

BEA-TT

**Bureau d'Enquêtes sur les Accidents
de Transport Terrestre**

Reports



ACTIVITY REPORT

2004



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RÉPUBLIQUE FRANÇAISE



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1 2004 : creation of the BEA-TT

The official creation of the BEA-TT at the beginning of 2004 is the outcome of efforts deployed over several decades, to implement within the French Ministry for Transport the various technical investigating bodies to carry out accident and incident analysis in all modes of transport.

1.1 Why a technical inquiry in case of accident?

Transportation accidents, with their human toll and sometimes spectacular or tragic character, remind us that people, equipment and organisations remain fallible in spite of all the progress accomplished in the area of safety.

Serious or complex accidents or incidents call for a specific preventive approach, in the form of a technical inquiry, in order to avoid any recurrence. Experience first acquired in the air and maritime sectors, in France and abroad, has highlighted the prerequisites for success.

Technical inquiries should be carried out in sufficient depth to determine immediate and underlying causes of events, then draw up all useful preventive recommendations and circulate these to all involved stakeholders.

A technical inquiry should remain separate from a judicial inquiry which objectives and constraints are different – particularly in terms of deadlines.

In order to work efficiently, technical investigators must have access to data, useful testimonies and information, even that which is covered by judicial or professional confidentiality; hence, such rights should be set down by law.

Finally, the need to involve highly qualified and independent investigators quickly in order to preserve the memory of events and to mine all lessons learned, have led to such investigations being entrusted to a permanent specialised body.

1.2 Setting up the BEA-TT : the main steps

In France, the first technical investigating bodies to be created were the BEA in 1946 dedicated to civil aviation and the BEAmer in 1997 dedicated to maritime affairs. Having been established, France was able to fulfil its international obligations in both these areas.

No equivalent structure had so far been set up for land transportation modes. In the case of a major accident such as the one in the Gare de Lyon in Paris in 1988 (56 fatalities), or in the Mont Blanc Tunnel in 1999 (39 fatalities), the Minister for Transport set up an ad hoc investigating panel with the support of the French National Corps of Engineers from the General Council for Bridges and Roads, the CGPC (Conseil Général des Ponts et Chaussées).

In the light of the experience thus acquired, the need became obvious to set up an agency similar to those dedicated to aviation and maritime modes of transport but focusing on land transportation, and benefiting from an equivalent legislative status.

The Act passed on January 3rd 2002,¹ voted in the aftermath of the tragic Mont Blanc Tunnel fire, granted this legislative basis for all technical investigations of land transportation accidents. The Act provided for inquiries to be carried out by specialised standing bodies, and that these said bodies would have a right to access all data relevant to the inquiry, even confidential legal, medical or professional data.

The Act also reaffirmed the principles of independency of all investigators and of the publishing of a final report. The decision to launch a technical investigation is however taken by the Minister for Transport.

French decree n° 2004-85 of January 26, 2004, published pursuant to this Act, officially created the BEA-TT (Bureau d'Enquêtes sur les Accidents de Transport Terrestre), as an agency with national competencies under the supervision of the vice-president of the CGPC. The Decree also defined the missions and conditions under which the BEA-TT should be run.

The BEA-TT's expansion is not yet complete. Besides its forecasted growth in activities in the years to come, it shall need to adapt to the new European context : thus, the EU Directive 2004/49/EC on Safety on the Community's Railways shall lead to amendments to the legal texts creating the Bureau, as well as to the widening of the scope of its missions and to the development of its cooperation with European partners.

1.3 Missions and modes of response

The BEA-TT's main mission is, of course, to carry out all technical investigations as per a decision of the Minister for Transport. Another mission shall be to facilitate the circulation of facts and findings stemming from lessons learned on accidents. The BEA-TT shall also launch studies and research on experience feedback and accidentology.

The scope of the BEA-TT shall encompass all types of railways, urban guided systems (light rail), cableways installations, road transport (in particular heavy goods vehicles and public transport of passengers by coach or bus) and inland waterways, bearing in mind that each one of these areas is governed by its own specific regulations and its own economic, technical, professional and even cultural logic.

In addition, each inquiry shall scrutinise a given event in all its aspects, whether infrastructure, operation, rolling stock, training of staffs, medical, rules and regulations, etc.

Such a wide range of investigations shall lead the BEA-TT to call upon temporary investigators and experts, according to needs. It shall also have the option to call upon all of the State's agencies that are competent in a given area for further assistance.

When the BEA-TT was created, it was granted its own budget to carry out its mission and guarantee its independence. In 2004, the Bureau had 10 staff members.

¹ French Act n° 2002-3 of January 3, 2002 on Safety in Transport Infrastructures and Systems and Post-Accidents Inquiries.

At the end of any investigation or study, the BEA-TT publishes a report. At present, it uses the Ministry for Transport's Internet site, until its own web site is set up.

All safety recommendations shall be sent to the relevant recipients, who in turn shall inform the BEA-TT of any follow-up they intend to implement. The Agency can publish both its safety recommendations and the answers, but is not in charge of monitoring or inspecting concrete implementation..

2 Technical investigations carried out in 2003 and 2004

2.1 Progression in the number of investigations initiated.

The preparation, followed by the launching of the BEA-TT led to a noteworthy increase in the number of technical investigations initiated on land transportation accidents and incidents.

Before 2002, less than one investigation per year had been initiated, in case of a major accident, for which the Minister for Transport requested that the CGPC set up an inquiry panel.

Following publication of the Act of January 3rd, 2002, the foreshadowing period saw numbers jump to 4 investigations in 2002, and as many in 2003.

