

CH + Colère Mgr

**COMMISSION INTERGOUVERNEMENTALE AU TUNNEL SOUS LA MANCHE**  
**CHANNEL TUNNEL INTERGOVERNMENTAL COMMISSION**

**M.E.D.D.T.L.**

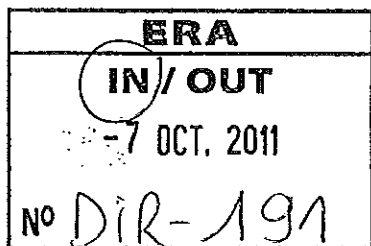
**Secrétariat général au Tunnel sous la Manche**  
**Tour Voltaire, 1 Place des Degrés**  
**92055 PARIS LA DEFENSE CEDEX**  
**Téléphone : 01.40.81.78.81**  
**Fax: 01. 40.81.78.79**

**Secretariat**

**Office of Rail Regulation**  
**One Kemble Street**  
**LONDON WC2B 4AN**  
**Direct line: 020 7282 3926**  
**Facsimile: 020 7282 2041**

N. Réf : D.15266

La Défense, le 30 septembre 2011



Monsieur Marcel VERSLYPE  
Executive directive  
European Rail Agency  
160 Boulevard Harpignies  
BP 20392  
59307 VALENCIENNES CEDEX

**Objet : Rapport de la Commission intergouvernementale au tunnel sous la Manche sur la sécurité de la liaison fixe en 2010**

Monsieur le Directeur,

Conformément aux dispositions de l'article 18 de la directive 2004/49/CE du Parlement Européen et du Conseil du 29 avril 2004, je vous prie de trouver ci-joint, en français et en anglais, le rapport annuel 2010 de la Commission intergouvernementale au tunnel sous la Manche portant sur la sécurité ferroviaire dans le tunnel sous la Manche.

Une copie de cette lettre est envoyée à M. Roy Griffins, chef de la délégation du Royaume Uni auprès de la commission intergouvernementale, ainsi qu'à Mme Caroline Wake, présidente du Comité de Sécurité et à M. Pierre Garnier, chef de la délégation française auprès de ce même comité.

Veuillez agréer, Monsieur, le Directeur, l'expression de ma considération distinguée.

Christian Parent

A handwritten signature in black ink, consisting of a stylized 'C' followed by a checkmark-like flourish.

Président de la Commission intergouvernementale

Tranlation

Dear M Verslype

**Channel Tunnel Intergovernmental Commission report on the safety of the Fixed Link in 2010**

In accordance with the provisions of Article 18 of Directive 2004/49/EC of the European Parliament and the Council of 29 April 2004, please find attached, in English and French, the 2010 annual report by the Channel Tunnel Intergovernmental Commission on rail safety in the Channel Tunnel.

A copy of this letter is being sent to Mr Roy Griffins, Head of the UK delegation to the IGC, as well as to Mrs Caroline Wake, Chair of the Safety Authority, and Mr Pierre Garnier, head of the French delegation to the same Authority.

Yours sincerely,

Christian Parent  
Chairman, Intergovernmental Commission

**REPORT BY THE CHANNEL TUNNEL  
INTERGOVERNMENTAL COMMISSION ON  
SAFETY IN THE CHANNEL TUNNEL FIXED  
LINK DURING 2010**

## **Contents**

- A. Scope of the report
- B. Introductory Section
- C. Organisation
- D. The Development of Railway Safety
- E. Important Changes in Legislation and Regulation
- F. The Development of Safety Certification and Authorisation
- G. Supervision of Railway Undertakings and Infrastructure Managers
- H. Reporting on the application of the CSM on risk evaluation and assessment
- I. NSA conclusions on the reporting year
- J. Sources of Information
- K. Annexes
  - Annex A: Railway Structure Information
  - Annex B: IGC Structure and Relationships
  - Annex C: CSIs data – Definitions applied
  - Annex C1: Safety related incidents previously included in reports by the CTSA
  - Annex D: Important changes in legislation and regulation
  - Annex E: The development of safety certification and authorisation – Numerical Data

## **A - Scope of the report**

1. This report contains information relating to the activities of the Channel Tunnel Intergovernmental Commission (IGC) in its role as the safety authority for the Channel Fixed Link (the Channel Tunnel) within the terms of the European Railway Safety Directive (2004/49/EC). The IGC's responsibilities extend only to the area of the Fixed Link as described in the Treaty of Canterbury between the United Kingdom and France and the Concession Agreement between the two Governments and the Concessionaires. This report covers the period from 1 January to 31 December 2010.
2. As this report was written in English the optional summary in that language has not been prepared. A French translation has been prepared and submitted to ERA together with the English document as it is the policy of the IGC to make all of its documents which are in the public domain available in both English and French. Readers of the French version who wish to consult the optional summary in English are invited to refer to the full English version which includes a summary.

## **B - Introductory Section**

3. **Introduction** - The Railway Safety Directive (2004/49/EC as amended) makes provision for a binational body entrusted by Member States to ensure a unified safety regime for specialised cross-border infrastructures to take on the tasks of "national safety authority". This provision has been applied in respect of the Channel Tunnel Fixed Link and the United Kingdom and France have agreed that the IGC should be the "national safety authority". This report is prepared in accordance with Article 18 of the Directive and, so far as possible, conforms to the template and guidance issued by the European Railway Agency (ERA) with a view to providing a common structure and content for such reports. It is submitted to ERA as required by the Directive but its intended audience is anybody with an interest in the safety of the Fixed Link or similar infrastructures.

