



Where to take **Water Mist**

(newest developments for LPWM systems)
Carsten Palle VID Fire-Kill

Past

Present

Future

**newest developments for
Low Pressure Water Mist Systems**



Low Pressure Water Mist Systems

=>

Fine water spray systems



B-WM

Happy Days: all systems & components standardized
NFPA Times all products approved
Installers authorized and regulated

green.....

montreal

Before Early Maritime Maturing Present Future

1980

1990

2000

2010

2020

Halon
Sprinklers
water spr.
FM & UL
VDS & LPC
10 manufac
IMO sss-H
ISO sss-H



E-WM

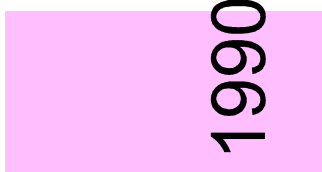
Caotic time: Halon is out, CO2 re-enters
IMO takes leading role IMO worries, salors will die
Marioff presents the solution:Hi-Fog

green movements

montreal

Before **Early** **Maritime** **Maturing** **Present** **Future**

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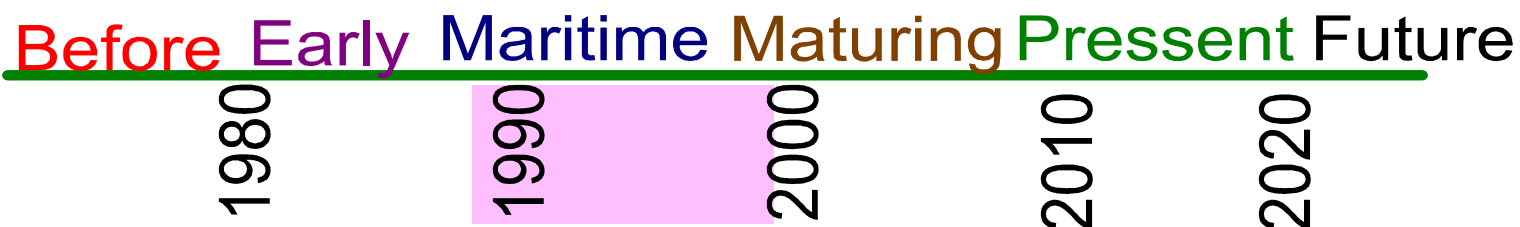
Halon out,
CO2 re-enters new clean gasses N2, FM 200 etc.
Marioff Hi-Fog presents, firetest videos w. Hi-Fog
IMO produces Res. A800 & MSC Circ. 668, Res 913
VTT, Sintef, SP,USCG,FM,UL

FS: 1988-1991: Loflow (A800) UL,FM, LPCB
M2 & M5, IMO Res 913,MSC 668 (3320m3)



M- WM

Maritime markets develops for WM
Local application systems become mandatory (res 913). WM takes maritime market from sprinklers.



Test & design standards: IMO: A800, 913, 668
major authorities: maritime classes.

WM starts being market on-shore with maritime tests and class approvals, & CEN becomes active. FM makes WM test catalog, VDS develops tests programmes on specific applications.



Maturing maritime markets

maritime WM markets mature and competition between WM system types increases and sales prices decreases.

On-shore markets begin seeing an interest in new possibilities in applying WM systems.

Before **Early** **Maritime** **Maturing** **Present** **Future**

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IMO up-dates old standards A800 => 265,668 => 1165, 913 etc. to include new requirements.

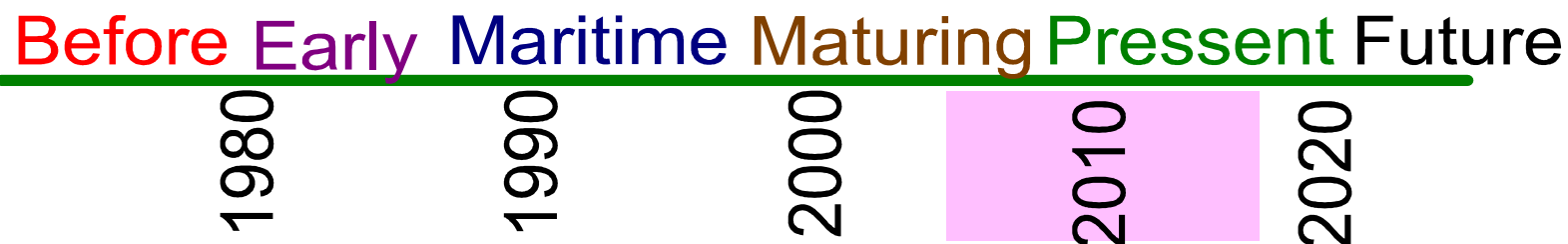
On-shore markets starts accepting water mist as sprinkler alternatives. And for special applications.



