

Copenhagen Airports A/S



What is Copenhagen Airports A/S?

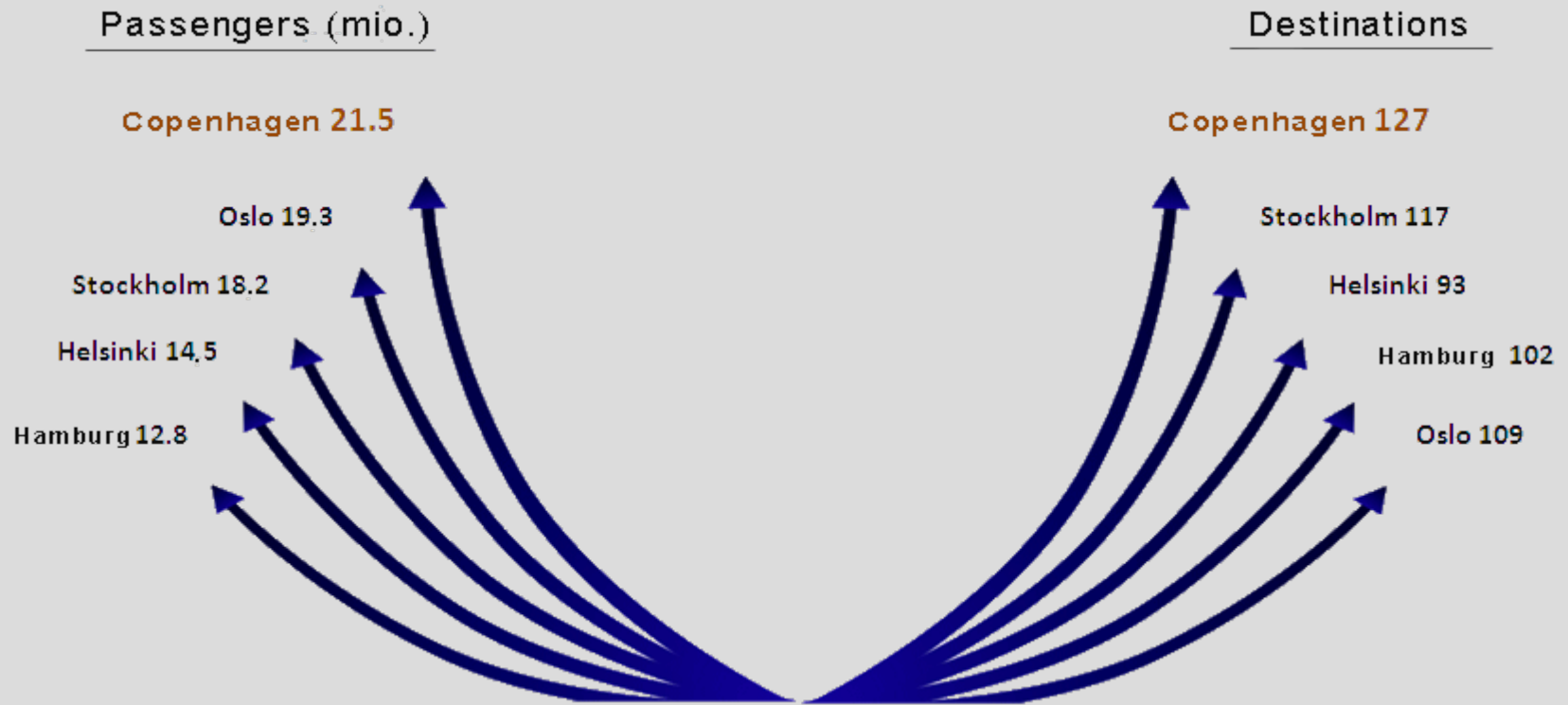


- Founded in 1925.
- Owns the airports at Kastrup and Roskilde
- Co-owner of airports in:
 - Newcastle (49%)
 - Mexico (3.8%)
- Ownership today:
 - Macquarie 53.4%
 - Danish State 39.2%

Cancun airport...



