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VICE CHIEF OF THE DEFENCE FORCE GROUP  
JOINT HEALTH COMMAND

## **Research Report 14/2013**

**Operation RESOLUTE Mental Health and Wellbeing  
Questionnaire: Surveillance Report for Jun 11 – Nov 12**

Apr 2013

**Directorate of Occupational Psychology & Health Analysis  
Mental Health, Psychology & Rehabilitation  
Joint Health Command  
Canberra, Australia**

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## Executive Summary

1. This surveillance report presents the mental health outcomes and deployment perceptions of personnel deployed on Operation RESOLUTE (hereafter RESOLUTE). Specifically, the report presents the results of the Mental Health and Wellbeing Questionnaire (MHWQ), administered to Cairns and Darwin based Armidale Class Patrol Boat (ACPB) crews as well as Mine Hunter Patrol Force Units (Hydrographic crews) from Jun 11 to Nov 12. This included sixteen ACPB crews and three Hydrographic crews.
2. This report also highlights differences in the overall mental health scores for personnel assigned to RESOLUTE compared to Navy personnel deployed on Operation SLIPPER (hereafter SLIPPER). The SLIPPER data were extracted from the Return to Australia Psychological Screen (RtAPS) and Post Operational Psychological Screen (POPS) for the period between Jul 11 and Jun 12.
3. The most pertinent results in this report identify that:
  - a. the risk of psychological distress and posttraumatic stress symptoms increased with extended time deployed on RESOLUTE;
  - b. approximately 12% of the screened RESOLUTE personnel scored above the risk cut-off for psychological distress. In addition, just over 7% scored above the risk cut-off for posttraumatic stress symptomology and approximately 16% scored above the cut-off for risky drinking behaviour.
  - c. the most frequently reported Potentially Traumatic Event (PTE) by RESOLUTE personnel was witnessing human degradation;
  - d. one third of personnel felt that time away at sea had a negative impact on their home lives;
  - e. a majority who reported their overall deployment experience as negative also reported a negative impact from time away at sea;
  - f. separation from family was identified as the most significant occupational concern and issues with family and friends emerged as a common theme throughout the data;
  - g. the majority of RESOLUTE personnel (approximately 60 percent) agreed that their personal level of morale was generally high prior to the screen;
  - h. personnel on RESOLUTE reported more frequent exposure to the majority of potentially traumatic events listed in the MHWQ when compared to SLIPPER personnel;
  - i. while the majority of personnel rated their general health as excellent, very good or good, difficulties with sleep were reported by over one-quarter of respondents;
  - j. the proportion of respondents reporting psychological distress and posttraumatic stress symptoms was similar for RESOLUTE and SLIPPER, despite RESOLUTE personnel reporting higher exposure and range of PTEs; and
  - k. a greater proportion of personnel deployed on RESOLUTE are consuming alcohol in excess of low-risk guidelines compared to personnel deployed on SLIPPER.

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4. Ongoing screening enables the tracking and reporting of mental health over time for personnel deployed on RESOLUTE. Furthermore, ongoing screening with the MHWQ will facilitate more comprehensive reporting of mental health outcomes for RESOLUTE personnel in comparison with other deployed Navy groups.

## Introduction

1. Surveillance of mental health and wellbeing is one aspect of an overall mental health support program focussed on Armidale Class Patrol Boat (ACPB) and Mine Hunter Patrol Force Units (MHPFOR; Hydrographic) crews assigned to Operation RESOLUTE (hereafter RESOLUTE). The program was developed by Navy Psychology, with the assistance of Joint Health Command, in response to Fleet Command concerns regarding the perception of, and potential for, an increase in incidence of mental health issues within this deployed population<sup>1</sup>.
2. The RESOLUTE Mental Health program commenced in Jun 11. The program is coordinated and conducted by Navy Psychology, and comprises a biennial group-delivered resilience brief and an annual Mental Health and Wellbeing Questionnaire (MHWQ). Following administration of the MHWQ, a screening interview is conducted by a psychologist. If an individual is identified as experiencing certain symptoms or requiring further support, they are referred to the supporting Health Centre and Mental Health and Psychology Section.
3. The MHWQ is a variant of the post-deployment Return to Australia Psychological Screen (RtAPS) and the Post Operational Psychological Screen (POPS). An initial analysis of MHWQs administered to four Cairns-based MHPFOR crews between Jun and Oct 11 was conducted in Mar 12 (Fraser, 2012). With continued administration of the MHWQ, the current report is inclusive of the period from Jun 11 to Nov 12. During this timeframe, the screen has been administered to sixteen ACPB crews and three Hydrographic crews.
4. The current report presents an overview of mental health outcomes and deployment perceptions of screened Navy personnel assigned to RESOLUTE. Data were analysed to provide an overview of personnel composition, deployment experience, occupational stressors, traumatic events, and mental health status and trends. Where appropriate, comparisons were made against RtAPS and POPS data from Navy personnel deployed on OP SLIPPER (hereafter SLIPPER) between Jul 11 and Jun 12. The comparisons provide insight into any differences between Navy personnel deployed on RESOLUTE and SLIPPER.

## Method

5. At the time of reporting, the Directorate of Occupational Psychology and Health Analysis had access to data from 324 completed MHWQs. The data included nineteen crews: [REDACTED]

The MHWQ is administered to MHPFOR crews on an annual basis, with the delivery time point being prior to or following a deployment rotation.

6. The mental health and occupational stress screens in the RESOLUTE MHWQ include the Kessler 10 (K10, assessing psychological distress), the Posttraumatic Stress Disorder Checklist - Civilian (PCL-C, assessing posttraumatic stress symptoms), the Alcohol Use Disorder Identification Test (AUDIT, assessing alcohol usage), the Traumatic Stress Exposure Scale - Revised (TSES-R, assessing traumatic events exposure), and the Major Stressors Inventory (MSI, assessing stress reaction to occupational stressors). For more information about these measures refer to Annex A.

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<sup>1</sup> FMO Minute FLEET/S3781762 of 10 Dec 10, *Request assistance in implementation of Navy Mental Health Support to MHPFOR Units assigned to Op RESOLUTE*; MHP&R Minute OUT/2011/R8587536 of 31 Mar 11, *Implementation of Mental Health Support to Op RESOLUTE*

7. All percentages provided in this report represent a proportion of the total 324 screened RESOLUTE personnel. Only cases where personnel had provided valid answers on the whole mental health instrument being analysed (i.e. the K10, PCL-C or AUDIT) were included in analysis.

8. Where appropriate, data from RESOLUTE were compared to RtAPS ( $N=858$ ) and POPS ( $N=581$ ) from Navy personnel deployed on SLIPPER between Jul 11 and Jun 12. As RtAPS is administered on transition from deployment, all comparisons were conducted against the RtAPS data. This is with the exception of the AUDIT, which is captured in the POPS questionnaire. The POPS is administered to personnel approximately three to six months post deployment.

9. Where possible, tests of statistical significance (independent samples t-tests or chi-square tests for independence) were used to ascertain the statistical significance of any differences between the RESOLUTE and SLIPPER deployed groups.

