Senate Standing Committee on Foreign Affairs, Defence and Trade

Additional Estimates Hearing, 23 February 2011

Questions Taken on Notice

Q1

<u>HMA Ships Manoora and Kanimbla – Hansard 23 February 2011, page 13</u>
Senator Johnston
Action Area: Navy

When did we first become aware inside Navy that Manoora would never go to sea again because of corrosion and the gearboxes problem and that Kanimbla required 18 months worth of work? I note the Minister said on 28 January: "I was advised that with the decommissioning of HMAS Manoora, and the extended unavailability of HMAS Kanimbla……" That was before 31 January. CN agreed to check the date.

Response:

Based on the outcome of the Landing Platform Amphibious Seaworthiness Remediation Program, Chief of Navy determined on 13 December 2010 that repairs to return HMAS *Manoora* to operational readiness did not represent an acceptable return on investment, and the ship should instead be recommended for decommissioning. This recommendation was passed to the Secretary and the CDF on 17 December 2010, with proposed advice to the Minister. The Secretary (22 December 2010) and the CDF (31 December 2010) noted this advice and signed the proposed advice to the Minister.

The assessment that HMAS *Kanimbla* required 18 months of work was reached on 27 January 2011 and the Minister was advised by Ministerial Submission on 28 January 2011.

Q2

<u>HMA Ships Manoora and Kanimbla – Hansard 23 February 2011, page 16</u>
Senator Johnston
Action Area: Navy

The Minister was told on 28 January that he had no amphibious lift. He said that he asked for advice from the Secretary and CDF as to why Manoora was to be decommissioned and why Kanimbla would not be online for 18 months. When did he ask you for that?

Response:

On receiving advice on 28 January 2011 in relation to amphibious lift, the Minister requested a number of briefings, including on 31 January and 1 February 2011 to seek advice on this matter.

Q3

HMAS Kanimbla - Hansard 23 February 2011, pages 16-17
Senator Johnston

(a) What was on board the vessel? There was a Tiger helicopter, wasn't there?
(b) What other munitions and other contaminant for the Sydney Harbour environment were on board this vessel?
(c) How much fuel was on board?

Response:

(a) HMAS *Kanimbla* had both a Sea King and an Aus Tiger helicopter embarked when the fire occurred on 21 September 2010. The Aus Tiger was embarked to conduct deck handling trials and training. The Sea King was embarked to conduct continuation training. There was no other significant cargo in HMAS *Kanimbla*.

(b) HMAS *Kanimbla* was carrying its normal munitions warrant, including small arms ammunition such as 12.7 millimetre machine gun rounds, 20 millimetre close in weapon system rounds, a small amount of demolition explosives, and pyrotechnic devices for Safety Of Life At Sea requirements.

(c) HMAS *Kanimbla* held approximately 81 per cent of the ships capacity of burnable fuel, comprising 2328 cubic metres of marine grade diesel, and 326 cubic metres of aviation fuel for embarked aircraft.

Q4

HMAS Manoora - Hansard 23 February 2011, pages 28-29
Senator Fielding

Survey Report:
(a) Was there a specific survey report written about the state of the vessel?
(b) Is there any chance of the Committee getting a copy of that report, taking out the sensitive parts?
(c) According to the survey report, how long was the Manoora unseaworthy for?

Response:

(a) Following the imposition of the operational pause, there were two Defence Materiel Organisation (DMO)-led surveys conducted on HMAS *Manoora* to provide a comprehensive understanding of the condition of the vessel. Navy also conducted a Material Condition Assessment (MCA). Each identified a range of defects, although this is not unusual given wear and tear on the systems and structure, and the operating environment. Obviously, given HMAS *Manoora's* age, additional degradation has occurred.

Naval hull surveyors engaged by DMO surveyed most accessible compartments on the ship for amalgamation into a Hull Survey Report and a Hull Maintenance Summary report. Those compartments excluded were inaccessible void spaces which are only accessible when the ship is in dock, and some minor compartments in the superstructure. The Summary report is a standard report, providing a comprehensive assessment by compartment on defects in the hull and structure.

The DMO also engaged Det Norske Veritas, an internationally recognised commercial Classification Society, to conduct a third-party survey of the ship systems and structure in October 2010.

A Navy-led MCA was also conducted in *Manoora* in November 2010. The MCA is a process-driven assessment comprising reviews and inspections of key ship systems, with deficiencies passed to the ship as they were identified. Actions requiring immediate attention were rectified by ships staff with formal requests for external assistance where ships staff could not rectify the defect. There is no formal report from the MCA.

(b) Copies of the HMAS *Manoora's* Hull Maintenance Summary (2 December 2010) and the Det Norske Veritas Survey Report (25 October 2010) are attached.

(c) A hull survey report does not determine the seaworthiness of the ship. Rather it reports material defects in the hull and structure, such that these defects can be appropriately repaired.

CME Jobs & Correspondence Database - 3.56a

09-Mar-2011

Correspondence Out Details

FOLIO NO

Section: S **Corres No.:** **S2508/10**

Title: HMAS MANOORA - Review of HRI, Hull Defect Status

Ship/Unit: MANOORA

DRMS File: 2002/24286/3 **Local File Identifier:**

Dated: 02/12/10 **Doc Type:** EML Email

CSM: CSM AASSPO **Other Ref::**

Originator: EMERTON G **Addressee:** AASSPO - Sydney
Garden Island
SYDNEY NSW 2000

Exists:

Contact: Adam Grunsell

Actions & Notes:

From: Emerton, Graeme MR
Sent: Thursday, 2 December 2010 15:45
To: Grunsell, Adam CAPT - RAN; Fysh, Andrew CAPT - RAN
Cc: York, David MR 1; Wilhelm, Geoff MR; Cox, David MR 1
Subject: HMAS MANOORA - Hull Maintenance Summary [SEC=UNCLASSIFIED]
Importance: High

UNCLASSIFIED
Gents,
Further to our discussion at lunchtime today and noting the progress of survey work/defect identification on HMAS MANOORA relative to CME's written advice of 15 Sep 10 (CME-S1796/10), following is a brief summary of the current hull state. Note that this is my considered opinion only and without the opportunity to further discuss with Geoff Wilhelm.

Our advice of 15 Sep 10, in arriving at a HRI of 6 for the hull and structure of HMAS MANOORA, provided some contingency for further defect discovery as has occured with recent survey activity.

Key issues that impact on our previous judgement are:

1. Extent of wastage of the Vehicle Stowage Deck (3-27-0-A) plating following Ultrasonic Thickness Measurement.
2. Evidence of further full thickness corrosion through internal WT bhds and tank tops.
3. Example of a previous defect reported as rectified in 2008 in the Forepeak Ballast Tank, however structure is unrepaired.

The attached spreadsheet provides a cumulative summary of the vessel condition and further problems that are known but reports are incomplete.

The difference between a HRI of 6 (Critical/Occasional) or 5 (Critical/Probable) is the interpretation of "Unlikely but can be reasonably expected to occur in the life of the item" or "Will occur several times in the life of the item". I believe there is sufficient evidence at this time, noting that surveys are still to be completed and analysed, that we have crossed the line and that a revised HRI of 5, Critical/Probable is the current assessment for HMAS MANOORA.

Regards,
Graeme Emerton
Hull Survey Manager
Centre for Maritime Engineering

Used for Job:

J1807/10

Addr.:

History:	Date: Last	By	Notes (etc):	Period (d)	Entered on
Activity:	Action Complete				
	19-Jan-2011	EMERTON, Graeme	Job Complete		19-Jan-2011
Activity:	Action in progress				
	13-Dec-2010	EMERTON, Graeme			13-Dec-2010

HMAS MANOORA Hull Maintenance Summary - 02-December-2010

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Paint-Below Waterline-External	6-PaintBWL	28-Aug-09	Acceptable		22-Nov-99	MANO-990022-WRT	6-PaintBWL	DPs	6	Minor shell plate deformation		HISTORY
Inaccessible Void	6-23-0-V	06-Apr-04	Acceptable		25-Sep-02	MANO-020096-RAS	6-23-0-V	DPs	6	Ultrasonic examination of hull in way of Void Space		History
Ballast	6-55-0-W	12-Jul-10	Monitor	EMA 2010-Corrosion holes in Tank Top. Refer to 5-55-0 JP5 Pump Room Temporary repairs MANO-100014-HSGM & MANO-100049-WRM. Permanent Repair MANO-100112-WRM. Outstanding defect MANO-040103-RAS.	14-Sep-04	MANO-040103-RAS	6-55-0-W	DPs	3	Coating breakdown in tank		HISTORY
Watermist Freshwater Tank	6-67-0-W	14-Oct-10		Poor quality work from conversion to Watermist Tank	14-Oct-10	MANO-100126-HSG-M	6-67-0-W	DPs	2	Fabrication faults resulting in damage to structure throughout tank	0175/10	H102D0276
Bilge Keel - Port	6-BlgeKeelP	25-Aug-09	Acceptable									
Bilge Keel - Stbd	6-BlgeKeelS	25-Aug-09	Acceptable									
Potable Water	6-129-0-W	15-Sep-09	Acceptable	Coating spot repairs inspected by HSG-M Sept.09 at EMA Major 2009.	10-Apr-09	MANO-090005-RAS	6-129-0-W	Sys	3	Sounding tube U/S		H103D0100
Oily Waste Sump Tank	6-136-1-F	09-Sep-09	Acceptable									
Potable Water	6-140-0-W	15-Sep-09		Coating spot repairs inspected by HSG-M Sept.09 at EMA Major 2009, RAS. Allow for concurrent survey of 6-149-1-F MRG Sump Tank. Holed through tank top reported Nov 2010.								
Main Reduction Gear Sump Tank	6-149-1-F	01-Oct-97	Monitor	Unavailable at EMA Major 2009, RAS. Very difficult for survey access; manholes available from within #1ER and 6-140-0-W Potable Water Tank.								
Potable Water	6-152-0-W	10-Apr-09	Monitor	Coating spot repairs inspected by HSG-M Sept.09 at EMA Major 2009, RAS.	10-Apr-09	MANO-090007-RAS	6-152-0-W	DPs	4	Deformation of hull longitudinals		H104D0111
					10-Apr-09	MANO-090008-RAS	6-152-0-W	DPs	3	Crack in web of hull longitudinal.		H103D0101
Ballast	6-152-1-W	04-Sep-09	Monitor	Note temporary repair of tank top from #1 AMR Bilge.								
Ballast	6-152-2-W	02-Jun-10	Acceptable	Coating in fair state								
DO or Ballast	6-160-0-F	16-Sep-09	Acceptable									
Oily Waste Sump Tank	6-167-2-F	25-Jun-10		MANO-090047-RAS recommended for action during docking. Repair action incomplete at EMA 01/2010 (docking dependant).	16-Sep-09	MANO-090047-RAS	6-167-2-F	DPs	2	Heavy wastage & pitting in tank bottom plating		
Ballast	6-169-0-W	09-Aug-10		EMA 2010 - Tank is not painted with Ballast Tank preservation. Holes in tank top, temporary repairs MANO-100032-WRM, permanent repair MANO-100033-WRM.	20-Aug-97	MANO-970041-WAB	6-169-0-W	DPs	6	Minor deformation to shell plate		HISTORY
					07-Jul-10	MANO-100033-WRM	6-169-0-W	DPs	2	Permanent Repair - Corrosion Holes In Tank Top	0096/10	H102D0184
					07-Jul-10	MANO-100034-WRM	6-169-0-W	DPs	3	Paint Failure & Corrosion - Tank Structure	0096/10	H102D0184
Oily Waste Sump Tank	6-169-2-F	09-Jul-10	Monitor	EMA 2010 Not surveyed - Access Problem, Manhole cover could not be moved clear of hole. Tank not entered. Survey limited to tank external boundaries from inside 6-169-0-W Ballast Tank.								
Main Reduction Gear Oil Sump Tank	6-171-2-F	29-Nov-10		Fractures in tank boundary plating; to be defined upon receipt of NDT report	10-Apr-09	MANO-090003-RAS	6-171-2-F	Sys	5	Suspected leak through tank top	MONITOR	
Inaccessible Void	6-173-1-V	25-Sep-02	Acceptable	Ultrasonic thickness test at docking	25-Sep-02	MANO-020095-RAS	6-173-1-V	DPs	6	Ultrasonic examination of hull in way of Void Space		History
Hydro Oil Storage Tank	6-173-3-F	05-Dec-05	Acceptable	Inaccessable for survey EMA Major 2009, RAS								
Inaccessible Void	6-173-5-V	12-Sep-02	Acceptable	Ultrasonic thickness test at docking								
Cross Flooding Duct	6-180-0-Q	22-Sep-09	Acceptable									
Cross Flooding Duct	6-182-0-Q	22-Sep-09	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Duct for Cross Flooding in D Store	6-183-1-Q	22-Sep-09	Acceptable	This duct is the outboard end of 6-182-0-Q Cross Flooding Duct and therefore not a separate compartment, the opening in 'D' Store has been blanked off preventing access. Sept. 09, RAS.								
Duct for Cross Flooding in A Store	6-183-2-Q	22-Sep-09	Acceptable	This duct is the outboard end of 6-182-0-Q Cross Flooding Duct and therefore not a separate compartment, the opening in 'A' Store has been blanked off preventing access. Sept. 09, RAS.								
Ballast	6-184-0-W	08-Jul-10		EMA 2010 - Tank is not preserved with a Ballast Tank coating. Paint repair MANO-100035-WRM. Also noted doubler plate in bottom shell and tank top.	08-Jul-10	MANO-100035-WRM	6-184-0-W	DPs	3	Paint Failure & Corrosion - General Structure		H103D0257
Inaccessible Void	6-184-2-V	26-Nov-99	Acceptable	Ultrasonic thickness test at docking								
Hyd Oil Storage Tank	6-184-4-F	05-Dec-05	Acceptable	Unavailable at EMA Major 2009, RAS								
Inaccessible Void	6-184-6-V			Ultrasonic thickness test at docking								
Stbd Shaft Well	6-184-SShaft	11-Sep-07	Acceptable	Inaccessable for survey EMA Major 2009, RAS								
Inaccessible Void	6-188-1-V	25-Sep-02	Acceptable	Ultrasonic thickness test at docking	25-Sep-02	MANO-020093-RAS	6-188-1-V	DPs	6	Ultrasonic examination of hull in way of Void Space		History
Oily Waste Holding Tank	6-192-0-W	07-Dec-09	Monitor	Coating breakdown may lead to further corrosion. Associated risk from pitting through tank top from AMR3 bilge.	04-Sep-09	MANO-090041-RAS	6-192-0-W	DPs	3	Widespread coating deterioration.		H103D0014
Oily Waste Sump Tank	6-194-1-F	16-Sep-09	Acceptable									
Waste Oil Tank	6-200-0-W	07-Dec-09	Acceptable									
Cross Flooding Duct	6-206-0-Q	09-Jul-10	Monitor	EMA 2010 - Deteriorated coating and corrosion, MANO-100036-WRM.	09-Jul-10	MANO-100036-WRM	6-206-0-Q	DPs	3	Paint Failure & Corrosion - General Structure		
Prop & Shaft - Port	6-Prop Port	25-Aug-09	Acceptable									
Prop & Shaft - Stbd	6-Prop Stbd	25-Aug-09	Acceptable									
Rudder - Port	6-Rudder Port	25-Aug-09	Acceptable									
Rudder - Starboard	6-Rudder Stbd	25-Aug-09	Acceptable									
Inaccessible Void	6-C-0-V	25-Sep-02	Acceptable	Ultrasonic thickness test	25-Sep-02	MANO-020097-RAS	6-C-0-V	DPs	6	Ultrasonic examination of hull in way of Void Space		History
Ballast	6-FP-0-W	25-Nov-10		Nov 2010 survey by HSG-M (report to be completed). Coating in poor state. Corroded stiffeners reported as repaired in 2008 not cropped & renewed as per surveyor requirements.	07-Sep-07	MANO-070084-RAS	6-FP-0-W	DPs	4	Coating breakdown in ballast tank		
Unassigned Compt (Ex Chain Lkr)	5-23-0-Q	06-Jul-10	Acceptable	EMA Major 2009. Coating breakdown and surface corrosion of structure at lower sections of compartment, no immediate action required. RAS. EMA 2010- Paint repair MANO-100044-WRM.	01-Sep-97	MANO-970102-WAB	5-23-0-Q	DPs	6	Deformation to deck plating and pipe fairing piece		HISTORY
					06-Jul-10	MANO-100044-WRM	5-23-0-Q	DSs	4	Corrosion and Debris - Bottom Area		
Bow Thruster Tube	5-BT-Tube	25-Aug-09	Acceptable									
Void	6-26-0-V	06-Jul-10	Acceptable									
DO or Ballast	6-32-0-F	02-Oct-09	Monitor		03-Sep-97	MANO-970113-WAB	6-32-0-F	DPs	6	Minor shell plate deformation		HISTORY
					03-Sep-97	MANO-970112-WAB	6-32-0-F	DPs	6	Minor deformation to bhd plating		HISTORY
					03-Sep-97	MANO-970114-WAB	6-32-0-F	DPs	6	Minor shell & stringer deformation		HISTORY
					02-Oct-09	MANO-090071-RAS	6-32-0-F	DPs	3	Coating breakdown & corrosion		H103D0041
					02-Oct-09	MANO-090069-RAS	6-32-0-F	DPs	3	Isolated deep pitting in shell plate.		H103D0039
					02-Oct-09	MANO-090070-RAS	6-32-0-F	Sys	3	Sounding Tube defect		H103D0040
JP-5 Storage Tank	6-41-0-J	07-Aug-07	Acceptable	Survey Nov 2010 OK	13-Aug-97	MANO-970029-WAB	6-41-0-J	DSs	6	Minor deformation to bhd stiffener		HISTORY
					13-Aug-97	MANO-970027-WAB	6-41-0-J	DPs	6	Minor deformation in 'A' strake		HISTORY

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Fathometer Trunk	6-41-2-T	18-Sep-09	Acceptable		04-Sep-97	MANO-970119-WAB	6-41-2-T	DPs	6	Minor deformation to bhd plating		HISTORY
JP-5 Service Tank	6-51-1-J	04-Sep-09	Acceptable		13-Aug-97	MANO-970026-WAB	6-51-1-J	DPs	6	Minor deformation in 'A' strake		HISTORY
JP-5 Storage Tank	6-51-2-J	04-Sep-09	Acceptable									
DO or Ballast	6-51-3-F	22-Apr-09	Monitor	Tank not cleaned for inspection, oil sludge covered shell & structure at lower sections of tank limiting proper survey.								
DO or Ballast	6-51-4-F	22-Apr-09	Acceptable									
JP-5 and Ballast Pump Room	5-55-0-E	22-Jul-10	[redacted]	Temp repairs by doubler at EMA 01/2010; permanent repair required at next EMA. Bilge fully cleaned & preserved EMA 01/2010.	22-Jul-10	MANO-100112-WRM	5-55-0-E	DPs	2	PERMANENT REPAIR - Holed Tank Top	0166/10	H102D0243
Passage	5-64-0-L	16-Jul-10	[redacted]	EMA 2010 - Corroded framing on elevated walkway structure, MANO-100103-WRM.	05-Sep-07	MANO-070076-RAS	5-64-0-L	DPs	2	Localised wastage of WT Bulkhead		H083D0075
					16-Jul-10	MANO-100103-WRM	5-64-0-L	DSs	3	Corrosion - Elevated Walkway Support Structure		H103D0255
					16-Jul-10	MANO-100104-WRM	5-64-0-L	DSs	4	Coating Deterioration and Corrosion-General Structure		
E Store	5-67-1-A	15-Jun-10	Acceptable	Deck cleaned and preserved EMA 01/2010	04-Dec-07	MANO-070180-RAS	5-67-1-A	DMs	3	Platform wasted thin		H083D0059
Watermist Compartment	5-67-2-E	14-Oct-10	[redacted]		16-Jul-10	MANO-100105-WRM	5-67-2-E	DSs	4	Coating Deterioration and Corrosion - Bulkheads		
					14-Oct-10	MANO-100127-HSG-M	5-67-2-E	DPs	2	Corroded bhd stiffeners	0175/10	H102D0276
DO or Ballast	6-73-0-F	22-Sep-09	Acceptable									
DO or Ballast	6-73-1-F	01-Jul-10	Acceptable									
DO or Ballast	6-73-2-F	22-Apr-09	Acceptable	TLI sensor cables deteriorated at URP MAR/APR 09 inspection, RAS.								
DO Overflow or Ballast	6-81-1-F	09-Sep-09	Acceptable									
DO Overflow or Ballast	6-81-2-F	09-Sep-09	Acceptable									
Underwater Log Trunk	6-87-1-T	21-Sep-09	Acceptable									
DO or Ballast	6-89-0-F	18-Sep-09	Acceptable									
DO or Ballast	6-89-1-F	04-Sep-09	Acceptable									
DO or Ballast	6-89-2-F	04-Sep-09	Acceptable									
DO or Ballast	6-101-0-F	15-Aug-09	Acceptable	Ensure concurrent survey of 5-104-0-Q Cross Flooding Duct	15-Aug-09	MANO-090018-RAS	6-101-0-F	Sys	5	GRP bandage repair to sewage main		
DO or Ballast	6-101-1-F	01-Jul-10	Acceptable									
DO or Ballast	6-101-2-F	08-Jul-10	Acceptable									
Cross Flooding Duct (over)	5-104-0-Q	08-Jul-10	Acceptable	EMA 2010-Not Surveyed. Not accessible; access is via manholes in 6-101-2-F Fuel Tank.								
Fwd Sewage Tank	5-109-0-W	01-Jul-10	[redacted]	Wasted deckhead stiffeners to be cropped & renewed.	01-Jul-10	MANO-100023-HSG-M	5-109-0-W	DPs	2	Corroded and holed tank top stiffeners	0170/10	H102D0246
Fwd Sewage Pump Room	5-109-1-E	06-Jul-10	Acceptable									
DO or Ballast	6-113-0-F	14-Jul-10	Monitor	C & R striker plate under sounding tube at next docking period EMA 2010 - Entered tank following discovery of deformed deck and frame in Dry Provision Store Rooms on 3 & 4 deck above. Survey limited to examination of shell and Bhd Fr 121. Minor deformation in Bhd recorded for history, MANO-100077-WRM.	06-Oct-97	MANO-970163-VCT	6-113-0-F	DPs	6	Minor deformation to dkhd girders		HISTORY
					02-Jul-10	MANO-100025-HSG-M	6-113-0-F	DMs	3	Striker plate wasted		
					13-Jul-10	MANO-100077-WRM	6-113-0-F	DPs	6	Deformation - Bulkhead Fr 121		
Refrd Drain Tank (over)	5-120-1-W	28-Oct-07	Acceptable									
DO or Ballast	6-121-0-F	04-Sep-09	Acceptable									
Duct for Cross Flooding Ballast Tank	5-129-0-Q	02-Oct-09	Acceptable		02-Oct-09	MANO-090073-RAS	5-129-0-Q	DPs	3	Corrosion at port & stbd ends of cross flooding duct		H103D0043
Engine Room No.1	5-129-0-E	02-Oct-09	[redacted]	Deferral of bilge cleaning and removal of residue/waste presents high risk of pitting through to double bottom tanks (6-129-0-W & 6-140-0-W Potable Water). Hole through tank top into 6-140-0-W Nov 2010	02-Oct-09	MANO-090074-RAS	5-129-0-E	DPs	3	Coating breakdown & corrosion of inner bottom plating		H103D0044
Sea Chest Control Room	6-129-1-Q	07-Oct-09	Acceptable		07-Oct-09	MANO-090078-RAS	6-129-1-Q	DPs	4	Minor coating deterioration		H104D0090

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Sea Chest Control Room	6-129-2-Q	16-Jul-10	Acceptable	EMA 2010- Coating deterioration and corrosion, MANO-100102-WRM.	16-Jul-10	MANO-100102-WRM	6-129-2-Q	DPs	4	Coating Deterioration and Corrosion - Bottom Structure		
Sand Trap Sea Chest	6-129-3-W	26-Aug-09	Acceptable									
Sand Trap Sea Chest	6-129-4-W	26-Aug-09	Acceptable									
Duct for Cross Flooding IC Gyro & Gym	5-130-0-Q	28-Jul-10	Acceptable	Some salt buildup evident but coatings in good condition at July 2010.								
Ballast	6-133-1-W	16-Sep-09	[redacted]	Very high risk of growth during repair of MANO-090051-RAS (Sep 09). Low degree of confidence that MANO-070083-RAS was fully addressed; no TM200 or related work instruction available to support repair action.	27-Feb-01	MANO-010029-BLF	6-133-1-W	DPs	6	Distortion in web plates of shell longitudinals		MONITOR
					16-Sep-09	MANO-090051-RAS	6-133-1-W	DPs	3	Tank coatings deteriorated		H103D0017
Ballast	6-133-2-W	16-Sep-09		Very high risk of growth during repair of MANO-090052-RAS (Sep 09). Condition noted as deteriorated significantly from MANO-070187-RAS (Dec 07) with no repair action commenced.	06-Jan-97	MANO-970162-VCT	6-133-2-W	DPs	6	Minor bhd deformation		HISTORY
					27-Feb-01	MANO-010027-BLF	6-133-2-W	DPs	6	Distortion in web plates of shell longitudinals		MONITOR
					05-Dec-07	MANO-070187-RAS	6-133-2-W	DPs	3	Corrosion of tank top plating		H083D0062
					05-Dec-07	MANO-070188-RAS	6-133-2-W	Sys	3	ICCP system steel conduit wasted		H083D0062
					16-Sep-09	MANO-090052-RAS	6-133-2-W	DPs	3	Tank coatings deteriorated.		H103D0015
Contam Oil Set Tank	6-140-1-F	16-Sep-09	Acceptable									
LO Storage Tank	5-142-2-F	24-Jun-04	Acceptable	Unavailable at EMA Major 2009, RAS								
LO Storage Tank	5-143-2-F	25-Nov-10	Acceptable									
DO Service Tank	6-144-1-F	19-Sep-07	Acceptable									
LO Storage Tank	5-145-2-F	08-Jun-10	Acceptable									
LO Settling Tanks	5-146-2-F	21-May-10	Acceptable									
Gearbox LO Storage Tank	5-148-2-F	07-Jul-10	Acceptable									
DO Service Tank	6-148-1-F	03-Aug-10	Acceptable		25-Nov-97	MANO-970185-WRT	6-148-1-F	DPs	6	Deformation to transverse bhd plating		HISTORY
Engine Room No.2	5-152-0-E	09-Oct-09	Monitor	Deferral of bilge cleaning and removal of residue/waste presents high risk of pitting through to double bottom tanks (6-152-0-W Potable Water & 6-160-0-F DO/Ballast).								
Aux. Machinery Room No.2	5-152-2-E	30-Sep-09	Monitor	Deferral of bilge cleaning and removal of residue/waste presents high risk of pitting through to double bottom tank (6-152-2-W Ballast).	07-Dec-07	MANO-070196-RAS	5-152-2-E	Sys	5	Redundant penetration through WT deck		H083D0055
					30-Sep-09	MANO-090066-RAS	5-152-2-E	DPs	3	Pad weld wall of sea tube		H103D0032
					30-Sep-09	MANO-090067-RAS	5-152-2-E	DPs	4	Coating breakdown & corrosion of structure		H104D0087
Aux. Machinery Room No.1	5-152-3-E	12-Oct-09	[redacted]	Deferral of bilge cleaning and removal of residue/waste presents high risk of pitting through to double bottom tank (6-152-1-W Ballast).	28-Jul-00	MANO-000036-BLF	5-152-3-E	DPs	6	Pitting and wastage of top plate of Sand Trap Sea Chest		MONITOR
					28-Aug-09	MANO-090033-RAS	5-152-3-E	DPs	2	Heavy corrosion of tank top plating	0151/09	H092D0146
Sand Trap Sea Chest	6-152-3-W	26-Aug-09	Acceptable									
Sand Trap Sea Chest	6-152-4-W	26-Aug-09	Acceptable									
Engine Room No.3	5-169-0-E	21-Jul-10	[redacted]	Deferral of bilge cleaning and removal of residue/waste presents high risk of pitting through to double bottom tanks (6-169-0-W & 6-180-0-W Ballast). Corrosion of deck plating (over) to Vehicle Stowage Deck, bilge plate repairs into adjacent machinery spaces & tanks presents very high schedule risk	25-Sep-07	MANO-070108-RAS	5-169-0-E	DSs	3	Internal corrosion of overflow pipe		H083D0044
					07-Oct-09	MANO-090087-RAS	5-169-0-E	DPs	3	Small area of wastage in port long'l bulkhead		H103D0056
					07-Oct-09	MANO-090088-RAS	5-169-0-E	DPs	3	Coating breakdown & corrosion of inner bottom plating		H103D0057
					21-Jul-10	MANO-100092-WRM	5-169-0-E	Sys	2	Fracture - Engine Exhaust Pipes	0053/10	P102D0038
LO Storage Tank	5-169-1-F	21-May-10	Acceptable									
DO or Ballast	6-169-1-F	18-Sep-09	Acceptable		26-Nov-97	MANO-970190-WRT	6-169-1-F	DPs	6	Bhd plate deformation adjacent to shell plate		HISTORY
DO Service Tank	6-169-4-F	16-Oct-07	Acceptable									
DO or Ballast	6-169-6-F	09-Sep-09	Acceptable									
LO Storage Tank	5-170-1-F	11-Jun-10	Acceptable									
LO Storage Tank	5-173-1-F	25-Sep-07	Acceptable									
LO Settling Tanks	5-174-1-F	21-May-10	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
DO Service Tank	6-175-2-F	04-Sep-09	Acceptable	Ships staff to remove brass weight lodged in bottom of sounding tube, EMA Major 2009. RAS.								
LO Settling Tanks	5-178-1-F	25-Jun-10	Acceptable									
Sea Chest Control Room	6-188-2-Q	07-Oct-09	Acceptable		07-Oct-09	MANO-090077-RAS	6-188-2-Q	Sys	5	Light fitting not secured		
Sea Chest Control Room	6-188-3-Q	11-Sep-09	Acceptable									
Sand Trap Sea Chest	6-188-4-W	26-Aug-09	Acceptable									
Sand Trap Sea Chests	6-188-5-W	26-Aug-09	Acceptable									
Aux. Machinery Room No.3	5-192-0-E	11-Nov-10	[redacted]	EMA 2010 - Only temporary repairs completed. Limited access prevented viewing of all areas below deckplates and around machinery seatings. Continual deferral of bilge preservation work from initial report in 2001 has resulted in unacceptable level of risk from repeated instances of corrosion through tank top into oily waste tanks and wastage of deck plate supporting structure.	07-Oct-09	MANO-090089-RAS	5-192-0-E	DPs	3	Coating breakdown & corrosion of inner bottom plating		H103D0058
					16-Jun-10	MANO-100124-HSG-M	5-192-0-E	DMs	2	Deck plate supports excessively wasted	0171/10	H102D0247
					02-Jul-10	MANO-100024-HSG-M	5-192-0-E	DPs	2	Corrosion to tank top and bhd stiffeners, fwd bhd of AMR3	0171/10	H102D0247
					11-Nov-10	MANO-100130-HSG-M	5-192-0-E	DPs	2	Fractures in Long'l bhd in way of SSDG Exhaust penetration		
Ballast	6-192-1-W	04-Sep-09	Acceptable									
Ballast	6-192-2-W	16-Sep-09	Acceptable		16-Sep-09	MANO-090053-RAS	6-192-2-W	DPs	4	Tank coatings deteriorated		H104D0083
Sand Trap Sea Chests	6-192-3-W	26-Aug-09	Acceptable									
Sand Trap Sea Chest	6-192-4-W	26-Aug-09	Acceptable									
DO Service Tank	6-196-2-F	16-Oct-07	Acceptable	Survey required by end 2010								
DO Service Tank	6-198-2-F	04-Sep-09	Acceptable	Sounding Tube renewed at EMA Major 2009.								
Ballast Tank	6-209-0-W	21-May-10	[redacted]	Repairs to centre section complete EMA 01/2010. Repairs to wing sections required at next EMA.	05-Dec-07	MANO-070189-RAS	6-209-0-W	DPs	3	Coatings deteriorated throughout tank		H083D0063
					22-Sep-09	MANO-090059-RAS	6-209-0-W	DPs	3	Heavy wastage of flat keel / shell plate		
					20-May-10	MANO-100003-HSG-M	6-209-0-W	DPs	2	Corrosion of deckhead longitudinals and transverse frames, port and stbd wing sections	0065/10	H102D0155
					21-May-10	MANO-100004-HSG-M	6-209-0-W	DPs	3	Fractures in long'l bhds, port & stbd at transverse frame connections		
Ballast Tank	6-224-0-W	31-May-10		Continued monitoring of coating breakdown throughout tank required. Temp repairs completed EMA 01/2010; permanent repair required at next EMA.	15-Aug-97	MANO-970033-WAB	6-224-0-W	DPs	6	Minor deformation to shell plate		HISTORY
					25-May-10	MANO-100006-HSG-M	6-224-0-W	DPs	2	Holed stiffeners & framing within tank	0066/10	H102D0156
					31-May-10	MANO-100122-HSG-M	6-224-0-W	DPs	2	Corrosion of stiffeners, Fr 239 to Transom		
					31-May-10	MANO-100008-HSG-M	6-224-0-W	Sys	3	Wasted pipework fittings to P & S rudder stock housings	0066/10	H102D0156
Bow Thruster Room	4-27-0-Q	22-Aug-09	Acceptable		22-Aug-09	MANO-090027-RAS	4-27-0-Q	DPs	4	Deck coatings deteriorated		H103D0025
CPO/PO Baggage Room	4-51-1-A	08-Oct-09	Acceptable	EMA 2010 - Outstanding defect MANO-090118-RAS	08-Oct-09	MANO-090118-RAS	4-51-1-A	DPs	3	Coating breakdown & corrosion of deck		H103D0077
Access Trunk	4-51-2-T	18-Sep-09	Acceptable	EMA 2010 - Requires cleaning and preservation	18-Sep-09	MANO-090054-RAS	4-51-2-T	DPs	4	Coating breakdown and surface corrosion of deck		H104D0084
Turntable Recess Fwd	4-52-0-Reces	12-Jul-10	Monitor	EMA 2010 - Outstanding defects MANO-090012-RAS & MANO-090013-RAS,	11-May-09	MANO-090013-RAS	4-52-0-Rece	DSs	3	Coating breakdown & corrosion of bottom plating.		H103D0106
Turntable Mach'y Pit	4-53-0-E	21-Jul-10	Acceptable	EMA 2010 - Outstanding defect MANO-070130-RAS.	28-Oct-07	MANO-070130-RAS	4-53-0-E	DPs	3	Coating breakdown & corrosion of structure.		H073D0056
Crew Baggage Room	4-57-2-A	18-Sep-09	Monitor	Compartment used as Bulk Cleaning Gear Storeroom. EMA 01/2010 - Cleaning and preservation required to prevent further deterioration	18-Sep-09	MANO-090055-RAS	4-57-2-A	DPs	4	Coating breakdown and surface corrosion of deck		H104D0085
Bulk Cleaning Gear Store	4-58-1-A	16-Aug-10	Monitor	NBCD Store. EMA 01/2010 - Cleaning and preservation required to prevent further deterioration	28-Oct-07	MANO-070136-RAS	4-58-1-A	DSs	3	Widespread coating breakdown & corrosion		H083D0039
					12-Oct-09	MANO-090138-RAS	4-58-1-A	DPs	4	Coating breakdown & corrosion of deck		H104D0127
					16-Aug-10	MANO-100125-HSG-M	4-58-1-A	DPs	3	Deck plate coating breakdown and corrosion throughout		
Embarked Forces Mess	4-73-0-L	21-Aug-09	Acceptable									
Embarked Forces Mess	4-73-1-L	21-Aug-09	Acceptable									
Embarked Forces Recreation Area	4-73-2-L	21-Aug-09	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Fan Room	4-85-1-Q	15-Jul-10	Acceptable		15-Jul-10	MANO-100089-WRM	4-85-1-Q	DSs	4	Coating Failure & Corrosion - Deck		
Embarked Forces Mess	4-89-0-L	21-Aug-09	Acceptable									
Embarked Forces Mess	4-89-1-L	07-Oct-09	Acceptable		07-Oct-09	MANO-090083-RAS	4-89-1-L	DSs	4	Corrosion of deck (tank top).		H104D0093
					07-Oct-09	MANO-090082-RAS	4-89-1-L	DSs	4	Corrosion of deck (tank top).		H104D0092
Embarked Forces Mess	4-89-2-L	07-Oct-09	Acceptable		07-Oct-09	MANO-090081-RAS	4-89-2-L	DSs	3	Corrosion of deck (tank top).		H103D0045
Fan Room	4-89-3-Q	07-Oct-09	Acceptable		07-Oct-09	MANO-090092-RAS	4-89-3-Q	DSs	4	Coating breakdown & corrosion of deck		H104D0096
Ammo Handling Room	4-104-2-M	30-Jun-10	Acceptable		30-Jun-10	MANO-100017-HSG-M	4-104-2-M	DSs	3	Corrosion along bottom of bhd		H103D0249
Deep Ammo Mag	4-105-0-M	29-Jun-10	Acceptable									
Main Freezer	4-113-0-A	08-Jul-10	Acceptable									
Fwd CHT Chlorinator Room	4-113-1-A	21-Aug-09	Acceptable									
Refrig Machry Room	4-113-2-E	21-Aug-09	Monitor	MANO-090022-RAS recorded as still outstanding; recommendation was for repair Aug 09	21-Aug-09	MANO-090022-RAS	4-113-2-E	Sys	3	Hole in sewage line		H093D0191
Cleaning Gear Lkr	4-113-3-Q	21-Jul-10	Acceptable									
Package Conveyor Trunk	4-113-5-T	08-Oct-09	Acceptable									
Dry Provisions	4-113-7-A	14-Jul-10	Acceptable									
Passage	4-115-0-L	08-Jul-10	Acceptable	EMA 2010 - Survey limited to refrigerated compartment boundaries. Removal of linings is recommended for further survey. MANO-100058-WRM.	08-Jul-10	MANO-100058-WRM	4-115-0-L	DSs	3	Preservation Failure & Corrosion - Behind Bhd Linings		H103D0262
Canteen Bulk Store	4-120-2-A	21-Aug-09	Acceptable									
Fresh Fridge No 2	4-124-0-A	08-Jul-10	Acceptable									
Dairy Fridge No 1	4-124-1-A	08-Jul-10	Acceptable									
WT Access Trunk	4-111-2-T	29-Jun-10	Acceptable									
Number 1 MCR	4-129-0-E	21-Aug-09	Acceptable									
I/C Gyro	4-129-1-C	21-Aug-09	Acceptable									
Escape Trunk	4-129-2-T	21-Aug-09	Acceptable									
Gymnasium	4-129-4-L	15-Jul-10	Acceptable	EMA 2010 - Deformed side shell Fr 133 & 148 recorded for history, MANO-100086-WRM.	15-Jul-10	MANO-100086-WRM	4-129-4-L	DPs	6	Deformation - Web Frame 133 and Fr 148.		
					15-Jul-10	MANO-100085-WRM	4-129-4-L	DSs	4	Paint Failure & Corrosion - Deck		
Access Trunk	4-135-1-T	21-Aug-09	Acceptable									
Air Conditioning Room	4-140-1-E	15-Jul-10	Monitor	EMA 2010 - Compartment generally untidy and not clean. Vent duct repair and equipment maintenance in progress at the time of survey.	15-Jul-10	MANO-100096-WRM	4-140-1-E	DPs	4	Paint Failure & Corrosion - Deck		
Uptake Space	4-144-2-Q	28-Oct-07	Acceptable									
Access Trunk	5-152-1-T	09-Sep-09	Acceptable									
Watchkeepers Booth	5-166-0-Q	25-Sep-09	Acceptable									
Escape Trunk	5-167-2-T	21-Sep-09	Acceptable									
Uptake Space	4-169-1-Q	06-Jul-10	Acceptable		06-Jul-10	MANO-100040-WRM	4-169-1-Q	DSs	4	Paint Failure and Corrosion - Bulkhead and Deck Structure		
A Store	4-169-2-A	26-Nov-10		Deck plate deformation iwo Watermist installation noted by DNV as non-compliant	26-Nov-10	MANO-100136-HSG-M	4-169-2-A	DPs	2	Bhd stiffeners tripped across WTB 169		
D Store	4-169-3-A	28-Aug-09	Acceptable									
PM Office/SWBD Control	4-176-1-Q	28-Aug-09	Acceptable									
Number 2 MCR	4-183-1-E	28-Aug-09	Acceptable									
Access Trk	4-187-1-T	28-Aug-09	Acceptable									
Escape Trunk	4-190-2-T	21-Sep-09	Acceptable									
Access Trunk	4-192-1-T	08-Oct-09	Acceptable		08-Oct-09	MANO-090113-RAS	4-192-1-T	DPs	3	Cracks in bulkhead		H103D0074
Escape Trunk	4-192-2-T	28-Aug-09	Acceptable									
C Store	4-192-3-A	16-Jul-10	Acceptable									
Engineers Workshop	4-192-4-Q	07-Oct-09	Acceptable		07-Oct-09	MANO-090085-RAS	4-192-4-Q	Sys	3	AE vent pipe corroded		H103D0055
					07-Oct-09	MANO-090086-RAS	4-192-4-Q	DSs	5	Deck coatings deteriorated		
Watchkeepers Booth	5-196-2-E	28-Aug-09	Acceptable									
Passage	4-195-1-L	04-Sep-09	Acceptable									
Aft Sewage Pump Room	5-209-2-E	06-Jul-10	Acceptable	(full of debris and water). Outstanding defect MANO-070129-RAS closed out.	28-Oct-07	MANO-070129-RAS	5-209-2-E	DPs	3	Coatings deteriorated & corrosion of deck.		H083D0036
					06-Jul-10	MANO-100041-WRM	5-209-2-E	DPs	4	Paint Failure & Corrosion - Deck Area		
Aft Sewerage Tank	5-210-0-W	14-May-10	Acceptable		09-Oct-09	MANO-090126-RAS	5-210-0-W	DSs	4	Coating breakdown & corrosion of tank structure		H104D0118

