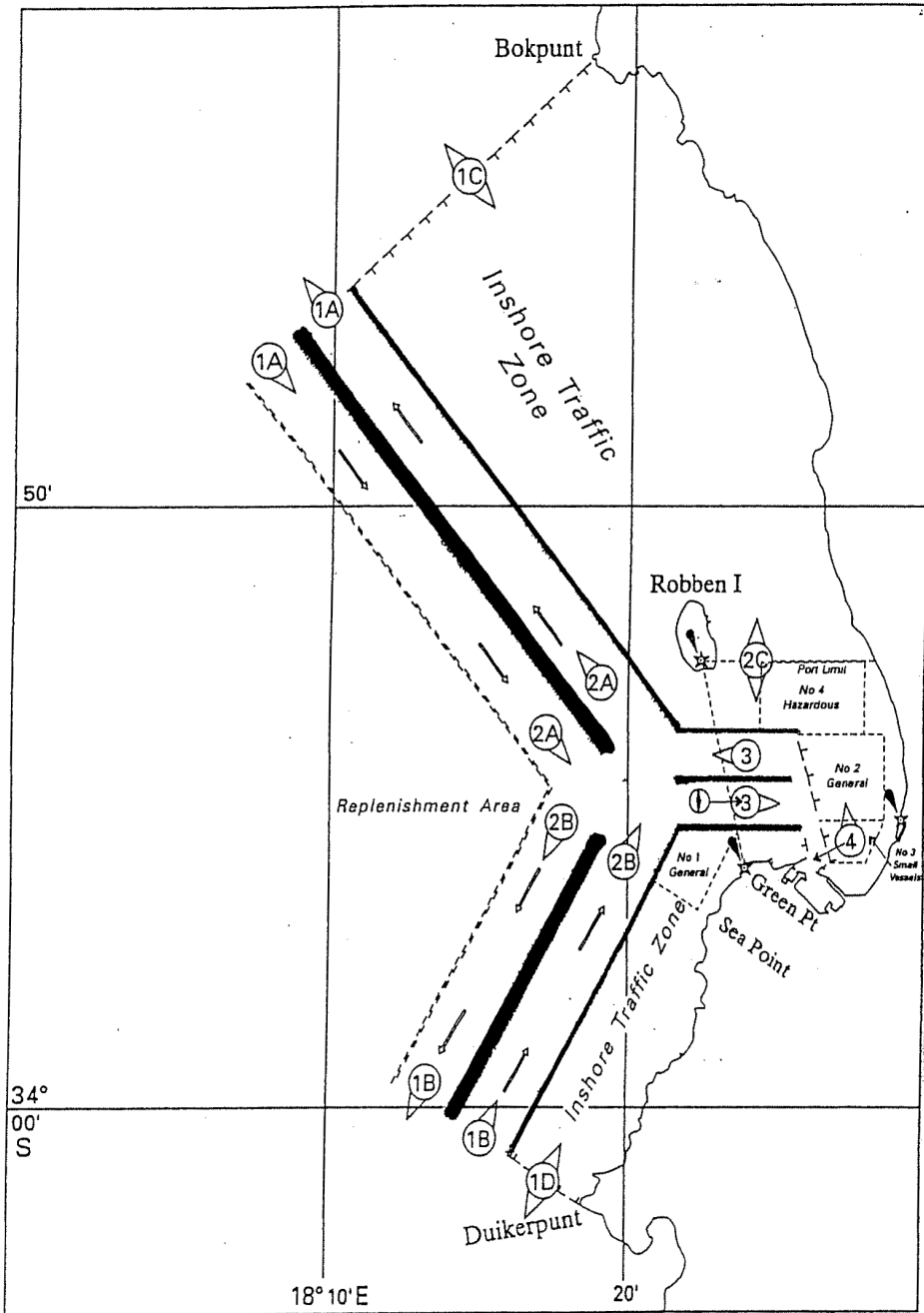
The VTS was operated by the Port Authority and the VTS Operator (“VTSO”) was an employee of the Port Authority.<sup>1</sup> The TSS and the VTS extend a considerable distance beyond the port limits but fall within South African territorial waters. The TSS contains four reporting points for vessels proceeding in or out of the port. A diagram depicting the TSS is set out in Figure 1 below.

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1. The VTSO acted simultaneously as a Port Control officer.

Figure 1 Table Bay and Approaches



At 14.43 hours the master of *Vessel D* reported to Port Control (ie, the VTSO) that the vessel was one hour from the pilot station and asked whether Port Control had any

information about his berthing prospects. The VTSO responded that the port was very busy and suggested that the vessel proceed to anchorage or drift off port limits. The master advised that he would drift and proceeded to sail towards a position three miles west of the pilot station.

At about that time another motor vessel (referred to in this article as "*Vessel G*") was leaving the port of Cape Town, destined for Durban via Port Elizabeth. *Vessel G* was a container ship with a gross tonnage of 27,103 tons. She was a regular caller to Cape Town and was fully conversant with the TSS and VTS. She set sail for Port Elizabeth and, after rounding the fairway buoy, proceeded along the outgoing traffic lane at about 14 knots. In accordance with the VTS procedures *Vessel G* reported to the VTSO at reporting point 4 at 14.56 hours, and was advised as follows: "We have at the moment a bulk carrier approaching Table Bay from the south, [*Vessel D*]. She is approaching Table Bay from the south and another vessel approaching under the replenishing area also from the south.<sup>2</sup> Over."

Shortly after 15.00 hours *Vessel D* entered the TSS lane reserved for vessels leaving the port in a southwesterly direction, doing so at an oblique angle. As *Vessel D* did not know about the TSS, she then proceeded to sail the wrong way up this lane for about 20 minutes, at the same time executing a gradual turn to port. At about 15.20 hours she unknowingly sailed into the hub linking the three legs of the TSS. At no time did the VTSO advise *Vessel D* that she was in the wrong traffic lane, nor did the VTSO advise *Vessel G* that there was a vessel proceeding up the traffic lane which *Vessel G* would sail down on her outward bound voyage, although this information would have been apparent from the VTS monitor in front of him.

At 15.11 hours *Vessel G* reported in at reporting point 3 and the VTSO simply stated: "Roger, reporting point 3, thank you ("*Vessel G*"). Control standing by, Sir. Thank you, over." Both vessels were sailing at speeds which were unsafe, having regard to the fact that, as a result of fog, visibility had been reduced to less than a mile. In addition, neither vessel was monitoring her radar adequately.

By the time *Vessel D* sailed into the central hub of the TSS and settled onto a steady course at about 15.20 hours, the Closest Point of Approach ("*CPA*") between her and *Vessel G* had closed to one to two cables. For the next six-seven minutes both vessels maintained their courses. About five minutes before the collision, the master of *Vessel D* ordered a hard turn to port. As *Vessel D* executed her turn to port the collision became a certainty. In so far as *Vessel G* was concerned, it was only shortly before the collision that her master saw on his radar for the first time that there was an imminent collision and ordered his vessel hard to starboard. However, this was too late and at about 15.31 hours *Vessel G* collided with *Vessel D* in the way of Nos. 4 and 5 holds, creating a substantial hole in the hull of *Vessel D*. The approximate courses followed by the vessels as they proceeded in the TSS until the point of collision are set out in Figure 2.<sup>3</sup> Until moments before the collision the VTSO maintained his silence.

2. *Vessel D* was in fact approaching from the southwest.

3. Figure 2 is a copy of an annexure to the expert report filed of record which was prepared by the Port Authorities' navigation expert, Captain John Third.



Fortunately, there was no loss of life or pollution and *Vessel D* was able to limp into the port of Cape Town where she was later repaired. *Vessel G* had relatively minor damage to her bow and was able to complete her voyage to Durban, where she was also repaired. Approximately 12,000 tons of the wheat on board *Vessel D* was lost as a result of the collision.

The owners and charterers of the two vessels and the cargo on board *Vessel D* subsequently settled their differences and agreed to pool their claims against the Port Authority and to institute action against the Port Authority for their damages arising from the collision. In essence, the basis of their claim was that the Port Authority was liable for the damages sustained by them due to the negligence of the VTSO, who failed to provide any information, recommendations, warnings or directions to either of the vessels prior to the collision, as a result of which the collision occurred. At the trial it was admitted that the crew of both vessels were causally negligent, but it was argued that the Port Authority was also partially to blame and thus should bear some of the loss. Midway through the trial the matter settled.

The principal claim against the Port Authority by the owners of the two vessels and the cargo interests was in delict<sup>4</sup> (ie, tort, in English terminology). In most claims against a VTS Authority the plaintiff will inevitably base the action in tort, although it is conceivable that in certain circumstances a contractual claim may arise.

## II. VTS/TSS—THE INTERNATIONAL STATUTORY FRAMEWORK

VTS systems date back to 1948, when the world's first harbour control radar was installed on the Isle of Man. Thereafter many ports around the world installed radar traffic advisory and regulatory systems and the need for internationally recognized standards for VTS became apparent.<sup>5</sup> On 27 November 1997 the International Maritime Organization (IMO) adopted Resolution A.857(20),<sup>6</sup> headed "Guidelines for Vessel Traffic Services" ("the IMO Resolution").

VTS is the term adopted by the IMO to describe the range of systems operated by coastal states over specified areas of sea adjacent to their ports or coasts under which ship traffic is subject to the supply or exchange of information or the giving of advice or, possibly, of instructions by coastal stations with a view to enhancing the safety and efficiency of that traffic. In essence, all VTS systems are concerned with facilitating safe and efficient vessel traffic movement within restricted areas.<sup>7</sup>

4. In South Africa, a delict may be defined as "the act of a person which in a wrongful and culpable way causes harm to another". In essence a delict is made of five elements, namely an act (or conduct), wrongfulness, fault, harm and causation, all of which must be present before the conduct complained of may be classified as a delict. See Neethling, Potgieter and Visser, *The Law of Delict*, 4th edn (Durban, 2001) (hereafter "*Neethling et al*"), 4.