## Results and Discussion

### Mental Health Measures

10. Table 1 provides an summary of the proportions of screened RESOLUTE personnel whose responses to the MHWQ indicate they are at risk of psychological distress, posttraumatic stress symptoms and risky drinking behaviour.

**Table 1. Prevalence of mental health outcomes for the RESOLUTE sample**

	N	% Psychological Distress		% Posttraumatic stress symptoms			% Risky drinking behaviour		
		Mod. (15-19)	High ( $\geq 20$ )	Med. (30-39)	High (40-49)	Very high ( $\geq 50$ )	Zone II (8-15)	Zone III (16-19)	Zone IV ( $\geq 20$ )
RESOLUTE	324	23.5	11.7	4.3	2.5	0.3	15.4	1.2	-

11. Table 1 shows that over one third of RESOLUTE personnel reported moderate or high psychological distress, with approximately 24% reporting moderate levels of distress and 12% reporting high levels. Fewer respondents reported posttraumatic stress symptoms, with approximately 7% reporting at least medium posttraumatic stress symptoms, the majority of whom reported in the medium-risk category. Just over 16% of the RESOLUTE sample reported risky drinking behaviour. The majority of these people (15.4%) reported in Zone II indicating that they are consuming alcohol in excess of low-risk guidelines. Only four people indicated hazardous and harmful levels of alcohol consumption (Zone III). There were no reports of high-risk alcohol related harm (Zone IV).

12. For the remainder of this report, at-risk levels for mental health outcomes will refer to high scores on the K10 (i.e. above 19), at least medium scores on the PCL-C (i.e. above 29) and scores in Zone II (in excess of low-drinking guidelines) or above (i.e. above 7) on the AUDIT.

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13. Table 2 provides a breakdown of the RESOLUTE group by demographics and mental health outcomes.

**Table 2. Demographics and prevalence of psychological distress symptoms, posttraumatic stress symptoms and risky drinking behaviour for the RESOLUTE sample.**

	n %		% Psychological distress			% Posttraumatic stress symptoms			% Risky drinking behaviour		
	n	%	n	%	$\bar{x}$ (SD)	n	%	$\bar{x}$ (SD)	n	%	$\bar{x}$ (SD)
<b>Gender</b>											
Male	254	78.4	30	<b>11.8</b>	14.32 (4.59)	19	<b>7.5</b>	20.77 (5.87)	45	<b>17.7</b>	5.32 (2.91)
Female	70	21.6	8	<b>11.4</b>	14.37 (4.48)	4	<b>5.7</b>	21.26 (6.31)	9	<b>12.8</b>	4.57 (2.69)
<b>Age</b>											
<25	121	37.3	13	<b>10.7</b>	14.41 (4.82)	8	<b>6.8</b>	20.43 (6.03)	22	<b>18.2</b>	5.26 (2.89)
25 – 34	133	41.0	20	<b>15.0</b>	14.53 (4.45)	10	<b>7.5</b>	21.18 (5.64)	21	<b>15.8</b>	5.13 (2.74)
35+	70	21.6	5	<b>7.1</b>	13.81 (4.30)	5	<b>7.1</b>	21.04 (6.45)	11	<b>15.7</b>	5.05 (3.16)
<b>Rank</b>											
Junior Sailor	231	71.3	27	<b>11.7</b>	14.44 (4.62)	15	<b>6.4</b>	20.87 (5.80)	43	<b>18.6</b>	5.20 (2.83)
Senior Sailor	44	13.5	4	<b>10.0</b>	14.05 (4.89)	5	<b>12.5</b>	21.80 (7.79)	6	<b>15.0</b>	4.83 (2.94)
Officer	49	15.1	7	<b>13.2</b>	14.09 (4.06)	3	<b>5.7</b>	20.19 (4.98)	5	<b>9.5</b>	5.22 (3.07)
<b>Length of Posting to RESOLUTE (years)</b>											
< 1	112	34.6	5	<b>4.5</b>	13.13 (3.89)	7	<b>6.3</b>	19.84 (4.97)	17	<b>15.2</b>	4.92 (2.45)
1-3	149	46.0	22	<b>14.8</b>	14.78 (4.64)	8	<b>5.4</b>	21.18 (6.08)	27	<b>18.1</b>	5.37 (2.99)
4+	61	18.8	11	<b>18.0</b>	15.46 (5.08)	8	<b>13.1</b>	22.10 (7.13)	10	<b>16.4</b>	5.17 (3.30)

**Notes:**

1. (-) indicates a value of 0.0;
2. Psychological distress refers to scores at or above 20 on the K10, posttraumatic stress symptoms refer to scores of 30 or above on the PCL-C and risky drinking behaviours refers to scores of 8 or above on the AUDIT;
3.  $\bar{x}$  -Mean; and
4. SD – Standard Deviation.

14. As shown in Table 2, the screened RESOLUTE sample predominantly consisted of males, aged between 25 and 34 years, of Junior Sailor rank and deployed on RESOLUTE for one to three years.

15. **Psychological distress:** Symptoms associated with psychological distress were reported at a similar rate for males (11.8%) and females (11.4%) and across the three rank groups. Personnel aged between 25 and 34 years reported higher rates of psychological distress compared to all other age groups. Regarding posting length, Table 2 shows a much greater proportion of members reporting psychological distress in the groups who have been posted to RESOLUTE for greater than one year. A sharp rise can be seen between the less than one year group (4.5%) and the 1 – 3 year group (14.8%). This pattern continues with the group posted to RESOLUTE for four or more years.

16. A further investigation revealed the mean score on the K10 for members serving on RESOLUTE for more than four years was significantly higher than personnel serving on RESOLUTE for less than one year<sup>2</sup>. Together these results suggest that the risk of psychological distress increases with extended time on RESOLUTE.

17. **Posttraumatic stress symptoms:** A slightly greater proportion of males reported posttraumatic stress symptoms (7.5%) compared with females (5.7%). A greater proportion of Senior Sailor's reported posttraumatic stress symptoms (12.5%) compared to Junior Sailor (6.4%) and Officers (5.7%). A slightly smaller proportion of personnel who had served between one and three years on RESOLUTE reported posttraumatic stress symptoms (5.4%) compared to members who served less than one year (6.4%). However, there was a sharp increase in the proportion reporting posttraumatic stress symptoms in the group posted to RESOLUTE for more than four years (13.1%). This result supports the association between length of deployment and increased risk of mental health as found by Rona Hull, Earnshaw and Wessely (2007) on deployed UK armed forces personnel. Their comprehensive study found that personnel who were deployed for 13 months or more in the past 3 years were more likely to report posttraumatic stress symptoms.

18. **Risky drinking behaviour:** A higher proportion of males in the screened RESOLUTE sample reported risky drinking behaviours (17.7%) compared to females (12.8%). Personnel under the age of 25 years reported highest risky drinking behaviour (18.2%) compared to all other age groups. Almost one fifth of Junior Sailor's (18.6%) reported risky drinking behaviours. Risky drinking behaviours were more prevalent in members who had been deployed on RESOLUTE for one year or more, with highest risky drinking behaviour noted in personnel who had been posted for one to three years (18.1%). Analysis of scores against World Health Organisation (WHO) risk zones indicated that no members reported scores in the highest risk category of alcohol related harm (Zone IV).

