2 June 2016

Air Marshal GN Davies, AO, CSC
Chief of Air Force
R1-6-C001
PO Box 7902
CANBERRA BC ACT 2610

Dear Air Marshall Davis

Report: Improving Opportunities for Women to Become Fast Jet Pilots in Australia

I am pleased to present to you the Australian Human Rights Commission’s Report into Improving Opportunities for Women to Become Fast Jet Pilots in Australia.

This Report predominately represents the views of members of the Royal Australian Air Force. Their views were sought over a 16-month period from January 2015 to April 2016. I’d like to thank the Air Force personnel for being so generous with their time and expertise.

I look forward to collaborating with you as the Air Force builds on its positive reforms to create a diverse and inclusive workplace.

Yours sincerely

Kate Jenkins
Sex Discrimination Commissioner

T +61 2 9284 9836
F +61 2 9284 9794
E sexdiscriminationcommissioner@humanrights.gov.au
# Table of Contents

## Contents

1. **Pilot supply and demand to Air Combat Group** ........................................... 23  
   1.1 *Women pilots in Air Force* ............................................................................. 23  
   1.2 *Women in Air Combat Group* .................................................................... 24  
   1.3 *Increases to the fast jet fleet* ................................................................. 24  
   1.4 *Pilot training stages and populations* ......................................................... 25  
   1.5 *Pilot training locations and schools* .......................................................... 26  
   1.6 *Basic Flying Training School* ................................................................. 27  
   1.7 *No. 2 Flying Training School* ................................................................. 27  
   1.8 *Operational conversions* ............................................................................. 28  
   1.9 *Pilot training at Air Combat Group* .......................................................... 28  
   1.10 *79 Squadron* ............................................................................................ 29  
   1.11 *76 Squadron* ............................................................................................ 29  
   1.12 *No. 2 Operational Conversion Unit* .......................................................... 29  
   1.13 *Attrition at Air Combat Group* ................................................................. 30  
   1.14 *Increasing the time at flying training schools* ........................................... 31  
   1.15 *Flying experience in operational squadrons as a precursor to re-role* ........ 32  
   1.16 *Opportunities to re-role to fast jet training* ............................................. 33  
   1.17 *Qualified Flying Instructor positions at No. 2 Flying Training School* .... 34  
   1.18 *Information about re-role* ........................................................................... 34  
   1.19 *Current selection criteria for re-role* ......................................................... 35  
   1.20 *Re-role and family commitments* ............................................................. 36  
   1.21 *Overseas training opportunities for female pilots* ..................................... 37  
   1.22 *Findings and recommendations: Supply and demand* ............................. 39  

2. **Background to Air Force pilot recruitment** ....................................................... 45  
   2.1 *Air Force recruitment statistics* .................................................................. 46  
   2.2 *Attraction* .................................................................................................... 48  
   2.3 *Air Force women as role models* ............................................................... 49  
   2.4 *Attraction activity at schools and universities* .......................................... 50  
   2.5 *Advertising campaigns* .............................................................................. 51  
   2.6 *Aviation expos* ............................................................................................ 53  
   2.7 *Experiential Air Force Camps* ................................................................. 53  
   2.8 *Graduate Pilot Scheme* ............................................................................... 54  
   2.9 *Selection* ...................................................................................................... 55  
   2.10 *Mentoring and fast-tracking through the selection process* ...................... 56  
   2.11 *Tri-Service selection and specialisation at recruitment* ......................... 57  
   2.12 *Stereotyping in the recruitment process* .................................................... 58  
   2.13 *Flight screening* ........................................................................................ 59  
   2.14 *Medical* ...................................................................................................... 60  
   2.15 *Findings and recommendations: Recruitment* ............................................ 62  

3. **Pilot assessment and training** ......................................................................... 67  
   3.1 *Pilot training process* .................................................................................. 67  
   3.2 *Assessment results at BFTS and 2FTS by gender* ....................................... 67  
   3.3 *Moderating and validating pilot test scores* ............................................... 68
3.4 Scoring of sorties................................................................. 70
3.5 Test stress and confidence.................................................. 71
3.6 Testing for air combat skills earlier in the training continuum .... 74
3.7 Training of Qualified Flying Instructors................................. 75
3.8 Performance Enhancement Program..................................... 77
3.9 Visualisation in flight preparation........................................ 78
3.10 Explicit teaching and learning methods................................ 79
3.11 Findings and recommendations: Pilot assessment and training ... 85

4 The culture at Air Force and impacts on women............................ 91
4.1 Views about Defence Force culture...................................... 92
4.2 Confidence......................................................................... 96
4.3 Views about male fast jet fighter pilots................................. 97
4.4 Views about female pilots and fast jet pilots........................ 99
4.5 Views about culture bias..................................................... 100
4.6 Unacceptable behaviour..................................................... 103
4.7 Culture change through a critical mass of women.................... 105
4.8 Lack of female QFIs and Command members........................ 105
4.9 Mentoring and networking.................................................. 107
4.10 Leadership........................................................................ 109
4.11 Successful diversity initiatives in other male-dominated industries 111
4.12 Leadership commitment to gender diversity.......................... 112
4.13 Catering to the needs of all employees................................. 112
4.14 Ongoing assistance for employees and their families............... 113
4.15 Leadership engagement..................................................... 113
4.16 Findings and recommendations: Culture at Air Force............. 114

5 Physical requirements for flying fast jets.................................... 119
5.1 Physical strength and tolerance of accelerative forces............... 119
5.2 Deployment challenges....................................................... 121
5.3 Fitness............................................................................. 122
5.4 Injury, rehabilitation and reporting environment....................... 124
5.5 Findings and recommendations: Physical requirements............ 126

6 Family life and flexible work .................................................. 131
6.1 Air Force leadership support for women and men.................... 132
6.2 Work life balance at Air Force............................................. 134
6.3 Return of Service Obligations for female pilots......................... 137
6.4 Flexible Work Arrangements............................................... 139
6.5 Pregnancy..................................................................... 144
6.6 Findings and recommendations: Family life and flexible work..... 146

7 Appendix A: AHRC Questionnaire............................................. 151
8 Appendix B: Word Picture Assessment Matrix............................ 154
9 Appendix C: Report Methodology............................................ 155
10 Appendix D: Terms of Reference............................................ 160
Executive Summary: Improving opportunities for women to become fast jet pilots in Australia

Australian women have been able to train as fast jet pilots since 1992. Despite this 26-year timeframe, no female pilots have graduated into Air Combat Group (ACG) in Australia. When compared with overseas Air Forces, the absence of female fast jet pilots is remarkable. Many OECD countries; including those with populations far smaller than Australia, have had female fast jet pilots since the 1990s.

A number of female pilots reported that they aspired to be fast jet pilots when they commenced their training. When asked why they didn’t succeed or why Australia has no female fast jet pilots, most explain that the pilot training system is extremely difficult to navigate as a small minority. The Air Force training system is designed to graduate a particular type of individual and many of the required qualities are masculine. They report that the key traits for success are: an ability to withstand continuous test stress; confidence in the cockpit that is ‘masculine’ in its attributes; and ability to learn within stringent timeframes. Female pilots believe that some key changes to the training system and the culture at Air Force will enhance the opportunities for women.

The need to review Air Force’s pilot training regimes and workforce culture is now pressing. Over the next five years, Australia is to take possession of up to 70 new fast jets that will significantly increase its operating capacity. At the current rate, the supply of pilots to 78 Wing and the number graduates into ACG squadrons, will not be sufficient to meet workforce demand. Two other factors are likely to exacerbate this problem. Qantas is about to recruit pilots into its workforce after decades of a recruitment freeze. In addition, ACG is currently understaffed and natural workforce attrition will reduce its pilot population in coming years.

Air Force must become an employer of choice to attract the best and brightest aspiring aviators. The training system must be adapted to accommodate different learners, learning styles and timelines for learning.

This Report predominantly reflects the views of Air Force personnel; particularly pilots, trainees, and Command at pilot training schools. The Report contains numerous quotes from interviews, focus groups and meetings. It also contains data from a questionnaire of 117 Air Force members.

Overall, the Commission’s research shows that there is no single problem or barrier for women. Rather, there are a series of factors that have prevented the progress of both female and male pilots in the Air Force. Action is needed on a number of structural and cultural fronts to remediate the problem.

Many of the findings and recommendations of this Report could equally be applied to men. The barriers described by female members, were reiterated by males across the Air Force.
Therefore, action to increase opportunities for women at Air Force is likely to assist the progress of all pilots; especially those with learning styles that do not conform to the current training methods.

There is significant desire for change. Personnel were positive about their Air Force colleagues and optimistic about future possibilities. This Report is divided into six Sections. Each Section looks at a topic that is relevant to women becoming fast jet pilots as follows:

1. Supply and Demand into Air Combat Group
2. Recruitment and Selection
3. Assessment and Training
4. The Culture at Air Force and Impacts on Women
5. Physical Requirements for Fast Jets
6. Family Life and Flexible Work

Section 1 describes pilot Supply and Demand for the fast jet pilot workforce with a focus on women at each stage of training. The data shows that women are significantly under-represented in all areas of the Air Force. As a pilot population women constitute only 3.3 percent, or 25 pilots out of a population of 763. There are no female pilots in operational squadrons in ACG.

Section 1 looks at short-term options to increase female entry to fast jet training through re-role opportunities into 79 Squadron. Female pilots report that re-role could be an effective re-entry mechanism for women who have developed confidence, captaincy and technique after flying in squadrons or teaching in pilot schools. The evidence suggests that the re-role option has been underutilised to date.

It is indicative of Air Force culture that female pilots prefer to train in the United States or the United Kingdom, if given the option. They claim that the overseas training culture is more ‘respectful’ of women and less intimidating because of the larger numbers of female pilots and Qualified Flying Instructors (QFI). For this reason, they would like to see priority given to female graduates of 76 Squadron to train in the U.S. on the Growler.

The Air Force has work to do to encourage female pilots to fast jet squadrons in Australia. The feedback from across the Air Force is that ACG has a poor public image. It is concerning that the majority of young trainees commence pilot training with an interest in becoming fast jet pilots, but their interest wanes as they progress through the training continuum. While for some, this may be an issue of talent, many men and women claim that the lifestyle and the culture at ACG appears increasingly unattractive to them. If ACG is going to attract the best and brightest to its ranks, it must promote and project itself in positive terms.

Section 2 of the Report focuses on the Recruitment of women into Air Force pilot training schools. The majority of Command report that the reason Australia has not graduated a female fast jet pilot is because of poor numbers at front-end recruitment. They claim there are not enough women to increase the odds of success.

There is some truth to this theory. Female recruitment quotas have not been met in recent years and women make up only 11 percent of trainees recruited into pilot training. However, female trainees are less likely to pass both Basic Flying Training School (BFTS) and Advanced
Flying Training School (2FTS) than their male counterparts. In fact, the impediments for women are throughout the pilot training continuum, and they begin at recruitment.

A number of Senior Air Force personnel suggested that Defence Force Recruiting (DFR) should consider increasing attraction initiatives. Some argue that DFR should have fixed quotas rather than ‘aspirational’ targets for women at each intake. This could include financial incentives for DFR as it meets each quota. A further incentive for DFR could include staggered payments when women complete milestones in the training.

DFR reports that it is difficult to find women who are interested in aviation and this is due to cultural stereotypes. Air Force members advised that one way attract women is to use serving female pilots as role models for women and girls. They suggested that more can be done to resource and include female pilots in the attraction and recruitment phases.

Female members report that DFR is marketing to the wrong school audience. Recruitment efforts are focused on girls in Years 11 and 12 when they have already made their subject selections and determined their career pathway. DFR needs to focus on girls in primary and junior secondary schools as well as girls in the senior years of schooling. Attraction strategies could be improved by modernising social media platforms and making them more interactive. This will reach a wider group of interested girls.

Once female recruits are attracted to a career in Air Force, they need to be engaged during what can be a lengthy selection process. Recruitment mentoring is most effective when it commences at the point that the young women show interest in aviation. This needs to be formalised and adequately resourced.

There was strong advice for gender balance at all stages of recruitment and selection, especially during flight screening. Members on selection panels and flight screening would also benefit from unconscious-bias training.

Section 3 examines the Training and Assessment approaches at pilot training schools. Overwhelmingly, Air Force personnel argue that there is too much emphasis on assessment to the detriment of learning and development. Trainees and Command alike, report that the pilot training program creates unnecessary test stress and does not optimise performance. The pilot training system has been based on decades of precedent. Little has changed over the decades and the system has become highly iterative. It would benefit from an injection of modern instructional methodologies and a greater focus on the ways that people learn.

Both female and male trainees prefer to be taught in ways that make the learning outcomes explicit. They want modelling in visualisation, flying technique, controlled aggression, and demonstrations of the ways in which the aircraft can perform under certain conditions.

They argue for a reduction in testing. QFIs, trainees and pilots reported benefit in increasing the number of unassessed flights with randomised, undeclared test flights. Overwhelmingly, trainees and QFIs support a performance coaching model of instruction rather than a teach, test and assess model for learning.

Many trainees reported that the scoring protocol for sorties could be improved. Some argue that scoring can be subjective and that quality control processes are inadequate. They report
that an aggregate total of the three sortie scores is a fairer assessment of performance than the current lowest score protocol. There is also scope for Air Force to moderate its test scores and validate the scores for consistency. Test score moderation and validation is widely practiced in most competency-based training environments.