5. For example, in 1968 the IMO adopted resolution A.158 (ES.IV), *Recommendation on Port Advisory Services*. Subsequently in 1985 the IMO adopted Resolution A.587 (14), *Guidelines for Vessel Traffic Services*.

6. This Regulation is associated with SOLAS Regulation V/8-2, which was adopted on 4 June 1997 and came into force on 1 July 1999, as well as Regulation V/12.

7. See also Nathaniel Bowditch, *The American Practical Navigator*, 2002 Bicentennial Edition (Bethesda, Maryland, 2002), 387.

A TSS is a routing measure aimed at the separation of opposing streams of traffic by appropriate means and by the establishment of traffic lanes.<sup>8</sup> It is not dissimilar to a motorway, where vehicles travelling in different directions are separated from each other by prescribed lanes with an island in the middle. A TSS is a passive method for regulating vessel traffic flow, whilst the VTS is a dynamic system which interacts with vessel traffic through the personnel operating it.

The IMO Resolution defines VTS as:

a service implemented by a Competent Authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment. The service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area.<sup>9</sup>

The object of a VTS is described as follows:

The purpose of VTS is to improve the safety and efficiency of navigation, safety of life at sea and the protection of the marine environment and/or the adjacent shore area, worksites and offshore installations from possible adverse effects of maritime traffic.<sup>10</sup>

In terms of the IMO Resolution, a VTS should at least comprise an Information Service, which ensures that essential information becomes available in time for on-board navigation decision-making. It may also include a Navigational Assistance Service, to assist on-board navigational decision-making and to monitor its effects, and a Traffic Organization Service, to prevent the development of dangerous traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area.<sup>11</sup>

The IMO Resolution also draws a distinction between a port or harbour VTS on the one hand and a coastal VTS on the other; and provides that a port VTS is mainly concerned with vessel traffic to and from a port or harbour, while a coastal VTS is mainly concerned with traffic passing through an area. The latter is usually only an information service.<sup>12</sup>

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) has played a pivotal role in relation to the development of VTS. In particular, IALA has published a number of Recommendations pertaining to VTS.<sup>13</sup> These include V-103 (standards for training and certification of VTS personnel), V-127 (operational procedures for VTS) and V-128 (technical performance requirements for VTS equipment).

The navigation of vessels in a TSS which has been adopted by the IMO is dealt with in the International Collision Regulations, in Rule 10.<sup>14,15</sup> The Cape Town TSS was not

8. *IMO and The Safety of Navigation*, issued by the International Maritime Organization in January 1998.

9. IMO Resolution, Annex 1, para 1.1.1.

10. *Ibid*, para 2.1.1.

11. *Ibid*, paras 1.1.9, 2.3.1–2.3.3.

12. *Ibid*, para 2.1.2.

13. These are all available on the IALA website ([www.iala-aism.org](http://www.iala-aism.org)).

14. In South Africa, the Merchant Shipping (Collision etc) Regulations of 1996, which were made pursuant to the Merchant Shipping Act No. 57 of 1951, s 356, rendered the International Regulations for Preventing Collisions at Sea of 1972 (“the International Collision Regulations”) applicable to ships while they are in South Africa or its territorial waters.

15. Rule 10(b) and (c) state that:

“(b) A vessel using a traffic separation scheme shall:

- (i) proceed in the appropriate traffic lane in the general direction of traffic flow for that lane;
- (ii) so far as practicable keep clear of the traffic separation line or separation zone;
- (iii) normally join or leave a traffic lane at the termination of the lane, but when joining or leaving from either side shall do so at as small an angle to the general direction of traffic flow as practicable.

adopted by the IMO and therefore, strictly speaking, Rule 10 was not applicable to this particular TSS. However, where a TSS has been introduced by a state within its own territorial waters and it has not been adopted by the IMO, Rule 10 would almost invariably apply either in terms of International Collision Regulation 1(b) or as a matter of good seamanship.<sup>16</sup> As can be seen from Figure 2 above, *Vessel D* inadvertently breached almost every provision of Rule 10.

The equipment of the Cape Town VTS Centre is fairly typical of VTS centres around the world. Both the VTSO and VTS Supervisor have modern colour displays mounted in front of them. The displays have the TSS superimposed on them together with an electronic chart and all of the associated navigational marks, such as anchorages and depths. The VTS personnel can use the displays to calculate the CPA and Time of Closest Point of Approach ("TCPA") in respect of two identified vessels; and vectors showing the predicted tracks of vessels can be produced in respect of each vessel on the display.

### III. NO VTS CASE LAW

In the IMO Resolution VTS authorities are expressly advised that, if they introduce and operate a VTS, they must take into account the legal implications which may arise if there is a shipping accident caused by the operator's failure to carry out his or her duties properly.<sup>17</sup> However, our research has not uncovered a reported judgment anywhere in the world which has dealt squarely with the obligations and liabilities of a VTS. As Professor Edgar Gold states: "In fact, VTS has developed almost in a total legal vacuum and only now, when the systems are actually in operation in many parts of the world, are hurried questions being asked about regulatory aspects, legal responsibilities and liability."<sup>18</sup>

Nonetheless, there have been inquiries which have dealt with the role of VTS in casualties. For instance, the Bermudan government appointed the Marine Accident Investigation Branch (MAIB) of the UK Department of Transport to investigate the collision between the *British Trent* and the *Western Winner* in the vicinity of the Wandelaar pilot station off the Belgian coast on 3 June 1993. The report concluded that the Scheldt Modingen VTS did not monitor the traffic situation and did not give information about the developing dangerous situation and recommended that the Bermuda Registry of Shipping should liaise with the authorities responsible for the operation of the VTS in order to make it more effective in traffic control.<sup>19</sup> Furthermore, a VTS will often

(c) A vessel shall, so far as practicable, avoid crossing traffic lanes but, if obliged to do so, shall cross on a heading as nearly as practicable at right angles to the general direction of traffic flow."

16. S Gault, S J Hazelwood and A Tettenborn (eds), *Marsden on Collisions at Sea*, 13th edn (London, 2003), §5-70.

17. IMO Resolution, Annex 1, para 2.2.4.

18. E Gold, "Legal and Liability Aspects of VTS Systems—Who is to blame when things go wrong?", published in *Pilotage and Ship Handling* (Nautical Institute, 1990) (hereafter "*Pilotage and Ship Handling*"), 216.

19. See paras 12.6 and 13.2.

be operated by a harbour authority; and in Great Britain, for example, it is well established that harbour authorities will be liable if they, or their servants, fail to exercise reasonable care and skill in carrying out their functions.<sup>20</sup>

Moreover, VTS may be considered to be an aid to navigation. In a number of cases in Canada the applicable authorities have been held liable in tort for their failure to maintain navigational aids and similar services such as compulsory pilotage. In *R v. Nord-Deutsche Versicherungs-Gesellschaft*<sup>21</sup> the court held that a major share of the blame for a collision between two ships in Lake St Peter should be borne by the Crown because there was a breach of duty on the part of the servants of the Crown responsible for the care and maintenance of a certain range of lights upon which mariners were entitled to place reliance.

In *R v. Hendricks*<sup>22</sup> the court held the Crown liable for the failure of its employees to replace signs which warned that a waterfall lay ahead. In *Irish Shipping Ltd v. Canada*,<sup>23</sup> while the action against the Crown was dismissed because the navigators were not misled by a navigational aid, the court accepted that the plaintiff was entitled to rely on all navigational aids which were in place and duly published.

Finally in this regard, Professor Gold points out that in most states courts have held the state responsible for damage which has arisen out of negligence by public bodies.<sup>24</sup> In South Africa the courts have not hesitated to hold public authorities liable for their negligence in appropriate cases.<sup>25</sup> It appears that a claim against a Port Authority based on an omission is more likely to succeed in South Africa than in the UK.<sup>26</sup> The English courts have demonstrated a reluctance to impose positive duties on public agencies which are

20. R Douglas, P Lane and M Peto, *Douglas & Geen on the Law of Harbours, Coasts and Pilotage*, 5th edn (London, 1997), §3.18; *East London Harbour Board v. Caledonia Landing, Shipping and Salvage Co Ltd* [1908] AC 271; *Reney v. Magistrates of Kirkcudbright* [1892] AC 264.

21. [1971] SCR 849.

22. [1970] SCR 237.

23. [1977] 1 FC 485.

24. *Pilotage and Ship Handling*, 219. As pointed out by Professor Gold, VTS authorities must ensure that the systems are put in place with high standards of equipment, well-trained personnel and good promulgation of requirements and limitations to avoid being held liable for negligence (*ibid.*, 220).

25. See, eg. *Minister of Safety and Security v. Hamilton* 2004 (2) SA 216 (SCA); *Carmichele v. Minister of Safety and Security* 2001 (4) SA 938 (CC); *Minister of Safety and Security v. Van Duivenboden* 2002 (6) SA 431 (SCA); *Dersley v. Minister van Veiligheid en Sekuriteit* 2001 (1) SA 1047 (T); *Sasverbijl Beleggings & Verdiskonteringsmaatskappy Bpk v. Vanrhynsdorp Town Council and another* 1979 (2) SA 771 (W) and 1980 (1) SA 621 (W); *Rabie v. Kimberley Municipality and another* 1991 (4) SA 243 (NC). In the *Carmichele* case, the Constitutional Court held that the plaintiff was entitled to claim damages from the Minister of Safety and Security when a criminal was allowed bail because the police and prosecutors had been negligent and he thereafter seriously assaulted the plaintiff in circumstances where the court held that, but for the aforesaid negligence, bail would not have been granted. In *Sasverbijl* the municipality was held liable for damages sustained by an aircraft which had landed notwithstanding the fact that as a result of his own negligence the pilot had not established that the aerodrome had been closed, ie his position was similar to that which *Vessel D* found itself in. In *Rabie* the failure of traffic lights had resulted in a collision in which the plaintiff was injured. The Kimberley Municipality was held liable in circumstances where it had failed to properly investigate the intermittent malfunctioning of the traffic lights and to effect the necessary repairs to them. Many of the relevant principles are set out in J Neethling, "Delictual Protection of the Right to Bodily Integrity and Security of the Person against Omissions by the State" (2005) 122 SALJ 572.