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TMS200 No
					09-Oct-09	MANO-090125-RAS	5-210-0-W	Sys	4	Anode wasted away		SS
					09-Oct-09	MANO-090124-RAS	5-210-0-W	Sys	4	Pipe brackets corroded		H104D0117
					14-May-10	MANO-100009-HSG-M	5-210-0-W	DSs	3	Corroded fixtures/fittings within tank		
Access Trunk	5-211-4-T	16-Oct-07	Acceptable									
Void	3-D-0-V	16-Sep-09	Acceptable									
PTI Store	3-FP-0-K	25-Nov-10	[redacted]		25-Nov-10	MANO-100137-HSG-M	3-FP-0-K	DPs	2	Main transverse frame under 2 deck tripped at connection to stbd frame		
Flammable Liquids Storeroom	3-12-0-K	12-Oct-09	Acceptable		08-Oct-09	MANO-090107-RAS	3-12-0-K	DPs	3	Hull long'l stringer wasted		H103D0071
					12-Oct-09	MANO-090137-RAS	3-12-0-K	DPs	4	Hole in deck plate		H104D0126
Paint-Weather Deck-Waterline-External	3-PaintAWL	26-Sep-09	Acceptable									
Chain Locker	3-8-0-A	16-Sep-09	Acceptable		16-Sep-09	MANO-090049-RAS	3-8-0-A	DSs	3	WT Manhole attachment flange corroded		H103D0027
					16-Sep-09	MANO-090048-RAS	3-8-0-A	DPs	3	Coating breakdown & corrosion in chain locker		H103D0026
Army Q Store & Oxygen Bottle Store	3-23-0-A	18-Sep-09	Acceptable									
Ship Armoury	3-28-0-Q	28-Aug-09	Acceptable									
Passage	3-31-0-L	28-Aug-09	Acceptable									
Vehicle Stowage/Access Well	3-27-0-A	26-Nov-10	[redacted]	EMA 2010 - Survey limited to corrosion holed deck drain well Fr 130 Stbd (MCR 1 below). Ships staff temporary repair carried out and validated. Permanent repair MANO-100048-WRM. EMA 01/2010 - HSG-M. Overall repair strategy required in vicintiy of fwd turntable due to extent of wastage of deck plate and structure surrounding fwd hatch impacting on several surrounding compartments. Plating renewal required in several locations over large areas.	12-Oct-09	MANO-090133-RAS	3-27-0-A	DMs	4	Pipe fender corroded		SS
					12-Oct-09	MANO-090134-RAS	3-27-0-A	DPs	3	Non skid deck coatings deteriorated for most part		H103D0081
					25-Jun-10	MANO-100002-RAS	3-27-0-A	DPs	2	Heavy corrosion of stiffeners on bulkhead & deckhead	0073/10	H102D0163
					08-Jul-10	MANO-100048-WRM	3-27-0-A	DSs	2	PERMANENT REPAIR - Corrosion Holed Tank Deck Drain, Increased scope 11 Nov. 10	0169/10	H102D0245
					29-Jul-10	MANO-100121-HSG-M	3-27-0-A	DPs	2	Deep corrosion of Vehicle Deck Plating	0201/10	H102D0298
					27-Oct-10	MANO-100129-HSG-M	3-27-0-A	Sys	2	Impact damage to JP-5 transfer line	0194/10	H102D0292
					23-Nov-10	MANO-100133-HSG-M	3-27-0-A	DPs	2	Deck plate corrosion over #3 Engine Room	0201/10	H102D0298
					23-Nov-10	MANO-100131-HSG-M	3-27-0-A	DPs	2	Fracture in Long'l bhd & bhd Stiffener	0204/10	H102D0299
					26-Nov-10	MANO-100135-HSG-M	3-27-0-A	DPs	2	Deck plate corrosion over 224 Ballast Tank at Stern Door	0201/10	H102D0298
Embarked Forces Ammunition Mag No 1	3-37-1-M	04-Sep-09	Acceptable									
Passage	3-37-2-L	28-Aug-09	Acceptable									
Webbing Store	3-41-2-A	07-Oct-09	Acceptable		07-Oct-09	MANO-090075-RAS	3-41-2-A	DSs	4	Deck coatings deteriorated		H104D0088
Vestibule to JP5/Ballast Pp Room	3-51-2-L	07-Jul-10	Monitor	Poor state of coating with widespread surface corrosion.	07-Jul-10	MANO-100055-WRM	3-51-2-L	DSs	4	Paint Deterioration & Corrosion - Deck Plate		
Turntable Fwd	3-53-Turntabl	12-Jul-10	Acceptable		12-Jul-10	MANO-100066-WRM	3-53-Turntal	DSs	4	Paint Failure & Corrosion - General Structure		
Vestibule	3-54-1-L	08-Oct-09	Monitor	Deck plate renewal required in conjunction with repair strategy around fwd turntable (MANO-100121-HSG-M, 3-27-0-A). Temp doubler plate welded on aft side of aft bhd due to holed deck. Deck plate corrosion and cable glands wasted through.	08-Oct-09	MANO-090116-RAS	3-54-1-L	DSs	3	Coating breakdown & corrosion of deck		H103D0076
					08-Oct-09	MANO-090117-RAS	3-54-1-L	Sys	4	Lighting system defect		H104D0110
Vestibule	3-65-2-L	18-Sep-09	Acceptable									
Vestibule	3-67-1-L	08-Oct-09	Acceptable		08-Oct-09	MANO-090119-RAS	3-67-1-L	DSs	3	Coating breakdown & corrosion of deck		H103D0078
Cleaning Gear Ready Use Store	3-70-1-A	23-Nov-10	[redacted]		12-Oct-09	MANO-090139-RAS	3-70-1-A	DSs	4	Coating breakdown & corrosion of deck		H104D0128
					23-Nov-10	MANO-100132-HSG-M	3-70-1-A	DPs	2	Corroded & holed WT bhd; deep corrosion to deck plate		
Deck Gear Locker	3-71-2-A	07-Oct-09	Acceptable		07-Oct-09	MANO-090079-RAS	3-71-2-A	DSs	4	Deck coatings deteriorated		H104D0091
JCSS Computer Room Number 1	3-73-1-Q	23-Nov-10	Monitor	MANO-100134-HSG-M in Fwd Repair; WT gland packing through deck into JCSS Computer Rm damaged.	29-Sep-97	MANO-970161-VCT	3-73-1-Q	DPs	6	Minor deformation to deck plate		HISTORY
Embarked Forces WR/WC (Unisex)	3-73-2-L	12-Oct-09	Acceptable		12-Oct-09	MANO-090132-RAS	3-73-2-L	DPs	4	Corrosion of shell plate adjacent to deck		H104D0123
Access Trunk	3-77-1-T	21-Aug-09	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Electronics Storeroom	3-77-3-A	15-Jul-10	Acceptable	EMA 2010 - Survey mostly restricted due to stores.								
IC Workshop	3-82-1-Q	15-Jul-10	Acceptable	EMA 2010 - Survey mostly restricted due to stores.								
Access Trunk	3-83-1-T	21-Aug-09	Acceptable	MANO-090024-RAS for hole through bhd & repair recommended Aug 09.	21-Aug-09	MANO-090024-RAS	3-83-1-T	DSs	3	Corrosion hole in vehicle deck bulkhead		H094D0192
WT Access Trk	3-83-2-T	07-Oct-09	Acceptable		07-Oct-09	MANO-090093-RAS	3-83-2-T	DSs	4	Deck plate corroded		H104D0097
Access Trunk	3-83-4-T	21-Aug-09	Acceptable									
CG Lkr	3-86-2-Q	22-Aug-09	[redacted]		22-Aug-09	MANO-090028-RAS	3-86-2-Q	DPs	2	Corrosion holes in deck & bulkhead plating		H093D0193
Access Trunk	3-89-1-T	18-Sep-09	Acceptable									
Passage	3-89-2-L	22-Aug-09	Acceptable		22-Aug-09	MANO-090029-RAS	3-89-2-L	Sys	3	Inbuilt vent duct corroded and holed		H093D0195
Small Arms Mag	3-89-3-M	25-Sep-09	Acceptable									
JCSS Computer Room Number 2	3-92-1-Q	22-Oct-07	Acceptable									
Embarked Forces WR/WC (Single Sex)	3-96-2-L	15-Jul-10	Acceptable		18-Sep-09	MANO-090057-RAS	3-96-2-L	DSs	3	O/B discharge wasted		H103D0019
					15-Jul-10	MANO-100088-WRM	3-96-2-L	DSs	4	Coating Deterioration - Deck		H104D0272
Naval Stores Issue Centre	3-95-1-A	09-Oct-09	Acceptable		09-Oct-09	MANO-090123-RAS	3-95-1-A	Sys	4	Vent duct corroded		H104D0115
Embarked Forces WC Single Sex	3-105-2-L	18-Sep-09	Acceptable									
WT Escape Trunk	3-112-1-T	15-Aug-07	Acceptable									
Operations Storeroom	3-113-1-A	16-Jul-10	Acceptable		16-Jul-10	MANO-100098-WRM	3-113-1-A	DSs	4	Paint Detachment - Deck		
Passage	3-113-2-L	20-Aug-09	Acceptable									
SE/DC Workshop	3-113-4-Q	15-Jul-10	Acceptable		15-Jul-10	MANO-100087-WRM	3-113-4-Q	DSs	4	Coating Deterioration and Corrosion - Deck		
Access Trk	3-115-1-T	20-Aug-09	Acceptable									
Dry Provisions Storeroom No.1	3-113-3-A	14-Jul-10	Acceptable									
Library/Pathology Unit	3-121-2-L	15-Jul-10	Acceptable									
W.T. Access Trk	3-129-1-T	06-Jan-06	Acceptable		23-Jan-01	MANO-010001-BLF	3-129-1-T	DPs	6	Forward side of cable gland not welded underside of 2 Deck		MONITOR
Access Trk	3-129-2-T	20-Aug-09	Acceptable									
Embarked Forces Mess	3-129-3-L	20-Aug-09	Acceptable									
Laundry	3-129-4-Q	09-Jul-10	Monitor	EMA 2010 - WRM survey limited to tumble dryer and washing machine deck foundations, for predicted repair action at equipment renewal stage.	09-Jul-10	MANO-100117-WRM	3-129-4-Q	DSs	4	Paint Failure & Corrosion - Deck & Foundations		H104D0274
Access Trk	3-134-2-T	20-Aug-09	Acceptable									
Access Trunk	3-148-1-L	24-Nov-07	Acceptable									
Embarked Forces Mess	3-148-3-L	29-Aug-07	Acceptable									
Escape Trk	3-150-2-T	24-Nov-07	Acceptable									
Crew Living Space (33)	3-152-1-L	29-Aug-07	Acceptable									
Uptake Space	3-152-2-Q	30-Sep-09	Acceptable									
Crew's Mess (Female)	3-152-4-L	07-Oct-09	Acceptable		07-Oct-09	MANO-090099-RAS	3-152-4-L	Sys	3	Firemain leak		H103D0065
Crew Living Space	3-169-1-L	24-Nov-07	Acceptable		24-Nov-07	MANO-070155-RAS	3-169-1-L	Sys	3	Corrosion of vent duct		H083D0072
Embarked Forces Mess	3-169-2-L	22-Aug-09	Acceptable		22-Aug-09	MANO-090030-RAS	3-169-2-L	Sys	3	Inbuilt vent duct corroded and holed		H093D0196
Access Trunk	3-185-2-T	21-Aug-09	Acceptable									
Crew/Embarked Forces Mess	3-192-1-L	21-Aug-09	Acceptable		21-Aug-09	MANO-090021-RAS	3-192-1-L	DSs	3	O/B discharge holed		H103D0020
Embarked Forces Ammunition Magazine	3-192-2-M	18-Sep-09	Acceptable									
Embarked Forces Pyro Mag No 2	3-200-2-M	25-Sep-09	Acceptable									
Piping Trk	3-200-4-T	28-Apr-04	Acceptable	Surveyed Nov 2010 in conjunction with SSDG exhaust relagging								
Access Trk	3-205-2-T	21-Oct-10	[redacted]		30-Sep-09	MANO-090068-RAS	3-205-2-T	DSs	3	Proreco deck coating deteriorated	0173/10	H104D0033
					21-Oct-10	MANO-100128-HSG-M	3-205-2-T	DPs	2	Deck plate corroded & holed - growth on MANO-090068-RAS	0173/10	H102D0275
Access Trk	3-205-1-T	04-Sep-09	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Gauge Cal Workshop	3-209-1-L	16-Jul-10	Acceptable	EMA 2010 - Compartment cluttered with gear restricting survey of deck areas. Vent pipe from W.C. above corrosion holed, MANO-100101-WRM.	16-Jul-10	MANO-100100-WRM	3-209-1-L	DSs	4	Coating Damage/Deterioration - Deck		H104D0273
					16-Jul-10	MANO-100101-WRM	3-209-1-L	Sys	3	Corrosion - W.C. Vent Pipe		H134D0254
Shipwright/Fabrication Workshop	3-209-2-Q	30-Sep-09	Acceptable									
Fuel Test Lab	3-212-1-Q	29-Aug-07	Acceptable									
DC Store (KAN) Oil Test Lab (MAN)	3-219-1-Q	04-Sep-09	Acceptable	Bulkhead at fr. 219 removed on MANOORA, part of 3-209-1-L Cal. Workshop.								
Mooring Deck Void Stbd	3-226-1-V	12-Oct-09	Acceptable		12-Oct-09	MANO-090128-RAS	3-226-1-V	DPs	4	Coating breakdown & corrosion of structure		H104D0120
Mooring Deck Void Port	3-226-2-V	12-Oct-09	Acceptable		12-Oct-09	MANO-090129-RAS	3-226-2-V	DPs	4	Coating breakdown and corrosion of structure		H104D0121
Diving Store	3-230-2-A	14-Jul-10	Acceptable	EMA 2010 - Coating deterioration and corrosion in deck throughout, MANO-100080-WRM.	14-Jul-10	MANO-100080-WRM	3-230-2-A	DSs	4	Paint Failure & Corrosion - Deck		
Steering Gear Room No.1	3-236-1-E	30-Jun-10	Acceptable		30-Jun-10	MANO-100019-HSG-M	3-236-1-E	DPs	3	Deck plate corrosion iwo Bilge Pump		
Steering Gear Room No.2	3-236-2-E	30-Jun-10	Acceptable		15-Aug-97	MANO-970036-WAB	3-236-2-E	DPs	6	Minor deformation to shell plate		HISTORY
					30-Jun-10	MANO-100018-HSG-M	3-236-2-E	DPs	3	Deck plate corrosion iwo Bilge Pump		
					30-Jun-10	MANO-100020-HSG-M	3-236-2-E	DPs	3	Redundant cable glands through WTB not watertight		
Deck Gear Locker	3-248-1-Q	15-Jul-10	Acceptable	EMA 2010 - Local deformation area in transom recorded for history.	15-Jul-10	MANO-100091-WRM	3-248-1-Q	DPs	6	Deformation - Transom Plate		
					15-Jul-10	MANO-100090-WRM	3-248-1-Q	DPs	4	Coating Deterioration and Corrosion - Bottom Shell & Transom		
Void - Steering Gear Room No.1	3-249-1-V	30-Jun-10	Acceptable		30-Jun-10	MANO-100021-HSG-M	3-249-1-V	DPs	4	Coatings burn from welding work external to void		
Void - Steering Gear Room No.2	3-249-2-V	30-Jun-10	Acceptable		30-Jun-10	MANO-100022-HSG-M	3-249-2-V	DPs	4	Coatings burn from welding work external to void		
Stern Door Assembly	3-250-SternD	16-Sep-09	Monitor	Stern door did not pass hose test of WT integrity, 02 Sep 10								
Void	2-H-1-V	06-Jul-10	Monitor	Space is also impacted by water ingress and corrosion due to holed locker above.								
Void	2-H-2-V	06-Jul-10	Monitor	Space is also impacted by water ingress and corrosion due to holed locker above.								
Void	2-F-0-V	21-Jul-10	Acceptable		21-Jul-10	MANO-100111-WRM	2-F-0-V	DSs	4	Coating Deterioration - Shell Plate and Frames		
Capstan Machinery Room	2-D-0-E	08-Oct-09	Monitor		04-Dec-07	MANO-070178-RAS	2-D-0-E	Sys	3	Corrosion of Forepeak Tank overflow pipe.		H083D0141
					08-Oct-09	MANO-090108-RAS	2-D-0-E	DPs	3	WT Bhd wasted thin		H103D0072
Bosun's Flat	2-23-0-E	08-Oct-09	Acceptable									
Bosun's Store Room	2-41-1-Q	08-Oct-09	Acceptable		08-Oct-09	MANO-090110-RAS	2-41-1-Q	DSs	3	Deck corroded under stowages		H103D0073
Conflagration Station	2-54-2-Q	12-Jul-10	[redacted]	EMA 2010 - Space impacted by corrosion in deck due to leaking escape hatch,	12-Jul-10	MANO-100062-WRM	2-54-2-Q	DPs	2	Corrosion Hole & Wastage - Deck Plate		H103D0265
					12-Jul-10	MANO-100115-WRM	2-54-2-Q	DSs	3	Water Ingress & Seized Mechanism -Escape Hatch	NK	H102D0259
					12-Jul-10	MANO-100061-WRM	2-54-2-Q	DSs	3	Paint Deterioration & Corrosion - Deck		H103D0264
Turntable Mezzanine Deck Stbd	2-55-1-Dk	08-Oct-09	Acceptable		08-Oct-09	MANO-090111-RAS	2-55-1-Dk	DSs	4	Coating breakdown & corrosion of deck		H104D0108
Turntable Mezzanine Deck Port	2-58-2-Dk	15-Jun-10	Acceptable	Corrosion hole through deck plate	08-Oct-09	MANO-090112-RAS	2-58-2-Dk	DSs	3	Coating breakdown & corrosion of deck		H104D0109
Fan Room	2-65-2-Q	30-Sep-09	Acceptable	Crane Base Void.								
Fan Room	2-67-1-Q	14-Jul-10	Monitor	EMA 2010 - Space was found in very poor state of cleanliness, equipment covers removed/open and affected by coating deterioration and corrosion in deck throughout, MANO-100082-WRM.	14-Jul-10	MANO-100082-WRM	2-67-1-Q	DSs	3	Paint Failure & Corrosion - General Structure		H103D0252
Vestibule	2-71-2-L	23-Jul-10	Monitor	EMA 2010 - Corroded deck throughout, MANO-100113-WRM. Leaking deck penetration 1-72-2 Vent.	23-Jul-10	MANO-100113-WRM	2-71-2-L	DSs	3	Corrosion - Deck Plate	NK	H102D0256
Forward Repair	2-73-1-Q	23-Nov-10	[redacted]		07-Oct-09	MANO-090076-RAS	2-73-1-Q	DSs	4	Deck coatings deteriorated		H104D0089

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
					23-Nov-10	MANO-100134-HSG-M	2-73-1-Q	DPs	2	Deck plate corrosion and damaged WT glands		
Troop WR. WC & Shr	2-73-2-L	08-Oct-09	Acceptable		08-Oct-09	MANO-090120-RAS	2-73-2-L	DPs	4	Corrosion of shell plate adjacent to deck		H104D0112
Passage	2-78-1-L	20-Aug-09	Acceptable									
Passage	2-81-2-L	06-Mar-07	Acceptable									
Scullery	2-83-1-Q	20-Aug-09	Acceptable									
2 Deck Cafeteria	2-89-1-Q	14-Aug-07	Acceptable									
Passage	2-89-2-L	06-Mar-07	Acceptable									
Crew WR, WC, & Shr	2-95-2-L	08-Oct-09	Acceptable		08-Oct-09	MANO-090121-RAS	2-95-2-L	Sys	3	AE pipe for sewage system		H104D0113
Crew Mess	2-97-2-L	24-Nov-07	Acceptable									
DW Trunk	2-112-1-T	07-Aug-07	Acceptable									
Passage	2-113-1-L	14-Aug-07	Acceptable									
Passage	2-113-2-L	07-Oct-09	Acceptable		07-Oct-09	MANO-090098-RAS	2-113-2-L	DPs	3	Deck plate holed iwo drain scupper		H103D0062
Naval Stores Office	2-113-3-A	07-Sep-07	Acceptable									
Fan Room	2-113-4-Q	12-Jul-10	Acceptable									
LDU 12 Or Troop Mess	2-116-2-L	15-Aug-07	Acceptable									
Comms Store (KAN) or Foul Weather Lkr (MAN)	2-120-2-A	19-Jul-10	Acceptable		19-Jul-10	MANO-100106-WRM	2-120-2-A	DSs	4	Coating Deterioration & Corrosion - Deck		
Storeroom, V & A (KAN), Canteen (MAN)	2-121-1-A	07-Sep-07	Acceptable	Canteen Store								
Ships Canteen	2-122-1-Q	07-Sep-07	Acceptable									
Printing/Bond Storeroom	2-123-1-A	14-Aug-07	Acceptable									
CG Lkr	2-124-2-Q	12-Jul-10	Acceptable	EMA 2010-Tidiness and cleanliness of this space is sub standard.								
Engineering Admin Store	2-126-2-A	15-Aug-07	Acceptable									
Cleaning Gear Lkr	2-128-1-Q	15-Jul-10	Acceptable	EMA 2010 - Water throughout deck area due to leaking Mop trough drain, MANO-100097-WRM.	15-Jul-10	MANO-100097-WRM	2-128-1-Q	Sys	4	Water Leak - Mop Sink Drain Pipe		
Passage	2-129-1-L	16-Jul-10	Acceptable	EMA 2010 - Survey limited to corroded vent trunk above fan with fan removed at the request of ship's crew.	24-Nov-07	MANO-070146-RAS	2-129-1-L	DSs	3	Corrosion of structure and deck penetrations		H083D0070
					16-Jul-10	MANO-100054-WRM	2-129-1-L	DMs	2	Corrosion & Loose Scale Build Up - 1 Engine Rm Ventilation Fan Trunk	0104/10	H102D0186
Passage	2-129-2-L	16-Jul-10	Acceptable	EMA 2010 - Survey limited to corroded vent trunk above fan with fan removed at the request of ship's crew.	16-Jul-10	MANO-100053-WRM	2-129-2-L	DMs	2	Corrosion & Loose Scale Build Up - 1 Engine Rm Ventilation Fan Trunk	0104/10	H102D0186
Crew Accomm. (24)	2-129-3-L	14-Aug-07	Acceptable		06-Aug-97	MANO-970003-WAB	2-129-3-L	DPs	6	WT Bhd deformation		HISTORY
Crew & Troop Heads/Washplace	2-129-4-L	08-Oct-09	Acceptable		08-Oct-09	MANO-090122-RAS	2-129-4-L	Sys	3	AE pipe for sewage system		H104D0114
Patient Lift	2-133-2-T	07-Jan-06	Acceptable									
LDU/Embarked Forces Mess	2-133-4-L											
Fan Room	2-147-1-Q	14-Jul-10	Acceptable	EMA 2010 - Outstanding defect MANO-070090-RAS reported as deep wastage of vent plenum Sep 07.	07-Sep-07	MANO-070090-RAS	2-147-1-Q	DMs	3	Inbuilt fan plenum corroded		H083D0132
					14-Jul-10	MANO-100081-WRM	2-147-1-Q	DSs	4	Paint Failure & Corrosion - Deck		
Fan Room	2-150-2-Q	12-Jul-10	Monitor		07-Sep-07	MANO-070093-RAS	2-150-2-Q	DSs	3	Bulkheads wasted through in places		H083D0042
Passage	2-152-1-L	14-Aug-07	Acceptable									
Passage	2-152-2-L	15-Aug-07	Acceptable									
Crew WC & Shwr	2-152-3-L	09-Sep-09	Acceptable									
Troop Mess LDU	2-152-4-L	03-Dec-07	Acceptable									
Crew WR & Shr	2-159-1-L	07-Oct-09	Acceptable		07-Oct-09	MANO-090090-RAS	2-159-1-L	DSs	3	WT Escape Scuttle corroded		H103D0059
					07-Oct-09	MANO-090091-RAS	2-159-1-L	DSs	4	Deckhead coatings deteriorated		H104D0095
CG Lkr	2-160-1-Q	21-Jul-10	Monitor	EMA 2010 - Outstanding defect MANO-070150-RAS.	24-Nov-07	MANO-070150-RAS	2-160-1-Q	DMs	3	Bulkhead coamings wasted away		H083D0071
Technical Library	2-163-1-A	07-Sep-07	Acceptable		07-Sep-07	MANO-070088-RAS	2-163-1-A	DSs	4	Surface corrosion of deck plating		H074P0017
Passage	2-169-1-L	14-Aug-07	Acceptable									
Passage	2-169-2-L	03-Dec-07	Acceptable									
Fan Room	2-169-4-Q	12-Jul-10	Acceptable		12-Jul-10	MANO-100063-WRM	2-169-4-Q	DSs	4	Paint Deterioration & Corrosion - Deck		
Fan Room	2-171-1-Q	15-Jul-10	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Medical Store	2-172-2-A	19-Jul-10	Acceptable		19-Jul-10	MANO-100108-WRM	2-172-2-A	Sys	4	Missing Lagging - Deckhead		
					19-Jul-10	MANO-100107-WRM	2-172-2-A	DSs	4	Coating Deterioration and Corrosion - Deck		
Passage	2-176-1-L	14-Aug-07	Acceptable									
Aft Repair Annex	2-176-2-Q	12-Jul-10	Monitor	EMA 2010 - Plate thickness reduction in deck. Preservation repair required, MANO-100064-WRM.	12-Jul-10	MANO-100064-WRM	2-176-2-Q	DSs	3	Paint Deterioration & Corrosion - Deck		H103D0266
Passage	2-176-4-L	06-Mar-07	Acceptable									
Aft Repair	2-176-6-Q	29-Aug-07	Acceptable									
Crews Mess	2-176-3-L	14-Aug-07	Acceptable									
Cleaning Gear Locker	2-178-1-Q	19-Jul-10	Acceptable									
Crew WR, WC &Shr	2-180-2-L	13-Jul-10	Monitor	EMA 2010- Corrosion holed WC vent pipes. Defect also potential impact on OHS.	12-Jul-10	MANO-100065-WRM	2-180-2-L	DSs	4	Corrosion - Fwd Bhd Fr 180		
Troop WR, WC & Shr	2-187-2-L	13-Jul-10	Monitor	EMA 2010 - Corrosion in fwd bulkhead behind shower lining. Area not accessible and open to water ingress. MANO-100067-WRM.	12-Jul-10	MANO-100068-WRM	2-187-2-L	Sys	4	Closing Problem - Compartment Door		
					12-Jul-10	MANO-100067-WRM	2-187-2-L	DSs	4	Paint Deterioration - General Structure		
Passage	2-192-1-L	14-Aug-07	Acceptable									
Passage	2-192-2-L	24-Nov-07	Acceptable									
Fan Room	2-192-3-Q	14-Jul-10	Acceptable		07-Aug-97	MANO-970009-WAB	2-192-3-Q	DPs	6	Minor deformation in deck plate		HISTORY
Troop/ Crew Mess + Aft Battle Dressing Station	2-195-1-L	14-Jul-10	Acceptable									
Electrical Shop	2-196-2-Q	19-Jun-10	Acceptable									
SSDG Exhaust Plenum	2-200-2-Q	03-Sep-10	Monitor	EMA 2010 - Exhaust Leak with OHS ramifications, MANO-100116-WRM. Under repair Nov 2010	19-Jul-10	MANO-100116-WRM	2-200-2-Q	Sys	2	Diesel Engine Exhaust System Leak	0053/10	P102D0038
					03-Sep-10	MANO-100123-HSG-M	2-200-2-Q	Sys	3	SSDG Exhaust Cowling fracture - external to ship	0053/10	P102D0038
Battery Shop	2-206-2-Q	13-Jul-10	Acceptable									
Cleaning Gear Locker	2-209-1-Q	19-Jul-10	Monitor	EMA 2010 - Corrosion holed bulkhead coaming, MANO-100109-WRM.	19-Jul-10	MANO-100110-WRM	2-209-1-Q	DSs	4	Protective Coating Failure & Corrosion - Deck and Bulkhead		
					19-Jul-10	MANO-100109-WRM	2-209-1-Q	DMs	4	Corrosion - Deck Coaming		
Fitting Workshop	2-209-2-Q	13-Jul-10	Acceptable	EMA 2010 - Survey in way of storage racks and cabinets restricted.	13-Jul-10	MANO-100119-WRM	2-209-2-Q	DSs	4	Paint Failure & Corrosion - Deck Plate		
Crew & Troop WR, WC & Shr	2-211-1-L	14-Jul-10	Monitor	EMA 2010 - Corrosion holed sewer vent pipe to W.C.s with potential OHS ramifications. Corrosion around deck boundaries throughout and corrosion wastage in side shell longitudinal behind washing machines. MANO-100052, 78 & 79-WRM.	14-Jul-10	MANO-100078-WRM	2-211-1-L	DPs	3	Corrosion - Side Shell Longitudinal Stringer		
					14-Jul-10	MANO-100079-WRM	2-211-1-L	DSs	3	Paint Failure & Corrosion - General Structure		H103D0251
Aft Helo Refuelling Station	2-215-2-Q	13-Jul-10	Monitor	EMA 2010 - Outstanding defect MANO-070070-RAS (deck coatings) Considerable deterioration and corrosion with plate thickness reduction. Outstanding repair action is strongly recommended.	29-Aug-07	MANO-070070-RAS	2-215-2-Q	DSs	3	Deck coatings deteriorated		H074P0017
					13-Jul-10	MANO-100069-WRM	2-215-2-Q	DSs	4	Closing Problem - W.T. Door		
Passage	2-224-1-L	24-Nov-07	Acceptable									
Passage	2-224-2-L	06-Mar-07	Acceptable									
Fantail Mooring Deck Stbd	2-226-1-Dk	05-Jul-10	Monitor	EMA 2010 - Dis-used pipe work with dead legs on bulkhead should be deleted to reduce corrosion control.	05-Jul-10	MANO-100026-WRM	2-226-1-Dk	DPs	2	Corrosion Pitting - Deck Plate	0165/10	H102D0242
					05-Jul-10	MANO-100028-WRM	2-226-1-Dk	DPs	4	Paint Failure & Corrosion - General Structure		
					05-Jul-10	MANO-100029-WRM	2-226-1-Dk	DSs	4	Deteriorated Galvanized Coating - Flight Dk Stair Treads		

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Fantail Mooring Deck Port	2-226-2-Dk	08-Jul-10	Acceptable		08-Jul-10	MANO-100056-WRM	2-226-2-Dk	DMs	4	Corrosion - Deck Light Bracket		
					08-Jul-10	MANO-100057-WRM	2-226-2-Dk	DSs	4	Paint Deterioration and Corrosion - Deck Structure & Fittings		
Conflag Station No 2	2-233-1-Q	13-Jul-10	Monitor	EMA 2010 - Corrosion in deck throughout with local plate thickness reduction in aft bulkhead, MANO-100072-WRM & MANO-100073-WRM.	13-Jul-10	MANO-100073-WRM	2-233-1-Q	DSs	4	Preservation Deterioration - Deck		H104D0269
					13-Jul-10	MANO-100072-WRM	2-233-1-Q	DSs	4	Corrosion Wastage - Bulkhead		H104D0269
Passage	2-233-2-A	06-Mar-07	Acceptable									
Passage	2-233-3-L	01-Feb-07	Acceptable									
Aft Chlorinator Room	2-233-4-Q	13-Jul-10	Acceptable									
Eng Repair Annex	2-233-5-A	15-Jul-10	Acceptable		07-Sep-07	MANO-070086-RAS	2-233-5-A	DSs	3	Surface corrosion of deck & hull plating		H074P0017
Eng Repair Annex	2-236-1-A	15-Jul-10	Monitor	EMA 2010 - Outstanding defect MANO-100089-RAS. Corrosion wasted deck area MANO-100084-WRM.	07-Sep-07	MANO-070089-RAS	2-236-1-A	DSs	3	Surface corrosion of deck & hull plating		H074P0017
					15-Jul-10	MANO-100084-WRM	2-236-1-A	DSs	3	Corrosion - Deck Plate		H103D0253
Passage	2-236-2-L	01-Feb-07	Acceptable									
Fan Plenum	2-236-4-Q	13-Jul-10	Acceptable	EMA 2010 - Outstanding defect MANO-100069-RAS. OHS problem with fwd inboard axial flow fan not fitted with intake screen, MANO-100070-WRM.	29-Aug-07	MANO-070069-RAS	2-236-4-Q	DSs	3	Deck coatings deteriorated		H074P0017
					13-Jul-10	MANO-100070-WRM	2-236-4-Q	OHS	5	Exposed Ventilation Fan Blade -Axial Flow Fan		
					13-Jul-10	MANO-100071-WRM	2-236-4-Q	DMs	4	Deformed Toggle Bolts - WT Closures		
Engineering Repair	2-239-1-Q	15-Jul-10	Acceptable		15-Jul-10	MANO-100083-WRM	2-239-1-Q	DSs	4	Paint Failure & Corrosion - Deck		H104D0271
Traffic Control Station No.2	2-248-1-Q	16-Jul-10	Acceptable		16-Jul-10	MANO-100099-WRM	2-248-1-Q	DSs	4	Paint Failure & Corrosion - Deck		
Storeroom	1-K-0-A	19-Sep-07	Acceptable									
Storeroom	1-E-1-A	06-Jul-10	Monitor	Drainage from sump not fitted	08-Oct-09	MANO-090102-RAS	1-E-1-A	DSs	3	Corrosion of structure, more pronounced iwo WT Door coaming.		H103D0067
					08-Oct-09	MANO-090103-RAS	1-E-1-A	DSs	3	WT Door corroded		H103D0068
					06-Jul-10	MANO-100043-WRM	1-E-1-A	DSs	3	Corrosion Holes - Store Base Plate		H103D0261
Storeroom	1-E-2-A	06-Jul-10	Monitor	Drainage from sump not fitted	08-Oct-09	MANO-090104-RAS	1-E-2-A	DSs	3	Corrosion of structure.		H103D0069
					08-Oct-09	MANO-090105-RAS	1-E-2-A	DSs	3	WT Door corroded		H103D0070
					06-Jul-10	MANO-100042-WRM	1-E-2-A	DSs	3	Corrosion Holes - Store Base Plate		H103D0260
Forecastle - 1 Deck	1-0-Focastle	25-Sep-09	Acceptable		15-Sep-04	MANO-040109-RAS	1-0-Focastle	DSs	6	Deformation of bulwark on port side		MONITOR
					04-May-08	MANO-080001-RAS	1-0-Focastle	Sys	6	Inspect deck clenches		HISTORY
Lobby	1-D-2-L	08-Oct-09	Acceptable									
Flight Deck Fwd	1-20-FltDkFw	12-Oct-09	Acceptable		12-Oct-09	MANO-090142-RAS	1-20-FltDkFv	DSs	3	WT Escape scuttle hinge defect		H104D0130
					12-Oct-09	MANO-090141-RAS	1-20-FltDkFv	DSs	3	Crack in fwd screen of superstructure		H103D0082
Tween Deck Ramp Fwd	1-27-FwdHch	12-Oct-09	Monitor	Inspection from underside during EMA 01/2010 by HSG-M indicates leakage around perimiter of hatch at connection of seal to hatch; consider this has contributed to deterioration of structure around fwd turntable in Vehicle Stowage Well.	12-Oct-09	MANO-090135-RAS	1-27-FwdHc	Sys	4	Weather seal U/S		H104D0124
Crane Pedestal	1-65-2-Q	12-Jul-10	Acceptable									
PO/SGT Mess Male	01-73-3-L	18-Jan-07	Acceptable									
Vent	1-72-2-Plenur	23-Jul-10	Monitor	EMA 2010 - No internal access. Deck penetration outboard is corroded and most likely leaking into 2-71-2-L Vestibule below, MANO-100114-WRM.	23-Jul-10	MANO-100114-WRM	1-72-2-Plenu	DPs	3	Corrosion and Water Ingress Problem - Deck Penetration	NK	H102D0258
Catering Office	1-73-1-A	08-Jul-10	Acceptable									
Vent	1-73-2-Plenur	19-Jul-10	Acceptable	EMA 2010 - Surveyed and confirmed good condition of internal aluminium plenum structure prior to painting.								