19. Mental health outcomes broken down into level of risk (as shown in Table 1) by demographics can be found at Annex B.

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<sup>2</sup> Statistically significant at  $p < .05$

20. Table 3 compares the overall mental health outcomes of the screened RESOLUTE sample with Navy personnel deployed on SLIPPER between Jul 11 – Jun 12.

**Table 3. RESOLUTE sample compared to Navy SLIPPER data by mental health outcomes**

			% Psychological distress ( $\geq 20$ )			% Posttraumatic stress symptoms ( $\geq 30$ )			% Risky drinking behaviour ( $\geq 8$ )		
	<i>N</i>	%	<i>n</i>	%	$\bar{x}$ (SD)	<i>n</i>	%	$\bar{x}$ (SD)	<i>n</i>	%	$\bar{x}$ (SD)
<b>RESOLUTE</b>											
MHWQ	324	100	38	11.7	14.33 (4.55)	23	7.1	20.87 (5.96)	54	16.6	5.16 (2.88)
<b>SLIPPER</b>											
RtAPS (K10/PCL)	849	100	127	14.8	14.79 (5.02)	54	6.3	20.37 (5.62)	-	-	-
POPS (AUDIT)	552	100	-	-	-	-	-	-	52	9.0	4.63 (2.18)

**Notes:**

1. (-) indicates a value of 0.0;
2. *N* – total sample size
3. *n* – subsample size;
4.  $\bar{x}$  – Mean; and
5. SD – Standard Deviation.

21. A slightly smaller proportion of the RESOLUTE sample (11.7%) reported psychological distress compared to SLIPPER personnel (14.8%). However a slightly greater proportion of RESOLUTE personnel (7.1%) recorded posttraumatic stress symptoms, compared to the SLIPPER group (6.3%). When further analysed<sup>3</sup>, there were no statistically significant differences between the deployed groups' reports of psychological distress and posttraumatic stress symptoms ( $p > 0.05$ ).

22. A greater proportion of screened RESOLUTE personnel reported risky drinking behaviour (16.6%) compared to SLIPPER personnel (9.0%). The difference between the RESOLUTE and SLIPPER groups was statistically significant ( $p < 0.05$ ). As mentioned previously, the majority of these RESOLUTE personnel reported in Zone II indicating alcohol consumption in excess of low-risk guidelines. With respect to the comparison, it should be noted that the AUDIT for each group was administered at different time points in relation to the deployment.

### Referrals

23. Referrals are made on the basis of the MHWQ score outcomes and a screening interview with a psychologist. Table 4 presents the number of referrals recommended for the screened RESOLUTE personnel between Jun 11 – Nov 12, and the referral timeframe (i.e. high – 72 hours; high – 14 days; medium – 3 months).

<sup>3</sup> An independent samples t-test was used to measure the difference in mean scores between RESOLUTE and SLIPPER personnel. A chi-square was used to measure the difference in proportion scores between the two groups.



**Table 4. Number of mental health referrals by time-frame**

RESOLUTE	<i>n</i>	High (72 hours, %)	High (14 days, %)	Medium (3 months, %)	Total referred (%)
Jun 11 to Nov 12	324	0.6 ( <i>n</i> = 2)	0.6 ( <i>n</i> = 2)	4.3 ( <i>n</i> = 14)	5.6 ( <i>n</i> = 18)

24. As shown in Table 4, a total of 18 mental health referrals were made following the MHWQ interview, with four of these being recommended as a high priority. A more specific breakdown of referral rates and mental health outcomes can be found in Annex C.

25. The proportion of RESOLUTE personnel referred for further mental health assistance was slightly higher (5.6%) than for the SLIPPER group (4.9%) at RtAPS.

### Potentially Traumatic Exposures

26. Table 5 compares the mental health outcomes of RESOLUTE personnel reporting exposure to a Potentially Traumatic Event/s (PTE) with those who did not. Only PTEs where at least twenty personnel reported experiencing the event are presented.

**Table 5. Most frequently reported potentially traumatic events (*n* = ≥20) by mental health outcomes for RESOLUTE personnel**

Potentially traumatic event	Witnessed the event	<i>n</i>	% Psychological distress (≥ 20)	% Posttraumatic stress symptoms (≥ 30)	% Risky drinking behaviour (≥ 8)
Witnessed human degradation / misery on a large scale	No	200	9.0	5.0	15.0
	Yes	119	16.0	10.9	18.5
You were in danger of being injured	No	228	7.5	4.4	11.8
	Yes	89	21.3	13.5	28.1
You heard of a close friend or co-worker injured, killed or died	No	249	10.4	5.2	13.3
	Yes	71	15.5	14.1	26.8
You heard of a loved one who had been injured/killed	No	266	10.2	6.4	13.9
	Yes	52	19.2	11.5	26.9
You saw dead bodies/human remains	No	289	12.5	6.9	16.6
	Yes	30	3.3	10.0	13.3
You feared that you had been exposed to disease/toxic agent	No	291	10.7	6.9	15.1
	Yes	29	20.7	10.3	27.6
You were in danger of being killed	No	290	9.3	5.9	14.1
	Yes	29	34.5	20.7	37.9

27. Table 5 shows that whilst a greater proportion of RESOLUTE members did not report witnessing a PTE, personnel who reported witnessing a PTE were, in general, more likely to also report psychological distress, posttraumatic stress symptoms and risky drinking behaviour.

28. Those who reported that they had perceived themselves in danger of being killed more frequently reported high psychological distress (34.5%), posttraumatic stress symptoms (20.7%) and risky drinking behaviour (37.9%) compared to personnel who reported other events. This PTE also had the largest difference in proportions reporting above at-risk levels between personnel who

reported witnessing versus not witnessing the event. This large difference was found across all three mental health outcomes.

29. For each experienced event, members were also asked to rate “how did it affect you at the time” and “how does it affect you now”. An additional analysis was conducted to determine whether the reported effect from the event had increased, decreased or stayed the same. Responses were coded as no effect (not at all) and at least a little effect (i.e a little, a moderate amount and a great deal). Increased effect indicates personnel who reported no effect at the time of the event but at least a little effect at the time of the MHWQ. Decreased effect indicates personnel who reported at least a little effect at the time of the event but no effect at the time of the MHWQ. Same-level effect indicates personnel who either reported at least a little effect at the time of the event and MHWQ or no effect at both time points.

30. Table 6 presents the most commonly reported PTEs for the screened RESOLUTE sample and the proportion of personnel who reported an increased, decreased or same level of effect for each event.

**Table 6. The proportion of personnel who reported increased, decreased or same effect between the time of the event and the MHWQ.**

Potentially traumatic event	<i>n</i>	% Increased effect	% Decreased effect	% Same level effect
Witnessed human degradation / misery on a large scale	119	0.8	31.9	63.9
You were in danger of being injured	89	4.5	38.2	53.9
You heard of a close friend or co-worker injured, killed or died	71	-	45.1	49.3
You heard of a loved one who had been injured/killed	52	-	30.8	67.3
You saw dead bodies/human remains	30	-	36.7	60.0
You feared that you had been exposed to disease/toxic agent	29	6.9	41.4	37.9
You were in danger of being killed	29	6.9	58.6	34.5

**Notes:**

1. Includes personnel who reported exposure one or more times; and
2. (-) indicates a value of 0.0.

31. The findings presented in Table 6 suggest that most members reported that the effect of exposure to the PTE had either decreased over time or stayed the same. A greater proportion of members who reported witnessing human degradation, seeing dead bodies or hearing of a loved one injured/killed indicated a more enduring effect of the event (i.e. the same effect at the time to when completing the MHWQ) than the proportion who reported this for other PTEs.