Largest airport in the Nordic Region



Source: OAG, Sept. 2008

Copenhagen Airport



Runways



Three runways

04L/22R:
3,600m/45m

04R/22L:
3,300m/45m

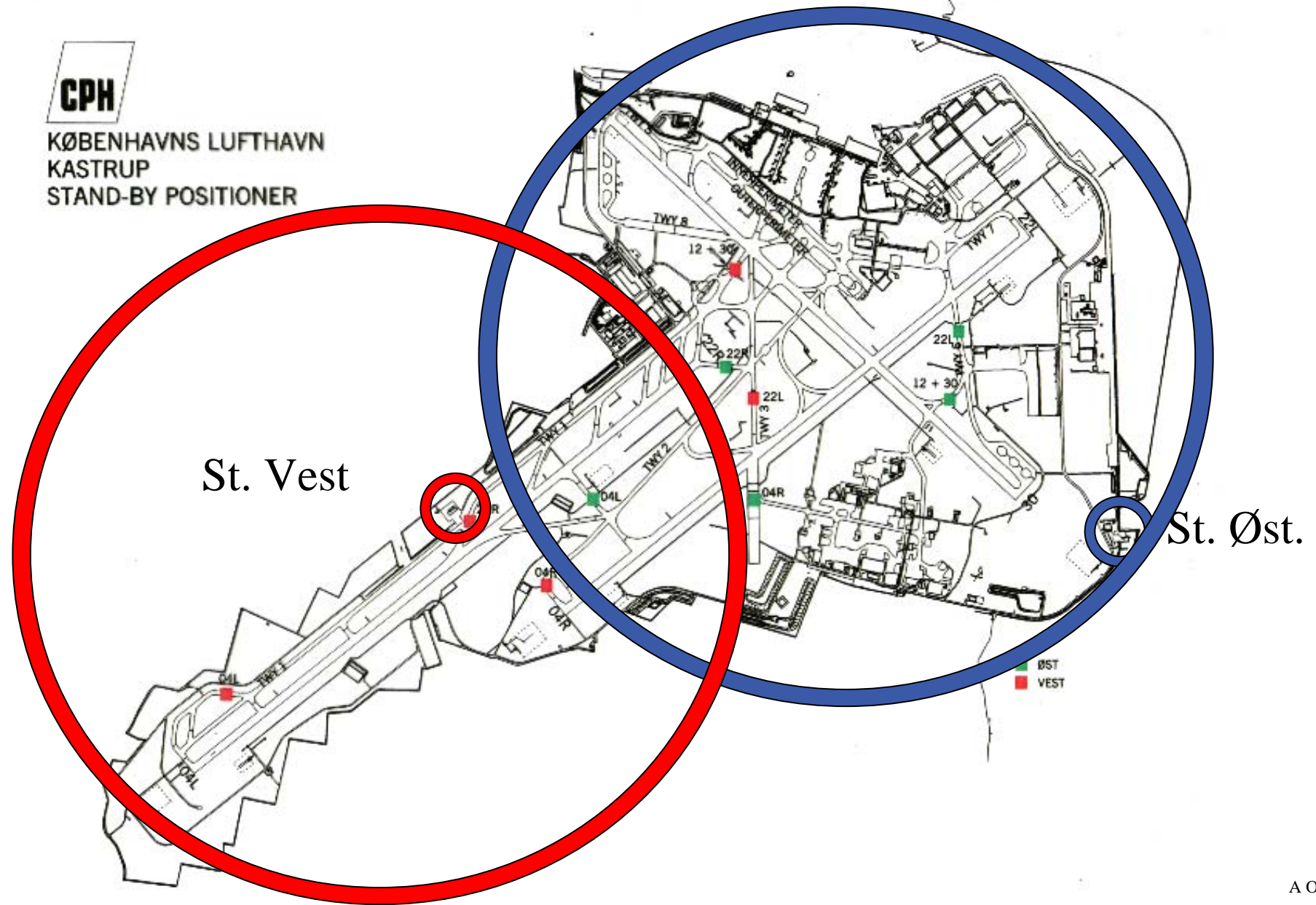
12/30:
2,800m/45m

Fire and Rescue, Copenhagen Airport



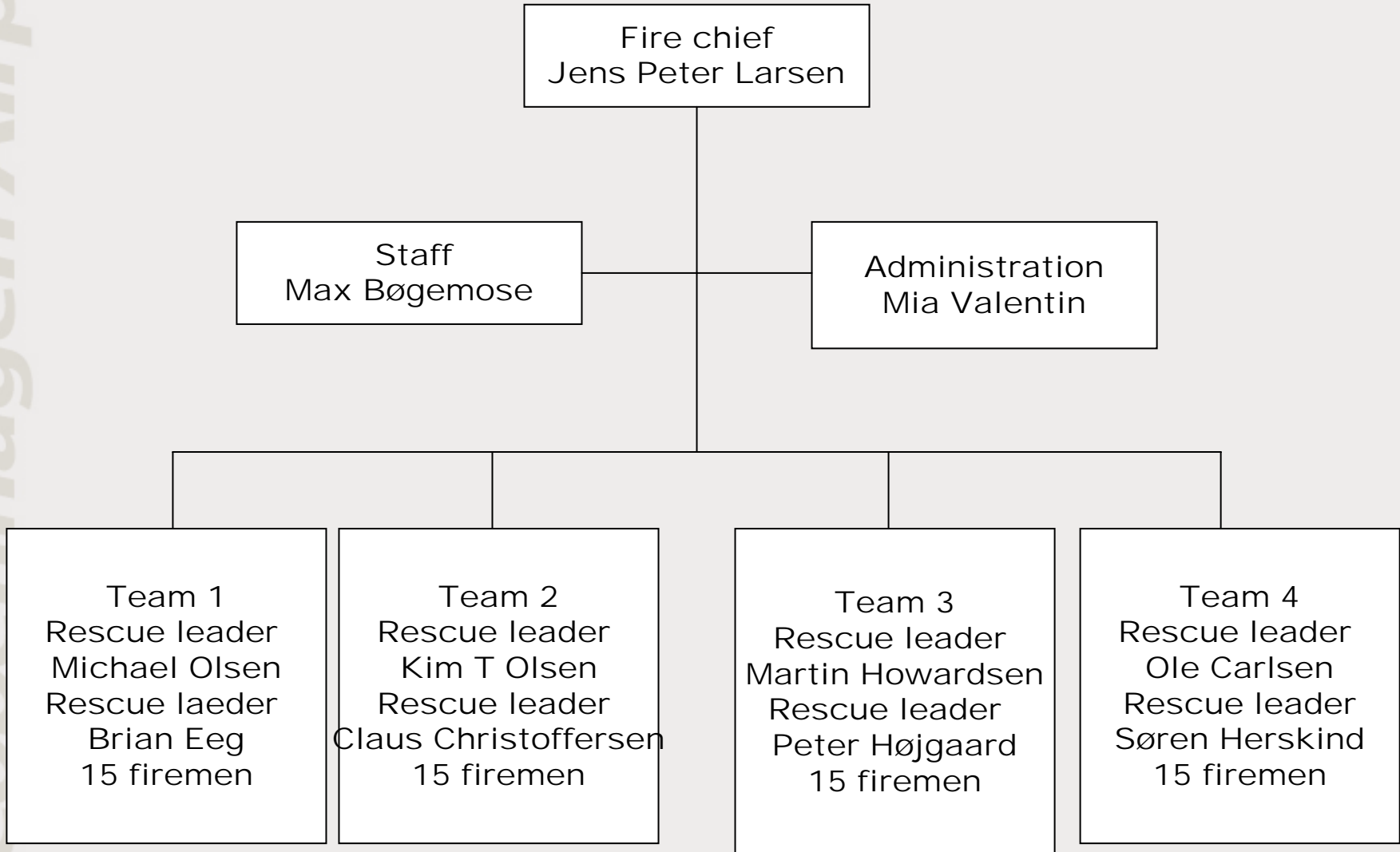


KØBENHAVNS LUFTHAVN
KASTRUP
STAND-BY POSITIONER





Organisation, Fire and Rescue









Udrykninger CPHBOR 2008



Udrykninger, totaler

	jan	feb	mar	apr	maj	jun	jul	aug	sep	okt	nov	dec	total
2006	131	101	97	118	139	137	187	172	153	139	131	119	1.624
2007	125	134	151	135	156	166	204	163	157	158	119	142	1.810
2008	149	144	165	133	166	179	181	190	160	141	128	128	1.864

Udrykninger , årsager

	2008	2007	2006
Udrykning til fly	210	221	238
Udrykning til bygninger	172	172	166
Defi/sam	1417	1354	1162
Anden indsats	58	57	50
Søredning	6	5	9

