

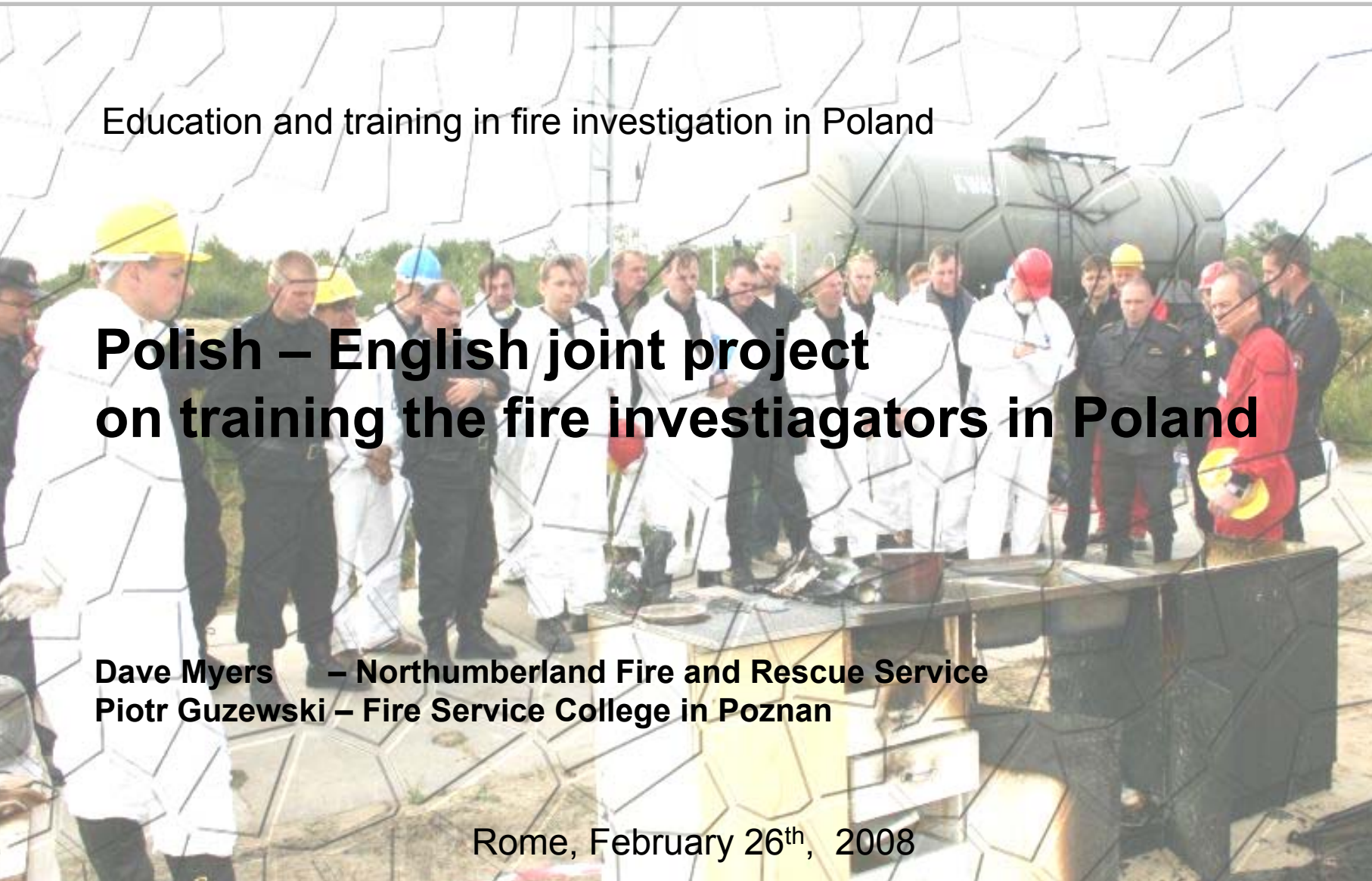
1st International Conference Investigating the Causes of Fire

Education and training in fire investigation in Poland

**Polish – English joint project
on training the fire investigators in Poland**

Dave Myers – Northumberland Fire and Rescue Service
Piotr Guzowski – Fire Service College in Poznan

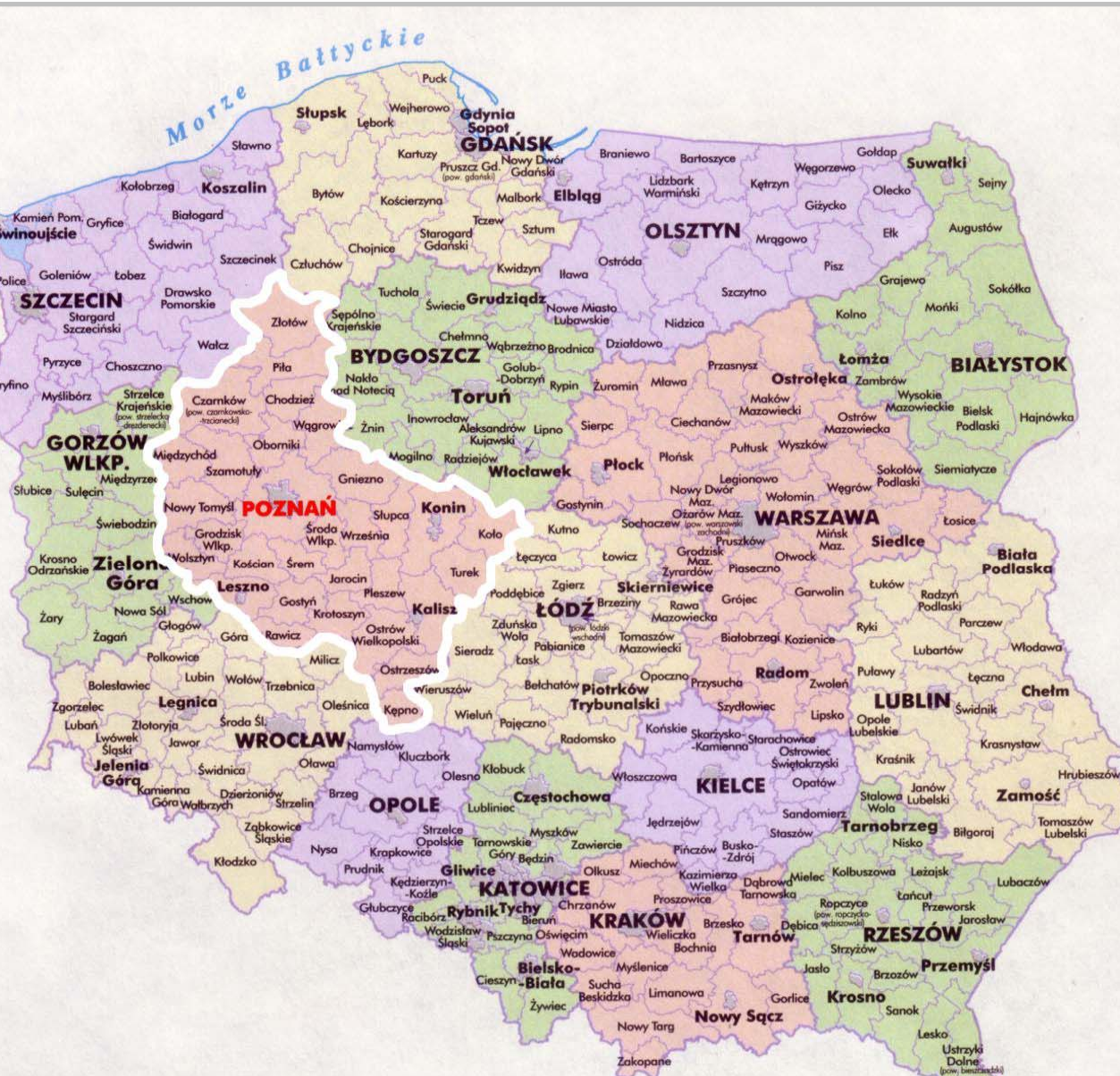
Rome, February 26th, 2008



POLAND IN EUROPE



WIELKOPOLSKA PROVINCE IN POLAND



POLAND

- Area: 322 575 th. km²
- Inhabitants: 38 126 000
- Provinces: 16
- Counties: 379
- Boroughs: 2478

