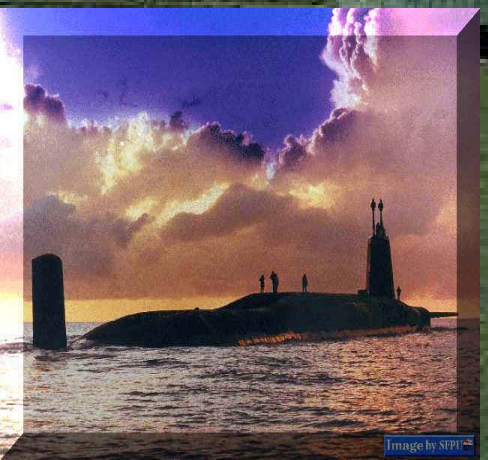
WARSHIP SUPPORT AGENCY
Defence Logistics Organisation
MPS IPT

MARINE PROPULSION SYSTEMS · INTEGRATED PROJECT TEAM
M·P·S

MPS213

A Non-Thermal Plasma Application for the Royal Navy



Lt Cdr Derek Hughes

- DIESEL DEVELOPMENT OFFICER -

29 August 2002

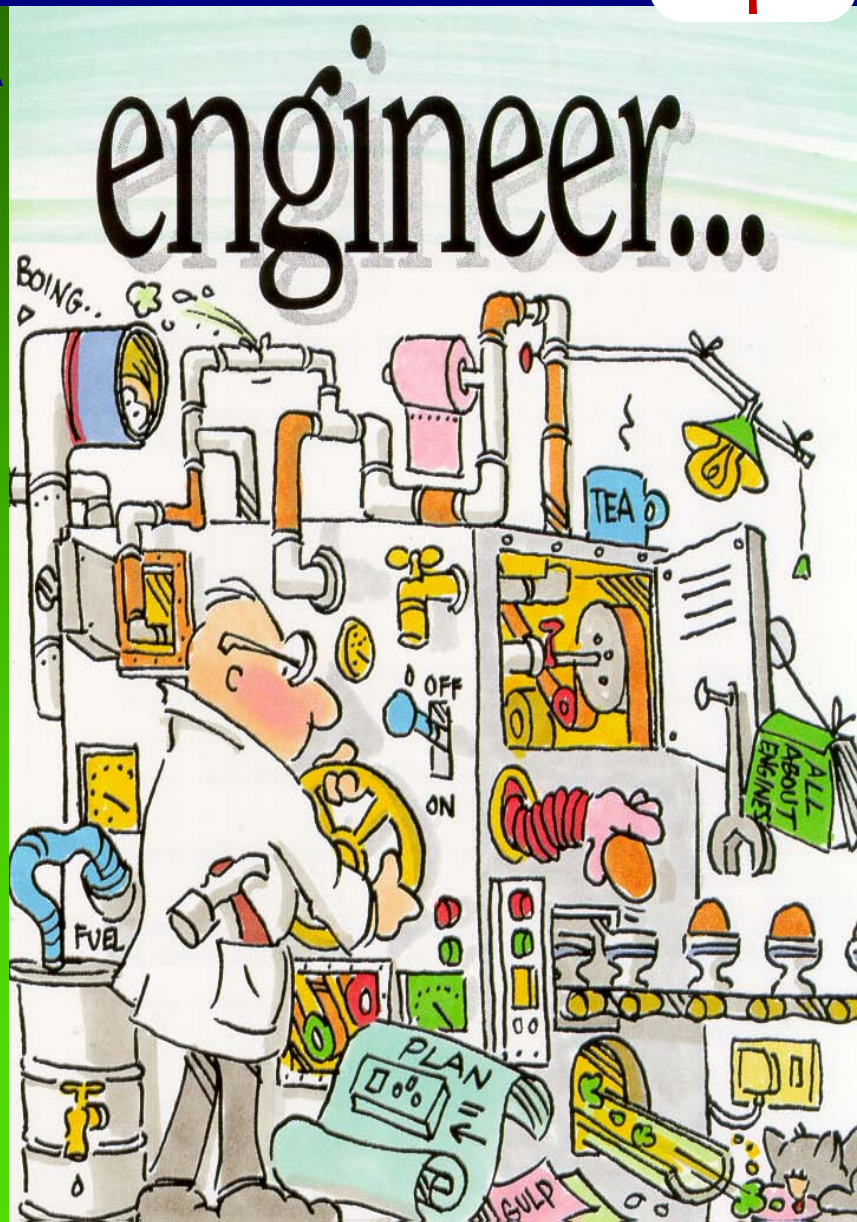
DEER

2000 and Beyond

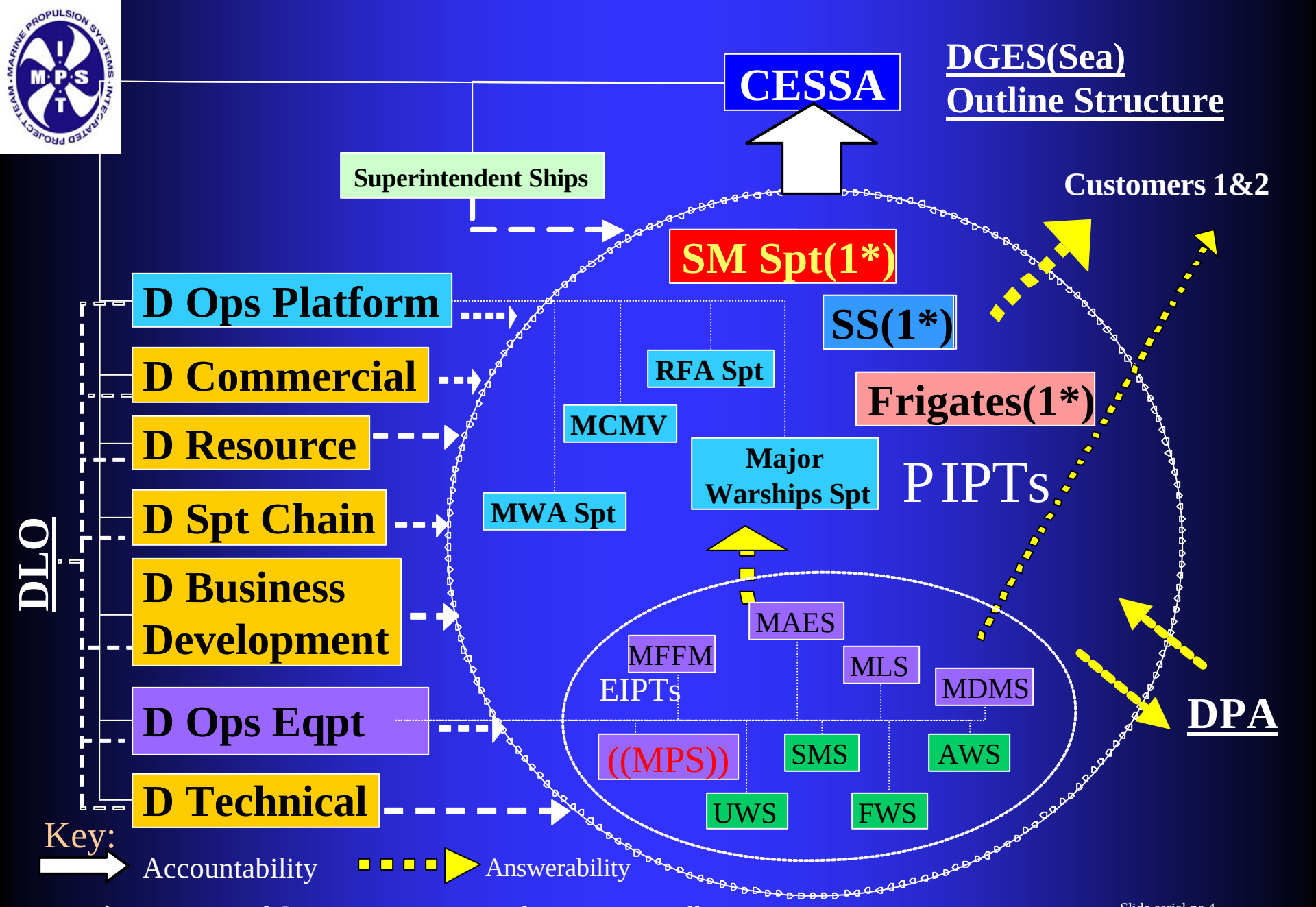
- Introduction
  - MPS 213
- The Fleet
  - Existing Fleet
  - Future Fleet
- Trends
  - Marine Engineering Strategy
  - Diesel Emissions
- Summary

Lt Cdr Derek Hughes

- 1978 - 88 HMCS ONONDAGA
- 1988 - 92 RRMC/RMC BEng
- 1992 - 94 Naval trg
- 1994 - 96
  HMCS MONTREAL (Trg)
- 1996 - 97 CFNES (OT Div)
- 1997 - 98 MSEO
  HMCS ST. JOHN'S
- 1998 - 99 MSc UCL Marine Engineering
- 1999 - Wave 2 Upholder
- 2000 - MOD(N) Exchange



DGES(Sea) Outline Structure



MPS - Organisation

Mr Mike Botley
Marine Propulsion Systems - Team Leader

- **Gearboxes** — Cdr J Wood
- **Gas Turbines** — Develop - Cdr English; In Service - Paul Denton
- **Diesels** — Cdr Cummin
- **Shafting/Propellers** — Cdr Wood
- **Fuels/Lubricants** — Paul Maillardet