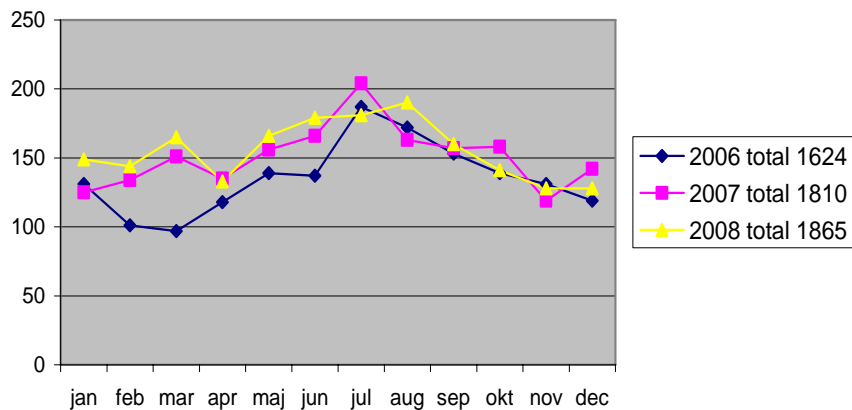
Udrykninger fly, 2008

Stand by X	16
Stand by 1	122
Stand by 2	10
Stand by 3	1
Andet	61

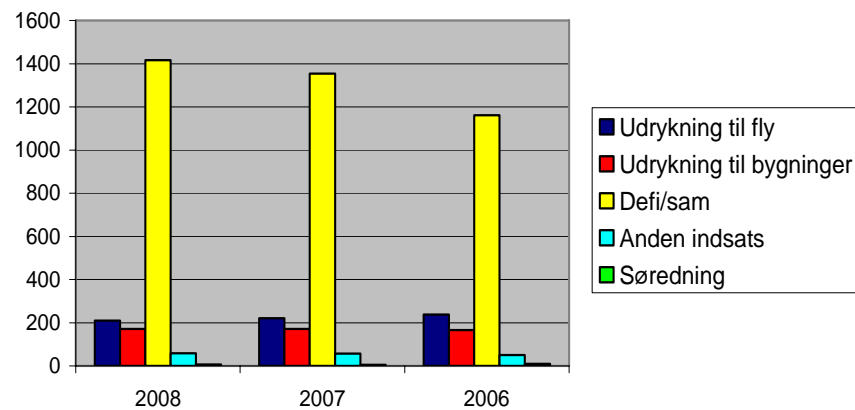
Udrykninger fly,



Udrykninger, totaler



Udrykninger, årsager



From AFFF to RE-Healing foam

Oslo meeting 2009

Fire Chief JP Larsen

Copenhagen Airport



Step 1.

- - **ARFFWG Conference in Glasgow – 1995**
 - **CPH tested foam – US Mil. Spec test.**
 - **CPH changed foam to 3M Light Water AFFF.**

Step 2

- - **In 2003 CPH and Copenhagen City Environment Dept. gets conscious about the PFOS and flour issue in regards to firewater from CPH training/burn pit. Resulting in restrictions on use of AFFF.**
- - **2006 all training with AFFF is stopped at CPH.**

Step 3

- **- 2008 CPH is looking for new foam types. Testing with Solberg RE-Healing foam gives positive results and it is decided to change all foam in CPH to this type, with the implementation of 3 new Rosenbauer Panthers. A very important issue is the training for our firefighters!**
 - 2009 Reports from OSL and ARL, indicate that we are “on the right track”.**
 - Testing is still going on. In December 2009 we will doing NFPA 403 testing.**

”Fire test. US Mil. Spec.-F-2485F2”
”Kitchen table test”



Pre-burn 60 sec.



05 08 2006

Extinguishment – at lowest possible pressure and flow



Extinguishment within 3 minutes





05 08 2006

“Burner” pre-burn 60 sec.