CITY OF POZNAN IN WIELKOPOLSKA PROVINCE



Wielkopolska Province

- Area: 29 827 km²
- Inhabitants: 3 378 502
- Counties: 31
- Boroughs: 236

Poznan is the capital
of Wielkopolska Province

- Area: 261,8 km²
- Inhabitants: 564 951

FIRE SERVICE COLLEGE IN POZNAN



FSC CLASSROOMS



FSC TRAINING GROUND



FSC TRAINING GROUND



VX200-N

3

KONICA

0206

DOCHODZENIA POPOZAROWE

DOCHODZENIA POPOZAROWE

FIRE INVESTIGATION IN POLAND

DOCHODZENIA POPOZAROWE

DOCHODZENIA POPOZAROWE

MAIN TOPICS

FIRE STATISTIC

TYPICAL FIRE CAUSES

FIRE INVESTIGATION IN POLAND

FIRE INVESTIGATION COURSE



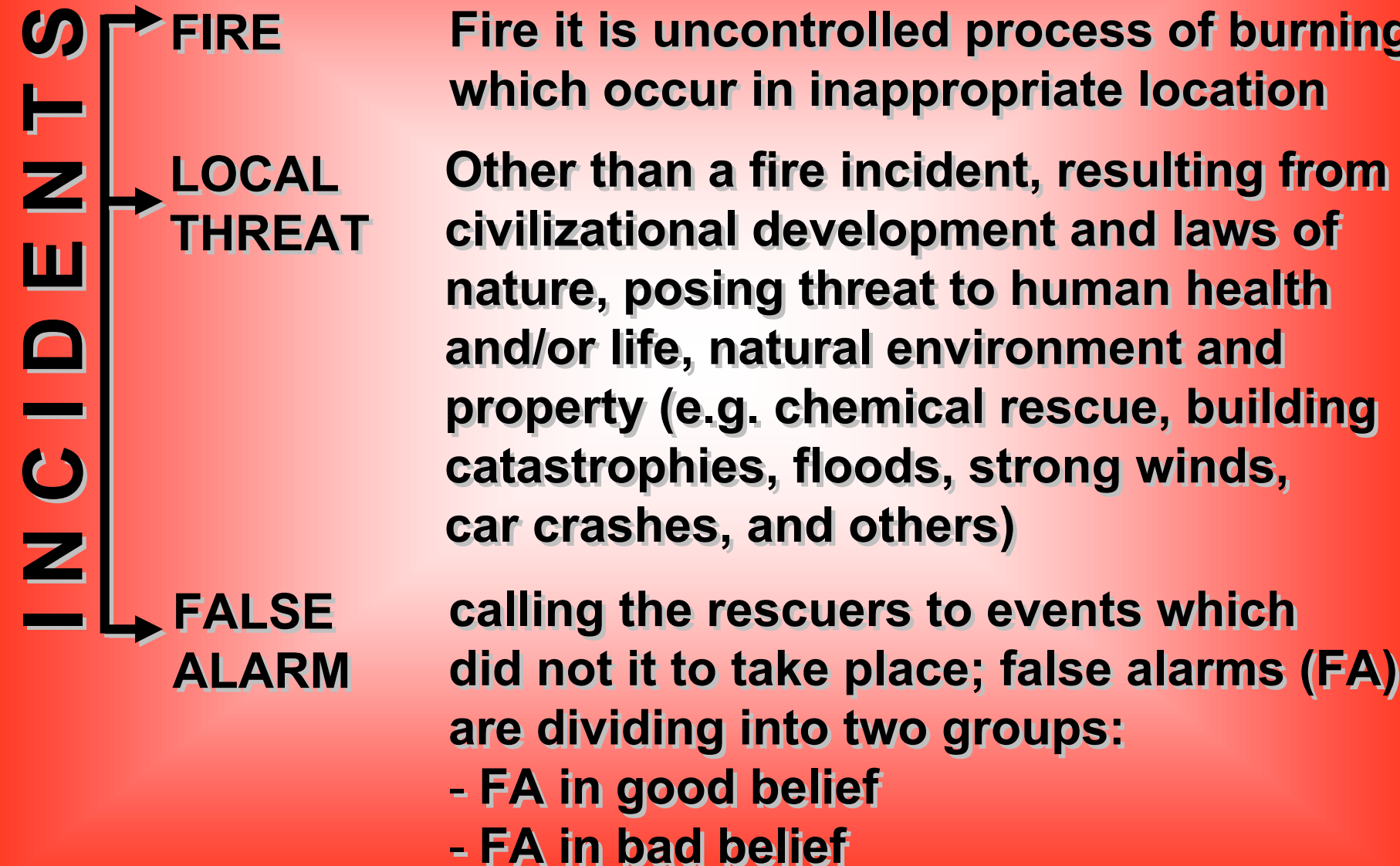
INCIDENTS

FIRE

**LOCAL
THREAT**

**FALSE
ALARM**

BASIC DEFINITIONS



BASIC DEFINITIONS

FIRE



According to Regulation of the Minister of Interior

Fire it is uncontrolled process of burning, which occur in inappropriate location



According to Polish Penal Code (art.163)

Fire it is an incident which is dangerous for life or health of many people or poses threat to huge property