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Vehicle Passageway	1-73-2-Q	03-Jun-10		EMA 2010 - Outstanding defect record MANO-100012-HSG-M.	03-Jun-10	MANO-100012-HSG-M	1-73-2-Q	DPs	2	Corroded deck coaming supporting Superstructure	0073/10	H102D0168
Vestibule	1-73-3-L	08-Jul-10	Acceptable									
Vent	1-73-3-Plenur	22-Jul-10	Monitor	EMA 2010 - Survey restricted to main deck end of trunk. Superstructure joint and surrounding structure affected by heavy corrosion. Predicted repair action MANO-100095-WRM.	22-Jul-10	MANO-100095-WRM	1-73-3-Plenu	DSs	2	Corrosion Wastage - Plenum Structure	0121/10	H102D0204
Paint Issue & Mixing Room	1-73-4-K	18-Aug-10	Acceptable	Survey completed after repairs to adjacent vent plenum								
Main Scullery	1-73-5-Q	08-Jul-10	Acceptable									
Main Cafeteria	1-75-1-L	12-Jan-06	Acceptable									
Vestibule	1-76-2-L	18-Aug-10	Acceptable									
Bosun's Office	1-77-2-Q	06-Jan-06	Acceptable									
Fan Room	1-78-2-Q	09-Jul-10	Acceptable	EMA 2010 - Minor coating breakdown and corrosion in deck and superstructure joint. Repair is not warranted at this stage. Monitor is recommended.								
SAD Office	1-81-2-Q	12-Jul-10	Acceptable									
Combined Tech Office	1-81-4-Q	08-Jul-10	Acceptable									
Brew Point	1-81-1-L	20-Aug-09	Acceptable									
Passage	1-89-2-L	06-Jan-06	Acceptable									
DC Central	1-89-4-Q	08-Jul-10	Acceptable									
High Dependency Unit	1-97-2-L	30-Sep-09	Acceptable		30-Sep-09	MANO-090065-RAS	1-97-2-L	DSs	4	Cracks in superstructure iwo side scuttle opening		H104D0086
Main Galley	1-100-1-Q	13-Jul-10	Acceptable		24-Nov-07	MANO-070144-RAS	1-100-1-Q	Sys	5	Ventilation outlet air diffusers		H083D0111
					13-Jul-10	MANO-100074-WRM	1-100-1-Q	DPs	4	Paint Fractures and Corrosion - Deck		H104D0270
Medical Passageway	1-108-2-L	09-Jul-10	Acceptable									
Recovery Unit	1-108-4-L	09-Jul-10	Acceptable									
Ward WC	1-111-2-L	09-Jul-10	Acceptable									
Passage	1-113-1-L	08-Jul-10	Acceptable		08-Jul-10	MANO-100045-WRM	1-113-1-L	DSs	4	Paint Failure and Corrosion - Superstructure Joint		
					08-Jul-10	MANO-100046-WRM	1-113-1-L	Sys	4	Worn Dog Wedges - W.T. Door		
Food Prep Area	1-113-3-Q	13-Jul-10	Acceptable									
Garbage Disposal Room	1-113-5-Q	13-Jul-10	Acceptable									
Stbd Deck Space (Accommodation Ladder)	1-113-Stbd-D	02-Oct-09	Acceptable		04-Dec-07	MANO-070174-RAS	1-113-Stbd-[	DSs	3	Superstructure corroded		H083D0139
					02-Oct-09	MANO-090072-RAS	1-113-Stbd-[	DSs	3	WT Door coaming heavily wasted		H103D0042
Ward Bathroom	1-113-2-L	09-Jul-10	Acceptable									
Operating Theatre	1-116-2-L	09-Jul-10	Acceptable									
Thaw Box	1-117-1-A	12-Jul-10	Acceptable									
Passage	1-118-2-L	09-Jul-10	Acceptable									
Fan Room	1-123-1-Q	12-Jul-10	Monitor	EMA 2010 - Recurring fracture in superstructure joint Fr 128 - Fr 129. Survey was limited to lower part up to 01 deck height. Space above 01 deck requires scaffold for access.	12-Jul-10	MANO-100059-WRM	1-123-1-Q	DSs	3	Fracture - Superstructure Joint Fr 128 - Fr129		H103D0263
					12-Jul-10	MANO-100060-WRM	1-123-1-Q	DPs	4	Paint Deterioration - Deck		
Pre Op Unit	1-123-2-L	09-Jul-10	Monitor	EMA 2010 - Outstanding defect MANO-090064-RAS; fracture under expansion joint cover visible from wharf, port side (external to compartment).	30-Sep-09	MANO-090064-RAS	1-123-2-L	DPs	3	Cracks in superstructure iwo expansion joint		H103D0031
Incinerator Room	1-123-3-Q	08-Oct-09	Acceptable									
Hangar	1-129-0-Q	12-Oct-09	Monitor		12-Oct-09	MANO-090127-RAS	1-129-0-Q	DSs	4	Crack in port funnel casing		H104D0119
Lobby	1-129-1-L	09-Jul-10	Acceptable	Compartment ID is Storeroom								
Dirty Utility Room	1-129-2-Q	09-Jul-10	Acceptable									
Clean Utility Room	1-129-4-Q	09-Jul-10	Acceptable									
Medical Lobby	1-133-2-L	20-Aug-09	Acceptable									
Staff Change Room	1-133-4-L	09-Jul-10	Acceptable									
General Office / Medical Admin Centre	1-136-2-Q	25-Sep-09	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Blood Bank	1-141-2-Q											
Darkroom	1-142-2-Q	07-Jan-06	Acceptable									
Bottle Room	1-144-2-Q	06-Jan-06										
Aft RAS Deck (Port)	1-144-AftRAS	08-Oct-09	Monitor		30-Sep-09	MANO-090062-RAS	1-144-AftRA	DPs	3	Crack in transition piece between maindeck & superstructure		H103D0028
					30-Sep-09	MANO-090063-RAS	1-144-AftRA	DMs	3	Crack in superstructure / vent duct		H103D0030
					07-Oct-09	MANO-090097-RAS	1-144-AftRA	DSs	3	WT Door, dogs seized		
					08-Oct-09	MANO-090100-RAS	1-144-AftRA	DSs	4	Crack in funnel/house side		H104D0064
Stack - Port	1-144-Stack	04-Dec-08	Acceptable		07-Dec-07	MANO-070197-RAS	1-144-Stack	DSs	3	Cracks in house side plating		H083D0056
					07-Dec-07	MANO-070198-RAS	1-144-Stack	DSs	3	Corrosion of superstructure in way of FAS station		H083D0056
Access Trunk	1-160-2-T	30-Sep-09	Acceptable									
Flight Deck	1-169-FltDk	12-Oct-09	Monitor	Flight deck non-skid fully renewed, EMA 01/2010	12-Oct-09	MANO-090130-RAS	1-169-FltDk	DSs	3	Coaming damaged		H103D0079
					12-Oct-09	MANO-090131-RAS	1-169-FltDk	DPs	3	Corrosion of structure at hanger/flight deck boundary		H103D0080
Stack - Stbd	1-169-Stack S	06-Jul-10	Acceptable	Exhaust pipes de-lagged. Loose pipe hangers throughout, disconnected in places.								
Cargo Hatch in Flight Deck	1-177-CargoH	18-Aug-10	Monitor	Straightened & repaired during EMA 01/2010. Continual water leaks whilst ship alongside								
PO/SGT Mess Male	01-73-1-L	02-Mar-07	Acceptable									
Comcen	01-76-2-C	06-Jan-06	Acceptable									
SGT/ CPO/PO Mess M/F	01-77-1-L	05-Dec-05	Acceptable									
Lobby	01-81-1-L	25-Apr-03	Acceptable									
Officers Baggage RM	01-84-5-A	29-Aug-07	Acceptable									
PO/SGT WC & Shwr Unisex	01-84-1-L	14-Dec-09	Acceptable		14-Dec-09	MANO-090147-HSG-M	01-84-1-L	DSs	3	Fractures in deckhead plating	0153/09	H092D0148
Passage	01-84-3-L	25-Apr-03	Acceptable									
Fan Room	01-87-1-Q	02-Sep-02	Acceptable									
Fan Room	01-87-3-Q	02-Sep-02	Acceptable									
CPO WR, WC & Shr	01-89-1-L	18-Sep-09	Acceptable									
Passage	01-89-2-L	25-Apr-03	Acceptable									
Transmitter Rm	01-89-4-C	05-Jan-06	Acceptable									
Passage	01-89-5-L	12-Oct-09	Acceptable		12-Oct-09	MANO-090136-RAS	01-89-5-L	DSs	4	Crack in 02 deck plate		H104D0125
PO/SGT Rec Dining Area	01-89-7-L	14-Sep-04	Acceptable									
WO/CPO Mess FM	01-93-1-L	25-Apr-03	Acceptable									
EMR Weapon/Sensor Repair	01-95-2-Q	07-Aug-07	Acceptable									
WO/CPO Rec/Dining Area	01-97-1-L	18-Sep-09	Acceptable									
Passage	01-103-2-L	25-Apr-03	Acceptable									
DSE Compartment	01-103-4-Q	07-Aug-07	Acceptable									
WSC / NPC Office	01-107-2-Q	26-Jun-00	Acceptable									
Seniors Pantry	01-108-1-Q	07-Aug-07	Acceptable									
Fan Room	01-109-1-Q	05-Dec-05	Acceptable									
WO / CPO Mess	01-113-1-L	25-Apr-03	Acceptable									
Fan Room	01-113-2-Q	17-May-06	Acceptable									
Passage	01-113-3-L	15-Aug-02	Acceptable									
Boat Deck	01-113-4-Dk	08-Oct-09	Acceptable		12-Jan-06	MANO-060033-RAS	01-113-4-Dk	Sys	6	Visual inspection of boat deck bollards		HISTORY
					08-Oct-09	MANO-090101-RAS	01-113-4-Dk	DSs	3	Small corrosion holes in superstructure		H103D0066
UPS Room	01-133-2-Q	07-Oct-09	Acceptable		07-Oct-09	MANO-090095-RAS	01-133-2-Q	DSs	4	Coating breakdown & minor of deck		H104D0098
Boat Gear Locker	01-133-4-A	07-Oct-09	Acceptable		07-Oct-09	MANO-090096-RAS	01-133-4-A	DSs	3	Coating breakdown & corrosion of deck		H103D0061
Davit Hydraulic Room	01-139-2-Q	20-Aug-09	Acceptable									
Vent Space Void	01-141-2-V	21-Jul-10	Acceptable	EMA 2010 - Space affected by drainage problem and corrosion, MANO-100093 & 94-WRM.	21-Jul-10	MANO-100093-WRM	01-141-2-V	DSs	2	Corrosion Holes - Ventilation Trunk Bhd	0112/10	H102D0192
					21-Jul-10	MANO-100094-WRM	01-141-2-V	DMs	2	Water Ingress - Ventilation Trunk	0112/10	H102D0192
Supply Officer SR M/F	02-73-0-L	14-Dec-09	Acceptable		14-Dec-09	MANO-090148-HSG-M	02-73-0-L	DSs	3	Fracture in deckhead plating	0136/09	H092D0139
Engineers Off's Berth (1)	02-73-1-L	01-Sep-07	Acceptable									
OCSAD SR M/F	02-73-2-L	30-Jan-03	Acceptable									
Officer SR M/F	02-73-3-L	04-Aug-02	Acceptable									
Embarked Forces CO SR	02-73-4-L	04-Aug-02	Acceptable									
Executive Off's Berth (1)	02-73-5-L	19-Aug-02	Acceptable									
Passage	02-79-0-L	24-Nov-07	Acceptable		24-Nov-07	MANO-070141-RAS	02-79-0-L	DMs	4	Corrosion of partition bulkhead		H083D0067

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Embarked Forces Deputy CO SR	02-79-2-L	15-Aug-02	Acceptable									
Fan Room	02-81-0-Q	07-Aug-07	Acceptable									
Wine Store	02-81-1-A	15-Aug-02	Acceptable									
Linen Locker	02-81-2-A	15-Aug-02	Acceptable									
Exec Off Bath	02-81-3-L	05-Sep-02	Acceptable									
Cleaning Gear Locker	02-83-2-Q	15-Aug-02	Acceptable									
Fan Room	02-84-1-Q	24-Nov-07	Acceptable		24-Nov-07	MANO-070140-RAS	02-84-1-Q	DSs	3	Cracks in longitudinal bulkhead		H083D0040
Officers WC & Shower	02-85-1-L	18-Sep-09	Acceptable									
Officers WC & Shower	02-85-2-L	18-Sep-09	Acceptable									
Officer SR M/F	02-85-4-L	24-Nov-07	Acceptable		24-Nov-07	MANO-070139-RAS	02-85-4-L	Sys	4	Corrosion of plumb. drain vent pipe		
Wardrm SR Berth (2)	02-89-1-L	25-Apr-03	Acceptable									
Troop Off's Berth (2)	02-89-2-L	25-Apr-03	Acceptable									
Passage	02-89-3-L	25-Apr-03	Acceptable									
Passage	02-89-4-L	18-Jan-07	Acceptable									
Wardroom Mess & Lounge	02-89-5-L	14-Sep-04	Acceptable									
Officer SR M/F	02-89-6-L	23-Aug-02	Acceptable									
Officer SR M/F	02-93-2-L	25-Apr-03	Acceptable									
Officer SR M/F	02-94-1-L	25-Apr-03	Acceptable									
Officer SR M/F	02-95-2-L	25-Apr-03	Acceptable									
Main Mast	04-96-MainMa	14-Aug-07	Acceptable									
Officer SR M/F	02-97-2-L	25-Apr-03	Acceptable									
Officer SR M/F	02-99-2-L	04-Dec-08	Acceptable									
Officer SR M/F	02-99-1-L	25-Apr-03	Acceptable									
Officer SR M/F	02-101-2-L	25-Apr-03	Acceptable									
Officer SR M/F	02-103-2-L	01-Oct-98	Acceptable									
CIWS Control Room	02-104-1-Q	20-Dec-06	Acceptable									
Aviation Planning Office	02-104-2-C	15-Dec-05	Acceptable									
Passage	02-105-2-L	18-Jan-07	Acceptable									
Nav. Storeroom	02-106-2-A	20-Oct-04	Acceptable									
Fan Room	02-106-4-Q	28-Aug-09	Acceptable									
Passage	02-108-1-L	07-Aug-07	Acceptable									
Wardroom Pantry	02-108-3-L	07-Oct-09	Acceptable		07-Oct-09	MANO-090084-RAS	02-108-3-L	DSs	3	2 x cracks in superstructure		H103D0054
Coxn Office	02-109-0-Q	05-Mar-07	Acceptable									
Passage	02-113-0-L	24-Nov-07	Acceptable									
Stewards Prep Area	02-113-1-L	05-Mar-07	Acceptable									
Registered Publications Vault	02-113-2-A	22-Jan-04	Acceptable									
Cash Office	02-115-1-Q	05-Dec-05	Acceptable									
Ship's Office	02-115-2-Q	05-Dec-05	Acceptable									
Registered Publication Office	02-115-4-Q	25-Apr-03	Acceptable									
Stewards Storeroom	02-117-1-A	15-Aug-02	Acceptable									
Fan Room	02-121-0-Q	24-Nov-07	Acceptable		24-Nov-07	MANO-070143-RAS	02-121-0-Q	DSs	3	Deck coatings deteriorated		H083D0069
FLYCO	02-165-2-Q	25-Apr-03	Acceptable									
Pilot House (Bridge)	03-73-0-C	15-Aug-09	Acceptable									
03 Deck Port (Bridge) Wing	03-73-Pt-Wing	02-Mar-07	Acceptable									
03 Deck Stbd (Bridge) Wing	03-73-St-Wing	01-Apr-10	Monitor	Deck plate fractures over Wardroom deferred from EMA 01/2010. Deck plate insert over XO Cabin completed incorrectly at base of chair EMA 01/2010; potential for further fracture - HSG-M	14-Dec-09	MANO-090146-HSG-M	03-73-St-Wi	DSs	2	Fractures in deck plating above Wardroom and under JOR SCAC	0117/09	H092D0132
Passage	03-79-1-L	29-Aug-02	Acceptable									
C.I.C.	03-79-2-C	15-Aug-02	Acceptable									
Chart Room	03-79-3-C	30-Sep-09	Acceptable									
CO's Stateroom	03-84-1-L	01-Mar-07	Acceptable									
Access Trunk	03-85-1-T	04-Aug-02	Acceptable									
Access Trunk	03-89-2-T	02-Mar-07	Acceptable									
Radar Equip. Room	03-91-2-C	04-Aug-02	Acceptable									
CO's Pantry	03-92-1-Q	04-Aug-02	Acceptable									
CO's Bath	03-92-3-L	29-Aug-02	Acceptable									
Pyrotechnic Locker	03-93-2-M	15-Aug-02	Acceptable									
Bridge WC	03-94-1-L	05-Mar-07	Acceptable									

Compartment Survey Summary					Defect Summary Against Compartment							
Name	No	Survey Date	Status	Notes	Date	Defect ID	Compt No	Code	Pty	Short Description	URDEF No	TM200 No
Joint Forces HQ	03-97-0-Q	28-Oct-07	Acceptable		28-Oct-07	MANO-070125-RAS	03-97-0-Q	DSs	3	Corrosion of deck		H083D0034
CIWS & 50 Cal Mag	03-97-2-M	21-Aug-09	Acceptable									
Joint Operations Room	03-105-0-Q	28-Oct-07	Acceptable									
Lobby	03-116-1-L	11-May-09	Acceptable	URDEF 0054/09 deck cracking	11-May-09	MANO-090015-RAS	03-116-1-L	DSs	3	Crack in 03 deck.	0054/09	H093D0054
Briefing Room (Classroom)	03-117-0-Q	11-May-09	Acceptable		11-May-09	MANO-090016-RAS	03-117-0-Q	DSs	4	Crack in 03 deck.		Investigate
Helo Shelter Top	03-123-0-Dk	29-Aug-02	Acceptable									
Not Listed In Table	x-xxx-x-x	04-Dec-07	Acceptable									
04 Deck	04-73-0-Dk	09-Feb-10	Acceptable		04-Sep-09	MANO-090039-RAS	04-73-0-Dk	DSs	3	Weld defects in 04 deck plate	0158/09	H092D0174
CIWS Platform	04-77-0-Q	09-Feb-10	Acceptable	Deck plate fracture under CIWS Mount at bhd between accessible void to inaccessible void. Nil propagation evident from Jan 04 to Jan 10; HSG-M.	24-Nov-07	MANO-070138-RAS	04-77-0-Q	Sys	4	Cable spigots for electrical equipment corroded		H083D0136
Signal Shelter	04-90-0-C	29-Aug-07	Acceptable									

DET NORSKE VERITAS **Rev. [1]**

SURVEY REPORT

		DNV id. no.	Job Id.
		P2133	**10914114**
Name of vessel **HMAS MANOORA**	Name of owner **ROYAL AUSTRALIAN NAVY**	IMO no. **N/A**	

Main Class Annual (MCA) Survey 2010

This is to confirm that at the request of the Royal Australian Navy, the undersigned Surveyor from Det Norske Veritas Sydney, attended the named vessel to carry out Main Class Annual (MC.A) survey as per the request of AASSPO and a revised DNV annual survey checklist, Version 1.0 dated 2010-10-01 was used on this occasion. The inspection and tests were carried out between 2010-10-18 and 2010-10-25.

Surveys

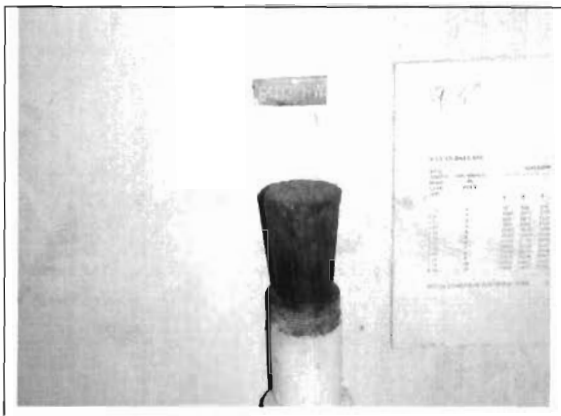
Survey Name	Result
Main Class Annual	Partial

Station	Place of survey	Survey started	Survey completed	Stamp
Sydney	**Garden Island**	**2010-10-18**	**2010-10-25**	
Lead surveyor's name **Hasan Farazi**	Lead surveyor's signature			
Surveyor's name	Surveyor's signature			

Name of vessel	Name of owner	DNV id. no.	Job Id..
HMAS MANOORA	**ROYAL AUSTRALIAN NAVY**	**P2133**	**10914114**

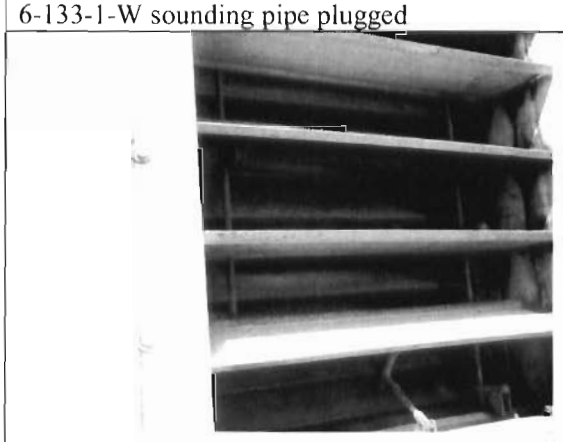
Outstanding defects

1. Ballast pumping system onboard – all pumps and valves in the ballast piping system to be checked and serviced. Record of maintenance will be checked by DNV. Operation of both ballast pumps by ballast transfer between tanks (as selected by the attending surveyor) to be demonstrated to DNV.
2. Leaky or defective valves listed on 2010-10-19 to be repaired:
3. 5-192-1 valve wheel gear box found missing; Leaky valves (suspected) in 6-133 tanks and 6-152 tanks, and at fire line x-overs.
4. Stern door gap found at top was under repair. On completion of repairs door to be tested and verified by a hose test in presence of a DNV surveyor.
5. Ship's crew did not have any tools to test infra-red fire detectors (flame sensors). Necessary tools to be arranged and provided to the vessel. All infra-red sensors in the ship's fire detection system to be checked and DNV will verify by random test of these sensors.
6. Weekly or monthly test of fire alarms to be included in AMPS.
7. Following engine room fire dampers were found defective: (a) 4-149-2 and 4-152-2 in ER1, (b) 4-170-1 in ER3.
8. SSDG 3 remote trip mechanism (flexible cable) was found defective.
9. Ventilation dampers and louvers at Fr. 74 and Fr. 169 on the superstructure fwd and aft bulkhead at both sides to be checked and serviced.
10. A bunch of loose electrical cables found taped up (not terminated properly) at JP5 pump room near the entrance, Ship's crew has been notified and this to be rectified as soon as possible.
11. Following tank deck drain remote activation mechanisms were found defective:
12. 4-73-2 flexible cable cap seized inside WC 2-73-2-L, (b) 4-176-2 and 4-190-2 in A-store seized and cable defective respectively.

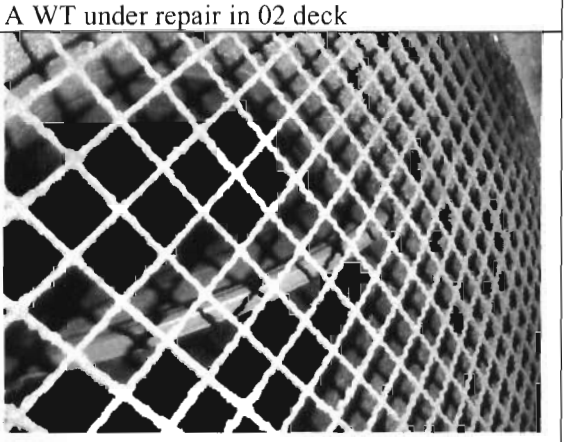


6-133-1-W sounding pipe plugged

A WT under repair in 02 deck



Louver not closing at Fr. 169-170 aft of superstructure



Fire damper not closing in ER 1

Tests and checks carried out

Tests on 2010-10-18

1. AMPS records and history of maintenance checked for various jobs.

2. Use of Mariners software was checked and verified on board.

3. Copy of approved stability data was found in order and use verified on board.

4. Steering gear test carried out for both port and starboard steering gear units. All mode of operation (local and remote) were verified. Emergency operation by hand pump checked at both units were tested and found satisfactory.

Tests on 2010-10-19

1. Ballast pumping system – Test of both ballast pumps in JP5 pump room was arranged and valve line up was completed for an internal transfer. Both pumps could not make enough vacuum for suction and testing was abandoned for the day. It was suspected that some critical valves in the system may not holding and sucking air into the system.

2. Tween deck hose test passed satisfactorily.

3. Aft flight deck hose test passed satisfactorily.

4. Stern door - a gap at the top after full closing and clamping. Repair under progress at the time of survey.

5. Bilge transfer system from ER1 to 6-192-0-W verified. Running of Waste oil transfer (WOT) pump was checked and verified; this pump transferred approximately 400 liters oily bilge in 15-20 minutes. Some valves in the bilge system were also found under repair, i.e. bilge drain valve 5-151-6 in ER1.

It was reported that ship has asked AASSPO to supply additional wilden pumps to boost the bilge transfer capacity while the ship is rolling. Wilden pumps will be connected to bilge main with flexible hoses to suck out bilge from all corners in the engine rooms.

6. Operation of Oily water separator (OWS) was checked and verified. Bilge wells in the engine rooms were found with oil (no change, increased fire risk).

7. Bilge alarms were tested satisfactorily. Total 5 bilge alarms in various compartments were tested in presence of the DNV surveyor. Ship's crew checked and rectified a number of bilge alarms before this inspection.

Tests on 2010-10-20
==========

1. Use of HMON (hull monitoring) system and transfer of data to RRS (Mr. Todd Maybury) was verified.

2. Various WT doors, air pipes were checked at random and found satisfactory.
3. Fire alarm monitoring systems - (main, hanger and hospital) were checked, various zone alarm tested and found satisfactory. (No weekly or monthly job in AMPS).

Ship's crew does not have any specific equipment or tools to test Flame (infra-red) detectors.

4. Fire dampers in machinery spaces were checked by remote activation using FM200 activation mechanism. Following dampers were found defective: (a) 4-149-2 and 4-152-2 in ER1, (b) 4-170-1 in ER3.

5. Remote fuel valve shut-offs for the fuel oil tanks in all engine rooms were tested and found satisfactory.

6. Remote engine shut-downs for the diesel engines in all engine rooms were tested and found satisfactory except for SSDG3.

Test on 2010-10-21
==========

1. Steering gears at both port & starboard side - power failure alarms were tested and found satisfactory.

2. Tank deck drain valves (Total 11 = 7 operated by flexible cables + 4 manual) - Remote operation of tank deck drain valves from No.2 deck were tested. The following were found defective:
(a) 4-73-2 flexible cable cap seized inside WC 2-73-2-L, (b) 4-176-2 and 4-190-2 in A-store cap seized and cable defective respectively.

3. Ventilation dampers or closures at the accommodation boundary- Most of them on the fwd and aft bulkhead of the super structure, were found defective, i.e. Natural supply to tank deck - 2 x closures at port and starboard side at Fr.73 on the main deck, not closing fully or seized linkage etc. Some of grills and louvers in these closures were found heavily corroded.

2010-10-25
==========

Received and reviewed annual inspection and other maintenance reports issued by the specialists for FM 200 fire extinguishing system, Ansulex fire suppression system and Valves/piping at various AFFF stations. Submission is pending for the annual service and inspection reports of Marioff Hi-fog system and HMON system.

Outstanding Inspections

1. Test of ballast pump and pumping system.
2. Inspection of sounding pipes in various machinery spaces after repair. All plugged or open sounding pipes to be repaired.
3. Inspection of engine room bilges (oil accumulation).
4. Inspection of condition of thermal lagging on engines, after the completion of repair and maintenance.
5. Hose test of stern door after repair.
6. Test of flame sensors (infra-red fire detectors) in the tank deck.
7. Test of fire pumps (3 out total 4 fire pumps are under repair at the time of survey).
8. Inspection of WT doors (which were under repair during inspection).
9. Inspection of superstructure dampers and louvers after repair.
10. Testing of all other recorded defects after repair.

Q5

<u>HMA Ships Manoora and Kanimbla - Hansard 23 February 2011, page 39</u>
Senator Humphries

We have had a decade's worth of problems with the ships and they are coming now to the end of their life, which would be a good time to look back at what the total cost has been?
(a) What work was done in the late 1990's to determine the total costs over their projected life?
(b) Also consider whether a study of that kind should be commissioned?

Response:

(a) Despite thorough searches Defence has been unable to locate any outcomes of studies to determine the total life cycle costs for the LPAs. However, Navy does account for the operating costs of the LPAs and has financial records from financial year 2002/03.

(b) Noting that *Manoora* is to be decommissioned and the future of *Kanimbla* is limited, Defence does not consider there is value in initiating a life cycle cost study.

Q6

<u>Review into Defence Accountability Framework - Hansard 23 February 2011, page 46</u>
Senator Johnston

Please provide a copy of the Terms of Reference.

Response:

The terms of reference of the Review have not been approved for public release at this time. When approval for release is given, the terms of reference will be provided.

Q7

<u>Posthumous Awarding of VCs - Hansard 23 February 2011, page 52</u>
Senator Barnett

(a) What date was the matter referred to the independent tribunal?
(b) When will the Terms of Reference be finalised and released by the Tribunal?

Response:

(a) The matter of *unresolved recognition for past acts of naval and military valour* was referred to the Defence Honours and Awards Appeals Tribunal by letter dated 21 February 2011.

(b) The Terms of Reference will be finalised shortly. The date for the release of the Terms of Reference has yet to be determined, but is expected to coincide with a national public call for submissions and the commencement of the Inquiry.

Q8

Obesity in the ADF - Hansard 23 February 2011, pages 54-55
Senator Barnett

In an answer to a question on notice that I put in October, it stated that 8.3 per cent of the ADF personnel were not deployable on medical grounds and that figure is now updated to 31 January to 9.7 per cent, which is one in 10.
(a) Why has that figure increased so significantly over that period? Provide reasons why.
(b) Are there any initiatives that you can point to that you have undertaken that you think are making a difference? In particular, to the huge increase in non-deployability.
(c) Comparison of 2009 and latest figures indicates that obesity is getting worse not better. Are there any other measures being taken to improve the situation? VCDF undertook to provide detailed analysis of the latest figures to determine if any systemic issues are present.

Response:

(a) In the response to questions asked from the Supplementary Budget Estimates hearing in October 2010, clarification was provided that the proportion of the Australian Defence Force (ADF) that was non-deployable on medical grounds as at 31 July 2010 was 9.7 per cent. This figure was recently updated, and reported as at 18 February 2011 as 8.7 per cent. A number of contributing factors, including operational tempo, can impact on the percentage of ADF personnel not deployable during a given period.

(b) There is natural variation over time in the proportion of the ADF that is non-deployable for medical reasons. As injuries and illnesses occur, they are treated and either improve or deteriorate; individuals will move in and out of the non-deployable medical classifications, whether this be back into a deployable category or out of the ADF. The introduction of the ADF Rehabilitation Program and recent changes in personnel policy which enable ADF members to be retained for longer periods in a non-deployable medical category, have aimed to maximise numbers returning to a deployable Medical Employment Classification. This latter initiative has the effect of individuals remaining in a non-deployable medical category for longer than they would have under previous policy, thus having potential to skew the overall proportion of non-deployable personnel in the short to medium term. Other initiatives include the Defence Injury Prevention Program, the ADF Mental health strategy and the ADF health promotion program. Until an electronic health record is established and has been in place for several years, it will not be possible to accurately or reliably measure and assess the effect of these or any other initiative on health status and deployability.

(c) The BMI statistics provided to the Committee for 2009 and 2010 were based on data drawn from HealthKEYS. This electronic health database covers approximately 30 per cent of the ADF, and this population will vary from year to year because of the posting cycle.

For calendar year 2009, the data suggested that approximately 0.2 per cent of the ADF were underweight (BMI <18.5), 38 per cent were in the healthy weight range (BMI 18.5-24.9), 48 per cent were in the overweight range (BMI 25-29.9) and 14 per cent in the obese range (BMI 30 and over). The figures presented for calendar year 2010 are essentially the same.