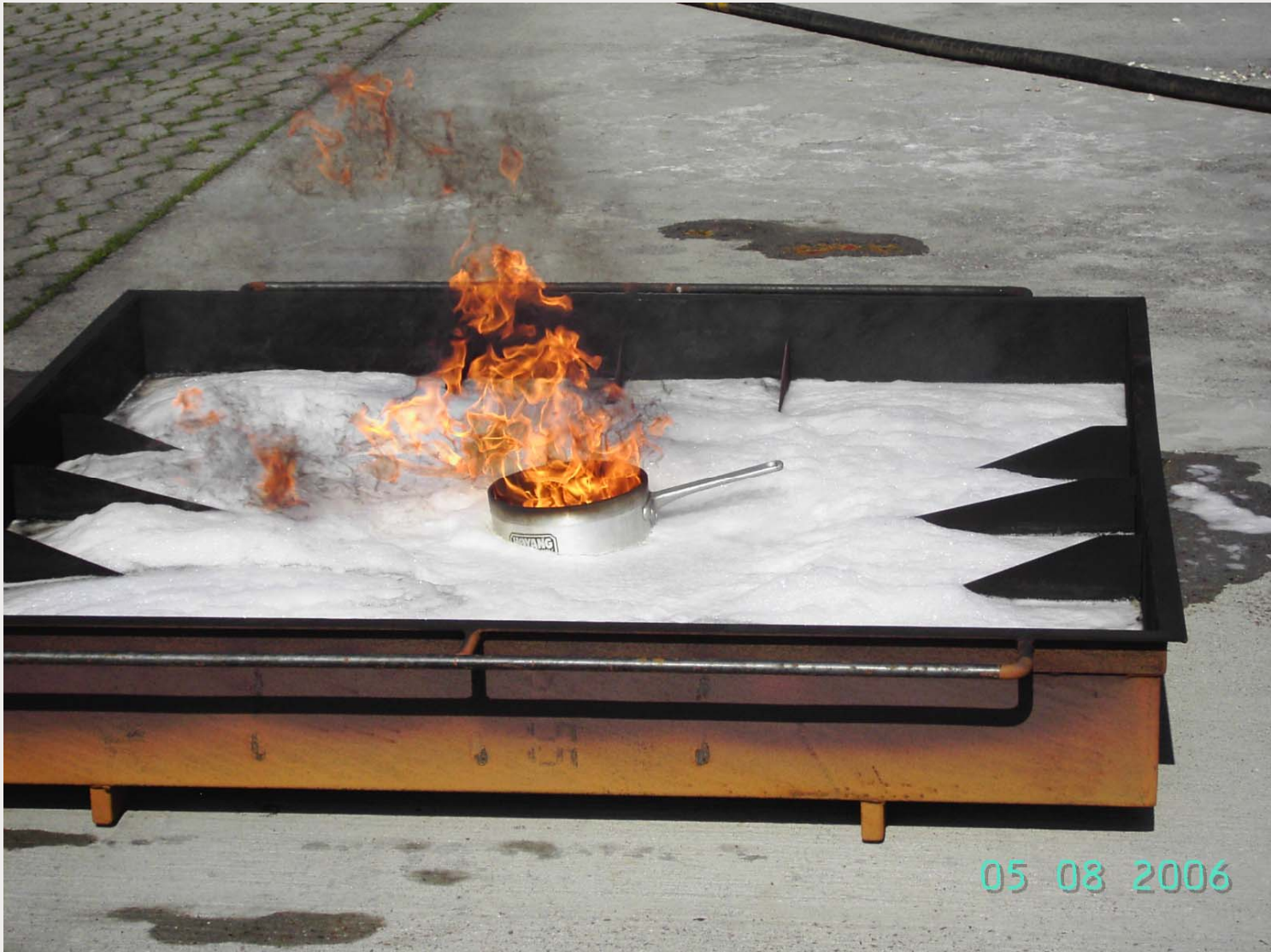
Placing the burner in the tray



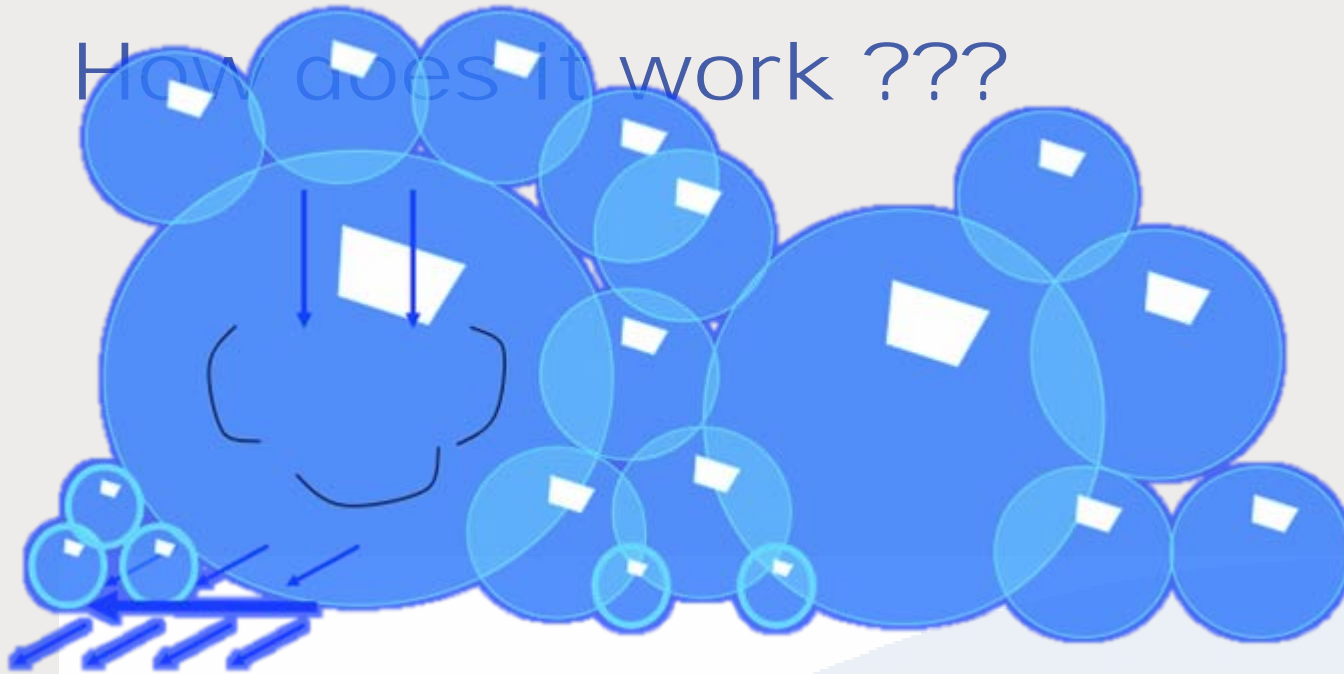
Has to resist burning outside the burner for 60 sec.



Has to resist a total burn in tray more than 3 minutes



How does it work ???



- Looks the same as AFFF/ATC™ foam concentrate
- Application/ fire attack in the same way
- Foam build-up and performance on fire is similar to AFFF/ATC
- Versatility: Usable in all common AFFF & FFFP equipment

New foam filling station



New quick filling pumps



- Testing will continue in Copenhagen**
- Today we can train and test with all foam systems**