During 2004, which represents almost a full year of existence of the BEA-TT, 10 technical investigations were initiated.

A total of 18 investigations were thus launched between 2002 and 2004, covering all modes of land transportation under the BEA-TT's remit as follows:

- 5 for railways (28% of the total number) ;
- 3 for light rail transport or cableways installations (16%) ;
- 4 for inland waterways (22%) ;
- 6 for road, including 1 at a level crossing (34 %).

2.2 Investigations completed in 2003 and 2004

5 investigations were completed in 2004, against 3 in 2003. Below is a list of the 8 accidents or incidents that were under investigation.

They fall into two categories :

- There were accidents or incidents which had occurred after the enforcement of the Act of January 3rd, 2002 on the safety of infrastructure and transport systems, yet before the BEA-TT was officially created by Decree on January 26, 2004. These were entrusted to two members of the CGPC, hence foreshadowing the permanent investigation body. They worked with a panel of colleagues specialised in risk prevention in transport. 4 investigations were on railways and on light rail, and 2 on particularly serious road accidents.
- On the other hand, there were the investigations of events which occurred after the launching of the BEA-TT, and in both cases involved railways. One was not a land transport accident per se (electrocution on a catenary), yet falling into that category and under investigation at the request of the Minister.

The 6 investigations by the CGPC foreshadowing the BEA-TT focused on the following :

Failure of the guiding system on a light rail system – the TVR, in Nancy and Caen (2002) :



Following numerous failures noted in Nancy when the light rail system came into operation, - it is in fact a tramcar on rubber tyres guided through a single central rail system, the Minister requested the CGPC on the 4th of July 2002 to carry out an expert appraisal of the reliability and level of safety of this system.

After a progress report, further loss of the guiding function in Nancy, then in Caen where the same system had just entered into operation, led to an expert appraisal of the guiding system. The dovetailing of both appraisals led to the drafting of numerous remarks on design weaknesses and weaknesses in the fine tuning of the system ; the manufacturer, operators and other organising authorities set up correctives actions focusing mainly on abnormal wear and tear of the tyres, loss of the guiding function (roller, rail, interface, operation) and the control of speed in bends.

Pile-up on the A 10 motorway at Coulombier (Nov 5th, 2002)



A pile-up involving 58 vehicles - including 9 HGVs-, occurred on November 5th, 2002 on the A10 motorway at Coulombier. It resulted in 9 fatally injured, 6 seriously injured and 34 slightly injured. The initiating factor was a particularly thick blanket of fog and smoke arising on the motorway.

The investigations carried out and the ensuing preventive recommendations focused the behaviour of drivers and speed, local weather conditions and how to alert motorway users in case of an accident.

***Fire on board the Paris-Munich train
in Nancy (Nov 6th, 2002)***



On November 6th, 2002, a fire caught in train n° 261 running from Paris to Munich in one of the sleeping-cars of the Deutsche Bahn, in the Nancy railway station, resulting in the demise of 12 passengers.

The technical investigation located the origin of the fire in the service kitchenette, where garments had been hung above an ignited cooking range.

Nineteen recommendations were produced on the role of night train attendants and procedures to be implemented by the staff, as well as on technical characteristics of sleeping-cars and their amenities.

***Railway collision in the La Biogna
tunnel (Jan 27, 2003)***



On January 27, 2003, a head-on collision of two passenger trains took place, one French and one Italian, both running in opposite directions under the La Biogna Tunnel on the single line connecting Cuneo to Ventimiglia through the Roya Valley. This resulted in 2 fatalities, 4 serious injuries and some 10 slight injuries.

The investigation established that the accident was the result of a series of omissions or errors which led to the spurious neutralisation of an automated safety system preventing the simultaneous running of two trains going in opposite directions.

This assessment led to the revision of all procedures applicable in such a situation and in particular, making sure that no one single agent could neutralize a safety device.

***Coach accident on the A6 motorway
(May 17, 2003)***



An accident involving a German double-decker coach took place on May 17th, 2003 on the motorway at Dardilly, near the entrance to the city of Lyon, resulting in 28 fatalities and 46 injured.

As the investigation established, the coach drove off the road because of the lack of vigilance of the driver who subsequently attempted to correct his trajectory, an attempt rendered fruitless because of the poor condition of the vehicle and bad weather conditions.

These aspects led to the drafting of recommendations on spurious technical inspections of these vehicles carried out by the roadside, the reinforcement of resistance standards of the support structures on double-decker buses and coaches, and the training of drivers of such vehicles.

***Serious accident on the Paris urban
rail at Villeneuve-Triage (Sept 20,
2003)***



A serious near-miss occurred on the Paris urban rail line at Villeneuve-Triage on Sept 20, 2003, when a large group of passengers left the train and exited onto the tracks just as another train was arriving. Fortunately, no one was injured.

The frequency of uncontrolled stops on the Paris urban line, a fact noted by the CGPC panel, led to the formulation of recommendations on the follow-up after a radio alert, preventive information to supply to the passengers whenever a train is stopped between two stations and the assistance to bring to train drivers in case there is an incident on the line.

Investigations by the BEA-TT after it was created :

Electrocution of a teen-ager in the Saint-Nazaire train station (April 17, 2004)



The tragic circumstances surrounding the death by electrocution on April 17, 2004, of a teen-ager standing on the top of a wagon stabled in the Saint-Nazaire train station, led the Minister to request that the director of the BEA-TT launch a technical inquiry.

The results of the investigation led to the formulation of recommendations on the following : strengthening the robustness of fences around specific railway facilities, reinforcement of signage warning against electrical hazards, preventive information to specific target groups, response instructions for the emergency services, improvement of the exchange of information between the emergency services and the French National Railway Company – the SNCF.