All Air Force personnel describe the quality of the QFI as key to the trainee pilot’s success. They would like a review of the QFI training courses at Central Flying School to ensure greater emphasis on teaching and learning methods. They would also like regular assessments of QFI proficiency by qualified educationalists and enhanced or formalised peer support and mentoring for QFIs in pilot training schools.

Section 4 describes the Culture for Women at Air Force. The culture at any workplace is perhaps the most significant influence on workforce stability and retention.

Historically, the pilot training system and the Air Force workforce was the exclusive domain of men and the numbers of women have only slowly increased in recent decades. With a long male history and a large male population, the culture at Air Force has evolved to reflect a single gendered experience.

While female pilots report that the Air Force makes efforts to treat them equally, they describe a culture that ‘diminishes’ women and judges them by a male standard. Women report that anything female has pejorative connotations at Air Force, both in the training environment and in the squadrons. They report that they begin pilot training with a level of enthusiasm and confidence and they are progressively diminished. Masculinity is the default measure of success and it defines confidence in all aspects of airmanship. Older female pilots argue that it takes many years of flying before they regain their confidence.

If there wasn’t a culture that smashes you, you wouldn’t need to spend so much time unlearning. We waste so much time trying to be grey; to not stick out. And we don’t focus on what we should be doing.¹

According to female members, there has been a reduction in unacceptable behaviour in recent years. Nevertheless, women report high levels of workplace stress. The stress pervades the social and professional environments of Air Force. In some cases, women pilots provided examples of outright hostility; both in flying schools and squadrons. They describe an environment that is exhausting, where they are continually identified by their gender. If a woman makes a mistake or does anything out of the ordinary, her gender is always identified as the cause.

Every mistake you make is amplified. Everything you do is because you are a woman. We just want to be pilots.²

Women consistently described experiences of backlash in relation to the reduced Return of Service Obligation (ROSO) or any initiatives that are designed for them.

Despite the difficulties of Air Force culture, women feel supported by Command and describe positive opportunities for change. They would welcome strong statements by Senior Command about the important role of women in the Air Force including messages about the ways that a diverse workforce brings enhanced capabilities to a modern military. They would like messages about zero tolerance for unacceptable behaviour and backlash.
Women argue that there is under-reporting of hostile behaviour because it is too difficult to remain in a unit or squadron after making a complaint. Strong messaging from the most senior ranks of the Air Force may mitigate this problem by placing responsibility for behaviour change on the leadership, rather than on the women.

Section 5 describes the **Physical Requirements for Fast Jets**, with particular focus on air-to-air combat under the pressure of G-force.

ACG Command report that they are losing male pilots due to the physical requirements of intensive air-to-air combat training combined with high G-force. They report that fast jet pilot trainees who excel in all other areas of the training program may fail due to their inability to manage repeated head-turning under G-force.

ACG report that there are physical injuries associated with fast jet flying, predominantly relating to soft tissue back and neck injury. When the Commission visited ACG at Williamtown Base, Command advised that five pilots were grounded due to neck and back injuries. Injury for female pilots during dog-fighting is a concern for Command at ACG. Over the years, Command have debated the ways to optimise the training while avoiding injury. This includes implementing training techniques to alleviate the need for so much head movement at G-force. Some members at ACG suggested that pilots could prop their head against the seat and move it from side to side without making large head turning movements. ACG will need to consider these options if it is to sustain a female and male pilot workforce with increased operating capacity in future years.

A number of female pilots reported that the U.S. Air Force streams its pilots into specialities and not all fast jet pilots are required to be highly skilled in dog-fighting techniques. While the number of pilots in the U.S. Air Force is significantly larger than that of the Air Force, this pyramid model may be worthy of further exploration by ACG.

Ultimately, the research shows that flying and manoeuvring fast jets under G-force requires a high level of muscle strength, but the overall risk of injury is similar for both men and women. Women have decreased neck strength compared with men but also a greater range of movement, and a faster neck muscle reaction time.

Injury management is extremely important for all pilots who fly fast jets. It requires careful preparation for flying, post flight care and extensive physical conditioning exercises. Some pilots advise that the current injury support is insufficient and there is a lack of access to specialists such as chiropractors. This kind of support is essential if Air Force is see a long-term return on its extensive investment in these pilots.

The final Section 6 considers **Family and Flexible Work** and the extent to which the Air Force accommodates a work life balance.

It should be of major concern to Air Force, that three out of its four senior female pilots are considering leaving the Service. The main reason for this exodus is that Air Force is not flexible or particularly hospitable for women managing work with the responsibilities of children and family.

The Air Force leadership has taken steps to retain and develop female pilots by implementing initiatives such as the reduced minimum Return of Service Obligation (ROSO)
for female Air Force pilots. Air Force has also implemented flexible work policies. Flexible work gives both male and female Air Force members opportunities to balance work and family commitments.

Female pilots report that there is more work to be done to ensure that the Air Force provides an environment where mothers of young children are able to manage their work obligations with their responsibilities at home. They report that unless there are key changes to support them in the early years of motherhood, they are likely to leave the Air Force for an environment that allows them greater flexibility.

There was a common perception amongst female pilots that they must choose between a career and a family because of the rigid nature of the pilot training continuum.

In order to prevent this attrition, Air Force should consider developing a centralised case management system for female Air Force members. Family leave negotiations and management needs to be moved away from the unit level and managed by personnel who understand the particular requirements for women who want to manage career and family life. In addition, Air Force must create a workforce margin so that it can backfill maternity leave. As it currently stands, when women take leave it creates an extra workload for other Air Force members and this can lead to backlash.

A major recommendation of this Report is for a Female Pilot Workforce Development Unit to provide a case-management approach to recruitment, retention, parental leave, mentoring and networking. It could be tasked with supporting cohorts of women progressing through the training pipeline as well as supporting the retention of female pilots in squadrons. This Unit would have a role to manage all family and flexible leave for female pilots. It would manage female pilot activity in recruitment activity and in networking or mentoring work. It would be the place where mentoring and networking opportunities are generated and managed. It would need to be staffed by Human Resource experts with experience in mentoring, career planning, flexible leave arrangements and return to work strategies.

Overall, female pilots are optimistic about the future. They can see that change is occurring, but they think it is slow. Many argue that Air Force accepts failure in its pilots and trainees too easily and does not invest sufficient inputs in its personnel to identify potential. ‘What kind of business model accepts 50 percent failure?’ They argue that there is too much focus on ‘raw talent’ and not enough focus on the ways in which the training system can adapt to meet its learners. Many argue that the training schools must modernise its teaching methods so that QFIs can assist women to achieve success. QFIs need to employ a variety of teaching techniques that are based on theories of learning rather than the simple skill development model that is currently practiced.

Ultimately female pilots would welcome statements from the Chief of Air Force that put the recruitment, training and retention of female pilots at the forefront of Air Force priorities.

The Chief needs to say, ‘graduating women into fast jet pilots is one of the top five priorities and here is how we are going to do it’. We need leadership to take the pressure off the girls so they are not the ones who have to do the pushing. Management should take the lead and let the girls focus on flying. Otherwise it is too hard for us. We have the double job of having to manage the culture and manage the flying.
## Section 1: Pilot Supply and Demand to Air Combat Group

<table>
<thead>
<tr>
<th></th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Air Force is experiencing a workforce shortage of pilots across all platforms.</td>
<td>Air Force to commit to short-term and long-term strategies to increase the numbers of fast jet pilots.</td>
</tr>
<tr>
<td></td>
<td>Since 2011, ACG has graduated fewer than 10 D-Category fast jet pilots each year and the current requirement is for 18 D-Category pilots per year.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The ACG is operating with a reduced workforce of 16 personnel.</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Female pilots are significantly under-represented at all levels of pilot training and in pilot positions.</td>
<td>Air Force to create a new Female Pilot Workforce Development Unit to case-manage the training of female pilots; to increase re-roles of women in the pilot training continuum; to support cohorts of women progressing through the training pipeline; and to support the retention of female pilots in squadrons.</td>
</tr>
<tr>
<td>1.3</td>
<td>Graduates from the Hawk platform will reportedly be able to train in the United States Air Force on the Growler. This opens up opportunities for female pilots to train overseas during the first tranche of Growler training.</td>
<td>Air Force to consider prioritising female graduates of 79 Squadron to train with the United States Air Force on the Growler platform.</td>
</tr>
<tr>
<td>1.4</td>
<td>Female members at 2FTS report benefit in additional training time on the PC-9 to prepare for entry to 79 Squadron.</td>
<td>Air Force to provide 2FTS female graduates with additional, non-tested training time on the PC-9 in instances where they are close to reaching the standard for entry to 79 Squadron. An extra weighted assessment could then be made to assess for eligibility to 79 Squadron.</td>
</tr>
<tr>
<td>1.5</td>
<td>Female pilots report that additional training time on the Hawk at 79 Squadron would assist them to prepare for 76 Squadron.</td>
<td>Female pilots who are close to reaching the graduation standard at 79 Squadron to be provided with additional, non-tested training before being assessed for 76 Squadron.</td>
</tr>
<tr>
<td>1.6</td>
<td>Attrition at 2OCU places a large cost on the Air Force in terms of return for investment. The rates of attrition at ACG training courses are much higher than for fixed wing courses.</td>
<td>Institute a no fail policy at 2OCU, except in exceptional circumstances. 2OCU pilots undergoing operational conversion to be provided with the level of training and coaching</td>
</tr>
<tr>
<td>1.7</td>
<td>Air Force members welcome the lateral recruitment of female fast jet QFIs from overseas military forces.</td>
<td>Air Force to implement a targeted program to laterally recruit female fast jet QFIs to ACG and other pilot training schools. Air Force to consider managing this as a special measure program with incentives.</td>
</tr>
<tr>
<td>1.8</td>
<td>Female pilots express interest in making re-role applications to 79 Squadron. There is evidence that 79 Squadron courses are undersubscribed.</td>
<td>Air Force to prioritise the re-role of female pilots to the fast jet pilot training stream. Air Force to enlist cohorts of re-role candidates at each intake to 79 Squadron.</td>
</tr>
<tr>
<td>1.9</td>
<td>QFI positions at 2FTS are considered to be good pre-cursor training for candidates wishing to re-role to 79 Squadron.</td>
<td>Prioritise female pilots for QFI positions at 2FTS.</td>
</tr>
<tr>
<td>1.10</td>
<td>Refresher courses will be needed on the PC-9 and the Hawk for re-role candidates.</td>
<td>Air Force to develop tailored refresher courses to meet the needs of re-role candidates on the PC-9 and the Hawk.</td>
</tr>
<tr>
<td>1.12</td>
<td>Female pilots in the Navy and Army are potential candidates for re-role after operational experience.</td>
<td>Air Force to consider initiating negotiations with Navy and Army regarding opportunities for their female pilots to re-role to fast jet.</td>
</tr>
<tr>
<td>1.13</td>
<td>Female pilots are less likely to re-role to ACG at later stages in their careers as a result of family commitments. Female pilots favour a streamlined process to re-role so that their pilot training years do not preclude them from having a family.</td>
<td>The Female Pilot Workforce Development Unit to individually case-manage the development of female pilots with a focus on maximising re-role opportunities and streamlining the pre-cursor training so women are not precluded from having children before they have completed transition into the operational squadrons of ACG.</td>
</tr>
<tr>
<td>1.14</td>
<td>The re-role process to the fast jet training stream is not widely communicated or clearly understood. Information about re-role is difficult to locate and the re-role application form is not publically available.</td>
<td>Command to communicate re-role processes to all Air Force pilots. Air Force to ensure that the re-role process is clearly outlined in a centralised, accessible location, and that the re-role application form is readily available to all members.</td>
</tr>
<tr>
<td>1.15</td>
<td>Current re-role assessment criteria are based on 2FTS scores with some consideration given to post-training squadron experience. 2FTS scores are not necessarily a reflection of pilot ability after significant experience in a squadron or as a QFI.</td>
<td>Air Force to consider replacing the current re-role application processes to 79 Squadron with simple applications for all candidates who have completed experience in a squadron or as a QFI at a pilot training school. Eligibility to be assessed on experience in squadrons and performance on refresher courses.</td>
</tr>
</tbody>
</table>
### Section 2: Pilot Recruitment