- All teams can use 1000 liters of foam for training**
- Today it is the economics setting limits on the use of foam and not the environment.**
- We will see what the future brings in regards to PFOS?**
- CPH has chosen to do something now. that will be better for the future at Copenhagen Airport, instead of waiting!**

Slukningsmidler CPH ARFF

- **1. Skum**
- **2. CAFS**
- **3. Pulver**
- **4. Hydrochem**
- **5. Højtryk med foam premix**
- **6. CO2**





**Hydro-Chem pulveranlæg
225 kg. med nitrogen som
drivmiddel**











CAFS testing



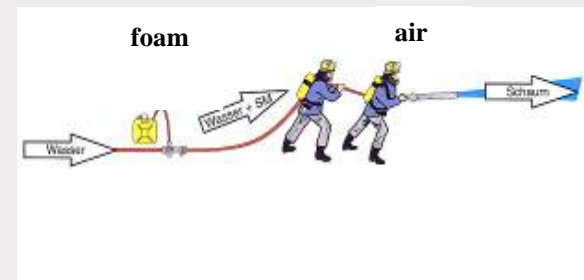
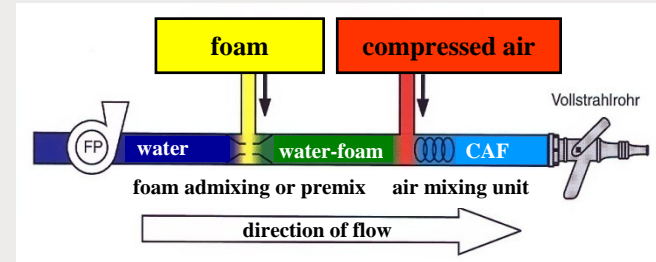
CAFS