Cdr Mike Cummin
Head of Diesel Section

- **MPS MPS217b**
- **MPS CB**
- **MPS MPS213 Technical**

- **107 People (25 Navy / 82 Civilian)**

Diesel Future Strategies

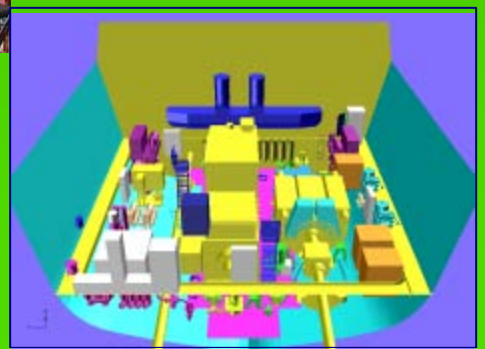
Emissions

- Emissions (MARPOL)
- Single Fuel (OBM)

Engines

- Commonality of Equip
- Condition Monitoring
  (Potmeter, Dr Diesel, etc)

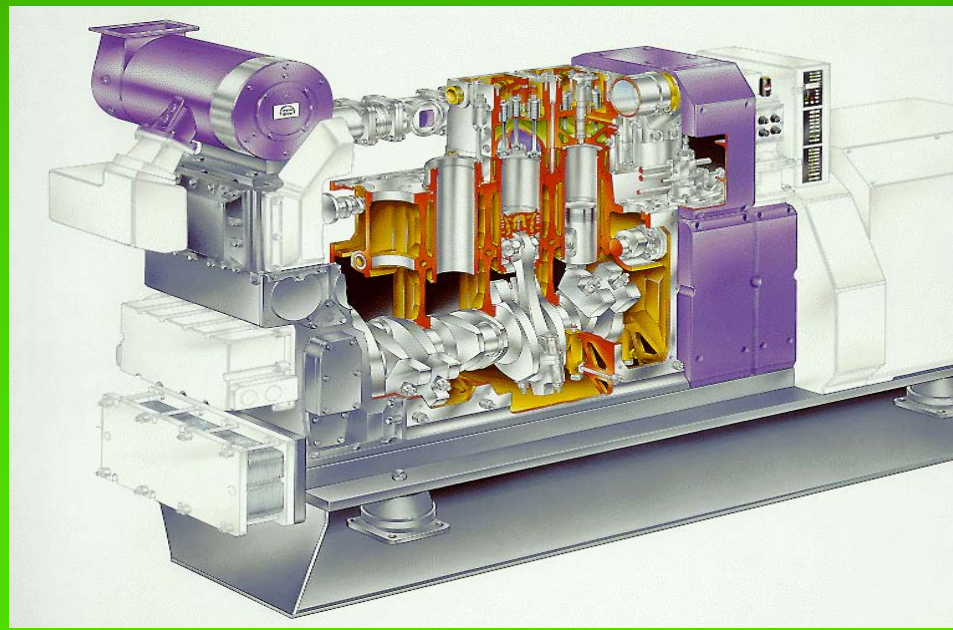
T45 Platform



- VMI, CLS, Pwr by Hour

Diesels at Work - UK!!

- 4 Vanguards
- 5 Swiftsure
- 7 Trafalgar
- 3 CVS
- 2 LPDs
- 1 LPH (HMS OCEAN)
- 12 Type 42
- 7 Type 22
- 16 Type 23 Duke Class
- 11 Hunt Class
- 12 Sandown Class (SRMH)
- 16 Archer
- 5 Island Class
- 2 Castle Class
- 2 OSV (Herald, Scott)
- 3 CSV (Beagle, Bulldog, Roebuck)



Diesel Proliferation

- ALLEN
- BERGEN(RR)
- CATERPILLAR(MaK)
- CROSSLEY
- CUMMINS
- DETROIT DIESELS
- DEUTZ MWM
- DORMAN
- ISOTTO FRASCHINI
- MaK
- LISTER PETTER
- MAN B&W
- MIRRLEES BLACKSTONE
- MTU
- ONAN
- PAXMAN DIESELS
- PERKINS
- RUSTON DIESELS
- SEMT PIELSTICK
- VOLVO PENTA
- WARTSILA NSD
- YANMAR

The Existing Fleet

Reduce WLC

- RCM
- CM Tools
  - Trial COTS
  - Develop
- SM Challenge
  - low hours
  - low load
  - availability
  - manage risk

The Emerging Fleet

- LPH (OCEAN)
- OSV (SCOTT)
- 12 LCU MK10
- Trimaran
- 2+ A0
- 2 LPD(R)
- 3+ ASTUTE
- 12 T45 AAWD
- 4+ ALSL
- 2+ SV(O)
- 6 RO-RO