26. See the address by Sir David Steel, "Marine Liability Issues", given at the conference on Coordination of VTS Standards in the United Kingdom on 12 May 1999 at Trinity House, London.

charged with the function of protecting the public.<sup>27</sup> The English case law also reflects a concern for the social and economic implications of imposing duties of care.<sup>28</sup>

#### IV. LEGAL LIABILITY OF DIFFERENT TYPES OF VTSS

Each potential claim against a particular VTS will have to be considered separately, taking into account not only the specific facts which gave rise to the claim, but also the specific characteristics of the VTS in question. VTSs around the world provide different services to all kinds of vessel in a wide range of geographical, weather and sea conditions. Furthermore, the common law and policies of the countries in which VTSs operate will often be different from each other. Most VTSs will have their own statutory structure, which will govern their creation and operation. The nature, size and funding of the organizations which run the VTSs will differ. No act or omission which may give rise to a possible claim against the VTS will be the same. Moreover, distinct issues may also arise when a TSS is introduced, especially in circumstances where it is part of a VTS. While a TSS creates a situation akin to a highway, its traffic lanes cannot be painted onto the sea and will primarily be created by depiction upon charts, which not all vessels will necessarily have. When considering questions of legal liability, a clear distinction must be made between a port or harbour VTS ("port VTS") and a coastal VTS,<sup>29</sup> as the two cater for fundamentally different situations.

##### (a) Port VTSS

The Cape Town port, like most ports today, operates as a commercial enterprise. All the services provided by the port, be they pilots, tugs, berths or cargo handling facilities, are ultimately paid for by the vessels concerned. Indeed, most large ports constitute substantial commercial undertakings. Many millions, indeed billions, of dollars may have been invested in them. It is not unheard of for 450 vessels carrying in the region of one million tons of cargo worth approximately \$1 billion to be handled by a port in a day. A large number of expensive vessels may often use the port, including giant tankers. In the circumstances, the optimal management of the vessels in the port will have important economic implications for both the port and the vessels themselves.

At the same time events taking place outside a port's area of exclusive jurisdiction have become increasingly relevant to the operation of the port. A port needs to have regard to the number, nature and type of vessels approaching it. As vessels approach a port, the traffic density may increase dramatically. The approaches to a port may be characterized by strong currents and narrow channels. A collision in the approach channel may have the effect of temporarily closing a port. Thus, the effective management of the traffic in the

27. See *Capital and Counties Plc v. Hampshire CC* [1997] QB 1004 (fire brigade); *Alexandrou v. Oxford* [1993] 4 All ER 328 (police); and *O.L.L. Ltd v. Secretary of State for Transport* [1997] 3 All ER 897 (coast guard).

28. See *Marc Rich & Co AG v. Bishop Rock Marine Co Ltd; (The Nicholas H)* [1996] AC 211; [1995] 2 Lloyd's Rep 299.

29. As emphasized in the IMO Resolution, Annex 1, para 2.1.2.

approaches to a port may have a significant impact upon the efficient operation of the port itself.

In the result larger ports can no longer operate solely within their prescribed jurisdictional limits and ports are increasingly obliged to have regard to vessel movements outside their areas of exclusive jurisdiction. Consequently, the efficient and cost-effective operation of many ports have compelled them to introduce VTS related services to organize the traffic entering and leaving the port, in addition to questions of improved safety.

This was expressly recognized by the South African Port Authority when motivating for and introducing its VTS at Cape Town. In an undated "VTS news brief" published by the Port Authority, it was stated that, "we can no longer sit idly by whilst something is occurring in or approaching our Port Limits/VTS area". In a further document prepared by the Port Authority's head office, it was concluded that, "from all the above it can be seen that a Port Authority has a Liability/Responsibility for the Safety of Navigation, Accountability within Port Limits and the approaches to the Port with regard to the Management of traffic". At the same time it was recognized that the introduction of the VTS would create additional responsibilities for the port.

Indeed, it is not without relevance that the Port Authority was instrumental in the introduction of the VTS in Cape Town in the first place. The outer extremities of the TSS and VTS went far beyond the port limits prescribed by its governing statute and in essence delineated the area over which the port required a measure of control for its own purposes.<sup>30</sup>

Initially, the cost of the VTS was paid for from port dues charged by the port, but some time after the collision a dedicated VTS levy was introduced. In both situations, the result was that the vessels which utilized the port provided the funds to operate the VTS. Furthermore, when introducing the VTS, the Port Authority held out in various publications that it would assist traffic in the VTS area. For example, it was advertised that the Port Authority, "will provide the vessel with more accurate information of other vessels' positions and the density of traffic converging on the same positions".<sup>31</sup> Also, the Port Authority's website stated that, "safe anchorage is provided in the roadstead with vessels being constantly monitored on modern radar equipment".<sup>32</sup>

Moreover, the VTS was combined with many of the port control functions which the port had previously carried on. A decision was also taken to combine the VTS with a TSS in order to ensure the orderly passage of traffic to and from the port entrance. In the result a single integrated service was provided by port control from the time the vessel entered the TSS until she docked, and thereafter from the time the vessel undocked until she left the TSS.

As a compulsory pilotage port with its own pilots and tugs, which all large commercial vessels are obliged to use, the Cape Town port has effective means to exert influence over the manner in which vessels are navigated in the approaches to the port. Pilotage and tug

30. For the layout of the TSS at the port of Cape Town, see *supra*, Fig. 1.

31. SA Notice to Mariners 18/99 para 12(b). See also SA List of Lights and Radio Signals (2002), 61.

32. <http://www.portnet.co.za/capetown/marine/html> (downloaded on 14 March 2002). These publications can be compared with the pamphlet issued by the Scheldt Mondingen VTS, which stated that the main task of the VTS was to provide shipping with information and, if necessary, traffic organization services (para 6.6 of the MAIB Report referred to *supra*, 368).

services can be withheld until vessels comply with the port's requirements and errant vessels can be made to account for errors of navigation once they have been berthed.

In this situation there is no reason why a port VTS should not be treated like any other commercial enterprise, be it a mine, factory or other commercial undertaking, when it comes to assessing its legal liability for delicts or torts committed by it. The fact that the VTS and the TSS operate in the main outside the port limits in territorial waters and requires the approval of the relevant competent authority—which in South Africa is (“SAMSA”) the South African Maritime Safety Authority should not make any difference.

The powers, functions and duties of the VTS would in the normal course be dictated by the statutory instrument governing the operation of the VTS, as VTSs will generally operate outside the area of the port's exclusive control and usually in territorial waters where ports do not exercise their own jurisdiction. In the present case an unusual situation arose, as the VTS and the TSS were initially set up on a trial basis for a year and a statutory vacuum existed until some time after the collision when the requisite regulations were promulgated.<sup>33</sup>

Even if the port VTS could be classified as a public authority, its liability for the negligence of its VTSOs is to be found in common law considerations. It has an identifiable category of persons in favour of whom it operates, being primarily those with interests in the specific vessels using its port. By implication it undertakes a responsibility to these persons and the VTS is intended not only to improve a port's efficiency, but also the safety and efficiency of the operation of the vessels using the port.<sup>34</sup> There is a proximate relationship between the port VTS and an identifiable category of persons, being those with interests in the vessels using the port,<sup>35</sup> who will generally also be the ultimate source of the funds used to operate the port VTS.

In this situation there are no pressing policy considerations to exclude liability for the negligent operation of port VTSs. The VTS has as its heart the equipment and skills required to monitor the movement of the vessels utilizing the port and to provide, at the very least, specialized and relevant information relating to the safe navigation on which vessels utilizing the port are entitled to rely. In these circumstances it is difficult to see why it would not be fair, just and reasonable to require the VTS to take reasonable care to avoid causing loss or damage to vessels utilizing the port, for example, as a result of collisions or groundings.<sup>36</sup>

Furthermore, the port is fully able to cover itself by insurance (which was the position in the present case). It is able to compel its customers (the vessels using the port) to fund the cost of the VTS and there is no reason why these same customers should not be entitled to expect the efficient operation of the VTS in return. If the negligent operation of the VTS which a customer funds causes it loss, there is no reason why it should not be able to recover such loss from the VTS. The lower the standard of operation of the VTS,

33. The Marine Traffic (In-shore Vessel Traffic Services) Regulations 2000, made in terms of the Marine Traffic Act, No. 2 of 1981, s 14, and promulgated in Government Gazette No. 21136 dated 5 May 2000.

34. IMO Resolution, Annex 1, para 2.1.1.

35. See the second test described in *Caparo Industries Plc v. Dickman* [1990] 2 AC 605, 617–618.

36. See *Caparo* [1990] 2 AC 605, 618 and *Attorney General v. Carter* [2003] 2 NZLR 160, 169–170 [30].

the higher the public liability costs; the higher the public liability costs, the greater the pressure to improve the standard of the VTS.

### **(b) Coastal VTSSs**

Most coastal VTSSs will be in an entirely different situation from port VTSSs. It is unlikely that there will be a commercial operation standing behind them. Their costs will probably be funded by the tax-payers of the country which happens to lie adjacent to a particularly busy seaway. Its primary interest will be the protection of its own environment, rather than the protection of an indeterminate number of vessels passing along the coast. Dangers may be created by any number of vessels, none of whom may ever visit the country funding the VTS. The coastal VTS will probably find it very difficult to exercise effective control over errant vessels. While most vessels may rely on information being conveyed to them, few VTSSs will have an effective means to discipline vessels which ignore them. It is in this context that errant vessels will be regarded as rogue vessels and compliant vessels warned against them. In a port situation a rogue vessel can be refused entry into the port or, once in the port, effectively disciplined. The coastal VTS has no such power over the vessel.

