

Annual Report 2011

Accident Investigation Board, Norway Railway Department

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Introduction

The Accident Investigation Board Norway (AIBN) is a multimodal organisation covering four transport modes. It was established in 1989 to investigate air accidents and incidents. The first railway accident investigation started 1 July 2002. Today, the AIBN is a multi-modal body investigating accidents and incidents in aviation, railways (including trams and metros), road transport and the marine sector. The different transport modes are organised in different departments within the AIBN reporting to the Director General. The multi-modal concept has been very successful in relation to stimulating cooperation, how to approach an investigation, methodology, sharing relevant safety issues and learning from the other transport sectors. In 2002 the AIBN's mandate was expanded to cover railway accidents, in 2005 road accidents and in 2008 marine accident investigations were included in our mandate.

Rail accident investigation in Norway is subject to the Directive for the Accident Investigation Board Norway, laid down by the Ministry of Transport and Communications on 12 June 2002. The AIBN itself decides the scale of the investigations to be conducted, including an assessment of the investigation's expected safety benefits with regard to resources required.

The AIBN is independent and focus entirely on safety and not apportion blame or liability, nor do we enforce law or carry out prosecutions. The most important elements in the railway safety investigations are to improve the safety of railways, learning from experience and preventing accidents from recurring. Over the years, the investigations have increasingly addressed the human element, focusing on the system of interaction between human factors, technology and organisational factors.

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Regulation

Railway accident investigation in Norway is regulated in detail by the Norwegian Act of June 3rd 2005, No.34, relating to notification, reporting and investigation of railway accidents and railway incidents, and regulations stipulated pursuant to the Act.

EUs safety directive for railway was adopted and made official March 1st 2006 as Regulation 2006-03-31 nr 378. *Regulation for official investigation of railway accidents and serious incidents etc.* (“The Railway Investigation regulation”).

Accident Investigation Board Norway (AIBN) - Organisation

Mr. William J. Bertheussen was appointed Director General as of 1st August 2011.

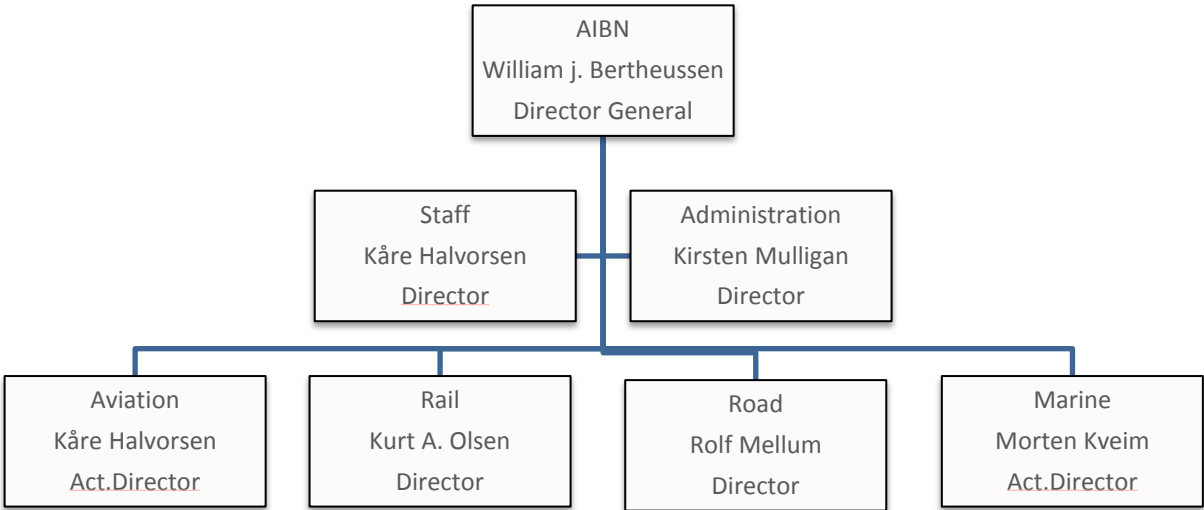


Figure 2: The AIBN organisation as of 31st December 2011.

Notifications of accidents and incidents – key numbers

The AIBN, Railway department received totally 274 notifications by telephone in 2011. The number of notification includes rail-, metro- and tram traffic (LTR). According to the Norwegian Railway Authority (responsible for official statistics), the total number of reported accidents and incidents is on the average level compared to the previous years.

11 accidents were registered with a total of 17 fatalities.

The AIBN, Railway department was involved in 8 investigations as of 31st December 2011.