32. Fearing exposure to disease/toxic agent and being in danger of being killed had a less enduring effect profile; however a higher proportion of personnel who reported either one of these events also reported an increased effect from the time of the event to the MHWQ (note though this equates to two people).

33. Table 7 presents a breakdown of the rates of exposure to PTEs. Only the most commonly reported events in the screened RESOLUTE sample are shown.

**Table 7. The proportion of personnel who reported a potentially traumatic event by the number of times reported.**

Potentially traumatic event	<i>n</i>	% One time	% Two to four times	% Five to nine times	% Ten or more times
Witnessed human degradation / misery on a large scale	119	16.0	42.6	29.4	8.4
You were in danger of being injured	89	40.4	52.8	4.5	2.2
You heard of a close friend or co-worker injured, killed or died	71	57.7	42.3	-	-
You heard of a loved one who had been injured/killed	52	76.9	23.1	-	-
You saw dead bodies/human remains	30	100.0	-	-	-
You feared that you had been exposed to disease/toxic agent	29	79.3	17.2	3.4	-
You were in danger of being killed	29	72.4	27.6	-	-

**Notes:**

1. Includes personnel who reported exposure one or more times;
2. (-) indicates a value of 0.0; and
3. The proportion represents the % of personnel who had reported witnessing the PTE.

34. In the case of all the listed PTEs, with the exception of witnessing human degradation, the majority of personnel (> 93%) reported experiencing the event less than five times.

35. In regards to witnessing human degradation, the majority of personnel (72%) reported experiencing the event between two and nine times. This event also had the highest proportion of personnel to report experiencing the event ten or more times. The higher occurrence of witnessing human degradation may be reflective of the search and rescue tasks conducted by personnel deployed on RESOLUTE.

36. Of the 30 personnel who reported seeing dead bodies, 21 were assigned to a HS. Therefore it is likely that all 21 members have reported the same event which included the involvement of dead bodies. This one event may explain why such a high proportion of personnel reported witnessing the event only once.

**STAFF-IN-CONFIDENCE**

37. Table 8 presents the proportion of personnel assigned to RESOLUTE who reported at least one exposure to a PTE in the 12 months prior to the screen. The table also provides a comparison between the PTEs experienced by personnel assigned to RESOLUTE and SLIPPER.

**Table 8. Percent of RESOLUTE and SLIPPER personnel reporting exposure to PTEs**

Potentially traumatic event	RESOLUTE (N = 324)		SLIPPER (N = 858)	
	<i>n</i>	%	<i>n</i>	%
Witnessed human degradation / misery on a large scale	119	<b>36.7</b>	46	<b>5.3</b>
You were in danger of being injured	89	<b>27.5</b>	142	<b>16.6</b>
You heard of a close friend or co-worker who has been injured, killed or died	71	<b>21.9</b>	153	<b>17.8</b>
You heard of a loved one who had been injured/killed	52	<b>16.0</b>	78	<b>9.1</b>
You were in danger of being killed	29	<b>9.0</b>	74	<b>8.6</b>
You feared that you had been exposed to disease/toxic agent	29	<b>9.0</b>	23	<b>2.7</b>
You were present when co-worker was injured or killed	16	<b>4.9</b>	42	<b>4.9</b>
You were present when loved one was injured/killed	5	<b>1.5</b>	1	<b>0.1</b>
You handled dead bodies/human remains	11	<b>3.4</b>	21	<b>2.4</b>
You saw dead bodies/human remains	30	<b>9.3</b>	50	<b>5.8</b>
Believed your actions or inaction resulted in someone being injured	1	<b>0.3</b>	9	<b>1.0</b>
Believed your actions or inaction resulted in someone being killed	-	-	5	<b>0.6</b>

38. Personnel assigned to RESOLUTE reported higher rates of exposure to a number of traumatic events compared to SLIPPER personnel. A chi-square test for independence indicated a significant association between deployment group and involvement in five of the PTEs ( $p < 0.01$ ). This result indicates that members deployed to RESOLUTE were significantly more likely to report exposure to witnessing human degradation, being in danger of being injured, fearing exposure to contagious disease or toxic agent, seeing dead bodies and hearing of a loved one who had been injured or killed in comparison to personnel deployed to SLIPPER.

**Occupational Concerns**

39. Occupational concerns were measured on the MHWQ using a list of thirty concerns that personnel assigned to RESOLUTE may have experienced during the 12 months prior to completing the screen (i.e. a slightly modified version of the MSI). The most commonly reported occupational concern within the screened RESOLUTE sample was separation from family and friends, with over one third of personnel reported experiencing at least moderate stress related to this concern (34.3%). Annex D presents the complete list of operational concerns and the proportion of personnel who reported at least a moderate amount of stress.

40. Table 9 compares mental health outcomes for members who reported no or slight stress and those who reported moderate to extreme stress for the most frequently reported ( $\geq 25\%$ ) occupational concerns within the RESOLUTE sample

**Table 9. Most frequently reported occupational concerns ( $\geq 25\%$ ) by mental health outcomes**

Occupational concerns	Level of reported stress	<i>n</i>	% Psychological distress ( $\geq 20$ )	% Posttraumatic stress symptoms ( $\geq 30$ )	% Risky drinking behaviour ( $\geq 8$ )
Sorting out problems at home	None to slight	219	6.4	4.1	13.7
	Moderate to extreme	102	22.5	13.7	23.5
Overload of work	None to slight	232	5.2	3.0	14.2
	Moderate to extreme	90	28.9	17.8	23.3
Separation from family and friends	None to slight	211	6.2	1.4	11.8
	Moderate to extreme	111	22.5	18.0	26.1
Frustration generally	None to slight	240	5.4	0.8	12.9
	Moderate to extreme	81	30.9	25.9	27.2
Navy's lack of concern with operational members	None to slight	228	5.7	1.8	14.5
	Moderate to extreme	93	26.9	20.4	22.6
The ADF hierarchy	None to slight	239	5.9	1.3	12.6
	Moderate to extreme	81	28.4	23.5	29.6
Double standards	None to slight	240	6.7	2.5	13.8
	Moderate to extreme	81	27.2	21.0	25.9

41. Results show that whilst a greater proportion of members reported no to slight stress for these items, personnel who reported moderate to extreme stress more frequently reported psychological distress, posttraumatic stress symptoms and risky drinking behaviour.

42. A similar pattern was noted in the Post-Operational Mental Health Technical Brief 04/2012 (Benassi, 2012). The brief presented a comprehensive snapshot of mental health outcomes for ADF personnel returning from seven different operational deployments between July 2010 and June 2011 and supports the association between levels of stress on deployment and risk of mental health concerns.