4. **Railway Structure Information** - The railway infrastructure of the Channel Tunnel comprises the twin bore tunnel rail link under the English Channel between Cheriton in Kent and Fréthun in the Pas-de-Calais, together with the terminal areas on either side. The terminal areas include the high speed lines linking the tunnel with the UK and French national networks; the loops and the platforms used for the loading and unloading of the tourist and HGV shuttle trains; and the yards and maintenance facilities and their associated links to the rest of the infrastructure.

5. **Infrastructure Manager** - A network map and information about Eurotunnel, the infrastructure manager for the Channel Tunnel, is at **Annex A**.

6. **Railway Undertakings** - The railway undertakings which operated trains through the Channel Tunnel during the period covered by this report were English Welsh & Scottish International Limited (EWSI), DB Schenker Rail (UK) Ltd, SNCF, Eurostar (UK) Ltd, Eurostar International Ltd and Europorte 2. The address and websites for these companies is at Annex A.3. More detailed information about them appears in the annual reports of the French and UK safety authorities as appropriate.

7. **Summary** - Key events in 2010 were as follows:

- The implementation of the conclusions of the IGC's review of the specific safety rules relating to passenger trains transiting the tunnel, including ERA's technical opinion on the findings of the review;
- The start of a review of the specific safety rules relating to freight trains transiting the tunnel, including an industry consultation;
- The Part B certification of all operators under the provisions of the Railway Safety Directive - 2004/49/EC and exploratory discussions with potential operators of new services;
- The conclusion of work between Eurotunnel and Eurostar to address the causes of failed trains in the Tunnel on 18/19 December 2009;

- The continuance of an initial assessment of risks in the tunnel in the light of the fire and consideration of whether evidence of increased risks required changes to the safety regime.

8. **General Trend Analysis** - The IGC and the CTSA continued to monitor Eurotunnel's safety management arrangements and safety performance. Many of the Common Safety Indicators reported on in detail at Annex C remain at zero. Eurotunnel's own target frequency rate for individual safety events (400) was achieved in 2010, but that set for collective safety events, was some way off the objective set (90 instead of 65). Lost time accident rates of frequency had also not improved during 2010, in respect of both Eurotunnel staff and contractors.

## **C - Organisation**

9. The IGC was established by the Treaty of Canterbury to supervise, in the name and on behalf of the Governments of the UK and the French Republic, all matters concerning the construction and operation of the Channel Tunnel. The functions of the IGC include drawing up, or participating in the preparation of, regulations applicable to the Channel Tunnel. Each Government appoints half the members of the IGC which comprises a maximum of 16 members including at least two representatives of the Channel Tunnel Safety Authority (CTSA) – see paragraph 10 below.

10. The Treaty of Canterbury also established the CTSA to advise and assist the IGC on all matters concerning safety in the construction and operation of the Channel Tunnel. The functions of the CTSA also include ensuring that the safety measures and practices applicable to the Fixed Link comply with the national and international laws in force; enforcing such laws and monitoring their implementation; and examining reports concerning incidents affecting safety, making investigations and reporting to the IGC. The composition of the CTSA is determined by the two Governments by agreement and each Government appoints half of its members.

11. UK and French Secretariats arrange for the preparation and execution of the IGC and the CTSA's decisions.

12. A chart showing the structure of the IGC and its relationships with other bodies is at Annex B.



## D - The Development of Railway Safety

### D1 – Initiatives to maintain/improve safety performance

**Table D.1.1 - Safety measures triggered by accidents/precursors to these**

Accidents/precursors which triggered the measure			Safety measure decided
Date	Place	Description of the event	
11/09/2008	Channel Tunnel Interval 6	Fire onboard a shuttle carrying heavy goods vehicles	Construction of fixed fire-fighting equipment in the tunnel began in 2010. These Stations d'Attaque de Feu (SAFE stations) will allow a HGV shuttle on fire to be stopped within the tunnel so that the fire can be suppressed and contained by water mist, and subsequently be more easily tackled by the fire and rescue services.

**Table D.1.2 - Safety measures with other triggers**

Safety measure decided	Description of the trigger of the measures
N/A	None

13. Activities and initiatives undertaken during the course of 2010 were as follows:

- (i) **Fire Onboard an HGV Shuttle train in Running Tunnel North on 11 September 2008** – A fire occurred onboard an HGV shuttle train travelling from the UK to France. It is evident that one of the lorries on the shuttle caught fire although the reason for this still remained unknown at the time of writing this report.

Although the fire led to no deaths and only relatively minor injuries, it was recognized that this was a serious accident that required full investigation. A formal investigation into the fire was therefore launched by the French Bureau d'Enquetes sur les Accidents de Transport Terrestre (BEA-TT) assisted by the UK Rail Accident Investigation Branch (RAIB). The report was received on 16 November 2010. Those to whom recommendations were made were then given 90 days in which to respond to the report. The

IGC, as national safety authority, will be reviewing those responses and reporting to BEA-TT and RAIB at the end of 2011.

In the meantime, as the incidence of serious fires had been materially greater than had been assumed in the risk assessments conducted at the start of operations through the tunnel, the IGC asked the CTSA to consider whether the empirical evidence of increased risk required changes to the safety regime applying to the tunnel. While recognising that the full circumstances of the fire and the detailed operational implications were matters for the BEA-TT and RAIB investigations, the CTSA commenced urgent discussions with Eurotunnel about the wider implications of the incident and the immediate actions required, pending its full response to the IGC.

