**GISAF**

**GABINETE DE INVESTIGAÇÃO DE  
SEGURANÇA E DE  
ACIDENTES FERROVIÁRIOS**

[Railway Safety and Accident Investigation Bureau]

**MOPTC**

[Ministry for Public Works, Transport and Communications]

**ANNUAL REPORT 2008**

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A – SUMMARY

This report complies with Article 23(3) of Directive 2004/49/EC of 29 April, which stipulates that the body responsible for investigating railway accidents shall publish by 30 September at the latest an annual report accounting for the investigations carried out in the preceding year (2008), the safety recommendations issued and the action taken in accordance with such recommendations.

The principal aspects of this report are accordingly as follows:

* Organisation of the GISAF and its resources
* Description of procedures used
* Identification of type of investigations carried out in 2008
* Summary of investigations concluded and investigations carried forward to the following year
* Recommendations

B – INTRODUCTION

The Organic Law (Decree-Law No 394/2007) which partially transposes into the domestic legal system Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways and amending Council Directive 95/18/EC of 29 July on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification was published on 31 December 2007.

This Decree-Law created the *Gabinete de Investigação de Segurança e de Acidentes Ferroviários* (GISAF) [Railway Safety and Accident Investigation Bureau] and defined its scope and powers.

C – ORGANISATION

In 2008 the GISAF began to operate as laid down by Decree-Laws 394 and 395 of 2007, although its Director had not been appointed. This prevented it from implementing its own budgetary management, among other things. The IMTT [Institute for Mobility and Transport] then began to provide the logistic and administrative support provided for by law.

Human resources in 2008 were virtually the same as in the previous year, though following the departure of the coordinator in the second half of the year, the staff plan was reduced to two people, an investigator and a technical and administrative officer.

The investigation bureaus were appointed by the Secretariat of State for Transport, which was also responsible for approving the reports.

D – investigation procedures

In 2008 the investigation procedures used were the same as those in the previous year, 2007, i.e.:

1. Information on occurrences received from operators or from the infrastructure manager (written or verbal).
2. Decision on measures to be taken according to the seriousness of the occurrence (opening of an investigation or not).
3. Collection of preliminary information on the circumstances surrounding the occurrence (human and material damage, rail traffic safety, etc.).
4. Survey of the site of the occurrence with the infrastructure manager – description of the circumstances surrounding the occurrence, photographic record.
5. Procedures for opening an investigation – reasons for opening the investigation and proposal to form the investigation bureau, information on the decision and on forming the investigation bureau sent to the infrastructure manager, operators and the Secretariat of State for Transport.
6. Identification and organisation of technical information to be requested from undertakings on rolling stock involved and infrastructure.
7. Scheduling of hearings involving the train crew and other witnesses.
8. Interviews.
9. Receipt and confirmation of technical data requested.
10. Identification of any additional information to be obtained from undertakings.
11. Drafting of the first version of the report on the occurrence, as laid down in Annex V of Directive 2004/49 of 29 April.
12. Examination and discussion of the first version of the report.
13. Introduction of changes and signature of the final report.
14. Forwarding of final report to undertakings for their response.
15. Analysis and validation of the observations made by undertakings on the final report.
16. Introduction of changes, if any, into the final report.
17. Forwarding of the final report to undertakings and to the Secretariat of State for Transport for approval.
18. Follow-up of recommendations.