<table>
<thead>
<tr>
<th></th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Aspirational targets are not sufficiently driving recruitment of females into pilot training.</td>
<td>Set fixed quotas for the recruitment of females into pilot training. Provide financial incentives to DFR on meeting these quotas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide bonus payments to DFR on graduation of female pilots from 2FTS.</td>
</tr>
<tr>
<td>2.2</td>
<td>Female pilots are role models for girls and young women and have the potential to attract them to the Air Force and challenge gender stereotypes. The individual, face-to-face approach is most effective but it is labour and resource intensive.</td>
<td>Expand existing recruitment programs to schools in urban and regional areas where girls can meet female pilots for question and answer sessions and classroom exercises. Air Force to explore the use of current and former serving women pilots for this role.</td>
</tr>
<tr>
<td>2.3</td>
<td>Recruitment strategies focussed at the Year 10 to 12 levels are too late for girls who have already made their subject selection. STEM subjects are prerequisite for pilot training and girls need to tailor their studies prior to senior secondary school if they are to be eligible.</td>
<td>DFR and Air Force to work together to target recruitment to girls in primary schools and junior secondary schools. STEM prerequisites to be accurately explained.</td>
</tr>
<tr>
<td>2.4</td>
<td>Social media could be better used to attract young people to Air Force, especially to target school-aged girls.</td>
<td>Modernise the messaging on the Air Force Facebook page and other social media. Provide opportunities for serving Air Force women to add personal testimonials on Facebook. Provide opportunities for mediated online conversations between Air Force women and school children.</td>
</tr>
<tr>
<td>2.5</td>
<td>Existing attraction strategies such as aviation expos, career expos, school visits and flight camps are effective but are implemented sporadically and on a low scale.</td>
<td>Roll out greater numbers of flights camps for women pilot recruits (across Air Force, Navy and Army).</td>
</tr>
<tr>
<td>2.6</td>
<td>The Graduate Pilot Scheme is an initiative that can fast track females into pilot training.</td>
<td>Continue the Graduate Pilot Scheme and evaluate its effectiveness each year.</td>
</tr>
<tr>
<td>2.7</td>
<td>Unconscious bias may exclude female candidates in the flight screening process.</td>
<td>Mandate unconscious bias training for all DFR and Air Force staff involved in recruitment and selection.</td>
</tr>
<tr>
<td>2.8</td>
<td>A lack of female Service members in all stages of the recruitment processes including panel interviews and flight assessments, sends the wrong message to female candidates.</td>
<td>Ensure there is equal gender representation of Service members at each stage of recruitment and selection, including equal numbers of QFIs in the flight screening phase.</td>
</tr>
<tr>
<td>2.9</td>
<td>The pilot selection process takes too long and female recruits are lost during the many months or years that it takes to resolve selection processes. Mentoring and expedited selection processes have mitigated this problem where there are unnecessary barriers.</td>
<td>Continue and formalise the female recruit mentoring program and the expedited pilot selection process. Ensure adequate resources are assigned to this task.</td>
</tr>
<tr>
<td>2.10</td>
<td>There is evidence that some females are being excluded from selection on spurious medical grounds with conditions that have no relevance or impact on ability to fly. Females have been known to over-disclose conditions that have no relevance to their flying training or flying ability.</td>
<td>DFR medical assessment policies and processes for pilot selection need to be reviewed and improved in order to remove unnecessary barriers.</td>
</tr>
<tr>
<td>2.11</td>
<td>DFR sends recruits to medical specialists who don’t fully understand the physical and psychological requirements of flying. AVMED don’t have the resources to review candidates in a timely manner for the recruitment process.</td>
<td>In consultation with Air Force, DFR to provide a briefing package to medical specialists that explains the physical and psychological requirements for Air Force aviation prior to candidates presenting for assessment.</td>
</tr>
<tr>
<td>2.12</td>
<td>Recruits are being selected into flying specialisations at recruitment without having had an opportunity to test their competencies and narrow their interests in post-school training.</td>
<td>Work with the other Services to explore options for any ADF pilot trainee to progress to fast jet training where they have the aptitude and desire to do so.</td>
</tr>
<tr>
<td>2.13</td>
<td>There is evidence that there are gender differences in spatial visualisation and therefore Defence needs to assess its pilot selection test battery for gender bias.</td>
<td>Review the pilot selection test battery for gender bias.</td>
</tr>
<tr>
<td>2.14</td>
<td>Less than 50 percent of surveyed Air Force members agree with strategies aimed to</td>
<td>Air Force leaders to directly communicate the capability benefits of increasing female recruits</td>
</tr>
<tr>
<td>3.1</td>
<td>FINDING: Female trainees are less likely than males to graduate from both BFTS and 2FTS. From 2010 to 2015, in the last five assessed sorties, female trainees at BFTS and 2FTS scored lowest on technical skill.</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOMMENDATION: Provide more opportunities for female trainees to develop technical flying skill by modelling skills and flying techniques, with explicit instruction on technical requirements.</td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>FINDING: Female pilots and QFIs report subjectivity and variability in trainee assessment scores. Assessment moderation and validation processes are widely used in training institutions to ensure quality of assessment and harmonisation of standards.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOMMENDATION: Moderate and validate pilot school assessments using at least two types of review for each pilot course. Where possible, institute gender-blind testing.</td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>FINDING: The lowest score of the three assessed aspects of flying determines the overall result for the tested sortie. Many trainees describe this as a deficit model that adversely affects their confidence.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOMMENDATION: Provide aggregate scores for tested sorties rather than the lowest score of the three assessment areas.</td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>FINDING: Fear of failure and test stress is creating a significant confidence problem at the Air Force pilot training schools. This stress is an impediment to skill development.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOMMENDATION: Revise the constant test cycle. Increase the number of non-assessed flights. Institute block training with randomised, undeclared assessed and non-assessed flights.</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>FINDING: Research into adult learning shows that adults prefer to take control of the learning process and understand their preferred learning styles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOMMENDATION: Provide opportunities for trainees to determine their preferred learning styles, strengths and weaknesses at the beginning of each pilot school. Ensure that instructors are briefed and negotiate instructional preferences with individual trainees.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOMMENDATION: Require that instructors explain the learning expectations and teaching and instructional methods at every stage of the training.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOMMENDATION: Provide opportunities for trainees to give feedback to their QFIs about the learning experience.</td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>Pilot trainees and some QFIs report that they prefer a coaching rather than a test and assess environment. Command at 2FTS favour a clean or minimal in-flight instruction style based on a theory that students are more likely to learn from mistakes. Female pilots explain that they do not respond well to this mode and prefer explicit instruction.</td>
<td>Shift the teaching focus of the QFIs to performance coaching aimed at developing trainee competencies rather than the clean or minimal instruction style that is current practice at 2FTS.</td>
</tr>
<tr>
<td>3.7</td>
<td>Visualisation is an important skill for flying. Females explain that this skill comes naturally to males but that they need to be taught visualisation techniques to help them improve their flight preparation and technique.</td>
<td>Increase training techniques on visualisation skills throughout the training continuum including modelling the skill and technique.</td>
</tr>
<tr>
<td>3.8</td>
<td>Female trainees prefer changes to the overall training system that acknowledge diverse learning styles rather than programs specifically designed for women.</td>
<td>Ensure that when changes are made to the training curriculum or to instructional approaches, they are gender neutral and emphasise different learning styles rather than assumed gender requirements.</td>
</tr>
<tr>
<td>3.9</td>
<td>Female pilots explain that they improve with time and experience. They would welcome coaching to assist them to exhibit controlled aggression (‘tiger’) in the cockpit.</td>
<td>Provide coaching and assistance in the skills of controlled aggression (‘tiger’) in flying schools and squadrons.</td>
</tr>
<tr>
<td>3.10</td>
<td>Females at 2FTS with potential and desire to become fast jet pilots would benefit from an opportunity to spend a week at 78 Wing to fly with an instructor in non-assessed flights.</td>
<td>Gauge the interest and ability of female trainees in fast jets by providing a week-long opportunity at ACG where they can fly with combat pilots and observe these skills in non-assessed flights.</td>
</tr>
<tr>
<td>3.11</td>
<td>There are no female flight instructors at Central Flying School (CFS). There is limited or no instruction about gender diversity at CFS.</td>
<td>Ensure sufficient gender representation among QFIs at Central Flying School and provide gender diversity training for all.</td>
</tr>
<tr>
<td>3.12</td>
<td>QFIs report that the Flight Instructor’s Course is focused on teaching the technical aspects of flying and has insufficient focus on teaching methods relevant to different learning styles and needs.</td>
<td>Review the Central Flying School Flight Instructor’s Course for content on teaching methods that include explicit instructional techniques. Where required, revise the curriculum to increase content about teaching methods including: visualisation strategies; performance coaching in the cockpit; skill modelling; and de-briefing techniques.</td>
</tr>
<tr>
<td>3.13</td>
<td>Annual checks by Central Flying School are insufficient to meet the professional development needs of QFIs.</td>
<td>Provide professional development for QFIs in flying schools on at least two occasions annually that includes facilitated sessions with qualified educationalists. Institute regular QFI peer support sessions on monitoring and improving teaching methods and techniques.</td>
</tr>
<tr>
<td>3.14</td>
<td>Air Force has not evaluated its training regime to assess whether the timelines for learning are achieving optimum results.</td>
<td>Evaluate the duration of all course within the Air Force pilot training continuum with a focus on improving the overall graduation rate of pilots with high cognitive ability, resilience to flying stress and fatigue, and high level strategic thinking and capacity.</td>
</tr>
</tbody>
</table>

**Section 4: The Culture at Air Force and Impacts on Women**

<table>
<thead>
<tr>
<th>4</th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Most militaries had a masculine culture at their origin. Many of Air Force values and requirements are masculine, including definitions of flying confidence. This advantages men in aspects of pilot training. Female pilots report feeling diminished in confidence due to the culture at the Air Force; especially through pilot training.</td>
<td>Air force to acknowledge its masculine culture and the cultural advantages this bestows on male trainee pilots and male pilots in training and in squadrons.</td>
</tr>
<tr>
<td>4.2</td>
<td>Masculine language and masculine behaviours and traits are the default position for women to imitate if they want to be considered successful.</td>
<td>Air Force to review its use of gendered language. Particular focus should be placed on the pilot training curriculum and cockpit instruction.</td>
</tr>
<tr>
<td>4.3</td>
<td>While Air Force personnel describe the skill requirements of fast jet pilots in positive terms, the majority have a poor perception of fast jet pilots.</td>
<td>ACG to continue its work to improve its public relations profile.</td>
</tr>
<tr>
<td>4.4</td>
<td>Gender-specific special measures aimed at improving the culture for women at the Air Force have led to significant backlash against women.</td>
<td>Command to adopt a zero tolerance approach to backlash regarding measures that are designed to create substantive equality and workplace inclusion.</td>
</tr>
<tr>
<td>4.5</td>
<td>Female Air Force members favour initiatives that bring women together in numbers in their work and training environments. In other words, they favour strategies that create a critical mass of women in training environments, in squadrons and in workplaces.</td>
<td>Ensure female aircrew are co-located in schools and squadrons where possible. Where the opportunities for critical mass are limited, facilitate regular access to female support and networks.</td>
</tr>
<tr>
<td>4.6</td>
<td>Opportunities for feedback are an important way that Air Force can evaluate its culture and find out whether there are cultural impediments to skill development in females. Providing opportunities for anonymous feedback from current and past trainees can give Command and flight instructors insight into any cultural impediments for women.</td>
<td>Provide regular, anonymous opportunities for trainees to give feedback at each level of the training continuum. Ensure trainees exiting courses are able to provide feedback and include successful graduates as well as failed candidates. Ensure gender data is captured and that feedback is done en masse so that women and girls do not feel exposed if they are a significant minority of the cohort.</td>
</tr>
<tr>
<td>4.7</td>
<td>Relatively low numbers of Air Force personnel understand the links between gender diversity and enhanced military capability.</td>
<td>Increase messages regarding the links between gender diversity and enhanced capability across Air Force.</td>
</tr>
<tr>
<td>4.8</td>
<td>Unacceptable behaviour is under-reported by women because of fear of backlash if perpetrators are removed from pilot training. Unwanted male attention causes stress for trainee female pilots in an already stressful training environment.</td>
<td>Enhance courses at Ground School and at pilot training schools that build on existing unacceptable behaviour training packages and reinforce the expected standards within the unit.</td>
</tr>
<tr>
<td>4.9</td>
<td>There are insufficient female staff in QFI positions and in Command positions at every stage of pilot training.</td>
<td>Significantly increase the number of female QFIs in the pilot training continuum. Give female pilots preference for QFI positions at Air Force. Increase lateral recruitment of female fast jet pilots from overseas locations to instruct at ACG.</td>
</tr>
<tr>
<td>4.10</td>
<td>Female members report barriers to sourcing and accessing mentoring opportunities. These barriers include time restraints due to pilot training and a lack of women pilot mentors or role models.</td>
<td>Air Force to dedicate specific work hours and resources to existing mentoring activities. Provide opportunities and resources for female pilots to source mentors through external channels if necessary. Consider matching senior (male) leaders with high potential women members, or facilitating reverse mentoring techniques to further engage leaders and managers in mentoring processes.</td>
</tr>
<tr>
<td>4.11</td>
<td>Attendance at Air Force networking events can be impeded by the time constraints of heavy workload, training obligations, or the remoteness of the posting location.</td>
<td>Command to actively support and resource networking opportunities for women, including the WINGS program. Use technology to bring women together when necessary.</td>
</tr>
<tr>
<td>4.13</td>
<td>There is a lack of messaging about substantive equality and the need to create a level playing field for women so they are not disadvantaged in the masculine culture.</td>
<td>Senior Command to communicate the advantage that a masculine culture provides to men at Air Force. This includes explaining that substantive</td>
</tr>
</tbody>
</table>
at the Air Force. Senior leaders will be the key to the culture change in this regard. Equality measures are a means of achieving a level playing field for women.

