INFRASTRUCTURE SUPPORT to the ROYAL CANADIAN NAVY

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CFB ESQUIMALT
AGENDA

• BACKGROUND
• ISSUES AND CONCERNS
• INFRASTRUCTURE MANAGEMENT
• ONGOING AND PLANNED INFRASTRUCTURE PROJECTS
• SUMMARY
BACKGROUND

CBF ESQUIMALT

- 6 x Destroyers / Frigates
- 2 x Submarines
- 6 x Maritime Coastal Defence Vessels
- 8 x Orca Trainers
- 1 x Supply Ship
- Auxiliary Fleet

CBF HALIFAX

- 9 x Destroyers / Frigates
- 1 x Submarine
- 6 x Maritime Coastal Defence Vessels
- 1 Research Vessel
- 1 x Supply Ship
- Auxiliary Fleet

(1) Plus one in Refit at Esquimalt Graving Dock
ESQUIMALT JETTIES
## REAL PROPERTY RESPONSIBILITIES

<table>
<thead>
<tr>
<th>CFB ESQUIMALT</th>
<th>CFB HALIFAX</th>
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<tbody>
<tr>
<td>- 23 SITES</td>
<td>- 63 SITES</td>
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<tr>
<td>- 863 BUILDINGS</td>
<td>- 660 BUILDINGS</td>
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<tr>
<td>- 1,265 “WORKS”</td>
<td>- 725 “WORKS”</td>
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<tr>
<td>- Jetties</td>
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<tr>
<td>- 120 km Roads</td>
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<td>- 752 Residential Units</td>
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<tr>
<td>- 5,173 hA land</td>
<td>- 3,962 hA land</td>
</tr>
<tr>
<td>- 8 Marine Ranges</td>
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<td>- QHM - Esquimalt Harbour</td>
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**CFB ESQUIMALT**

- 23 SITES
- 863 BUILDINGS
- 1,265 “WORKS”
  - Jetties
  - 120 km Roads
  - 100 km municipal services
  - Electrical distribution
- 752 Residential Units
- 5,173 hA land
- 8 Marine Ranges
- QHM - Esquimalt Harbour

**CFB HALIFAX**

- 63 SITES
- 660 BUILDINGS
- 725 “WORKS”
  - Jetties
  - 50 km Roads
  - 50 km municipal services
  - Electrical distribution
- 458 Residential Units
- 3,962 hA land
- 1 Marine Ranges
ISSUES/CONCERNS

• HOME PORT CONCEPT
  – Jetty (hotel) Services and supporting infrastructure
  – Repair and Overhaul facilities
    • Fleet Maintenance Facilities
    • Strategic Partnering with EGD and Irving
  – Ammunition Depots and Loading
  – Refuelling : Jetties plus Storage faciliteis
  – Security
  – Headquarters
  – Logistics / Support Facilities

• FUTURE FLEET COMPOSITION & SHIP TECHNOLOGY
  – New Surface Combatant?
  – Submarine replacement?
  – Drydock and Syncrolift capacities?
ISSUES/CONCERNS

AGE OF INFRASTRUCTURE

URBAN ENVIRONMENT

SEA LEVEL RISE, SEISMIC & TSUNAMI

CONGESTED HARBOUR

JETTY DAMAGE RISK
ISSUES/CONCERNS

Harbour Contamination
INFRASTRUCTURE MANAGEMENT

Real Property Development Planning (Framework & Vision)

Site Development Plans (Facility Planning over Time Horizons)
CPMS:

- **Facility Condition Assessments**
  - Applied same methodology to Jetties as to built-up infrastructure

- **Facility Condition Index (FCI)**
  - "Snapshot in time" of Engineer assessment of facilities
  - Not CMMS
  - Quantifiable, Industry Standard -> Credible Performance Measure tool/metric

- **Business Intelligence & Decision Support Tools**
  - Forecasting budget requirements for various scenarios
  - Clearly show impact of reduced/increased IM&R budgets
  - Forecast recapitalisation scenarios for facilities
  - Brings “management” back into Facilities Management
INFRASTRUCTURE MANAGEMENT

• CHALLENGES:
  – Constrained fiscal environment – how to focus IM&R?
  – Balance jetty infrastructure requirements with jetty support services and Naval supporting functions
  – Impact of new construction & technology on capacity

• METHOD:
  – Mission-oriented, data-driven prioritisation process
  – Defensible, replicable, scalable decision process using Facility Condition Assessment database’s Analytical Hierarchy process
INFRASTRUCTURE MANAGEMENT

PLANNED MAINTENANCE: Analytical Hierarchy Process using a Pair-Wise technique to establish prioritisation of outstanding deficiency requirements.

RESULT: Defensible maintenance project plan that will identify the priorities that will have the best impact on supporting the operational mission.
MAJOR CAPITAL PROJECTS

A&B JETTY REPLACEMENT and UTILITY CORRIDOR

Proposed Site Improvements

ROYAL CANADIAN NAVY ROYALE CANADIENNE
MAJOR CAPITAL PROJECTS

FLEET MAINTENANCE FACILITY (CAPE BRETON)
Aim: Construct a new jetty at CFB Halifax to berth the east coast AOPS fleet

Status: Anticipated contract tendering date is spring 2014
SYNCROLIFT

Aim: Upgrade Jetty ND’s electrical & mechanical services; upgrade 5 inshore winch/cable/beam assemblies and associated Atlas Control System of Syncrolift; construct new permanent submarine maintenance facility onshore.

BOD submarine maintenance facility and Syncrolift upgrade is Jan 2014
COMING SOON:
ROCKY POINT JETTY

• Not ideal for ammunioning ships and submarines
  – Draught
  – Deck configuration/width
• Seismic and Tsunami effects considered
• Linked to recapitalisation of CFAD(RP) infrastructure
MAJOR CAPITAL PROJECTS

COMING SOON:
CFB ESQUIMALT DRY DOCK

1887

Still in use today

Ships now a bit bigger than original specifications

Will Dry Dock be suitable for future fleet?
SUMMARY

• RCN responsible for all infrastructure to meet mission
• Unique requirements
• Home Port Concept requires depth of facilities & services
• Prioritisation of IM&R using new robust process
• Recapitalisation underway after decades of status quo:
  – Upgraded jetties and direct support infrastructure
  – Maintenance jetties and facilities – modernisation & capability
  – Environmental stewardship
• Challenges
  – Age of infrastructure
  – Fiscal climate
  – Long service life – will it serve the Navy of the Future?
QUESTIONS?
CFB HALIFAX REAL PROPERTY OVERVIEW