Coastal VTSSs will predominantly be information services. On the other hand, port VTSSs will generally have a direct interest in introducing effective traffic organization systems to advance the efficient operation of the port, where the power to give advice and to issue recommendations and directions may be invaluable.

A coastal VTS will be primarily instituted to ensure the safe and efficient passage of vessels through the VTS area, whereas a port VTS is primarily interested in the safe and efficient utilization of the port. The aim of a coastal VTS will be primarily to ensure the safe departure of all vessels from the VTS area without having caused the coastal state any harm, whereas a port VTS is designed to assist specific vessels to arrive in and depart from the port for the benefit of not only the vessels but the port itself.

In this situation it is difficult to imagine circumstances where a coastal VTS authority acting as an information service only will be held liable for omissions to provide relevant information, even in those countries which may be more sympathetic to claims in these circumstances.<sup>37</sup> One can envisage possible situations where liability could arise where, for example, a vessel was not provided with vital information which was well known to the VTS, which also knew that the vessel in question did not know about the information, as a result of which the vessel sank; but even then the claimant will have significant difficulties to overcome. Claims against coastal VTSSs may have greater chances of success where the VTS has provided wrong information or where the VTS has entered into a relationship with a vessel or vessels or undertaken responsibilities which may give rise to common law duties of care.<sup>38</sup>

37. J Fleming, *The Law of Tort*, 9th edn (Sydney, 1998) (hereafter "Fleming"), 169–170, points out that English courts have been slow to demand duties of affirmative action from public agencies charged with the function of protecting the public, such as the police and fire brigades, whereas Australian and Canadian courts have not adopted these far reaching policy perspectives. When dealing with reliance as a source of a duty of care, the author points out that it has been applied with very different results, "ranging from the New Zealand liberalism to the decidedly strict (negative) attitude of current English jurisprudence" (*ibid.*, 212).

38. *Gorringe v. Calderdale Metropolitan Borough Council* [2004] UKHL 15, [38]; [2004] 1 WLR 1057, 1068.

The considerations which the courts will have reference to in these situations are discussed later in this article.

### (c) VTS combined with a TSS

Where a VTS is combined with a TSS, a new situation is created by dividing the seaway in two lanes. As such a new source of danger may be introduced. As stated by Lord Hoffmann in a different context, "if a highway authority conducts itself so as to create a reasonable expectation about the state of the highway, it will be under a duty to ensure that it does not thereby create a trap for the careful motorist who drives in reliance upon such an expectation".<sup>39</sup> Where the TSS also includes compulsory reporting points where vessels are obliged to report into the VTS, vessels are also entitled to expect to be given relevant information with regard to sources of dangers and safety on their further navigation in their prescribed lanes.

The new dangers which may be created are illustrated by the facts of our case. While *Vessel G* was travelling in the correct prescribed lane, *Vessel D* was unknowingly contravening the TSS by proceeding up the outgoing lane down which *Vessel G* was about to proceed. But for the introduction of the TSS, there was nothing wrong with the course followed by *Vessel D*, and no other reason for *Vessel G* to be where she was. Not only did this constitute a new source of potential danger which was created by the introduction of the TSS, but the Port Authority was responsible to oversee this new source of danger.

In these circumstances the officers of *Vessel G* were lulled into a sense of false security, where they had complied with all the VTS's requirements, they were sailing correctly in their prescribed lane and they received no indication of any possible source of danger from the VTSO, which they assumed was monitoring the movements of all other vessels in the area. When they finally realized their predicament, they were shocked by *Vessel D*'s unpublicized but flagrant disregard of the TSS.

*Bird v. Pearce*<sup>40</sup> is of some relevance in this regard. In that case the plaintiff was a passenger in a car on a major road who was injured in a collision with a car which emerged from a minor road. The driver of the second car, who was agreed (as between the two cars) to be 90% responsible for the collision, joined the County Council (as highway authority) as a third party, alleging that it had negligently removed and failed to repaint the warning lines which customarily indicated to drivers that they were entering upon a major road. The Court of Appeal held that, by removing the lines, the Council had created a hazard. Although this case has been described as a "difficult case" and subjected to criticism,<sup>41</sup> similar considerations may arise in a case involving the introduction or alteration of a TSS.

### (d) Mixed VTSs

It may not always be easy to categorize a VTS as purely a port or a coastal VTS. Coastal VTSs may often be bound up with the safe operation of ports within their area, whereas

39. *Gorringe* [2004] UKHL 15, [43]; [2004] 1 WLR 1057, 1070.

40. [1979] RTR 369; (1979) 77 LGR 753.

41. See *Gorringe* [2004] UKHL 15, [42–43], [70], [84–85] and [102]; [2004] 1 WLR 1057, 1070, 1077, 1081–1082, 1087.

port VTSs may also provide services to vessels which happen to be within their VTS jurisdiction but passing the port. For example, while vessels passing through the English channel or the Singapore Straits may regard them as coastal VTSs, vessels utilizing the ports of Dover or Singapore may regard them as port VTSs.

## V. GENERAL CONSIDERATIONS

In circumstances where, for example, a VTS is not clearly a port or a coastal VTS, or a collision has been caused by a positive act of a coastal VTS, it may not be easy to determine whether wrongfulness is present (as in South Africa) or a duty of care exists (as in English law systems).

There has been much debate in various jurisdictions regarding the appropriate test to be employed in analysing whether a “duty of care” exists.<sup>42</sup> Does one prefer the fairness of *Just*,<sup>43</sup> or the wisdom in *Stovin*<sup>44</sup>? Did general reliance have its final day in *Pyrenees*?<sup>45</sup> An exasperated Kirby J of the High Court of Australia was driven to recall the prayer of Ajax: “save us from this fog and give us a clear sky, so that we can use our eyes.”<sup>46</sup> This supplication may well have been in the mind of the master of *Vessel D* on the fateful day!

Relevant considerations to which courts in the UK, Canada, Australia, New Zealand and South Africa have had regard include the following:

1. It is much more common for liability to be imposed for positive conduct rather than omissions (misfeasance as against non-feasance). Thus, the prospects of holding a VTS authority liable are substantially greater where, for example, VTS has provided wrong information or made a negligent recommendation.

2. According to Lord Steyn in *The Nicholas H*,<sup>47</sup> the law will more readily attach the consequences of actionable negligence to directly inflicted physical loss than to indirectly inflicted physical loss, which will invariably be the case where it is sought to hold a VTS liable.

3. The general rule is that there is no duty to give warning of obvious dangers. People must accept responsibility for their own actions and take the necessary care to avoid injuring themselves or others.<sup>48</sup>

4. However, a relationship entered into by the VTS authority with a vessel in its area, or responsibilities which it may have undertaken to a particular vessel, may give rise to a common law duty of care.<sup>49</sup> The proximate relationship between the vessel and the VTS may be all important to determine what duties the VTS has undertaken.

42. The South African Supreme Court of Appeal has cautioned against confusing the “legal duty” referred to in the context of wrongfulness and the “duty of care” in English law. See *Trustees for the Time Being of Two Oceans Aquarium Trust v. Kantey & Templer (Pty) Ltd* 2006 (3) SA 138 (SCA), 144, [11].

43. *Just v. British Columbia* [1989] 2 SCR 1228.

44. *Stovin v. Wise* [1996] AC 923.

45. *Pyrenees Shire Council v. Day* (1998) 192 CLR 330.

46. *Graham Barclay Oysters Pty Ltd v. Ryan* [2002] HCA 54; 211 CLR 540, 616–617, [211].

47. [1996] AC 211, 237; [1995] 2 Lloyd’s Rep 299, 314.

48. *Gorringe* [2004] UKHL 15, [10]; [2004] 1 WLR 1057, 1062, *per* Lord Hoffmann.

49. *Gorringe* [2004] UKHL 15, [38]; [2004] 1 WLR 1057, 1068–1069, *per* Lord Hoffmann.

5. A threshold requirement in much Commonwealth jurisprudence is proof that it was reasonably foreseeable on the part of the alleged wrongdoer that particular conduct or an omission on its part would be likely to cause harm to the person who has suffered damage, or a person in the same position.<sup>50</sup>

It was this factor which impeded Mrs Elliott in the *Elliott* case,<sup>51</sup> where the claim concerned an allegation that the skipper of a fishing vessel (Mr Elliott) should have had the means to communicate with the port of Onslow so as to obtain navigational information and assistance from the port. As it happened, Mr Elliott was given incorrect information by other skippers and gained the false impression that the port was inaccessible. In the result he anchored his vessel outside the port and was struck by the full force of a cyclone, which resulted in the vessel sinking and all on board drowning. Mrs Elliott argued that, if the port had had the means for her husband to communicate with it, he would have ascertained that the port was in fact open. Pidgeon J held that the situation which arose could not have been foreseeable by the authorities concerned.<sup>52</sup>

However, in most VTS systems it will be foreseeable that casualties could occur in the area monitored by the VTS, as an important purpose of a VTS is to promote safety at sea. It should be apparent that, if the VTS Authority does not perform its safety function with reasonable care, then vessels, cargo and mariners may be endangered. Most classes of plaintiff should not have difficulty satisfying this requirement.

6. The VTSO will often be in a superior position to assess danger and the risk of collision. The radar information enjoyed by the VTSO may be more enhanced than that available to the officers on the bridges of the vessels concerned. Most importantly, the VTS display is a fixed station and therefore not susceptible to input errors such as vessel speed and direction. Furthermore, the VTS radar system provides a bird's eye plan view of the VTS area. The display should be free of target sea clutter; and the display will typically have navigational marks and charts superimposed on it which make it easier to see a vessel's position in relation to other objects or features such as a TSS. VTS radars may have a better range than a ship's radars and a sophisticated array of functions will usually be available at the touch of a button. The VTSO will usually be able to move the centre of the VTS display to different parts of the VTS area so as to obtain more detailed information in respect of a particular area within the VTS area. There is little point in having this advanced and expensive equipment if the VTSO does not analyse developing situations and respond accordingly if a collision is possible.

