

Helicopter Integration onto RAN Ships

For SDE Symposium 2010

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Mar 10



PRESENTATION OVERVIEW

- Navy Technical Regulation
- Directorate of Navy Platform Systems
- Integration Issues
- Workforce Issues
- Way Ahead



Navy Technical Regulatory System

- ABR 6492
- Engineering Authority Levels 1 to 6 (EA 1 – 6)
- Authorised Engineering Organisations (AEO)
 - Defence only
- Design Acceptance Representatives (DAR)
- Engineering and maintenance organisations regarded the same



Directorate NAVY PLATFORM SYSTEMS

- Concepts and Liaison
- Hull, Mechanical, Electrical
- Technical Data Requirements
- Total Ship Survivability



■ Concepts and Liaison

- Develop concepts ship designs to validate Maritime Development requirements and costing
- Liaison with:
 - Projects
 - Maritime Development
 - Overseas organisations

■ Hull Mechanical Electrical

- Provide engineering expertise and TRA advice on engineering systems
- Maritime Platform Liaison Group

- **Technical Data Requirements**
 - Technical Handbooks
 - Computer Modelling
 - Technical Library

■ Total Ship Survivability

- Survivability
 - Signatures, CBRND, Damage Control, etc
- Fire Safety
 - Fire systems, Fire fighting methods
- EER

INTEGRATION ISSUES

- Fire Fighting
- Fuel/Defuel
- Crash Boats
- Deck Strength
- Physical size, weight of aircraft
 - Bladefold
 - Stowage



MRH 90 Bladefold

MRH90 MANUAL BLADE FOLD
(ANZAC CLASS FRIGATE)



MRH90 Stowage - LPA



WORKFORCE ISSUES

- Ageing
- 1/3 leaving in next 5 years (18 of 54 – includes non-technical)
- Long lead time to train replacements
- Salary lower than industry offers
- Loss of capability of client organisations
- Loss of capability of service organisations



Then to Now (Civilian engineering)

■ 1990

- 800 engineers and techos
- Developed and maintained own standards
- Looked at platforms for whole of life
- No NTRS
- Design in house
- Upgrades in house
- Train graduates and trainees

■ 2010

- 60 engineers and techos
- NTRS
- Develop and maintain technical requirements
- Advise HNE (TRA)
- Concept design in house
- Train graduates
- Consult with DMO, Fleet



Transition

- Mid 90's – ½ staff to DMO
- Gradual reduction in number to current 60
 - Was ok because client organisations (DMO) had lots of ex-DNPS and other experienced staff
 - Was ok because contractor organisations (ship designers, builders, engineering consultants) had lots of ex-DNPS and experienced staff
 - They didn't train sufficient replacements, so now much of that work is coming back to DNPS
 - In meantime we have not been able to maintain corporate knowledge.



Way Ahead

- Strategic Review of Naval Engineering
- Continued targeted recruiting
- Project STORM – Knowledge management



Questions





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