E – INVESTIGATIONS

The following investigations were opened and concluded in 2008:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Type of Accident | Place | Description | Consequences | Recommendations |
| 11 Mar 2008, 10h00 | Accident at type A LC [level crossing] | Western Line, Monte Real, LC at kp 175.976 | An ambulance tried to drive through the closed LC and was hit by a passenger train which dragged it for around 450m | Four fatalities, all occupants of the ambulance | Recommendation to REFER to include this LC in its LC elimination programme |



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| 13 April 2008, 18h11 | Accident at type D LC | Douro Line, Louriçal, kp 52.560 | A passenger train collided with a car that had come to a halt on the LC | One fatality, the driver of the vehicle | No recommendation |



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| 4 May 2008, 18h31 | Accident at urban junction involving a light rail train | Oporto, Rotunda dos Golfinhos | When negotiating the junction the light rail train was hit by a car that did not stop at the stop sign. The train derailed and ran head-on into a wall | 18 slight injuries, including the driver of the train | No recommendation |



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| --- | --- | --- | --- | --- | --- |
| 6 June 2008, 11h40 | Derailment of LRV – light rail vehicle | Tua Line, Tua Station, kp 2.171 | The LRV derailed as it went over a raised joint, tipped over and came to rest against the hillside | One slight injury among the six passengers on board | Refer and CP recommended to carry out a joint study on standards regarding track quality parameters |



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| --- | --- | --- | --- | --- | --- |
| 12 June 2008, 20h15 | Accident at type D LC involving quad bike | Western Line, Torres Vedras, kp 69.446 | A passenger train collided with a quad bike that went on to the LC and came to a halt in front of the train | One fatality and one serious injury, both Romanians on the quad bike | No recommendation |



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| --- | --- | --- | --- | --- | --- |
| 22 August 2008 | Derailment of LRV carrying 50 passengers | Tua Line, Brunhede, kp 20.400 | The LRV derailed at a speed of 38 Km/h and fell down a 10m bank | One fatality, four serious injuries, 39 slight injuries | Seven recommendations were made to REFER, five to CP and two jointly to both undertakings |



No investigations opened in 2008 were carried forward to 2009

seriousness

According to their seriousness, as defined in Article 3 of Directive 49/2004 and, in its transposition into domestic law, in Article 2 of Decree-Law 394/2007, accidents were classified as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Type of Accident | Place | Consequences | Seriousness | Justification |
| 11 March 2008,  10h00 | Accident at type A LC | Western Line, Monte Real, LC at kp 175.976 | Four fatalities, all occupants of the ambulance | Accident | It was established that driving rules had not been followed, since the ambulance tried to drive over the LC against the stop signal. It was proposed to close this LC. |
| 13 April 2008,  18h11 | Accident at type D LC | Douro Line, Louriçal, kp 52.560 | One fatality, the driver of the vehicle | Accident | No change to railway regulations or safety management required |
| 4 May 2008,  18h31 | Accident at urban junction involving light rail train | Oporto, Rotunda dos Golfinhos | 18 slight injuries, including the driver of the train | Accident | No change to railway regulations or safety management required |
| 6 June 2008,  11h40 | Derailment of LRV – light rail vehicle | Tua Line, Tua Station, kp 2.171 | One slight injury among the six passengers on board | Accident | One of several accidents on the Tua Line |
| 12 June 2008,  20h15 | Accident at type D LC involving quad bike | Western Line, Torres Vedras, kp 69.446 | One fatality and one serious injury, both Romanians on the quad bike | Accident | No change to railway regulations or safety management required |
| 22 August 2008 | Derailment of LRV carrying 50 passengers | Tua Line, Brunhede, kp 20.400 | One fatality, four serious injuries, 39 slight injuries | Serious accident | One of several accidents on the Tua Line requiring a combined revision of infrastructure and vehicles |

Of the six accidents investigated in 2008, only one could be considered to be serious according to the definition of ‘Serious accident’ laid down in Article 3(1) of Directive 49/2004 and Article 2(1)(c) of Decree-Law 394/2007, i.e.:

‘**Serious accident** – any train collision or derailment of trains, resulting in the fatality of at least one person or serious injuries to five or more persons or extensive damage to rolling stock, the infrastructure or the environment, and any other similar accident with an obvious impact on railway safety regulation or the management of safety’

An examination of this definition shows that it is not sufficient for there to be consequences (victims or material or environmental damage) for a rail accident to be considered serious. It is a necessary condition but it is not sufficient. There must also be a collision or derailment or there must be a significant impact on safety regulation or the management of safety.