BMI is useful as a screening tool at population level. It does not necessarily indicate increased fatness or reduced health, particularly at the individual level. It does not take into account body composition, so can be skewed by a high muscle mass or short stature.

There were 147 referrals to the Rehabilitation Program for the management of obesity in 2009 and 192 referrals in 2010. In 2009, 224 ADF members were considered by the Medical Employment Classification Review Board (MECRB) for possible medical discharge with obesity as one of the contributing medical conditions. In 2010, 176 members were considered. As a proportion of all cases referred to MECRB for consideration, these cases comprised 12 per cent of cases in 2009 and 9 per cent of cases in 2010.

This suggests that obese individuals are being better identified and managed. The number of ADF members being referred for formal rehabilitation programs and the number of ADF members considered by MECRB in any one reporting period will not be the same, as the timelines for each process are independent.

A twelve month variation in numbers is not necessarily significant. Trends over longer periods of time are more informative. There are plans to review the reported data in more detail to determine what trends may exist and whether any systemic issues can be identified.

Defence will develop an ADF Nutrition Strategy, modelled along the lines of the ADF Mental Health strategy. This strategy will adopt a preventative health approach and utilise input from a variety of disciplines. The ADF Nutrition Committee will be reinvigorated and will comprise subject matter experts from all relevant disciplines including nutrition and public health. Obesity strategies from other nations will also be reviewed. The development of the strategy will involve, amongst other things, a critical review of the available health indicator data within our new electronic health record.

Q9

PTSD Treatment Options - Hansard 23 February 2011, pages 56-57
Senator Faulkner

WRT the visual test for PTSD:
Has there been an opportunity of the advocates for this type of diagnosis and treatment to present their case to those who have responsibility for these matters within Defence?

Response:

Defence has not been approached to date by Dr Robert Tym or his colleagues about their diagnostic and treatment techniques for Post Traumatic Stress disorder (PTSD).

Defence is aware of a number of techniques that are used to diagnose and treat PTSD and other mental health conditions. Through close partnerships with Australian based world-leading organisations such as, the Brain and Mind Research Institute and the Australian Centre for Post Traumatic Mental Health (ACPMH) and collaborative research with the US, UK, Canadian and New Zealand military forces, Defence monitors and maintains an evidence-based approach for the assessment and treatment of PTSD. ACPMH has developed evidence-based, best practice guidelines for the assessment, screening and treatment of PTSD, and Defence ensures that its mental health workforce conducts diagnosis and treatment of PTSD based on these guidelines.

Defence is willing to learn more about the techniques described by Dr Tym and his associates, but utilisation of these techniques for the assessment, diagnosis and treatment of PTSD in ADF members is contingent upon there being a strong evidence-base for their use.

Q10

<u>RAAF Base Scherger – Hansard 23 February 2011, pages 60-61</u>
Senators Kroger and Macdonald

Given RAAF Base Scherger is also used by the Dept of Immigration:
(a) Who is responsible for the evacuation procedure/plan?
(b) Provide details on who actually conducts the evacuation process and if there was a concern at Scherger, whether there was an evacuation plan that was put into place and what the plan was.
(c) Who was in charge of the evacuation plan and what happened?
(d) Who is responsible for repairs to sewerage, water, buildings damaged as a result of cyclones or other things?

Response:

(a) The Department of Defence (Defence) maintains an emergency management plan related to natural and other disasters. The Department of Immigration and Citizenship (DIAC) has in place its own evacuation plan for such events which is coordinated with the Defence plan. The DIAC service provider at Scherger (Serco) is responsible for the DIAC evacuation plan. DIAC is required to comply with the Defence emergency management plan and follow instructions from Defence personnel accordingly. Defence and DIAC are each responsible for their own personnel.

(b) If the plans were to be activated, the Defence staff located at RAAF Scherger would be in charge of any overall reaction to an emergency. From the DIAC perspective, Serco in conjunction with DIAC operational staff would implement their plan in conjunction with Defence requirements and arrangements. DIAC would occupy the cyclone rated explosive ordnance bunkers located on RAAF Scherger. These bunkers do not hold ammunition on a permanent basis and are clear for such use.

(c) Defence staff at RAAF Scherger would be in charge of any overall reaction to an emergency, but Serco is in charge of the evacuation plan for DIAC clients held at the site. No evacuation plan was activated for Cyclone Yasi because the storm did not approach RAAF Scherger.

(d) Damage to Defence assets as a result of a natural disaster, including those utilised by DIAC, would be repaired by Defence through existing contracts and insurance arrangements. Property owned by DIAC would be the responsibility of DIAC, noting that Defence may assist through the use of existing contract arrangements.

Q11

Defence Bases in Queensland – Hansard 23 February 2011, page 61
Senator Macdonald

With all your Defence bases – the physical structures and buildings:
(a) Did you suffer any damage from the cyclone/floods? If yes, provide a list and excesses.
(b) What is the cost?
(c) Are you insured for any capital costs?

Response:

(a) Yes. The Defence estate, including buildings, contents and infrastructure, sustained damage from recent natural disasters. A claim for flood damage at various locations in Queensland, ranging from Rockhampton to Brisbane, has been lodged with Comcover.

A claim has also been lodged for damage resulting from Cyclone Yasi. Flood damage is insured except where damage was caused by actions of the sea. It is yet to be determined if damage resulting from Cyclone Yasi to the Defence estate located near the sea was caused by actions of the sea.

Claims have not been lodged for flood damage in Victoria and Northern NSW as insurable losses did not occur.

In terms of excesses, when an insurable loss exceeds $500,000, a $100,000 excess applies per event and Comcover fund the claim costs above $100,000. Accumulated insurable damage that occurred at all Defence establishments due to Cyclone Yasi will be subject to one excess of $100,000. Floods (not linked to Cyclone Yasi) which occurred in South Queensland and North Queensland are considered to be two separate events, and each will be subject to an excess of $100,000.

A detailed breakdown of locations is attached.

(b) Comcover has provided Defence with the following claims estimates:

- QLD Floods: $18.047 million as at 15 March 2011 which is revised down from the original estimate of $24.047 million as of 7 February 2011. Amberley revised down from $15 million to $10 million and St Lucia Training Depot revised down from $5 million to $4 million. No other changes.
- Cyclone Yasi: $2.8 million as at 7 February 2011. No change to the original estimate.

A detailed breakdown of locations and claims estimates is attached.

(c) Yes, Defence property is insured. The Comcover Property Policy defines property as –'all real and personal property including money; electronic data and records; structural improvements on or in land; and landscaping and gardens
which is yours, or is in your care, custody or control or is your responsibility, but excluding land; watercraft more than 15 meters in length; aircraft; rockets and satellites; livestock, animals, birds, and fish; standing timber; and growing crops and pastures. Land does not include structural improvements on or in the land'

The Property Policy excludes cover for Specialised Military Equipment (SME) by way of endorsement. The definition of SME is –
'Items that are of a specific military nature and that are not available through the normal external market in their current form to other than government military purchasers. It includes the prime military equipments plus the direct support items (e.g. rotable spares) associated with those

equipments. While it includes those commercial items that have been significantly militarised it does not include standard commercial items with only minor and /or superficial modifications, or military equipment in museums or on permanent display’.

Estimated insurance cover for Defence properties damaged in the Queensland Floods (as at 15 March 2011)

Queensland Floods

Agency	Location	Incident Ref. No.	Listed Sum Insured	Type	Claim Number	Comcover Indicative Loss Estimate
Department of Defence	RAAF Base Amberley, Amberley	-	n/a	Motor Vehicle	45756	$6,000
Department of Defence	RAAF Base Amberley, Amberley	-	n/a	Motor Vehicle	45757	$6,000
Department of Defence	RAAF Base Amberley	-	$1,305,915,166	Property	45688	$10,000,000
Department of Defence	33 Squadron, Amberley	-		Motor Vehicle	45798	$25,000
Department of Defence	Bulimba Barracks, Apollo Road, Bulimba	-	$2,854,703	Property	45689	$50,000
Department of Defence	St Lucia Training Depot, Walcott & Underhill St, St Lucia	-	$3,666,201	Property	45690	$4,000,000
Department of Defence	TS Magnus, Oaklands Parade, East Brisbane	-	$7,975,000	Property	45705	$60,000
Department of Defence	TS Rockhampton	-	$7,975,000	Property	45706	$100,000
Department of Defence	Australian Army Cadets - East Brisbane	-	$6,000,000	Property	45708	$40,000
Department of Defence	Australian Air Force Cadets - East Brisbane	-	$6,475,000	Property	45709	$40,000
Department of Defence	Gallipoli Barracks, Enoggera	-	$626,449,358	Property	45722	$50,000
Department of Defence	Damascus Barracks, Meendah	-	$1,194,580	Property	45723	$100,000
Department of Defence	Green Bank Training Area, Green Bank	-	$26,332,992	Property	45724	$1,000,000
Department of Defence	Purga Rifle Range, Purga	-	$3,831,301	Property	45725	$100,000
Department of Defence	Kokoda Barracks, Canungra	-	$274,020,418	Property	45726	$600,000
Department of Defence	Oakey Army Aviation Centre, Oakey	-	$328,343,619	Property	45727	$100,000
Department of Defence	Borneo Barracks, Cabarlah	-	$82,307,110	Property	45728	$320,000
Department of Defence	Tin Can Bay (Wide Bay Training Area), Tin Can Bay	-	$16,350,796	Property	45729	$100,000
Department of Defence	Logistic Support Depot, Rockhampton (Western Street Depot)	-	$34,817,272	Property	45730	$250,000
Department of Defence	Shoalwater Bay Training Area, Shoalwater	-	$82,118,737	Property	45731	$1,000,000

Estimated insurance cover for Defence properties damaged in the Queensland Floods (as at 15 March 2011)

Department of Defence	Dalby	-		Property	45862	$25,000
Department of Defence	Jorn	IR49565		Property	-	$0
Department of Defence	Milne Bay Barracks Toowoomba	-		Property	45863	$25,000
Department of Defence	Mt Lofty Rifle Range Toowoomba	-		Property	45864	$25,000
Department of Defence	Wallangarra	-		Property	45865	$25,000
Department of Defence	Wondai	IR49566		Property	-	$0
TOTAL						**$18,047,000**

Estimated insurance cover for Defence properties damaged in Cyclone Yasi (as at 15 March 2011)

Agency	Location	Incident Ref. No.	Listed Sum Insured	Type	Claim Number	Comcover Indicative Loss Estimate
Department of Defence	HMAS Cairns, Draper Street, Cairns	-	tba	Property	45927	$100,000
Department of Defence	Joint Tropical Trial Research Establishment, Inarlinga	-	tba	Property	45928	$100,000
Department of Defence	Ingham Air Training Corps, Ingham	-	tba	Property	45929	$100,000
Department of Defence	Innisfail Training Depot, Park Street, Innisfail	-	tba	Property	45930	$100,000
Department of Defence	Innisfail Air Training Corps, 11 Brownlee Street, Innisfail	-	tba	Property	45931	$200,000
Department of Defence	DSTO Pin Gin Hill Innisfail, 496 Palmerston Highway, Pin Gin Hill	-	tba	Property	45932	$100,000
Department of Defence	Lavarack Barracks, Townsville	-	tba	Property	45933	$100,000
Department of Defence	Tully Training Area, Cardstone Road, Tully	-	tba	Property	45934	$2,000,000
Department of Defence	Kenny St Naval Stores, Kenny Street, Cairns	IR49591	tba	Property	-	na
Department of Defence	Cairns Air Training Corps, Bruce Hwy, Cairns	IR49592	tba	Property	-	na
Department of Defence	las palmas Motel, 275 Sheridan Street, Cairns	IR49593	tba	Property	-	na
Department of Defence	Northern Heritage Motel, 243 Sheridan Street, Cairns	IR49594	tba	Property	-	na
Department of Defence	Hydrographic Surveyors Office, Elphinstone Close, Cairns	IR49595	tba	Property	-	na
Department of Defence	Ross Island Barracks, Boundary Street, Sth Townsville	IR49596	tba	Property	-	na
Department of Defence	RAAF Base Townsville, Ingham Road, Townsville City	IR49597	tba	Property	-	na
Department of Defence	Townsville - AP7 Sports Ground, Cnr Ingham Rd & Duckworth St, Townsville City	IR49598	tba	Property	-	na
Department of Defence	Commonwealth Centre ADF Recruiting, 143 Walker Street, Townsville City	IR49599	tba	Property	-	na
TOTAL						**$2,800,000**

Q12

<u>Benchmarking Submarine Sustainment Costs - Hansard 23 February 2011, pages 64-67</u>
Senator Johnston

Defence has advised that they have benchmarked our submarine sustainment costs against a Gotland Class Swedish submarine and a US Los Angeles Class submarine.

(a) As a result of that comparison, what sort of availability does the Swedish navy get from its three Gotland Class submarines?
(b) What are the annual sustainment costs of the three Gotland Class submarines?
(c) What sort of availability does the United States navy get from its 45 Los Angeles submarines in terms of its Unit Ready Days?
(d) What are the annual sustainment costs of the Los Angeles class submarines?
(e) Provide a copy of the maintenance benchmarking review conducted in 2010 by either Defence or the Australian Submarine Corporation.

Response:

(a) A maintenance benchmarking review was conducted in early 2010. The review was conducted by ASC, Electric Boat and Kockums AB - the sustainment organisations for Collins, Los Angeles and Gotland class submarines respectively - and aimed to benchmark maintenance activity and opportunities for improving how our submarine fleet is maintained. While the review considered these classes, the reviewers did not have access to each nation's Naval basis of costing. Commercially-available planning information on the maintenance philosophies, activities and availabilities of the US, Swedish and Australian submarine fleets was gathered.

The information gathered demonstrated that the benchmarking cost of ownership and availability based on a direct comparison of the three sustainment systems was not possible, and would not be meaningful, due to the differences in the classes of submarine. These significant differences relate to fleet and platform size, operational concept and environment, propulsion (diesel vs nuclear), crew composition and skills, and system complexity. As a consequence, this review did not provide a robust benchmark, but indicated Collins was likely to have a high cost to sustain, given its unique characteristics and is only in service with the Royal Australian Navy with no significant reach back to other navies for support.

It is important to note that all availability figures determined in the review are theoretical in nature and are not reflective of actual availability achieved by boats in operation. In addition, these figures relate to material availability and do not consider the effects of Navy crew requirements, defects that emerge while operating the submarine or capability upgrades. On this basis, the Swedish idealised usage update cycle results in a 71 per cent availability.

(b) Costs in monetary terms were not provided for comparison, only man hours were provided.

(c) This information was not made available from the review.

(d) Costs in monetary terms were not provided for comparison, only man hours were provided.

(e) This study was conducted by Electric Boat, ASC and Kockums AB. Due to the commercial sensitivities of the information it contains, Defence has sought the advice of the participants on its treatment. This advice has not yet been received but when provided Defence will inform the Committee accordingly.

Q13

Collins Class Submarines - Hansard 23 February 2011, pages 72-73
Senator Johnston

(a) What is the percentage share for Defence to participate in an Armaments Cooperation Program to fund the development of US Navy's combat system?
(b) What is the total cost of the US Combat system used on the Collins Class submarines?
(c) Are there any Australian industries getting an onshore benefit from the combat system?

Response:

(a) Under the Armaments Cooperative Project (ACP) arrangements with the US Navy for the joint design, development, production, test, evaluation and support of the AN/BYG-1 system, Australia contributes 15 per cent of the costs associated with all activities common to both countries. Each country also pays 100 per cent of any costs uniquely attributable, such as the actual hardware that is installed in submarines and any unique capabilities aligned to each submarine class.

(b) The initial adaptation of AN/BYG-1 for the unique characteristics of the Collins platform, sensor fit and our operational concepts with the necessary hardware for the first submarine and the associated shore test and training facilities cost is A$88 million. The support for the ongoing design, development, production, test, evaluation and support under the provision of the ACP will cost US$323 million over the period 2004 to 2018.

(c) The scope of Project SEA1439 Phase 4A Replacement Combat System included all necessary work to procure, adapt, interface and install the AN/BYG-1 system into the Collins Class as well as to incorporate improvements for sonar across the class. In undertaking this scope of approved work, A$280 million or 62 per cent of total project costs will be spent on contracts with Australian industry. The major recipients are:

- Raytheon (Aust) who provided support to interface and adapt for AN/BYG-1 existing Collins sensors, cabinets and operator consoles, system testing, engineering support and installation support.
- ASC Pty Ltd who provided platform design and installation within the submarine of the RCS equipments.
- Thales (Aust) for upgrades and improvements to the Thales sonar processing and display system.
- Sonartech Atlas for equipment, installation, test and support of the Sonartech provided sonar processing and display system.

The in-service support of the combat system is currently contracted to Raytheon Australia who engage a number of other Australian suppliers and original equipment manufacturers in a sub-contractor capacity. In addition, the ongoing software development process associated with the continuous improvement program for AN/BYG-1 has opportunities for Australian industry participation. There has only been limited success to date by Australian industry but several companies have been successful with the early funded steps of this process. There are currently 16 US and 10 Australian signatories on the technical assistance agreement which enables all parties to actively engage in support of the process.

Q14

Top 30 Projects - Hansard 23 February 2011, page 88
Senator Humphries

WRT the $1.102 billion of slippage:
(a) Is this level above average?
(b) Please provide the total spend versus the total slippage for each of the past 5 years (both as raw data and as a percentage).

Response:
(a) Yes. The estimated management margin or slippage at the 2010-11 Budget was $893 million which was consistent with the actual slippage rate for 2009-10 of 14 per cent. The actual $1.102 billion referred to in the question relates only to the top 30 Projects, before the management margin is applied. Actual cash slippage of approved projects as at the 2010-11 PAES was $419 million and a reduction in planned payments to the DMO of $138.3m primarily as a result of project approvals transferred to the DMO and transfers to other Defence Groups.

(b) The following data applies to the DMO Approved Major Capital Investment Program.

	Gross Project Plans[1] $m	Estimated Slippage $m	Estimated Slippage %	Actual Expenditure[2] $m	Actual Slippage (PBS-Actual) $m	Actual Slippage (PBS-Actual) %
	A	B	A/B	C	A-C	(A-C)/A
2005-06	3,720	498	13%	3,665	55	1%
2006-07	4,854	486	10%	3,781	1,073	22%
2007-08	4,401	543	12%	3,521	880	20%
2008-09	4,299	338	8%	4,660	-361	-8%
2009-10	6,485	1,223	19%	5,580	905	14%
2010-11	6323	893	14%	4917[3]	1406[3]	22%[3]

Note 1: The Budget Estimate is based on the budgeted exchange rates which may differ to the exchange rates at which expenditure occurs.
Note 2: This includes expenditure for projects which transferred from the Defence Capability Plan subsequent to the published PBS.
Note 3: These are forecasted outcomes based on information as at 15 March 2011.

Q15

Visits to Cadet Units - Hansard 23 February 2011, page 91
Senator Macdonald

If a local cadet unit invites a local politician to a function:
Do you need ministerial approval to visit a cadet base? Please provide information on whether the rules for all three service cadet arms are the same or if there are differences.

Response:

A Parliamentarian does not require Ministerial approval to visit a Cadet unit in their electorate for ceremonial or constituency purposes. However, the approval of the Minister for Defence is required for official visits.

When a Cadet unit wishes to invite a Parliamentarian to an activity or occasion, the nature of the visit is determined against Defence guidelines and where the proposed visit is deemed to constitute an official visit, the unit requests Minister for Defence approval to issue the invitation through their Service chain of command.

Similarly, when a Parliamentarian expresses the desire to visit a Cadet unit or activity, the nature of the visit is determined against Defence guidelines and where the proposed visit is deemed to constitute an official visit, the Parliamentarian is advised to seek Minister for Defence approval for the visit.

Defence guidance defines the following categories of parliamentary visits to Defence establishment and units:

- **Official visits** are those involving official openings of buildings or facilities, familiarisation tours of Defence establishments, briefings, and speaking engagements (other than those connected with a ceremonial visit). **Official visits to Defence establishments require the written approval of the Minister for Defence.** Defence guidance indicates it may be necessary for parliamentarians to make prior contact with the establishment concerned in order to arrive at a mutually convenient date for the proposed visit; such contact should not extend to matters of itinerary or program detail in advance of the Minister's agreement to the proposed visit.

  It is desirable that a minimum of seven working days' notice be given to the Minister for visits to individual defence units and ten working days for multiple destinations in the same area.
- **Ceremonial visits** include graduation parades, ceremonial presentations (for example a ship's open day, Trooping the Colour, presentation of awards, etc) and invitations to dine or other purely social functions. **Ceremonial visits do not require the Minister's approval.**
- **Constituency visits** are those undertaken by a local member who visits an establishment on constituency business only. Such visits could concern the establishment's relationships with, and responsibilities in, the local community, or the member being available to constituents for discussion of personal matters affecting them as citizens. **Constituency visits do not require the Minister's approval.**

Requests by parliamentarians to visit individual cadet units of each Service will be treated in accordance with the Departmental guidance for parliamentary visits.

W1

<u>Australian Women's Land Army</u>
Senator Colbeck

In answers to a question on notice at Budget Estimates, the Department stated: "Research in relation to the Australian Women's Land Army had been completed. The submission is in its final stages and Defence is now in a position to place recommendations before the Government once cleared within Defence".

(a) Have recommendations since been made to Government?
(b) If so, has the Government acted upon any of these recommendations? If not, why not?
(c) Is the Department aware of any consideration for a national memorial to recognise the Australian Women's Land Army's important contribution to the Australian war effort? If so, what is the nature of this memorial?

Response:

(a) Yes. It was recommended that it is not appropriate to retrospectively recognise the Australian Women's Land Army as the 'fourth arm' of the Women's Auxiliary Services, nor should they be eligible for benefits under the Veterans' Entitlement Act 1986. Additionally, it was recommended that the Australian Civilian Service Medal awarded in 1993 to members of designated civilian groups, including the Australian Women's Land Army, in recognition of their 'arduous civilian service in military-like organisations in Australia', is appropriate and sufficient recognition.

(b) Yes, on 26 November 2010, Senator Feeney wrote to Senator Colbeck, Mr Alexander and Foreign Minister Rudd outlining the acceptance of all the recommendations.

(c) No.

W2

Defence Capability Plan
Senator Kroger

WRT the updated version of the DCP:
(a) Who in Defence was responsible for proof reading the report?
(b) How many people actually proof read the report?
(c) Who signed off on it before it went to print?
(d) Was the printed DCP checked when returned in its published format?
(e) What was the date when the mistakes were identified?
(f) When were Department officials made aware of the mistakes in the report and when did Minister Smith learn about it?
(g) How many copies of the faulty report were printed? What was the cost?
(h) How many copies were re-printed? At what cost?

Response:

On 17 December 2010, the Minister for Defence announced the release of Update 2 to the 2009 Public Defence Capability Plan – the DCP. This was an electronic update. The last hard copy printed version was the 2009 DCP released on 1 July 2009. Consistent with the release of the first update in February 2010, Update 2 was in electronic format only and no hard copy versions were produced. The next printed version is expected to be the 2011-21 DCP later this year.

Update 2 includes many new projects and more detailed information to provide greater transparency in Defence acquisitions. It includes a return to a ten-year horizon (out to 2019 for the 2009 DCP), more information on key capability milestones, more detail on potential opportunities for Australian industry and improved cost estimate information.

Soon after uploading Update 2 at 1320 hours on 17 December 2010, it was identified that there was a problem with the file. It was investigated and the cause determined to be the corruption of data which had occurred during its upload from the test site. The document was removed from the Defence web site, the error corrected and, by 1720 on 17 December 2010, replaced with an uncorrupted file. Defence regrets the inconvenience caused.

(a) Staff from DMO and CDG developed Update 2 to the 2009 Public DCP over several months. It was proof-read prior to being loaded electronically.

(b) Several staff ranging from mid level APS to Senior Executive Service (SES) and Senior Military Officers.

(c) Update 2 to the Public DCP was released in electronic format only. Head Commercial Enabling Services (DMO) and Head Capability Systems (CDG), on the recommendation of Director General Commercial Delivery Support (DGCDS) within DMO, approved the update for electronic upload.

(d) The DCP was produced in electronic format only. It was checked prior to upload, but regrettably was corrupted during the initial upload.

(e) Update 2 to the 2009 Public DCP was uploaded electronically at about 1320 hours ESDT on 17 December 2010.
It was discovered soon after uploading that the update file had become corrupted.

A replacement file was developed, checked and loaded four hours later. The inconvenience of the temporarily corrupted file is regretted.

(f) Minister Smith's office was notified on identification of the upload error on 17 December 2010.

(g) Update 2 to the Public 2009 DCP was only released electronically.

(h) Update 2 to the Public 2009 DCP was only released electronically.

W3

Security Checks on ADF Personnel
Senator Kroger

(a) Please explain what kind of security checks we perform when recruiting servicemen and servicewomen?
(b) Do we consider offences and crimes committed overseas?
(c) How far do we go back in time – 5 years or longer?
(d) If we consider applicants with a criminal record, what are the guidelines for a possible successful application?

Response:

(a) During the recruitment process, Defence Force Recruiting staff undertake an Australian police records check on potential recruits. Potential recruits also undergo face-to-face interviews with both a psychologist and a qualified interviewer who assesses the candidate's suitability for entry into the Australian Defence Force (ADF). The police check does not relate to a level of security, but it is rather one of the checks used to gauge a candidate's suitability for service in the ADF.

Once a candidate has been accepted for entry into the ADF, Defence Force Recruiting instigates the security clearance process. All Australian Defence Force recruits are now vetted to Negative Vetting Level One as a minimum, and those who will require a higher level of access will be vetted to the appropriate level. A summary of the level of access and checking requirements for each security clearance level is as follows:

Baseline Vetting – entails screening to permit access to material classified PROTECTED and basic Government resources. Checks include:

- verification of qualifications where questions or concerns arise;
- one professional referee check;
- a citizenship check;
- a five year background check; and
- an identity check.

Negative Vetting Level One – a suitability assessment that permits ongoing access to PROTECTED, CONFIDENTIAL and SECRET classified resources. Checks include all those required for a Baseline clearance plus:

- a financial declaration (that there are no financial concerns);
- a suitability screening questionnaire;
- an ASIO assessment;
- two referee checks; and
- a 10 year background check.

Negative Vetting Level Two – a background investigation that permits ongoing access to PROTECTED, CONFIDENTIAL, SECRET and TOP SECRET classified resources. Checks include all those required for Negative Vetting Level One plus:

- a security interview;
- a financial statement;
- a bankruptcy check; and
- three referee checks.

Positive Vetting – permits access to resources at all security classification levels, where necessary. Checks include all of those for Negative Vetting Level Two plus:

- whole of life checks as determined by the Inter-Agency Security Forum. These may include such things as checking overseas travel and association with foreign nationals.

All security levels require a police records check.

(b) Defence does consider offences and crimes committed overseas.

Before employing a foreign recruit, Defence enters into a Labour Agreement with the Department of Immigration and Citizenship. The Department of Immigration and Citizenship then conducts overseas police records checks as part of their immigration processes. Defence would not usually seek an additional police record check in these cases.

For Australian citizens, the vetting process does not include checks of overseas criminal offences unless such offences come to light during the vetting process.

(c) The length of time that must be covered in the background checking regime is five years for Baseline clearances and ten years for Negative Vetting Levels One and Two. Top Secret Positive Vetting checks cover the 'whole of life' of the individual.

(d) Applicants for security clearances are assessed against a number of factor areas including their honesty, trustworthiness, maturity, tolerance and loyalty. Evidence of a criminal record may not always be a reliable indicator of the current honesty or dependability of the clearance subject. Vetting officers will assess each case on its merits. Where there is evidence of a criminal record, the vetting officer will consider:

(i) the severity of the offence;
(ii) the elapsed time since the offence;
(iii) the clearance subject's age at the time of the offence; and
(iv) the clearance subject's current attitude towards the offence and the law in general.

W4

Fires on Navy Vessels
Senator Kroger

(a) Have investigations into the fires in early December 2010 onboard HMAS Ararat and HMAS Bundaberg been completed? What are the results? What caused the fires?
(b) There were also reports about a fire on HMAS Kanimbla in late September. Has this fire been investigated? What was the outcome?
(c) How many fires have been on board Navy vessels in 2010? How does this number compare to the last 5 years?

Response:

(a) HMA Ships *Bundaberg* and *Ararat* experienced fires onboard on 4 December 2010 and 8 December 2010, respectively. There was no correlation between the fires in each ship. HMAS *Ararat's* fire occurred while the ship was in the final stages of a maintenance period. HMAS *Bundaberg's* fire occurred while the ship was alongside HMAS *Coonawarra.* Both fires were extinguished by members of the respective ships' companies without injury to personnel.

Technical investigations were conducted into both fires and concurrent inquiries were conducted. Both technical investigations are now complete and have been reviewed by Chief Staff Officer – Engineering (CSO-E) in order to formalise technical findings and recommendations. These have been presented to Commander Mine Warfare, Clearance Diving, Hydrographic, Meteorological and Patrol Force (COMMHP) and will be considered in conjunction with the Inquiry Officers' findings.

The *Bundaberg* Inquiry Officer's Inquiry has also been completed and has undergone a mandatory legal review, the results of which were presented to the Appointing Officer for acceptance and implementation on 8 April 2011.

The *Ararat* Inquiry Officer's Inquiry was submitted on 28 March 2011. The Inquiry Report has undergone a mandatory legal review and will be presented to the Appointing Officer for acceptance and implementation of the recommendations. Noteworthy is that *Ararat* proceeded back to sea on 21 March 2011 and is operational.

As both of these inquiries and subsequent reviews are still ongoing it is inappropriate to comment on the causes of the fires.

Several immediate actions were taken following the fires to ensure there were no identified risks across the remaining Armidale Class Patrol boats. These actions confirmed that the remaining vessels are safe to continue operating.

(b) After the fire onboard HMAS *Kanimbla* on 21 September 2010, an investigation was conducted in accordance with Defence policy. This investigation has been completed and the report was submitted to the Appointing Authority for review and action.

The Legal Review was completed on 8 March 2011, however, it identified some procedural errors in the Inquiry report. The Inquiry has re-opened to clarify the issues raised in the initial report.

(c) During 2005 to 2009 there were 171 reports of fires in Navy vessels. 97 per cent of these reports were minor, highly localised events, such as:

- shorts in electrical equipment; or
- high temperature cutting or welding activities that have either given off smoke or burnt nearby paint and material.

A third of these small fires required the use of portable extinguishers, and the remainder either self extinguished or relate to reports of smoke but no fire. Of the 171 reports, only one was related to a serious engine room fire.

In 2010 there were eleven fires incidents reported aboard Navy vessels, seven of these with evidence of flame.

W5

Defence Plaza in Sydney
Senator Kroger

(a) Can you advise on concerns about drinking water at Level 13 Defence Plaza in Sydney?
(b) Is it correct that grey water first came out of the taps in 2007 but it took until mid-2010 before and analysis of the water quality was completed?
(c) What happened in the meantime?
(d) What has happened since?
(e) What has the analysis shown?
(f) What conclusion and actions were taken?

Response:

(a) The earliest record of water quality issues in the small kitchenette on Level 13 at Defence Plaza Sydney is November 2008. The issue was first brought to the regions attention with complaints that the water was discoloured and contained silt like particles. In response, tap valves and water filters were changed and the hot water system was flushed. After this action the problem appeared to be resolved. In October 2009 the issue again arose and the same remedy was put in place. A sample of the water was tested with results coming back within the normal testing range and posing no risk to public health. In March 2010 the issue again arose and a comprehensive investigation was undertaken. This determined that there was no hot water return line in the level 13 kitchenette, which meant that instead of the water recirculating back to the hot water system it sat in the pipe until the tap was turned on, causing a build up of particles and the discolouration of the water. In early April 2010 in-line water filters were installed and the system was flushed to remove all sediment. As part of the quarterly maintenance program, the water filters are inspected and replaced if required.
There has been no further incident to date.

(b) No, this is not correct. Please see response to question (a) for the timeline of events regarding this issue.

(c) Please see response to question (a) for the actions taken over the period from November 2008 when the issue first came to Defence's attention, through to April 2010.

(d) As of April 2010 when the problem was fixed there has been no further incident.

(e) The analysis of the water in October 2009 showed that the water posed no risk to public health. Further investigations in March 2010 when the problem re-surfaced, showed that the discolouration of the water was due to hot water sitting in the pipe and gathering a build-up of particles.

(f) On each occasion, and immediately on identification of the issue, staff on Level 13 were advised not to use the small kitchenette. During the remediation activity works, the site manager was in regular contact with the point of contact identified for the floor. In April 2010 in-line water filters were installed and the system was flushed to remove all sediment. There have been no further incidents reported.

W6

<u>Quickstep Announcement</u>
Senator Humphries

The Minister's media release of 2 February 2011 noted that "$10 million in assistance from the Federal government had helped lure Quickstep to Bankstown".
(a) Is the $10 million in assistance conditional on Quickstep taking up the Boeing site at Bankstown airport?
(b) Are there any other conditions the Government has placed on the $10 million in assistance?
(c) How was the $10 million figure decided upon by Government?
(d) Who made the final decision authorising the $10 million assistance payment?
(e) In which financial years will the $10 million be paid to Quickstep?

The NSW Government provide similar financial assistance to help "lure" Quickstep to Bankstown.
(f) Is the Minister aware of how much assistance was provided to Quickstep by the NSW Government? If so, what was the amount of the assistance provided?
(g) In light of the NSW contribution to Quickstep, why did the Federal Government deem it appropriate to provide its own financial assistance to "lure" Quickstep to Bankstown?
(h) Did the NSW Government request the Federal Government to provide funding to help "lure" Quickstep to Bankstown?
(i) Did any other state/territory governments approach the Federal Government for additional funding to help "lure" Quickstep to their state/territory?
(j) Has the Minister for Defence Materiel and/or his staff had talks with Quickstep in his capacity as the Member for Blaxland, before or after his appointment as Minister, concerning the possibility of "luring" Quickstep to Bankstown?
(k) Has the Minister for Defence Materiel and/or his staff had talks with representatives of Boeing in his capacity as the Member for Blaxland, before or after his appointment as Minister, concerning the closure of the Boeing plant at Bankstown airport?
(l) If so, was the possibility of finding a buyer for the vacant plant discussed?

"The Long Term Agreement is a binding agreement under which individual contracts are awarded for different components of the JSF. "The agreement now means Quickstep is in a position to secure up to $580 million worth of work over the next 20 years, building:
- **"access panels;**
- **"fuel tank covers;**
- **"aircraft skins; and**
- **"in-board weapons bay doors."**

(m) How much of the $580 million quoted is it likely Quickstep will secure?
(n) Is there a minimum amount Quickstep is guaranteed to secure?

Response:

(a) In July 2010 the Commonwealth Government approved the establishment of a finance facility (either a loan or loan guarantee) through the Export Finance and Insurance Corporation (EFIC) to be available to Quickstep and two other companies to help them bid for Joint Strike Fighter contracts.

This assistance does not require Quickstep to move from Western Australia. The use of the word '*lure'* in the media statement issued on 2 February 2011 was a mistake and was corrected in a media statement issued on 7 February 2011. EFIC assistance does not require a company to operate in any particular State or Territory. If Quickstep takes up the offer of EFIC assistance this work could be done anywhere in Australia.

Quickstep made a commercial decision to move to NSW. The CEO of Quickstep, Mr Phillipe Odouard explained why the company decided to move from Western Australia to NSW to the West Australian newspaper 3 February 2011:

"It's a combination of skills, facilities, environment – in terms of services – and the NSW Government as well. The fact that NSW was very positive and very supportive … certainly helped. The problem with WA … is that the focus really of the State is not aerospace."

In an interview with the Australian Financial Review on 24 March 2011, Mr Odouard also said:

"It is very hard to find skilled labour of this kind in the west as you can imagine. While the buildings [at Bankstown] are important, the deal clincher was access to the skilled labour that will be available there."

(b) The finance facility is subject to a range of commercial conditions to protect the Commonwealth's financial interests. Access to the facility would not require a company to operate in any particular State or Territory.

(c) In November 2009 as part of Air 6000 Phase 2A/B Second Pass approval the Government determined that Australian industry, particularly the small to medium sized enterprises (SMEs), required investment funds to increase capability and capacity to help secure industry opportunities on the JSF program.

EFIC undertook to explore a lending facility to assist industry.

In July 2010 the Cabinet approved the establishment of this facility by EFIC. Quickstep was one of three of companies approved for EFIC assistance.

(d) Cabinet.

(e) This is not a cash payment made to Quickstep. The facility would be provided as a loan or loan guarantee. Therefore the funding would only be drawn on as required.

(f) No.

(g) Federal Government assistance did not lure Quickstep to Bankstown. The use of the word lure in the media statement issued on 2 February 2011 was a mistake and was corrected in a media statement issued on 7 February 2011. EFIC assistance does not require a company to operate in any particular State or Territory.

This work can be done anywhere in Australia. The decision by Quickstep to move from Western Australia to NSW was a commercial decision made by the company.

