



**KAPPETIJN**  
*SAFETY SPECIALISTS*



Essex County  
Fire & Rescue Service

# Emergency Response Mutual Aid Organizations

**INTERNATIONAL FIRE & EXPLOSION HAZARD MANAGEMENT CONFERENCE**

Corinthia Hotel St George's Bay, Malta

Friday November 4th, 2016

Mark Samuels (UK) & Kees Kappetijn (NL)



Essex County  
Fire & Rescue Service

## Philip Stohr

Consultant Kappetijn Safety Specialists



## Mark Samuels

Divisional Officer at Essex County  
Fire and Rescue Service



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## Kees Kappetijn

Director of Kappetijn Safety Specialists



## ...The Essex Story...



- Pre 1991
  - Good positive 'Gentleman's agreements between Mobil and Shell Refineries
- February 26th 1991
  - Fire within 80X1 at the Mobil Oil Refinery
- August 1993
  - Mutual Aid Project team established; Mobil / Shell / ECFRS
- May 1994
  - Equipment ordered; Ten Gun / Six Gun / 3km 150mm hose / AFFF-AR
- September 1994
  - Commissioning of equipment.







• August 1996

Essex County Council  
 Fire and Rescue Service  
 East Division Headquarters  
 Alexandra House  
 Church Street, Great Baddow, CM2 7HY  
 Telephone: Chelmsford (01245) 241200  
 Fax: (01245) 477081

Date 16 August 1996  
 Our ref KH/E/15.29  
 Your ref -  
 Enquiries to: Divisional Officer Hardingham



Essex County Council  
 Fire and Rescue  
 Service  
 J Sherrington OFSM MIFireE  
 Chief Fire Officer

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 Fire & Rescue Service

**MOBIL OIL CORYTON - SHELL HAVEN &  
 ESSEX COUNTY FIRE & RESCUE SERVICE**

*MAJOR INCIDENT MUTUAL AID AGREEMENT*

We as tri-party members of the above Mutual Aid, agree to provide the following equipment and expertise in the event of a large fire at either Mobil Oil Coryton, or Shell Haven Refineries.

**EQUIPMENT**

<i>ECFRS</i>	20 or more	Pumping Appliances
	2 x	Foam Tankers
	1 x	Bulk Foam Vehicle
	1 x	Large Hose Laying Lorry
	1 x	Hose Laying Lorry
	1 x	Major Rescue Tender
	1 x	Aerial Ladder Platform
	1 x	Control Unit
	1 x	Helicopter
<i>Mobil</i>	1 x	13,500L AFFF Foam Tanker (trailer)
	1 x	25,000L AFFF Foam Tanker (articulated)
	2 x	150 mm Hose Trailer
	1 x	Foam Tender with Hydro-Chem (& Shift Safety Adviser)
<i>Shell</i>	1 x	13,500L AFFF Foam Trailer
	1 x	12,500L AFFF Foam Trailer
	1 x	150 mm Hose Trailer
	1 x	"6 Gun" Monitor

On request from Essex County Fire & Rescue Service, this equipment will be made available and if required, transported by the owner of the equipment to the following rendezvous point(s).

Shell - Contractors Car Park adjacent to No. 1 Gate  
 Mobil - East bound track of Manorway

continued overleaf/.....







## ...The Essex Story...



Essex County  
Fire & Rescue Service

- August 1996
  - Signed Mutual Aid Agreement
- May 2005
  - Closer working relationship meeting MD BP / DCFO ECFRS
- September 2005
  - Service Development Group [Petrochemical] formed





## ...The Essex Story...



Essex County  
Fire & Rescue Service

- August 1996
  - Signed Mutual Aid Agreement
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  - Closer working relationship meeting MD BP / DCFO ECFRS
- September 2005
  - Service Development Group [Petrochemical] formed
- December 2005
  - Buncefield
- October 2007
  - Isomerisation fire BP Essex