- Tekniske principper :

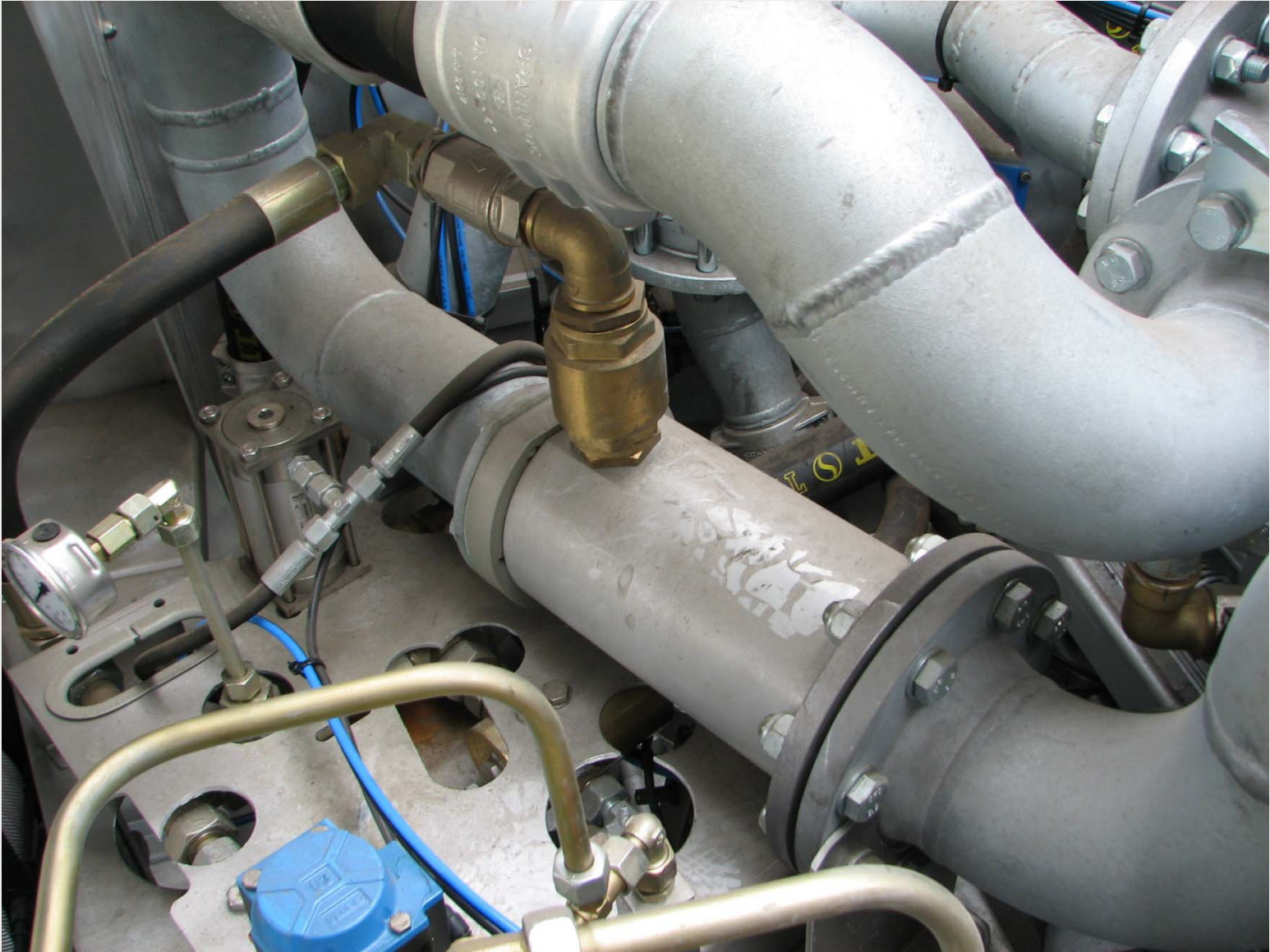
**Vand / skum / komprimeret luft
er = Compressed Air Foam
System (CAFS)**