43. Table 10 provides a comparison between RESOLUTE and SLIPPER and the proportions of members reporting at least moderate stress for the most commonly reported occupational concerns within the RESOLUTE sample.

**Table 10. Frequency and proportion of RESOLUTE and SLIPPER personnel reporting at least moderate stress for the most commonly reported occupational concerns**

Occupational Concerns	RESOLUTE		SLIPPER	
	(N=324)		(N=858)	
	<i>n</i>	%	<i>n</i>	%
Sorting out problems at home	102	<b>31.5</b>	182	<b>21.1</b>
Overload of work	90	<b>27.8</b>	193	<b>22.4</b>
Separation from family and friends	111	<b>34.3</b>	188	<b>21.9</b>
Frustration generally	81	<b>25.0</b>	162	<b>18.9</b>
Navy's lack of concern with operational members <sup>4</sup>	93	<b>28.7</b>	52	<b>6.0</b>
The ADF hierarchy <sup>4</sup>	81	<b>25.0</b>	103	<b>12.1</b>
Double standards	81	<b>25.0</b>	197	<b>23.0</b>

44. Personnel assigned to RESOLUTE more frequently reported at least moderate stress related to a number of occupational concerns compared to SLIPPER personnel. A chi-square test for independence indicated a significant association between deployment group and five of the occupational concerns that were reported as causing at least a moderate amount of stress ( $p < 0.05$ ). This indicates that RESOLUTE personnel more frequently reported at least moderate stress related to: 'sorting out problems at home'; 'separation from family and friends'; 'frustration generally'; 'Navy's lack of concern with operational members' and 'ADF hierarchy', compared to personnel deployed on SLIPPER.

### Morale

29. More RESOLUTE respondents agreed<sup>5</sup> (59.5%) than disagreed<sup>6</sup> (16.6%) that their personal level of morale was generally high in the 12 months prior to the screen. While the pattern was the same regarding crew morale, the proportion who agreed that crew morale was high (46%) was smaller than the proportion who indicated their personal morale was high. Likewise, a greater proportion of personnel disagreed<sup>4</sup> (21%) that crew morale was high compared to personal morale.

### Overall experience

30. Personnel assigned to RESOLUTE were more likely to rate their overall RESOLUTE experience as neutral<sup>7</sup> (42%) than positive (37.1%). This result was different from reports of overall experience of Navy personnel deployed to SLIPPER, where the majority (43.6%) reported a positive, as opposed to neutral (26.9%), deployment experience.

<sup>4</sup> Questions were worded differently on RtAPS which asked about the ADF or operation more generally. However, the items are comparable due to the question remaining fundamentally the same.

<sup>5</sup> Personnel who strongly agreed or agreed.

<sup>6</sup> Personnel who strongly disagreed or disagreed.

<sup>7</sup> Personnel who rated the experience as neither negative or positive.

31. Further analyses found a significant association between overall perceptions of the deployment experience and the negative impact on home life from time at sea<sup>8</sup> ( $p < .05$ ). That is, 64.4% of personnel who rated RESOLUTE as a negative experience also felt that time at sea negatively impacted home life. In comparison, 65.3% of personnel who rated RESOLUTE as a positive experience did not feel that time at sea impacted home life negatively.

**Homecoming concerns**

32. The MHWQ asks members to indicate whether they expect to experience any difficulties when returning home from operational duty, and if so what difficulties they expect. Similarly, the questionnaire asks whether time at sea negatively impacts on home life, and if so, how. Table 11 outlines the proportion of personnel who reported homecoming concerns and a negative impact on home life, and summarises the most common reported difficulties.

**Table 11. Homecoming concerns for RESOLUTE**

	%	n
<b>Expect difficulties on return to home</b>	<b>15.7</b>	<b>51</b>
<b>Expected difficulties returning home (comments)<sup>1</sup>:</b>		<b>52<sup>2</sup></b>
Sleep		16
Fitting in with family		14
Establishing routines		13
Logistics of arrival		6
Inability to take leave		2
Social interaction		2
Changes to posting type		2
Motivation/boredom		2
Family changes		1
<b>Feel that time at sea negatively impacts home life</b>	<b>37.7</b>	<b>122</b>
<b>Negative impacts of deployment on home life (comments)<sup>1</sup>:</b>		<b>110<sup>2</sup></b>
Impact on relationship with spouse		35
Impact on relationship with children		29
Duration of posting		18
Routines of the rotations		16
Social impact (missing important engagements)		11
Family issues		8
Separation		8
Communication issues		6
Fitting in with family		3
Programming issues		2
Family attitudes		1

**Notes:**

1. Percentages are not given for qualitative responses as one respondent may list several individual reasons within their response; and
2. Total number of personnel who have left comments regarding this topic/concern.

33. The majority of respondents (75.9%) indicated that they did not expect any difficulties settling back when they returned home, however a small proportion (15.7%) expected some difficulties. The most commonly cited expected difficulties were sleep, fitting in with family, establishing routines and logistics of arrival.

34. Over one third of the sample (37.7%) reported that time at sea had negatively impacted on their home life. A slightly greater proportion of the sample (46.3%) reported that time at sea did not negatively impact on their home life. The most commonly cited issues reported as impacting

<sup>8</sup> A Chi square test for independence was used to test the association between overall perception of deployment and negative impact time at sea has had on home life.

negatively on home life were 'relationship with spouse' and 'relationship with children',  $n = 35$  and 29 respectively. Other issues reported as impacting negatively on home life included the duration of the posting, routines of the rotations and impact on social life such as missing important engagements.

35. Of the personnel who reported having at least one dependent, 57.3% felt that time at sea negatively impacted on home life, while 13.6% were uncertain. Likewise, of the personnel who reported being in a relationship<sup>9</sup>, 52.7% felt that time at sea negatively impacted on home life, while 11.3% were uncertain.

36. Three issues were listed as both an expected difficulty on return home and negatively impacting home life from time at sea; fitting in with family, establishment of routines and adapting to family changes that occur while at sea.

### Career Intentions

37. Table 12 presents the career intentions reported by screened RESOLUTE personnel. Personnel were asked to rate their career intentions 12 months prior to the screen, as well as their current career intentions. One limitation to this type of reporting is recall bias whereby responses to questions must be regarded as unreliable due to inaccuracy of recall of past attitudes, events or experiences.

**Table 12. Career intentions of RESOLUTE personnel**

Career intentions	12 months ago (%)	Current (%)
Long term service career	57.7	43.5
Serve out current engagement/ROSO	23.5	24.7
Seek TOC/TOB/Corps Transfer/Remuster/Specialisation Transfer	3.7	4.9
Seek discharge within the next 12 months	8.3	11.1
Seek discharge immediately	0.3	1.9

38. Table 12 suggests that at the time the MHWQ was administered more personnel reported current intentions to discharge than was the case 12 months prior. Similarly, a smaller proportion of personnel reported intentions for a long-term career than 12 months prior to the MHWQ.

39. Of the 193 personnel who rated their personal morale as high, 92.5% indicated an intention to remain employed by the ADF, while 7.4% indicated an intention to leave the ADF. However, personnel who rated crew morale as high reported similar career intentions as the overall RESOLUTE sample shown in Table 12.