Train collision in Saint-Romain-en-Gier (April 5, 2004)



On April 5th, 2004, in Saint-Romain-en-Gier, on the Lyon to Saint-Etienne main line, a head-on collision occurred between an empty high-speed rake and a works train, resulting in two injured and major damage to the rolling stock.

The accident was due to track works between the cities of Rive-de-Giers and Givors, in a railway section equipped with reverse signalling. Due to a series of human errors, these two trains were running in opposite directions but moving towards each other on the same track and a head-on collision could not be avoided. This event highlighted shortcomings in the planning of the works and no clear formulation in the needs of parties from both the “Rolling Stock” and “Operations” departments involved. It also appears that the various workers for the works to be done had not been sufficient prepared for their various tasks.

The ensuing recommendations are largely echoed in the new draft regulations on works, in which works organisation is more clearly detailed.

All these reports have been published and are accessible on the BEA-TT's web site at the following address : www.bea-tt.equipement.gouv.fr or on the French Ministry for Transport's web site at the following address : www.equipement.gouv.fr, under the following headings "*se documenter*" (documents), then "*rappports et avis*" (reports and advice) and then under the themes "*circulation*" (traffic) or "*transport*" (transportation).

3 Lessons learned from technical inquiries

The 8 investigations carried out in 2003/2004 represent too limited a sample to draw conclusions of any statistical value. Nevertheless, it is interesting to highlight the main observations on elements leading to accidents, recommendations and their follow-up and links with judicial inquiries.

3.1 Elements leading to accidents

Among the direct causes leading to accidents or incidents under investigation, **human failures** come first. Non compliance with driving rules or traffic management instructions (Highway Code, Railways Regulations) remains a major cause of accidents.

In the railways and light rail categories, four out of the six events that were processed, were related to inappropriate behaviour in terms of safety rules. The categories of staff or people involved vary greatly – from train staff to works teams, sleeping car attendants, maintenance workers, members of the public unaware of dangers, etc. Besides non compliance with these rules, or their negligent implementation, frequently identified is also the fact that these rules have been misunderstood or that training was inappropriate; in three instances, the baseline documents, or the organisation appears insufficient and also contributed to the failure.

Excessive speed, particularly in rainy or foggy weather, is the direct cause in two road accidents under investigation, and in addition, in one case, a speed limitation device was disconnected. In one case, it appears that the driver fell asleep. Recommended actions focus on the reinforcement of controls and of training (initial training and refresher training for commercial drivers, company prevention plans against road hazards).

Noteworthy also is the fact that in two out of the eight accidents, the staff involved was on its first shift and returning after a leave. No acting under the influence of drug or alcohol was identified.

It is also interesting to note that, after one of the railway accidents, the French railways –SCNF, brought in an ergonomics' expert to analyse the working environment as it is perceived by the staff. This shed a very interesting light and helped to understand the event and steer preventive measures efficiently.

The condition of the vehicle or rolling stock is also an important factor in the occurrence of an accident.

In one railway instance, vulnerability to fire and the aging of some of the rolling stock were involved. Conversely, the investigators also identified innovative rolling stock implementing technology which had not been sufficiently weathered. The suggestions of investigators for improvements to safety focused on fire detection and emergency exits for the sleeping-cars, greater reliability of the light rail's guiding system embedded in the dedicated lane, and on controlling the opening of doors on urban trains.

The coach accident under investigation brought out major breaking defects and the dilapidated condition of the vehicle, possibly even the double-decker design which would warrant that improvements be introduced in the regulatory framework. The thoroughness of spurious controls on the roads should be improved, with the possibility of carrying out simple technical examinations.

The improvement of technical regulations applicable to road vehicles and rolling stock is difficult since it must necessarily be done on an international level. Such work should nevertheless be instigated with the competent bodies.

The infrastructure was also involved in certain accidents or incidents, particularly through the use of its safety equipment.

As far as railways are concerned, one incident was due to the failure of a safety device (beacon controlled speed control device).

Alerting motorway users in case of an accident or of the loss of visibility would justify the installation or the study of specific devices (variable messaging boards, lights flashing on emergency call boxes).

Finally, besides the traditional user-vehicle-infrastructure trio, investigations have brought out once again how important it is for **organisations to deal with safety**. Clear instructions, identification of the role of each party, emergency situation management, dialogue with the emergency services, targeted training, the use of operating experience and experience feed-back, and the circulation of lessons learned : each requires sustained efforts in an area where nothing is ever a foregone gain.

3.2 Recommendations and future steps

The Decree of January 26, 2004, which brought the BEA-TT into being, provides for the Bureau to identify the recipients of recommendations which are then sent to them. The eight events analysed in 2004 led to recommendations being sent to the following parties :

- The operator in 3 cases (2 railway accidents and 1 light rail accident) : measures applicable to rolling stock and operating conditions.
- The infrastructure manager or the authority in charge of organising transportation in 6 cases (5 railway or light rail accidents and 1 road accident) : measures applicable to railway operations and works management, emergency response, anti-intrusion measures, an adapted wire-guided light rail system, and road safety equipment.
- The central administrations in charge of regulations (3 cases) : measures on rolling stock, road vehicles and the training of commercial drivers.
- The emergency and rescue organisations in 3 cases (2 railway accidents and 1 road accident).
- The inspection departments in one case : measures for the spurious inspection of vehicles while on the road, and the inspection of one high risk facility.
- One manufacturer (1 light rail incident).

The Decree provides for all the recipients of these safety recommendations to inform the BEA-TT within three months on the follow-up they intend to enforce and, when applicable, the implementation schedule. The BEA-TT can publish the safety recommendations and, when applicable, the answers that it received.