### Section 5: Physical Requirements for Flying Fast Jets

<table>
<thead>
<tr>
<th></th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td><strong>5.1</strong> While fast jets have been designed to fit a typical male body size, weight and height proportions, newer jet models, such as the Joint Strike Fighter are reported to fit a broader pilot demographic.</td>
<td>Continue to monitor the cockpit specifications of next-generation fast jets so that they meet the requirements of a wide pilot weight and height demographic.</td>
</tr>
<tr>
<td></td>
<td><strong>5.2</strong> Command at ACG report that they are losing pilots due to the physical requirements of intensive air-to-air combat training combined with high G Force. Pilots at 78 Wing can fail at the point of air-to-air combat when they are required to do repeated head turning exercises at G-force.</td>
<td>ACG to consider strategies to modify the requirements for intensive air-to-air combat training for pilots who show high levels of competency in all other aspects of fast jet handling, yet struggle with the physical requirements of repeated dog-fighting at high G-force. ACG to benchmark the training requirements at 78 Wing with comparable overseas training systems.</td>
</tr>
<tr>
<td></td>
<td><strong>5.3</strong> The physical challenges associated with accelerative forces result in back and neck soft tissue injury. Pilots and instructors report that the current injury prevention and support services at ACG are insufficient.</td>
<td>Improve injury prevention and management through a continued focus on strength and conditioning exercises at ACG. Purchase lighter helmets for ACG pilots. Resource access to prevention and support specialists for ACG and other aircrew.</td>
</tr>
<tr>
<td></td>
<td><strong>5.4</strong> The G-suits worn by fast jet pilots and trainees are gender exclusive by design, and do not conform to the female body shape.</td>
<td>Review the design of G-suits with a view to accommodating the requirements of female fast jet pilots and trainees.</td>
</tr>
<tr>
<td></td>
<td><strong>5.5</strong> The Advanced Mission Extender Device (AMXD) is not readily available to female aircrew at ACG.</td>
<td>Introduce into service the AMXD as a standard piece of equipment.</td>
</tr>
</tbody>
</table>
### Section 6: Family Life and Flexible Work

<table>
<thead>
<tr>
<th></th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Female pilots have positive views about the reduced ROSO.</td>
<td>Continue to implement the reduced ROSO for all female pilots.</td>
</tr>
<tr>
<td>6.2</td>
<td>Many women members experience backlash from male peers as a result of the reduced ROSO. Some action has reportedly been taken by Air Force leadership to counter this backlash by encouraging more male member involvement in the WINGs program.</td>
<td>Command to lead cultural reform with an emphasis on how inclusion of women enhances Air Force capability. Leadership to encourage males to become advocates for gender inclusivity and maintain zero tolerance for backlash against women.</td>
</tr>
<tr>
<td>6.3</td>
<td>Female pilots and trainees report that they must choose between a career as a pilot and a family.</td>
<td>Ensure the Air Force personnel system provides career pathways and advancement for pilots returning from parental leave. Case manage the leave of pilots who are having children and provide them with support from Personnel HQ.</td>
</tr>
<tr>
<td>6.4</td>
<td>Female pilots and trainees report that working flexible work arrangements can have a negative impact upon women's flying training and career progression. They have particular concerns about returning from maternity leave. Women pilots report that post-maternity leave ‘plus one’ flexible roles tend to be administrative rather than flying roles.</td>
<td>Commit to a Female Pilot Workforce Development Unit to case-manage flexible work arrangements, leave and return to work strategies. Create toolkits, guides and training for unit executives and supervisors about parental leave and returning to work.</td>
</tr>
<tr>
<td>6.5</td>
<td>Female pilots report that in instances where both parents are serving ADF members, joint flexible work arrangements greatly assist in the management of young families.</td>
<td>Air Force to negotiate with the other Services and Defence People Group regarding shared flexible work arrangements for ADF personnel who are the partners of Air Force pilots returning from maternity leave.</td>
</tr>
<tr>
<td>6.6</td>
<td>Backfilling rarely occurs when Air Force members are on leave, including maternity leave. This places a greater work burden on other squadron/unit members and, in some circumstances, creates resentment within the team.</td>
<td>Air Force to backfill all positions left vacant by maternity leave. This is more likely to be achievable if a workforce margin is established for this purpose.</td>
</tr>
</tbody>
</table>
1: Pilot supply and demand to Air Combat Group
Pilot supply and demand to Air Combat Group

The Royal Australian Air Force (Air Force) is about to significantly expand and upgrade its fleet of fast jets over an eight-year period from 2017 until 2023. The changes will include significant additions to existing aircraft and upgrades to some platforms.

The demand for Air Combat Group (ACG) pilots is now pressing. New pilots are needed for a range of roles including:

- to fly the existing and the expanded fast jet fleet;
- to participate in increasing deployment missions;
- to take up instructional roles; and
- to fill positions which arise due to natural workforce attrition.

Air Force workforce projections show that the current pilot supply channels will not be sufficient to meet future demand at ACG.

Increases to the fast jet fleet provide unique opportunities to increase the number of female pilots in the ACG training continuum. Although entry to pilot positions at ACG has been open to women since 1992, there have been no female fast jet pilots in Australia to date.

The key drivers that potentially influence the supply of female pilots into the fast jet stream are:

- recruitment;
- retention; and
- re-role of qualified pilots into pre-curser courses for ACG.

Women pilots in Air Force

In 2015, there were 25 female pilots in Air Force out of a total population of 763 pilots. Women constitute 3.3 percent of the pilot population. A breakdown of the 25 female pilot positions is as follows:

- 18 women operate at Air Mobility Group with responsibility for air transport, VIP transport, or air to air refuelling;
- Four women operate at Surveillance and Reporting Group undertaking maritime patrol, border protection, Airborne Early Warning and Control; and
- Three women operate at Air Force Training Group in airborne instructional positions.

There were over 209 female aircrew in Air Force in 2015 occupying roles such as airborne electronic analysts, crew attendants and loadmasters. There are four senior female pilots at Air Force. Three out of the four senior pilots are considering leaving the Air Force due to a lack of flexible work arrangements.
1.2 Women in Air Combat Group

Command at ACG recognise that there are barriers that prevent women from graduating into the fast jet pilot stream. They argue that the pilot recruitment and training systems need to be examined in order to identify the potential impediments for women.

We are doing something wrong that is not attracting, and then helping [women] through the training pipeline, because otherwise we wouldn’t be one of the only Western Air Forces in the world, who was one of the first to have it opened up, but we still clearly have not one [female fast jet pilot].

There are two women in the training pipeline at 78 Wing. One is at 76 Squadron in the Initial Fighter Training course and another is preparing to re-role at 79 Squadron in mid-2016. A small number of women have qualified as aircrew and support personnel in ACG.

In order to meet current and future requirements for the fast jet pilot workforce in Australia, action needs to occur on a number of fronts to increase women at all stages of the training continuum. As women are a potential, and as yet, untapped workforce supply for fast jet pilots, it will be important to target initiatives to enlist the best and brightest female recruits into ACG. Expanding the opportunities for women to enter the ACG training continuum does more than correct a workforce demographic imbalance: it has the potential to increase capacity at ACG by bringing diverse skills and workforce experience.

1.3 Increases to the fast jet fleet

In coming years, Air Force will be acquiring 12 EA-18G Growler Electronic Attack (Growler) aircraft to supplement its Super Hornet fleet. In addition, Air Force will take possession of 72 F-35A Lightning II Joint Strike Fighter aircraft to replace the ageing F/A-18A/B Classic Hornets. The first Joint Strike Fighter aircraft are due arrive in Australia in 2018 with Initial Operating Capability in 2020 and Full Operating Capability in 2023.

ACG currently requires 24 Air Force members (18 D-Category pilots and six Weapon Systems Operators) to graduate from Operational Conversion Courses each year in order to maintain operational workforce requirements. This target has not been reached in the past four years:

In Air Combat we have greater demand than we can get from the recruiting down to the pilot training... At the moment we struggle to meet that 24...in fact we haven’t achieved that for the last few years.

Air Force has advised that the fast jet workforce must grow by approximately 30 percent in the next six years in order to meet future workforce demand requirements. Since a peak in pilot applicants in the 1980s, there have been declining numbers of people applying for pilot training in Air Force. ACG Command described the reduced numbers in the following terms:

[Where there might have been] 20,000 applications in 1980, [there were] 600 [applications] two years ago.... On my pilot’s course we had 21 Air Force graduates and probably 19 or 18 of them have fast jets as their preference. What we’re seeing now is really the opposite of that.
ACG is currently operating with labour force shortages of 16 members. This shortfall will be exacerbated without a short-term increase in the flow of pilots into ACG pre-cursor courses. This means retaining high-performing pilots at No. 2 Flying Training School (2FTS) if they are close to meeting the ACG standard, and increasing opportunities for trained pilots to re-role into the later stages of the training continuum.

[We have] 174 [personnel]... We should be about 190.15

This Section of the Report will consider ways to increase the supply of female pilots into ACG. Section 2 of the Report is focussed on recruitment strategies to increase the flow of women applicants into Air Force.

1.4 Pilot training stages and populations

In recent years, Air Force training programs have been roughly calibrated to graduate 12 fast jet pilots and six Weapons Systems Operators into ACG each year.16 In truth, however, this quota is aspirational. ACG has little control over the number of recruits who are delivered through the training pipeline. The number of graduates who ultimately progress to the operational squadrons of ACG is highly influenced by what has happened at each stage of the pilot training continuum. High rates of attrition throughout the training courses can impact on the numbers annually.

The process from recruitment to D-Category pilot at ACG is complex. Chart 1 describes the training pathway and the numbers of applicants and trainees at each stage.
Chart 1: A typical training pathway for a fast jet pilot

At the recruitment phase, approximately 500 applications are made each year to the Air Force pilot training stream.

275 applicants are selected for further testing including aptitude, medical and psychological testing.

Approximately 70 applicants are offered a position at Officer Training School - Air Force Base East Sale. Other applicants commence study for a degree at the Australian Defence Force Academy (ADFA).

Approximately 70 pilot trainees commence training at Basic Flying Training School at Air Force Base Tamworth.

Approximately 45 graduates from Basic Flying Training School commence advanced training at No. 2 Flying Training School at Air Force Base Pearce. Those who graduate gain their Wings.

Approximately 15 pilots are selected to advance to the Introductory Fighter Course at Air Force Base Pearce. Approximately 10 pilots complete this training.

Graduates from the Introductory Fighter Course at Air Force Base Pearce move to Air Force Base Williamtown to undertake 20 weeks of instruction in air-to-air and air-to-ground weapons training. Only successful graduates become D-Category fast jet pilots.

From 2019, Air Force plans to increase its intake of trainee pilots to 165 with the aim to see a corresponding increase in Basic Flying Training School (BFTS) graduates from 70 to 105 each year.

1.5 Pilot training locations and schools

In order to graduate with Wings, pilots undertake approximately three years of training, and relocate at least three times. Pilots who progress to ACG will relocate to four locations and those who continue to operational conversion on the Super Hornet relocate to five locations.
Moving from base to base can be a disruptive and difficult process. It is especially challenging for people with partners and dependants. Trainees reported difficulties in taking time out for family or caring responsibilities. Men spoke about missing important events. One male at 2FTS missed the birth of his baby in favour of continuing his training. This member could not afford two days out of training for the fear of being back-coursed and ultimately increasing the length of time away from his young family. Female trainee pilots said that pregnancy would not be possible until they were well advanced in their career.

Air Force has plans to streamline future pilot training by co-locating multiple training facilities to support both Officer Training and Basic Flying Training at RAAF Base East Sale. A single location for Officer Training School and BFTS will reduce the relocation stress on Direct Entry recruits by reducing the number of relocations. All efforts should be made to reduce the relocations of trainees in future as this adds to the complexity and stress of pilot training.

1.6 **Basic Flying Training School**

BFTS provides ab initio training for Air Force, the Royal Australian Navy (RAN) and Australian Army pilots. It is a 26-week (six-month) basic flying training course. BFTS students are trained on the CT-4B Airtrainer.

BFTS provided data on the completion rates of trainee pilots from 2010 to 2013. From 2010 to 2012, female trainees were much less likely to complete BFTS training than males. Male BFTS graduation rates were at 80 percent, 92 percent and 62 percent respectively, compared with female graduation rates of 17 percent, 29 percent and 38 percent. In 2013, all four female trainees completed pilot training compared with a 55 percent graduation rate of males. Data about the commencements and completions at BFTS from 2010 to 2013 is at Chart 2.

**Chart 2: Commencements and completions of trainee pilots at Basic Flying Training School by gender from 2010 to 2013**

<table>
<thead>
<tr>
<th>Basic Flying Training (BFTS)</th>
<th>Commenced Male</th>
<th>Commenced Fem</th>
<th>Completed Male</th>
<th>Completed Fem</th>
<th>Incomplete Male</th>
<th>Incomplete Fem</th>
<th>Back-Coursed Male</th>
<th>Back-Coursed Fem</th>
<th>Currently Attending Male</th>
<th>Currently Attending Fem</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>54</td>
<td>6</td>
<td>43</td>
<td>1</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>49</td>
<td>7</td>
<td>45</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>78</td>
<td>8</td>
<td>48</td>
<td>3</td>
<td>29</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2013</td>
<td>69</td>
<td>4</td>
<td>38</td>
<td>4</td>
<td>31</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

1.7 **No. 2 Flying Training School**

At 2FTS, students learn to fly the PC-9/A aircraft and those who successfully graduate are awarded Wings. Air Force and RAN pilots undertake a 34-week (nine-month) training course at the school. 2FTS provided data on the completion rates of trainee pilots from 2010 to 2014. Since 2010, the graduation target from 2FTS was met only once in 2011.

The graduation rates of females have fluctuated in the years for which there is data. In 2010, 67 percent of females graduated compared with 75 percent of males. In 2011, 100 percent of females graduated compared with 68 percent of males. In 2012, the graduation rate of
females was much lower at 33 percent compared with 73 percent of males. In 2013, 75 percent of females graduated compared with 71 percent of males. Data about the commencements and completions at 2FTS from 2010 to 2014 is at Chart 3.