7. Mariners sailing in a VTS will tend to rely on the operators of the system to provide them with relevant information and warnings. According to Boisson:<sup>53</sup>

Ships entering a VTS coverage area are entitled to rely on information about prevailing conditions of navigation to be of proper quality. If accidents occur as a result of the supply of incorrect information or failure to indicate a hazard, the onshore operator may be considered not to have displayed due diligence, and the authority operating the VTS therefore bears liability.

50. *Caparo* [1990] 2 AC 605, 617; *Pyrenees* (1998) 192 CLR 330, 419, [244], per Kirby J. Under South African law foreseeability is not a requirement of wrongfulness: see *Steenkamp NO v. Provincial Tender Board, Eastern Cape* 2006 (3) SA 151 (SCA), 159–160, [17]–[18].

51. *Elliott v. Minister of Transport for the State of Western Australia* [1999] WASCA 134.

52. *Ibid.*, [17].

53. Phillippe Boisson, *Safety of Sea Policies, Regulations & International Law* (Paris, 1999), 490.

8. Whether a particular plaintiff was in a vulnerable position may be important. The High Court of Australia has described “vulnerability” as being “a reference to the plaintiff’s inability to protect itself from the consequences of a defendant’s want of reasonable care . . . ”.<sup>54</sup> The issue of vulnerability is related to the notions of dependence and reliance. The concept of general reliance was articulated by Mason J in *Sutherland Shire Council v. Heyman*<sup>55</sup> in the following terms:

[T]here will be cases in which the plaintiff’s reasonable reliance will arise out of a general dependence on an authority’s performance of its function with due care, without the need for contributing conduct on the part of a defendant or action to his detriment on the part of a plaintiff. Reliance or dependence in this sense is in general the product of the grant (and exercise) of powers designed to prevent or minimize a risk of personal injury or disability, recognized by the legislature as being of such magnitude or complexity that individuals cannot, or may not, take adequate steps for their own protection. This situation generates on one side (the individual) a general expectation that the power will be exercised and on the other side (the authority) a realization that there is a general reliance or dependence on its exercise of power.

Examples given by Mason J were the control of air traffic, the safety inspection of aircraft and fighting fires by a fire authority.

9. Where the VTS authority has been created by statute, the proper interpretation of the statute will be important.<sup>56</sup>

10. In some cases the courts have sought to distinguish between “policy” and “operational” matters. However, this distinction has not been universally followed.<sup>57</sup> It has been argued that the issue of discretion should be examined in determining whether a defendant is in breach of the duty.<sup>58</sup> The preferred method seems to be one of assessing the degree of discretion. In the minority speech of Lord Nicholls of Birkenhead in *Stovin v. Wise*,<sup>59</sup> it was stated that “the approach, rather, is that as the part played by broad discretionary considerations in the exercise of the power grows, the less readily will a common-law duty be superimposed, and vice versa”. Courts will tend to defer to the authority in the sort of cases where the decision concerns striking a balance between the rival claims of efficiency and thrift.<sup>60</sup> On the other edge of the spectrum would be a power to obviate public dangers, such as the control of air safety.<sup>61</sup> It would seem that, where a VTS has made a decision regarding the employment of its resources, such as how many staff to have on duty, or the size of the area monitored, then such a decision is not reviewable in tort because it is a core policy decision. However, where the decision is concerned with the implementation or administration of policy, then this decision could be subject to a duty of care.

54. *Woolcock Street Investments Pty Ltd v. CDG Pty Limited* [2004] HCA 16; 216 CLR 515, 530, [23]. See also *Two Oceans Aquarium (supra, fn 42)*, [23], where the *Woolcock* case is quoted with approval.

55. (1985) 157 CLR 424, 464.

56. See *Gorringe* [2004] UKHL 15; [200] 1 WLR 1057; *Stovin v. Wise* [1996] AC 923; and *R v. Deputy Governor of Parkhurst Prison, Ex p Hague* [1992] 1 AC 58.

57. See, eg, *United States v. Gaubert* (1991) 111 S Ct 1267; 499 US 315 and *Stovin v. Wise* [1996] AC 923, 951.

58. Stephen Todd, “Liability in Tort of Public Bodies”, ch 3 of Nicholas Mullany & Allen Linden (eds), *Torts Tomorrow: A Tribute to John Fleming* (Sydney, 1998) 36 (hereafter “Todd”), 55; *Gorringe* [2004] UKHL 15, [5], [2004] 1 WLR 1057, 1061.

59. *Stovin v. Wise* [1996] AC 923, 938, per Lord Nicholls of Birkenhead.

60. See, eg, *Kent v. East Suffolk Rivers Catchment Board* [1940] 1 KB 319; 338; per du Parcq LJ.

61. *Stovin v. Wise* [1996] AC 923, 938.

11. A valuable analysis of the considerations which a court will take into account where a public authority is sought to be held liable for an omission is to be found in the High Court of Australia in *Graham Barclay Oysters Pty Ltd v. Ryan*, where six separate judgments were delivered. McHugh J was of the view that the presence of an affirmative duty in a novel case concerning the negligent conduct of a public authority could be determined by the following questions:<sup>62</sup>

1. Would a reasonable public authority reasonably foresee that its act or omission, including a failure to exercise its statutory powers, might result in injury to the plaintiff or his or her interests?<sup>63</sup>
2. Was the authority in a position of control and did it have the power to control the situation that brought about the harm to the injured person?
3. Was the injured person or his or her interests vulnerable in the sense that the injured person could not reasonably be expected to adequately safeguard himself or herself or those interests from harm?
4. Did the public authority know, or ought it to have known, of an existing risk of harm to the plaintiff or, in some cases, to a specific class of persons who included the plaintiff (rather than a risk to the general public)?
5. Would the imposition of the duty of care impose liability with respect to the defendant's exercise of "core policy-making" or "quasi-legislative functions"?
6. Is there any supervening policy reason that denies the existence of a duty of care?

If the first four of these questions are answered in the affirmative and the fifth and sixth questions in the negative, the court will ordinarily hold that the authority owed a duty of care to the plaintiff.

While there is little prospect that so narrow a test will find international favour (bearing in mind that not even McHugh J's fellow judges were constrained to use it), it does form a useful exposition of the issues to which courts will have regard in those circumstances.

12. Whether there are any statutory or contractual provisions which exclude the liability of the VTS authority for the act or omission in question.<sup>64</sup>

13. Policy factors may be particularly important. Amongst the policy factors which have been considered are:

(a) Public authorities usually do not choose to go into business, they may not be entitled to withdraw a particular service if it is not economically feasible and there may be constraints in respect of the charges that they may raise.<sup>65</sup>

(b) A duty to pay damages in certain types of cases will reduce resources available to fulfil public functions and may generate defensive policy-making. Different courts have

62. [2002] HCA 54; 211 CLR 540, 577 [84]. This test is a refined version of that expounded in Todd (*supra*, fn 58). See also *Crimmins v. Stevedoring Industry Finance Committee* (1999) 200 CLR 1, 39 [93], where a similar test was used by McHugh J. See also CD Baker, *Torts Law in Principle*, 3rd edn (Sydney, 2002), [8]–[56].

63. See also *Elliott* [1999] WASCA 134.

64. Once South Africa's National Ports Act No. 12 of 2005 comes into operation, s 85 will provide that the Port Authority will not be liable for anything done or omitted in good faith. However, the courts have not hesitated to narrow the ambit of such clauses in appropriate situations. Consequently this provision may not be as far reaching as it sounds, bearing in mind that in *Simonstown Municipality v. Dews and another* 1993 (1) SA 191 (A) the then highest court in South Africa held that a section of the South African Forest Act which granted immunity to persons who in good faith exercised powers or carried out duties under the Act, did not operate when negligence was proved.

65. See Christopher Newdick, "Damages for Public Authority Negligence—Public Interests and the Human Rights Act" (2002) 2 Tort L Rev 127.

evaluated this factor in various ways. The New Zealand Court of Appeal in *Carter*<sup>66</sup> expressed concern about the “chilling effect” that actions for negligence may have on a regulatory body such as the Marine Division of the New Zealand Ministry of Transport<sup>67</sup> and indicated that, if they had had to consider policy issues, these would also have militated against the plaintiff’s cause of action. In *The Nicholas H*<sup>68</sup> there was an apprehension that classification societies would adopt, to the detriment of their traditional role, a more defensive position if a duty was imposed on them.

(c) Courts will also seek to ensure that they do not create private law duties which are inconsistent with the particular statutory framework,<sup>69</sup> or in conflict with statutory obligations, or which cut across the statutory regime.<sup>70</sup>

(d) Does the law already provide a remedy of a different sort? If it is possible for the plaintiff to seek recourse in some other way, such as by judicial review, then a court would weigh this against the existence of a duty.

(e) The law should encourage self-reliance, because it tends to promote greater efficiency.<sup>71</sup> In *Perre v. Apand*<sup>72</sup> McHugh J put a slightly different gloss on this argument, commenting that, “the economic efficiency of the society requires that the person best able to deal with or avoid the consequences of an economic risk from a cost view should be responsible for the risk and those consequences”.

(f) It may be undesirable to adopt a rule which results in insurance companies, acting under subrogated rights, recouping their losses from the pockets of public authorities.<sup>73</sup> A related concern is that the tort system is responsible for a crisis in liability insurance.<sup>74</sup> According to a study paper referred to by Sopinka J in *Just*<sup>75</sup> the prevalence of liability insurance has resulted in the punitive and deterrent aspects of fault being diminished, and compensation becoming the predominant function of tort law.