Fordele ved CAFS:

- Længere kastelængde og vedhæftning
- CAFS skummet “bliver der hvor det skal” – køler beskytter for strålevarme







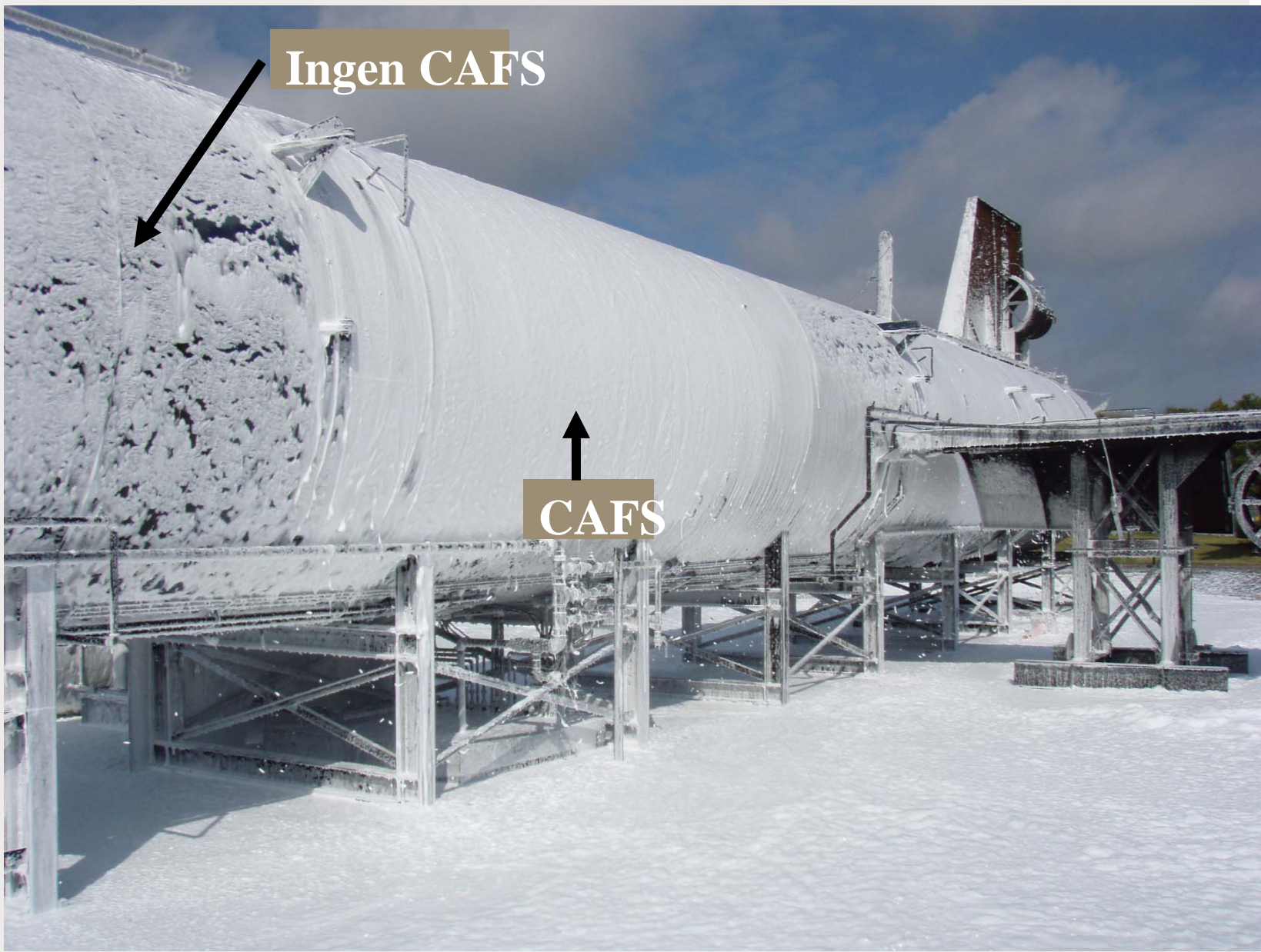


CAFS på SK2 virker kun
på "tag"kanonen
og kun når skum er indkoblet









Ingen CAFS

CAFS