40. Closer analysis of individual changes in reported career intentions indicated that the majority of personnel (74.4%) reported that their career intentions had not changed over the course of the 12 month period. Only 8.0% of personnel indicated that while they had been intending to stay 12 months ago, they were now intending to leave the ADF. Of the personnel reporting a desire to leave the ADF 12 months previously, 2.8% indicated they now intended to remain within the ADF.

41. Current career intentions were also compared between both RESOLUTE and SLIPPER groups. A similar proportion of personnel in each deployment group indicated their intention to stay employed in the ADF (84.9% and 85.8% respectively) and their intention to discharge from the ADF (15.1% and 14.2% respectively).

<sup>9</sup> Married, service recognised relationship or non-service recognised relationship.



## General Health and Wellbeing

42. In the MHWQ, personnel were asked to rate their overall health over the past 12 months. Table 13 below presents the frequency of personnel who reported against each general health option (poor to excellent) and their assessed mental health outcomes.

**Table 13. General health by mental health outcomes for RESOLUTE personnel**

Perceived General Health	<i>n</i>	%	% Psychological distress ( $\geq 20$ )	% Posttraumatic stress symptoms ( $\geq 30$ )	% Risky drinking behaviour ( $\geq 8$ )
Excellent	27	8.3	-	3.7	8.7
Very Good	118	36.4	3.4	2.6	13.6
Good	123	38.0	13.9	8.1	22.0
Fair	38	11.7	28.9	16.2	15.8
Poor	5	1.5	60.0	40.0	40.0

43. Table 13 shows that the majority of personnel deployed on RESOLUTE rated their overall health as excellent, very good or good (82.7%). This is slightly less than the 91.5% of personnel deployed on SLIPPER who rated their overall health as excellent, very good or good. A similar proportion of personnel rated their general health as poor for the RESOLUTE and SLIPPER groups (1.5% and 1.3%, respectively).

44. Of the personnel who reported excellent or very good general health, few were assessed as being at risk of psychological distress or posttraumatic stress symptoms. In comparison, of the personnel who rated their overall health as poor ( $n = 5$ ), 60% ( $n = 3$ ) reported psychological distress, 40% ( $n = 2$ ) indicated posttraumatic stress symptoms and 40% ( $n = 2$ ) indicated risky drinking. Note the very low numbers in this category.

45. Table 14 provides the proportion of personnel reporting anger related behaviours in the 12 months prior to the MHWQ by frequency of occurrence.

**Table 14. Proportion of personnel reporting anger behaviour in the RESOLUTE sample**

Anger behaviour (Past 12 Months)	<i>N</i>	Never % ( <i>n</i> )	Once or twice % ( <i>n</i> )	Three or more times % ( <i>n</i> )
Get angry with someone and yell or shout at them	324	31.2 (101)	36.7 (119)	31.8 (103)
Get angry with someone and kick or smash something, slam the door, punch the wall.	324	79.0 (256)	13.6 (44)	6.5 (21)
Get into a fight with someone and hit the person	324	93.8 (304)	4.9 (16)	0.9 (3)
Threaten someone with physical violence	324	91.7 (297)	5.8 (19)	1.5 (5)

46. Yelling or shouting at someone was the most frequently reported anger behaviour (31.8% three or more times and 36.7% once or twice). Percentages of people becoming physically violent were very small, with the most frequently reported physical anger behaviour being kicking/smashing something, slamming the door, punching the wall (13.6% once or twice, 6.5% three or more times).

47. Table 15 outlines the proportion of members deployed on RESOLUTE reporting different severities of sleep difficulties.

**Table 15. Reported sleep problems in the RESOLUTE sample**

	<i>N</i>	No % ( <i>n</i> )	Mild % ( <i>n</i> )	Moderate % ( <i>n</i> )	Severely % ( <i>n</i> )	Very Severely % ( <i>n</i> )
Difficulty falling asleep	324	37.7 (122)	35.8 (116)	18.8 (61)	4.6 (15)	2.5 (8)
Difficulty staying asleep	324	47.5 (154)	27.8 (90)	17.3 (56)	4.6 (15)	2.2 (7)
Waking up too early	324	43.8 (142)	29.3 (95)	18.2 (59)	5.9 (19)	2.2 (7)

48. The number of personnel who reported experiencing severe difficulty sleeping was low (4.6% to 5.9%), with the majority of personnel reporting no or mild difficulties across all three items. The most frequently reported item was mild difficulty falling asleep (35.8%). It is also noted that over one-quarter of personnel reported moderate and above levels for difficulty falling asleep and difficulty staying asleep.

49. Of the personnel who rated their sleep problems as very severe, five did so across all three items. Although there is no comparison group for the sleep items, the quality and quantity of sleep in deployed military personnel has been shown to be significantly poorer than non-deployed personnel (Seeling et al., 2010).

50. Suicidal thought and behaviour items are also included in the MHWQ. Results for these items showed that no member indicated that they had made a suicide plan or attempted suicide. Fewer than seven members reported feeling that they had felt so low that they thought about committing suicide, or that life was not worth living<sup>10</sup>. Due to the very low numbers of personnel reporting these feelings, exact numbers and proportions have not been reported.

## Conclusion

51. This report provides an overview of the mental health outcomes of deployed personnel on RESOLUTE between Jun 11 and Nov 12. Where applicable, the report compares data between Navy personnel assigned to RESOLUTE and SLIPPER, to provide a reference point for mental health outcomes. Finally, the report presents information on personnel's perception of workplace and deployment factors within a 12 month period.

52. Overall, approximately 12% of the screened RESOLUTE personnel scored above the risk cut-off for psychological distress. In addition, just over 7% scored above the risk cut-off for posttraumatic stress symptomology and approximately 16% scored above the cut-off for risky drinking behaviour.

53. Although a smaller number of personnel had been deployed to RESOLUTE for four or more years, a higher proportion of this group reported psychological distress and posttraumatic stress symptoms than personnel deployed for less than four years. The data show an apparent increase in risk of psychological distress and posttraumatic stress symptoms with increased deployment length.

<sup>10</sup> If these MHWQ items are selected, the responses would be fully examined in the follow-up screening interview with a psychologist.

## STAFF-IN-CONFIDENCE

54. The most frequently reported PTE by RESOLUTE personnel was witnessing human degradation. The majority of personnel who reported this indicated they experienced the event more than twice. The higher occurrence may be reflective of the search and rescue functions carried out by RESOLUTE personnel. Personnel who reported experiencing a PTE more frequently reported psychological distress, posttraumatic stress symptoms and risky drinking behaviour than personnel who did not report exposure. This result was particularly prominent for members who had perceived themselves in danger of being killed.

55. The majority of RESOLUTE personnel agreed that their personal level of morale was generally high in the 12 months prior to the screen. In addition, the majority of personnel who rated their personal morale as high indicated an intention to remain employed in the ADF.

56. Over a third of personnel deployed on RESOLUTE reported that time at sea negatively impacts on their home life. Interestingly, this was reported predominantly by people who reported their overall deployment experience as negative.