Chart 3: Commencements and completions at No. 2 Flying Training School by gender from 2010 to 2014

<table>
<thead>
<tr>
<th>No. 2 Flying Training School (2FTS)</th>
<th>Commenced</th>
<th>Completed</th>
<th>Incomplete</th>
<th>Back-Coursed</th>
<th>Currently Attending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
</tr>
<tr>
<td>2010</td>
<td>44</td>
<td>3</td>
<td>33</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>2011</td>
<td>69</td>
<td>2</td>
<td>47</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>2012</td>
<td>45</td>
<td>3</td>
<td>33</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>2013</td>
<td>49</td>
<td>4</td>
<td>35</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>2014</td>
<td>41</td>
<td>9</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

1.8 Operational conversions

At the completion of 2FTS, pilots not selected for ACG move into other flying platforms. Pilots from the three Services diverge to their own in-Service training programs. Air Force pilots move into operational conversion squadrons for fixed-wing aircraft, while Navy pilots move into operational conversions on helicopters. The data in Chart 4 shows conversion rates on fixed wing aircraft. It does not include Navy pilot graduates. The data shows high rates of successful conversions for both males and females. From 2010 to 2014, there was a 100 percent conversion rate of female pilots into their fixed wing platforms at Chart 4.

Chart 4: Commencements and completions at Fixed Wing Operational Conversion Courses by gender by year 2010 to 2014

<table>
<thead>
<tr>
<th>Operational Conversions (Fixed Wing)</th>
<th>Commenced</th>
<th>Completed</th>
<th>Incomplete</th>
<th>Back-Coursed</th>
<th>Currently Attending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
</tr>
<tr>
<td>2010</td>
<td>19</td>
<td>1</td>
<td>19</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>22</td>
<td>0</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>52</td>
<td>4</td>
<td>51</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2013</td>
<td>59</td>
<td>3</td>
<td>56</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2014</td>
<td>34</td>
<td>1</td>
<td>31</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1.9 Pilot training at Air Combat Group

Of the pilots who graduate from 2FTS with pilot Wings, approximately 33 percent are assessed as capable of flying fast jets and advance to the Introductory Fighter Course on the Hawk 127. If the target of 45 pilots is achieved from 2FTS, ACG expects to receive 15 pilots into ACG training at 78 Wing.

78 Wing is made up of three squadrons: 79 Squadron at Air Force Base Pearce, 76 Squadron at Air Force Base Williamtown and 278 Squadron at Air Force Base Williamtown.
1.10 79 Squadron

At 79 Squadron, pilots complete a 14-week (three-month) course on the Hawk 127 lead-in-fighter plane (two-seat aircraft). This training involves general flying, instrument flying, formation flying, night flying and navigation.

Since 2001, only two female pilots compared with 250 male pilots have commenced the Introductory Fighter Course at ACG. The first female member did not graduate from 79 Squadron. A second female completed 79 Squadron training and has progressed to 76 Squadron.

The Australian Human Rights Commission (the Commission) did not receive commencement and completion data for 79 Squadron so is unable to comment on completion rates at this squadron.

1.11 76 Squadron

At 76 Squadron, pilots commence the Introductory Fighter Course at Air Force Base Williamtown. They undertake a six-month operational conversion course for Initial Fighter Combat Instruction on the Hawk 127. This includes instruction in air-to-air and air-to-ground weapons training.

Three Introductory Fighter Courses are conducted every year. If students are not placed on a conversion course directly after graduation from Introductory Fighter Course, they can stay at 76 Squadron and participate in fleet support missions for Navy, conduct air support missions for Army, or provide support to other units at Air Force Base Williamtown. There is currently one female trainee at 76 Squadron and she is yet to complete the training at the time of this Report. The data shows no women have commenced in the years 2010 to 2014 and low completion rates of males. For example, in 2011 only 46 percent completed, in 2012 it was 63 percent and in 2013 it declined to 50 percent at Chart 5.

Chart 5: Commencements and completions of Air Force pilots at Introductory Fighter Course by gender from 2010 to 2014

<table>
<thead>
<tr>
<th>Introductory Fighter Course</th>
<th>Commenced</th>
<th>Completed</th>
<th>Incomplete</th>
<th>Back-Coursed</th>
<th>Currently Attending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
</tr>
<tr>
<td>2010</td>
<td>12</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2011</td>
<td>13</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>2012</td>
<td>19</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>2013</td>
<td>18</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>25</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>11</td>
</tr>
</tbody>
</table>

1.12 No. 2 Operational Conversion Unit

Pilots who complete training at 76 Squadron progress to No. 2 Operational Conversion Unit (2OCU) at 81 Wing. 2OCU is responsible for providing pilots with training on the F/A-18A and F/A-18B Hornet aircraft, prior to being posted to operational duties. The conversion rates at 2OCU are higher than completion rates at 76 Squadron. In 2011, conversions were at 83 percent, in 2012 at 75 percent, in 2013 at 71 percent and in 2014 at 63 percent at Chart 6.
Chart 6: Commencements and completions of Air Force pilots at No. 2 Operational Conversion Unit by gender from 2010 to 2015

<table>
<thead>
<tr>
<th>No. 2 Operational Conversion Unit (Fast Jet)</th>
<th>Commenced</th>
<th>Completed</th>
<th>Incomplete</th>
<th>Back-Coursed</th>
<th>Currently Attending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
<td>Fem</td>
<td>Male</td>
</tr>
<tr>
<td>2010</td>
<td>16</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2012</td>
<td>12</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2013</td>
<td>7</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2014</td>
<td>11</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>2015</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Fast jet pilot trainees who successfully complete 2OCU graduate as D-Category fast jet pilots.

1.13 Attrition at Air Combat Group

Of approximately 500 candidates who apply to Air Force pilot training program each year, approximately 10 pilots, or two percent, will successfully qualify as fast jet pilots. The training program is long and gruelling. Failure is possible at any point in the training continuum, even right at the end of training when pilots are doing conversion courses to fast jet platforms.

The data shows attrition rates are much higher for fast jet courses than for fixed wing courses. In 2014, seven out of 11 men, or 64 percent, completed operational conversion to fast jets. In contrast, the success rate within other Air Force flying platforms was much higher, with 31 out of 34 men and one out of one woman completing a fixed wing operational conversion in 2014.

High attrition rates at the latter end of fast jet training reportedly acts as a disincentive for aspiring pilots.

And the long term and the impact on their pay and career of failure is part of their calculation...because if you spend a year and a half or two years in the fast jet system and then get chopped, you now end up two years behind your peers who went straight to transport and based on the new pay structure that means you’re going to be behind them financially, so to their eyes I’m taking risk here that potentially is going to financially and promotionally disadvantage me if I’m a 50/50 chance I’m going to lose...  

And that was actually a huge de-motivator when I was going through 2FTS as to potentially why I wouldn’t go to jets because there was a lot of guys at that stage doing you know 90 percent of the two years of jet training getting to like their third last line and then not making it and getting chopped back on the pile because of a bit of a backlog with a lot of the other aircraft.

Attrition at the conversion stage can place a large cost on Air Force in terms of return for investment of time, resources and funding.

What business model anywhere in the world accepts a 50 percent failure rate as a standard practice of business? So not only have you spent a hell of a lot of money recruiting this person just to get into the Air Force, you’ve spent $1.5-2 million training them to become a
pilot and graduate to get their wings, then you’re going to send them on to a fast jet. Somewhere between them starting 79 Squadron and them finishing 2OCU, all the way up to their last flight at 2OCU, you’re going to accept...50 percent failure? ...If we are short of fighter pilots, why are we allowing this waste? 25

A number of Air Force pilots suggested that Air Force should consider a ‘whatever it takes’ approach to training pilots at 2OCU. Some argue that the learning curve argument is irrelevant at this point and resources need to be focused on assisting pilots to achieve the standard. This may mean extending and individualising parts of the training to meet the needs of each pilot.

...Any other aircraft that you go to, any other conversion they get given people off pilots course, so successful graduates get posted to aircraft and do a conversion. They are treated, they’re pilots and those conversions are designed to get a qualified pilot out of it...so that’s the mentality, that’s the approach, that’s how it’s designed... It’s an exception rather than the norm that you don’t get through those operational conversions as all the platforms. Fast jets however, it’s still a testing environment in that the students come off pilots’ course. They get the top students...that’s as good as you’re going to get in terms of if you’re looking at the type of pilots course so if you need those five guys you have to keep those five, so stop failing them. Convert them. Make them into what you need to do. The course needs to take them...Train them how to be fighter pilots... 26

1.14 Increasing the time at flying training schools

Male and female pilots reported that the time needed to develop aviation skills and confidence varies for each individual. Male and female trainees and pilots reported that a moderate extension of training time at all schools from 2FTS onwards, would have greatly assisted them in successfully graduating to the next level.

The rate of learning required is the problem for many of us - if this course was two years long that wouldn’t be a problem, but it’s the time compression and the next ride is always around the corner. So you’re prepping for that and then we’ve got some exams on now. We could all achieve greatness if there was just more time. 27

79 Squadron is reported to be particularly challenging because pilots are transitioning to a high performance aircraft. This was explained by Command at 2OCU:

Typically we get failure at 79 Squadron [this] is usually because those technical skills have been not at the level the trainee needs to handle that first jump to a high performance aircraft. 28

Female pilots explained that extra time at 79 Squadron may assist both males and females in completing Hawk training. They reported that extra time will allow them to consolidate skills and develop confidence.

...A better suggestion is to hold them over at 79 so they’ve done their conversion on Hawk, which is just basic...you can fly the aircraft; hold them at 79 until...they can consolidate flying and then move on to 76. 29

Air Force should consider extending the time for female pilots at training schools or conversion squadrons in instances where benefit will be gained in providing opportunities for additional untested flying time. This will assist female pilots who need to develop skill
and confidence. At ACG, it will give women the opportunity to develop physical strength to cope with the challenges of accelerative forces and air-to-air combat.

I honestly believe that once you pass pilots course and you get to ACG, they should do it like most of the other squadrons where you tone it down a little bit and you allow more time, more development, and also more flexibility with the level of graduates... because everyone progresses at different rates at our squadrons... Every other organisation will do that... We work with their ability to get them to the levels that we need to in whatever time frames...

ACG will need to monitor the current female candidate at 76 Squadron and document the successes and challenges of her progress. If required, Air Force should consider providing additional training time for the candidate to meet the required standard. Women pilots across the training continuum all described the benefits of additional training time.

Just because you don’t get it when you’re at the equivalent of the end of 76 on the Hawk, doesn’t mean you’re not going to build up to a point and then be able to see the pictures... because it takes a while to learn and catch up.

1.15 **Flying experience in operational squadrons as a precursor to re-role**

Pilots who fail to qualify for fast jet training at 2FTS, or at 79 Squadron, reported that flying experience in operational squadrons had vastly improved their flying skills and confidence. Experience in squadrons provides pilots with a heightened level of flying maturity and confidence.

I think as a girl, confidence wise, and self-belief, a first tour on something else would be really good and you establish a reputation and you go through the hard slog which is operational flying training...and you’re a bit more mature maybe.

Girls are less confident...because of the way society is generally. But going through [the pilot training] course and getting to that point, that’s only the first step. Then if you’ve done a first tour, you’ve proved yourself: you’re a competent military pilot...because you’ve got more confidence and more experience you’re more mature, handle stress better and stuff like that.

Experience in squadrons can complement the skills for fast jet flying. One female Air Force pilot reported that flying helicopters enabled her to better prepare for fast jet training.

...I believe that when you are in a position where you are given the opportunity that also drives you to push the boundary, you actually do learn a lot in aviation, like I’ve found in post pilots course when I was more in a position not being assessed...particularly out in the helicopter world, I pushed the boundaries, that was the first time I really sort of went for it and that was when my skills really exceeded and I really found my feet in that environment...

A number of helicopter pilot instructors reported that the situational awareness skills of helicopter flying can assist in preparing future fast jet pilot trainees.

They’ve got more experience, they’re better at handling stress, you’ve got you know that better life knowledge behind you to actually deal with those sorts of situations and I don’t know if Air Force has actually looked at that as an option... You’ve got so much more capacity...and situational awareness...
There is scope for Air Force to recommend that some female pilots move to squadrons for extra flying experience before applying to re-role into precursor courses for ACG. Squadron experience should be specified and time-limited so that women are not waiting many years before the opportunity to re-role.

1.16 Opportunities to re-role to fast jet training

Air Force’s existing re-role strategy provides an avenue through which pilots can re-enter the fast jet pilot training continuum. This is a short-term workforce strategy to increase female pilot numbers at ACG.

Air Force currently offers opportunities for existing Australian Defence Force (ADF) pilots from other aircraft specialisations to apply to re-role to the fast jet pilot training stream. Re-role applications can be submitted by members at any time. They are assessed by ACG workforce management and 78 Wing. The assessment criteria for re-role selection include:\(^{36}\)

- the member’s performance on Advanced Pilots Course;
- the member’s performance on their current aircraft type;
- the type of flying the member has been conducting;
- a recommendation from the member’s Commanding Officer in relation to their performance and suitability to re-role;
- feedback from the Force Element Group workforce manager in relation to the ability to release the member from their current employment stream;
- any post-graduate training completed by the member, including qualified flying instructor training;
- the availability of placements on future Introductory Fighter Courses; and
- a subjective assessment of the member by interview and/or attachment of the member to a Hawk squadron for a flight assessment, if required.