BASIC DEFINITIONS

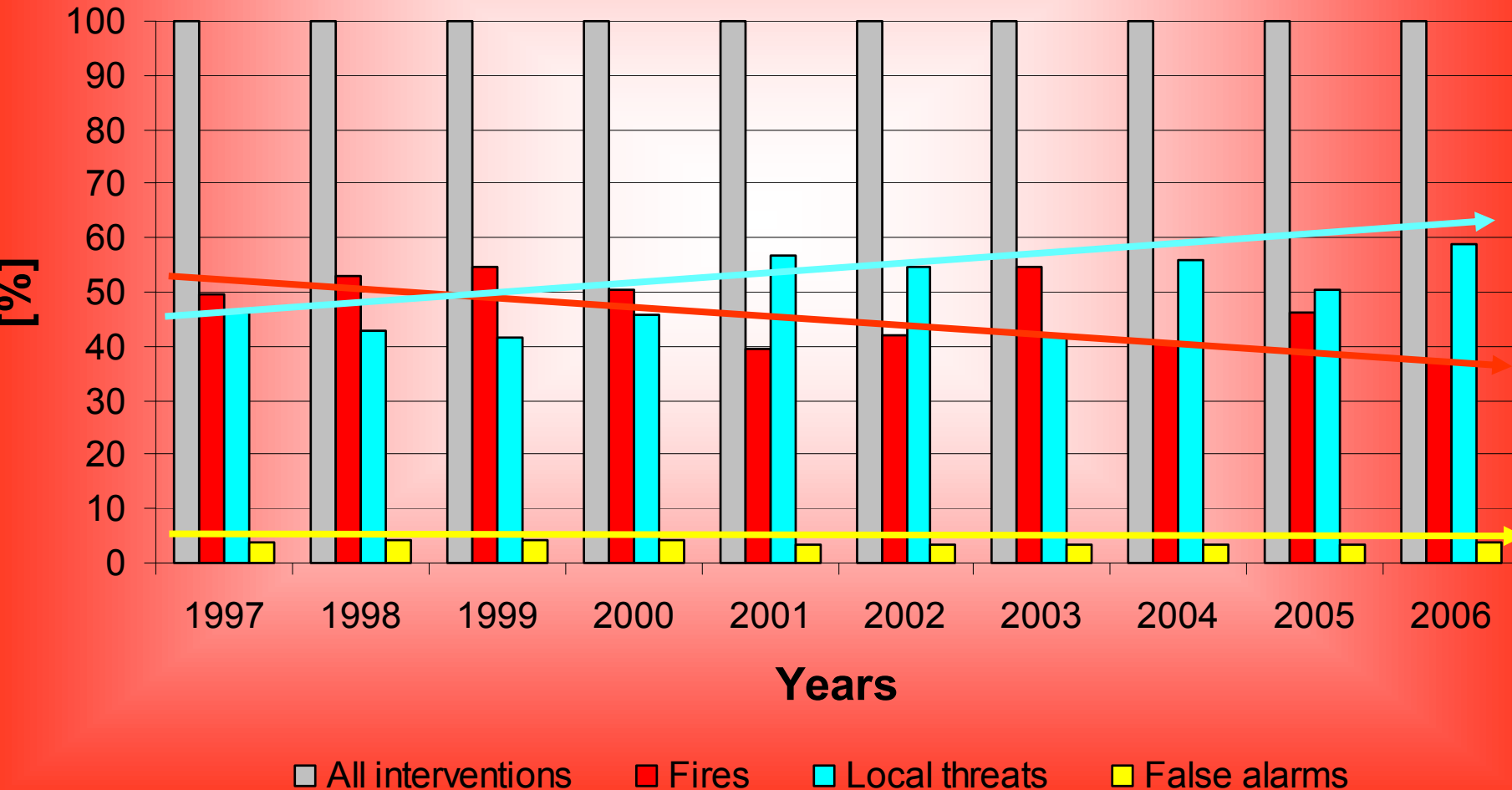
FIRE CLASSIFICATION

SIZE	Typical objects F – surface; V - volume	Cultivations, Forests F - surface	Fire streams (FS)
SMALL FIRE	- F do 70 m ² - V do 350 m ³	$F < 1 \text{ ha}$	$FS < 4$
MEDIUM FIRE	- F 71-300 m ² - V 351-1500 m ³	$1 \leq F < 10 \text{ ha}$	$5 \leq FS < 12$
LARGE FIRE	- F 301-1000 m ² - V 1501-5000 m ³	$10 \leq F < 100 \text{ ha}$	$13 \leq FS < 36$
VERY L. FIRE	- F > 1000 m ² - V > 5000 m ³	$F \geq 100 \text{ ha}$	$FS \geq 36$

INTERVENTIONS IN YEARS 1997-2006								
Year	Interventions		Fires		Local threats		False alarms	
	Number	[%]	Number	[%]	Number	[%]	Number	[%]
1997	240 448	100	119 448	49,7	111 669	46,4	9 331	3,9
1998	218 538	100	115 557	52,9	93 981	43	9 000	4,1
1999	250 168	100	136 284	54,5	103 640	41,4	10 244	4,1
2000	269 846	100	135 889	50,4	122 983	45,6	10 974	4
2001	293 761	100	116 601	39,7	166 911	56,8	10249	3,5
2002	360 294	100	151 026	41,9	197 491	54,8	11 777	3,3
2003	402 883	100	220 885	54,8	169 221	42,0	12 807	3,2
2004	359 406	100	146 728	40,8	200 553	55,8	12 125	3,4
2005	399 982	100	184 316	46,1	201 781	50,4	13 885	3,5
2006	442 966	100	165 190	37,3	261 344	59,0	16 432	3,7
2007	?		?		?		?	

INTERVENTIONS IN YEARS 1997-2006

The number of rescue interventions
in 1997-2006



FIRE CAUSES CLASSIFICATION

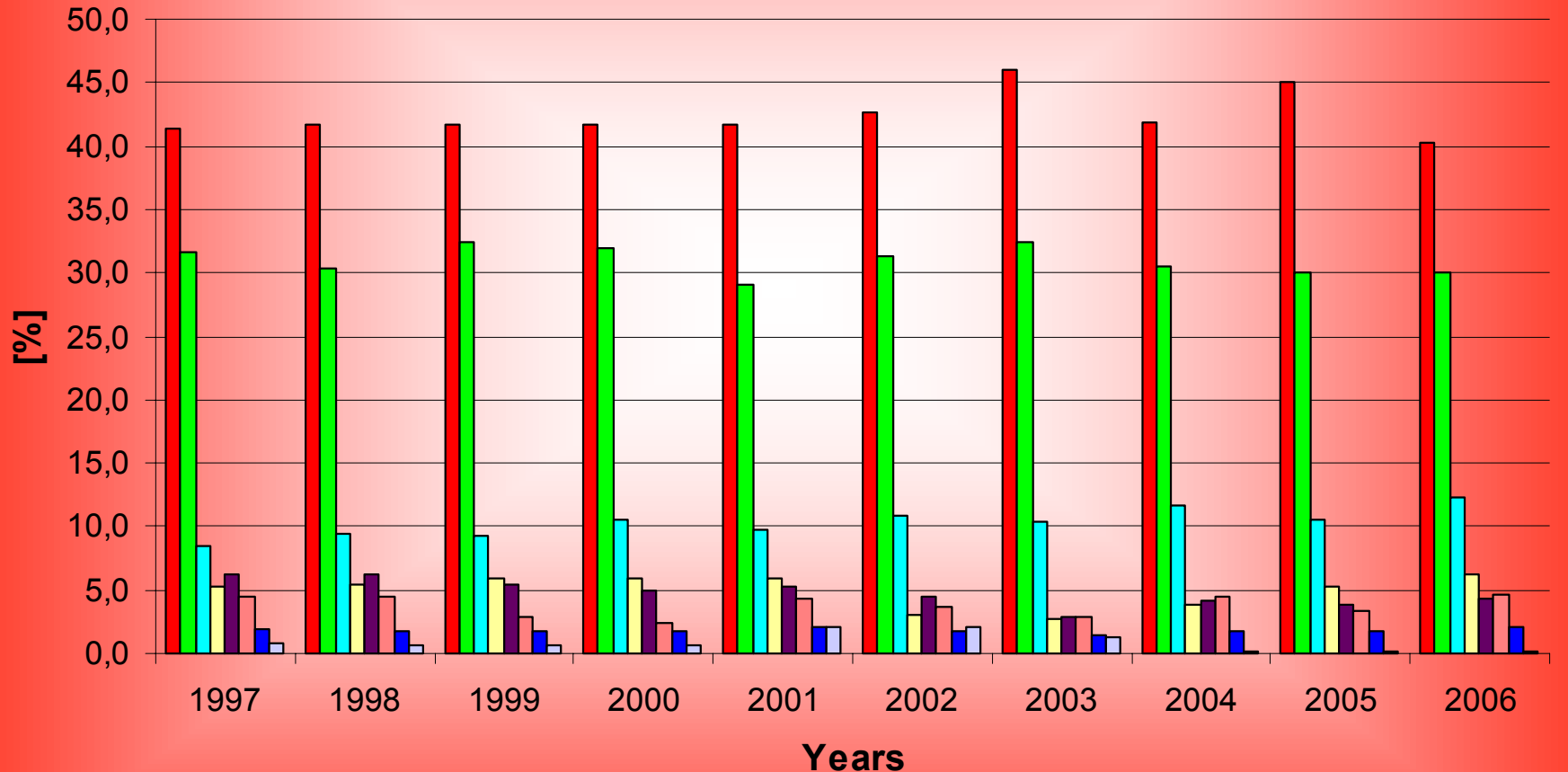
Code	Statistical cause of fire
01	adult carelessness (AC) when using open fire, including cigarettes, matches
02	AC when burning vegetable waste on fields
03	AC when using flammable and/or pyrotechnical substances
04	AC when doing fire-dangerous work
05	AC in other cases
06	juvenile carelessness (JC) when using open fire, including cigarettes, matches
07	JC when burning vegetable waste on fields
08	JC when using flammable and/or pyrotechnical substances
09	JC when doing fire-dangerous work
10	JC in other cases
11	faults of electric appliances and installations, especially wires, lighting equipment, other non-heating devices
12	improper use of electric devices and installations
13	faults of electric heating devices, especially heaters, stoves and cookers
14	improper use of electric heating devices
15	faults of heating devices (solid fuel)
16	improper use of heating devices (solid fuel)
17	faults of heating devices (liquid fuel)