57. A common theme identified throughout the report related to the separation and reunion with family and friends:

- a. the occupational concerns most commonly reported by RESOLUTE personnel as causing at least moderate stress were sorting out problems at home and separation from family/friends;
- b. three commonly reported homecoming difficulties that members expected were fitting in with family, establishment of routines and family changes; and
- c. a significantly higher proportion of RESOLUTE personnel reported hearing of a loved one injured/killed compared to SLIPPER members.

58. Regarding the comparison between the RESOLUTE and SLIPPER groups, personnel assigned to RESOLUTE reported higher exposure to PTEs and reported greater amounts of stress from occupational concerns. Despite this, there were no significant differences between RESOLUTE and SLIPPER personnel reporting at risk for psychological distress and posttraumatic stress symptoms.

59. A greater proportion of personnel deployed on RESOLUTE are consuming alcohol in excess of low-risk guidelines compared to personnel deployed on SLIPPER. However, only four RESOLUTE personnel indicated hazardous and harmful levels of alcohol consumption (i.e. Zone III of the AUDIT).

60. Ongoing screening enables the tracking and reporting of mental health over time for personnel deployed on RESOLUTE. Furthermore, ongoing screening with the MHWQ will facilitate more comprehensive reporting of mental health outcomes for RESOLUTE personnel in comparison with other deployed Navy groups.

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**Mental Health Surveillance Instruments*****Traumatic Stress Exposure Scale – Revised (TSES-R)***

1. The TSES-R (Hodson, 2002; Swann & Hodson, 2004) quantifies exposure and responses to 12 generic clusters of potentially traumatic events. The instrument contains three separate scales – *How often did you experience the event? How did it affect you at the time? How does it affect you now?* The scoring for the first scale ranges from 0 = *never* to 4 = *very often*. The scoring for the remaining two scales ranges from 0 = *not at all* to 3 = *a great deal*. A respondent's score is calculated by summing the responses on each scale. Currently, there are no cut-offs for this instrument; however interviewers use their judgment to determine whether the reported exposure and its impact have significantly affected the individual.

***Major Stressors Inventory (MSI)***

2. The MSI comprises a list of 30 items (factors or situations) that personnel serving in the military may find stressful. It also includes the option of adding any two additional stressors the individual may have experienced during the deployment. Personnel are required to indicate on a 5-point scale (1 = no stress to 5 = extreme stress), the response that best describes how much subjective stress they felt the situation caused during 12 months prior to the screen. While there are no cut-offs for this inventory, the interviewer addresses those stressors providing the greatest amounts of stress to the respondent.

***Psychological distress***

3. The Kessler 10 (K10; Kessler, et al. 2002) indicates level of psychological distress in the areas of depression and anxiety. Personnel are asked to respond to a series of ten questions by indicating on a 5-point scale (5 = all of the time to 1 = none of the time) how they have been feeling over the past four weeks. Scores on each item are added to yield a K10 total score with a range from 10 to 50. Recent reviews of K10 cut-offs (PRTG, 2008) suggest a score of 20 or higher would be a useful marker for identifying high risk individuals in the ADF, as individuals with this score or higher have at least four times the population risk of having a depressive or anxiety disorder (Furukawa et al., 2003). The following risk groups are used for descriptive purposes in the current report: 10-14 Low; 15-19 Moderate; 20-50 High. The use of these cut-offs is recommended in Health Bulletin No 11/2009, with interviewers advised to provide relevant psycho-education and information on self-help techniques, as well as referral for a more thorough assessment if required (HB, 11/2009).

***Post-traumatic stress symptoms***

4. The PCL-C (Weathers, Litz, Herman, Huska & Keane, 1993) is a self-report checklist based on key diagnostic criteria for post-traumatic stress disorder (PTSD). Personnel are asked to respond to a list of problems and complaints by indicating on a 5-point scale (1 = not at all to 5 = extremely) how much they have been bothered by that problem in the past month. A total score is computed by summing the 17 items. Possible scores range from 17 to 85. A review of PCL-C by Nicholson (2006), suggests a score of 30 proves effective in identifying sub-clinical symptoms of PTSD or those possibly underreporting symptom severities. Furthermore, a paper by Bliese et al. (2008) on a US military population suggests using a cut-off of 30 for clinical risk of PTSD in settings where the PCL is used to screen members using identifiable information and potentially resulting in referral. This lower cut-off is recommended in HB 11/2009. The following risk groups are used for descriptive purposes in this report: 17-29 Low; 30-39 Medium; 40-49 High; 50-85 Very High.

***Risky Drinking***

5. The AUDIT was developed by the World Health Organisation (WHO) as a screening instrument for hazardous and harmful alcohol consumption (Saunders et al., 1993; Saunders, Aasland, Amundsen & Grant, 1993). It incorporates questions about drinking quantity, frequency, and binge behaviour along with questions about consequences of drinking. It should be noted that hazardous or harmful alcohol use does not automatically equate to a diagnosis of alcoholism (HB 11/2009).
6. In the WHO validation study, 92% of those diagnosed as having hazardous or harmful alcohol usage had an AUDIT score of 8 or more, and 94% of those with nonhazardous consumption had a score of less than 8. Further research has suggested that a cut-off of 8 accurately predicts problematic drinking (Allen, Litten, Fertig, & Babor, 1997).
7. As indicated in the Defence Health Bulletin 11/2009, individuals scoring:
  - a. **Zone I** (scores of 0–7) are regarded as low risk drinkers (or may be abstinent);
  - b. **Zone II** (scores of 8–15) are consuming alcohol in excess of low risk guidelines;
  - c. **Zone III** (scores of 16–19) indicates hazardous and harmful levels of alcohol consumption; and
  - d. **Zone IV** (scores of 20 to 40) indicates that the person falls into the high risk category of alcohol-related harm.

**Table B1. Psychological distress (as measured by the K10) by risk for personnel deployed on RESOLUTE.**

Psychological distress								
	<i>N</i>		Low (10-14)		Moderate (15-19)		High ( $\geq 20$ )	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Total	324	100	208	64.2	76	23.5	38	11.7
<b>Gender</b>								
Male	254	78.4	163	64.2	59	23.2	30	11.8
Female	70	21.6	45	64.3	17	24.3	8	11.4
<b>Age</b>								
<25	121	37.3	75	62.0	32	26.4	13	10.7
25-34	133	41.0	84	63.2	29	21.8	20	15.0
35-44	46	14.2	31	67.4	10	21.7	4	8.7
>45	24	7.4	18	75.0	5	20.8	1	4.2
<b>Rank</b>								
Junior Sailor	231	71.3	141	61.0	61	26.4	27	11.7
Senior Sailor	40	12.3	30	75.0	6	15.0	4	10.0
Officer	53	16.4	37	69.8	9	17.0	7	13.2
<b>Length of posting to RESOLUTE (years)</b>								
<1	112	34.6	84	75.0	23	20.5	5	4.5
1-3	149	46.0	89	59.7	36	24.2	22	14.8
>4	61	18.8	34	55.7	16	26.2	11	18.0

**Note:**

1. *N* – total sample size
2. *n* – subsample size

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**Table B2. Posttraumatic stress symptoms (as measured by the PCL-C) by risk for personnel deployed on RESOLUTE.**