(g) Where an action calls for expenditure, the court may have regard to the financial resources of the defendant.<sup>76</sup> In the *Reeman* case,<sup>77</sup> the fact that the Department of Transport, like a classification society, was a non-profit making organization, existing for the purpose of furthering safety at sea rather than for the protection of commercial interests, was a relevant factor in determining that there was no duty of care.

(h) A concern identified in *The Nicholas H*<sup>78</sup> was that, if the classification society had a duty of care, settlement processes would become more complicated and expensive and arbitration and court proceedings would often involve an additional party and similar

66. 170 [35].

67. In this case the Department of Transport had delegated its survey responsibilities to a company called Marine and Industrial Safety Inspection Services Limited.

68. [1996] AC 211, 241; [1995] 2 Lloyd’s Rep 299, 316.

69. See *Sullivan v. Moody* [2001] HCA 59; 207 CLR 562, 582, [62]; *South Pacific Manufacturing Co Ltd v. New Zealand Security Consultants & Investigations Ltd* [1992] 2 NZLR 282, per Cooke P; and *Attorney-General v. Prince and Gardner* [1998] 1 NZLR 262, 275.

70. *X (Minors) v. Bedfordshire County Council* [1995] 2 AC 633.

71. *Pyrenees* (1998) 192 CLR 330, 425, [253.2] per Kirby J.

72. (1999) 198 CLR 180, 226, [120].

73. See *Pyrenees* (1998) 192 CLR 330, 425, [253.2], per Kirby J.

74. See judgment of Sopinka J in *Just* [1989] 2 SCR 1228, 1248, which was preferred by the majority in *Stovin v. Wise* [1996] AC 923 (see at 956, per Lord Hoffmann).

75. [1989] 2 SCR 1228, 1249.

76. *Stovin v. Wise* [1996] AC 923, 933.

77. *Reeman and another v. Department of Transport and others* [1997] 2 Lloyd’s Rep 648, 683.

78. [1996] AC 211, 241; [1995] 2 Lloyd’s Rep 299, 316.

issues would have to be canvassed in separate proceedings since the classification societies would not be bound by arbitration clauses.

## VI. THE REASONABLE VTSO

Assuming that a duty of care is established, what standard of conduct would the law require of a VTS? Fault (intent or negligence) is a general requirement for delictual or tortious liability.<sup>79</sup> The defendant will be judged by the standard of what the reasonable person in the defendant's position would have foreseen and what steps such person should have taken, or refrained from taking, as a result.<sup>80</sup>

In this matter the VTSO did nothing at all until it was much too late, although it must have been apparent from the VTS radar monitor that *Vessel D* had been sailing in contravention of the TSS for some 30 minutes prior to the collision, both vessels had obviously been proceeding too fast in the circumstances and they had been on a collision course for some time, with the result that a collision in fact occurred. Accordingly, it seems clear that the VTSO had not met the standard of a reasonable VTSO—at the very least it had failed to convey to either of the vessels relevant information about the other. A VTS should comprise at least an Information Service;<sup>81</sup> and what could be more relevant than information that *Vessel D* was proceeding in flagrant disregard of the TSS, that the vessels were sailing into danger, that they had then settled onto a collision course and that the risk of collision was increasing dramatically as the vessels continued to sail towards each other?

It is, however, a much more difficult question to determine whether the VTSO should also have provided warnings, recommendations and directions to the vessels. The content of the duty would be pertinent in this case if, as explained below, a *novus actus interveniens* (a new intervening cause) had arisen, because then an early negligent failure to convey information may not have been causative of the loss, while a failure to provide a direction shortly before the collision may have been causative. Furthermore, when apportioning fault, the plaintiff sought to apportion as much fault to the VTSO as possible,

79. The authoritative statement of the test for negligence in South Africa was formulated in *Kruger v. Coetzee* 1966 (2) SA 428 (A), [430]:

“For the purposes of liability *culpa* [i.e. negligence] arises if—

(a) a *diligens paterfamilias* [i.e. a reasonable man] in the position of the defendant—

(i) would foresee the reasonable possibility of his conduct injuring another in his person or property and causing him patrimonial loss; and

(ii) would take reasonable steps to guard against such occurrence; and

(b) the defendant failed to take such steps.”

Bearing in mind that in the case under discussion the VTSO had not done anything, and that the very purpose of a VTS is to improve safety of navigation and thus to assist in the avoidance of collisions, paras (a)(i) and (b) had been largely satisfied. Accordingly, the essential inquiry in this case related to para (a)(ii).

80. According to Fleming (*supra*, fn 37), 117, 127: “Negligence is conduct falling below the standard demanded for the protection of others against unreasonable risk of harm. This standard of conduct is ordinarily measured by what the reasonable person of ordinary prudence would do in the circumstances. Whether the act or omission in question is one which a reasonable person would recognise as posing an unreasonable risk must be determined by balancing the magnitude of the risk, in the light of the likelihood of an accident happening and the possible seriousness of its consequences, against the difficulty, expense or any other disadvantage of desisting from the venture or taking a particular precaution.” See also Philip Osborne, *The Law of Torts* (2000, Toronto), 26.

81. IMO Resolution, Annex 1, para 1.1.9.

and his degree of fault would have been compounded by a failure to provide warnings, recommendations and directions if he was under a duty to provide them. The content of the VTSO's duty could thus impact on liability as well as apportionment.

The Cape Town VTS involved a system of traffic clearances and the Port Authority was concerned about the priority of vessel movements and the allocation of space in the harbour. Furthermore, mandatory reporting was a feature of the TSS. *Vessel D* herself had been told that she would not be given a pilot on arrival and thus, to the VTSO's knowledge, she had decided to drift until the Port Authority was ready to provide a pilot. Merely because the Port Authority's VTS was very similar to the Traffic Organization Service, as defined in the IMO Resolution,<sup>82</sup> did not necessarily mean that warnings, recommendations and directions had to be given to vessels in a collision situation. While the IMO Resolution provides a guideline for services that should be rendered by a VTS, it does not stipulate what services are in fact to be rendered by a VTS.

In the present case, at the time of the collision there was no statutory instrument which prescribed exactly what services were to be provided by the VTS. However, it was clear, from the Port Authority's own internal documents and the promotional material which it had issued prior to the collision, that the Port Authority was intent on providing a modern system with efficient equipment at an international standard which would promote safe navigation at the port of Cape Town, which it acknowledged frequently experienced bad weather and fog. The VTS area is relatively small, and on the day in question there was little active traffic in the area. There was also at least one employee dedicated to the task of monitoring vessels in the VTS area.

Furthermore, the material used during the training of the VTSOs by the Port Authority made specific reference to the fact that traffic information, traffic recommendations and directions were to be issued by the VTSO. Although these were internal documents only, the Port Authority had denied that its VTSOs had been inadequately trained. Moreover, when the Port Authority urged for the introduction of the VTS, it had foreseen the reasonable possibility of collisions occurring in the approaches to the port and the need for steps to be taken to promote safe navigation in the approaches. The training material set out reasonable steps to guard against such occurrences. Accordingly, the Port Authority's denial that it had failed to train its staff properly left it with a dilemma: if the VTSO had been properly trained in accordance with the Port Authority's own training material, he should have provided information, recommendations and directions as the possibility of a collision increased; if, however, the VTSO was not obliged to provide recommendations and directions, then it is difficult to understand the relevance of the training material utilized by the Port Authority itself.

In these circumstances, the plaintiff contended that warnings, advice and recommendations, especially in fog such as existed at the time of the collision, should have formed part of the service provided. Consequently, it could be argued that in the circumstances of this case the reasonable VTSO should have taken the following actions:

(i) provided information to *Vessel D* that she was contravening the TSS, which would have immediately alerted the officers on the bridge to the fact that the TSS existed and that she should take immediate action to either move out of the TSS altogether or move into the correct lane;

82. *Ibid.*, para 2.3.3.

(ii) if *Vessel D* still did not move out of the TSS or into the correct lane, given warnings and recommendations and, if these were ignored, directions to *Vessel D* to take the appropriate action to move out of the TSS or into the correct lane;

(iii) provided information to *Vessel G* that *Vessel D* was continuing to sail in complete disregard of the TSS and indeed was sailing up the lane which *Vessel G* was due to sail down, and thus alert *Vessel G* to the potential danger;

(iv) provided information to both vessels that they were standing into danger and coming on to, and then in fact were on, a collision course;

(v) warned both vessels that they were on a collision course;

(vi) if these steps did not have the desired effect, given recommendations to both vessels that they should take immediate action to avoid a collision; at the very least they should have been advised to communicate with each other and so arrange a safe passing; and

(vii) if none of these actions had been effective in preventing the risk of collision, given directions to either of the vessels to take steps to avoid the collision—in this regard there was ample sea room on the starboard side of *Vessel G* and a turn hard to starboard even at a very late stage may well have avoided the collision.

In so far as the VTSSO failed to take any of these steps, he was clearly acting negligently.

In cases where the VTS is a public authority and not part of the port structure, the relevant statute, regulations and procedures will provide guidance as to what would be expected of the reasonable VTSSO.<sup>83</sup>

## VII. CAUSATION

Even where there has been a collision, it is unlikely that bridge officers will admit that nobody had been keeping watch or monitoring the radars. For instance, in statements given to SAMSA immediately after the collision described above, the officers on the bridges of both vessels had stated that they had been monitoring their radars. This creates a problem in relation to causation for the owners if a claim is advanced against the VTS. In this case it was suggested by the Port Authority that, had both bridges been advised by the VTSSO that the vessels were on a collision course, they would have retorted that they were already aware of this. In the circumstances it was argued that advice from the VTSSO would not have made any difference to the navigation of the vessels.

The actions of vessels immediately prior to the collision will also be fertile ground for a causation defence. In this case it was argued by the Port Authority that the collision had in fact occurred only because of *Vessel Ds'* last minute unexpected turn to port and that this constituted a *novus actus interveniens*.