THE MAIN GROUPS OF THE FIRE CAUSES

19	faults of heating devices (gas fuel)
20	improper use of heating devices (gas fuel)
21	faults of mechanical devices
22	improper use of mechanical devices
23	faults of technological processes
24	disobeying technological requirements
25	improper storage of dangerous goods
26	faults of means of transport
27	improper use of means of transport
28	biological self-ignition
29	chemical self-ignition
30	thunders
31	faults of building constructions
32	improper use of building constructions
33	static electricity
34	arson, including terrorist attacks
35	fires resulted from other local threats
36	other causes
37	unknown

THE MAIN CAUSES OF THE FIRES IN POLAND

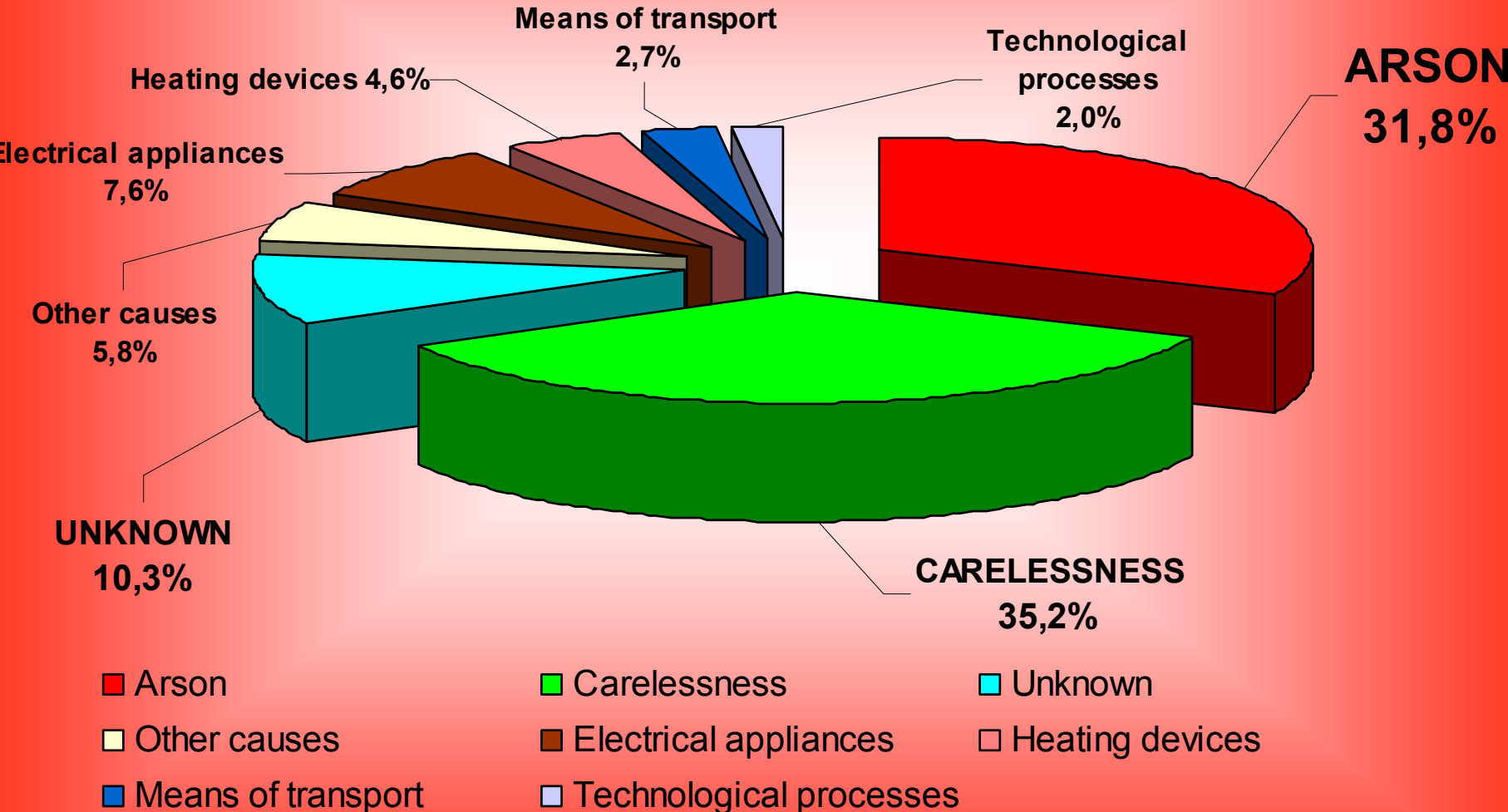
The main causes of fires in Poland
in 1997-2006



Arson Carelessness Unknown Other causes
Electrical appliances Heating devices Means of transport Technological processes