Essex County  
Fire & Rescue Service

# Buncefield Fire

December 11th, 2005

Result:

Buncefield MIIB's recommendations







# Essex Petrochemical Mutual Aid Arrangement



## Essex Petrochemical Mutual Aid Arrangement

### 2.2. Conditions of membership;

- 2.2.1. It is a basic premise of the Arrangement that it can fulfil its purpose only if the following minimum and basic conditions of membership are met by each Member:
  - 2.2.1.1. Without creating or imposing any legal obligations owed by or from any Member to another, each Member acknowledges its obligation to maintain resources as agreed within their respective onsite COMAH plan, which is sufficient to deal with their worst case COMAH credible scenario incident as detailed in their Safety Report. In addition to the foregoing, as a minimum the following should be provided:
    - 2.2.1.1.1. 10,000 litres (or equivalent<sup>1</sup>) of Firefighting Foam Concentrate (specify type in more detail) to be made immediately available in anticipation of a request from a receiving member (note 2.3.3; Voluntary Duty and Obligations);
    - 2.2.1.1.2. the foam listed above is to be pre-loaded and strapped down onto a hook-slide-lift 'sled', which must be compatible with ECFRS' Prime movers.
    - 2.2.1.1.3. the foam concentrate listed above must be protected by suitable covers to protect it from the effects of the environment.
    - 2.2.1.1.4. other Firefighting Equipment as deemed appropriate by the EPMA; and
    - 2.2.1.1.5. personnel training, necessary to support 2.2.1 provisions.
  - 2.2.2. Each Member will appoint a representative. The representative will be an employee of that Member. The representative is expected to attend all general membership meetings, known as the Strategic Development [Petrochemical] Group (SDG). The Chairperson of the SDG will be the chairperson ("Chair") of the EPMA for the time being.
  - 2.2.3. Voluntary Duties and Obligations of Members
    - 2.2.3.1. The object of EPMA is to respond to extraordinary petrochemical incidents within the County of Essex through the mutual aid of its Members. However, this purpose is to be accomplished through voluntary participation of the Members and no obligation exists for any Member to contribute material, equipment or other resources to any particular emergency. Participation in any particular emergency is wholly voluntary based on the needs and the availability of a Member to respond. Thus there is no liability on any Member for failing to respond to any emergency situation. Consistent with the foregoing, EPMA is founded upon the belief that the pooling of available resources of its Members will provide a more efficient and effective response to extraordinary incidents. The use of the material, equipment or resources will be at the risk of the Receiving Member and they will be required to satisfy themselves that any material, equipment or resources is appropriate for the circumstances.

<sup>1</sup>The foam concentrate, for the purposes of this paragraph is deemed to be inducted at 3%.





FIRE & RESCUE

MAN

MARSHALL SV

WX54 VPW

PM 127

M SV

WILK F-DAM





T1351







# Essex Petrochemical Mutual Aid Monitor collaboration agreement



Essex County  
Fire & Rescue Service

## Parties

The parties to this Essex Petrochemical Mutual Aid Monitor Collaboration Agreement (Agreement) are:

1. The Essex County Fire and Rescue Service of Essex CM8 3HB (Essex)
2. Carless Refinery, Harwich (Carless)
3. ESSO, Purfleet (Esso)
4. Nustar, Grays (Nustar)
5. Shell, Stanford le-Hope (Shell)
6. Thames Oil Port, Coryton (Thames)
7. Vopak, West Thurrock (Vopak)