An accident with victims, which is always considered serious from a social perspective, may therefore not be considered to be as serious in a strictly railway context when it is neither a collision nor a derailment of trains, or does not have an obvious impact on safety regulation or the management of safety. This is the case of certain accidents at level crossings and the majority of collisions on plain line track, for example, which are therefore not automatically investigated.

F – CONCLUSIONS

Priority was given to concluding investigations that were opened in 2008 and leaving investigations brought forward from previous years to be resolved in due course according to the availability of resources.

The situation can be summarised as follows:

All six investigations opened in 2008 were concluded in that year.

In 2007 a total of 12 investigations were opened, with only one being concluded. This meant that 11 investigations were carried forward to the following year.

These 11 investigations opened in 2007 and not concluded, plus 16 opened in 2006 and six opened in 2005, totalling 33 investigations, were carried forward to 2008 and subsequently to 2009.

The 16 investigations opened in 2006 plus the 11 opened in 2007, totalling 27 investigations, were notified to the ERA. The latter is now awaiting the completed reports, which have yet to be dispatched. The ERA needs these reports, and priority will therefore be given to concluding them in the near future.

It should be noted that most of the 33 investigations not yet concluded are not classified as ‘serious accidents’ (Article 19(1) of Directive 49/2004), and it was therefore not mandatory to open investigations into them.

The specialist human resources available in the GISAF are clearly not sufficient to make up the delay, which it will only be possible to overcome with external assistance, i.e. from railway undertakings.

The institutional changes arising out of the transposition of Directive 2004/49/EC of 29 April, with the creation of the GISAF, will without doubt help to resolve the main problems. We are aware, however, that it will be difficult to recruit specialised technical personnel, who are only found in the small number of railway undertakings in the sector, where they attract higher salaries. This difficulty will undoubtedly have an impact on meeting the deadlines for concluding investigations.

As regards contacts with the European Railway Agency (ERA), we took part in the meetings on accident investigations held in Lille in 2008, which facilitated exchanges of experience and technical know-how.

ANNEX – Investigations from previous years not yet concluded and carried forward to 2008 and subsequently to 2009

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| --- | --- | --- |
| DATE and TIME | DESCRIPTION | NOTIFIED TO ERA |
| 16.08.2005  19h45 | Runaway rolling stock and derailment on the Beira Baixa Line, with rolling stock coming to rest on L. III | No |
| 11.08.2005  15h00 | Accident involving mini-train run by Transpraia Lda | No |
| 10.11.2005  10h27 | Incident involving locomotives No 2506 and 2551 at Pampilhosa Station, Northern Line | No |
| 07.11.2005  21h09 | Minho Line, occurrence with personnel at Caminha Station | No |
| 22.11.2005  16h52 | Derailment of train No 75436 at Vila Franca das Naves Station, Beira Alta Line | No |
| 03.06.2005  06h45 | Accident at type B LC at kp 24.988, Western Line, involving train No 68361 | No |
| TOTAL FOR 2005: Six investigations not concluded | | |
| 18/03/2006  17h20 | Accident at automatic type B LC at kp 164.079, Western Line, involving a two-car diesel multiple unit | Yes |
| 18.05.2006  16h12 | Incident involving train No 3205 at type B LC at kp 100.762, Minho Line | Yes |
| 04.07.2006  21h50 | Derailment of goods train No 50331 at Pampilhosa Station, Northern Line | Yes |
| 06.07.2006  11h25 | Accident involving train No 128 at Miramar pedestrian crossing, Northern Line | Yes |
| 11.07.2006  10h17 | Accident involving train No 5705 at kp 387.300, Algarve Line | Yes |
| 15.07.2006  18h27 | Derailment of goods train No 66590 at Pegões Station, Alentejo Line | Yes |