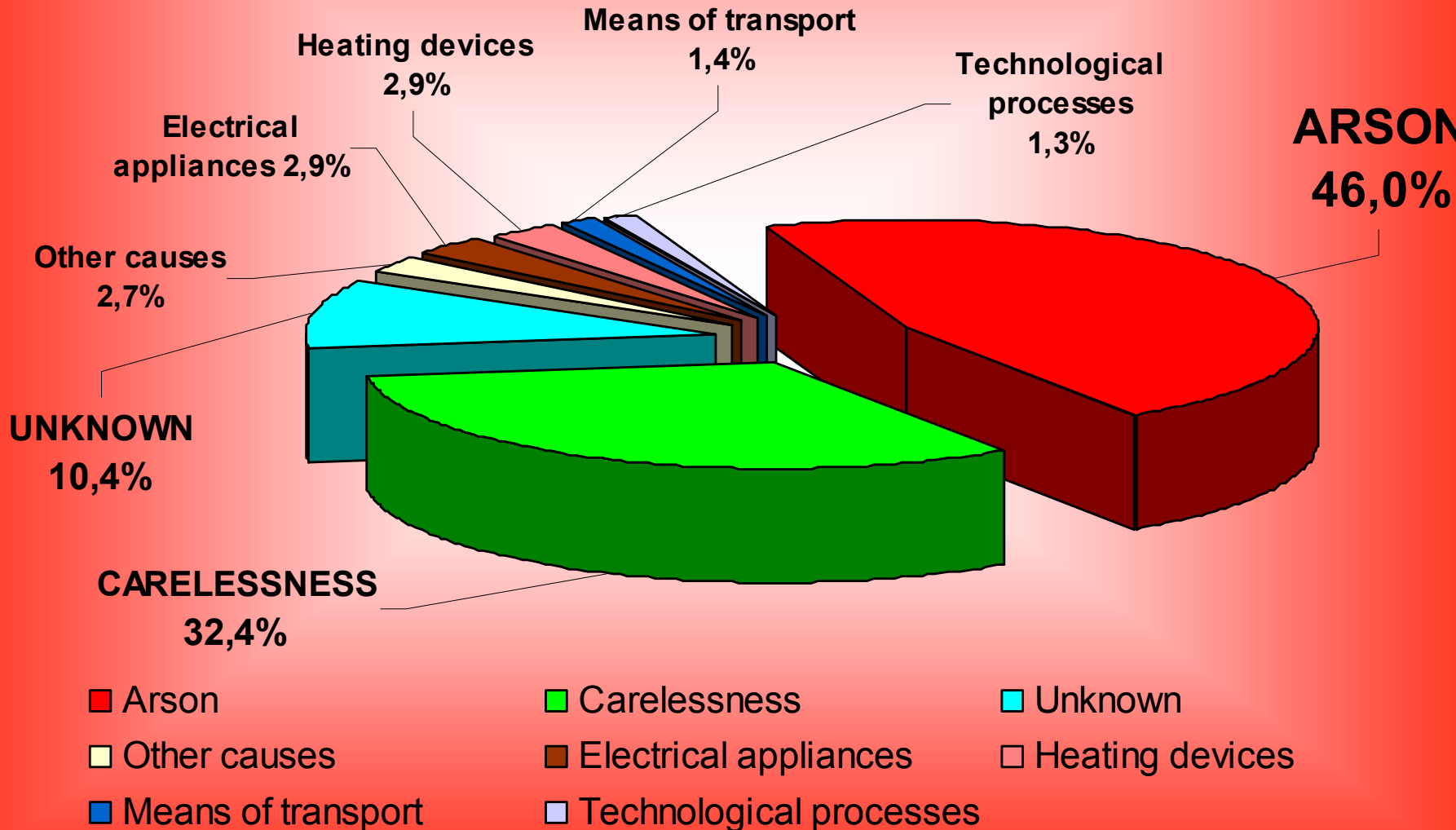
THE MAIN FIRE CAUSES IN 1994

The main causes of fires in 1994



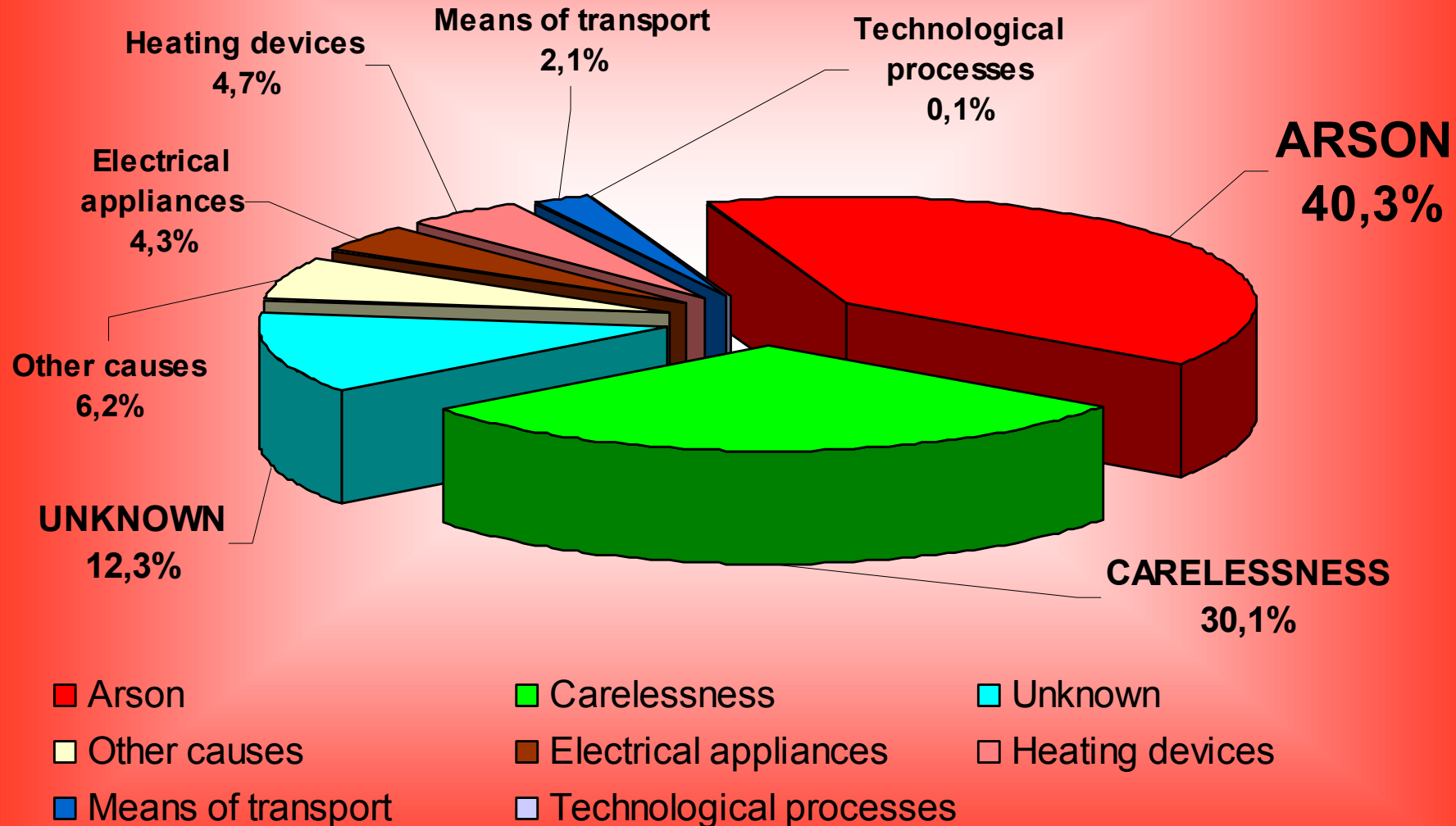
THE MAIN FIRE CAUSES IN 2003

The main causes of fires in 2003



THE MAIN FIRE CAUSES IN 2006

The main causes of fires in 2006



THE MAIN FIRE CAUSES IN POLAND

1. ARSON

40-46%

2. CARELESSNESS

29-35%

3. UNKNOWN

8-13%

THE MAIN FIRE CAUSES IN POLAND

Why we began organizing conferences and fire investigations courses in Poland?