In response Eurotunnel developed and implemented its "Salamander" action plan in consultation with the CTSA. The action plan comprised of three main strands of activity:

- Reinforced prevention on the departure terminals by increased surveillance of HGVs, together with continuing monitoring of technological developments which might permit the introduction of hot spot detection equipment;
- Modifications in partnership with the fire and rescue services, to the first line of response (FLOR) procedures to improve the speed and effectiveness of interventions by the FLOR teams in the case of fire. At the end of the period covered by this report Eurotunnel reported that it had reached agreement in principle on new intervention procedures with the UK and French emergency services who provide the FLOR teams under contract. These procedures included emergency catenary earthing being conducted by the FLOR teams;
- The establishment of fixed fire suppression stations within the running tunnels in which it will be possible to contain a lorry fire on a freight shuttle while awaiting the arrival of the emergency services. At the end of the period covered by this report the IGC was anticipating a submission from Eurotunnel regarding the construction of two stations in the UK, following completion of two stations in France. In due course Eurotunnel would need to make a further submission to the IGC regarding the operational use of such stations.
- The fire and rescue services are currently co-developing fire fighting intervention tactics for the SAFE areas. Once completed, the tactics will be added to the Salamander operational guidance folders thus providing a single point of reference.

- (ii) **The Eurostar failures which occurred on 18/19 December 2009** – On the night of 18/19 December snow fell in large quantities in the South East of England and in Northern France. A number of roads and motorways in

both countries were impassable and the Port of Calais was closed. In these conditions, five Eurostar trains failed in the tunnel and passengers encountered serious delays and problems in completing their journeys. As a result the Board of Eurostar decided to commission an independent review of what had happened to be conducted by Mr Christopher Garnett, a seasoned senior director in the UK rail industry, and M. Claude Gressier, *Ingénieur général des ponts et chaussées*. As the seriousness of the disruption became more apparent the Governments of France and the UK also requested that the IGC hold an extra-ordinary meeting, convened on 23 December in the presence of Messrs Garnett and Gressier. The IGC heard initial reports from Eurostar and Eurotunnel on the incidents pending detailed internal inquiry reports which were to be supplied by both companies. There was one further such stoppage on 7 January 2010, the cause of which was identified to be the same: the ingress of snow to the power cars of Eurostar rolling stock. The CTSA undertook an analysis of the safety-related aspects of these events and provided regular updates on the necessary follow up action throughout 2010. Following a meeting with both companies on 17 November 2010, the CTSA was able to report that satisfactory steps had been taken to reduce the likelihood of such an incident from happening again in the tunnel.

## D 2 – Detailed Data Trend Analysis

14. Within the terms of the Common Safety Indicators (CSIs) there were no injuries or fatalities in 2010, but one accident: a fire detected on board a Eurostar train while in transit in the tunnel. There were relatively few recorded precursors: 17 broken rails and 3 SPADs. A detailed trend analysis related to the CSIs would not therefore be meaningful. A trend analysis based on the definitions and information contained in the Eurotunnel Annual Report on Health and Safety (January to December 2010) is as follows:

### Passenger Safety<sup>1</sup>

- **Accidents:** There was one accident recorded on Eurotunnel's passenger terminal in 2010, where a boy fell and broke his arm, and was transported to a hospital for treatment.
- The level of accidents has been fairly constant since 2004:

---

<sup>1</sup> Safety-related events (passenger or personnel/collective or individual) are classified as follows:

Accident (A): an undesired event: collision/derailment/major fire/serious injury or fatality;

Near-miss (NM): an accident situation, but one in which the undesired event has been avoided due to a favourable circumstance e.g. overrun without collision/broken rail without derailment;

Precursor (P): an event that does not carry any major risk but which highlights a fault in the safety system or which would be likely to affect it if the necessary action was not taken e.g. SPAD A with ATP/broken rail event with TVM information/major fuel spillage.

- in 2009 there had been two recorded accidents in the individual risk, and one recorded accident in the collective risk category;
- two accidents were recorded in 2008, one individual risk and one collective risk;
- there was only one accident in 2007, recorded as individual risk;
- there were two accidents in 2006, one individual risk and one collective risk;
- one individual risk in 2005; and
- one collective risk in 2004.

### Signals Passed At Danger (SPADs)<sup>2</sup>

- **SPADs A (Driver Error)** – With two SPADs A occurring in 2010, the low level of incidents of this kind reached since 1999 was maintained.
- **SPADs C (Operator Error)** – With only one SPAD C occurring in 2010, the level of incidents stay at an acceptable level.

15. **Common Safety Indicators (CSIs)** – Data relating to the CSIs as defined in the Railway Safety Directive (2004/49/EC) is at Annex C.

### D 3 – Results of Safety Recommendations

16. There were no outstanding investigation body recommendations for the IGC to monitor in 2010.

---

<sup>2</sup> Only SPAD As and SPAD Cs are included in the UIC definition of SPADs. In addition, Eurotunnel, unlike many national railways, includes in its statistics all SPADs occurring on the infrastructure, including those on secondary track and track under possession.

## **E - Important Changes in Legislation and Regulation**

**17. The Regulation of Safety of the Channel Fixed Link** – During the period covered by this report the IGC gave consideration to the transposition of the amended Railway Safety Directive (2008/110/EC) and the new Interoperability Directive (2008/57/EC) for the Fixed Link. This work continued into 2011.