(h) In March 2010 the NSW Government wrote to the Federal Government supporting Quickstep's application for EFIC assistance. The NSW Government did not request the Federal Government to provide funding to help lure Quickstep to Bankstown or NSW. EFIC assistance does not require a company to operate in any particular State or Territory and would not require Quickstep to move from WA to NSW. This was a commercial decision made by the company.

(i) No State or Territory Government (including NSW) approached the Federal Government to help lure Quickstep to their State or Territory. As outlined in the answer to (a) EFIC assistance does not require a company to operate in any particular State or Territory. If Quickstep takes up the offer of EFIC assistance this work could be done anywhere in Australia.

(j) No.

(k) No.

(l) Please see answer to (k).

(m) Up to the total amount if Quickstep remains competitive and retains all of the planned number and types of components that are articulated in the Long Term Agreement.

(n) No.

W7

DMO Staffing
Senator Humphries

(a) How many staff are employed by DMO, broken down by:
- **Civilian/military**
- **APS classification/ADF rank**
- **Work base and**
- **Salary band.**

(b) Are comparative figures available from the first half of 2008 through to present?
(c) Does DMO anticipate any staffing cuts as a consequence of the Strategic Reform Program? If so:
(i) How many cuts are forecast and during which financial years are they anticipated to occur?
(ii) From which classifications are such cuts anticipated?
(iii) What savings does DMO anticipate to result from such cuts?
(d) If not, why not?

Response:

(a) and (b) The number of staff employed by DMO is detailed in the following tables, broken down by:
- Civilian/military(Table 1)
- APS classification/ADF rank (Table 1)
- Work base (Table 2) and
- Salary band (Table 1).

Table 1

					$ Salary Spread	
APS Headcount	30-Jun-08	30 Jun 09	30 Jun 10	4 Mar 11	Base	Top
SES Band 3 (Note 1)	4	3	5	5	196,462	590,029
SES Band 2 (Note 1)	9	9	7	8	159,790	195,512
SES Band 1 (Note 1)	22	22	26	23	132,177	174,499
EL2	357	377	413	439	101,519	164,228
EL1	1,151	1,218	1255	1375	88,019	121,871
APS 6	1,585	1,605	1,630	1,675	69,642	79,555
APS 5	1,051	1,113	1020	1060	63,570	68,092
APS 4-5 (Professional)	49	57	50	39	57,929	68,092
APS 4	542	562	445	432	57,929	63,243
APS 3-4 (Technical)	137	118	106	90	51,139	63,243
APS 3	492	468	438	384	51,139	55,880
APS 2-3 (Technical) ATS	7	7	6	9	49,796	50,991
APS 2	173	156	122	105	44,896	50,471
APS 1	18	16	13	12	39,671	44,532
Cadet APS	34	30	130	109	28,563	
Trainee APS	10	2		16	22,423	48,166
Sub-total : APS (1)	5,641	5,763	5,666	5,781		
PSP Workforce (2)	181	176	120	15		
Sub-total APS/PSP	5,822	5,939	5,786	5,796		

NAVY

Rear Admiral	1	2	3	3	195,001	214,502
Commodore	7	6	5	6	158,281	189,937
Captain	10	10	14	12	124,766	166,508
Commander	47	48	47	39	106,088	147,761
Lieutenant Commander	48	58	62	50	74,433	117,551
Lieutenant	52	40	42	55	58,297	108,336
Sub Lieutenant	1	1	1	1	48,462	92,304
Warrant Officer	7	9	12	10	66,015	101,604
Chief Petty Officer	45	45	45	44	60,803	94,145
Petty Officer	33	40	38	34	52,541	86,859
Leading Seaman	22	25	22	20	45,403	79,425
Able Seaman	17	20	12	19	40,901	72,961
Seaman	2	1	1		40,056	72,117
Sub-total: Navy (3)	292	305	304	293		

ARMY

Major General	1	1	1	1	195,001	214,502
Brigadier	6	5	5	5	158,281	189,937
Colonel	10	13	12	15	124,766	166,508
Lieutenant Colonel	35	37	37	46	106,088	147,761
Major	98	102	108	110	74,433	117,551
Captain	66	70	70	74	58,297	108,336
Lieutenant	5	3	1	1	48,462	92,304
Warrant Officer Class 1	57	58	59	49	66,015	101,604
Warrant Officer Class 2	80	78	80	78	60,803	94,145
Staff Sergeant		1	1		58,763	90,823
Sergeant	28	28	29	15	52,541	86,859
Corporal	9	9	14	2	45,403	79,425
Lance Corporal		1			41,763	73,824
Private Proficient	3	4	5		40,901	72,961
Sub-total Army (3)	398	410	422	396		

AIR FORCE

Air Vice-Marshal	3	3	3	3	195,001	214,502
Air Commodore	6	6	6	6	158,281	189,937
Group Captain	20	20	15	16	124,766	166,508
Wing Commander	69	70	73	68	106,088	147,761
Squadron Leader	168	162	156	152	74,433	117,551
Flight Lieutenant	143	142	140	140	58,297	108,336
Flying Officer	71	69	56	50	48,462	92,304
Pilot Officer	1			1	45,278	84,953
Officer Cadet	1					
Warrant Officer	69	76	71	61	66,015	101,604
Flight Sergeant	98	98	88	82	60,803	94,145
Sergeant	149	149	146	138	52,541	86,859
Corporal	23	24	23	20	45,403	79,425
Leading Aircraftman/Woman	2	2	1		40,901	72,961
Sub-total Air Force (3)	823	821	778	737		

Sub-total ADF Workforce	1,513	1,536	1,504	1,426
Sub-total APS/PSP	5,822	5,939	5,786	5,796
Total DMO Workforce	7,335	7,475	7,290	7,222

Notes:

1. APS SES pay rates are subject to personal employment agreements and do not include allowances or bonuses that may be payable under personal employment agreements.

Table 2

Location of staff	30 June 2008	04 March 2011
ACT	1,968	2,142
NSW	1,832	1,669
NT	47	33
QLD	500	494
SA	344	383
TAS	0	1
VIC	2,023	2,048
WA	279	291
Overseas	161	146
Total	**7,154**	**7,207**

Note: Head count figures

(c) and (d) (i) As part of the Strategic Reform Program (SRP) the DMO reviewed workforce requirements and a reduction to its future workforce was made. Subsequent to these savings being determined and as a result of Minister Smith's announcement of 6 May 2011, DMO will make further reduction to its forecast APS workforce growth.

These reductions are summarised below:

	FY10-11	FY11-12	FY12-13	FY13-14
Original SRP Workforce Savings	224	228	228	229
Additional Reductions post 6 May 11	0	243	287	304
Total SRP Workforce Savings	**224**	**471**	**515**	**533**

Thus DMO's total SRP workforce savings were 224 in FY10-11 and will grow to 533 in FY13-14 in and subsequent years.

(ii) The savings have been at the Executive Level 2 classification and below.
(iii) As mentioned in (c) and (d) above DMO will save 533 ongoing FTE civilian staff.

W8

Procurement and Sustainment Reforms
Senator Humphries

(a) How many complaints has DMO received FY2010-11 to date from SMEs concerning overly complex tenders?
(b) How many complaints resulted in action taken on DMO's part to address the concerns raised?
(c) In how many tenders has the General Manager (Commercial) personally intervened due to incorrect selection of templates for tenders?
(d) Has the General Manager (Commercial) or the DMO broadly established benchmarks to measure performance of the tender process?
(e) Has the General Manager (Commercial) identified deficiencies in the tender process?
(f) What improvements can the General Manager (Commercial) identify that result from the creation of his position?

Response:

(a) Mandatory Defence guidance for the handling of tender complaints is set out in the Defence Procurement Policy Manual (DPPM). For DMO, all tenderer complaints must be in writing and directed to Special Counsel CEO DMO where they cannot be resolved at the operational level.

During FY2010-11, Special Counsel CEO DMO has not received any written complaints relating to overly complex tenders. However, general comment is made from time to time at industry conferences and other industry engagement (for example, meetings with the Australian Industry Defence Network) about the complexity of Defence tendering.

(b) As noted in (a), no specific complaints relating to overly complex tender processes have been received by Special Counsel CEO DMO for investigation.

(c) On numerous occasions General Manager Commercial has worked with projects and systems program offices (SPOs) to assist with selection of the correct template prior to release of request documentation.

To further assist with template selection, the *Contract Template Selection and Tailoring Guide* was released on 1 December 2010 to provide projects with detailed written guidance on selecting the right template. The DMO has also released a number of new tendering and contracting templates over the last 2-3 years to better ensure that appropriate templates are available across the entire spectrum of procurements undertaken by the DMO. In this way, projects and SPOs are better able to match a template with the cost and risk profile of the relevant procurement. Updated template training and enhanced guidance material is also under development to enhance appropriate template selection and tailoring of templates to suit the scale, scope, complexity and risk of specific procurements.

(d) General Manager Commercial focus to date has been on improving the performance of tender processes and outcomes through the development of new and updated procurement policy, tools and templates, together with enhanced training and professionalisation opportunities to better skill the DMO workforce.
Many of these initiatives are ongoing, with benefits not realised except in the medium to long term. With this longer term view, benchmarking of performance of the tender process will be considered with a view to assessing the impact of these initiatives.

(e) DMO seeks to continuously improve the conduct and outcome of tender processes. Specifically, General Manager Commercial has recently identified a need for enhanced detailed practitioner

guidance about how to conduct tender evaluations. This work is currently under way and will also form the basis of enhanced tender evaluation training. The intention is to provide detailed guidance for both simple procurements and more complex procurements.
As noted above, the DMO is also currently working in consultation with industry to reduce the costs of tendering through measures aimed at eliminating excessive data requirements in tender request documentation and by avoiding unnecessary delays during the conduct of a process.

(f) As noted above, General Manager Commercial is working to improve tender processes and outcomes, through simplification, standardisation and professionalisation. A number of these activities are being undertaken in consultation with industry. There is a significantly improved relationship between Defence and industry with procurement reform being jointly driven. Key initiatives that have been undertaken with industry include:

- agreed cost principles (that is, those costs that are allowable for recovery by Defence contractors under Defence contracts);
- an insurance working group to progress pre-qualification of major Defence contractors for insurance purposes – to avoid lengthy insurance negotiations;
- similar working groups progressing limitation of liability and intellectual property arrangements; and
- a working group which identified initiatives to reduce the costs of tendering in major Defence procurements.

A significant recent DMO initiative has been the development of a suite of Defence Materiel Instructions (Procurement) which provides a standard best practice approach to activities across the procurement lifecycle. These are also supported by a series of process templates, for example, a standard probity plan and tender evaluation plan, designed to assist projects adopt a consistent, best practice approach.

A further key focus has been the development of a range of new 'simple' templates for DMO's low risk, high volume 'simple procurements'. These templates are central to reducing the costs and complexity of procurements and include:

- updated Request for Quotation Form (AC565);
- updated Purchase Order and Contract Form (SPO20);
- new ASDEFCON (Shortform Goods);
- new ASDEFCON (Shortform Services); and
- new ASDEFCON (Standing Offer for Goods and Maintenance Services).

In addition, major new support templates are due for release in the first half of 2011, including ASDEFCON (Support) v3.0 – which delivers a consistent productivity and performance based contracting approach in support of the smart sustainment aspects of the Strategic Reform Program – and ASDEFCON (Support Short) for less complex support contracting arrangements.

General Manager Commercial has also led the professionalisation of the procurement and contracting job family, including through work with the Australian Procurement and Construction Council (APCC) and Chartered Institute of Purchasing and Supply Australasia (CIPSA). Under General Manager Commercial, the DMO has developed its own Executive Masters in Strategic Procurement, and the second cohort is now undertaking this course. CIPSA has also recently agreed that graduates of that program will receive a Masters of CIPS (MCIPS) – which is the internationally recognised standard for procurement. Through work with the APCC and the Australian Technology Network (ATN) of universities, at least one university in each Australian jurisdiction is now offering a Masters program in strategic procurement. Numerous other professionalisation initiatives are also being progressed.

W9

Measures of Effectiveness
Senator Humphries

WRT the ANAO Major Projects Report 2009-10 pp. 35-6 (published 30 November 2010):
The ANAO's examination of MOEs [Measures of Effectiveness], which are drawn from the Materiel Acquisition Agreements (MAAs) between Defence's Capability Development Group (as the purchaser) and the DMO (as the supplier), noted that the MOE framework is not sufficiently developed to ensure consistency in the level and scope of MOEs across projects. DMO has recently advised that it is unlikely that MOEs will be reported in their current form in the 2010–11 MPR as DMO established a new MAA template at the beginning of 2010 for implementation in 2010-11. The new template does not include MOEs, but instead requires the specification of completion criteria for the achievement of materiel release to the ADF. In this context, the issue of key capability measures is likely to be a matter for consideration by the JCPAA and further examination by the ANAO in the 2010–11 MPR.

(a) On what basis did DMO decide to move away from the MOE framework?
(b) Can DMO point to any projects adversely affected by the inadequacies identified in the MOE framework?
(c) Has the new MAA template been implemented? If not, when will it be implemented?
(d) What advantages does the new MAA template carry over the old template?
(e) How can we be sure that the new template won't replicate the difficulties the ANAO identified in the MOE framework?

Response:

(a) Since the DMO Prescription in July 2005, acquisition and sustainment support to capability has been managed through the DMO agreements framework. The principal agreement for all DMO acquisition projects is the Materiel Acquisition Agreement (MAA), signed between the DMO and Capability Development Group (CDG). The MAA defines the acquisition services to be delivered by DMO to Defence for all major and minor equipment acquisition projects and defines each DMO project in terms of budget, scope and schedule. The former Measures of Effectiveness (MOEs) framework in the MAA assessed the likelihood of delivering the defined materiel element of the capability.

As part of the Mortimer reforms, the MAA framework has been further strengthened by two key initiatives: including the relevant Capability Manager as a signatory to the MAA, along with the DMO and CDG; and introducing the new milestones of initial materiel release (IMR) and final materiel release (FMR) as replacements for MOEs. The introduction of IMR and FMR milestones has a threefold effect: it provides greater clarity of responsibilities between the DMO, CDG and capability managers; sets the two key milestones for delivering the materiel elements of capability to the capability manager; and provides for a very direct and more effective measurement of DMO performance. The materiel element of capability, for which DMO is responsible, is just one of a number of fundamental inputs to capability (FIC) necessary for the capability manager to operationally employ a capability.

(b) No projects have been adversely affected. Improvements in the MAA framework and introduction of IMR and FMR are a direct result of lessons learned and the Mortimer reforms; together these aim to strengthen accountabilities between the various Defence stakeholders.

(c) The MAA template incorporating IMR and FMR was approved for implementation by the Defence Committee on 21 January 2010. Consequently, the two year period from January 2010 to December 2011 has been scheduled to transition over 200 major equipment acquisition projects and

over 100 minor projects onto the new MAA template. The DMO, CDG and Capability Managers are continuing to work on transitioning all projects to the new MAA template by December 2011.

(d) The two most important advantages of the new MAA framework and template are the strengthening of accountabilities between the DMO, CDG and Capability Managers and gaining formal acknowledgement of the means to measure the effectiveness of the DMO's delivery of the materiel element of capability (as measured by the Initial Materiel Release and Final Materiel Release milestones).

The IMR and FMR milestones also clarify the distinction between Initial Operating Capability (IOC) and Final Operating Capability (FOC) milestones; IMR and FMR represent the milestones against which the materiel elements of the FIC (for which DMO is responsible) are delivered and IOC and FOC are the milestones for the Capability Managers to draw together the FIC.

The tabulated format of the new template also standardises the structure and content to be included in all MAAs.

(e) The key intent of the strengthened MAA framework and new MAA template is to establish greater clarity of responsibilities between the DMO, CDG and Capability Managers with enhanced accountability. This will support the DMO's responsibilities against IMR and FMR and delivery of the materiel element of capability to Capability Managers to the required scope approved by Government.

W10

Smart Sustainment Inventory and Maintenance
Senator Humphries

According to DMO's website:
Over the next five years all major fleets of military equipment across the three Services will be carefully scrutinised to identify possible efficiencies. The initial wave of activities is planned to commence in the second half of 2009, starting with one or more major weapon system/capability per Service in July 2009. Building on lessons learned in these early activities, these reforms will be scaled up year-on-year until complete in 2014-15. This approach is expected to produce gross mature savings worth around $4.4 billion over the decade. Optimising inventory holdings and introducing more efficient management techniques will provide gross savings of around $700 million over the decade.

(a) Which major fleets of equipment have been scrutinised for possible efficiencies to date?
(b) What efficiencies have been identified, and have they been enacted? If not, when are they intended to be enacted?
(c) What is the extent of the accountable savings for each of the efficiencies identified to date?
(d) What major fleets of equipment are planned to be scrutinised for possible efficiencies during 2011?
(e) What is the Smart Sustainment savings target for 2010-11?
(f) Does DMO anticipate this target will be reached?
(g) If so, what efficiencies does it anticipate will need to be further identified in order to reach this target?
(h) Will the work of the Rizzo review be incorporated in this process?
(i) Will the recommendations of the Rizzo review be constrained by the requirements to find $4.4 billion in savings in Smart Sustainment, or will the $4.4 billion savings target be negotiable in light of the recommendations of the Rizzo review?
(j) In an environment where the SRP is front and centre to the business of what DMO does, and Smart Sustainment is a huge part of the SRP for DMO, how do you think we got to a situation where sustainment of ships has been shown up to be a wholesale shambles?

Response:

(a) The three Services, CIOG and VCDF (the Capability Managers) are leading programs of review of fleets and platforms for which they are accountable. The majority of the major fleets or platforms are at various stages of review within their respective programs. Some reviews are quite mature and have realised efficiencies, with others just beginning or about to enter in their respective review program. Examples of fleets or platforms where reviews are more mature include:
- ANZAC Class Frigates;
- Mine Hunter Coastal;
- Seahawk;

- Medium Airlift Capability (C130H);
- Wide Area Surveillance (OTHR);
- F/A-18 Hornet;
- Land 'B' vehicles;
- Command and Intelligence Systems (Battlespace);
- Battlespace Communications;
- Satellite Communications;
- Tactical Information Exchange; and
- Tactical & Maritime Electronic Warfare.

(b) Efficiencies identified to date for each fleet or platform include:

- ANZAC Class Frigates – Contract reform; engineering change management; strategic maintenance capability (includes contracted refits and condition based maintenance) and the use of simulation to achieve capability training and sustainment outcomes.
- Mine Hunter Coastal – Rationalisation of the In-service Support Contract; dive set rationalisation to standardise and overcome obsolescence issues and an upgrade to the weapon system to mitigate obsolescence issues.
- Seahawk – Re-scheduling of maintenance tasks and maintenance activity.
- Medium Airlift Capability – Streamlined deeper maintenance activities, rationalising contract support options and enhanced logistic modelling.
- Wide Area Surveillance (OTHR) – Combination of demand changes and supplier efficiency improvements permitting various costs reduction initiatives such as the use of fewer contracted radar operation and maintenance personnel.
- F/A-18 Hornet – Contract savings negotiated with suppliers which were available through application of LEAN maintenance; improving fleet planning; optimising the deeper maintenance and consolidation of deeper maintenance facilities.
- Land 'B' Vehicles – Pursuing RAM analysis to optimise maintenance servicing cycles. Reduce B vehicles variants to reduce support costs.
- Command and Intelligence Systems (Battlespace) – Potential for rationalising the use of Deployable Local Area Network (DLAN) equipment.
- Battlespace & Communications – Potential for rationalising the use of the existing combat net radio fleet.
- Satellite Communications – Improvements in repair and maintenance methodologies has allowed for a lowering of costs.
- Tactical Information Exchange - Improved demand forecasting has led to an adjustment downwards in the expected growth rate of the support services to be provided.
- Tactical & Maritime Electronic Warfare – Rationalisation of the range of equipment in the fleet and better freight planning leading to lower costs.

Due to the nature of the rolling program, while initiatives to seek efficiencies have been initiated across the board, some efficiencies are immature and require further development and consideration.

(c) In FY 2009-10 the Smart Sustainment reform target of $263 million was achieved. Some of these savings remain attributable to the five per cent

efficiency target (approximately $230 million across DMO) initiated in FY2008-09 by the Chief Executive Officer DMO.

From July to December 2010 the Smart Sustainment Stream delivered a number of savings through supply associated improvements:

- $28 million in contracted maintenance support for the C130H from July 2010 to its planned withdrawal date, by exploiting innovation available through aggressive competition.
- Cost reductions in the order of $1.2 million per annum from implementing a more environmentally friendly method of testing Army's fire vehicles.
- Navy transition to the mobile network, instead of commercial satellite, for its communications in Australian littoral waters. Next 3G capability fitted to a number of surface vessels has allowed Defence to relinquish commercial satellite subscriptions worth around $2.5 million per annum.
- Extension of the servicing interval for the F/A-18 A/B Hornet and improved associated fleet planning, reducing the required number of deeper maintenance servicings and streamlining the maintenance schedule. This work is forecast to result in $15 million in contract cost reductions out to July 2013.
- Improved maintenance planning and optimised servicing intervals for the Army B vehicle fleets, which will deliver $4 million in cost reductions by FY2012-13.
- Over the Horizon Radar (OTHR) Wide Area Surveillance (WAS) savings through a combination of demand changes, supplier efficiency improvements and the use of performance based contracting models to deliver in excess of $100 million over ten years, commenced on 1 May 2011 following the signing of Contract Change Proposals (CCPs) (subject to successful conclusion of formal negotiations).
- Improved demand forecasting across the Tactical Information Exchange capability which will result in forecast savings of $88 million over eight years from FY2011-12.

(d) Capability managers and the DMO continue to take a 'whole-of-business' approach to reform implementation. This dynamic approach ensures opportunities for delivering Smart Sustainment targets are constantly sought across all areas of the various fleets and platforms. At present all platforms and supporting systems are involved in a continuous program of Smart Sustainment reform activities. While the level of maturity of each program will vary, each capability domain is responsive to its Capability Manager in achieving the respective reform targets for Navy, Army and Air Force . Examples of platforms and supporting systems being reviewed in 2011 include:

- Armidale Class Patrol Boats.
- Fleet Support Units.
- Mine Clearance Diver Capability.
- Hawk 127.
- Special Purpose Aircraft.
- Air Defence Ground Environment System.
- ASLAV.
- Bushranger.
- Indirect and Direct Fire Support Weapons.

- Land ‘C’ and ‘D’ vehicles.

(e) The Smart Sustainment target for FY2010-11 is $288 million.

(f) Smart Sustainment reform is a partnership between Defence, the DMO and defence industry. The reform targets allocated to the Capability Managers, with DMO are on track to be achieved.

(g) The fleets and platforms included in the Capability Manager-led review programs together with those additional fleets and platforms to be included in the review program for 2011 will provide the necessary reform outcomes to achieve the FY2010-11 targets.

(h) The Rizzo review is seen as complementary to activities being undertaken by the Strategic Reform Program. The Terms of Reference for the Rizzo Review indicate that Mr Rizzo’s team will address the causes of the problems facing the availability of the amphibious and afloat support platforms. Full support and commitment to the review is being provided across all levels of Defence and the DMO.

(i) The ‘Rizzo’ review will develop a plan to reform amphibious and afloat ship repair and management practices. While the review is still underway, its recommendations are not expected to be constrained by the Smart Sustainment objectives.

(j) The causal factors document released by the Minister for Defence indicates that there is no linkage between the Strategic Reform Program and the difficulties in the Amphibious Fleet.

W11

Amphibious Ships Management
Senator Humphries

(a) What resources will be allocated to the team of experts comprising of Mr Rizzo, AVM Smith and RADM Adams in terms of:
- **Office space;**
- **Salaries;**
- **Costs of travel and travel allowances.**

(b) How many staff will be assigned to the "small secretariat" of the team of experts, and what resources will be allocated to those staff in terms of:
- **Office space;**
- **Salaries (denote classifications/rank);**
- **Costs of travel and travel allowances.**

(c) Have there been any internal departmental reports commissioned during the last three years concerning ship management and repair?

(d) Was a Departmental review using existing resources considered as an alternative to an external review of ship management and repair?

Response:

(a) The team of experts have not been provided any dedicated office space. Temporary office space will be made available as required to conduct stakeholder interviews.

The team of experts are engaged as consultants and the total cost will depend upon the number of work days required to complete the review. This will be known at the completion of the Review.

The travel costs are not known at this time. The team of experts will be reimbursed at Defence travel rates.

(b) The secretariat will consist of 4 people.
- Four offices have been made available for the Secretariat.
- The Secretariat consists of 1 x SES Band 1, 1 x Col(E), 1 x EL2 and 1 x APS4 office manager.
- The travel costs are not known at this time. The Secretariat will be reimbursed at Defence travel rates.

(c) While not directly a review of ship repair and management, the Helmsman Institute were engaged by the Defence Materiel Organisation (DMO) to review the complexity of DMO sustainment operations. As part of this review, they did review the Amphibious and Afloat Support assets. The result of this review was the Helmsman Sustainment Complexity Review July 2010. The report can be obtained at http://www.australiandefence.com.au/special-reports/helmsman-sustainment-complexity-review.

In November 2010, the Chief of Navy directed an internal Navy-led review into the underlying causes leading to the operational pause of the LPA Class of ships; HMA Ships *Manoora* and *Kanimbla*.

(d) Noting the intent and scope of the review, a Departmental review was not considered.

W12

Use of HMNZS *Canterbury*
Senator Humphries

(a) When did the Minister first approach the New Zealand Government concerning coming to a sharing arrangement for the *Canterbury*?
(b) On what terms is HMNZS *Canterbury* going to be shared?
(c) There was a report last week which noted that: the *Canterbury* rolls up to 28 degrees in a 6m swell. A quote was used "HMNZS *Canterbury* can help as long as they stay within the bounds of the NZ coastline and don't encounter and heavy seas" (Canberra Times, "Aust 'humiliated' over SOS to NZ for vessel" 17 Feb 2011).
Have any studies been undertaken, or reports received, to assess the capability of the HMNZS Canterbury?
(d) If so can they be provided?
(e) Is there any evidence of limitations of the HMNZS *Canterbury* in relation to the quoted article.

Response:

(a) On 24 April 2009, Lieutenant General Mateparae, then the New Zealand CDF, responded to a request from Air Chief Marshal Houston (CDF) offering the use of HMNZS *Canterbury* during the period from 2013 to 2014 to cover the transition from Landing Platform Auxiliary to Landing Helicopter Docking capability. This has subsequently been confirmed on numerous occasions since 2009, most recently in meetings or telephone conversations between VCDF NZ (RADM Steer) and CDF on 26 January 2011 and again on 23 March 2011. As part of the high level of interoperability and cooperation that exists between the two Navies, HMNZS *Canterbury* carried 89 RAN officers under training for a sea training deployment in November 2010. On 28 January 2011, the New Zealand Defence Attaché, further advised Defence that HMNZS *Canterbury* was available for short notice regional contingencies. This information was passed to the Minister in preparation for the 10 February 2011 Australian and New Zealand Defence Ministers' meeting. Also in early February, the Chief of Navy spoke to his New Zealand counterpart requesting information on the availability of HMNZS *Canterbury*, should the need arise during the cyclone season.

(b) At their 10 February 2011 meeting, Australian and New Zealand Defence Ministers jointly announced that the Pacific-focussed ANZAC Ready Response Force (RRF), initiated in 2009, would be operational by late March 2011. Ministers also announced the sharing of key capabilities, including HMNZS *Canterbury*, as part of the RRF framework, with a view to early opportunities to exercise planning functions and amphibious interoperability. Personnel from both navies are discussing options for *Canterbury* to embark some ADF personnel for training missions and to be available, if at the appropriate notice for sea, to assist with humanitarian assistance or disaster relief if required under the RRF.

(c) and (d) No studies have been undertaken by the ADF but a New Zealand report is available at the following link: http://www.defence.govt.nz/pdfs/independent-review-safety-hmnzs-canterbury.pdf. Since implementing a get-well program to address shortcomings identified in the Review into Safety and Functionality of *Canterbury*, the Royal NZ Navy has conducted successful and effective HA/DR training in the region.

(e) The report at the link above addresses *Canterbury*'s seakeeping limitations.

W13

<u>UK Bay Class Landing Ship Docks</u>
Senator Humphries

(a) Has the lease or purchase of a UK Bay Class landing ship dock progressed since AUKMIN talks in January?
(b) At what cost does the Minister anticipate a UK Bay Class LSD could be purchased from the UK?
(c) What cost does the Minister anticipate a UK Bay Class LSD could be leased from the UK?
(d) What is the soonest the Minister anticipates a UK Bay Class LSD could be prepared for operational deployment with Navy?

Response:

(a) On 6 April 2011 the Australian Government announced it had been successful in its bid to acquire the RFA *Largs Bay.*

(b) & (c) The RFA *Largs Bay* has been acquired for £65 million (approximately $100million).

(d) Subject to a confirmed refit and workup timing, Defence expects that RFA *Largs Bay* could be in Australia, under Royal Australian Navy command and available for tasking by December 2011.

W14

DMO Budget Underspend
Senator Humphries

According to the additional estimates papers, DMO will underspend by over half a billion dollars this financial year.
(a) Can the Minister or Dr Gumley delineate the factors contributing to this underspend, and the comparative significance of each of those factors?
(b) Does the unspend money rollover in to DMO's budget 2011-12 or is it returned to consolidated revenue?
(c) How much of this underspend is attributable to decision-making on the part of DMO?
(d) How much of this underspend is attributable to first and second pass decision making processes?

Response:

(a) The projected movement in the PAES 2010-11 for the Major Capital Projects is $557 million for 2010-11 (Table 84, p122 refers).

The projected $557m movement is driven in the main by an estimated net reduction of the Approved Major Capital Investment Program (AMCIP) cash expenditure of $419 million and an estimated reduction in planned payments to the DMO of $138 million primarily as a result of project approvals transferred to the DMO and transfers to other Defence Groups.

The forecast net cash expenditure reduction of the -$419 million is due to:
- net cash flow reprogramming against major capital projects of (-$632 million); and
- cash flow retained to mitigate supplier creditor levels for the major capital program (+$213 million).

The cash flow reprogramming of -$632 million represents real gross project plan variations, as explained in Table 84 p122, and an attribution of the estimated management margin or slippage across individual projects within the Major Capital program. This reprogramming is due to a range of factors including expenditure brought forward into 2009-10, industry non-performance, and changes to project financial plans which in some cases reflect better payment terms for the Commonwealth.

The projects that contribute to the cash flow reprogramming variations on an attribution basis are[1]:

No.	Project no.	Project name	($m)
1	AIR05077PH3	AIRBORNE EARLY WARNING AND CONTROL SYSTEM	76.563
2	AIR05402	AIR TO AIR REFUELLING CAPABILITY	71.177
3	SEA04000PH3	AIR WARFARE DESTROYER BUILD	64.642
4	AIR09000PH2	MULTI ROLE HELICOPTER	37.165
5	AIR05349PH1	BRIDGING AIR COMBAT CAPABILITY (BACC)	31.431
6	LND00075PH3.4	BATTLE MANAGEMENT SYSTEM	30.420

[1] excludes adjustments due to price/FOREX

7	JNT00129PH2	AIRBORNE SURVEILLANCE FOR LAND OPERATIONS	21.754
8	LND00125PH3A	DISMOUNTED BATTLE GROUP AND BELOW COMMAND CONTROL COMMUNICATION SYSTEM	20.525
9	LND00040PH2	DIRECT FIRE SUPPORT WEAPON	17.804
10	LND00116PH3	BUSHMASTER PROTECTED MOBILITY VEHICLE	15.634
11	AIR00087PH2	ARMED RECONNAISSANCE HELICOPTER	15.608
12	AIR05376PH2	F/A-18 HORNET UPGRADE	15.281
13	JNT02048PH4A	AMPHIBIOUS DEPLOYMENT AND SUSTAINMENT	15.233
14	JNT02008PH5A	ULTRA HIGH FREQUENCY SATELLITE COMMUNICATION	14.108
15	JNT02070PH2	LIGHTWEIGHT TORPEDO REPLACEMENT	13.986
16	LND00121PH3	FIELD VEHICLES AND TRAILERS	12.714
17	AIR05416PH4B1	ACCELERATED RADAR WARNING RECEIVER FOR C130J	10.582
18	SEA01390PH4B	STANDARD MISSILE REPLACEMENT	9.597
19	AIR05418PH1	FOLLOW-ON STAND OFF WEAPON	9.587
20	AIR05416PH2	ELECTRONIC WARFARE SELF PROTECTION FOR SELECTED AIRCRAFT	9.435
Total top 20 projects with slippage			**513.247**
Other Approved projects			**118.753**
Total			**632.000**

(b) Acquisition funding is appropriated directly to Defence and passed to DMO at the beginning of each financial year to meet cash flow requirements identified at the time of the Budget. All projects under management by the DMO have total project approval values as agreed with Defence under agency agreements, or Materiel Acquisition Agreements. At each budget update DMO will identify cash flow required to align expenditure with industry or Commonwealth performance. Underspends normally require the reprogramming of funding to future years to meet financial obligations under contracts and in accordance with project schedules. As part of the Additional Estimates process, DMO returned net cash of $419m to Defence and requested Defence to reprogram the funding to be returned to DMO in later years.

(c) The $419m cash budget reduction at the 2010-11 PAES is the net result of a range of project factors including expenditure brought forward into 2009-10, industry non-performance, and changes to project financial plans which in some cases reflect better payment terms for the Commonwealth. However, the most significant contributor to reprogramming and the causes of project slippage is predominantly delays caused by overseas and local industry performance.

(d) As detailed above, the $419m budget reduction is not related to first and second pass decision making processes and the $138m reduction in planned payments to DMO and other Groups is primarily attributable to projects being approved by Government and funding being transferred to DMO and other Defence Groups.

W15

Air Warfare Destroyer – Underspend
Senator Humphries

Air Warfare Destroyer: -$146 million due to delay and new expenditure plan for the procurement of explosive ordinance.
(a) Is this delay largely due to the bungled hull block reported in November?
(b) It is noted that there is a new expenditure plan for the procurement of explosive ordinance. What is this plan? Will it be released?
(c) How much does this new plan contribute to the downward revision?

Response:

(a) No. The change in expenditure is due to savings and lower than planned expenditure across a range of Air Warfare Destroyer (AWD) Alliance project and AWD related Defence Materiel Organisation (DMO) activities. The AWD Alliance reforecast for ship production amounted to an expenditure reduction of about $40 million.

(b) The DMO manages the procurement of missiles and other ordnance for the Air Warfare Destroyers. Funding is allocated from the AWD program budget for this purpose. Plans for the procurement of missiles are developed in concert with the US Navy who undertake the procurement. As for all weapon acquisition and national war inventory matters, details are classified and are not released.

(c) Changes from the original forecast for explosive ordnance procurement this financial year resulted in an expenditure reduction of about $42 million. The changes to procurement plans this financial year do not affect availability of weapons for ship delivery.

W16

Defence Industry
Senator Humphries

(a) How many industries have been identified as PICs/SICs?

Industry paper states: "it is through integration into the global supply chains that industry will prosper...the Government maintains several programs to assist industry with this process". (p. 84)
(b) How many companies have applied, by program?
(c) How many have received assistance? How much?
(d) How many have achieved "integration into the global supply chain"? How is this measured/monitored? KPIs?
(e) How many staff per program?

Minister Clare's speech to Defence Magazine Conference 16 February 2011: "I have asked Defence to stress test our Priority Industry Capabilities and Strategic Industry Capabilities—PICs and SICs".
(f) How is this to be achieved?
(g) What is the timeframe for stress testing?

Response:

(a) The Government has identified a series of Priority Industry Capabilities (PICs) that are strategically important to the Australian Defence Force (ADF). These PICs identify capabilities, rather than specific companies.

The 2009 White Paper defines the PICs as those industry capabilities which would confer an essential strategic advantage by being resident within Australia and which, if not available, would significantly undermine Defence self-reliance and ADF operational capability.

There are currently twelve PICs which Defence will closely monitor to ensure that industry capacity is sufficient to support Australia's capability needs. The PICs are certain parts of:

- acoustic technologies and systems;
- anti-tampering capabilities;
- combat uniforms and personal equipment;
- electronic warfare;
- 'high end' system and 'system of system' integration;
- high frequency and phased array radars;
- infantry weapons and remote weapons stations;
- in-service support of the Collins Class submarine combat system;
- selected ballistic munitions and explosives;
- ship dry docking facilities and common user facilities;
- signature management; and
- through-life support of mission critical and safety critical software.

The Government also monitors a broader range of capabilities, known as the Strategic Industry Capabilities (SICs). The SICs are capabilities which provide Australia with the enhanced defence self-reliance, ADF operational capability, or longer term procurement certainty. The twelve SICs are:

- composite and exotic materials;

- elements of national infrastructure including:
    - supply and storage of aviation fuel;
    - provision of terrestrial and space communications systems; and
    - logistic infrastructure for using Darwin and Townsville;
- geospatial information system;
    - guided weapons;
- naval shipbuilding;
- protection of networks, computer and communications;
- repair and maintenance of specialist airborne early warning and control systems;
- repair, maintenance and upgrading of armoured vehicles;
- repair, maintenance and upgrading of aircraft (including helicopter);
- secure test facilities and test ranges;
- systems assurance; and
- systems life cycle management.