INTERNAL CIRCUMSTANCES

- high percentage of fires caused by the arsonist
- low coefficient of arson perpetrators' penalty
- lack of professional fire investigation system
- inappropriate criteria for fire experts and court witnesses appointing
- no quality monitoring and assessment system for FI and FI experts
- lack of national training system for FI expert and court witnesses
- lack of professional literature on the subject of fire investigating
- ...

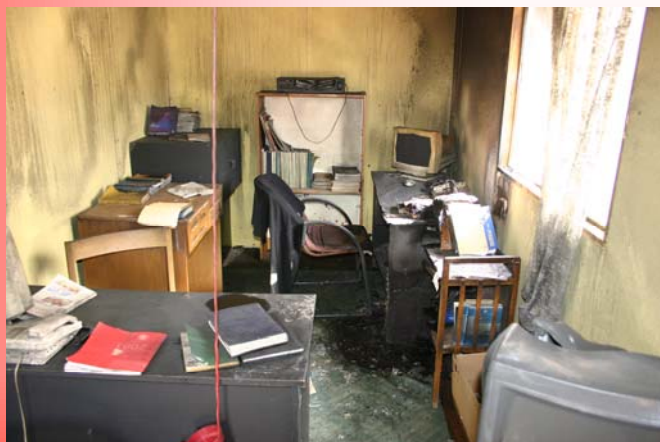
EXTERNAL CIRCUMSTANCES

- the necessity of initiating changes which will be coherent with European Community system
- unification of technology and goods' in EU which makes similar causes of fires in many EU countries
- ...

Northumberland Fires and Rescue Service
Northumbria Police
Police HQ in Poznan



Fire Service College in Poznan
Fire Engineers Association, Poznan Branch
PZU Insurance Company, Poznan Branch



2003

1-12 XII

1st International Conference „Research into the causes of fire”
– Fire Service College in Poznan (Poland)



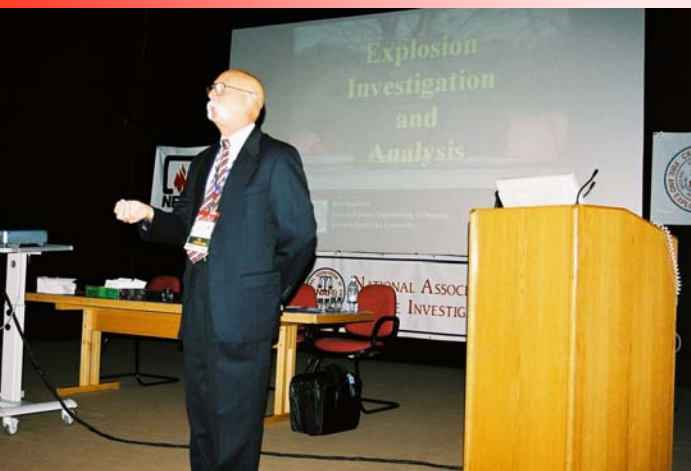
- 98 participants
- 18 lecturers
- 26 papers
- conference book



2004

7 – 30 VI

- participation in International Symposium in Fire Service College in Moreton-in-Marsh (Great Britain)
- participation in official NFPA 921 working group meeting



2005
– 10 IX

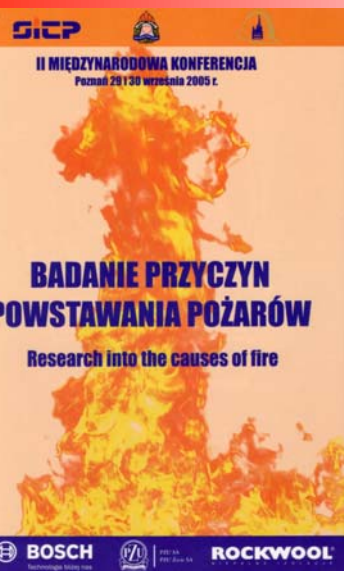
- Participation in Fire and Explosion Working Group meeting in Cracaw (ENFSI - European Network of Forensic Science Institutes)



2005

– 30 IX

2nd International Conference „Research into the causes of fire”
– Fire Service College in Poznan (Poland)



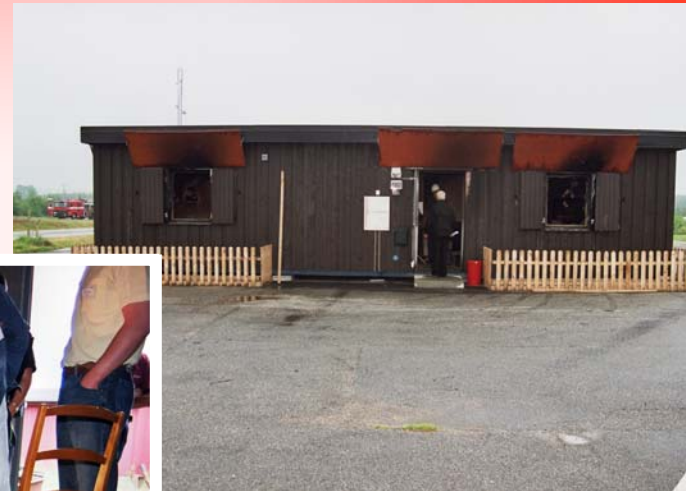
- 95 participants
- 11 lecturers
- 18 papers
- conference book



2005

6 – 19 VI

- Participation in the first EU Fire Investigation Workshop in Revinge (Sweden);
FI Workshop was organized by Swedish Rescue Service Agency (SRSA)



2006
- 17 III

- Participation in Fire Investigation Course (2 level of FI competence)
FI Course was organized by Fire Service College in Moreton-in-Marsh

FIRE SERVICE COLLEGE MORETON-IN-MARSH

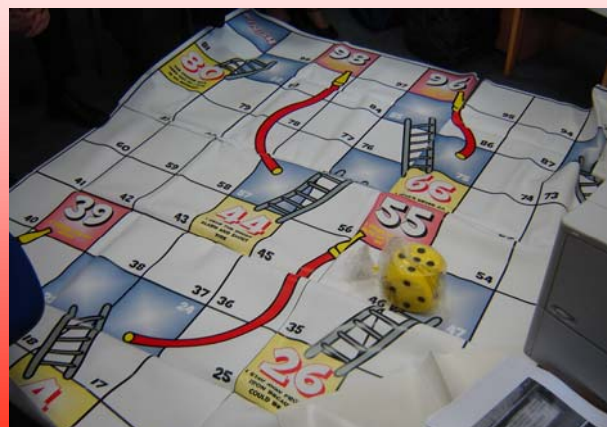
Fire Investigation Course No. 09/05
March 6th - March 17th, 2006

Course directors: Patric G. Cox, George Curry



2006
- 9 IX

- Community Safety Academy in Morpeth, Northumberland
- Arson Task Force



2006

K

First official meeting of voivodship commands of Police Department and Fire Brigade Department in Poznan – they discussed about improvement of fire investigation organization in Wielkopolska Province

2006

1 – 25 XI

Official meeting of Police, Fire Department, PZU Insurance Company Representatives. During meeting the proposal for joint cooperation was presented. Representatives discussed the proposition of Fire Investigation Course organization.