Such arrangements are applicable to all technical investigations launched after January 26, 2004, date at which the Decree was published. They are only applicable in one case out of the eight reviewed in this report, namely the railway accident of Saint-Romain-en-Gier. The other cases pre-date the Decree, or are a specific request from the Minister which does not fall under the rules of the Decree. In the case of the above mentioned railway accident, both recipients of the recommendations have confirmed their intention to implement them.

It is important to point out that beyond the exchange on recommendations with the recipients of the latter, the BEA-TT is not, at this stage, in charge of monitoring the implementation ; that should be the role of central authorities or agencies in charge of regulations and safety inspections.

In railway matters, this follow-up is the responsibility of the General Directorate for Sea and Transport Affairs (Direction Générale de la Mer et des Transports – DGMT). The BEA-TT is kept informed of the follow-up, which proves very useful to monitor progress and assess potential difficulties in the implementation of specific recommendations.

As of 2006, such an approach will become systematic in the case of railways: the EC 2004/49 Directive on Safety on the Community's railways provides for a report to be sent by the future French National Safety Authority to the BEA-TT at least once a year on measures taken or foreseen following the BEA-TT's recommendations. The BEA-TT shall in turn report on this in its Annual Report.

3.3 Organising the connection with judiciary inquiries

These first technical investigations on land transport accidents, carried out within the framework of the Act of January 3rd, 2002, provided the opportunity to test out the arrangements designed to facilitate contacts between technical investigations and judiciary inquiries.

The monopoly by right on the collection and conservation of any evidence at the site of an accident with physical injuries is a right exercised by all police officers with powers of arrest (Police Judiciaire) as soon as they respond at the site of an accident. It makes it impossible to have direct access to evidence (recording equipment in HGVs or other, or assessment of the condition of a vehicle, etc.) Such knowledge is indispensable to understand the causes and circumstances of the event.

Thus the Act of January 3rd, 2002 introduced detailed procedures to grant access to such information to technical investigators.

Whenever it was legally required, technical investigations would start with the interview of Public Prosecutors ; these have always welcomed investigators. Police officers with powers of arrest (Police Judiciaire) have also been very welcoming, as they have felt that their work was positively focused upon through

follow-up in the area of preventive action. The time it takes to access such documents or expert inquiries can however prove very long (6 to 12 months on average, particularly if a judicial inquiry is on going).

In order to ease the processing in practice, it would therefore be useful if the Justice Department were to inform all Public Prosecutor's departments of the requirements of technical investigations and the role which befalls them by law.

4 Experience Feed-back and Studies

Besides carrying out technical inquiries on accidents and incidents in land transportation modes, the BEA-TT shall also contribute to drawing all lessons learned from accidents and incidents, and carry out studies and research in this area and in accidentology.

Hence, in 2004, the BEA-TT started recording all “endogenous” fires on coaches, other than those due to collisions or vandalism, because of the apparent frequency of such events which can have serious consequences. The Gendarmerie Police and the National Police agreed to feed into this monitoring arrangement up to July 1st, 2005, whenever a fire led to the closure of a road, and therefore to a response on their part. An assessment of the results will be produced in summer 2005.

Also, after a call to tender, the BEA-TT commissioned CEESAR, in association with the Ligeron Company, to carry out a study on the 323 accidents with body injuries involving multiple vehicles including HGVs or coaches, as both the circumstances and severity of these pile-ups seem inadequately identified.

The results of the study will be delivered at the end of June 2005, since the legal proceedings for each of these accidents are used as causation data for the analysis and take a long time to collect and process.

Finally, the BEA-TT has starting putting together a data base on all road accidents which have been notified by the National Centre for Road Information (Centre National d'Information Routière), and which have led to the onset of an albeit light, qualification process,.

ANNEXES

Annex 1 : List of technical inquiries processed in 2002, 2003 & 2004.

Annex 2 : Legal texts establishing the BEA-TT.

Annex 1 : List of technical inquiries processed in 2002, 2003 & 2004

| Date | Accident | Fatalities |
|----------|---|------------|
| 06/16/02 | Lock weir at Evry sur la Seine | 3 |
| 11/05/02 | Pile-up on A10 motorway at Coulombiers | 8 |
| 11/06/02 | Fire on Paris-Munich train in Nancy | 12 |
| 2002 | Guided light train in Nancy and Caen | 0 |
| | | |
| 01/27/03 | Train collision at La Biogna | 2 |
| 05/17/03 | Coach accident at Dardilly on A6 motorway | 28 |
| 09/20/03 | Urban train incident in Villeneuve Triage | 0 |
| 11/18/03 | Highway RN165 in Nivillac (Carriage Hazard. Subst.) | 2 |
| | | |
| 01/18/04 | Push tow barges at La Voulte sur Rhône | 1 |
| 02/15/04 | Moving snow walkway at Val Cenis | 1 |
| 04/05/04 | Train collision in Saint Romain de Gier | 0 |
| 04/17/04 | Electrocution on catenary in Saint Nazaire | 1 |
| 06/22/04 | Coach accident in Ligugé on Highway RN10 | 11 |
| 07/28/04 | « Santana » barge at Blénod lès Pont à Mousson locks | 0 |
| 08/26/04 | Push tow « Foehn » barges in Nogent sur Seine | 0 |
| 08/29/04 | Pile-up incl. coach on A63 motorway at Belin-Bélieu | 8 |
| 08/30/04 | Tramcar at Rouen | 0 |
| 11/24/04 | Collision between main line train and articulated lorry in Millau | 0 |

Annex 2 : Legal texts establishing the BEA-TT.

