

First BieleSchweig Workshop on Systems Engineering: Root-Causal Analysis

University of Bielefeld, Faculty of Technology, RVS Group
Siemens AG, Transportation Systems, Kompetenzzentrum RAMSS
17.–18.12.02, Zentrum für Interdisziplinäre Forschung, Bielefeld

There has been a lot of recent interest in analysis of root causes of safety-related incidents (IRIA, 2002), recognising in particular the roles played by latent factors, including organisational and management influences (Reason, 1990, 1997). An important aspect is the choice of causal analysis technique. Examples include WBA (Ladkin), STAMP (Leveson), SOL (Fahlbruch).

The Workshop has the following goals:

- Exchanges of experiences with root-causal analysis
- Discussion of evaluation criteria for causal analysis methods
- Proposals for benchmarking such methods
- Development of a "community" to encourage exchange of experiences and development within the field

Organisation

Location: Zentrum für Interdisziplinäre Forschung in Bielefeld, <http://www.uni-bielefeld.de/ZIF/>

Participant Group: Researchers, industrial users and regulators

Language: German, English

Talks: Talk proposals (30 Min. + Discussion) to one of the organisers please by 15.11.02

Proceedings: Slides and Papers will appear on the WWW

Registration: by 1.12..02. The workshop is restricted to 25 participants, first-come first-served with preference to those who wish to present a talk.

Fees: None. Participants pay their own expenses.

Contact: Prof. Dr. Peter Ladkin (ladkin@rvs.uni-bielefeld.de)
Dr. Jens Braband (jens.braband@siemens.com)

Conference Hotel: Mercure am Niederwall (Tel +49 (0)521 52 53 0,
Fax +49 (0)521 52 53 4 44),

Reservations naming the Workshop may be made up to 01.12 @ EUR 63 pN

Program

17.12.02 10.00–17.00 Talks on the Theory and Practice of Root-Causal Analysis:

10.00 Welcoming Remarks

10.15–11.15 ACAS and the South German Midair (Ladkin, Uni Bielefeld)

11.15–12.15 Safety through Organisational Learning – a Procedure for Event Analysis
(Fahlbruch, TU Berlin and Miller, MTO GmbH, in German)

12.15–14.00 Lunch

14.00–14.45 Why-Because-Analysis Tools and the Concorde Accident (Sieker, Uni Bielefeld)

14.45–15.45 Experience with WBA in Analysing a Complex Rail Accident (Lemke and Gayen, TU Braunschweig, in German)

16.15–17.00 Application of Why-Because Graphs to Railway Near-Misses (Braband, Siemens AG)

17.12 Evening Meal together in Wernings Weinstube

18.12.02 9.00–15.30

9.00–9.30 A Causal Analysis of Network Security Vulnerabilities (Döring, Sanders, Tarigan, Wiryana, Uni Bielefeld)

9.30–10.00 Demonstration of the ASCE Safety–Case Tool (Emmet, Adelard)

10.00–10.30 Coffee

10.30–12.30 Discussion on Assessment Criteria for Root Cause Analysis Methods

12.30–14.00 Lunch

14.00–15.30 Discussion of Benchmarking Examples

Literature

Investigation and Reporting of Incidents and Accidents, IRIA2002, Glasgow, 2002,
<http://www.dcs.gla.ac.uk/~johnson/iria2002/>

Fahlbruch, B., Vom Unfall zu den Ursachen. Empirische Bewertung von Analyseverfahren.
Berlin: Mensch & Buch Verlag, 2000, s. a. <http://www.tu-berlin.de/~fss/index.html>

Ladkin, P.: The Causal Systems Analysis and WB–Analysis Home Page,

HYPERLINK "<http://www.rvs.uni-bielefeld.de/research/WBA/>" HYPERLINK "<http://www.rvs.uni-bielefeld.de/research/WBA/>" HYPERLINK "<http://www.rvs.uni-bielefeld.de/research/WBA/>"

§Leveson, N.: Papers and Reports on Accidents and Accident Models,
<http://sunnyday.mit.edu/accidents/index.html>

Reason, J.: Managing the Risks of Organizational Accidents, Ashgate 1997

Location, Directions and Local Information

Local maps of Bielefeld City Center and of the University with the ZIF can be found at
HYPERLINK "<http://www.uni-bielefeld.de/ZIF/>" <http://www.uni-bielefeld.de/ZIF/> (English) and
HYPERLINK "<http://www.bielefeld.de/>" http://www.bielefeld.de

Bielefeld is on the rail line Berlin–Hanover–Cologne and can be reached with frequent Intercity and Intercity–Express (ICE) trains from Hanover, Cologne or Düsseldorf. Journey time from Hanover Main Station is 50 minutes; from Hanover Airport 1 hour 15 minutes with change in Hanover Main Station; from Düsseldorf International Airport and Cologne both 1 hour 45 minutes without change. Information (in German) about train times can be obtained from
HYPERLINK "<http://www.bahn.de/>" http://www.bahn.de

The ZIF can be reached from Bielefeld Main Station by taxi (~EUR 7–9), or directly with the tram line 4 in the direction Universität/Lohmannshof, exit at the "Universität" stop (obvious), and then a five–minute walk through the university grounds.

Bicycles, including the Swiss–built Flyer with electric assistance, can be rented upon request. The ZIF can be reached from the town center in a pleasant 15–minute ride along marked bicyclepaths, bicycle roads (yes!) and parks..

Some single rooms for participants have been reserved until 01.12 at the Hotel Mercure am Niederwall , as noted above. Please give the name of the workshop upon calling the hotel, to obtain the special workshop price of EUR 63 with breakfast. After the 01.12, rooms can be booked according to availability. Reservations can be cancelled at no charge up to three days beforehand.