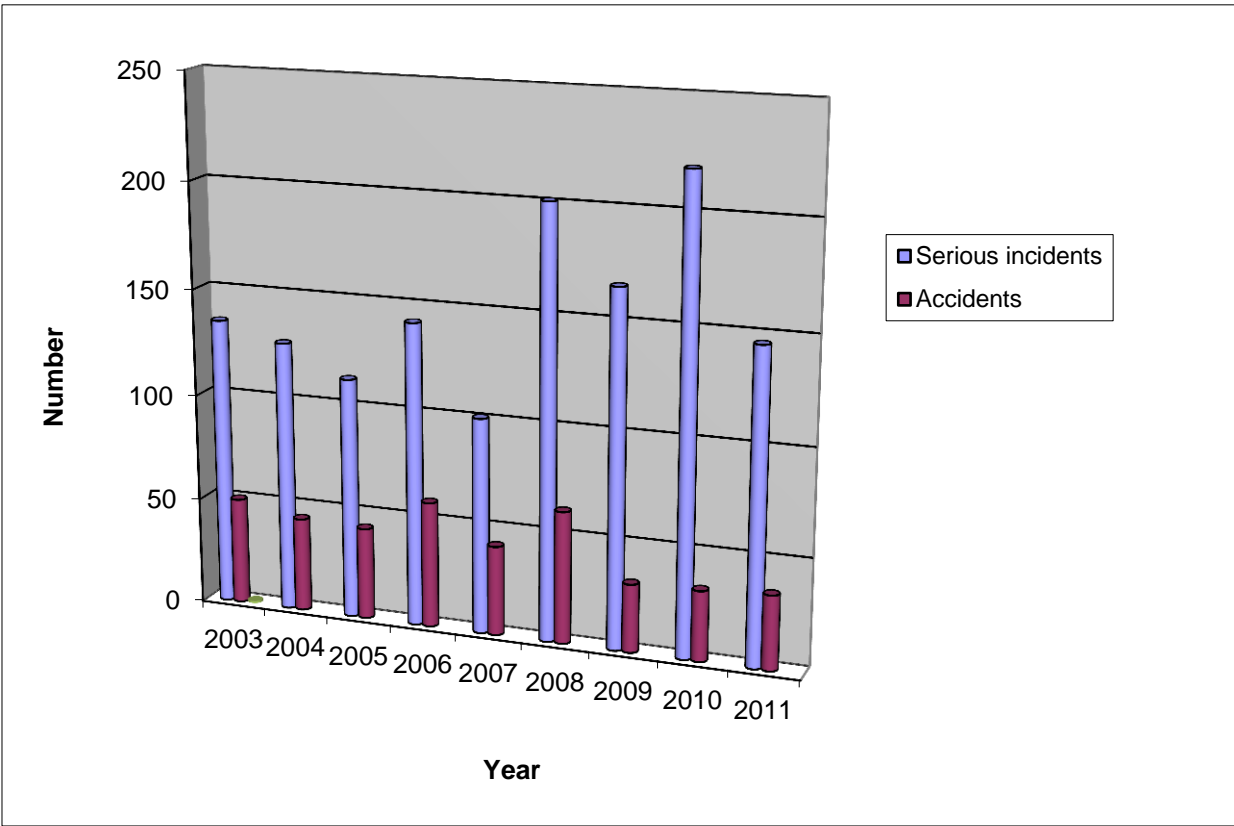


Figure 2: Key numbers, reported (72 hours) railway accidents and incidents.

	01.07.02	2003	2004	2005	2006	2007	2008	2009	2010	2011
Serious railway incidents	-	-	127	113	142	101	201	166	219	146
Railway accidents	-	-	44	43	59	42	62	32	33	35
Total	144	197	181	156	201	143	272	198	252	181
Published reports	-	3	15	7	11	13	9	11	9	10

Table 1: Key numbers, reported railway accidents and incidents (not official statistics).

The Norwegian Railway Authority (Statens jernbanetilsyn) is the responsible body for the official national statistics regarding railway accidents and incidents.

Other activities

During 2010, several meetings have been arranged with the Norwegian Railway Authority, Infrastructure Manager (Jernbaneverket) and the operators, including metro and tram operators. The meetings have focused on closing safety recommendations, accident reporting and classification, organisational changes, point of contact etc.

Norway, Sweden, Denmark, Finland and UK are members of the Nordic network (NRAI). The network organises two meetings per year, where the main focus is to inform each other about on-going investigations, ERA network and task force meetings and any other business common to the Nordic Region. ERA is represented in the NRAI meetings.

Reports

The Accident Investigation Board, Norway, Railway Section, published 10 reports in 2011. This gives approximately 2 reports pr. year for each Inspector of Accident. See appendix A for more details.