- Statute relating to the safety of transport infrastructures and systems, to technical investigations following maritime events, land or air accidents or incidents, and to the underground storage of natural gases, hydrocarbons and chemicals.²

Extract of heading III : Technical investigations following maritime events and land or air accidents or incidents from statute no. 2002-3 dated 3 January 2002

- Act n°2004-85 of January 26, 2004 on technical inquiries of events at sea and accidents or incidents in land transport.³

² Published in the French Official Gazette (Journal Officiel) on Jan. 4, 2002, page 215.

³ Published in the French Official Gazette (Journal Officiel) on Jan 28, 2004, page 1996.

Extract from statute no. 2002-3 dated 3 January 2002
Published in the French Official Bulletin (JORF) on 4 January 2002
Statute relating to the safety of transport infrastructures and systems, to technical investigations following maritime events, land or air accidents or incidents, and to the underground storage of natural gases, hydrocarbons and chemicals.
NOR:EQUX0000153L

Heading III: Technical investigations following maritime events and land or air accidents or incidents.

Article 14

I. – Following a maritime event or land transport accident or incident, the Minister of Transport may decide to conduct a technical investigation with the sole purpose of preventing the occurrence of future events, accidents or incidents. Without prejudice to the judicial investigation, if indeed one is conducted, the technical investigation entails collecting and analysing relevant information in order to determine the circumstances and real or possible causes of the event, accident or incident and to issue safety recommendations where applicable.

II. – Technical investigations into maritime events may involve civilian vessels flying the French flag regardless of their location, as well as civilian vessels flying another flag when the maritime event has occurred in domestic waters or in waters forming part of French territory. An investigation may also be conducted when the maritime event, wherever it occurred, has cost lives or inflicted serious injury on French nationals, or caused or threatened to cause serious harm to French territory, to the environment, to facilities or to structures falling under French jurisdiction. These investigations are conducted in accordance with the rules of international maritime law.

Technical investigations into land transport accidents or incidents may involve rail transport systems or other guided transport systems, as well as road transport or river transport, provided that the accident or incident has occurred on national territory.

III. – Technical investigations are conducted by a specialised permanent body who may call on members of inspection or monitoring agencies or, if necessary, request that the Minister of Transport set up an investigation committee.

Within the scope of the investigation, the body or persons in charge of the investigation are totally independent and do not receive or seek instructions from any authority or body whose interests may conflict with their assignment.

A Council of State decree stipulates the conditions for commissioning persons in charge of investigations and for appointing investigation committee members. This decree also specifies in which instances and according to which procedures

foreign technical investigators may be authorised to take part in investigations on national territory or on board French vessels, when their presence is required for the proper conduct of the investigation.

Article 15

Technical investigators may gain immediate access to the location of the maritime event or the land transport accident or incident in order to proceed with any necessary observations on the spot. In the case of maritime events or land transport accidents, the public prosecutor as well as, if necessary, the administrator of maritime affairs in charge of the investigation mentioned in article 86 of the merchant navy disciplinary and penal code, are informed in advance of the details of their participation.

If necessary, technical investigators shall take all measures required to preserve evidence.

Article 16

Technical investigators are granted immediate access to the content of technical devices used to record data that may be useful for understanding the causes and circumstances surrounding the maritime event or land transport accident or incident, and may utilise these devices subject to the following conditions:

1) When a judicial investigation or inquiry is initiated, recording devices, previously seized by the judicial authorities in accordance with provisions stated in articles 97 and 163 of the penal procedure code are, at their request, placed at the disposal of the technical investigators who take a copy, under the supervision of a police officer, of the data contained in them.

2) If a legal investigation or inquiry is not initiated, recording devices and their content may be removed by technical investigators in the presence of a police officer. In the case of maritime events or land transport accidents, the police officer's assistance is sought via the intermediary of the public prosecutor.

Article 17

If a judicial investigation or inquiry has not been initiated, technical investigators may remove, for purposes of examination or analysis, any debris, fluids, parts, components, units or mechanisms that they think will help to determine the circumstances and causes of a maritime event or land transport accident or incident, in the presence of a police officer. The police officer's assistance is sought via the intermediary of the public prosecutor.

Objects or documents held by technical investigators are returned as soon as it is no longer considered necessary to keep them for purposes of determining the circumstances and causes of the maritime event or land transport accident or incident. The withholding and if necessary, the alteration or destruction, for purposes of the investigation, of objects or documents submitted for examination

or analysis are not subject to any compensation.

Article 18

When a judicial investigation or inquiry has been opened, technical investigators may, for purposes of examination or analysis and subject to the approval of the public prosecutor or investigating magistrate, remove debris, fluids, parts, components, units or mechanisms that they think will help to determine the circumstances and causes of a maritime event or land transport accident or incident.

Technical investigators may only submit seized debris, fluids, parts, components, units or mechanism for examination or analysis that might modify, impair or destroy them subject to the approval of the judicial authorities.

They are informed of expert analyses carried out by the competent judicial authorities. They are entitled to be present at these occasions and to use observations made during these operations for purposes of the technical investigation.

Article 19

Technical investigators may meet with any persons concerned and may obtain, irrespective of professional secrecy claims, any information or any documents relating to the circumstances, organisations and equipment associated with the maritime event or land transport accident or incident, particularly with regard to the construction, certification, maintenance, use of equipment, transport preparations, operation and checking of the vehicle(s) involved.

Subject to the same conditions, technical investigators may also request any personal information or documents pertaining to training, qualification, fitness to operate, or checking of vehicles. However, information of a medical nature may only be conveyed to doctors attached to the permanent body or designated to assist these investigators, subject to the conditions laid out by the Council of State decree.