83. According to Todd (*supra*, fn 58), 47 (referring to *Crimmins* (1999) 200 CLR 1, 38, [88]): determining whether a duty has been discharged need not involve elaborate inquiry. It would seem to be sufficient for the defendant to point to the existence of relevant discretionary considerations and show that they had properly been taken into account. The question would be whether the particular exercise of discretion was reasonably open to the defendant, not whether it was in some sense right or wrong. And the degree of care expected of a public body in meeting the standard of reasonableness must be determined in the light of its obligations to carry out various statutory functions and its inability to desist from any exercise of its responsibilities.

There are two decisions of the English courts concerning vessels sailing in the wrong direction in a traffic lane which are of limited assistance in this regard. In *The Estrella*<sup>84</sup> a vessel (the *Setubal*) was in the incorrect traffic lane off Cape St Vincent when a collision occurred with another vessel. In this case it was pertinent that, apart from the two vessels involved in the collision, there were no other vessels in the vicinity; and, although it was night-time, the two vessels were able to see each other's lights and did see each other at a distance of several miles. The only requirement for avoiding a collision was that each should comply with the relevant crossing rules. The respective degrees of fault were assessed on the basis of the failure of each vessel to adhere to the crossing rules; and the fault of the *Setubal* in so far as she was in the wrong lane was disregarded as not being causative.

*The Estrella* can be contrasted with *The Genimar*,<sup>85</sup> which was heard shortly after it. In this later case it was found by the same judge that the fault of the *Genimar* in proceeding in the wrong traffic lane *did* constitute causative fault. In reaching his conclusion, Brandon J made the following comments:<sup>86</sup>

The purpose of the traffic separation scheme is to reduce the chances of risk of collision arising in waters where heavy concentrations of traffic proceeding in opposite directions are to be expected. That risk is especially great in fog, and, while every case must be decided on its own particular facts, I should in general have little hesitation, in the case of a collision in fog, in holding that a contravention of the scheme by one of the colliding ships contributed to the collision. Even in clear weather, however, the presence of several ships in the same vicinity may make navigation more difficult than when only two ships are involved, and it seems to me that this is also a risk which the scheme is intended to minimise.

There may well be cases of collision in clear weather, where contravention of a traffic separation scheme by one of the colliding ships, though a fault will nevertheless not be a causative fault. A typical case of that kind would be where, although the area is usually busy, no ships other than the colliding ships are about at the time, and they see one another clearly at a distance of several miles. That was the situation in *The Estrella* . . .

Under South African law the question of causation involves two distinct inquiries.<sup>87</sup> The first relates to factual causation, where the "but for" or *sine qua non* test is applied.<sup>88</sup> In addition to factual causation, it is necessary for a plaintiff also to establish legal

84. [1977] 1 Lloyd's Rep 525.

85. [1977] 2 Lloyd's Rep 17.

86. *Ibid.*, 25–26.

87. In other jurisdictions there are similar distinctions. See Osborne (*supra*, fn 80), 50; RP Balkin and JLR Davis, *Law of Torts*, 3rd edn (Australia, 2004), 326; and Fleming (*supra*, fn 37), 219–221.

88. The test was formulated by Corbett CJ in *International Shipping Co (Pty) Ltd v. Bentley* 1990 (1) SA 680 (A), [700F-H], as follows: "The enquiry as to factual causation is generally conducted by applying the so-called 'but for' test, which is designed to determine whether a postulated cause can be identified as a *causa sine qua non* of the loss in question. In order to apply this test one must make a hypothetical enquiry as to what probably would have happened but for the wrongful conduct of the defendant. This enquiry may involve the mental elimination of the wrongful conduct and the substitution of a hypothetical course of lawful conduct and the posing of the question as to whether upon such an hypothesis plaintiff's loss would have ensued or not. If it would in any event have ensued, then the wrongful act was not a cause of the plaintiff's loss; *aliter*, if it would not so have ensued."

Furthermore, as pointed out by Nugent JA in *Minister of Safety and Security v. Van Duivenboden* 2002 (6) SA 431, [449E-F]: "A plaintiff is not required to establish the causal link with certainty, but only to establish that the wrongful conduct was probably a cause of the loss, which calls for a sensible retrospective analysis of what would probably have occurred, based upon the evidence and what can be expected to occur in the ordinary course of human affairs rather than an exercise in metaphysics."

causation. This second inquiry involves a consideration as to whether the wrongful act is linked sufficiently closely or directly to the loss for legal liability to ensue, or whether, as it is said, the loss is too remote. The purpose of this inquiry is to fix the outer limit of liability by determining whether or not a factual link between the conduct and the consequences should be recognized in law.<sup>89</sup>

**(a) Factual causation**

In the case of an omission, a hypothetical course of lawful conduct is substituted for the defendant's unlawful conduct. In other words, the defendant's omission is hypothetically replaced with a lawful positive act in order to determine whether the collision would still have occurred.<sup>90</sup> In the present case, one would hypothetically substitute for the VTSO's silence, the communications by way of information, warnings, recommendations and directions which the VTSO arguably should have given to the vessels and determine whether the collision would still have occurred had they been monitoring their radar properly.

In conditions of poor visibility, as existed at the time of the collision, the officers on duty on both bridges should have been monitoring their radars, which should have been in proper working order (at the time of the collision the radars in both vessels were working sufficiently well to have enabled the officers to have identified the dangerous situation and have taken appropriate avoiding action). All the officers on board the bridges should have been fully aware of the risk of collision. In these circumstances, the collision should never have occurred.

The reality is that, if the officers on the bridges of vessels did not act negligently from time to time and if they did not on occasion make wrong assumptions based on scanty information, collisions at sea would seldom occur and there would be little need for a VTS. It is precisely because ships' officers, like drivers, are on occasion negligent, do not always keep a proper look-out, do not always monitor their radars as they should and sail too fast that collisions occur. It is also for precisely these reasons that VTSs are becoming increasingly common. Thus, it is particularly important, in circumstances where it is apparent that the vessels are steering into danger or are on a potential collision course for whatever reason, that the VTSO should intervene. To suggest that the intervention of the VTSO on the facts of this case would have had no probable causative effect is to negate the very purpose of VTS.

Indeed, the probabilities were high that, if the officers on the bridge of either vessel had had their attention drawn to the position in which each vessel had found itself, both vessels would have navigated differently. Although they did not have to testify, the evidence of both masters would have been to this effect.<sup>91</sup>

89. WA Joubert, "The Law of South Africa" (Durban, 1995), vol 8(1) (hereafter "LAWSA"), 105.

90. *Simon v. Barclays National Bank* 1984 (2) SA 888 (A), 915B–918A; *Silver v. Premier, Gauteng Provincial Government* 1998 (4) SA 569 (W), 574H.

91. The second mate of *Vessel D* testified that, if he had been advised that the vessel was in the wrong lane, he would immediately have asked the VTSO where the lanes were, and how best to leave the lane.

### (b) Legal causation

Until recently, South African courts had utilized amongst others the “direct consequences” theory and the “reasonable foreseeability” theory<sup>92</sup> to assess legal causation. In South African law the determination of legal causation is regarded as a juridical problem in which considerations of policy play a part. The test which has now evolved in South African law is a flexible one in which factors such as reasonable foreseeability, directness, the absence or presence of a *novus actus interveniens*, legal policy, reasonableness, fairness and justice all play a part.<sup>93</sup>

The target tracking information retrieved from the VTS computer indicated that, but for *Vessel D*’s last-minute turn to port, the vessels may have just missed each other, but after the turn to port the collision became a certainty. The Port Authority therefore argued that it could not have been expected of the VTSO that he should reasonably have foreseen that, faced with the alternative of turning to starboard shortly before the collision, the master of *Vessel D* would turn to port, which could be described as an inexplicable and highly negligent manoeuvre, in contravention of the International Collision Regulations. It could be concluded that this was a *novus actus interveniens* which interrupted the pre-existing chain of causation.

To constitute a *novus actus interveniens*, the turn to port must have been an independent, unconnected and extraneous fact or event which actively contributed to the occurrence of the harm after the defendant’s original conduct had occurred.<sup>94</sup> If the Port Authority is to succeed in a *novus actus* defence, it will also have to show that the event was not reasonably foreseeable.<sup>95</sup> A similar point arose in the House of Lords in *Reeves v. Commissioner of Police of the Metropolis*,<sup>96</sup> where Lord Jauncey of Tullichettle held that a deliberate act of suicide was not a *novus actus interveniens*, if it were the very act which the duty sought to prevent. He found that the reference to an independent act superseding the effect of the tortious conduct must relate to an act which was outside the contemplated scope of events to which the duty of care was directed, even though it may be unusual for one person to come under a duty to prevent another person deliberately inflicting harm on himself.

The question which accordingly arose was whether the last-minute error in navigation was of such a nature that it fell within the scope of events contemplated by the VTS’s duty of care. There is a strong argument that it is inherent in VTS systems, particularly those that are more than Information Services, that they are there in order to protect vessels from their own negligence and thereby enhance their safety and efficiency and protect the environment.<sup>97</sup> It is only the general manner of the harm suffered by the two vessels which

92. See, eg, *Smit v. Abrahams* 1992 (3) SA 158 (C), 165E–F. This judgment, which is a full bench decision of the Cape Provincial Division, was confirmed on appeal: see 1994 (4) SA 1 (A). It has frequently been cited as an authoritative exposition of the various theories of legal causation which held sway prior to the Supreme Court of Appeal’s approving the flexible theory referred to hereafter.

93. *Standard Chartered Bank of Canada v. Nedperm Bank Limited* 1994 (4) SA 747 (A), 764I–765B; and *International Shipping Co (Pty) Ltd v. Bentley* 1990 (1) SA 680 (A), 700E–701F. See also Fleming (*supra*, fn 37), 232–246; and *Pallister v. Waikato Hospital Board* [1975] 2 NZLR 725, 742, *per* Woodhouse J., in a dissenting judgment.