(b) The Global Supply Chain (GSC) and the Australian Industry Capability (AIC) programs are the most relevant programs. Under the GSC program, international primes sign an agreement with the Defence Materiel Organisation (DMO) under which the prime establishes an office within their company to proactively promote competitive Australian companies to join their supply chain or that of their major subcontractors. Australian companies wishing to be considered for the GSC program must self-register their capabilities on the DMO's ePortal website which the primes then interrogate to find Australian industry capabilities. Eighty-five companies have registered for GSC on the ePortal to date and another 55 companies have indicated interest in registering. The AIC program may also include an option to establish a GSC program within a major defence procurement project.

(c) GSC Agreements have been signed with five primes so far, but only three are currently active. About 200 companies have been engaged by the three global primes and the primes encourage those companies with business prospects to register on the ePortal. No funds are provided to the companies seeking opportunities within the GSC program.

(d) Twenty-six companies have been successfully contracted under the global supply chain arrangements of the three international companies active in the GSC program. Of these, 19 are Small and Medium Enterprises (SMEs) and the program has delivered approximately $256 million in contracts and potential contracts (the latter being subject to continued performance). Effective engagement is measured by the issuing of contracts. Formal review meetings with the international primes are held every six months which measure progress through the number of bid opportunities offered to Australian companies, provision of training development for Australian companies (to increase business acumen and competitiveness) and assistance to companies with marketing.

(e) The GSC program has three staff.

(f) As part of the PIC / SIC review process, Health Checks, or 'Stress Testing', will consider industry's ability to support Defence's requirements. The task of checking the 'health' of the PIC / SIC elements of Australian-Defence industry involves demand, supply, industry and Defence capability requirements, and local competition. If a particular PIC is considered to be unhealthy, options for intervention will be provided for Government consideration.

(g) A detailed timeframe for these health checks is currently being determined. Some have already commenced. The current schedule is that the reviews for three of the PICs will be completed by mid year.

W17

Defence Industry Innovation Board
Senator Humphries

(a) How often will the board meet?
(b) What sort of value do you expect to receive from the convention of this board?

Response:

(a) The Defence Industry Innovation Board is planned to meet at least three times per year.

(b) The primary purpose of the Board is to provide strategic level independent advice to Government and the Chief Executive Officer of the Defence Materiel Organisation (CEO DMO) on the direction and resourcing of a range of DMO's industry assistance programs. It is also expected to consider reports and recommendations from individual program advisory boards, consultative bodies and committees on their programs and operations, and make recommendations on improving the efficacy of assistance programs.

W18

LAND 17 Phase 1C
Senator Humphries

(a) What is the progress of this project?
(b) Has DMO advanced the tender process on time?

Response:

(a) The public Defence Capability Plan (December 2010 Update) lists the year of decision for Land 17 Phase 1C as FY 2010-11 to FY 2012-13. A business case is being developed for Government consideration.

(b) Yes.

W19

LAND 121 Phase 4 (Protected Mobility Vehicle)
Senator Humphries

Second pass approval is coming up next financial year. Is Defence on track to meet that timeframe?

Response:

As outlined in the public Defence Capability Plan, second pass is scheduled for Government consideration during the period FY2012-13 to FY2014-15.

W20

SEA 1000 Phase 1A (Future Submarines – Concept Design)
Senator Humphries

No funds have been allocated for SEA 1000 in the 2010-11 budget. Has SEA 1000 experienced any slippage?

Response:

SEA 1000 is a pre-First Pass project and has been funded through project development funding within the Defence budget to conduct initial project definition and design activities.

W21

Handling of Cabinet Documents
Senator Humphries

Dr Gumley's presentation to the Australian Defence Magazine Congress last week noted "Record-keeping practices and rules for handling Cabinet documents pose a major challenge" (slide 18).
(a) Can the CEO DMO explain what he was referring to with regard to "a major challenge"?
(b) What are the limitations of the current processes?
(c) Are there instances of leaks or lost documents in the last 3 years?
(d) Are there incidents of documents having been lost en route between Minister's office and Department in the last 3 years?

Response:

(a) and (b) Dr Gumley was addressing the issue of handling Cabinet documents in the context of the alignment between Defence's efforts to introduce new equipment into service and the original Government approval for a major capital acquisition project.

The Cabinet Handbook (6th edition) issued by the Department of Prime Minister & Cabinet contains a range of provisions for document handling and record-keeping in relation to sensitive Cabinet-in-Confidence information. These provisions do not impact on Defence alone but are particularly relevant to Defence as many defence acquisition projects have a long lifespan.

The current initiative to align all DMO Major Capital Acquisition Projects' scope, schedule and budget with Government approval has highlighted two challenges. Firstly, the initiative requires the DMO to access Government approvals from previous Governments and these records are no longer held in Defence. Secondly, recording and retaining the intent of the project as approved by Government must be in a way that does not compromise the provisions stipulated in the Cabinet Handbook.

As Dr Gumley noted in his Australian Defence Magazine (ADM) Congress speech, one of the significant elements of project governance reform being pursued as part of the implementation of the 2008 Mortimer Review is the inception of Project Directives. The intent of a Project Directive is to provide an appropriately declassified means of promulgating Cabinet and Ministerial approvals. These Directives, in turn, inform the development of all relevant capability and project management documents and plans – with the directive being the authoritative document. Project Directives will enhance both the guidance available to, and the accountability of, project managers without compromising the provisions stipulated in the Cabinet Handbook.

The published transcript of Dr Gumley's ADM Congress speech is publicly available at:
http://www.defence.gov.au/dmo/ceo/speeches/CEO_DMO_ADM2011_final.pdf

(c) In September 2010, Defence conducted its most recent stock-take of its 1836 accountable Cabinet documents. The stock-take identified that 32 documents could not be located; 15 of which are believed to have been destroyed.

(d) No.

W22

Projects

Senator Humphries

Minister Clare's speech to Defence Magazine Conference 16 February 2011 noted the following: "This is also a year where a lot of materiel will be delivered.

In Army we are:

- **rolling out the C-RAM counter missile system in Afghanistan;**
- **the new Multicam uniform I announced in November will roll out in the next few months; and**
- **the lighter TBAS combat body armour being made by ADA in Bendigo will go with the third Mentoring Taskforce when they deploy in the middle of this year.**
- **We are also enhancing our bushmaster vehicles – to provide even more protection from IED blasts; and**
- **In the next few weeks we will take delivery of the first new G-Wagons vehicles, with modules made by Varley in the Hunter.**

In Air Force we will:

- **take delivery of the final 9 Super Hornets; and**
- **work towards Initial Operating Capability on Wedgetail.**

In Navy:

- **work on the first Air Warfare Destroyer will keep ramping up. The first blocks will be shipped by barge from the Hunter and Melbourne to Adelaide this year, the first large delivery of Aegis equipment is due in April, and the workforce will keep growing – hitting a peak of about 1200 in early next year;**
- **Sea trials on the Anzac Class Anti-Ship Missile Defence (ASMD) system – designed and developed by CEA here in Australia - will start soon; and**
- **this Friday the first LHD hull hits the water in Spain.**

(a) Are all of these listed projects on schedule?
(b) If not, why not? What is the slippage or delays?
(c) Are all these projects on budget?

Response:

(a) to (c) The status of the listed projects are detailed in the attached table.

W22 - Projects

Name of Project	(a) On schedule	(b) Slippage of delays	(c) On budget
C-RAM counter missile system	Land 19 Phase 7A (CRAM) is progressing on schedule. The Initial Operational Capability (IOC) was achieved in December 2010 (due May 2011).	Not Applicable	Land 19 Phase 7A (CRAM) is within its budget provision.
Multicam uniform	The uniforms were available to Defence on 28 February 2011, on schedule.	Not Applicable	This has been finalised within budget.
TBAS combat body armour	TBAS vests and load carriage pouches were delivered to Mentoring Task Force 3 in late March 2011 in order to enable the soldiers to train on the system during Mission Rehearsal Exercises.	Not Applicable	The TBAS combat body armour is within budget.
Bushmaster vehicles	Bushmaster seating and flooring enhancements are progressing on schedule. Fitment is currently occurring in the Middle East Area of Operations as of May 2011.	Not Applicable	Bushmaster seating and flooring enhancements are being undertaken within the budget allocation.
G-Wagons vehicles	Vehicle production is ahead of schedule and the first batch of 35 vehicles arrived in Australia mid-January 2011. Defence accepted these vehicles on 18 February 2011. This first batch will allow training to commence in April 2011. An additional 100 vehicles are currently being transported to Australia with Introduction into Service scheduled to occur later this year.	Not Applicable	LAND 121 Phase 3 Light and Lightweight Capability is currently on budget.
The final 9 Super Hornets	The project is on schedule.	Not Applicable	Super Hornets is under budget.
Wedgetail	Project Wedgetail is not on schedule.	Project Wedgetail is a "first of type" development and extremely complex, given the range of cutting-edge radar technology and sensors that will be incorporated	Project Wedgetail is on budget.

		into each aircraft. Over the period 2006-09, the Project experienced problems related to supplier hardware availability, aircraft modification, radar and electronic support measures (ESM) subsystem maturity, and integrated system stability. These problems collectively resulted in a 49 month delay to Final Acceptance of the system. Since reaching a settlement with the Commonwealth in November 2009, Boeing has continued to experience problems with ESM subsystem maturity and integrated system stability resulting in Final Acceptance not being achieved in December 2010 as planned. The Project is currently in negotiations with Boeing over the path to Final Acceptance and capability deliveries will continue throughout 2011 as we work towards Initial Operating Capability.	
Air Warfare Destroyer (AWD)	On 26 May 2011, the Minister for Defence announced the reallocation of construction work for the AWD Project to prevent a possible two year delay in the construction of HMAS *Hobart*. Working with BAE Systems, the AWD Alliance has proposed an action plan to reallocate block construction between the three Australian shipyards, and the allocation of up to five blocks to Navantia, Spain. This early action will reduce the delay of the completion of Ship 1 by up to 12 months.	Last year the project encountered difficulties in relation to engineering and construction of some of the first AWD hull blocks. To assist the AWD project schedule, earlier this year the AWD Alliance reallocated construction of nine steel blocks from BAE Systems in Melbourne to the Forgacs shipyard in Newcastle. The Melbourne BAE Systems shipyard remains stretched, working on two major projects at the same time – steel blocks for the AWDs and the superstructure and integration of the Landing Helicopter Dock Ships. The AWD Alliance advised that if nothing was done to relieve the pressure on the Melbourne BAE Systems shipyard the first AWD would be two years late. The AWD Alliance (with the support of BAE Systems) proposed reallocating work on up to 13 steel blocks among the three Australian shipyards in Adelaide, Melbourne and Newcastle – seven for advanced fit out and six for construction; and the reallocation of up to	The delay in delivery of the AWDs will add some cost to the project. The AWD Alliance estimate the impact is within overall budget limits.

		five steel blocks to Navantia in Ferrol, Spain. These changes involve the reallocation of blocks for the first two ships only and are subject in the usual way to satisfactory commercial arrangements with the shipyards. A decision on the reallocation of blocks, if any, on the third AWD will be made later in the project.	
Anzac Class Anti-Ship Missile Defence (ASMD)	Originally planned for installation into all eight ANZAC Class ships under a single contract, a further review in 2007 of the technical risks associated with the introduction of the leading edge radar led Government in August 2009 to revise the acquisition strategy to a single ship installation. This strategy allows the project to prove this capability at sea before seeking Government approval to commence installation into subsequent ships. The lead ship, HMAS *Perth*, commenced its upgrade on schedule in January 2010 and is currently conducting at sea testing. All key milestones in HMAS *Perth* continue to be achieved to schedule.	Not Applicable	As highlighted in the 2009-2010 Defence Materiel Organisation Major Projects Report, this Project is currently working within its approved budget for delivery of the lead ship. As required by the Government in August 2009 determination of any real cost increase required to complete the remaining seven ships will be advised to Government on successful completion of lead ship sea testing.
LHD	The project is currently on schedule with the second LHD (LHD02) keel being laid on 18 February 2011. LHD 01's hull was launched on 17 February 2011 and is undergoing internal fit-out. Fit out of LHD 01 is expected to be completed by June 2012, after which the hull will commence its journey to Australia. Progress of erection of LHD 02 hull is well advanced with 10 per	Not Applicable	The LHD project is currently on budget.

	cent of the hull erected on the slipway at the end of March 2011.		

W23

Naval Helicopter
Senator Humphries

(a) What is the expected timetable on the naval helicopter decision?
(b) According to Jane's Defence Weekly: "1 February when the US Defence Security Cooperation Agency (DSCA) notified Congress of a possible Foreign Military Sale to Australia 10-year through-life support (TLS) package for 24 MH-60Rs."
Is it normal that the US Defence Security Cooperation Agency (DSCA) notifies Congress in stages over several months?

Response:

(a) The AIR 9000 Phase 8 - Future Navy Combat Aircraft System Tender Evaluation and business case development process continues on schedule, with a decision expected this year.

(b) Yes. It is a requirement of the United States Arms Export Control Act.

The staged process reflects the competitive nature of Air 9000 phase 8 where Australia is evaluating the MH-60R, sourced through the United States Government's Foreign Military Sales program, against the NH90 NATO Frigate Helicopter sourced commercially through Australian Aerospace.

A similar, staged but commercially based process has been followed with Australian Aerospace to submit and refine its AIR 9000 Phase 8 offer.

W24

Ammunition for the ADF
Senator Humphries

(a) Please provide details on the number of weapon systems used by the Australian Defence Force (ADF) which use the following:
(i) 5.56mm ammo.
(ii) 7.62mm ammo.
(b) What is the rationale/benefit of each ammo type for ADF personnel?
(c) Has the Department received comment from ADF personnel in the field concerning the effectiveness of either ammo type?
(d) How does ADF use of either ammo type compare to international usage?

Response:

(a)

(i) The Australian Defence Force uses three weapon systems that use 5.56 mm ammunition:

- M4A1 Carbine;,
- F88 Austeyr family; and
- F89 Minimi Light Support Weapon.

(ii) The Australian Defence Force uses two weapons systems that use 7.62mm weapon systems:

- Sniper Rifle (various models); and
- MAG 58 General Support Machine Gun

The ADF is also in the process of acquiring the Heckler and Koch 417 7.62mm Marksman rifle system as well as the Maximi 7.62mm Machine Gun for use on current operations.

(b) The calibre chosen for each weapon depends on what the weapon is used for. The weapons used by ADF standard infantry and special forces are 5.56mm weapons (F88 Austeyr and M4A1 Carbine respectively), which provide reasonable lethality and accuracy, while being light enough to carry for long periods. 7.62mm sniper weapons and ammunition are heavier, but they are more accurate over longer ranges and have greater lethality. ADF force elements usually carry a mix of weapons that can be flexibly employed to achieve a range of battlefield missions. The two ammunition types produce near identical exterior ballistic characteristics out to 300 metres and are reasonably well matched out to 500 metres. At ranges greater than 500m the lethality of the 7.62mm round is significantly greater than the 5.56mm round.

(c) ADF forces deployed to the Middle East have been complementing the 5.56mm AUSTEYR and M4 with the 7.62mm Mk 11 Mod 0 SR-25 semi-automatic sniper rifle to provide a greater range of options to commanders to meet the range of

threats posed by insurgents. Current procurements of additional models of 7.62mm weapons will further increase this flexibility.

(d) The ADF's use of a mix of 5.56mm and 7.62mm Small Arms weapon systems is broadly consistent with the weapon mixes adopted by modern western armed forces, noting that, like the ADF, both the UK and US are acquiring additional models of 7.62mm weapons for use on current operations.

W25

Procurement costs of Capability Projects
Senator Bishop

In order to assist my understanding of the actual procurement costs of Defence capability projects, including all attributable overheads:

(a) What was the total number of people employed both directly and indirectly (i.e. permanent staff and contractors) in 2009-10
- **(i) by Defence (actual or estimate), and**
- **(ii) DMO, to perform the functions of:**
  - **(a) Defence materiel and systems acquisition and**
  - **(b) Defence materiel and systems maintenance.**

(b) What were the total (a) payroll and (b) contractor costs to the Commonwealth for the above categories in the same year.
(c) What were the total 'on-costs' attributed and budgeted for the employment in the above categories during 2009-2010, including superannuation and other non-salary payments e.g., transport, stationery and other office costs, office accommodation, utilities and services, and training.
(d) What was the dollar value during 2009-2010 of the following:
- **(i) all new Defence ADF capability procurement projects placed under contract by the Department of Defence;**
- **(ii) all new Defence capability procurements finalised and successfully delivered to Defence, and**
- **(iii) all ongoing capability in 2009-10 maintenance contracts current for any period during that year.**

Response:

(a) (i) For Defence - The 2009-10 Defence Annual Report actual achievement for Defence (non-DMO) was 57,697 ADF Average Funded Strength, 21,248 ADF Reserves paid strength, 14,532 APS Full Time Equivalent Average (FTE-A) and 700 contractor FTE-A.

(a) (ii) (a) The total DMO average workforce in 2009-10 for Program 1.1 Management of Capability Acquisition was 2,495.
(a) (ii) (b) The total DMO average workforce in 2009-10 for Program 1.2 Management of Capability Sustainment was 4,260.

(b) For Defence - The 2009-10 Defence Annual Report employee expense achievement for Defence (non-DMO) ADF (including Reserves) was $6479.4m[1], APS FTE-A was $1366.6m[1] and Contractors was $181.5m.

For DMO against Management of Capability Acquisition - The 2009-10 DMO Annual Report civilian employee expense[1] was $187.0 million, DMO military workforce expense was $44.6 million[2]; and Contractors were $8.1 million.

For DMO against Management of Capability Sustainment – The 2009-10 DMO Annual Report civilian employee expense was $290.4 million; DMO military workforce expense was $115.0 million; and Contractors were $0.8 million.

[1] Employee expenses are inclusive of wages and salaries, superannuation, leave and other entitlements and separations and redundancies, and other allowances.
[2] Represents payments back to Defence for Military Workforce.

(c) For Defence, on average the total cost of a civilian employee consists of:

- Salary – 62%
- Superannuation – 10%
- Variable on-cost – 10%; and
- Fixed on-costs – 18%

The total on-cost for a civilian employee amounts to 40% of the budgeted costs ($546.64 million).

On average the total costs of an ADF employee consists of:

- Salary – 54%
- Superannuation – 16%
- Variable on-cost – 18%; and
- Fixed on-costs – 13%

The total on-costs for an ADF employee amounts to 60% of the budgeted costs ($3,304.49 million).

For DMO against Management of Capability Acquisition, the average total cost of a civilian employee consists of:

- Salary – 57%
- Superannuation – 10%
- Other on-costs – 33%

The total on cost for a civilian employee against Management of Capability Acquisition amounts to 43% of the budgeted costs ($106 million).

For DMO against Management of Capability Sustainment, the average total cost of a civilian employee consists of:

- Salary – 61%
- Superannuation – 10%
- Other on-costs – 29%

The total on cost for a civilian employee against Management of Capability Sustainment amounts to 39% of the budgeted costs ($141 million).

For DMO against Management of Capability Acquisition, the average total cost of an ADF employee consists of:

- DMO Military workforce expense[3] – 79%
- Other on-costs – 21%

The total on cost for a ADF employee against Management of Capability Acquisition amounts to 21% of the budgeted costs ($12 million).

For DMO against Management of Capability Sustainment, the average total cost of an ADF employee consists of:

- DMO Military workforce expense – 83%
- Other on-costs – 17%

[3] DMO Military workforce expenses represent the payment back to Defence for direct military workforce costs. Other Military on-cost are born by Defence and not by DMO.

The total on cost for a ADF employee against Management of Capability Acquisition amounts to 17% of the budgeted costs ($24 million).

(d) (i) Projects with approvals totalling $5,599 million were transferred to the DMO in 2009-10 for management and delivery, including estimated cash flow for these projects in the year of approval of $296 million.

(d) (ii) The DMO rolled out $4,100 million from Assets Under Construction to various categories within Specialist Military Equipment to Capability Managers in Defence.

(d) (iii) The value of committed maintenance work to support the ADF into the future as at 30 June 2010 stood at $6,963 million.

W26

LAND 121 – Phase 3
Senator Johnston

(a) Was a new, higher, protection standard released to tenderers during the tender process?
(b) Were the vehicles put through the CET trials required to meet this new higher protection standard?
(c) Do all the vehicles competing in the protected vehicle category meet this new higher protection standard?
(d) If you add additional armour to provide extra cabin protection to a conventional truck, thereby adding weight, what is the effect on the truck's mobility and steering?
(e) In 2007 when the original tender was run for Land 121-phase 3 is it the case that it had to be abandoned because the truck selected proved unsuitable, largely because when protective armour was added it had serious mobility problems?
(f) When we already have in our truck fleet around 700 Bushmaster troop carrier vehicles, which have been proven to save lives, why would we accept an inferior protection standard in a logistics vehicle that will have to go into the same operational zones as the Bushmaster?
(g) How many vehicles are being purchased under Land 121-phase 3, in both the medium and heavy categories?
(h) How many medium weight vehicles?
(i) And how many of these medium weight vehicles are protected vehicles?
(j) Accepting that protected vehicles cost more than unprotected vehicles, has the Army considered adjusting the ratio of protected and unprotected vehicles in order to obtain the higher protection standard offered by the Bushmaster Single Cab Utility but still achieve the same total number of trucks purchased?
(k) Given that the Army already has a fleet of Bushmaster vehicles would there be an advantage in sticking to one manufacturer in order to have a common fleet in the medium weight category?
(l) Does the assessment take account of the fact that without further orders the capability in protected vehicle design and manufacture built up in Bendigo through the Bushmaster program will be lost?

Response:

(a) Yes. The protection level has changed since 2005. Defence has sought offers against a range of protection requirements.

(b) No. The vehicles sought for CET were required to have an off-the-shelf protection package and were assessed against the ADF's requirements.

(c) Defence believes all of the vehicles still competing in the process meet the ADF's protection needs.

(d) There is no single answer to this question as it is vehicle specific and depends on the design of the vehicle.

(e) No. The BAE Systems offer did not have any issues with protection causing mobility problems.

The Commonwealth withdrew from negotiations with BAE Systems due to increased levels of technical, financial and schedule risk identified during negotiations, giving rise to significant concerns with its capacity to deliver against its tendered offer.

(f) Logistic vehicle design is a trade off between payload, mobility and protection; the latter being a multi faceted issue involving tactics, techniques, procedures and the way the vehicles are used operationally.

Pure blast protection cannot be an ultimate determinant. The vehicles being acquired under Land 121 Phase 3 have in fact a higher level of ballistic protection than the Bushmaster PMV.

(g) The final numbers will be determined by the vehicles selected and their unit cost. The Request for Tender stated the following indicative numbers: a full requirement of 2695 vehicles, consisting of 1789 in the Mediumweight sub-segment, and 906 in the Medium Heavy sub-segment.

Mediumweight Sub-Segment	**Unprotected**	**Protected**
Truck, Mediumweight, Tray	692	834
Truck, Mediumweight, Tray with Crane	96	141
Truck, Mediumweight, Tipper	15	11
Total	**803**	**986**

Medium Heavy Sub-Segment	**Unprotected**	**Protected**
Truck, Medium Recovery	14	15
Truck, Heavy Integrated Load Handling System	297	422
Truck, Heavy Recovery	22	26
Truck, Medium Equipment Tractor	14	19
Truck, Heavy Equipment Tractor	39	38
Total	**386**	**520**

(h) A quantity of 1789 vehicles are sought across three variants.

(i) A quantity of 986 vehicles are sought in the protected configuration across three variants.

(j) Within the overall project cost cap the final number of each vehicle variant is being considered by Defence in order to best meet the ADF's needs. Acquiring sufficient protected vehicles to meet strategic guidance takes priority over acquiring unprotected vehicles.

The number of protected vehicles is based on the ADF's needs as agreed by Government in 2007.

(k) There are many factors that are assessed in determining the suitability and cost effectiveness of a fleet of vehicles.

Having the same manufacturer does not guarantee commonality, and Thales' Utility Single Cab actually has a low level of commonality with the in-service Bushmaster. The major components that differ between the in-service Bushmaster and the tendered Utility Single Cab include the engine, chassis, axles, brakes, transmission, steering rack, electrical power system and alternator.

(l) The tender evaluation process sought the best capability vehicle (in a trade-off between protection, mobility and payload). In addition the tender evaluation process sought a solution that could demonstrate the user's requirements and provide value for money for the Commonwealth.

All three tenderers in the Mediumweight sub-segment provide opportunities for Australian industry.

W27

Leased Offices at Penrith
Senator Payne

I understand that the Department of Defence has leased offices at 311 High Street, Penrith. Reports indicate this was the move staff, including from the Defence Materiel Organisation's Munitions Branch. Can the Department provide details about these offices, including:

(a) The cost and details of the lease of these offices, including the duration?
(b) The cost and details of any outfitting of these offices, broken down at the most detailed level the Department can provide?
(c) The period of time over which outfitting the offices took place, benchmarked against other similar office fit outs?
(d) The number of parking spaces at these offices and the cost of each space?
(e) The number of staff to be house at these offices, including details on staffing levels at any offices previously used at this location?
(f) Details of the parts of the department that have, or will have, staff located in these offices, including whether all or part of the Munitions Branch is now housed there, and any other parts of the Department of Defence or its constitution parts that have staff in these offices?
(g) What the space that was formally used by staff at Defence Establishment Orchard Hills will now be used for?
(h) The process by which the Department decided to lease and outfit these offices (including the business case to relocate staff, the tendering process that took place, alternative locations that were considered, and the tenders that were not accepted?)

(a) The lease term is for an initial ten years commencing 1 April 2010 with a six month rent free period. First option of renewal is for five years, with two further three year options (ie 10x5x3x3). Annual lease cost is $1,354,848 (GST inclusive).

(b) The cost of the fitout is $10,299,147 (GST inclusive).
Break down of costs is as follows:

- Information Communication Technology $2.0m;
- Project Management fees, including design, consultancies and Council fees $1,036,234;
- Construction and furnishing costs $7,249,346; and
- Relocation cost $13,567.

(c) The decision process commenced in January 2010 and the tender process occurred in April-May 2010. Construction occurred between July-December 2010 and occupation occurred in January 2011. The design fit-out was based on NSW Government (Sydney Water) facilities located at Parramatta in Sydney. Each fit-out project has an element of uniqueness due to the challenges of matching the needed capability with the buildings capacity to meet specified needs. The Penrith fit-out involved several different design challenges including floor penetrations for circulation stairs, an auditorium and a secure video and conferencing suite. The security of the building also needed to be upgraded to achieve a "Secure" status to enable the installation of the Defence Secret Network terminals. The design and engineering work for the major floor penetrations are very unusual aspects of this project and in many ways differentiate it from others. Recent Defence fit-outs include:

- Anzac Park West building in Canberra, for 900 people, took approximately 17 months to complete, this project involved significant design challenges due to the heritage building status and problems with identifying a tenant;
- 1 Molonglo Drive at Canberra Airport, for 900 people, took approximately six months to complete, a relatively straight-forward open plan office space;

- 25 Brindabella Circuit at Canberra Airport, for 525 people, took approximately six months to complete, a relatively straight-forward open plan office space; and
- 101 Flemington Rd Mitchell, Canberra, for a 360 people, took approximately six months to complete, this site delivered an excellent outcome in a short time because the building was purpose built (the reason for Defence's interest) to accommodate a call centre, saving Defence significant time and money in fit-out costs.

(d) There are 145 car parks allocated to Defence at the Penrith site. The lease provides 135 car parks; however, there is no charge within the lease attributed to any of the spaces occupied by Defence. Defence normally provides dedicated car parks to SES officers and Defence owned branch vehicles and reasonable parking for other staff. The amount of staff parking varies between locations.

(e) The fit out of the facility is designed to accommodate 240 personnel, a mix of ADF and Defence civilians. 180 personnel have now moved from the Defence property at Orchard Hills to the new facility. The remaining workspace allows for anticipated growth in a number of Munitions Branch project teams.

(f) The facility has been procured and fitted out to accommodate the entire Munitions Branch of the Defence Materiel Organisation (DMO) which was previously located at Orchard Hills. All Munitions Branch staff are now located in the new premises. Additional staff collocated there include elements of the Divisional headquarters team, which support Munitions Branch, and members of DMO's Finance Division responsible for inventory accounting.

(g) The DMO and Defence elements which are currently housed in temporary ageing facilities at Orchard Hills will relocate to some of the recently vacated buildings. The now vacant temporary facilities will be demolished.

The other Defence elements/existing DEOH occupants are:

- 5 CER - 5 Combat Engineers Regiment (Army Reserve);
- MUNSPO - Munitions Systems Program Office (DMO);
- 1AOSS-EODF - No 1 Airfield Operations Support Squadron - Explosive Ordnance Disposal Flight (RAAF);
- DEOTS - Defence Explosive Ordnance Training School (RAAF); and
- DEOS - Defence Explosive Ordnance Services (Vice Chief of the Defence Force/Joint Logistics Command).

The remaining facilities vacated by Munitions Branch will be used for training rooms and administration offices for the trainers, when the Explosive Ordnance Training program (across all services) is consolidated into Orchard Hills.

(h) The DMO, Munitions Branch was accommodated in dispersed dysfunctional, ageing, permanent and temporary office accommodation at Orchard Hills. An internal business case was developed that recommended collocation of the DMO personnel into new facilities in Penrith. The business case identified a requirement for a leased solution. United Group Services Limited (UGL) (the Defence Property Consultants) conducted a market appraisal of all available suitable buildings in the general area. Two suitable buildings were identified in Penrith due to proximity to Orchard Hills and proximity to major rail and bus services. One of the nominated sites was eliminated as it required a development application for the fit-out that added potential risks to the approval process and project schedule. Approval by the Parliamentary Standing Committee on Public Works (PWC) was not required for entering into the lease of the facility and project approval was provided by Defence on 2 April 2009. Defence formally advised the Parliamentary Standing Committee on Public Works (PWC) of the lease and sought approval for the fit-out requirements of 311 High Street. On 12 July 2009, the Committee replied with no objections. UGL then commenced negotiations with the property owner's agent to

secure a suitable lease. After lengthy negotiations with both the owner’s legal representative and his agent, a lease was signed with a commencement date of 1 April 2010.

W28

AIR 9000 – Phase 8
Senator Johnston

The White Paper indicated that as a matter of urgency the Government would acquire at least 24 new naval combat helicopters. The new aircraft will possess advanced anti-submarine warfare capabilities along with an ability to fire air-to-surface missiles.

(a) When will a decision be made on this urgently required capability?

(b) What will be the purchase price of this capability if the:

(i) MH-60R is chosen?

(ii) NFH-90 is chosen?

(c) What will be the total cost of through life support and operating costs for the next 5 years; 10 years; 20 and 30 years if the:

(i) MH-60R is chosen?

(ii) NFH-90 is chosen?

(d) How many jobs will be created in Australia to assemble and build the assets if the:

(i) MH-60R is chosen?

(ii) NFH-90 is chosen?

(e) How many jobs will be created in Australia to maintain and sustain the naval combat helicopters if the:

(i) MH-60R is chosen?

(ii) NFH-90 is chosen?

Response:

(a) The Government is expected to consider Defence recommendations relating to AIR 9000 Phase 8 this year.

(b) The tendered acquisition prices for both offers are subject to an ongoing competitive evaluation and remain commercial-in-confidence.

(c) The tendered through-life-support costs for both offers are subject to an ongoing competitive evaluation and remain commercial-in-confidence.

(d) The tender details for both offers is subject to an ongoing competitive evaluation and remain commercial-in-confidence.

(e) The tender details for both offers is subject to an ongoing competitive evaluation and remain commercial-in-confidence.

W29

AIR 9000 – Phase 8
Senator Johnston

I refer to a statement made in the December 2010 *Asia Pacific Reporter* that says:

"Because of the "family" design approach the Romeo uses the same engines as the retiring SH-60 series, albeit improved with the addition of a digital engine control unit. The helicopter also retains an older system of mechanical flight controls, though without adverse impact on reliability or handling.

Australia stands to benefit from future USN upgrades to their MH-60Rs, which will be progressively improved, principally through new software insertion.

However, a complicating factor for Australia is that the USN actually deploys two types of Seahawk, with the MH-60 Sierra complementing the Romeos, particularly when they are operating as part of a large aircraft carrier battle group. The role of the Sierra is to undertake the workhorse functions of transport, vertical replenishment and so on. It is relatively simple to reconfigure a Romeo to free up internal room by removing the dipping sonar and other items, but this does take some time and the US prefers to have Sierras available whenever possible. Last year when the carrier USS Stennis undertook a 6-month deployment in the Pacific, 11 Romeos and 8 Sierras went along with the battle group.

Another reason why the USN has two types of Seahawk is because of pilot training and specialization. The US prefers to have two streams—one for warfare pilots and another for those undertaking more general missions—and has the resources to match the helicopters with the people flying them.

Australia is only interested in purchasing Romeos because the RAN can only operate one helicopter per ship. The Romeo is described as a multi-mission helicopter and it is certainly flexible, the only question is whether it is flexible enough for Australian purposes."

(a) If our alliance partner the US deploys two types of Seahawk helicopters, the MH-60 Sierra and the MH-60R and the former is primarily used to be the work-horse of the two why would we be contemplating buying the MH-60R that has to be re-configured to effectively perform this task?
(b) What armaments, and in particular missiles, are to be deployed by the:
- **(i) MH-60R if it is chosen?**
- **(ii) NFH-90 if it is chosen?**

(c) What maximum range does each missile system have that is standard fitted to the:
- **(i) MH-60R?**
- **(ii) NFH-90?**

Response:

(a) The utility or "workhorse" functions required by the Navy will be undertaken by the MRH90 helicopter acquired under AIR 9000 Phase 6. Separately, AIR

9000 Phase 8 is acquiring a combat helicopter. These separate projects satisfy Navy's dual requirements for combat and utility helicopters.

The future requirement for a combat helicopter on operations to have secondary utility capabilities has formed part of the evaluation for AIR 9000 Phase 8.

(b) (i) The MH-60R is certified to fire the AGM-114 Hellfire II air-to-ground missile. Up to eight Hellfire II missiles can be carried. The MH-60R is also certified to carry and launch the Mk 46 or Mk 54 light weight torpedo and to be equipped with a crew served 7.62mm or 12.3mm machine gun.
(ii) The NFH will be certified to fire the Marte Mk 2/S anti-ship missile. Up to two Marte Mk 2/S missiles will be able to be carried. The NFH will also be certified to carry and launch the MU90 light weight torpedo and to be equipped with a crew served 7.62mm or 12.3mm machine gun.

(c) (i) The Hellfire missile has a range of greater than 8 km.

(ii) The Marte Mk2/S has a range of greater than 30 km.

W30

AIR 9000 – Phase 8
Senator Johnston

I refer to a further statement made in the December 2010 *Asia Pacific Reporter* that says:

"The reason why the Romeos carry a short range missile is because they typically operate as part of a far larger structure—often a carrier battle group—and attacks on hostile major surface combatants would be carried out by other available assets such as fixed-wing aircraft. The Romeo is optimized for use against swarm and speed boats—though the task of holding the guidance laser onto a small, bouncing, fast moving target cannot be easy. USN operators say that the Romeo could, if required, engage a larger ship—but placing a helicopter within 10 kilometres of a modern surface ship would be an extremely hazardous undertaking. While the Hellfire is proven, extremely reliable and one of the world's best small missiles it could not be considered a genuine anti-ship weapon…. It has been said that the Hellfires on MH-60Rs could be used in support of ground troops during amphibious operations. This would seem to be a risky use of an expensive naval asset, especially when Australia has already purchased Tiger helicopters—equipped with Hellfire missiles—for precisely this task."

If this is the case why would MH-60R be considered as a suitable replacement for our current naval helicopters?

Response:

The air-to-surface missile requirement for AIR 9000 Phase 8 has been investigated through operational analysis and war-gaming exercises. This has been used to determine whether the future naval helicopter would be a priority strike capability in longer-range open water engagements between major surface combatant fleets and/or shorter range precision engagements for force protection of a task group in the littoral environment (more suited to the Hellfire missile). This analysis takes into account the range of strike options available to the future Australian Defence Force and how either a Marte or Hellfire weapon would effectively fit into the force structure. The outcomes of this analysis will form part of the final submission to Government.

W31

AIR 9000 – Phase 8
Senator Johnston

I refer to a further statement made in the December 2010 *Asia Pacific Reporter* that says:
"The Mk 54 lightweight torpedo that will equip Romeos is also part of the US "family" concept discussed earlier. It is an upgrade of the venerable Mk 46 designed to improve performance in shallow water but maintaining the old propulsion system. This is a uniquely American method, using Otto fuel rather than batteries. This propellant is a mixture of three synthetic substances and for the chemists out there they are: propylene glycol nitrate; 2-nitrodiphenylamine and dibutyl sebacate.