Confidential information or documents forming part of the investigation or inquiry may be conveyed to technical investigators with the approval of the public prosecutor. If such documents are placed under seal by the judicial authorities, a copy is then made for them.

Article 20

Doctors attached to the permanent body or designated to assist technical investigators are informed, upon request, of the results of examinations or tests performed on persons responsible for operating and, where applicable, for checking those vehicles involved in the maritime event or land transport accident or incident, as well as the results of forensic expert reports pertaining to the victims.

Article 21

When legal proceedings are initiated, a copy of the technical investigation report is sent to the public prosecutor.

Article 22

I. – Persons in charge of the investigation and experts whom they might consult are bound to professional secrecy subject to the conditions and penalties mentioned in article 226-13 of the penal code.

II. – By special dispensation from the clauses of article I, the person in charge of the permanent body is authorised to convey information resulting from technical investigations to the administrative authorities responsible for safety, to managers of companies responsible for the construction or maintenance of infrastructures, transportation facilities or their fittings, to natural or legal persons in charge of operating infrastructures or transportation facilities, or to persons in charge of staff training, if the above-mentioned person considers that such information could help to prevent a maritime event or land transport accident or incident.

For the same purpose, the person in charge of the permanent body and, if applicable, persons chairing investigation committees, are authorised within the scope of their assignment, to publish technical information on observations made by investigators, proceedings of the technical investigation and if necessary, its provisional conclusions.

Article 23

In the course of an investigation, the permanent body may issue safety recommendations if it considers that immediate implementation of these recommendations could help to prevent a maritime event or land transport accident or incident.

Upon completion of the technical investigation, the permanent body publishes a report in a form that is commensurate with the severity of the event. This report does not name specific individuals. It only includes information resulting from the investigation and which is required for determining the circumstances and causes of the accident or incident, and for understanding safety recommendations.

Prior to submitting the report, technical investigators may gather observations from the relevant authorities, companies and staff members, who are bound to keep the content of these exchanges confidential.

Article 24

I. – A penalty of 15 000 Euros will be imposed for any act that hinders the work

carried out by technical investigators:

- 1) Either by objecting to them carrying out their assigned duties;
- 2) Or by refusing to provide them with relevant materials, information and documents by concealing, impairing or disposing of these items.

II. – Under the conditions stipulated in article 121-2 of the penal code, natural persons may be declared criminally responsible for the offences defined under heading I.

Penalties imposed on natural persons are as follows:

- 1) Fines, in accordance with the provisions stipulated under article 131-38 of the penal code;
- 2) Penalties mentioned in article 131-39 of the same code.

The ban mentioned under no. 2 of article 131-39 of the same code pertains to operations due to which or during which the offence was committed.

Article 25

Clauses coming under heading III of this statute apply, provided they concern maritime events in Mayotte, in overseas territories and in New Caledonia, without prejudice to the powers devolved to these communities.

Article 26

Article L. 412-2 has been inserted after article L. 412-1 of the Highway Code and reads as follows:

“Art. L. 412-2. – A six-month period of incarceration and a fine amounting to 3 750 Euros will be imposed on any driver of a motor vehicle who when in a tunnel, does not keep a sufficiently safe distance between two vehicles or a distance of 50 metres for vehicles weighing more than 3.5 tons, and who commits the same offence within a year of the date on which this sentence became final.”

“Any driver found guilty of this offence also incurs the additional penalty of suspension of his/her driver’s licence for a period of three years or more. This suspension may be limited to driving outside the scope of professional activity.

“Clamping and impounding of vehicles may be imposed by the conditions stipulated in articles L. 325-1 to L. 325-3.

“This offence rightfully results in the withdrawal of half of the initial number of points on the driver’s licence.”

Article 27

Subject to the approval of the public prosecutor or investigating magistrate depending on the case, the following may be conveyed to authorities or bodies declared competent by the Minister of Justice after consulting with the relevant Minister(s) if necessary: information from ongoing legal proceedings that could be used to conduct research or scientific or technical investigations intended to notify the committee of accidents or to facilitate compensation of victims. Persons acting on behalf of these authorities or bodies are subsequently bound to professional secrecy with regard to this information, under the conditions and subject to the penalties stipulated in articles 226-13 and 226-14 of the penal code.

Article 28

Article L. 721-6 of the civil aviation code reads as follows:

“Art. L. 721-6. – Doctors attached to the permanent body or designated to assist technical investigators are informed, upon request, of the results of examinations or tests performed on persons responsible for operating, communicating with and checking the aircraft(s) involved in the accident or incident, as well as the results of forensic expert reports pertaining to the victims.”

Article 29

The last paragraph of article L. 711-3 of the civil aviation code is followed by a sentence which reads:

“This decree also specifies in which instances and according to which procedures foreign technical investigators may be authorised to take part in investigations on national territory when their participation is required for the proper conduct of the investigation.”

The present statute shall be enforced as a law of the state.

Paris, 3 January 2002.

Decree number 2004-85 of 26 January 2004

Decree concerning technical investigations after maritime events and land transport accidents or incidents.