The Officer Commanding at 78 Wing is responsible for making the final decision to accept or reject a member’s re-role application.\(^{37}\)

2FTS course results hold significant weight in the assessment for eligibility to re-role. Air Force pilots are assessed at the completion of 2FTS as either ‘suitable for fast jets’, ‘may become suitable for fast jets’ or ‘not suitable for fast jets’. While any pilot is currently able to apply to re-role into the fast jet stream, the majority of re-role applications are received from the ‘may become suitable for fast jets’ assessment pool.\(^{38}\)

Information from focus groups and interviews revealed that 79 Squadron courses are undersubscribed. This means there is opportunity to take larger numbers of re-roles into these courses.

There’s a course starting in January – this is last year – they actually haven’t got anyone to put on it because we don’t have any people who have been successful and they’re going to just let the Growler course go and no one is going to go on it but we have four spots available...\(^{39}\)
1.17 Qualified Flying Instructor positions at No. 2 Flying Training School

Qualified Flying Instructor (QFI) positions at 2FTS are considered to be good training for candidates who want to improve their skills before re-role to 79 Squadron. Air Force should consider prioritising QFI roles at 2FTS for female pilots, and failing this, QFI positions at BFTS. This will have the added benefit of increasing the numbers of female QFIs at the training schools.

You are busy teaching a student, you learn more about learning again... It can increase your capacity because now you’ve got to fly and talk and keep everything on the rails as well as monitor what the student’s doing... If you instruct at 2FTS now you’re flying the PC9 again, teaching on the PC9, so that’s probably going to negate your score from course.40

Doing an instructor course is like going back to pilots course, but it’s accelerated. So it’s another environment where you’re being assessed and you’re having to learn at a rate... They can look at your instructors course results and see how the trend is there... They can come back and look at how you’ve gone as a new assessment of where you’re at.41

Air Force could consider setting up a purpose-specific unit to case-manage the training and development of female 2FTS graduates to give them maximum opportunities to upgrade their skills. This Female Pilot Workface Development Unit could focus on optimising opportunities for females to re-role to 79 Squadron. This same Unit could assist in career management for women who are seeking time out of the workforce for family reasons as recommended in Section Six of this Report.

1.18 Information about re-role

Air Force members reported that the current re-role process is ambiguous and ineffectively communicated to personnel. Members face difficulties in sourcing information, including the re-role application form. There were reports of lengthy application-processing periods and a general lack of communication from Air Force management about re-role possibilities.

There’s this mysterious re-role application form, and you can’t find it on any of the Air Combat Group websites... I got it from a friend who re-rolled... I just felt the whole time like [I] had to go and ask for information, no one was forthcoming with information... I’ve been motivated for such a long time...42

I know that the girls that tried to re-role...recently...it took them a long time, months for them to get the paperwork out through their supervisors and COs, because it’s bureaucratic...43

Air Force should ensure that the re-role process and application form is available from a centralised, accessible location. Air Force leadership should clearly publicise the opportunity for current and future Air Force pilots to re-role to the fast jet stream.

While Air Force reportedly has a target for members transferring to aircrew, there are no published targets for re-roles to the fast jet training stream.44 ACG Command reported that the re-role strategy is not widely used for entry to the fast jet training program.

I don’t know if that is a widely pressed strategy. I know that we do it sometimes, but we don’t do it a lot. We’re doing it more with WSOs cause...here in 82 Wing our WSO shortage is greater so we’re doing a lot of re-role with WSOs but we’re not doing a lot with pilots.45
Regardless of gender, I’m talking all males actually, the normal route is not from ACO to pilot, that’s been done less than half a dozen times in the last 15 years, but it has been done sometimes. But I think all of the last six ACOs that have been through in the last 12 months all started as pilots, failed pilot training early on, and then re-rolled through to ACO. So that’s the more common flow.⁴⁶

Pilots and trainees advised that ACG currently allows for one member to re-role per course.

There’s pretty much one re-role per course at the moment... They don’t want to take more than one each course because, and I was understanding of this when I put my application in, the guys who graduate, the fresh baby pilots out of 2FTS, they get priority which is fair enough.⁴⁷

Air Force should consider opening up opportunities for all interested Air Force pilots to re-role to the fast jet pilot training stream to assist ACG in meeting workforce demand. Command at Air Force Base Amberley stated that this would be a highly worthwhile strategy.

That might be one of the best strategies that we could do. If we don’t have somebody coming all the way through, then do a re-role cause there’s a lot of great fighter pilots in ACG who started off in Hawks or transports or even helicopters.⁴⁸

Air Force should prioritise re-role opportunities for talented women pilots, given its commitment to increase the number of female pilots entering the fast jet stream. This idea was supported by female Air Force pilots.

How about we do it for re-roles, disruptive for re-roles, so anyone, any of our current cohort of female pilots who want to go for re-role, put your hand up, let’s manage it and let’s get them all across to 79 Squadron.⁴⁹

...We have probably...five [women pilots] in the current 25 that are interested in re-role...⁵⁰

Women pilots spoke of the need to ensure that cohorts of at least two women are enlisted to re-role to provide peer support and to avoid the novelty factor. They also expressed the need for these women to be provided with adequate supports to protect them from any unwanted backlash or negative treatment from peers.⁵¹

1.19 Current selection criteria for re-role

The grade score at graduation from 2FTS has significant bearing on one’s eligibility to re-role to the fast jet stream. This criterion has prevented female pilots from being eligible to re-role to fast jets.

We’ve got a couple of girls within the female fraternity that want to re-role fast jets so ACG world is looking at...2FTS scores and they go no, no, your 2FTS scores are way too low. You can’t come to ACG. So what we want you to do is we want you to go and be an instructor which requires captain hours which these girls don’t have and then once you pass instructing course...and once you’ve instructed for three years then try again. But by then...we don’t want you anyway.⁵²

One female pilot instructor stated that she has always aspired to become a fast jet pilot and despite having flown operationally in the Middle East, her marks at 2FTS continued to prevent her from being eligible to re-role:
...My understanding is my 2FTS result wasn’t good enough therefore at the moment you’re a training risk so we can’t send you to fast jets. That information wasn’t presented to me, I had to go and seek the information...the XO at 78 Wing...said the only way to become competitive is to do flying instructors course and then an instructional tour and that’s the only way that you may become competitive...53

Women pilots reported that an Air Force pilot’s grade average at 2FTS is not necessarily a reflection of their potential to perform at ACG after they have had flying experience.

There’s actually no direct result between your score and graduating and completing Hornet op con, anything other than those who are in the top bracket... So for those who fall below that bracket, there’s no direct correlation between score and whether you get through, regardless of gender... So the perception that the fast jet world has that score, equals you’re going to convert in to a Hornet is actually misinformed.54

Women pilots recommended tailored refresher courses on the PC-9 aircraft or the Hawk, depending on their level of experience and their previous level of training.

I did a refresher on a PC-9 and I got an ACG guy to do a package with me and a fast jet assessment... I just don’t understand why they can’t do that for every girl that is wanting to re-role...55

You should go to PC-9s to do your refresher... They’re trying to do it for re-roles... It just gets them used to flying in an ejection-seat aircraft with a mask on...G-suit...in that environment...pulling G...56

Air Force should encourage experienced female pilots to take refresher courses as precursor training for entry to 78 Wing, and waive the 2FTS test score as the re-role criterion. This is an effective short-term measure to increase numbers in ACG training schools.

1.20 Re-role and family commitments

Some members reported difficulty in managing re-role with personal or family commitments. A number of members had actively decided against re-role during the later stages of their careers as a direct result of family commitments, or a desire to start a family in the near future.

If I did pilot’s course, that’s two years training, ten years ROSO, I’ll be 40 by the time I’m out. When am I going to have kids? All that kind of stuff, so it all just yes, it happened that way.58

I was asked a few years ago to give it serious consideration and I think if you did that properly with a few of the girls they’d probably say no...because a lot of them have got kids now, we’ve moved on...That support network is not going to get built overnight... If we all went I’d go...59

Members explained how this issue particularly affects female pilots:

They do a first tour, then they go and be a QFI and only after being a QFI can they now go and re-role...but you’re talking about when she’s now 30 years old. Guess what happens
when they turn 30? 90 percent of women want to start having babies. That is not a solution.60

Women pilots reported that they are often required to ‘jump through certain hoops’ in order to be considered for re-role opportunities.61 The lengthy periods to increase experience can bring women to a point where they have to choose between ACG opportunities or a family.

...My understanding is my 2FTS result wasn’t good enough therefore at the moment you’re a training risk so we can’t send you to fast jets. That information wasn’t presented to me, I had to go and seek the information so when my re-role application was unsuccessful my commanding officer at the time called me in and said look your re-role application is unsuccessful and I said okay, why? What’s the reasoning behind that? And he just said that he wasn’t sure. So then I emailed the XO at 78 Wing at the time and...I was told yeah unfortunately your result at 2FTS is not good enough...to which I replied, thank you sir, I acknowledge that. How can I become competitive for re-role because it’s all I wanted to do and he said the only way to become competitive is to do flying instructors course and then an instructional tour and that’s the only way that you may become competitive.62

Air Force is in a position to remove these lengthy re-role processes. This could be achieved by ensuring a speedy and streamlined process between pilots’ graduation from 2FTS and subsequent transition to fast jet training.

1.21 Overseas training opportunities for female pilots

With the introduction of new fast jet platforms, namely the Growler and the Joint Strike Fighter, there will be increased opportunities for overseas training. A large part of Air Force’s fighter pilot training will be run overseas over the next five years until the Australian pilot training capability is established in 2020. The United States Navy will provide training for the Growler. Australia will send a mix of Hawk Lead-in-Flight graduates and experienced Hornet pilots to train on the Growler in the United States.

The Commission’s questionnaire results show that 48 percent of Air Force personnel agree with the initiative to send female pilots to train with overseas militaries. Eighteen percent of respondents thought the initiative was a bad idea and 25 percent viewed it as neither good nor bad. When the data was broken down according to gender, female respondents were more supportive of the initiative at 68 percent compared to 39 percent of males at Chart 7.

Chart 7: Views on sending Australian female fast jet pilot recruits to train overseas with militaries where there are female fast jet pilots

* This data includes a respondent identified as gender X
Female Air Force pilots had positive responses about overseas training. There was just no issue of gender and that’s when I had my light bulb moment because I’m like we need safety in numbers, we need more women and as soon as you stop sticking out, that person that you feel you have to become erodes because you have a little bit of safety in the collectivism of your situation.63

Given that female pilots favour opportunities to train overseas, Air Force should consider prioritising females who have graduated from 79 Squadron to train on the Growler in the U.S. This placement will expose them to the U.S. fast jet training system, allowing them access to greater numbers of women fast jet pilots and instructors.
### Findings and Recommendations: Supply and Demand

<table>
<thead>
<tr>
<th>Finding</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Air Force to commit to short-term and long-term strategies to increase the numbers of fast jet pilots.</td>
</tr>
<tr>
<td>1.2</td>
<td>Air Force to create a new Female Pilot Workforce Development Unit to case-manage the training of female pilots; to increase re-roles of women in the pilot training continuum; to support cohorts of women progressing through the training pipeline; and to support the retention of female pilots in squadrons.</td>
</tr>
<tr>
<td>1.3</td>
<td>Air Force to consider prioritising female graduates of 79 Squadron to train with the United States Air Force on the Growler platform.</td>
</tr>
<tr>
<td>1.4</td>
<td>Air Force to provide 2FTS female graduates with additional, non-tested training time on the PC-9 in instances where they are close to reaching the standard for entry to 79 Squadron. An extra weighted assessment could then be made to assess for eligibility to 79 Squadron.</td>
</tr>
<tr>
<td>1.5</td>
<td>Female pilots who are close to reaching the graduation standard at 79 Squadron to be provided with additional, non-</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>1.6</strong></td>
<td>Attrition at 2OCU places a large cost on the Air Force in terms of return for investment. The rates of attrition at ACG training courses are much higher than for fixed wing courses.</td>
</tr>
<tr>
<td><strong>1.7</strong></td>
<td>Air Force members welcome the lateral recruitment of female fast jet QFIs from overseas military forces.</td>
</tr>
<tr>
<td><strong>1.8</strong></td>
<td>Female pilots express interest in making re-role applications to 79 Squadron. There is evidence that 79 Squadron courses are undersubscribed.</td>
</tr>
<tr>
<td><strong>1.9</strong></td>
<td>QFI positions at 2FTS are considered to be good pre-cursor training for candidates wishing to re-role to 79 Squadron.</td>
</tr>
<tr>
<td><strong>1.10</strong></td>
<td>Refresher courses will be needed on the PC-9 and the Hawk for re-role candidates.</td>
</tr>
<tr>
<td><strong>1.12</strong></td>
<td>Female pilots in the Navy and Army are potential candidates for re-role after operational experience.</td>
</tr>
<tr>
<td><strong>1.13</strong></td>
<td>Female pilots are less likely to re-role to ACG at later stages in their careers as a result of family commitments. Female pilots favour a streamlined process to re-role so that their pilot</td>
</tr>
</tbody>
</table>
training years do not preclude them from having a family.
cursor training so women are not precluded from having children before they have completed transition into the operational squadrons of ACG.

| 1.14 | The re-role process to the fast jet training stream is not widely communicated or clearly understood. Information about re-role is difficult to locate and the re-role application form is not publically available. | Command to communicate re-role processes to all Air Force pilots. Air Force to ensure that the re-role process is clearly outlined in a centralised, accessible location, and that the re-role application form is readily available to all members. |
| 1.15 | Current re-role assessment criteria are based on 2FTS scores with some consideration given to post-training squadron experience. 2FTS scores are not necessarily a reflection of pilot ability after significant experience in a squadron or as a QFI. | Air Force to consider replacing the current re-role application processes to 79 Squadron with simple applications for all candidates who have completed experience in a squadron or as a QFI at a pilot training school. Eligibility to be assessed on experience in squadrons and performance on refresher courses. |
2: Pilot recruitment: attraction and selection of trainee pilots
2 Background to Air Force pilot recruitment

Recruitment plays a key role in shaping workforce demographics, capabilities and culture. This Section describes the challenge to recruit more women into pilot training at Air Force. It provides data about male and female recruits and analyses two key areas of recruitment: attraction and selection processes.