Safety recommendations

The Accident Investigation Board Norway, the Railway department, published 16 safety recommendations in 2011. An overview of the recommendations is given in appendix B.

Status of the safety recommendations, see table below:

Year:	2009	2010	2011
Open:	2	2	9
Closed:	19	14	7
Total:	21	16	16

Appendix A - Published reports 2011

NR	IDENTIFICATION	DATE
1	Report on accident Trondheim city. Collision tram – bus 05.11.2009.	2.2.2011
2	Report serious incident, Trondheim freight terminal. Freight train 5701 28.1.2010.	18.2.2011
3	Report on railway accident with freight car set that rolled uncontrolledly from Alnabru to Sydhavna on 24.3.2010.	24.3.2011
4	Report on serious incident passenger train 1677 Oslo S Brynsbakken, Hovedbanen 1.4.2010.	5.4.2011
5	Report on railway accident Kristiansand station, Sørlandbanen 26.4.2010 train 705.	6.6.2011
6	Report on railway accident Bratsbergbanen Skien Valeseter 9.9.2010 train 2573.	20.6.2011
7	Report on serious incident at Slemdal Metro station 19.9.2010 track construction machine.	18.8.2011
8	Report on derailment train 55 Skotterud station, Kongsvingerbanen 1.10.2010.	22.9.2011
9	Class report fire in the current collector on the MX-3000 Metro trains.	7.11.2011
10	Report on accident Toyen Metro station 1.12.2010, metro train 503	30.11.2011

Appendix B - Safety recommendations 2011

Report No.	Recommendation No.	Text	Status
2011/02	2010/01	The AIBN recommends that Statens Jernbanetilsyn informs the owners and users of shunting engines type skd.226 and Z66 about the failure modes and to change the operating procedures and technical modifications.	Closed
2011/03	2011/02	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket to analyse the operational situation at Alnabru and to establish necessary barriers so that runaway rail cars cannot roll out of the station.	Open
2011/03	2011/03	The AIBN recommends that Statens jernbanetilsyn orders Jernbaneverket and CargoNet AS to review and improve their systems for risk assessments and analyses.	Open
2011/03	2011/04	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket and CargoNet AS to review and improve the way safety work is organised, in order to ensure the overall safety of freight terminals and shunting yards.	Open
2011/03	2011/05	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket and CargoNet AS to improve their safety management, with a particular emphasis on collecting and processing information in order to improve the safety culture.	Open
2011/03	2011/06	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket and the railway undertakings to review communication in connection with shunting operations, define safety-critical information, and establish barriers to prevent/detect misunderstandings.	Open
2011/03	2011/07	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket and CargoNet AS to update and distribute governing documents and ensure that they are understood.	Open
2011/03	2011/08	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket to consider whether it is necessary to establish barriers in order to protect the freight train track from Alnabru to Loenga, Hovedbanen and Oslo S station.	Open
2011/04	2011/09	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket to reconsider the SMS system regarding temporary means for track maintenance.	Closed
2011/05	2011/10	The AIBN recommends that Statens jernbanetilsyn order the railway undertakings to verify the procedures regarding use of electric brakes in trains with locomotive and carriages, and if needed apply necessary actions.	Open

2011/06	2011/11	The AIBN recommends Statens jernbanetilsyn to order NSB AS to assess the construction of the train, the maintenance programme and the number of onboard train crew. In addition carry out modifications if needed, and to verify if safety performance is acceptable.	Closed
2011/07	2011/12	The AIBN recommends that Statens jernbanetilsyn to clarify the legislation and the set of rules regarding track construction work areas on the Oslo metro network.	Closed
2011/08	2011/13	The AIBN recommends that Statens jernbanetilsyn order the railway undertakings operating rolling stock not owned by the company, to verify that it satisfies the operating company's internal SMS.	Closed
2011/08	2011/14	The AIBN recommends that Statens jernbanetilsyn order Jernbaneverket to go through the internal procedures concerning efficient communication between the traffic controller and the rescue personnel.	Closed
2011/09	2011/15	The AIBN recommends that Statens jernbanetilsyn order Oslo T-banedrift AS to consider the technical solution to avoid current leakage and spark-over which may cause fire to develop.	Open
2011/10	2011/16	The AIBN recommends that Statens jernbanetilsyn order Oslo T-banedrift AS to design routines to detect failures in switches.	Closed

The safety recommendations are translated from Norwegian language. The Norwegian text remains the official version of the safety recommendations. Should ambiguity arise between the two, the Norwegian text takes precedence.