Publication in the French Official Bulletin (JORF) of 28 January 2004

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The Prime Minister,

On the basis of the report by the Minister for Public Works, Transport, Housing, Tourism and Maritime Matters,

Having regard to the 1973 international agreement on the prevention of pollution by ships, made in London on 2 November 1973, as modified by the 1978 protocol, published by decree number 83-874 of 27 September 1983, in particular article 12;

Having regard to the 1974 international agreement for the preservation of human life at sea, made in London on 1 November 1974, and published by decree number 80-369 of 14 May 1980;

Having regard to the 1978 international agreement on standards for seafaring personnel training, awarding certificates and technical watch, made in London on 7 July 1978, published by decree number 84-387 of 11 May 1984;

Having regard to the United Nations agreement on maritime law, signed at Montego Bay on 10 December 1982, published by decree number 96-774 of 30 August 1996, in particular article 94;

Having regard to Council directive 1999/35/CE of 29 April 1999 concerning a system of compulsory inspections for the safe operation of scheduled Ro-Ro's and high speed passenger vessel services, in particular article 12;

Having regard to the European Parliament and Council Directive 2002/59/CE of 27 June 2002 concerning the introduction of a community shipping traffic monitoring and information system, abrogating Council Directive 93/75/CEE, in particular article 11;

Having regard to the code of penal procedure, in particular article 776;

Having regard to amended domestic transport orientation Act number 82-1153 of 30 December 1982, in particular article 9;

Having regard to Act number 2002-3 of 3 January 2002 concerning infrastructure safety and transport systems, technical investigations after maritime events, land or air transport accidents or incidents and underground storage of natural gas, hydrocarbons and chemicals, particularly part III;

Having regard to the amended decree of 8 November 1926 reorganising the maritime registration general inspectorate:

Having regard to amended decree number 84-810 of 30 August 1984 concerning the preservation of human life at sea, habitability on board vessels and pollution prevention;

Having regard to amended decree number 85-659 of 2 July 1985 setting out the organisation of the central department of the Ministry for Town Planning, Housing and Transport;

Having regard to decree number 86-1175 of 31 October 1986 concerning the structural engineering general council and the general inspectorate of public works and the environment;

Having regard to decree number 97-464 of 9 May 1997 concerning the creation and organisation of departments with national jurisdiction;

Having regard to the opinion of the central joint technical committee of the Ministry for Public Works, Transport, Housing and the Maritime Matters dated 10 July 2003;

Having regard to the opinion of the standing inter-ministerial road safety group of 22 July 2003;

Having consulted the Council of State (public works section),

Chapter 1: Common provisions.

Article 1

The specialised standing bodies in charge of carrying out technical investigations concerning maritime events and land transport accidents or incidents, pursuant to article 14 of the above-mentioned Act of 3 January 2002, have national jurisdiction and are hereinafter referred to as "maritime event investigation bureau" (BEA mer) and "land transport accident investigation bureau" (BEA-TT).

Article 2

The authorities of the State and its public establishments, as well as those of local government, for the transport services and infrastructure they are responsible for, shall immediately inform the relevant investigation bureau of events, accidents or incidents seriously jeopardizing personal safety, particularly when they involve professional carriers.

To fulfil their missions, the investigation bureaux can call upon all the State services competent in their respective domains.

Article 3

The organisation of the investigation bureaux is stipulated by order of the minister in charge of maritime matters or by order of the minister in charge of transport, as the case may be.

Article 4

The director of each investigation bureau is appointed for a term of five years. S/he is assisted by a general secretary. Their appointment commissions them as

technical investigators.

Article 5

The director of each investigation bureau directs its action. S/he has authority over the staff.

S/he is the delegated certifying officer of the bureau's receipts and expenditure.

S/he can delegate the civil servants and staff under his/her authority to sign any legal documents, decisions, contracts, agreements and riders, as well as any order forms and accounting vouchers.

Article 6

The director of the investigation bureau sets the scope of investigation and the methods of technical investigations. S/he designates the technical investigators in charge of organising and carrying them out.

Article 7

The director of each investigation bureau organises French participation in technical enquiries carried out by a foreign state under the conditions set out in international agreements and European Union regulations and directives.

Article 8

Doctors assigned to investigation bureaux and doctors designated by directors to assist them, as well as doctors who are members of investigation commissions, are provided with any medical information or documents concerning the people mentioned in article 20 of the above-mentioned Act of 3 January 2002, on request. Based on this information, they select such elements as will clarify the circumstances and causes of the event, accident or incident under investigation.

Article 9

Recipients of safety recommendations made as a result of a technical investigation shall, within ninety days of reception, unless another period is expressly stipulated in the recommendations, inform the investigation bureau director of the measures they intend to take and, where applicable, the time necessary to implement them.

The director may make these recommendations public, with, where applicable, answers received from recipients.

The same provisions are applicable to safety recommendations which might be made after examination of experience feedback and accidentology.

Article 10

Investigation reports drawn up under the terms of article 23 of the above-mentioned Act of 3 January 2002, as well as studies and statistics, shall be made available to the public by any suitable means.

Article 11

The director of each investigation bureau shall draw up an annual report on his/her activities which is made public.

Chapter 2: Provisions concerning the maritime event investigation bureau and maritime event technical investigations.

Article 12

The BEA mer reports to the maritime affairs general inspector.

Its mission is to carry out technical investigations on maritime events.

It also collects, analyses and disseminates information on practices and lessons of maritime event experience feedback.

It carries out experience feedback and accidentology studies and research.

Article 13

The BEA mer director is appointed by order of the Minister in charge of Maritime Matters, on the proposal of the maritime affairs general inspector, from Category A State officers with at least twenty years' professional experience in the area of maritime activities and safety.

Article 14

The decision to open an investigation is taken by the Minister in charge of Maritime Matters, on his own initiative or on the proposal of the BEA mer director.

The director shall propose regulations to the Minister in charge of Maritime Matters on the preservation of evidence from the technical investigation as well as the use of onboard recorders.