## Background

- 1.1 The parties are members of the Essex Petrochemical Mutual Aid Arrangement (EPMA);
- 1.2 Essex owns a 6-Gun Monitor (the Monitor) available for the benefit of EPMA;
- 1.3 Nustar and Shell (together the Purchasers) have agreed to fund the cost of purchasing a replacement Ambassador nozzle for the Monitor;
- 1.4 Thames has agreed to provide the DependPower fire pump for the benefit of EPMA;
- 1.5 Carless, Esso and Vopak have agreed to fund the maintenance and repair costs of the Monitor in accordance with the terms of this Agreement.
- 1.6 For the purposes of this Agreement any reference to the EPMA Members shall mean a reference to those members of EPMA who are parties to this Agreement.
- 1.7 Although members of EPMA, Calor Gas and OIKOS are not parties to this Agreement as they do not require the Monitor as part of their emergency response scenarios.
- 1.8 Nothing in this Agreement shall grant any party any ownership rights over the Monitor, which for the avoidance of doubt shall remain in the sole ownership of Essex.

## Maintenance, Service and Repair Costs

- 2.1 Carless, Esso and Vopak (together the Maintenance Contributors) hereby each agree to pay the sum of £1000.00 per annum exclusive of VAT (the Charges) to Essex for the purpose of meeting the maintenance, service and repair costs of the Monitor and in accordance with clause 3.
- 2.2 Except where agreed by the SDG in accordance with clause 4.1(c), no maintenance, service or repair responsibilities shall fall upon a party which is not a Maintenance Contributor for the duration of this Agreement.





420X2

# Nationwide Mutual Aid Network in the UK

November 2006

30 Recommendations Including:

- Systems and Protocols for National Deployment Via FRSNCC
- National Systems Of Incident Command Support Teams
- HVP Tac Ads
- Large Capacity Hose Ramps
- Modern Technology Should Be Used To Facilitate Briefings, Communication and Recording
- FRS's Should Establish Mutual Aid Arrangements With Industry Fire Brigades



July 2007

32 Recommendations

- Recommendation 23 Refers To An Industry / Fire Service Mutual Aid, and
- Recommendation 24 Refers To A National Asset Register...



Recommendations on the emergency preparedness for, response to and recovery from incidents

Buncefield Major Incident Investigation Board

Addressing These Issues, The CAP-EPLG Published Their response To Recommendation 23 Within The Competent Authorities' Guidance For Their Inspectors.