2007

7 – 21 III

The Fire Investigation Course program was worked out with the help of the Manager of Arson Task Force Mr Dave Myers.

2007

III

The signature of the letter of intent on improvement of FI in Wielkopolska Province. The letter was signed by Police, Fire Department, PZU Insurance Company, Fires Service College and Fire Engineers Association.

Komenda Wojewódzka Policji
Komenda Wojewódzka Państwowej Straży Pożarnej
Powszechny Zakład Ubezpieczeń S.A. Oddział w Poznaniu
Wielkopolski Oddział Stowarzyszenia Inżynierów i Techników Pożarnictwa w Poznaniu
Szkoła Aspirantów Państwowej Straży Pożarnej w Poznaniu

LIST INTENCYJNY

Pomiędzy

Komendą Wojewódzką Policji w Poznaniu
Komendą Wojewódzką Państwowej Straży Pożarnej w Poznaniu
Powszechnym Zakładem Ubezpieczeń S.A. Oddział w Poznaniu
Wielkopolskim Oddziałem Stowarzyszenia Inżynierów i Techników Pożarnictwa w Poznaniu
Szkołą Aspirantów Państwowej Straży Pożarnej w Poznaniu

Preambula
 Strony oświadczają, iż rozpoczynają współpracę poprzez zawiązanie partnerstwa w celu udoskonalenia systemu prowadzenia dochodzeń w sprawach o pożary w Wielkopolsce.

Artykuł 1
 Strony oświadczają, iż będą organizować wspólne przedsięwzięcia szkoleniowe (warsztaty, konferencje, wydawnicze (poradniki, informatory, ulotki) i popularyzatorskie w celu podniesienia standardu czynności dochodzeniowych w sprawach o pożary i doskonalenia metod wstępnego ustalania przyczyn powstawania pożarów.

Artykuł 2
 Punktem docelowym współpracy między stronami może być, powołanie wspólnej jednostki do spraw analiz przyczyn pożarów i walki z podpaleniami na terenie Wielkopolski.

Artykuł 3
 W celu realizacji niniejszego listu intencyjnego strony podejmą prawne i faktyczne działania, niezbędne do wykonania wymienionych w nim porozumień oraz powołają stałych koordynatorów do bieżącej realizacji niniejszego porozumienia.

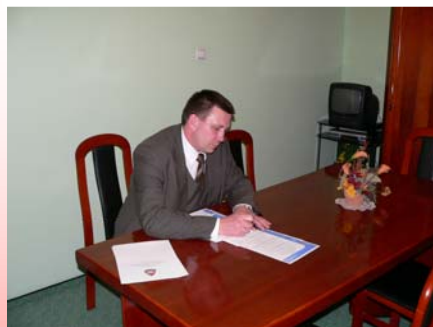
Artykuł 4
 Niniejszy list intencyjny stanowi wyraz woli stron podjęcia ze sobą współpracy i nie tworzy żadnych zobowiązań do zawiązania partnerstwa, o którym mowa w preambule, ale może stanowić wsparcie w procesie ubiegania się o dofinansowanie przedsięwzięć wymienionych w art.1 ze środków unijnych lub lokalnych.

Artykuł 5
 Wszystkie strony ponoszą w swoim zakresie koszty związane z realizacją postanowień niniejszego listu intencyjnego.

Artykuł 6
 Postanowienia końcowe
 Niniejszy list intencyjny sporządzano w pięciu, jednobrzmiących egzemplarzach. Jako początek współpracy traktujemy dzień podpisania niniejszego listu.

Podpisy:
 Komendant Policji: *[Podpis]*
 Komendant Państwowej Straży Pożarnej: *[Podpis]*
 Dyrektor Oddziału PZU S.A. Oddział w Poznaniu: *[Podpis]*
 Prezes Wielkopolskiego Oddziału Stowarzyszenia Inżynierów i Techników Pożarnictwa: *[Podpis]*
 Komendant Szkoły Aspirantów Państwowej Straży Pożarnej w Poznaniu: *[Podpis]*

Poznań, dnia 19 marca 2007 rok



2007
IV-V

The choice the participants of FI course from Police, Fire Department, PZU Insurance Company and from police and fire colleges.

2007
IV-15 VI

Two days initial meeting of the FIC participants in Police Training Centre Near Poznan city.



2007

-VIII

Arrangement of the containers (*pandora's boxes*) and cars on the FSC training ground for practical exercises.



CONTAINERS AFTER BURNING



2007

- 7 IX

- Fire Investigation Course in FSC in Poznan
- In the FI Course took part 23 participants from Police, Fire Department, PZU Insurance Company and 4 participants from police and fire colleges.



Fire Investigation Course Programme

- duration: 5 days
- 50 hours of theoretical lectures and practical exercises

Theoretical lectures:

- fire investigation organization in Great Britain
- the role of partnership approach in determining fire causes
- combustion chemistry and fundamentals of fire spread
- planning and organizing fire investigation, safety issues
- potential ignition sources
- fire spread and fire patterns analyzing
- examination of fire debris
- analyzing of photo documentation
- working out the expert report
- discussing case study

Practical exercises:

- analyzing the photo documentation
- investigation the causes of fire in cars
- investigation the causes of fire in containers
- working out fire investigation report for court proceeding

4 SINDICATES

SINDICATE 1

- | | |
|----------------------------|----------------------------------|
| 1. asp. Leszek Michalak | - Fire Deptment - Pozan |
| 2. kpt. Michał Szymaniak | - Fire Department - Poznan |
| 3. mł. asp. Adam Pałys | - Fire Department - Pila |
| 4. kpt. Michał Szmagliński | - Police Department - Pila |
| 5. Robert Seifert | - PZU Insurance Company - Poznan |
| 6. Kazimierz Miłoch | - PZU Insurance Company - Pila |

SINDICATE 2

- | | |
|----------------------------------|----------------------------------|
| 1. mł. asp. Dariusz Słaboszewski | - Police Department - Poznan |
| 2. kpt. Dariusz Monarcha | - Fire Department - Poznan |
| 3. st. post. Marek Wojdyński | - Police Department - Konin |
| 4. mł. bryg. Andrzej Czerwiński | - Fire Department - Konin |
| 5. Damian Buczkowski | - PZU Insurance Company - Poznan |
| 6. Józef Boniewicz | - PZU Insurance Company - Konin |

SINDICATE 3

- | | |
|-------------------------------------|----------------------------------|
| 1. st. kpt. Arkadiusz Kawczyński | - Fire Department - Poznan |
| 2. sierż. Michał Matysiak | - Police Department - Leszno |
| 3. asp. sztab. Stanisław Biernaczyk | - Fire Department - Leszno |
| 4. Ryszard Król | - PZU Insurance Company - Leszno |
| 5. Tomasz Wiśniewski | - FSC - Poznan |