Posttraumatic stress symptoms										
	<i>N</i>		Low (17-29)		Medium (30-39)		High (40-49)		Very high (≥50)	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Total	324	100	296	91.4	14	4.3	8	2.5	1 <sup>11</sup>	0.3
<b>Gender</b>										
Male	254	78.4	232	91.3	11	4.3	8	3.1	-	-
Female	70	21.6	64	94.1	3	4.3	-	-	-	-
<b>Age</b>										
<25	121	37.3	112	92.6	6	5.0	1	0.8	-	-
25-34	133	41.0	121	91.0	6	4.5	4	3.0	-	-
35-44	46	14.2	39	84.8	2	4.3	3	6.5	-	-
>45	24	7.4	24	100	-	-	-	-	-	-
<b>Rank</b>										
Junior Sailor	231	71.3	211	91.3	10	4.3	4	1.7	-	-
Senior Sailor	40	12.3	35	87.5	2	5.0	3	7.5	-	-
Officer	53	16.4	50	94.3	2	3.8	1	1.9	-	-
<b>Length of posting to RESOLUTE (years)</b>										
<1	112	34.6	104	92.9	5	4.5	2	1.8	-	-
1-3	149	46.0	139	93.3	4	2.7	3	2.0	-	-
>4	61	18.8	51	83.6	5	8.2	3	4.9	-	-

**Note:**

1. (-) indicates a value of 0.0
2. *N* – total sample size
3. *n* – subsample size

<sup>11</sup> Further demographic information is not provided for this individual to ensure anonymity.



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**Table B3. Risky drinking behaviour (as measured by the AUDIT) by risk for personnel deployed on RESOLUTE.**

Risky drinking behaviour										
	<i>N</i>		Zone I		Zone II		Zone III		Zone IV	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Total	324	100	260	80.2	50	15.4	4	1.2	-	-
<b>Gender</b>										
Male	254	78.4	201	79.1	42	16.5	3	1.2	-	-
Female	70	21.6	59	84.3	8	11.4	1	1.4	-	-
<b>Age</b>										
<25	121	37.3	96	79.3	20	16.5	2	1.7	-	-
25-34	133	41.0	109	82.0	20	15.0	1	0.7	-	-
35-44	46	14.2	34	73.9	8	17.4	-	-	-	-
>45	24	7.4	21	87.5	2	8.3	1	4.2	-	-
<b>Rank</b>										
Junior Sailor	231	71.3	181	78.4	41	17.7	2	0.9	-	-
Senior Sailor	40	12.3	32	80.0	6	15.0	-	-	-	-
Officer	53	16.4	47	88.7	3	5.7	2	3.8	-	-
<b>Length of posting to RESOLUTE (years)</b>										
<1	112	34.6	91	81.2	17	15.2	-	-	-	-
1-3	149	46.0	117	78.5	24	16.1	3	2.0	-	-
>4	61	18.8	50	82.0	9	14.8	1	1.6	-	-

**Note:**

1. (-) indicates a value of 0.0
2. *N* – total sample size
3. *n* – subsample size

**OP RESOLUTE Referral Rates**

1. Referral rates and mental health outcomes were analysed according to the two questions below:
  - a. What was the mental health profile of personnel in each of the three referral-urgency categories?; and
  - b. Of the personnel who reported in the upper mental health categories, what proportion was referred for further action?
2. A pattern of symptoms emerged in both high-urgency referral categories (i.e. High urgency – within 72 hours and High urgency – with 14 days). All four members within these categories (two in each) reported high levels of psychological distress and posttraumatic stress symptoms. The two members referred within 72 hours reported higher K10 scores (33, 32 compared to 26, 22) and PCL-C scores (60, 49 compared to 46, 42) than the two members with 14-day referral urgency.
3. No distinct pattern emerged for personnel who were marked as medium urgency (3 month).
4. Thirty eight members reported at-risk levels of psychological distress on the MHWQ. Subsequent to an interview with a psychologist seven (18.4%) of these people were referred for further psychological assessment. Of the seven referrals, two were marked as high urgency (within 72 hours), two were marked as high urgency (within 14 days), and three were marked as medium urgency (within 3 months).
5. Twenty two members reported at-risk levels of posttraumatic stress symptoms on the MHWQ. Subsequent to an interview with a psychologist/psychology examiner, eight (36.4%) of these people were referred for further psychological assessment. Of the eight referrals, two were marked as high urgency (within 72 hours), two were marked as high urgency (within 14 days) and four were marked as medium urgency (within 3 months).
6. No member reported scores in the highest risk category of alcohol related harm (Zone IV).

## Occupational Stressors (as measured by the MSI)

Table C1. Proportion of members experiencing stress – RESOLUTE and SLIPPER

Occupational Concerns	RESOLUTE		SLIPPER	
	(N=324)		(N=858)	
	n	%	n	%
Living conditions	50	15.4	107	12.4
Personal privacy	30	9.3	103	12.1
Sorting out problems at home	102	31.5	182	21.1
Boredom	52	16.1	139	16.1
Living and working with the same people	51	15.7	164	19.1
Overload of work	90	27.8	193	22.4
Periods of high activity then low/no activity	60	18.5	87	10.1
Health concerns	50	15.4	54	6.2
Behaviour of others	64	19.7	208	24.2
Dealing with people from another culture	20	6.1	-	-
Separation from family and friends	111	34.3	188	21.9
Threat of danger	18	5.5	33	3.8
Not getting on with others	21	6.4	83	9.6
Lack of opposite sex company	24	7.4	67	7.8
Language barriers	9	2.4	22	2.5
Sorting out disagreements with others	37	11.4	93	10.9
Frustration generally	81	25.0	162	18.9
Thinking about returning home	59	18.3	101	11.7
Completing operational objectives	41	12.6	52	6.0
Navy's lack of concern with operational members	93	28.7	52	6.0 <sup>1</sup>
The ADF hierarchy	81	25.0	103	12.1 <sup>1</sup>
Leadership	45	13.9	166	19.3
The operation's rules and regulations	48	14.8	169	19.7 <sup>1</sup>
Double standards	81	25.0	197	23.0
Contact with family and friends	67	20.7	77	9.0
Taking leave	35	10.8	-	-
Email access	60	18.5	-	-
Mail service	30	9.3	35	4.1
Working with other agencies and services	25	7.7	16	1.8
Length of time at sea	80	24.7	98	11.4 <sup>1</sup>

<sup>1</sup>Questions were worded differently on RtAPS, asking about ADF or operation more generally. However, the items are comparable due to the question remaining fundamentally the same.

**Note:**

- a. shows percentage of people reporting moderate stress or above.
- b. A mark of (-) indicates that no comparison data are available due to the question not being included in the RtAPS.

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**Authors:**

Ms Jennie Walker  
CAPT (Dr) Jonathan Burt

**Reviewers:**

Ms Catherine Chesney  
Ms Nicole Steele

**Sponsor**

Commander Joint Health Command

**Developer**

Directorate of Occupational Psychology and Health Analysis (DOPHA)

Requests and enquiries should be addressed to the Directorate of Occupational Psychology & Health Analysis, Australian Government Department of Defence, Canberra, ACT, 2600.