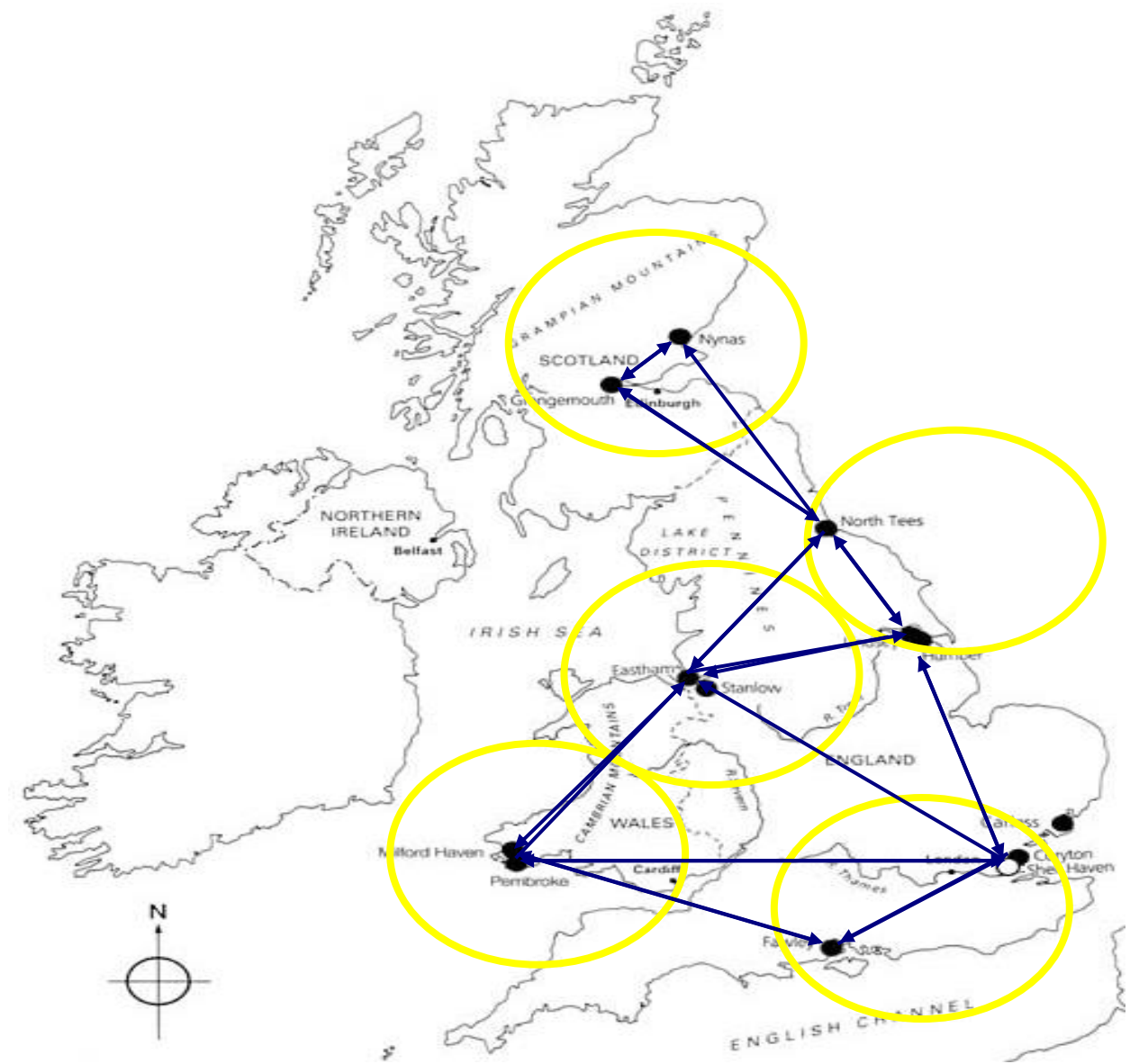
COMAH Control of Major Accident Hazards

Competent authority guidance for inspectors on emergency arrangements for COMAH establishments





Essex County  
Fire & Rescue Service



## UK National Mutual Aid



## Current Position



- Developed by Stakeholders (BSTG/PSLG/CAP-EPLG)
- Agreed By CFOA Operations Lead
- Agreed By National Resilience Board
- Agreed By National Operations Board
- Agreed By Governmental Departments (CCS / CLG) and HSE



# Mutual Aid Organizations in the NL



MA-organizations: similar aim, different models

Sometimes public stakeholders are involved (Public-Private-Partnership)

National MA/PPP-network: PII   
(Platform Industrial Incident management)

Sometimes the actual performance is outsourced to a specialized partner

# MA-Organizations in action





# Finding....



When the situation is the same;

    When the problems are the same;

        When the challenges are the same;

When the partners and stakeholders are the same;

    When the interests look the same

        When the legal framework is the same;

**The solutions are different!**

# MA: Different Flavours in NL





# Historical background: Why MA/PPP? The drivers



Since when  
MA/PPP?



Why so many  
alternatives?



Why do it at  
all?



Why this Dutch  
MA/PPP-trend?