SINDICATE 4

- | | |
|-------------------------------|----------------------------------|
| 1. asp. sztab. Marek Pawlak | - Police Department - Kalisz |
| 2. mł. kpt. Maciej Saganowski | - Fire Department - Kalisz |
| 3. Mirosław Olszyna | - PZU Insurance Company - Kalisz |
| 4. Jacek Gawroński | - FSC Poznan |
| 5. kom. Wojciech Miś | - Police College - Pila |
| 6. st. kpt. Marek Poterek | - FSC - Czestochowa |

LECTURES AND EXERCISES



PHOTO ANALYZING



CAR FIRES INVESTIGATION



CONTAINERS FIRE INVESTIGATION



SIDYCATES PRESETATIONS



THE SUMMARY AND THE END OF THE COURSE



SZKOŁA ASPIRANTÓW PAŃSTWOWEJ STRAŻY POŻARNEJ W POZNANIU KURS Z DOCHODZEŃ POPOŻAROWYCH FIC 01/2007 (Fire Investigation Course FIC 01/2007) 3 - 7 wrzesień, 2007



U SA
Żywiec SA



SIC
STOWARZYSZENIE
INŻYNIERÓW I TECHNICZNYCH
POŻARNICTWA
ODDZIAŁ WIELKOPOLSKI

Organizatorzy warsztatów:

Dave Myers, Ian Foggett, Robert Stacey, Mariusz Krause, Mirosław Gulczyński, Piotr Guzowski
& Robert Klonowski, Alicja Borucka, Wojciech Pożegowiak

Technicy kryminalistyki: Tomasz Stępień, Rafał Paterka, Przemysław Kozłowski, Ireneusz Rubak



GRUPA 1 - WHITE

1. Leszek Michalak
2. Michał Szymaniak
3. Adam Pałys
4. Michał Szmagliński
5. Robert Seifert
6. Kazimierz Miłych

GRUPA 2 - RED

1. Dariusz Słaboszewski
2. Dariusz Monarcha
3. Marek Wojdyński
4. Andrzej Czerwinski
5. Damian Buczkowski
6. Józef Boniewicz

GRUPA 3 - YELLOW

1. Arkadiusz Kawczyński
2. Michał Matysiak
3. Stanisław Biernaczyk
4. Ryszard Król
5. Tomasz Wiśniewski

GRUPA 4 - BLUE

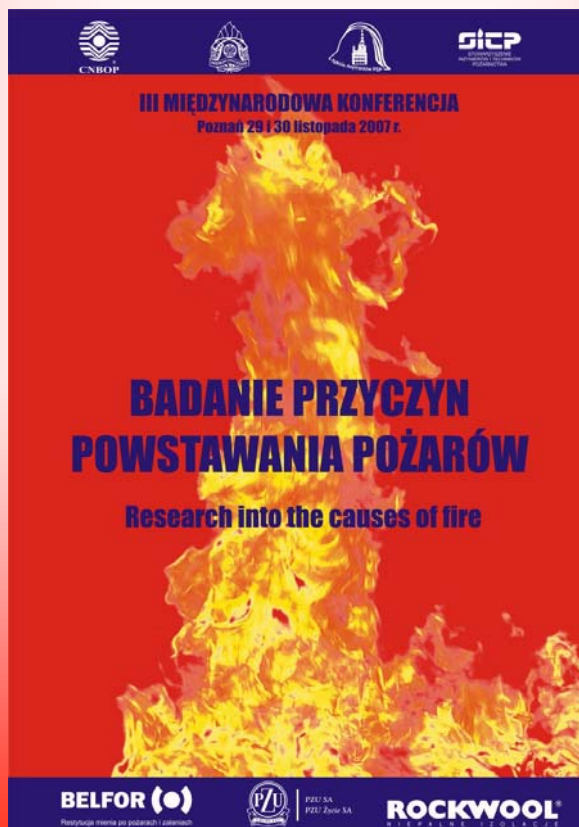
1. Marek Pawlak
2. Maciej Saganowski
3. Mirosław Olszyna
4. Jacek Gawroński
5. Wojciech Miś
6. Marek Poterek

2007

– 30 XI

3rd International Conference „Research into the causes of fire”
– Fire Service College in Poznan (Poland)

- 120 participants
- 17 lecturers
- 18 papers
- conference book



he next steps

We plan the next FI courses for:

- Fire Departments representatives
- Police Departments representatives
- insurance company experts
- witness court expert
- independent experts

We plan one day FI worksoop for:

- Fire Departments representatives
- Police Departments representatives
- insurance company experts
- witness court expert
- independent experts

FI publishing

Conferences „Research into the causes of fire”

International cooperation

Study new strategy on fire investigation in Poland

SUMMARY

Weaknesses of Polish system are:

- inappropriate criteria for selection of court fire experts**
- lack of the quality monitoring and assessment system for fire experts**
- lack of courses for fire investigators**
- lack of training, such as FI courses and workshops, for fire investigators and experts to improve their skills and knowledge**
- insufficient fire investigating curriculum in fire schools**
- lack of professional literature**
- severe lack of specialistic magazines devoted to fire investigating matters**
- lack of cooperation with specialists in other countries**

SUMMARY

To improve Polish fire investigation system we should:

- **amend the present regulations on determining causes of fires**
- **change the regulation on court experts**
- **use the know-how and experience of more developed countries**
- **create an effective training system for fire investigators (including grading educational levels, implementing educational programmes, providing teaching materials and professional literature)**
- **use the interest of insurance companies in the process of improving the qualifications of fire court experts and fire investigators**

Thank you for your attention

guzewski@wp.pl

FIRE INVESTIGATION

Proceeding bodies in Poland can be:

- Police**
- Prosecutor's Offices**
- Courts**
- National Security Agency**
- Military Police**
- and Financial Control Bodies**

Those bodies have no appropriate knowledge in burning processes, fires etc., and they need help of special institution – COURT EXPERT which specialise in fire investigation tasks

FIRE INVESTIGATION

Polish law recognizes two categories of Court Expert (CE):

- CE individual – a person**
- CE institutional – institution like e.g.:**
 - The Main School of Fire Service**
 - The Fire Research Centre**
 - The Forensic Institute**
 - The Building Institute**
 - ...**

FIRE INVESTIGATION

In Poland a person who wants to become an individual CE must:

- 1) possess Polish citizenship and be in full power of his civil and citizen rights**
- 2) be over 25 years old**
- 3) be an expert (theoretical and practical) in a certain field of science, technology, art, craft, etc.**
- 4) be skilful enough to perform his court expert duties effectively**
- 5) agree to act as a court expert**

FIRE INVESTIGATION

The State Fire Service is only responsible for determining the initial causes of fires

This is mainly due to the following factors:

- 1) firemen have no interrogation powers so they cannot:**
 - question witnesses**
 - secure evidence**
 - carry out on-site inspection,****all of which unable them to verify their initial assessment**
- 2) the firefighting commander is mainly focused on the organisation of the action, and after it is over he has neither time nor power to carry out any reasonable research into the cause of the fire**
- 3) when the action is over and the action ground is formally taken over by the owner or the Police, firemen have no right to enter the fire site**