Article 15

In addition to the director and general secretary, the BEA mer is made up of technical investigators, designated from among category A or equivalent State officers. Their appointment commissions them as technical investigators. The BEA mer also includes technical or administrative staff. These investigators and staff, depending on whether they are employed permanently or on a contract basis, are assigned or hired on the proposal of the BEA mer director.

For each investigation, the BEA mer director shall propose to the Minister either the use of the bureau's own resources or the formation of an investigation commission. In the latter case, at the director's proposal, the Minister shall designate the chairman of the commission chosen from among the BEA mer investigators, as well as the other members of the commission chosen according to their competencies, with the requisite guarantees of independence and impartiality. The members of the commission have the function of technical investigators.

The BEA mer may call upon experts, including foreigners, who are subject to professional secrecy under the same terms as BEA mer officers.

The remuneration of technical investigators and experts who are not assigned to the BEA mer or who are not made available to it, is set by a joint order of the Minister in charge of the budget and the Minister in charge of maritime matters.

Article 16

Technical investigators other than those mentioned in the first paragraph of article 15, are commissioned by the Minister in charge of Maritime Matters at the BEA mer director's proposal, provided that they have no convictions or decisions recorded in the national criminal record form number 2.

Their commission can be withdrawn from them in the interest of the bureau, by the same procedure.

Article 17

On the proposal of the BEA mer director or at the request of a foreign authority made through diplomatic channels, the Minister in charge of Maritime Matters may authorise technical investigators from equivalent foreign agencies to participate in investigations on the national territory or on board French vessels. They may, under the same terms, be associated with the investigation if the maritime event involves a foreign vessel or a foreign national.

The BEA mer director sets out how these technical investigators participate in or are associated with investigations or enquiries.

Chapter 3: Provisions concerning the land transport accident investigation bureau and technical investigations after land transport accidents or incidents.

Article 18

The BEA-TT reports to the vice-chairman of the civil engineering general council.

Its mission is to carry out technical investigations on land transport accidents or incidents, which may involve rail transport systems or guided transport systems, road transport or river transport, whenever the accident or incident has occurred on the national territory.

It also collects, analyses and disseminates information on practices and lessons from feedback on accidents or incidents for these methods of transport.

It carries out experience feedback and accidentology studies and research

Article 19

The BEA-TT director is appointed by order of the Minister in charge of Transport, on the proposal of the vice-chairman of the civil engineering general council, from Category A State officers with at least twenty years' professional experience in areas related to transport and its infrastructure.

Article 20

The decision to open an investigation is taken by the Minister in charge of Transport, on his own initiative or on the proposal of the BEA-TT director.

The director shall propose regulations to the Minister in charge of Transport on the preservation of evidence from the technical investigation as well as the use of onboard recorders, for the purposes of technical investigations.

Article 21

In addition to the director and general secretary, the BEA-TT is made up of technical investigators, designated from among category A or equivalent State officers. Their appointment commissions them as technical investigators. The BEA-TT also includes technical or administrative staff. These investigators and staff, depending on whether they are employed permanently or on a contract basis, are assigned or hired on the proposal of the BEA-TT director.

For each investigation, the BEA-TT director shall propose to the Minister either the use of the bureau's own resources and, where necessary non-permanent technical investigators recruited under the terms set out in article 22 of this decree, or the formation of an investigation commission. In the latter case, at the director's proposal, the Minister shall designate the chairman of the commission chosen from among the BEA-TT investigators, as well as the other members of the commission chosen according to their competencies, with the requisite guarantees of independence and impartiality. The members of the commission have the function of technical investigators.

The BEA-TT may call upon experts, including foreigners, who are subject to professional secrecy under the same terms as BEA-TT officers.

The remuneration of technical investigators and experts who are not assigned to the BEA-TT or who are not made available to it, is set by a joint order of the Minister in charge of the budget and the Minister in charge of transport.

Article 22

The BEA-TT director may also call upon technical investigators made available or temporarily recruited. They are chosen from among the members of inspection and verification bodies, working or retired, as well as from among the working or retired staff of transport or infrastructure management firms.

Article 23

Technical investigators other than those mentioned in the first paragraph of article 21, are commissioned by the Minister in charge of transport at the BEA-TT director's proposal, provided that they have no convictions or decisions recorded in the national criminal record form number 2.

Their commission can be withdrawn from them in the interest of the bureau, by the same procedure

Article 24

On the proposal of the BEA-TT director, the Minister in charge of transport may authorise technical investigators from equivalent foreign agencies to participate in investigations on an accident or incident which has occurred on the national territory either when a vehicle registered in their country of origin is involved, or when the operator or manufacturer of the means or system of transport in question is established in their country of origin.

Chapter 4: Final provisions.

Article 25

The provisions of articles 1 to 17 of this decree are applicable, insofar as they concern maritime events, in Mayotte, the Wallis and Futuna islands, French Polynesia, New Caledonia and French Austral and Antarctic territories, without prejudice to the jurisdiction devolved to these authorities.

Article 26

Decree number 81-63 of 20 January 1981 concerning commissions for technical and administrative investigation of ship accidents and incidents is abrogated.

Article 27

The Minister of the interior, homeland security and local liberties, the justice Minister, the foreign affairs Minister, the Minister for defence, the Minister for the economy, finance and industry, the Minister for public works, transport, housing, tourism and maritime matters, the Minister for agriculture, food, fishing and rural affairs, the Minister for public services, State reform and national planning and development, the overseas Minister, the Minister delegated to the budget and budgetary reform, the secretary of state for transport and maritime matters and the secretary of state for State reform are, each in the area concerning them, in charge of executing this decree, which will be published in the Official Bulletin of the French Republic.