**18. Other Significant Regulatory Issues Considered by the IGC and CTSA** - Other important issues considered by the IGC and the CTSA during the course of the year were as follows:

**(i) Review of Specific Safety Rules Relating to Passenger Trains Transiting the Tunnel** – The IGC published the conclusions of its review on 31 March 2010, and subsequently wrote to Eurotunnel to ask that the necessary changes were made to its operating rules to reflect its conclusions that a passenger train transiting the tunnel should be required:

- be able to continue running for 30 minutes while on fire, so that it can exit the tunnel and be brought to a stop in an area where passengers can be evacuated and the fire can be safely fought;
- be able to operate at gradients up to 11/1000, and haul itself from the tunnel from a stand with 50% of traction power available, and to bring a train of the same type out of the tunnel;
- have a driving position at each end of the train and protective measures against fire in the traction elements;
- have effective smoke penetration sealing; and
- to operate by electric traction.

Rules requiring compliance with particular fire protection standards for the design and performance of vehicles and their fittings, and for call buttons at the end of each coach, were removed as these requirements are dealt with by the rolling stock TSIs. It was also decided that trains no longer had to have the ability to be split and to have motor units at each ends. Finally, while trains were still required formally to be of a particular length and to have a through-corridor, applicants wishing to propose new systems were invited to do so with a supporting risk assessment using EC Regulation 352/2009.

The IGC asked ERA for a technical opinion on the conclusions of its review, in December 2010. The opinion was published in March 2011, and the subsequent work with ERA on the IGC's regulatory framework will be covered in its annual report for 2011.

**(ii) Discussions with railway undertakings and rolling stock manufacturers** – During the course of the year the IGC and the CTSA engaged in discussions with railway undertakings and rolling stock manufacturers about the

requirements upon them to obtain technical authorisation and Part B certification for operation through the tunnel.

- (iii) **Participation in the work of the European Railway Agency and its working groups** – The IGC and the CTSA continued to play a full part in the work of the European Railway Agency (ERA) and its various working groups. Given their limited resources it has been necessary for the IGC and the CTSA to participate directly in those activities which were of the greatest interest and, for other activities, to rely on liaison with, and feedback from, experts from the UK and French safety authorities. Nevertheless, the IGC and CTSA continued to play an active part in meetings of the ERA Network of National Safety Authorities and in working groups dealing with common safety methods, common safety indicators, authorisation and certification, and national safety rules. In addition, the IGC and the CTSA continued to give careful consideration to all questionnaires and surveys received from the ERA and made substantive responses wherever it was considered appropriate.
- (iv) **Directive on the Certification of Train Drivers (2007/59/EC)** – The IGC decided that the best approach to the transposition of the driver licensing requirements of the Directive to the Fixed Link would be to have coherent and compatible national transpositions applying to the British and French sides of the Fixed Link thereby avoiding the need for any binational regulation. The UK and French national transpositions were completed in March and April 2010 respectively. The IGC wrote to Eurotunnel in July 2010 to remind it of its obligations in respect of driver licensing and certification, applicable from June 2011.

## **F - The Development of Safety Certification and Authorisation**

19. Under the transitional provisions in the binational regulation to implement the Railway Safety Directive which came into force on 4 July 2008, accepted safety cases for the railway undertakings which operate through the Fixed Link were deemed to be Part B safety certificates for a period of up to two years (i.e. until 4 July 2010).

20. In November 2009, the IGC received applications for Part B certificates from EWSI Ltd and DB Schenker Rail (UK) Ltd in respect of their operations in the tunnel. In the light of analysis by the CTSA and its experts, the IGC issued certificates for operation through the tunnel in March 2010.

21. With respect to Eurostar (UK) Limited, the IGC issued the company with a Part B certificate in June 2010 to continue operations through 4 July 2010, and then considered its application under the new company entity of Eurostar International Limited, for which it issued a new Part B certificate to operate through the tunnel from 16 August 2010.

21. Similarly, the IGC considered an application by Europorte 2 to continue operations in the tunnel through 4 July 2010, and was able to issue a certificate before that date. At the end of the period covered by this report, the IGC was considering an application for Part B certification from the company, now named Europorte Channel.

## **G - Supervision of Railway Undertakings and Infrastructure Managers**

22. The 1986 Treaty of Canterbury places responsibility on the CTSA to ensure that the safety measures and practices applicable to the Fixed Link comply with the national or international laws in force, to enforce such laws, to monitor their implementation and to report to the Intergovernmental Commission. It also states that for the purpose of carrying out its functions, the Safety Authority may invoke the assistance of the authorities of each Government or any body or expert of its choice and that the two Governments shall grant to the Safety Authority and its members and agents such powers of investigation, inspection and direction as are necessary for the performance of its functions. The Concession Agreement states that the Concessionaires shall afford access to all parts of the Fixed Link to persons duly authorised by the IGC or, under its supervision, by the CTSA, for the purposes of any of their functions, to inspect the Fixed Link and to investigate any matter relating to its construction or operation and shall afford such persons the facilities necessary for the performance of these functions.

23. During 2010 the safety performance of Eurotunnel and the railway undertakings operating on the Fixed Link was assessed against the regulatory arrangements which preceded those prescribed by the Railway Safety Directive. The current five-year inspection and audit programme has been drawn up to take account of the key elements included in Eurotunnel's Safety Management System (SMS). The programme will cover the lifespan of the SMS during which the inspections and audits will need to lead to positive conclusions so that the SMS can be validated before Eurotunnel submits its next dossier for Authorisation in 2014.