94. LAWSA, 108; *Neethling et al*, 192, 204. Cf Fleming (*supra*, fn 37), 246–254.

95. *Ebrahim v. Minister of Law and Order* 1993 (2) SA 559 (T), 566B.

96. [2000] 1 AC 360, 374.

97. IMO Resolution, Annex 1, para 1.1.1.

must have been reasonably foreseeable to the VTSO. Irrespective of the last-minute turn to port, collision damage was indeed reasonably foreseeable from no later than 15.20 hours, when the two vessels were on converging courses and in a crossing situation. Furthermore, had the VTSO been monitoring his radar, it would have been obvious to him not only that the vessels were on a collision course, but that *Vessel D* had been contravening the TSS for some time and both vessels were going too fast in the circumstances. In this situation it must also therefore have been reasonably foreseeable by the VTSO that, if he did not intervene, a collision may result. As it turned out, this is precisely what happened, although at best for the Port Authority the final event which actually caused the collision, being the turn to port, may not have been foreseen by the VTSO.

Once it is accepted that *Vessel D*'s turn to port did not constitute a *novus actus interveniens*, it would seem that other considerations of reasonableness, directness, policy and fairness would all point towards a finding that there was a sufficiently close *nexus* between the VTSO's negligence and the collision to establish legal causation.

#### VIII. APPORTIONMENT

By the very nature of VTSs, in most cases where a collision or grounding has occurred and the VTSO has been negligent, the officers and crew on board the vessels will also have been negligent. An exception to this general proposition could arise where a VTSO gives a direction to a vessel which causes a collision or grounding. In such a case it is possible that the VTSO may be the only party who has been negligent. Other situations which may arise where a VTS may be found to be liable in full for a plaintiff's damages would be, for example, where the negligent vessel owned by a one-ship owning company has sunk or cargo interests sue the VTS rather than the vessels who were partly responsible for their loss.

As far as *Vessel D* is concerned, she did not have up-to-date charts on board, she was navigating too fast in poor visibility, the monitoring of her radar was inadequate and at the last minute she breached the International Collision Regulations by turning to port with a crossing vessel on her starboard side forward of the beam.<sup>98</sup> On the other hand, *Vessel G* was sailing at high speed given the conditions of reduced visibility, her second mate failed to monitor the radar properly, and generally there was insufficient, if any, monitoring of her radar. The VTSO simply did nothing at all until it was too late, even though the means to intervene and avert the collision were readily available to him. Had he monitored his display, it would have been obvious that a dangerous situation was developing. How should one apportion fault for the collision in these circumstances? On the one hand, there were the navigational and organizational deficiencies of the vessels and, on the other, the omissions of the VTSO.

98. The applicable Rule in the International Collision Regulations is Rule 19(1), which governs the conduct of vessels in restricted visibility. In terms of sub-paragraph (b), "Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility . . .", and sub-paragraph (d) provides: "A vessel which detects by radar alone the presence of another vessel shall determine if a close-quarters situation is developing and/or risk of collision exists. If so, she shall take avoiding action in ample time, provided that when such action consists of an alteration of course, so far as possible the following shall be avoided: (i) an alteration of course to port for a vessel forward of the beam . . .".

The difficulty of apportioning fault is well-illustrated by *The Eglantine*, *Credo* and *Inez*.<sup>99</sup> The *Inez* was proceeding in the wrong direction in a traffic separation lane without any excuse and without good reason. The *Eglantine* and *Credo* were both vessels proceeding much too fast in the TSS and their radar look-outs were defective. Sheen J concluded that all three vessels were seriously negligent and apportioned negligence on the basis of one third each.<sup>100</sup> However, the Court of Appeal made a very different assessment of the situation and apportioned the blame for the collision as to 75% to the *Inez* and 12.5% to each of the other two vessels. The fact that the *Inez* was in the wrong lane figured prominently in the Appeal Court's decision.

Inasmuch as in the current case the two vessels and cargo interests had settled as between themselves and had pooled their claims in order to proceed against the port, it was strictly speaking not necessary to apportion blame as between them. However, without separately weighing the negligence of each vessel as well as that of the port, it is difficult to arrive at a fair assessment of the apportionment that may have been made against the port.

The most immediate cause of the collision was the negligent navigation of both vessels. Although *Vessel D* did not have the correct charts, this should have been apparent to the VTSSO some 30 minutes before the collision and in plenty of time for *Vessel G* to have taken avoiding action. Had the officers of either vessel been navigating in accordance with the International Collision Regulations, the collision would never have happened.

*Vessel G*, in particular, was proceeding much too fast. Neither vessel was monitoring her radar properly and, while *Vessel G* had been proceeding in accordance with the TSS, she only saw *Vessel D* at the very last moment. In the result the officers on board both vessels physically sailed their vessels into each other. In this situation, the negligence of the VTSSO was of a subsidiary nature. He did nothing positive which caused the collision. The circumstances would be different where the VTSSO had given wrong information or incorrect directions as a result of which the collision had occurred.

Furthermore, whatever the VTSSO did or did not do, the ultimate responsibility for the navigation of both the vessels rested upon the master of each vessel. Faced with the harsh reality that the two vessels had sailed into each other at excessive speed in circumstances where the sea conditions were good (albeit that there was fog) and that there was little traffic in the vicinity, it became apparent that more fault would be apportioned to both vessels than to the Port Authority.

In so far as the Port Authority was concerned, the existence of the VTS and the TSS led to *Vessel G*'s sailing in accordance with its requirements and being lulled into a sense of false security by the belief that other vessels would also comply with the TSS and that the VTSSO was watching over them. This undoubtedly contributed to the collision. At the same time, *Vessel D*'s ignorance of the TSS caused her officers to be perplexed by *Vessel G*'s conduct of sailing directly west when she should (but for the TSS) have been turning to the south. This also meant that *Vessel D*'s master was reluctant to turn to starboard in accordance with the International Collision Regulations, Rule 19(1)(d), as such a turn would have been positively dangerous had *Vessel G* belatedly executed her expected turn

99. [1990] 2 Lloyd's Rep 390.

100. [1989] 1 Lloyd's Rep 593.

to the south. The timely intervention of the VTSO would have resolved all these issues.

On our analysis of the evidence which was finally assembled by the plaintiff as set out above, it appeared as though an apportionment as to 40% to each of the vessels<sup>101</sup> (or perhaps slightly more to the one and less to the other) and an apportionment of 20% to the Port Authority<sup>102</sup> would have been reasonable in all the circumstances.

## IX. SUMMARY AND FINAL COMMENTS

1. It is clear that VTS is here to stay and indeed is likely to become increasingly common.<sup>103</sup>

2. The legal implications of VTS and in particular the liability of VTS Authorities where VTS Operators have failed to carry out their duties competently are likely to give rise to increasing litigation.

3. Each claim against a VTS authority will have to be considered separately, taking into account the specific facts which give rise to the claim and the specific characteristics of the VTS in question.

4. Port VTSs are likely to be held liable in appropriate circumstances where they carry out their duties negligently, especially where the users of the VTS services are expected to fund the costs arising from the introduction and operation of the VTS.

5. Coastal VTSs which are public authorities are unlikely to be held liable for omissions; but could well be held liable for positive acts which give rise to collisions.

6. The best protection for a VTS is for the VTS Authority to ensure that a proper system has been put in place with sound equipment, well trained personnel and appropriate promulgation of requirements and limitations.<sup>104</sup>

7. It is essential for VTSOs to be trained properly to ensure that, when they take positive steps, they do not contribute to a collision. Even when giving information they need to ensure that the information is accurate, relevant and properly communicated.

8. The risks of liability associated with VTSs rise dramatically when the VTSO gives advice and directions. In this situation the advice and directions must be result orientated

101. In *The Maloja* [1994] 1 Lloyd's Rep 374, the Court of Appeal confirmed an equal apportionment which had been made in the court below by Sheen J [1993] 1 Lloyd's Rep 48. In *The Roseline* [1981] 2 Lloyd's Rep 410 (QB: Adm), an inexcusable turn to port by the *Eleni V* resulted in fault being apportioned 60% to her and 40% to the other vessel, the *Rosaline*. In *The Century Dawn and Asian Energy* [1996] 1 Lloyd's Rep 125 (CA), *aff'g* [1994] 1 Lloyd's Rep 138, (QB: Adm) the one vessel's "radically wrong" turn to port resulted in a 60% apportionment against her. In the present matter, however, *Vessel G*, while not being guilty of turning to port, took no effective collision avoidance manoeuvre at all.

102. An apportionment of 20% may be too low, bearing in mind that, in the Canadian case of *R v. Nord-Deutsche Versicherungs-Gesellschaft* [1971] SCR 849, 50% of the blame was apportioned to the Crown for its failure to take proper care of and maintain the range lights and the remaining 50% was apportioned 30% and 20% to the two vessels involved in the collision. In *R v. Hendricks* [1970] SCR 237 the Crown was held 50% at fault in circumstances where it had failed to replace signs which warned users of a river of a waterfall. In *Sasverbij Beleggings & Verdiskonteringsmaatskappy Bpk v. Vanrhynsdorp Town Council and another* (1979 (2) SA 771 W and 1980 (1) SA 621 W) liability was apportioned equally between the municipality, which was responsible for the aerodrome in question, and the pilot of the aeroplane (see 781G–783D).

103. *Cf* the IMO Resolution.

104. *Pilotage and Ship Handling*, 220.

only, not encroach upon the master's responsibility for safe navigation and not disturb the traditional relationship between master and pilot.<sup>105</sup>

9. Interesting questions of apportionment of fault may arise, but the actual apportionment will depend upon the facts of each case.

10. Some VTS Authorities may in fact become soft targets. They do not go anywhere, they are likely to be around for a long time after the other culprits have left the scene and they will generally have deep pockets.

105. IMO Resolution, Annex 1, para 2.3.4.