Otto fuel is considered toxic and over-exposure to it produces unpleasant effects such as headaches, nausea, loss of balance, poor hand-eye coordination, nasal congestion, eye irritation and breathing difficulties. The effects of long term exposure are unknown. It is also expensive and difficult to procure. The MU90 is an electrically driven lightweight torpedo with excellent performance in all conditions. In fact it is so good is it that it was selected by Australia a decade ago in a direct competition against the Mk 54 and is currently being fitted to RAN's Anzac frigates, FFGs and will go on the new 'Hobart' Class air warfare destroyers— all of which will embark the helicopters being purchased via AIR 9000 phase 8.

It has been suggested that in a time of conflict or during operations involving the USN, Australia would be better off with the Mk 54 because of ease of re-supply. This is a dangerous and untestable assertion. If Australia was at war and the US was not, then it is possible that the RAN would indeed receive replacement Mk 54 torpedoes quickly. But in the far more likely event that we were in a conflict together the natural instinct of the USN would be to look after their own interests first. Any captain who gave away some of their key anti-submarine weapons to an ally and whose ship was subsequently sunk by an enemy submarine would be declared insane

As the British soon discovered during the Falklands war, anti-submarine torpedoes are used at a prodigious rate—basically being fired whenever an underwater contact is made in case it is a submarine. The consequences of not doing so could be catastrophic—waiting for a submarine to be confirmed as such might allow it enough time to fire torpedoes at surface ships, including aircraft carriers. In a time of war, any navy that has that has lightweight torpedoes will in all probability keep them for their own use.

With this in mind, for reasons of self-reliance Australia has an assembly line for MU90s and could produce more of them if required and given some warning time.

As is the case for the missiles, it is hard to understand why the matter of the torpedo apparently does not form part of the fundamental decision-making matrix for Phase 8."

If this is the case why would MH-60R be considered as a suitable replacement for our current naval helicopters?

Response:

Weapons effectiveness, interoperability, cost and supply form part of the AIR 9000 Phase 8 evaluation. The outcomes of this analysis will form part of the final submission to Government.

W32

AIR 9000 – Phase 8
Senator Johnston

I refer to a further statement made in the December 2010 *Asia Pacific Reporter* that says:
"It has also been convincingly argued that the RAN could make an even more significant contribution with the NFH because it would complement US systems. In any realistic scenario, Australia's contribution to any one operation would be one, two or three ships and therefore a matching number of helicopters. As the USN has 300 Romeos on order and around 20 Romeos and Sierras as part of any battle group, Australia's contribution of up to three additional MH-6ORs would be welcome, but probably not decisive. But if Australia contributed three helicopters with long-range surface strike missiles, a different and arguably more capable torpedo, a different dipping sonar and an ability to carry larger boarding parties—these things could all make a major difference in a coalition operation."

If this is the case surely this would be a compelling reason to select the NFH as the suitable replacement for our current naval helicopters?

Response:

The AIR 9000 Phase 8 candidate systems, including their weapons, are being thoroughly evaluated by Defence against the assessment criteria of capability, interoperability, schedule, commercial and Australian industry opportunities, intellectual property rights, performance history, risk, and price. They are also evaluated against a variety of operational circumstances, of which the Asia Pacific Reporter describes only one. On the basis of the competitive evaluation underway, Defence will recommend to Government the solution which provides the best value for money to the Commonwealth of Australia in meeting the agreed capability requirements.

W33

Force Protection Measures
Senator Johnston
Action Area: VCDF

Ministers Smith and Clare at a press conference on the 1st Feb 2011 said that in regards to force protection measures and in particular to the "high technology anti-IED measure that will not proceed".

(a) Could you please advise:

(a) the particular issues with this technology,

(ii) the timeframe the "technological application" is likely to be available and;

(iii) the extent to which Defence is driving the availability of this technology.

(b) SAR radars and/or CCD are already widely employed by other NATO–ISAF partners in the counter IED fight, so why is Australia not proceeding down this path as a matter of urgency in an all out effort to protect our troops on the ground in hostile environments?

Response:

The technology referred to in the question is highly classified.

Defence, through the work of the Defence Science and Technology Organisation, and also through engagement with our coalition partners, continually monitors developments across a range of counter-IED technologies in order to assess their performance and suitability for use by the Australian Defence Force (ADF) on current operations.

The intent of the force protection measure was to evaluate the effectiveness of a highly advanced anti-IED capability. As the plan matured, the full costs and risks associated with the evaluation trial emerged. This necessitated a reconsideration of the scope of the measure. As a result, a less ambitious trial is being conducted in Australia this year. Research and evaluation in this area continues

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W34

Collins Submarines – Current sustainment and Operating costs
Senator Johnston

Between 2003/04 the 2009/10 the cost of submarine sustainment has gone from approximately $203M to $325M (60% increase in cost). At the same time, the number of Unit Ready Days has decreased.

(a) What are the primary reasons for this increase in cost/decrease in availability?
(b) In 2003, what were the DMO's forward estimates for Collins Class Submarine Sustainment Costs through to FY 2009/10.
(c) If the forward estimates and actual costs were different, how has this increase in cost been funded?
(d) Noting the Collins sustainment and operating costs for last financial year came to $688 million.
(i) What were the total Unit Ready Days achieved in the corresponding period
(ii) What was the total cost per Unit Ready Day.
(e) Noting that DMO ultimately pays the bill, what has been the cost to date of Deep Blue Tech PTY LTD to the taxpayer?
(f) Noting the DMO ultimately pays the bill, what are the projected costs to date of Deep Blue Tech PTY LTD to the taxpayer?

Response:

(a) Unit Ready Days (URD) are a Navy measurement which relates to the crew's training and readiness state as well as the boat's material state. Material Ready Days (MRD) are a measure of boat material availability only. These are used by Navy as the capability manager, to specify what Defence is required to deliver to meet the URD requirement.

As observed in the Defence Budget Audit Report (2008), systemic issues drive cost increases and material availability (MRD), which in turn affects Navy's ability to achieve URD. These issues include the need to remediate legacy problems from build, overlapping docking periods creating demands on finite resources of both funding and people, and lack of contingency to absorb emergent work. These issues drive schedule instability; schedule instability drives other issues such as supply support and productivity efficiency, in turn extending maintenance activity time. This has led to low availability in recent years and has impacted on Navy's ability to sustain trained crews.

In addition, at the beginning of this time period the last submarine HMAS *Rankin* was delivered into service. Concurrently, the first submarine delivered into service, HMAS *Collins*, was undertaking its first full cycle docking. These activities provided work and cost data to compare against the sustainment budget planning baseline. This resulted in corrections to the funding baseline and forward estimate cost.

(b) In 2003, costs were not assigned discretely to delivery of 'sustainment' as is currently the case following Defence Materiel Organisation (DMO) prescription. As a consequence, forward estimates from 2003 do not directly align to current cost categories. The present system of cost categorisation and attribution to specific products has evolved in response to the Kinnaird report in 2003 and resultant DMO prescription in 2005, with further improvements made in response to Mortimer in 2008.

Following are Navy's forward estimates as at FY 2003/04, for supplier and inventory costs for submarine operations; with additional FY forecast provided from FY 2004/05.

2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Navy Capability for Submarine Operations from FY 2003-04 Suppliers – Inventory and Non-Inventory						
281343	234579	220119	225057	Not provided in FY 2003/04	Not provided in FY 2003/04	Not provided in FY 2003/04
Navy Capability for Submarine Operations from FY 2004-05 Supplier Expenses and Inventory Consumption						
				348409	Not provided in FY 2004/05	Not provided in FY 2004/05

(c) The increase in cost has been funded through:

- the Logistics Funding budget measure as part of the 2003/04 PBS;
- the 2006/2007 Logistics Shortfall Review on expiry of the 2003/04 Logistics Funding budget measure;
- the 2008/2009 White Paper process; and
- the approved reallocation of funding internal to Defence for FY 2010/2011.

(d) (i)-(ii) This information can only be provided in a classified briefing.

(e) Defence does not have access to this information. In the ASC 2010 annual report, the company reported annual revenue of $516 million and profit after tax of $4.3 million. It was stated that this performance reflected 'significant restructuring costs and ASC's self-funding of Deep Blue Tech'.

(f) Defence does not have access to this information.

W35

Collins Submarines – Benchmarking
Senator Johnston

You have advised that Defence has benchmarked our submarine sustainment costs against Swedish Gotland Class submarines and United States Navy Los Angeles Class submarines.
(a) What sort of availability does the Swedish Navy get from its 3 Gotland Class submarines?
(b) What are the annual sustainment costs of the 3 Gotland Class submarines?
(c) What are the annual operating costs of the 3 Gotland Class submarines?
(d) What was the cost per Unit Ready Day for Gotland Class submarines?
(e) What sort of availability does the United Navy get from its 45 Los Angeles Class submarines?
(f) What are the annual sustainment costs of the 45 Los Angeles Class submarines?
(g) What are the annual operating costs of the 45 Los Angeles Class submarines?
(h) What was the cost per Unit Ready Day for Los Angeles Class submarines?
(i) In respect to your decision to establish "internal benchmarks" with respect to sustainment costs:

- **(i) Why has the DMO not increased its sample size perhaps with countries like Japan, South Korea or Singapore?**
- **(ii) How do you "internally" benchmark sustainment costs to determine that we are getting good value for money?**
- **(iii) How can we be confident that the organisations involved in establishing 'internal benchmarks' have the necessary skills and experience to establish achievable, realistic benchmarks that will provide the required availability and represent value for money?**

Response:

(a) to (h) Please see answers to Q12.

(i) (i) The benchmarking review conducted by ASC was able to draw on established relationships the company has with both Kockums of Sweden and Electric Boat of the United States. There are no similar established relationships with submarine companies in other countries. Any extension of benchmarking to other submarine operators would have to rely on public information. Global Defence sensitivities limit the availability of such information.

(ii) Establishing a Collins-specific benchmark against which to judge value for money per material ready days is the subject of the current Collins program reform efforts. The program is working to establish a practical benchmark to compare operating costs for elements of the Collins platform and combat system with similar elements of other capabilities, ie as close as possible to 'an apples with apples' comparison. This will then be compared against a measure of acquisition versus sustainment costs and a more accurate bottom-up activity based model, currently being established to support a performance-based contracting model for Collins sustainment.

(iii) The Collins Program will establish benchmarks utilising information and expertise available through existing connections with submarine and other organisations in the UK and US, and through bilateral interaction on materiel matters, with Sweden, Norway and Canada.

W36

Collins Submarines – Docking Costs
Senator Johnston

It is accepted that submarine dockings consume a significant proportion of a submarine's sustainment costs. At a previous Estimates hearing VADM Crane said at Estimates: "So the full-cycle docking period that we are currently allocating as we move this forward will be around 30 months".

(a) Has the DMO established how a 30 week full cycle docking compares to a variety of other extant submarine forces – which ones and what are their full docking cycle periods?

(b) In the funded Request for Information to DCNS, HDW, Kockums, and Navantia how does a 30 month full cycle docking regime as applicable to the Collins class compare with the average full cycle docking across the Scorpene, the Types 209; 212 and 214, the A-26 and the S-80?

Response:

(a) The full cycle docking process (FCD) is a legacy of the maintenance philosophy derived during the Collins build. The maintenance benchmarking review indicated that there is no direct equivalent to the FCD in Los Angeles or Gotland class submarines usage upkeep cycles (UUC).

Of note, the current Los Angeles UUC has evolved over many years of operation. A Los Angeles depot modernisation period (DMP) represents an equivalent number of manhours (excluding propulsion) and is undertaken in 56 weeks. The Integrated Master Schedule allows for a 36 month full cycle docking (FCD) period, which includes provision for emergent issues, project implementation and contingency. The disparity with the Collins 36 month FCD is predominantly driven by maintenance philosophy (ie on-condition maintenance), industry capacity and industry level loading considerations, noting the much larger fleet size.

The recent change from a 6 to 8 year UUC for Collins, including consideration of moving from 'as new' to 'on-condition' maintenance, aims to leverage off the initiatives used to rationalise the Los Angeles class UUC. These changes cannot be undertaken immediately and require careful engineering oversight to ensure that the certification and technical integrity of the Collins class is maintained.

(b) All the submarines cited aim for a 12 month major maintenance availability, not including allowance for any significant capability enhancement. The length of this maintenance period is based on the more benign operating environment and shorter mission duration for which these submarines are designed compared with Australia's operating requirements.

W22 - Projects

Name of Project	(a) On schedule	(b) Slippage of delays	(c) On budget
C-RAM counter missile system	Land 19 Phase 7A (CRAM) is progressing on schedule. The Initial Operational Capability (IOC) was achieved in December 2010 (due May 2011).	Not Applicable	Land 19 Phase 7A (CRAM) is within its budget provision.
Multicam uniform	The uniforms were available to Defence on 28 February 2011, on schedule.	Not Applicable	This has been finalised within budget.
TBAS combat body armour	TBAS vests and load carriage pouches were delivered to Mentoring Task Force 3 in late March 2011 in order to enable the soldiers to train on the system during Mission Rehearsal Exercises.	Not Applicable	The TBAS combat body armour is within budget.
Bushmaster vehicles	Bushmaster seating and flooring enhancements are progressing on schedule. Fitment is currently occurring in the Middle East Area of Operations as of May 2011.	Not Applicable	Bushmaster seating and flooring enhancements are being undertaken within the budget allocation.
G-Wagons vehicles	Vehicle production is ahead of schedule and the first batch of 35 vehicles arrived in Australia mid-January 2011. Defence accepted these vehicles on 18 February 2011. This first batch will allow training to commence in April 2011. An additional 100 vehicles are currently being transported to Australia with Introduction into Service scheduled to occur later this year.	Not Applicable	LAND 121 Phase 3 Light and Lightweight Capability is currently on budget.
The final 9 Super Hornets	The project is on schedule.	Not Applicable	Super Hornets is under budget.
Wedgetail	Project Wedgetail is not on schedule.	Project Wedgetail is a "first of type" development and extremely complex, given the range of cutting-edge radar technology and sensors that will be incorporated	Project Wedgetail is on budget.

		into each aircraft. Over the period 2006-09, the Project experienced problems related to supplier hardware availability, aircraft modification, radar and electronic support measures (ESM) subsystem maturity, and integrated system stability. These problems collectively resulted in a 49 month delay to Final Acceptance of the system. Since reaching a settlement with the Commonwealth in November 2009, Boeing has continued to experience problems with ESM subsystem maturity and integrated system stability resulting in Final Acceptance not being achieved in December 2010 as planned. The Project is currently in negotiations with Boeing over the path to Final Acceptance and capability deliveries will continue throughout 2011 as we work towards Initial Operating Capability.	
Air Warfare Destroyer (AWD)	On 26 May 2011, the Minister for Defence announced the reallocation of construction work for the AWD Project to prevent a possible two year delay in the construction of HMAS *Hobart*. Working with BAE Systems, the AWD Alliance has proposed an action plan to reallocate block construction between the three Australian shipyards, and the allocation of up to five blocks to Navantia, Spain. This early action will reduce the delay of the completion of Ship 1 by up to 12 months.	Last year the project encountered difficulties in relation to engineering and construction of some of the first AWD hull blocks. To assist the AWD project schedule, earlier this year the AWD Alliance reallocated construction of nine steel blocks from BAE Systems in Melbourne to the Forgacs shipyard in Newcastle. The Melbourne BAE Systems shipyard remains stretched, working on two major projects at the same time – steel blocks for the AWDs and the superstructure and integration of the Landing Helicopter Dock Ships. The AWD Alliance advised that if nothing was done to relieve the pressure on the Melbourne BAE Systems shipyard the first AWD would be two years late. The AWD Alliance (with the support of BAE Systems) proposed reallocating work on up to 13 steel blocks among the three Australian shipyards in Adelaide, Melbourne and Newcastle – seven for advanced fit out and six for construction; and the reallocation of up to	The delay in delivery of the AWDs will add some cost to the project. The AWD Alliance estimate the impact is within overall budget limits.

		five steel blocks to Navantia in Ferrol, Spain. These changes involve the reallocation of blocks for the first two ships only and are subject in the usual way to satisfactory commercial arrangements with the shipyards. A decision on the reallocation of blocks, if any, on the third AWD will be made later in the project.	
Anzac Class Anti-Ship Missile Defence (ASMD)	Originally planned for installation into all eight ANZAC Class ships under a single contract, a further review in 2007 of the technical risks associated with the introduction of the leading edge radar led Government in August 2009 to revise the acquisition strategy to a single ship installation. This strategy allows the project to prove this capability at sea before seeking Government approval to commence installation into subsequent ships. The lead ship, HMAS *Perth*, commenced its upgrade on schedule in January 2010 and is currently conducting at sea testing. All key milestones in HMAS *Perth* continue to be achieved to schedule.	Not Applicable	As highlighted in the 2009-2010 Defence Materiel Organisation Major Projects Report, this Project is currently working within its approved budget for delivery of the lead ship. As required by the Government in August 2009 determination of any real cost increase required to complete the remaining seven ships will be advised to Government on successful completion of lead ship sea testing.
LHD	The project is currently on schedule with the second LHD (LHD02) keel being laid on 18 February 2011. LHD 01's hull was launched on 17 February 2011 and is undergoing internal fit-out. Fit out of LHD 01 is expected to be completed by June 2012, after which the hull will commence its journey to Australia. Progress of erection of LHD 02 hull is well advanced with 10 per	Not Applicable	The LHD project is currently on budget.

	cent of the hull erected on the slipway at the end of March 2011.		

W37

Collins Submarines – Procurement
Senator Johnston

A consistent theme in the ANAO's 2009-10 DMO Major Project Report is that upgrades/enhancements to Collins are frequently inhibited by the capacity/resources of ASC to complete installations in the docking cycles.

(a) What equipment/capabilities have been procured but not installed as a result of lack of capacity/resources at ASC?

(b) What has been the cost for equipment/capabilities procured for the Collins Class submarines but not yet installed?

Response:

(a) The major capabilities being provided through the Collins related projects reported in the ANAO 2009-10 Major Projects Report are installed during full cycle docking (FCD) availability for each submarine within the overall Collins integrated master schedule. The three projects: SEA 1439 Phase 3 (Reliability and Sustainability), SEA 1429 Phase 2 (Heavy Weight Torpedo) and SEA 1439 Phase 4A (Replacement Combat System) were approved by Government in September 2000, July 2001 and September 2002 respectively. As a result of a range of program issues, including limited industry capacity; industry efficiency; funding constraints; significant emergent design defects and unavailability of submarine crews; delays to the FCDs have occurred. These delays automatically delay the work necessary to incorporate the capability projects across the fleet. The specific project work required for SEA 1429 and SEA 1439 Phase 3 were engineering modifications to existing platform systems. There were no major equipment purchases associated with these two projects impacted by delays. With respect to SEA 1439 Phase 4A (RCS) the project received the final two combat system ship sets in 2007 and these remain to be installed.

(b) All the design and related non-recurring engineering work, for all the capability projects as reported in the ANAO 2009-10 Major Projects Report, has been completed. With respect to the majority of the work, the materials necessary to incorporate the submarine modifications are procured as needed within the planning cycle for each respective FCD. The material cost of the commercial off the shelf components that comprise a single AN/BYG-1 combat system and not yet installed is $2.8 million.

W38

Collins Submarines – Unit Ready Days
Senator Johnston

Noting that the DMO is mandated to consider value for money in executing its responsibilities, in terms of cost per submarine Unit Ready Day: What does the DMO recognise as good value for money?

Response:

Unit Ready Days (URD) are a Navy measurement and are determined by the crew's training and readiness state as well as the boat's material state. Material Ready Days (MRD) are a measure of boat material availability only. These are used by Navy as the capability manager, to specify what the Defence Materiel Organisation (DMO) is required to deliver to meet the URD requirement.

Value for money in delivering the specified Material Delivery Days is achieved through performance-based contracting and commercial incentives aimed at improving efficiency. A benchmark to judge value for money for the delivery of MRD is currently being developed.

W39

Collins Submarines – Capability
Senator Johnston

In previous answers to my questions you have indicated that there are a number of areas where Collins has a capability shortfall in relation to well-maintained regional submarines—indiscretion, deep diving depth, main motor efficiency, signatures, sonar and submarine communications. You have also indicated that Collins is assessed as being more capable than regional conventional submarines in many capability areas.

(a) In what broad capability areas does the Navy assess itself as being more capable than regional submarines?
(b) In relation to the inclusion of U.S equipment on Australian submarines does any of this equipment incur any penalty in terms of operational restraints or sovereign use?
(c) If the answer to question (b) is yes, was the Australian Government clearly advised of this operational restraint or sovereign use during procurement approval deliberations?

Response:

(a) to (c) The specific areas that Collin's is assessed as more capable than regional conventional submarines can only be provided in a classified brief. Navy extends the offer to provide a classified brief to the Senate Committee.

W40

Collins Combat Systems
Senator Johnston

In relation to the Collins Class Submarine AN/BYG-1 Tactical Command and Control System:

There has been a recent negative report from the US Navy's Director of Operational Test and Evaluation suggesting the AN/BYG-1 tactical command and control system as fitted to Collins "is not able to support operations in difficult high-contact density environments".

(a) Noting we are a program partner, at what date were we given access to the underlying classified reports behind this public report?
(b) How much has the AN/BYG-1 cost the taxpayer thus far in terms of project costs?
(c) How much has the AN/BYG-1 cost the taxpayer thus far in terms of sustainment costs?
(d) How much has the AN/BYG-1 cost the taxpayer thus far in terms of operating costs?
(e) What are the ongoing total sustainment and operating costs for the AN/BYG-1
(f) In the year prior to being merged with the Collin Class SPO, how many uniformed, APS, DSTO and PSP personnel were billeted to Collin Class Combat System SPO and from what budget were their salaries and expenses paid.
(g) How many uniformed, APS, DSTO and PSP personnel are currently billeted to the Collins Class SPO for purposes related the total combat system and from what budget are their salaries and expenses paid?
(h) What are the total overseas travel costs and overseas posting costs for the AN/BYG-1 Tactical Command and Control System to date (including the cost or running the Joint Program Office)?

Response:

(a) As part of the joint program arrangement between Australia and the US Navy we are able to fully engage in the test and evaluation program both through our on site team and the Royal Australian Navy Trials and Evaluation Analysis Authority (RANTEAA). The only limitation is access to information related to components and capabilities of the Combat System configuration unique to the US Navy.

Australian access to final classified test and trials results is available when reports are endorsed and deemed appropriate for released by the US Navy operational test and evaluation authority. The APB 07 Operational Test and Evaluation Report, for testing completed in September 2010, has been requested and an appropriate version will be released to Australia once the unique US Navy elements have been reviewed and edited as necessary.

W41

Collins Combat Systems
Senator Johnston

It is presumed that the RAN is locked into continuous upgrades of the AN/BYG-1 Tactical Command and Control System to ensure ongoing support:

(a) What are the ongoing program participation costs paid to the United States Government in percentage terms (of their program) and absolute cost?

(b) What mechanisms are in place to control the ongoing costs?

Response:

(a) Under the Armaments Cooperative Project (ACP) arrangements with the US Navy for the joint design, development, production, test, evaluation and support of the AN/BYG-1 system, Australia contributes 15 per cent of the costs associated with all activities common to both countries. Each country also pays 100 per cent of any costs uniquely attributable, such as the actual hardware that is installed in submarines and any unique capabilities aligned to each submarine class.

The initial adaptation of AN/BYG-1 for the unique characteristics of the Collins platform, sensor fit and our operational concepts with the necessary hardware for the first submarine and the associated shore test and training facilities cost is A$88 million. The support for the ongoing design, development, production, test, evaluation and support under the provision of the ACP will cost US$323 million over the period 2004 to 2018.

(b) The financial framework underpinning the AN/BYG 1 ACP imposes financial ceilings, which can only be altered with written consent of both participants. Experience to date has been that the Australian contribution has been lower due to reductions in US budgets and the efficiencies provided by the program arrangements.

Additionally, the US program is managed in a fiscally constrained environment, is constantly having to justify its budget and achieve value for money and undertakes routine competitive re-tendering for the work in support of the joint program.

Defence conducts financial performance reviews approximately every six months with US Navy senior executives, DMO and Joint Project Office staff working level reviews aligned to Australian budget estimates processes and ongoing reviews as part of the monthly DMO management reporting system associated with both project and sustainment governance.

W42

Collins Combat Systems
Senator Johnston

Across the 6 Collins Class submarines:
(a) How many different Combat System (note: not just the AN/BYG-1) configuration baselines are there (including legacy baselines)?
(b) What effect does each different configuration baseline have on sustainment costs?
(c) What effect does each different configuration baseline have on operator training costs?

Response:

(a) There are currently three configuration baselines in service. HMAS *Collins* has combat system augmentation (CSA), which is an improved legacy system provided under Collins remediation. It will remain in service until July 2012. HMA Submarines *Waller* and *Farncomb* have the initial AN/BYG 1 baseline, which achieved operational release in December 2009. HMAS *Dechaineux* has an upgraded hardware and software baseline delivered from the Armaments Cooperative Project (ACP) continuous improvement program, which achieved initial operational release on 8 March 2011. This is the baseline currently 75 per cent installed in HMAS *Sheean* during her full cycle docking (FCD). HMAS *Rankin* is currently in FCD and will have its CSA baseline replaced with AN/BYG-1. It is planned for the baseline on HMA Submarines *Waller* and *Farncomb* to be upgraded to the same baseline as is fitted to HMA Submarines *Dechaineux* and *Sheean* with the next upgraded hardware and software baseline to be installed into HMA Submarines *Rankin* and *Collins*. It is expected that as an ongoing arrangement two baselines will exist across the six submarines at any one time aligned to the continuous improvement program.

(b) The steady state plan under the AN/BYG-1 continuous improvement program is to have two baselines at any time across the six Collins submarines. This program and the resultant baselines will be managed in line with the common program with the US Navy but adapted to reflect the size of the Australian fleet. The adapted arrangement will see, on average, an updated hardware baseline every four years and upgraded software every two years. Under this process an optimised sustainment arrangement is reached between the rate of technology and software refresh to maintain the capability advantage, level of spares necessary and the rate of change to the fleet baselines. The costs for the development in support of this program are shared between the US Navy and Australia in accordance with the Armaments Cooperative Project arrangements.

(c) Under Project SEA 1439 Phase 4A replacement combat system AN/BYG-1 integration, test and training infrastructure was established that caters for up to two baseline configurations. This shore-based environment is updated as part of the AN/BYG-1 continuous improvement program to reflect the baselines as they evolve in both hardware and software and installed within the submarines.

W43

Collins Combat Systems
Senator Johnston

Against our funding contribution:
What elements of the development path has the Australian Navy driven? Which Australian based entities have been brought into the US development program? To what extent?

Response:

The essence of the joint program under the arrangement of the Armaments Cooperative Project (ACP) between the US Navy and Australia is the acceptance of a core system common to both the US Navy and Royal Australian Navy (RAN), with as few unique elements as is possible. This is driven by both the operational benefits of increased interoperability but also the financial benefits to both participants from the agreed cost sharing arrangements.

There was an initial adaptation of AN/BYG-1 for the unique characteristics of the Collins platform, sensor fit and our operational concepts. A cornerstone of the Advanced Processor Build (APB) software activity is the role of the Submarine Tactical Requirements Group (STRG) and supporting working groups to set the requirements for capability improvement. The STRG comprises US Navy and RAN senior submarine operators. This is a key arrangement through which the RAN injects its requirements and provides feedback and comment on AN/BYG-1.

The STRG and APB processes are the main avenues for influencing change and capability for AN/BYG-1. The APB process also provides an opportunity for Australian industry engagement.

W44

Collins Combat Systems
Senator Johnston

It is noted that US companies are usually fully funded by the US Department of Defense (e.g. via the SBIR and/or other programmes) to conduct the initial Research and Development required to develop capability suitable for injection into the APB process. By contrast the Australian DoD does not fund company R&D activities.

Is Defence concerned that this non-level playing field overly skews the APB process away from Australian industry to the point where it is not viable for Australian companies to participate?

Response:

The US Department of Defense (DoD) does focus investment of Research and Development (R&D) funding to maintain the capability edge for the US Submarine combat related systems including AN/BYG-1.

The cooperative program between the US Navy and Australia, for the AN/BYG-1, includes continuous improvement and ongoing capability upgrades achieved in part through the Advanced Processor Build (APB) process.

The APB process broadly engages with the relevant industry and academic community, to source innovative solutions and to fund further improvement and evaluation, for a range of operational or capability problems to be solved or improved.

Australian Defence programs are part of the Government's $445.7 million investment package over the period 2009-10 to 2018-19 aimed at boosting the competiveness of, and providing opportunities for, the Australian Defence industry as outlined in the Defence Industry Policy Statement 2010 – *Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base.*

Three Australian Defence programs which have similarities with the US Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, though run on a much smaller scale, are:

- **Capability and Technology Demonstrator (CTD) Program.** This $51 million program is funded through the Defence Science and Technology Organisation (DSTO) and allows Australian industry to demonstrate how advanced technologies can enhance the ADF capability and promotes innovation, productivity and competitiveness in local industry.
- **Capability and Technology Demonstrator Extension (CTDE) Program.** This $31.6 million program, funded through the Defence Materiel Organisation and managed by DSTO, provides financial support towards the further development of selected technologies identified through the CTD program. The program is aimed at helping the technology mature and to support the potential transition of the technology demonstration to fielding a product.
- **Defence Future Capability Technology Centre (DFCTC) Program.** This program, funded through the Defence Materiel Organisation (DMO) is a collaborative venture pooling the expertise and resources of industry, universities and research bodies to develop defence technology for the ADF. The DMO contribution amounts to $27.1 million.

We are currently reviewing the potential to tailor aspects of all three of these programs, to better position Australian industry to deliver and achieve on the equity of opportunity afforded through the AN/BYG-1 MOU arrangement with the US Navy through the APB process. In addition it needs to be

recognised that Australia's 15 per cent contribution to the shared operation of the APB process provides us access to the entirety of the US R&D applied in support of the APB objectives.

Other opportunities may also result from the Capability Development Advisory Forum (CDAF) under the chairmanship of the Chief of Capability Development Group to enhance industry's contribution to the national capability edge.

In 2006, as part of the replacement combat system project, a technical assistance agreement (TAA) was established with 10 Australian and 16 US companies and academic institutions to enable full participation in the APB arrangement. This has been a key structural enabler for Australian industry participation.

Notwithstanding this, to date it has been evident that Australian industry has been technically less competitive in the APB process compared to US industry. Opportunities to improve effective participation are increasing as Australian industry becomes more familiar with the operation of the APB process; US management of the APB process becomes more familiar with engaging outside of the traditional US focus; and, most importantly, we more effectively align existing Australian Defence funded industry R&D programs.

W45

Collins Combat Systems
Senator Johnston

It is noted that for an organisation's technology to progress through the APB process, complete disclosure of the underlying algorithms and/or source code must be made. It is further noted that in the US industrial context, organisations will often have developed technology via funded (SBIR or equivalent) contracts, and will already have made such disclosures. By contrast, in the Australian industrial context, organisations will have developed technology via their own funding, and such disclosure (which will not have already been made) would amount to handing over the value of their IP investment.

What objective evidence can Defence provide to show that it has assisted in overcoming this IP impasse?

Response:

The advanced processor build (APB) process has a number of initial stages where intellectual property (IP) ownership and control is not an issue and where companies can participate without abrogating their IP rights.

The APB process has a well documented requirement for open disclosure to allow peer review and assessment and in return the US Navy will recognise the rights of the developer to improve their product under funded arrangements.

Should a proposal be selected to be incorporated into later stages of the APB process, then it is recognised that the IP owner, Defence and the US Navy need to negotiate an outcome to fund the commercial value of the IP to enable further progress. During this negotiation the IP owner needs to consider the potential opportunities of a successful inclusion into the baseline AN/BYG-1 system along with their investment to that point.

Defence works with the US Navy Program Executive Office to ensure these issues are monitored and also work with Australian industry to have early visibility where support is required. Greater engagement and support through Defence funded industry research and development programs would also assist in this regard.

W46

Collins Combat Systems
Senator Johnston

In the 8 years since the signing of the Memorandum of Understanding between the Australian and US Government, and noting the program is designed to rapidly insert new capability into the system:

(a) How many Australian companies have had their products/functions pass through stage one (Technology Evaluation) of the Advance Processor Build (APB) process?
(b) How many Australian companies have had their products/functions pass through stage two (Algorithm Assessment) of the APB process?
(c) How many Australian companies have had their products/functions pass through stage three (System Real Time Implementation) of the APB process?
(d) How many Australian companies have had their products/functions pass through stage four (At Sea Testing) of the APB process?

Response:

(a) The Memorandum of Understanding (MOU) was signed in November 2004. There are currently 16 US and 10 Australian signatories on the Technical Assistance Agreement, signed in 2006, which enables all parties to actively engage in support of the Advance Processor Build (APB) technology evaluation process.

In the APB09 cycle (which commenced in 2007) there were approximately 160 White Papers submitted, of which approximately 20 were Australian. Of these, 4 papers were selected to proceed – OSM, Cirrus and two DSTO papers.

- OSM and Cirrus were both funded to further expand on their White Papers. OSM presented at Step 1 and was not selected to proceed. Cirrus presented at Step 1 and interest was noted, but the analysis was not sufficient to proceed.
- DSTO had an algorithm rejected at Step 1 and another proceed to Step 2.

APB11 had fewer submissions (both Australian and US), partly because the technology focus of this APB was more constrained. Cirrus was funded again in the APB11 cycle and presented a more detailed analysis but were not selected to proceed further.

(b) Only DSTO has progressed through Step 2. DSTO had an algorithm assessed positively in the APB09 Step 2, but it was not progressed due to schedule constraints. This algorithm was progressed to Step 3 for implementation in APB11.

(c) Only DSTO has progressed through Step 3.

(d) Nil.

W47

Collins Combat Systems
Senator Johnston

(a) Does DSTO or suitably qualified Australian APS/Defence personnel participate in APB algorithm assessments as a peer?
(b) Have any Australian companies participated in APB algorithm assessments as a peer?

Response:

(a) The AN/BYG 1 joint project office has since its inception in November 2004 comprised an experienced Royal Australian Navy submarine qualified Commander, experienced senior civilian engineers and experienced DSTO engineers and scientists to support Australia's contribution to the Armaments Cooperative project.

While all members of the joint project office have participated in support of the Advanced Processor Build (APB) process including the various technical working groups, none have formally undertaken a role as a peer reviewer.

An additional DSTO senior staff member is being posted to the joint project office in Washington DC to specially engage more fully in support of the APB program which is managed for the US Navy Program Executive Office Integrated Warfare Systems (PEO IWS) by Johns Hopkins University.

(b) To date no Australian company representative has undertaken a role as a peer reviewer in the APB process.

W48

ARCI Sonar System
Senator Johnston

There has been a recent scathing report from the US Navy's Director of Operational Test and Evaluation suggesting the ARCI Sonar on-board of US submarines is not effective against threat diesel-electric submarines (SSKs) and not suitable for most operations and demonstrate poor situational awareness in high traffic areas. It is reported as not suitable due to problems with reliability, training, documentation, and poor performance of supporting sub-systems.

(a) Is that system being seriously considered for the replacement sonar system?
(b) Noting the problems mentioned in that report and the likely cost can you confirm that there are no plans or desire by Defence to bypass standard procurement practices and to sole source the sonar system from the US integrator or using FMS or similar arrangement?
(c) If sole source/FMS is being considered:
(i) Is this being done for "Strategic Reasons" and, if so, in broad terms what are these reasons?
(ii) Is this being done for "interoperability Reasons" and, if so, in broad terms (and in recognition of the 2002 *Review of Strategic Level Interoperability Between the Military Forces of Australia and the United States of America* and 2004 *Review of Operational Level Interoperability Between the Military Forces of Australia and the United States of America),* what are these reasons?
(iii) Is this being done in response to security restrictions being imposed upon Australia by the United States Government?
(iv) Is this being done as a result of any other direction/representation from the United States Government?
(d) Noting sonar and acoustics is a Priority Industry Capability, has the Department made an assessment of the impact that selection of a US sonar would have on extant local sonar developers and if so what was that assessment?

Response:

It is in Australia's interests for Defence to maintain broad awareness of the capability market; Defence is therefore aware of several unclassified reports relating to the BQQ-10 Sonar Processor, containing comment of a necessarily limited nature about various evaluation findings.

To satisfy US Government industry oversight requirements, reports relating to United States Navy (USN) evaluation of submarine system developments are able to be released to the public. This environment is of great advantage to Australia's interests, providing visibility of annual, public, and frank evaluation results for systems under development. Without this US Navy environment, assessments of similar commercial systems at this stage of development would normally be withheld by industry on commercial grounds.