24. The following supervision methods were used during 2010:

- Inspections;
- Flow of information – regular reports from Eurotunnel such as the daily Operations Duty Manager (ODM) reports; monthly summaries of safety events (known as 'Flash reports'); Safety Committee Minutes; Operating Performance reports etc;
- Information gained from the investigation of accidents and incidents;
- Audit reports (both internal and external);
- Ad-hoc meetings between Eurotunnel and Safety Authority experts;
- Meetings with the Railway Undertakings;
- Information from Eurotunnel concerning the interface with the railway undertakings and change management.

25. Planned inspection activity continued to be based on areas identified by the CTSA's experts during their analysis of the Eurotunnel's SMS. However, inspection plans retained sufficient flexibility to respond to areas which emerged from Eurotunnel's activities during the course of the year.

26. The inspections and audits led to a number of recommendations which were formally communicated to Eurotunnel (and where appropriate to the railway undertakings) by the CTSA. The recommendations were added to a consolidated log of



recommendations to enable the CTSA to monitor and review with Eurotunnel its progress in taking suitable action in response to them.

27. Overall the inspection programme for 2010 and other monitoring activities undertaken during the course of the year indicated that, while there was a continuing need for vigilance, the operation of the Fixed Link continued to be acceptably safe.

## **H. Reporting on the application of the CSM on risk evaluation and assessment**

28. As Eurotunnel's work on constructing SAFE stations in the tunnel was begun before the CSM came into force for rolling stock in June 2010, it was not used as the basis of its risk evaluation and assessment.

## **I - IGC Conclusions on Year 2010 – Priorities**

29. The channel tunnel railway is of immense importance, carrying over ten million passengers between Britain and France each year and connecting Britain to the high speed rail network of the European mainland. As a 54 kilometre long undersea tunnel, its operation poses specific safety risks, in particular the dangers involved if there is a fire or if passengers are trapped in the tunnel for long periods due to breakdown. It is therefore right that close attention should be paid to the safety regulation of the Fixed Link.

30. Priority issues of concern into the future include:

- ☐ the clarification of all safety and technical rules for the tunnel so that they can be notified and published according to the safety and interoperability directives in force;
- ☐ the consideration of applications to authorise new rolling stock to run through the tunnel and applications for the certification of railway undertakings proposing to run new services through the tunnel;
- ☐ further action to consider the implications of the fire of 11 September 2008, on which a programme of action is underway. The IGC will report against the recommendations made in the report by the Bureau des Enquêtes des Accidents - Transport Terrestre (BEA-TT) by November 2011;
- discussions with national Governments, in France and the UK, of the most effective method of transposition for the tunnel of new European law, including amendments to the Railway Safety Directive 2004/49, requirements relating to interoperability, and any new requirements arising from the work of the European Railway Agency (ERA) or the further development of the European system of Technical Specifications for Interoperability (TSIs), in particular the Safety in Rail Tunnels TSI;
- ☐ attention to Eurotunnel operations (incidents as well as the health and safety of the workforce)
- ☐ preparation to deal with serious safety incidents, including through the annual rehearsal of the binational emergency plan, which provides the framework for the co-operation of the emergency response organisations of both countries in the event of an accident or incident in the tunnel, particularly in the run-up to the 2012 Olympic Games in London.

## **J - Sources of Information**

31. The following sources were used when drafting this report:

- Eurotunnel Annual Report on Health and Safety for 2010
- Europorte Channel's Annual Safety Report for 2010
- Eurostar Annual Safety Report for 2010
- Rapport de la SNCF sur la sécurité de l'exploitation en 2010 sur la section commune trans-Manche pour ses missions d'entreprise ferroviaire
- EWSI Annual Safety Report for 2010

## **K - Annexes**

ANNEX A: Railway Structure Information

ANNEX B: IGC Structure and Relationships

ANNEX C: Data on Common Safety Indicators (separate Excel spreadsheet)

ANNEX C1: Safety related incidents previously included in reports by the CTSA

Annex D: Important changes in legislation and regulation

Annex E: The development of safety certification and authorisation – Numerical Data

## **ANNEX A: Railway Structure Information**

### **A.1. Network map**

Network maps showing the layout of the UK and French terminals and a condensed layout of the running tunnels, including the two crossovers are included overleaf.

### **A.2 Information about Eurotunnel - The Infrastructure Manager for the Channel Tunnel Fixed Link**

**Name:** Eurotunnel

**Address:** UK Terminal, Ashford Road, Folkestone, Kent CT18 8XX

**Website:** [www.eurotunnel.com](http://www.eurotunnel.com)

**Network Statement Link:**

<http://www.eurotunnelfreight.com/uploadedFiles/freight/2012-Network-Statement.pdf>