Global financial crises

Financial crises 2008 Maritime markets disappears.
Building markets props

Public customers becomes more dominant and new markets arises for on-shore water mist products, infrastructures, institutions etc..



Water mist products adopt to new customer requirements, and maritime dominances decreases.

Approval testing becomes more engineered tests for specific applications.

Water mist systems will be chosen to traditional sprinkler systems before they can be engineered to solve specific requirements. (Estetical, installation, polution, prices etc)



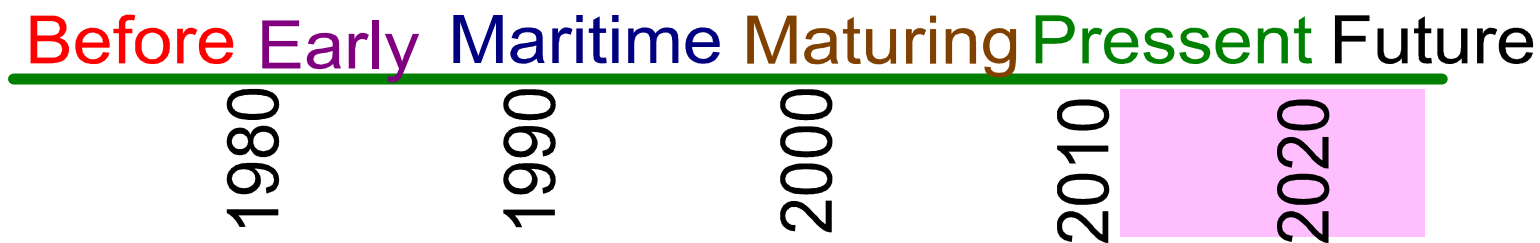
today

FS system design build on existing well tested sprinkler guidelines and sound calculations building on substiansial testing.

New FS systems focus on high system reliability and documentation hereoff applying approved components

FS systems are developed to match the actual marked needs, (design, installation, water pressures, maintenance, approvals, documentation and acceptances etc.)

FS systems are designed to provide environmental freindly fire protection concerning, supplies and polution from fire, and energy and power requirements, low material consumption, recircleable materials etc.



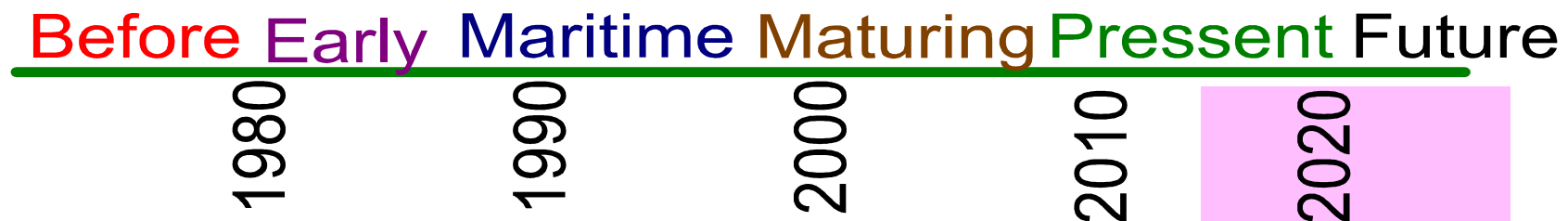


Today & tomorrow

FS System becomes fully intergrated parts of the location or application to be protected.

Fire-protection becomes one of more features of a whole package also including FS system features.

FS systems will be operating at very low water pressures making FS system simple to install and maintain and very reliable towards clogging of nozzles, valves and pumps etc.



The market chose FS from Vid Fire-Kill because it solves their needs the best.





21.

SONE 6
MAGNETIC ULTRASONIC DETECTOR

17

14

SONE 6
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