Defence is currently still considering a number of options for Project SEA 1439 Phase 6. Australia has not committed to any processing solution for SEA 1439 Phase 6, and therefore our current access is restricted to the public versions of these US reports. These are necessarily unclassified and, due to US Defence sensitivities, specific detail on evaluation findings is limited, especially the system performance metrics against which each development baseline is assessed.

The public 2010 report highlights that the system is an improvement over the legacy sonar system it replaces, while identifying some specific operational shortcomings of a specific development baseline of

the BQQ-10 Sonar Processor against modern diesel submarine threats and situational awareness in areas of high traffic density.

(a) The project to consider the replacement of the current Collins sonar, SEA 1439 Phase 6, is currently preparing a submission for Pass 1 consideration by Government. Core Sonar Processing Systems include complex technologies and are available only through a limited number of specialist providers, largely in the United States and Europe.

A number of options are being considered for Project SEA 1439 Phase 6. As a result, the potential options, strategies and any relative assessments or considerations of these options are commercially sensitive and specific details cannot be provided at this time.

Once an assessment of options is completed a recommended acquisition strategy will be presented to Government in mid 2011 as a Project First Pass submission.

(b) and (c) Due to the pre-Pass 1 submission stage of this project, potential options, strategies and any relative assessments or considerations of these options are commercially sensitive and specific details cannot be provided at this time. However, these considerations will be part of the Project First Pass submission to Government.

(d) Acoustic technologies and systems are identified as a priority industry capability (PIC), including the Australian capability in the development and through-life-support of underwater acoustic systems. Australian industry has no capability to provide the full scope of core Sonar Processing System product. However, opportunities may exist for Australian industry to provide specialised niche capabilities.

The project scope also includes the potential for enhancing or modifying the submarine's hydrophone sensing arrays, pre-processing hardware, additional software applications, and operator consoles, with consequent opportunities for Australian industry involvement, consistent with the PIC.

Defence is currently undertaking a detailed review of the PIC, including a health check of Australian industry ability to support. The acoustic technologies and systems PIC is part of this review.

W49

Ongoing Costs for Collins Class Submarines
Senator Johnston

(a) The Budget Statements project that sustainment costs of Collins will rise a further 13% this financial year and 36% over the next 10 years. You have also indicated that Navy, DMO and ASC are working on a new Integrated Master Schedule and negotiating a new in service support contract. You have also indicated that as a result of these activities "it is envisaged that higher levels or funding will be required". How is Defence ensuring that the Integrated Master Schedule (IMS) does not end up being an unrealistic schedule?

(b) The Auditor General reported on Management of Collins Class sustainment in February 2009. Two years later and the through life support contract has not been re-negotiated. Noting both parties to the negotiation are 100% Australian Government owned and the negotiation relates to a strategically important asset, why is it taking so long to get to final agreement with ASC with respect to an amended Through Life Support contract?

(c) You have indicated that Collins is in the "red" category on the DMO's Projects List of Concern ... which means scrapping of the project is a possibility. The Collins class submarines have been in the water since 1993 ... almost 20 years ... with, in recent years, increasing cost and generally poor operational availability. At what point would Defence go to Government and advise that the cost of sustaining Collins no longer represented good value to the taxpayer?

(d) In respect to the Collins class submarines, what is Defence's contingency plan in relation to poor value for money and poor availability thresholds being crossed?

(e) In relation to future availability of the Collins class submarines and noting recent revelations about the poor state of Navy's maintenance and sustainment programs across the fleet what confidence does Defence have that Navy can meet its forecast operational availability targets?

Response:

(a) The Integrated Master Schedule (IMS) has been jointly developed and agreed by Navy, DMO and ASC against a defined scope; factoring in resources, funding, supply support, infrastructure and technical integrity and has been in place since April 2010. The definition of the scope since the IMS approval has continued to be defined in greater detail and the feasibility of that scope will be further tested as part of the performance based in-service support contract currently being put in place. A tripartite governance regime, with supporting Integrated Project Team's, has been established to continually review the IMS, its supporting data and assumptions, and manage risks and issues as they occur to further confirm its feasibility. These governance arrangements include control boards to maintain tighter control over scope and the other key factors. There is still work to do to remove pressures on the submarine work scope including better processes for managing the material state of the submarine caused by rising obsolescence and maintenance defects that are a feature of an aging platform. The additional funding and the management of the aging platform issues, supported by continued surveillance through the tri-partite arrangements, will further ensure that the IMS is realistic and reduce any associated risks.

(b) The current Collins sustainment through life support agreement was signed in 2003 and reflects the election commitments of the Government of the day. In particular, it was intended to provide significant benefits to Defence, local industry and subcontractors by securing long-term, in-country support for a key strategic defence capability while providing commercial certainty to ASC. Accordingly, the agreement contains substantial commercial concessions, necessary at the end of the Collins build program, to improve ASC's financial position and assist it to develop long-term capacity to support submarines in Australia.

From this basis, to improve supply and more appropriately allocate risk, negotiation of a replacement contemporary and performance-based in-service support contract has required significant strategic realignment of Defence and ASC objectives. The Department of Finance and Deregulation, as the primary shareholder, is assisting with those aspects of the negotiations which require strategic, whole of government consideration.

Considerable progress has been made, with both parties working collaboratively to refine and agree to ASC's performance obligations under in-service support contract and to ensure risk and cost drivers are sufficiently understood for pricing. ASC's response is anticipated in early May, following which DMO will undertake a value for money assessment of the proposal and enter negotiations to finalise the contract by the middle of 2011.

(c) and (d) Defence will continue to work to deliver submarine based capability options to Government until Government directs that there is no longer a requirement to deliver this strategic outcome.

(e) The Collin's reform process commenced in early 2010. This reform has included the establishment of the Australian Submarine Program Office (ASPO) in Adelaide, the introduction of the IMS and Navy, DMO and ASC working together within a tripartite arrangement. From these initiatives Defence continues to gain confidence that Navy can meet its forecast operational availability targets.

W50

SEA 1000 – Future Submarines
Senator Johnston

The answers previously provided to me in relation to the costs of new submarine are puzzling. In one answer you explain that the cost of the submarine is unknown as "the Government is yet to make a decision on the type of submarine required". In a different answer you state that the new submarine project is included in the current DCP" and go on to say that therefore, "There is no impact from SEA 1000 on other military capability".

(a) What budgetary estimate provision has been allowed for in the DCP with respect to SEA 1000—an upper and lower bound (not the generic >$1.5 billion figure that is supplied)?

(b) Estimates by defence specialists on the available options have ranged from $10 billion to $36 billion, a difference of $26 billion. What was the basis that the Department used to determine that the outcome for SEA 1000 would have no impact on other military capability? What, if any, are the assumptions that form part of this determination?

(c) Is the budgetary estimate a total cost of ownership or is it just the capital acquisition cost?

(d) From the work and studies conducted thus far by the Department, how long would it take for Australia to design from first principles the unique class of submarine that meets Australia's exacting requirements and get the first of class boat into the water? How long till that submarine could be delivered to the RAN?

(e) How long does the Department estimate it would take for Australia to evolve the Collins class submarine design to meet Australia's exacting requirements and get a first of class boat into the water?

(f) What if any contingencies have been included or applied to the estimate for evolving a Collins class submarine?

(g) How long does the Department estimate it would take for Australia to procure a MOTS submarine that approximates Australia's requirements and get a first of class boat into the water?

(h) The SEA 1000 project appears to be suffering delays, how far behind schedule is the project?

(i) When was the government last briefed on SEA 1000? Who attended that briefing and what was discussed?

(j) Over what time frame will our strategic outlook require the capability we intend to acquire in SEA 1000?

(k) When will the Opposition be offered a further detailed briefing on SEA 1000?

(l) What are the next stages for the SEA 1000 Project Office in developing an acquisition plan for Australia's future submarines?

(m) What are the significant shortfalls in relation to Australia's submarine requirements and the capabilities offered by current state-of-the-art MOTS submarines?

(n) Are there alternative approaches for achieving any requirements that might be considered beyond the capabilities offered by current state-of-the-art MOTS submarines?

(o) What intellectual property constraints are there in developing the SEA 1000 project?

(p) If there are intellectual property constraints what is the government doing to overcome these constraints in developing Australia's future submarines?

Response:

(a) The public DCP lists the main acquisition of SEA 1000 as greater than $10 billion. Considerable work on scope, schedule and cost is required before more detailed data could be made available.

(b) The Defence statement that "there is no impact from SEA 1000 on other military capability" was made in the context of a larger comment relating to the SEA 1000 funding allocation in the Defence Capability Plan (DCP). The DCP is a detailed plan for the next 10 years with less detail in the following 10 years. SEA 1000 will extend well beyond even the 20 years that the DCP covers.

(c) The 'greater than $10 billion' figure provided in the public DCP is just the acquisition cost. Total cost of ownership figures will be considered as part of the project approval process.

(d) Advice from several nations which are experienced in designing and building submarines is that delivering the first of a new design submarine takes about fifteen years, assuming a fully proficient workforce is available. The actual time required is under further investigation, taking into account whether a wholly new design is progressed, an evolutionary approach adopted, whether existing sub-systems are used, the extent to which the design/development work is done in Australia, who and how many other nations/companies' governments are involved in the design/development effort.

(e) The time that would be required to deliver a submarine of an evolved Collins design would depend on how much the original design was changed – the more that is changed the longer the time required. If sufficient changes are made there would be no difference to the time required for a new design. A key issue is that many of the systems and components fitted in the Collins Class submarines are no longer available and so a significant design effort would be required even to build Collins again. This is because the design would have to be adapted to accept new systems and components.

(f) This has not yet been examined in detail.

(g) There are currently no MOTS submarines available to Australia that meet our full requirements outlined in the 2009 Defence White Paper.

(h) The schedule for delivering the first Future Submarine will not be determined until the Government has considered the project in detail.

(i) The Minister for Defence was last briefed on 30 November 2010. That briefing was attended by the Chief of the Defence Force, the Secretary of Defence, the Chief of Navy, the Chief of the Capability Development Group, the Deputy Secretary Strategy, the Head of the Future Submarines Program, the Program Manager Collins and Wedgetail and Navy's Director General of Submarine Capability. In respect of SEA 1000, the Minister was briefed on possible options and their associated indicative schedules. The Minister has also been provided with several written submissions updating him on various aspects of the program and responding to his requests for information since that time.

(j) As the 2009 Defence White Paper indicated, our strategic circumstances confirm the enduring requirement for a submarine capability and the future need for a substantially expanded submarine fleet. This is part of the broader goal of developing heavier and more potent maritime capabilities by the mid-2030s.

(k) Any request for a briefing should be directed to the Minister for Defence.

(l) A series of broad options may be considered by Government this year.

(m) Current conventionally powered MOTS submarines do not have the endurance, communications, crew or weapon capacity, and in some cases range, to meet Australia's full requirements.

(n) Defence continues to investigate a range of approaches to deliver the capability identified in the 2009 White Paper.

(o) The intellectual property rights to the submarine design that Australia might wish to have will need to be negotiated regardless of the design chosen or its place of origin. The constraints would be different for each of the available options. There will also be constraints of some sort in respect of intellectual property behind all of the submarine's systems and components. These are generally likely to be acquired commercially and the Commonwealth's requirements are likely to differ with each system/component.

(p) A draft of a possible contract clause that outlines the sort of rights to submarine design intellectual property that the Commonwealth may seek has already been developed as a basis for any future negotiations.

W51

ADF Personnel
Senator Johnston

I refer to page 32 of the PBS, Table 17 and note that in 2010/11 the number of uniformed One Star and Senior Officers will rise very marginally in Navy and fall in the Army and Air Force. However, in the APS ranks the number of Senior Executives is set to rise by 3 and in the ranks of Senior Officers—Executive Levels 1 and 2—by 333.

(a) Can you please advise what re-structuring measures are to occur within the non-uniformed sector of the Defence diarchy and why there is such a significant rise in the number of highly paid defence bureaucrats?

(b) What will be the total costs, including on costs, of employing another 333 senior officers over the 10/11 period?

(c) Is it envisaged that the 333 extra Senior Officers will be employed to service a new organisational structure within an enhanced diarchy organisational structure? If not, where exactly will they be employed and for what purpose?

Response:

(a) and (c) There are three main reasons for the growth reflected in table 17. First, substantial structural change and new projects (including Defence Capability Plan projects) are under way as a result of the 2009 White Paper, requiring additional workforce to be allocated across all Defence Groups. Second, under the Strategic Reform Program significant numbers of Australian Defence Force and contractor positions are to be converted to significantly less expensive Australian Public Service (APS) positions. The total Strategic Reform Program savings from the conversions is $1.005 billion over FY 2009-10 to 2018-19. These conversions peak in 2011-12 and 2012-13. Combined with the White Paper initiatives, this involves substantial growth for Defence's APS workforce including at the EL1 and EL2 levels.

Third, in 2009-10 Defence was experiencing difficulty recruiting to its APS allocation due to labour market conditions, particularly for staff with specialist skills. Consequently much of the growth represents catch-up on recruitment that ideally should already have taken place. Although the situation has improved, Defence still has further work to do in this area, particularly as the Defence workforce needs to accommodate White Paper initiatives.

Further detail on White Paper and Strategic Reform Program activities is provided in the publication *The Strategic Reform Program: Making It Happen*.

Defence manages its workforce at a macro level and cannot readily break down the allocations by level or specific function. The major drivers for growth in the APS at all workforce levels (a proportion of which are at the EL1 and EL2 level) include:

- Over 200 new positions created to support the implementation of Force 2030, of which approximately 50 per cent are to progress the Defence Capability Plan and the balance are across a range of other initiatives, the majority of which are projects related to intelligence capability.
- A total of nearly 500 converted positions, including about 190 positions converted from non-combat administrative ADF positions and 300 from contractor positions across a wide range of areas including Information Technology and health, as part of SRP savings.
- About 40 new positions created from the centralisation of whole-of-government security vetting and thereby reduced vetting by other agencies.
- A significant number of new positions created due to new intelligence measures including

the opening of the Cyber Security Operations Centre.

Notably, as table 17 shows, the growth in “other APS” numbers is higher than the growth in Senior Officers.

(b) The total costs will vary, depending on the total number that are employed and the classification level at which they are employed (either the Executive Level 1 or Executive Level 2 classification). The full cost, including on costs, could be between $46.5 million if 333 Executive Level 1 employees are employed, and $54.3 million if 333 Executive Level 2 employees are employed. This will be offset by savings for ADF and contractor conversions alone of an estimated $31.6 million to $51.6 million. In addition, the additional security vetting positions are funded by other agencies under a fee-for-service arrangement.

W52

<u>Rufus Black Review</u>
Senator Johnston

(a) Was the Minister formally advised of the decision by the SECDEF and CDF in early 2010 to instigate a review into organisational structures of the Department of Defence by Associate Professor Black? Please provide a copy of that advice?

(b) What were the terms of reference that were used in developing this report?

(c) If the report was completed in September can you advise why it took six months to travel from the Department of Defence offices to the Minister's Office?

(d) Who to date has had access to this report and for what reason?

(e) When will the 'Black Report' be released and/or tabled in Parliament?

(f) What implications are there for the current diarchy structure and the DMO if and when the recommendations of the 'Black Report' are implemented?

(g) The Incoming Government Brief commented on the scope of the 'Black Report': *"The foundation of the review is the idea that Defence performance is built on its ability to function as a single entity (One Defence) and that the purpose of accountability is to support this.'* Can you explain in succinct terms what this means and exactly how such a re-organised structure is going to support our uniformed personnel in performing their tasks, especially those personnel deployed on active service?

(h) How has Associate Professor Black examined how accountability can be strengthened to better support the ability of the Secretary and the CDF to exercise strategic control? What were his outcomes?

(i) The review by Associate Professor Black focus was on decision making processes and culture. The review proposes changes to the internal Defence decision making architecture to strengthen the capacity of the Secretary and CDF to exercise strategic control. What are the key changes that were recommended? What is the Implementation Plan?

Response:

(a) The Secretary of the Department of Defence, Dr Ian Watt, by way of a Ministerial Submission dated 23 December 2009, advised the then Minister for Defence, Senator the Hon. John Faulkner, of the CDF's and his intention to engage an external expert to conduct a review of Defence's accountability framework. Advice provided by Defence to the Minister remains confidential and will not be released.

(b) The terms of reference of the Review have not been approved for public release at this time. When approval for release of the Review is given, the terms of reference will be provided.

(c) The Review was substantially completed in mid 2010, but Dr Black wished to discuss his findings with the Minister prior to finalisation of the final report. These discussions were delayed due to the election, the time taken to form a new government, and with arranging a mutually convenient time for Dr Black and the Minister to discuss the Review and its findings. Once these discussions occurred in November 2010 and in January 2011, Dr Black's final report was finalised and formally submitted to the Secretary and CDF in January 2011.

(d) The final report of the Review of the Defence Accountability Framework is currently being considered by Government. For that reason, access to the report has been limited to those personnel who have a bona fide need to access the report in order to provide advice on the Review to the Government, in accordance with standard security arrangements.

(e) The final report of the Review of the Defence Accountability Framework is currently being considered by Government. Following that consideration, the Government will decide when and where it will release the report.

(f) It would be inappropriate to speculate on the implications of recommendations made in the report until Government's considerations are finalised.

(g) The term 'One Defence' recognises that Defence is best able to meet the challenge of its strategic circumstances if it is able to integrate the work of its constituent organisations in a way that maximises capability and is organisationally agile in support of a balanced force.

It would be inappropriate to comment on individual aspects of the report until Government's considerations are finalised.

(h) As outlined in the 'Department of Defence Incoming Government Brief – 7 September 2010' the review has examined how accountability is exercised by Defence's senior executives, how clear that accountability is, how well it is understood throughout the organisation, and how well that accountability is aligned with Defence's outputs. The review also examined the effectiveness of the accountability framework as a whole, particularly its support for 'One Defence' and its utility in driving performance.

The Review has considered and makes recommendations in relation to organisational culture, internal management processes, decision making processes and professional development.

It would be inappropriate to comment further on the outcomes of the Review until Government's considerations are finalised.

(i) It would be inappropriate to comment on the outcomes of the Review until Government's considerations are finalised.

W53

Fraud Investigators in Defence
Senator Xenophon

(a) How many fraud investigators (Military Police/ADFIS) of the required minimum standard were available to investigate fraud in Defence (by year) from 2001 through to 2010?
(b) How many were employed, year by year, during this time?

Response:

(a) Responsibility for the conduct of fraud investigations has evolved within the ADF over the period 2001 to 2010. Prior to the formation of the Australian Defence Force Investigative Service (ADFIS) in 2007, single-Service police organisations were responsible for fraud investigations within their respective Service Group.

Within the Service Groups and later within ADFIS, there were no dedicated fraud investigators; rather, these offences were investigated by qualified Service Police investigators who were also mandated to conduct other investigations under the Defence Force Discipline Act.

The minimum standard for ADF Investigators is drawn from the Australian Government Investigation Standard 2003 (AGIS), which is Certificate IV in Government (Fraud Control Investigations) or equivalent.

The number of ADF Investigator positions within the ADF from 2001 to 2010 were:

2001 – 2006 (within the Service Groups)

- The Royal Australian Corp of Military Police, Special Investigation Branch (Army Group) had 67 established investigator positions.
- The Naval Police Coxswain Branch, Naval Investigative Service (Navy Group) had 27 established investigator positions.
- The Security Police, Service Investigations employment group (Air Force Group) had 30 established investigator positions.

2007 – 2010 (formation of ADFIS)
The ADFIS establishment is as follows:

- 2007 – 149 positions.
- 2008 – 152 positions.
- 2009 – 148 positions.
- 2010 – 145 positions.

Of the total ADFIS establishment, approximately 104 have remained dedicated investigator positions with the other positions providing a support and command function.

(b) Over the period 2001 to 2010, the overall establishment and vacancy rate within the ADF Investigator workforce were:

- 2001 – approximate establishment of 124, vacancy rate is unknown.
- 2002 – approximate establishment of 124, vacancy rate is unknown.
- 2003 – approximate establishment of 124, vacancy rate is unknown.
- 2004 – approximate establishment of 124, vacancy rate is unknown.
- 2005 – approximate establishment of 124, vacancy rate is unknown.
- 2006 – approximate establishment of 124, vacancy rate is unknown.
- 2007 – establishment of 149 with 36 (24%) vacancies.

- 2008 – establishment of 152 with 33 (22%) vacancies.
- 2009 – establishment of 148 with 28 (19%) vacancies.
- 2010 – establishment of 145 with 22 (15%) vacancies.

Since 2007, approximately 104 positions within the ADFIS establishment have remained dedicated investigator positions with other positions providing a support and command function.

W54

Number of Troops in Afghanistan
Senator Trood

According to the Incoming Brief for Defence p.26 "Australia's military contribution to the ISAF mission in Afghanistan comprises an annual average of 1,550 ADF personnel deployed within Afghanistan."

(a) Does "average" mean that there are, at any one time more than 1550 or less than 1550?

(b) Does the 1550 just refer to uniforms or does it include other personnel as well?

(c) What is the actual size of Australia's commitment?

(d) How are the numbers of ADF personnel in Afghanistan monitored?

Response:

(a) Yes. Throughout the year the number of Australian Defence Force (ADF) personnel fluctuates. For instance, the number of personnel in rotary wing operations reduces during the winter months when conditions impede flying and the number may temporarily exceed this figure when a unit is conducting a relief with another unit and during the fighting season in the warmer weather.

(b) It refers to ADF military personnel only.

(c) The Defence commitment includes about 1550 ADF personnel and a small number of Defence APS staff.

(d) Personnel numbers are monitored on a weekly basis by Headquarters Joint Operations Command.

W55

White Paper – Review of Assessments
Senator Trood

According to an answer to questions on notice (Budget supplementary estimates 2010-2011, October 2010) in relation to the white paper *"Our assessments are reviewed and updated on a regular basis."*
(a) How many times has this occurred since 2009?
(b) How are the assessments reviewed?
(c) Who reviews the assessments?
(d) What specific areas have been reviewed?

Response:

(a) Defence has assessed Australia's strategic environment at least six times since 2009. In the second half of 2010 Defence reviewed and updated its assessments of the strategic environment as part of preparing Chapter 1 of the Incoming Government Brief, 'The Strategic Basis of Defence Planning' [a redacted version of which was released under Freedom of Information legislation]. Additionally, Defence and other Government agencies reviewed the 2009 White Paper assessments of strategic risk and Australia's strategic outlook during the drafting and approving of the classified Defence Planning Guidance 2010. Defence has also regularly updated and reviewed its assessments of the strategic environment through preparation of the classified Quarterly Strategic Review (QSR). The QSR is a planning tool used to set levels of ADF preparedness and has been prepared four times since 2009. In addition, the latest assessments are taken into account during Defence's regular planning for capability development, preparedness and international engagement.

(b) Assessments are reviewed through collaboration between Defence intelligence and policy officials, and officials from other agencies as appropriate, in the processes of preparing policy planning and briefing documents for Ministers and senior officials. As described above, these include the Incoming Government Brief, the Defence Planning Guidance 2010 and the Quarterly Strategic Review.

(c) A range of organisations within Defence are involved in these reviews of strategic assessments, including intelligence, policy and military planning areas. On occasion, other Government agencies such as the Department of Foreign Affairs and Trade, the Department of Prime Minister and Cabinet and the Office of National Assessments also contribute to Defence's planning processes.

(d) The reviews have assessed new information about recent events, continuing trends, and the capabilities and intent of state and non-state actors in the international environment. These have included the impact of the Global Economic Crisis, changes in the global and regional strategic environment, and the stability of countries in Australia's immediate neighbourhood.

W56

East Timor
Senator Trood

(a) How many ADF personnel are deployed in East Timor/ Timor Leste?
(b) What is their primary role?
(c) What is the security assessment of East Timor/Timor Leste?
(d) Are reports in *The Age* last year correct that Australian troops will withdraw from East Timor/Timor Leste in 2012?
(e) Is there a timeframe/end date for the withdrawal of troops from East Timor/Timor/Leste?
(f) Have discussions between the East Timor/Timor Leste Government and the Australian Government/Department of Defence commenced about a withdrawal? Who initiated the discussions?

Response:

(a) There are approximately 430 Australian Defence Force (ADF) personnel currently deployed in East Timor. The majority of these personnel are deployed on Operation ASTUTE within the International Stabilisation Force (ISF) (approximately 400), with a smaller number also providing support to the United Nations Integrated Mission in Timor-Leste (UNMIT) (4 personnel). There are also currently 25 in-country advisers in East Timor with the Defence Cooperation Program (DCP) (including 23 ADF members and two Defence civilians).

(b) The ADF is deployed to East Timor to assist the Government of East Timor and the United Nations foster stability, security and confidence to the Timorese people. The New Zealand Defence Force (NZDF) is working alongside the ADF to assist with this mission. Together, the ADF and NZDF personnel form the International Stabilisation Force (ISF) in East Timor. The primary role of the ISF is to assist the Government of East Timor and United Nations maintain a secure environment to support the ongoing development of East Timor. The role of UNMIT is to consolidate stability, enhance a culture of democratic governance and facilitate political dialogue. The DCP with East Timor aims to develop the capacities of the East Timorese Defence Force and the civilian-led Secretariat of Defence, with a focus on engineering, nation-building, logistical, maritime security, governance, and financial management skills.

(c) The security environment in East Timor has remained stable over the last three years with overall crime rates remaining low without indication of any politically related violence. This reflects a general desire for peace, stability and unity at all levels of society. East Timorese National Police (PNTL) officers have received mentoring from the United Nations Police (UNPOL), and UN assessments of PNTL readiness have led to the handover of primary policing responsibility to PNTL in 10 of East Timor's 13 districts. Some challenges remain, however, especially in the lead up to the national Presidential and Parliamentary elections in 2012. Further information on the security situation in East Timor can be found in the latest UNMIT Report to the Security Council, accessible at http://www.unmit.unmissions.org.

(d) and (e) No specific timeframe has been agreed for a withdrawal of the ISF from East Timor. The ADF contribution to the ISF and our continued presence in East Timor is at the invitation of the Government of East Timor. Any future force reductions will be subject to assessments of the security conditions in East Timor, and will occur in consultation with the Government of East Timor, the Government of New Zealand (as our ISF partner), and the United Nations. Australia's Defence Cooperation Program with East Timor will remain in place following any future withdrawal of the ISF.

(f) Defence consults closely with the Government of East Timor, as well as with the United Nations, and the Government of New Zealand (as our ISF partner), about the ways we can practically assist East Timor manage its security requirements. These consultations ensure the ADF presence in East Timor continues to meet the requirements of the Government of East Timor. As noted above, any future force reductions will be subject to the security situation in East Timor, and will occur in consultation with East Timor, New Zealand and the United Nations.

W57

Unity Resources Group – Baghdad Embassy
Senator Trood

(a) Is the transition towards civilian security arrangements at the Baghdad embassy complete?
(b) Are any ADF personnel stationed/involved in the security arrangements at the Australian Embassy in Baghdad?
(c) What company is now providing the security?
(d) What is the price of the contract to supply the security? How does this compare to the costs of Defence's provision of security?
According to an answer to questions on notice (Budget supplementary estimates 2010-2011, October 2010) Q30 states *"Research highlight all shortlisted tenders had been subject of violent incidents in Iraq."*
(e) Who were the other tenderers and what were their "violent incidents"?
(f) Did it concern Defence that there were no tenderers that did not have "violent incidents"?
(g) Does Defence often contract out its activities to companies that have been subject of violent incidents?
(h) Response to Q30 also states that *"Due to the short timeframe to establish this commercial arrangement, no further security or financial checks were undertaken."*
(i) Why was there such a short timeframe?
(ii) Who determined this timeframe?
(iii) Is it often the case that Defence will forgo background checks in order to meet deadlines?

Response:

(a) No.

(b) Yes, the ADF is and will continue to provide specialised security support at the Australian Embassy in Baghdad until the Government is satisfied private security arrangements fully meet all required security capabilities. The transition arrangement is being closely monitored through regular risk and threat analysis ensuring the highest security standards for staff and premises.

(c) Following an open tender process, the Department of Foreign Affairs and Trade (DFAT) awarded the contract to Unity Resources Group Pty Ltd (URG) for the period 1 January 2011 to 31 December 2012.

(d) The initial cost of the contract with URG is $31,922,400 over two years. Contract details are published on the AusTender website. Contract costs can be expected to increase at each phase of transition as URG expands its provision of security services and ADF elements depart Baghdad. If the ADF was to provide the total service it is estimated the total net additional cost would be $56,829,154 over a two year period. These costs take into consideration personnel allowances, personal kitting, mission specific training, logistic and administrative support, strategic movement, communication costs and nine up-armoured vehicles. This figure excludes the salaries of ADF members and level 2/3 medical support that Defence may have to pay if Defence was to continue to provide security. Currently this is provided by the US on a non cost recovery basis until 1 September 2011.

(e) The other shortlisted tenderers were Triple Canopy and AEGIS. The reported violent incidents that the Commonwealth were aware of were:

(i) Aegis – the incidents related to media reports on the history of the Company's Director Mr Tim Spicer and his former employer Sandline International, and reports of an Aegis ex-employee having posted a so-called "trophy video" on the internet depicting Aegis contractors shooting at Iraqis in civilian cars, November 2005; and

(ii) Triple Canopy – the incidents related to firing into Iraqi civilian vehicles in November 2005 and the electrocution death of a 25-year-old private security contractor who died in a shower at the compound of his employer, Triple Canopy, April 2007.

(f) The ADF was aware that incidents of this type were not uncommon during the height of unrest in Baghdad. Although these incidents occurred before the Montreux document was finalised on 17 September 2008, Defence was concerned to understand the circumstances of the reported incidents and whether the tenderers' response was consistent with the principles described in the Montreux Document.

(g) No. In this particular instance the ADF was satisfied with the response provided by URG in relation to the reported incidents.

(h) (i) At the relevant time the responsibility for the security of the Baghdad Embassy was being transitioned from the ADF to DFAT through a staged process. Concurrently with that process there was an urgent need to replace specific security capabilities provided by US funded civilian contractors who were providing services together with the ADF. With the US forces scheduled to withdraw from 1 October 2009 it was necessary to expeditiously arrange for alternative private contractors to replace the US funded services.

(ii) The time frame was determined by the ADF and DFAT.

(iii) No. The evaluation process included a financial analysis of all the tenderers' submissions. In addition the ADF required the tenderers to specify the processes adopted in relation to background checks and vetting conducted on their personnel and sub-contractors. In this case, the ADF also undertook additional checks to ensure compliance with the principles contained in the Montreux Document in relation to the three shortlisted tenderers.

W58

Afghanistan Detainee Management
Senator Trood

(a) According to an update from the Defence Minister (Feb 2011 Update: Afghanistan Detainee Management), "Australian officials and humanitarian organisations will monitor the ongoing welfare of detainees".
(i) Which officials and humanitarian organisations will assume this role?
(ii) How often will the monitoring take place?

(b) I note that since the 1 August 2010, 8 allegations (from 6 detainees) have been investigated and one in 2011?
(i) What was the nature of these allegations?
(ii) Who performed the investigation?
(iii) What was the result of each investigation?

(c) I understand from the update that the Minister has asked the Australian Defence Force Investigative Service (ADFIS) to investigate allegations made by a Defence member that members of the Detention Management Team in Afghanistan, responsible for managing the ADF detainee screening facility at Multinational Base-Tarin Kot , may not have complied with the procedures in relation to the management and administrative processing of detainees.
(i) When was this complaint made?
(ii) What are the procedures in relation to the management and administrative processing of detainees?
(iii) What has been alleged to have happened?
(iv) When is the investigation likely to conclude?

Response:

(a) (i) Australia's Detainee Monitoring Team is made up of ADF personnel and Government officials. The team is typically comprised of a Department of Foreign Affairs and Trade officer, an Australian Defence Force (ADF) Legal Officer or senior officer, an interpreter and force protection. ADF Medical personnel are available if necessary.
While Australia's bilateral detainee transfer arrangements provide for the access of humanitarian organisations to the detainee facilities we transfer detainees to in Afghanistan, monitoring conducted by such organisations is carried out separately to monitoring conducted by Australia. As the constitutionally-mandated national human rights organisation for Afghanistan, the Afghanistan Independent Human Rights Commission (AIHRC) monitors standards within the Afghan detention and justice sector, including the treatment of Afghan detainees. The International Committee of the Red Cross (ICRC) also monitors the treatment of detainees in the Afghan detention system as part of its wider humanitarian efforts in Afghanistan.

(ii) The Detainee Monitoring Team visits each detainee shortly after transfer and approximately every four weeks after their initial visit to that detainee.

(b) (i) Allegations against ADF personnel range from rough handling during capture, such as detainees being pushed against the wall, to an allegation that a Koran was thrown to the ground. All allegations have been investigated and found to be unsubstantiated.

(ii) The Australian Defence Force Investigative Service (ADFIS).

(iii) All allegations of mistreatment have been investigated. The investigations included consideration of all information including, where available, witness statements, CCTV footage and/or medical statements. The investigations concluded that all allegations were unsubstantiated.

(c) (i) The allegations were made by a Defence member on 21 January 2011.

(ii) Detainees are screened by the ADF in our Initial Screening Area at Multi-National Base Tarin Kot. The screening process involves asking questions to verify a detainee's identity, completing a basic health screen, recording their biometric details and examining any physical evidence on their possession. This is an important part of establishing an individual's identity and compiling evidence for potential Afghan criminal prosecutions.
Following screening, a determination is made as to whether there is sufficient evidence to support a detainee's transfer to Afghan or US detention authorities in Afghanistan. If it is assessed that there is insufficient evidence, the detainee is released.

(iii) As the minister advised in his 23 March update, the allegations relate to compliance with the procedures in relation to the management and administrative processing of detainees. The outcome of the investigation will be advised as appropriate when the investigation is completed.

(iv) On current scheduling the ADFIS investigation is likely to be completed in mid-June 2011.

W59

Compass Integrated Security Solutions (ISS)
Senator Trood

(a) Has the Australian Defence Force contracted the services of Compass ISS?
(b) What specifically were they contracted to do?
(c) How many contracts?
(d) When were they?
(e) How much was/has been paid to Compass?
(f) Does Compass ISS have any current contracts with the Department?
(g) Is the Department aware of a report *"Report of the Inquiry into the Role and Oversight of Private Security Contractors in Afghanistan"* released on October 7 2010 by the US Armed Services Committee?
(h) Is the Department aware that the one of the companies referred to in the document is the Australian owned Compass ISS?
(i) A number of serious allegations about this company are raised during the same time period when Defence held contracts with this company. To what extent did defence investigate these allegations?
(j) What processes does Defence have in place to ensure that contracts are being awarded to suitable companies?

Response:

(a) Yes.

(b) Defence engaged Compass Integrated Security Solutions from 22 May 2006 to 31 March 2010 to provide security services at Australia House in Kabul.

(c) Two contracts were awarded to Compass ISS.

(d) The first contract commenced in May 2006 for twelve months, and a subsequent contract was awarded in May 2007. This contract was ongoing until Defence decided not to renew the contract in March 2010 for various operational reasons, including the relocation of Defence personnel out of Australia House.

(e) Defence made 42 payments to Compass across the two contracts, totalling USD $803,227 (approximately AUD $986,971).

(f) No, Defence does not currently have a contractual relationship with Compass Security.

(g) Yes, Defence is aware of the US Armed Services Committee's "*Report of the Inquiry into the Role and Oversight of Private Security Contractors in Afghanistan*".

(h) Yes, Defence is aware that the one of the companies referred to in the document is Compass ISS.

(i) The US Armed Services Committee's report was released six months after Defence ceased its contractual relationship with Compass ISS. Defence saw no evidence to suggest that Compass Security personnel behaved inappropriately while providing security for Australia House. Defence has not conducted any investigations into Compass ISS.

(j) Defence ensures that procedures used to engage private security companies accord with international best practice, including since September 2008, the requirements set out in the 'Montreux Document'. The requirements of the document were considered when reviewing and

W60

Memorial to Peacetime Military Casualties
Senator Macdonald

(a) In relation to the proposed Memorial to Peacetime Military Casualties can the Minister advise:

- **(i) Where will the proposed memorial be sighted?**
- **(ii) What funding is being proposed by the Government for the construction of this memorial?**
- **(iii) What timetable is proposed for the construction?**
- **(iv) What is the status of preliminary designs for the memorial?**

(b) What action has been taken to compile an accurate list of service personnel who have died in the service of their country in times of peace?

Response:

(a) (i-iv) The Injured Service Personnel Association (ISPA) has published information on their website pertaining to a proposed memorial for peace-time deaths (www.ispa.asn.au). Defence has no official record that the ISPA has approached Defence about the proposal or funding for the memorial.

(b) Deaths of service personnel operating on UN peacekeeping missions are listed at the War Memorial in the Remembrance Book. Deaths of Service personnel during other service (eg. training or exercises) are tracked by individual Services however prior to 2002 there was no defined standard in regards to archiving records and retrieving information. Since 2002, Defence archive records management has been regulated and standardised. Accordingly, an accurate list of service personnel who have died in time of peace is readily available post 2002.