**Start Date of Commercial Activity:** May 1994

**Total Track Length:** 159 km main tracks plus 50 km secondary tracks

**Track Gauge:** UIC

**Electrified Track Length:** All track both main and secondary is electrified

**Voltages:** 25,000 volts alternating current

**Total Double/Single Length Track:** 100% double track

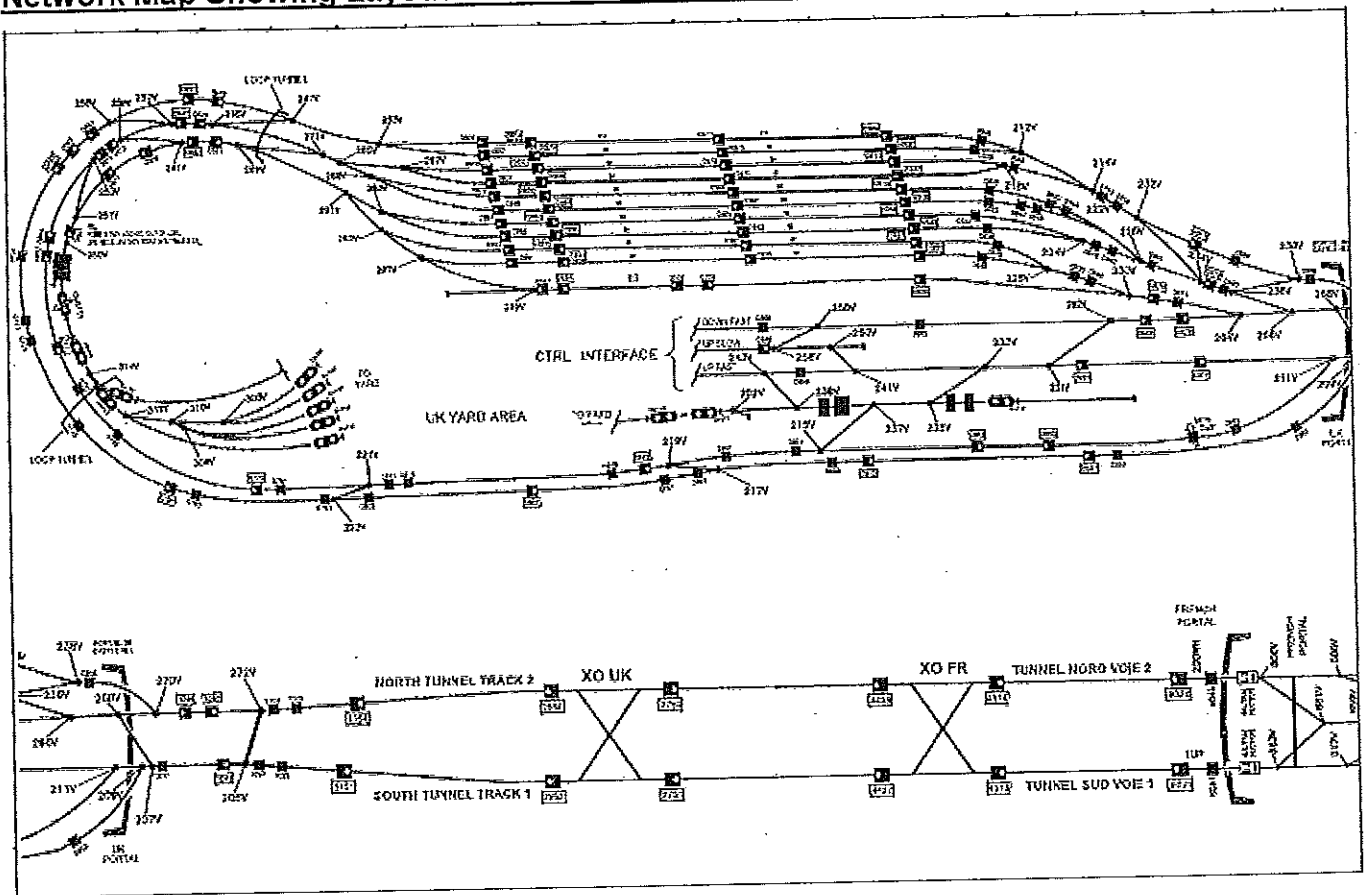
**Total Track Length – High Speed Line:** 108 km

**Automatic Train Protection Equipment Used:** TVM 430

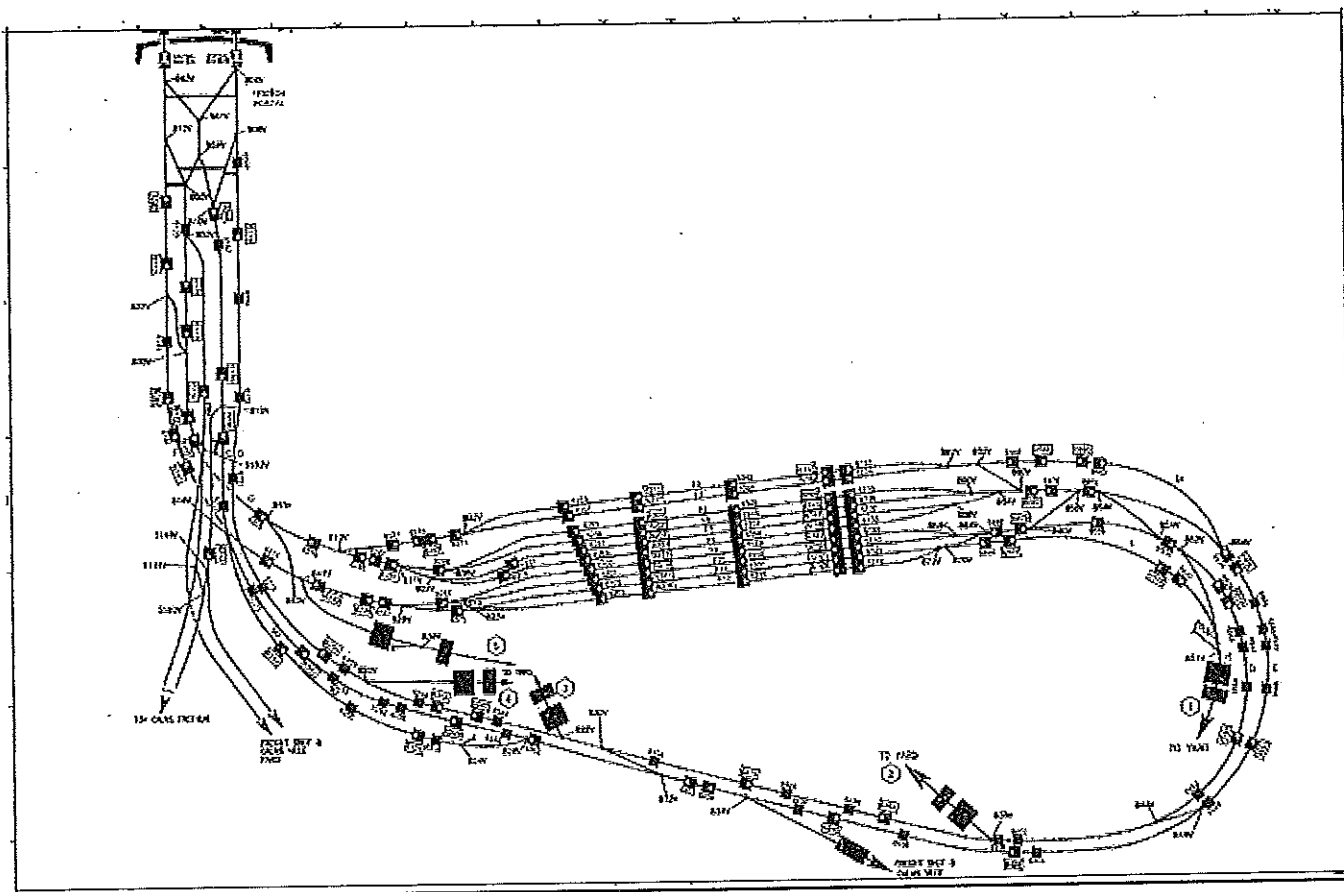
**Number of Level Crossings:** None on main tracks