People are differentially attracted to careers as a function of their interests and personality. Attraction to a profession is a complex process that can be influenced by individual, cultural and contextual factors. It occurs within a social and cultural context where gender, population size, social status and economics can all play a role. Attraction to an occupation can be influenced by factors such as contact with the occupation or the organisation and experience of the occupation.

In both the attraction and the selection process, recruiters are generally guided by five variables:

(1) Who to recruit? (2) Where to recruit? (3) What recruitment sources to use? (e.g., the Web, newspapers, job fairs, on campus, etc.) (4) When to recruit? (5) What message to communicate?

The Australian Defence Force (ADF) has centralised attraction and recruitment processes for the three Services through Defence Force Recruiting (DFR). Manpower is contracted to operate DFR, in conjunction with ADF members. DFR manages its recruitment processes for each of the three Services simultaneously.

In selecting members for the pilot stream of Air Force, DFR has responsibility to select candidates with potential to succeed in the intensive training courses. Recruits must be assessed in relation to their ability to fulfil the cognitive, physical and psychological requirements of flying as well as the personal requirements for candidacy in the ADF. Choosing the wrong candidate or rejecting the right candidate is a cost to the organisation, both in financial and opportunity terms.

Command at Williamtown and Pearce Bases describe the lack of female pilot recruits as the key challenge for Air Force. When asked about the lack of female pilot graduates at ACG, they argue a lack of numbers coming through the door at recruitment as the cause, rather than high failure rates throughout the training continuum.

The Air Force as a whole has suffered a massive drop in inquiries from pilots, you know the numbers I’ve been told is you know 20,000 applications in 1980, to 600 two years ago.... On my pilot’s course we had 21 Air Force graduates and probably 19 or 18 of them have fast jets as their preference. What we’re seeing now is really the opposite of that.

It’s a numbers game. We have to get more candidates through the door that have the capacity and capability so that we get that in number of some graduates.

Many Air Force personnel report that an increase in females at the recruitment phase is the key action required to graduate female fast jet pilots.
I think one of the biggest reasons why we don’t have a female fighter pilot in the Air Force right now is because we don’t recruit well enough to get enough women in the door and start off and go through the different phases. We are hunting for getting men in. Our numbers are way down for men. So that’s a problem also. I think our recruiting is our single biggest issue.

This point was reiterated by Command at all Air Force bases visited by the Commission.

The thing I see at the moment is just pure maths. Like we’re not getting any in the door so there’s no way they can make it to the top you know... So the U.S Navy, RAF, and U.S. Air Force, they have a high percentage start and both men and women as those numbers trickle down you have your graduation percentages at the top. We’re not even getting any to Hawks so no way are we going to have a graduate on a F-18, because there’s no one coming in the door.

2.1 Air Force recruitment statistics

Each year DFR has been set an overall target for the recruitment of trainee pilots into the Australian Defence Force Academy or the Officer Training School. Air Force has set numbers between 40 and 63 for total pilot recruits since 2009-2010. DFR has achieved at least 94 percent of its recruitment targets over this six-year period, with the exception of 2012-2013. In 2012-2013 the target was set at 66 pilots and 36 were recruited meeting only 55 percent of the target.

The lack of recruits in 2012-2013 may pose some challenges in future years as the reduced cohort move through the system. The shortfall will become increasingly apparent at the fast jet end of the training continuum as Australia takes possession of new aircraft and requires additional pilots.

Failures throughout the training continuum and natural workforce attrition will further reduce pilot numbers in Air Force. Additional lateral recruits and other strategies may be needed in the short term to enhance workforce numbers. The targets and actual recruit numbers are at Chart 8.

Chart 8: Targets set to recruit pilots into Air Force since 2010, by year

<table>
<thead>
<tr>
<th>Year</th>
<th>FY09/10</th>
<th>FY10/11</th>
<th>FY11/12</th>
<th>FY12/13</th>
<th>FY13/14</th>
<th>FY14/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>50</td>
<td>58</td>
<td>62</td>
<td>66</td>
<td>42</td>
<td>63</td>
</tr>
<tr>
<td>Actual Recruits</td>
<td>49</td>
<td>58</td>
<td>62</td>
<td>36</td>
<td>41</td>
<td>59</td>
</tr>
<tr>
<td>Percent of Target</td>
<td>98%</td>
<td>100%</td>
<td>100%</td>
<td>55%</td>
<td>98%</td>
<td>94%</td>
</tr>
</tbody>
</table>

The number of female recruits to Air Force has been consistently low. Over a six-year period, female recruits have made up only 11 percent of the total pilot intake. Targets for female recruits were first set in 2013-2014 after only one woman was selected into pilot training in 2012-2013.

In 2013-2014 a target of 14 women was set and nine female recruits were selected, meeting 64 percent of the target. In the following year of 2014-2015, a target of 17 was set and 13 female recruits were recruited, meeting 76 percent of the target. While targets have been

46
useful in increasing the numbers of female recruits, they have not been sufficient to meet demand at Chart 9.

**Chart 9: Number of female pilots recruited into Air Force and targets achieved since 2009-2010**

<table>
<thead>
<tr>
<th>Year</th>
<th>FY09/10</th>
<th>FY10/11</th>
<th>FY11/12</th>
<th>FY12/13</th>
<th>FY13/14</th>
<th>FY14/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Actual</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Recruits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>64%</td>
<td>76%</td>
</tr>
<tr>
<td>of Target</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data shows that aspirational targets are not sufficiently driving the recruitment of female pilot trainees. Some Air Force personnel advised that Air Force should consider firming the aspirational targets into quotas.

> [With targets] They just convert them [females] to the males so and you know that feeds into how much money they spend on their marketing and how they apply their resources so I think if we’re serious, again I think some hard quotas...  

> [They accept the] first 50 that meet the minimum standard because they get paid 95 percent of their finder’s fee at sign up not [on] completion of training.

DFR must prioritise the recruitment and selection of cohorts of women at each intake. Air Force personnel suggested the use of staggered payments and/or bonus payments to DFR on graduation of female pilots from 2FTS.

> Perhaps...they get 50 percent on recruiting them and then they get the other 50 percent of their fee once they’ve graduated [on appointment].

Despite limited success in recruiting women, less than 50 percent of surveyed Air Force members agree with strategies aimed to recruit women and girls. Female respondents were more likely to be in favour at 56 percent of responses, compared with 45 percent of men. This is an interesting finding and suggests that work needs to be done to explain the rationale for encouraging women to apply for aviation roles in the Air Force. Survey results are at Chart 10.
Chart 10: Should there be any incentives/programs/strategies to actively recruit female pilots to Air Force?

* This data includes a respondent identified as gender X

Air Force leaders need to increase messaging about the benefits of increasing female recruits into flying schools. Some of the messaging should explain the link between diversity and enhanced capability. Another important message for Air Force is that Australia is lagging behind other countries in graduating female fast jet pilots. The evidence suggests that an overly masculine culture and masculine bias is a factor in preventing women from applying to Air Force and progressing through to ACG.

### 2.2 Attraction

The size and quality of the initial applicant pool may be crucial in determining the effectiveness of recruitment overall.77

DFR has responsibility for almost all of the attraction initiatives for Air Force recruits with the exception of the Experiential Air Force Camps described later in this Section. DFR is committed to the Defence Diversity and Inclusion Strategy 2012-2017 which includes action to attract women to Air Force through the following:

- Raise the profile of Defence as an employer of choice for women.
- Identify, recognise and proactively profile and promote the achievements of women in leadership.
- Work with networks to attract women to our workforce.78

Despite this commitment, DFR reported to the Commission that there has been a lack of women presenting and applying for pilot training and this has meant that they have been unable to fulfil their recruitment targets.

Aspirational targets are set for women, but sufficient numbers of women aren’t currently coming through the DFR, so we revert to male targets if it is not possible to attract or recruit the required number of women.79

According to some Air Force personnel, attraction strategies are implemented in a piecemeal way rather than in a sustained and systemic manner.

Recruitment campaigns that have been [introduced], but again they’re small and piecemeal I think as opposed to strategic.90
Command at a number of bases suggested that gender stereotypes operate in Australian society and this affects the career ambitions of young women.

...probably the biggest reason why we’re here [all male] talking today as fast jet pilots is because from day one, at an early age, we wanted to be...that’s men. That’s what we want to find in women.81

2.3 Air Force women as role models

Given the gendered nature of vocational ambition, DFR must challenge the gender stereotypes in advertising campaigns and strategies. Female pilots indicated that they are keen to play a larger role in attracting other women to Air Force. Serving female Air Force members are perhaps the greatest advertisement for Air Force and they embody an inherent challenge to the gender stereotypes.

This year I took my team to Avalon Air Show separate to Defence Force Recruiting and separate to the specialist team [in DFR] and we were there for a week and we were overwhelmed by the interest of women, young girls, dads, you name it, coming up and having that face to face interaction with us... So we had really enthusiastic, motivated women who spoke one-on-one to interested people. In fact, we had one girl on our last flight camp in Tasmania who we met at Avalon. We met her at Avalon, handed her a brochure, chatted to her and then she was directly mentored by one of the pilots and then she came along to the air show...[and then to] flight camp.82

So I think there’s a real potential there if we want to get serious, that we do more targeted recruiting.... When we look at the attraction and the recruitment space it’s really not specific enough... The general Women in Defence stuff doesn’t do anything for women fast jet pilots.83

We could probably get greater returns if we continue to do a bit more of a targeted approach.84

Female pilots reported that women and girls are interested in aviation but need more information and they need to see that women can do these jobs and are doing these jobs. They argue that exposure to women and to flight camps gives girls a sense of what is possible.

Overwhelmingly, women want to join. People say to me girls are not interested: that is rubbish. Girls are very interested so the attraction piece is there and that has come from targeted things that we’ve done like the classic is a female flight camp. The numbers that were coming into our office, overwhelming numbers. We couldn’t provide enough spots.85

Female pilots at Air Force had some ideas for inspiring young women, including a flying roadshow to places around Australia.

I was really, really keen to...put together [an all-female] team on Hawks because they are fast jets...and do a roadshow around Australia and I’m talking about universities where women are studying aviation all the way down to kindergarten... Buzz the town, rock up with your helmets and your G-suits, and the little kids, especially the little girls, will see a female and go yeah I’d love to do that, because ‘you can’t be what you can’t see’, so they believe, and so they grow up believing they can do that.86
For a large chunk of the year we could be rolling around the countryside...and I can guarantee you’d get some great results, and I don’t know why we aren’t doing that. It’s just so cost effective.\textsuperscript{87}

The promotion of female Air Force members was recommended by Horizon Research, contracted by DFR in 2014 to assess the attraction of women to aviation roles.\textsuperscript{88} The study found that Air Force is not overly favoured amongst students interested in aviation. Air Force training is seen as extraordinarily challenging and ‘too much’. This reasoning is based on a number of perceived factors including:

- a long application process;
- risk and uncertainty of being scrubbed out at any stage along the pipeline;
- risk of being forced into non-flying roles; and
- lengthy return-of-service obligations.

The Horizon Research shows that Air Force could be losing young women to civil aviation. The report suggested strategies for improving attraction and recruitment by making Air Force and its pilots more visible and accessible to potential applicants. This included providing opportunities for ‘in person’ meetings, and ‘on-line’ communication. Student pilots identified personal testimonials as one of the most persuasive factors in encouraging them to apply. Air Force members themselves are the strongest advertisement for the organisation. These members need to be available to potential recruits in person when possible.

\textbf{2.4 Attraction activity at schools and universities}

The Commission received strong advice from Air Force members that recruitment efforts should be focussed at schools. They argued that initiatives should start in the primary and junior secondary years. Currently Air Force contracts DFR to recruit at Year 10 to 12 levels. According to women pilots, this is too late, and Air Force should contract DFR to focus on a younger age group.

By the time they get to Year 10, 11, and 12 and they go to DFR, it’s: ‘sorry love, you don’t have tertiary maths’ or ‘it’s too late, too late’.\textsuperscript{89}

DFR are responsible for Year 10 to 12, that’s their target, that’s what we’ve contracted them to look at that. This is where it comes back to Air Force’s responsibility. We as an organisation have a responsibility to look at targeting I guess that younger group because DFR are not going to do that.\textsuperscript{90}

According to women pilots at Air Force, girls need to know that Science, Technology, Engineering and Mathematics (STEM) subjects are prerequisite for aviation. They need to know this at an early stage of their education so that they don’t drop subjects that are necessary for admission to flying schools.