Article 31 SR-act

# NO Blue Prints, only Best Practices



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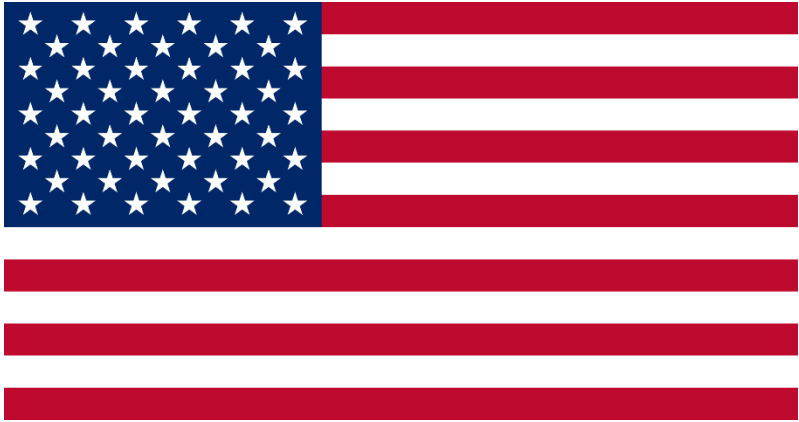
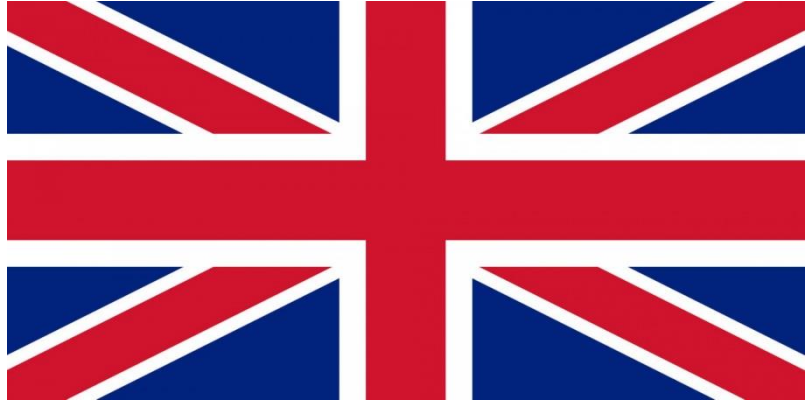
The 4w's: What works where and why?



We identify several MA-organizations around the world



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# NL is just a dot on the world map



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Netherlands as an  
(unfinished) playground

Lessons learned abroad

Lessons learned in the NL

Best practices within the  
Joiff network

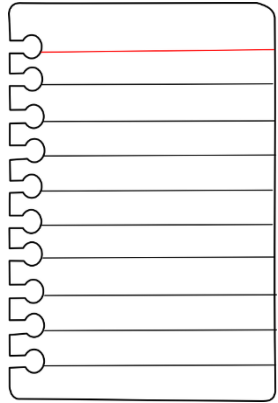


# International Joiff Research Project



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We want to know more about MA-Organizations around the world



*Factfile information*



*Partners involved*



*The dimension of the organization*



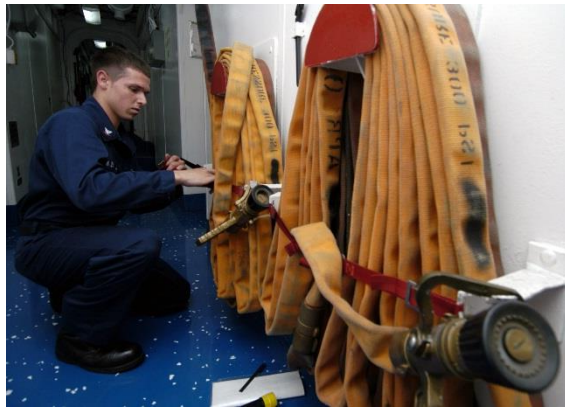
Essex County  
Fire & Rescue Service



*Management/governance structures*



*Financial model*



*Other activities/services*



*Quality systems and guidelines*

# Please join the research project



If you are currently in (the process of setting up)  
a Mutual Aid Organization...

Please contact:

Kees Kappetijn or Philip Stohr...

*(contact information on the next sheet)*

...and get the research project hand-out.



Projectwebsite



[www.kappetijn.eu](http://www.kappetijn.eu)

Button: exchange

Password: kss#maproject



Essex County  
Fire & Rescue Service



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