**Number of Signals:** 655

**Network Map Showing Layout of UK Terminal and Running Tunnels**



**Network Map Showing Layout of French Terminal**



### A.3 Information about the Railway Undertakings

The railway undertakings which operated trains through the Fixed Link in 2009 were as follows:

**Name:** DB Schenker Rail (UK) Ltd

**Address:** Lakeside Business Park  
Carolina Way  
Doncaster  
South Yorkshire  
DN4 5PN

**Website:** [www.rail.dbschenker.co.uk](http://www.rail.dbschenker.co.uk)

---

**Name:** Eurostar International Ltd

**Address:** Times House  
Bravingtons Walk  
Regent Quarter

London

N1 9AW

**Website:** [www.eurostar.com](http://www.eurostar.com)

---

**Name:** SNCF

**Address:** 34 rue du Commandant Mouchotte  
75699 Paris CEDEX 14

**Website:** [www.sncf.com](http://www.sncf.com)

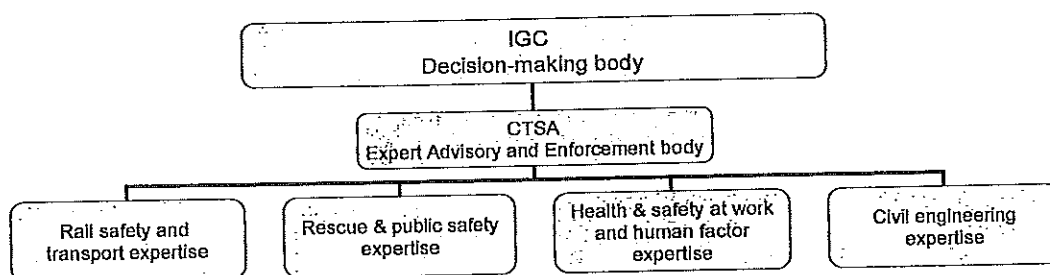
**Name:** Europorte Channel

**Address:** 15 rue des Sablons  
75016 Paris,  
France

**Website:** [www.europorte.com](http://www.europorte.com)

## ANNEX B: IGC STRUCTURE AND RELATIONSHIPS

### IGC Structure



(This relates solely to the IGC's role as Safety Authority for the Channel Tunnel)

## **ANNEX C: DATA ON COMMON SAFETY INDICATORS**

Data on Common Safety Indicators for 2010 is shown in a separate "Excel" file.

### **ANNEX C1: SAFETY RELATED INCIDENTS PREVIOUSLY INCLUDED IN REPORTS PUBLISHED BY THE CTSA**

**Total number of events reports to the CTSA in 2010 = 84**

Fuel Spillages	= 38
Unscheduled stops greater than 30 minutes	= 20
Track/rail problems	= 15
SPAD As (Driver)*	= 2
SPAD Cs (Operator Error)*	= 1
Catenary trips	= 2
Fire/Smoke	= 2
Injuries	= 1
Damaged Axle	= 0
Derailment	= 0
Uncoupling	= 0
Runaway train	= 1
Emergency door open on departure	= 1
Clandestine intrusion	= 1

\* Only SPAD As and SPAD Cs are included in the UIC definition of SPADs. In addition, Eurotunnel, unlike many national railways, includes in its statistics all SPADs occurring on the infrastructure, including those on secondary track and track under possession.