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| --- | --- | --- |
| 10.08.2006 20.35h | Accident involving train No 524, Northern Line | Yes |
| 06.09.2006 04h35 | Incident involving Tejo Energia coal train 66951, with destruction of axle box on seventh wagon, Northern Line, at kp 87.428 | Yes |
| 26.09.2006 19h13 | Accident involving train No 4660 at kp 329.600, Northern Line, between Gaia and Valadares | Yes |
| 25.10.2006 05h35 | Incident involving goods train No 77351 at Tramagal Station, kp 129.500, Beira Baixa Line | Yes |
| 28.10.2006 14h30 | Accident involving train No 6457 at type C LC at kp 170.418, Western Line | Yes |
| 07.11.2006 05h26 | Accident involving train No 25625 at type B LC at kp 62.542, Beira Baixa Line | Yes |
| 13.11.2006 21h55 | Derailment of train No 51330 at Oliveira do Bairro Station, Northern Line | Yes |
| 27.11.2006 19h05 | Accident involving train No 60984 at 5th category LC at kp 37.969, Southern Line | Yes |
| 15.12.2006 12h02 | Accident involving train No 6454 at type B LC at kp 175.976, Western Line | Yes |
| 20.12.2006 04h35 | Derailment of 13th cement tank wagon due to a broken wheel at a speed of 90Km/h, between kp 235.140 and kp 238.412, Northern Line | Yes |
| TOTAL FOR 2006: 16 investigations not concluded, all notified to the ERA | | |
| 01.02.2007 14h08 | Accident at 5th category LC at kp 149.695, Beira Baixa Line, Fundão | Yes |
| 21.03.2007 18h41 | Accident involving train No 133 at type A LC at kp 203.378, Northern Line | Yes |
| 28.03.2007 16h50 | Accident involving train No 803 at type B LC at kp 122.032, Western Line | Yes |

|  |  |  |
| --- | --- | --- |
| 04.04.2007 17h43 | Accident involving train No 96509 at 5th category LC at kp 37.969, Southern Line | Yes |
| 12.05.2007 17h30 | Accident involving train No 6458 at type D LC at kp 143.998, Western Line | Yes |
| 02.06.2007 15h31 | Accident involving train No 4109 at type A LC at kp 59.270, Douro Line | Yes |
| 13.06.2007 01h40 | Accident involving train No 77631 on track d at kp 218.190, Northern Line | Yes |
| 01.08.2007 15h48 | Accident involving train No 5679 at kp 140.650, Beira Baixa Line | Yes |
| 05.08.2007 12h16 | Accident involving train No 5714 at type B LC at kp 370.183, Algarve Line | Yes |
| 17.08.2007 02h57 | Derailment of train No 69611 at kp 231.300, Northern Line | Yes |
| 18.08.2007 14h13 | Accident involving train No 5718 at type D LC at kp 347.716, Algarve Line | Yes |
| TOTAL FOR 2007: 11 investigations not concluded, all notified to the ERA | | |

The above reports were not concluded in 2008 and were carried forward at the end of the period to 2009.

The six reports relating to 2005 and not yet concluded are merely an internal matter, since they were not notified to the ERA and can be resolved with the cooperation of the undertakings involved.

However, the situation of the 27 reports relating to 2006 and 2007, which were notified to the ERA and which that Community institution therefore requires, is more delicate and must be given priority.

Statistical analysis:

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| --- | --- | --- | --- |
| 2008 | | | |
| Type of Accident | Number of accidents or incidents investigated | Fatalities | Serious injuries |
| Collision (involving trains or an obstacle, except LCs) | 0 | 0 | 0 |
| Derailment | 2 | 1 | 4 |
| Accident at LC | 4 | 6 | 23 |
| Accident involving people and trains in motion | 0 | 0 | 0 |
| Fire on trains | 0 | 0 | 0 |
| Others | 0 | 0 | 0 |
| Total | 6 | 7 | 27 |