# **ANNEX D: Important changes in legislation and regulation**

Legal reference	Date legislation comes into force	Reason for introduction (Additionally specify new law or amendment to existing legislation)	Description
General national railway safety legislation	N/A	N/A	N/A
Legislation concerning the national safety authority	N/A	N/A	N/A
Legislation concerning notified bodies, assessors, third parties bodies for registration, examination, etc.	N/A	N/A	N/A
<b>National rules concerning railway safety</b>			
Rules concerning national safety targets and methods	N/A	N/A	N/A
Rules concerning requirements on safety management systems and safety certification of Railway Undertakings	N/A	N/A	N/A
Rules concerning requirements on safety management systems and Safety Authorisation of Infrastructure Managers	N/A	N/A	N/A
Rules concerning requirements for wagonkeepers	N/A	N/A	N/A
Rules concerning requirements for maintenance workshops	N/A	N/A	N/A
Rules concerning requirements for the authorisation of placing in service and maintenance of new and substantially altered rolling stock, including rules for exchange of rolling stock between Railway Undertakings, registration systems and requirements on testing procedures	N/A	N/A	N/A
Common operating rules of the railway network, including rules relating to the signalling and traffic procedures	31 March 2010	Modification/removal of rules notified under 2004/49.	Change of notified safety rules following review of specific safety rules for passenger trains operating in tunnel.
Rules laying down requirements on additional internal operating rules (company rules) that must be established by the Infrastructure Managers and Railway Undertakings	31 March 2010	Modification/removal of rules notified under 2004/49.	Change of notified safety rules following review of specific safety rules for passenger trains operating in tunnel.

Rules concerning requirements on staff executing safety critical tasks, including selection criteria, medical fitness and vocational training and certification	UK: Statutory Instrument 2010/724 FR: Decret 2010-708	UK: 6 April 2010 FR: 29 June 2010	New laws to transpose EC Directive 2007/58.	All train drivers must hold a licence, unless they held appropriate certification, prior to the dates stated below, for the relevant driving duties or have undertaken driver training:  1. from 1 June 2011, to drive trains in at least one other Member State of the European Union;  2. from 1 June 2013, to drive trains used for domestic rail services.  All train drivers to hold a licence by 1 June 2018.
Rules concerning the investigation of the accident and incidents including recommendation	NONE	N/A	N/A	N/A
Rules concerning requirements for national safety indicators including how to collect and analyse the indicators	NONE	N/A	N/A	N/A
Rules concerning requirements for authorisation of placing in service the infrastructure (tracks, bridges, tunnels, energy, ATC, radio, signalling, interlocking, level crossing, platforms, etc.)	NONE	N/A	N/A	N/A

## Annex E: The development of safety certification and authorisation – Numerical Data

### E.1. Safety Certificates according to Directive 2001/14/EC

Number of Safety Certificates issued according to Directive 2001/14/EC, held by Railway Undertakings in year 2010	being licensed in your Member State	0
	being licensed in another Member State	0

### E.2. Safety Certificates according to Directive 2004/49/EC

		New	Updated / amended	Renewed
E.2.1. Number of valid Safety Certificates <b>Part A</b> held by Railway Undertakings in the year 2010	being registered in your Member State	0	0	0
	being registered in another Member State	0	0	0

		New	Updated / amended	Renewed
E.2.2. Number of valid Safety Certificates <b>Part B</b> held by Railway Undertakings in the year 2010	being registered in your Member State	6	0	0
	being registered in another Member State	0	0	0

			A	R	P
E.2.3. Number of applications for Safety Certificates <b>Part A</b> submitted by Railway Undertakings in year 2010	being registered in your Member State for	new certificates	0	0	0
		updated / amended certificates	0	0	0
		renewed certificates	0	0	0
	being registered in another Member State for	new certificates	0	0	0
		updated / amended certificates	0	0	0
		renewed certificates	0	0	0

			A	R	P
E.2.4. Number of applications for Safety Certificates	being registered in your Member State for	new certificates	6	0	0
		updated / amended certificates	0	0	0

Part B submitted by Railway Undertakings in year 2010		renewed certificates	0	0	0
	being registered in another Member State for	new certificates	0	0	0
		updated / amended certificates	0	0	0
		renewed certificates	0	0	0

A = Accepted application, certificate is already issued

R = Rejected applications, no certificate was issued

P = Case is still pending, no certificate was issued so far

E.2.5. List of countries where RUs applying for a Safety Certificate Part B in your Member State have obtained their Safety Certificate Part A

E.3. Safety Authorisations according to Directive 2004/49/EC

	New	Updated / amended	Renewed
E.3.1. Number of valid Safety Authorisations held by Infrastructure Managers in the year 2010 being registered in your Member State	1	0	0

		A	R	P
E.3.2. Number of applications for Safety Authorisations submitted by Infrastructure Managers in year 2010 being registered in your Member State	new authorisations	0	0	0
	updated / amended authorisations	0	0	0
	renewed authorisations	0	0	0

A = Accepted application, authorisation is already issued

R = Rejected applications, no authorisation was issued

P = Case is still pending, no authorisation was issued so far

E.4. Procedural aspects – Safety Certificates part A

		New	Updated / amended	Renewed
Mean time after having received all necessary information between the receipt of an application and the final delivery of a Safety Certificate Part A in year 2010 for Railway Undertakings	being registered in your Member State	N/A	N/A	N/A
	being registered in another Member State	N/A	N/A	N/A

#### E.5. Procedural aspects – Safety Certificates part B

		New	Updated / amended	Renewed
Mean time after having received all necessary information between the receipt of an application and the final delivery of a Safety Certificate <b>Part B</b> in year 2010 for Railway Undertakings	being registered in your Member State	103 days	N/A	N/A
	being registered in another Member State	N/A	N/A	N/A

#### E.6. Procedural aspects – Safety Authorisations

		New	Updated / amended	Renewed
Mean time after having received all necessary information between the receipt of an application and the final delivery of a Safety Authorisation in year 2010 for Infrastructure Managers	being registered in your Member State	N/A	N/A	N/A
	being registered in another Member State	N/A	N/A	N/A