So if there’s anything, STEM projects... That’s the kind of thing we need to get into schools. I heard a Boeing representative; she was head of Growler over here. She’s an engineer... A couple of years ago and she spoke about what Boeing did. They spent something like $5 million on STEM projects for eight to ten year old girls because they discovered that that is when they start thinking about it.\textsuperscript{91}
According to a senior Air Force leader, there is a proposed initiative to develop a STEM centre in Western Sydney, with support from the NSW Government. If approved, this could be an opportunity for Air Force to buy a purpose-built building and establish exposure opportunities for students from Year Four onwards:

[This would be an opportunity to]...really get in at that grass roots level and...exposing young women and young men as well...[and] to plant that seed about you need to study these [STEM] subjects.\(^\text{92}\)

Air Force members were asked about the best measures to attract women to their ranks as part of the Commission’s questionnaire. Respondents overwhelmingly supported advertising campaigns and recruitment in schools and universities. Chart 11 shows their responses.

**Chart 11: What would be the most effective strategy to increase the number of female pilots recruited to Air Force?**

Note - respondents can provide multiple responses

* This data includes a respondent identified as gender X

### 2.5 Advertising campaigns

The ADF has commenced a broad advertising campaign to attract women to its ranks. The ‘Do what you love campaign’\(^\text{93}\) is a national campaign for women in the ADF. It was launched in March 2015 with the intention of increasing the number of women in all three Services of the ADF. The campaign includes advertisements on television and utilises social media to target potential female recruits. On the Defence Jobs website ‘Women in the ADF’ has its own tab, with links to Service-specific tabs for women, including Women in the Air Force.\(^\text{94}\)

There are at least two ways that advertising campaigns can promote Air Force and aviation to women and girls. The first is targeted campaigns aimed at women and girls who already have an interest in aviation. The second is to fire the imagination of those who haven’t yet considered aviation as an option. The first is focussed and directed to a particular cohort, the second is broad and sweeping, and targets those who haven’t considered aviation as a potential career.

We have not captured the imagination of the Australian female to want to be a fast jet pilot in Australia... I’m not an advertising person though or a marketer, but I think that’s where the pressure should be.\(^\text{95}\)
Targeted campaigns should ensure that Air Force is getting the best and brightest recruits, and position itself so it is competitive with civil aviation. Advertising should profile job opportunities within Air Force, including job security, flexibility and a qualification.

Broad campaigns can be more difficult to design. However, the current serving women at Air Force provide part of the key to understanding what motivates women to consider the Air Force. When asked why they joined, women cited career stability and the opportunity for a qualification along with an interest in aviation. Interestingly, a relatively high proportion of women also identified an interest to fly fast jets. Broad campaigns should highlight career stability and access to education. See responses to the Commission Questionnaire at Chart 12.

Chart 12: Why did you join the Air Force?

Note - respondents can provide multiple responses
* This data includes a respondent identified as gender X

Chart 12 also shows that women in Air Force are more likely than men to come from a military family. This suggests that women are likely to do what they know. It may also mean that visibility of Air Force is a factor for women.

According to some Air Force members, better use of social media could enhance the visibility of the organisation and opportunities for women. They argue that there is potential to contemporise or modernise the Facebook site so that it appeals to a younger audience. Serving members want to be able to have greater contact with the public.

I think we need to be more trusted by our organisation to be able to use those types of mediums a lot more than we are currently. Because if you look at the Air Force Facebook page, it’s so, it’s great, but it’s really sterile. You know ‘This Day in History’, and you’ve got all these World War II people, which is wonderful, but...Tuesday was Woman’s Day so they put a woman up and here’s some really positive things that are happening. I just think that is all part of the attraction - just by normalising how we’re viewed in the community.\textsuperscript{96}

On the 25th of June 2015, DFR held an online event: Women in Defence Q&A. This was part of the Facebook campaign and included a number of serving women answering questions posed by those on Facebook. This was the first time that Air Force had dedicated specific funding to profiling women pilots. The advertising campaign was perceived as a successful
strategy for profiling opportunities for women pilots in Air Force. More can now be done online to promote interactivity between Air Force and potential recruits. An online strategy needs to be developed with opportunities for serving members and trainee pilots to talk with girls about a potential career in aviation.

2.6 Aviation expos

Aviation expos can be places to recruit women to Air Force but they are only likely to target those with an existing interest in aviation. A marketing coordinator from Manpower works on marketing and attraction and attends recruiting stands and holds events to attract women to the ADF. Manpower have merchandise designed specifically for women and run a gender conference in Canberra. It is important to ensure that there is at least one female member at each expo – this could include members from Air Force.

They had an aviation...expo...I went around all of the [passenger airline stalls] and all of them asked me if I wanted to be an air hostess. The only stand that asked me [if] I wanted to be a Pilot was Defence.

I went to a Defence careers expo where there were Defence people...and spoke to a female Air Force pilot who was there... I was like I want to do it [and] they like reassured my parents about it...cause they both still had this stigma of how girls joined Defence. Talking to her was actually really cool and deciding the pilot part specifically I was quite, quite academic in school and what not, did quite well, I wanted to, to kind of do something down the right path I guess.

2.7 Experiential Air Force Camps

Air Force has run seven experiential flights camps from the period 2013-2015. Applications numbers for these camps have ranged from 48 to 94 and the number of attendees has ranged from 12 to 17. The candidates for the camps are selected on the basis of a review of their age; academic performance; medical information and a school recommendation. The numbers for each flight camp are deliberately limited to under 20 so that each participant is provided a hands-on experience and individual mentoring.

Of the 121 candidates from flight camps since 2013, 29 (34 percent) have enlisted. Of these, 14 became pilots; five became Air Combat Officers; three became Joint Battlefield Airspace Controllers; and six became Intelligence Officers, Personnel Capability Officers or Aviation Technicians.

The data shows a high percentage of flight camp candidates do go on to be enlisted as pilots, demonstrating that this as a successful initiative for recruiting women pilots. However, there is a significant percentage (28 percent) who are not engaged by DFR, and there would be value in analysing the reasons for this in greater detail.

Air Force should consider rolling out greater numbers of flight camps for female pilot recruits each year, given the success of the camps to date.

There is quantitative and qualitative evidence that exposure strategies such as experiential flight camps and U.S. space camps have a positive impact on recruitment. Some women
pilots identified attendance at the space camps as providing them with the motivation and inspiration to become pilots.

They organise for a whole bunch of girls to go over and participate in [Space Camp in the US] in Grade 11 and I did the you know big two weeks in the American Air Force camp...but the biggest thing I got out of that was they have a Top Gun...competition...and me and another girl...were partnered, I was the pilot, she was the [navigator] and we ended up winning that Top Gun...[and] it was the first time an all-female crew had won that.101

Air Force Cadets provides aviation experiences for young girls and women, though the opportunities are limited to those who live in the vicinity of bases.

I was in Air Force Cadets...near Amberley which has the F-111’s, that’s what I wanted to fly...and I told mum she was like okay what do you need to do, which was cool and I think three things happened, so I did work experience in Grade 11 at an air base and went for my first trial flight, got sick but loved it and then...won a scholarship through Cadets so I did ten hours through Cadets and then...went to International Space School...in Grade 12...and I got to stay with an Astronaut who was an Navy pilot which was pretty cool... So I came back and like yep that’s the stream I want to go.102

While none of these strategies can be an answer to improving the attraction of females to aviation, they are all part of a larger picture. The key to attraction strategies is exposure and individualised attention from the organisation or from personnel who are connected to the organisation. Resource constraints make it difficult to roll out camps and individual contact with females across Australia. Nevertheless, more can be done to enhance and individualise attraction strategies.

Female Air Force pilots, including those on leave and those who have retired, could be contracted for short periods to assist in recruitment activity. Attraction efforts can be significantly enhanced online and by the participation of current or former Air Force members at expos, at school visits and at career forums.

2.8 Graduate Pilot Scheme

The Graduate Pilot Scheme was established to target women who have completed an Aviation Degree and might be interested in joining Air Force. On acceptance to Air Force and completion of training, Air Force has offered to pay the Higher Education Contribution Scheme component of the candidate’s degree.

The Graduate Pilot Scheme is a targeted pilot recruitment model that aims to encourage women already pursuing careers as civilian pilots and studying a Bachelor of Aviation degree at a civilian university to consider joining Air Force. Three female pilots were recruited under this scheme in the financial year 2014-2015. The Chief of Air Force Directive 17/13 details the implementation and management of this initiative.103

With the graduate pilot scheme...there were two...hurdles for women in military aviation. One is military and one is aviation. So rather than take girls off the street who then had to battle military and aviation we just targeted one group...women who were already studying aviation, have an established support network and...they have that confidence.104
So we looked at them and went well what would it take for you to join and one was they hated the ROSO and they hated the uniform. So if we get rid of the ROSO, the uniform might be a bit harder. So that’s how we did it but they still weren’t wanting to apply so then you had to incentivise it which is how we got the funding for Air Force to then give them back, when they graduate as a military pilot they then get all their tuition fees and university accredited and reimbursed, so that was that in a nutshell.\textsuperscript{105}

The feedback I’ve seen from the girls at flight screening is the older girls, through the Graduate Pilot Scheme do it really well. The 17, 18 year old girls, coming through who are going to go to ADFA are not doing well because they’re looking at them in the same lens as the older girls and they’re not looking at them as having the ability over those three years at the Academy to grow and get that maturity.\textsuperscript{106}

The Graduate Pilot Scheme is an initiative that can fast track females into pilot training. There is benefit in continuing the Graduate Pilot Scheme and evaluating its effectiveness each year.

\subsection*{2.9 Selection}

Once candidates have attended a recruiting centre, a process of selection can begin. Chart 13 describes the DFR selection process.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{chart13.png}
\caption{The pilot recruitment process}
\end{figure}

As part of the selection process, candidates have a medical assessment, undertake psychometric testing, and have a psychological and Defence interview. This takes a minimum of six weeks, after which they may proceed to Officer Selection Board at Tamworth or be recommended to commence at ADFA. During this process DFR are looking for:
- high levels of maturity
- communication skills
- physical and mental robustness
- leadership skills.

A semi-structured interview assesses clinical and organisational factors and draws on behavioural examples. Candidates are assessed as ‘recommended 2’, ‘recommended 1’, ‘non-recommended’ or ‘psychologically unsuited’.

This assessment can be over-ruled by an ADF interviewer. Those non-recommended can be allocated three, six, nine or 12 months to undertake some remedial measures.

Based on discussions with DFR there is a high attrition rate through the recruitment process. It takes on average, 17 applicants to produce a single appointment to pilot school.

In order to optimise the recruitment of women, Air Force has developed Project WINTER (Women in the Air Force Campaign Targeting Non Traditional Employment Roles). This initiative aims to assist in recruiting and retaining the female pilot workforce, including:

- mentoring programs and online networks
- a range of handbooks and guidelines for commanders and supervisors
- refined posting and promotion policy
- reduced Return of Service Obligation.

2.10 Mentoring and fast-tracking through the selection process

Air Force has taken steps to keep young women engaged during what can be a lengthy recruitment and selection process. Air Force Specialist Recruitment Teams have been developed to channel female recruits into pilot streams. They assist in keeping the potential recruit engaged and positive.

So I think with the SRT teams, I think they probably need to be retained…

I’m a big supporter of the specialist teams that we’ve got into recruitment… It’s that mentoring, it’s that ‘oh well let us know if you hit a speed hump because we can help you through that and we do that’. So that is where the returns are coming from which is where the SRT teams are good...  

Recruitment mentoring is most effective when it commences at the point that young women show an interest in aviation.

...She came to the flight camp so then we had her for a week. So it’s that ongoing relationship. So flight camps are great because they generate interest and they get people who you know want to come along and have a look…and they’re still in touch and on Facebook, chatting all the time. So it’s that mentoring, it’s that oh well let us know if you hit a speed hump because we can help you through that and we do that. So that is where the returns are coming from which is where the [Specialist teams in DFR] are good, but again they’re stretched.
The Women in Defence team call female recruits in the six-week gap between application and assessment and arrange assessment at first availability if the female recruits are ready. Female Air Force pilots, including those on maternity leave, assist with mentoring candidates. They contact potential recruits and invite them to events to ‘keep them warm’ and updated.

So when we find people that are actively super keen, it’s like sorry come back in six months when we’re recruiting for pilots...you want to tailor effort to people that want it, get them in the door straightaway.\textsuperscript{111}

Air Force personnel relayed experiences of the recruitment process extending over long periods of time, stretching to several years in some cases.

Yes, just a lot of form mix up and prolonged periods where I didn’t know what was going and things like that. So that could definitely put you off and I think it has put a lot of people off, that initial stage of defence force recruiting... Yes, so that’s when it started, yes, and then it took that long just because things you know kept stuffing up or they didn’t book me in for appointments and I know a couple of people who have had medical issues that turned out not to be medical issues, who just gave up.\textsuperscript{112}

One trainee pilot noted the comparatively smoother and quicker process for women through recruiting:

Yeah recruitment the process was pretty fast for me. I assume that’s because I’m a girl. It wasn’t too stressful or anything I mean yeah I wanted to make sure I passed each phase of it but yeah it wasn’t anything really too bad or anything. It seemed okay for me. But yeah it was quite fast. I was surprised at the turnaround time between going from one phase of it through to the next... A lot of the guys it could take them like a year or so to get through the recruitment whereas it took me about six months. Yeah it was pretty straightforward.\textsuperscript{113}

The mentoring program and the fast-track recruiting processes have been successful and it would be beneficial to formalise these into policies. Through Air Force, DFR could consider contracting ex-Air Force pilots and ACOs, and current members on leave, to assist in face-to-face recruitment activity. The fast-track recruitment process must be maintained and monitored so as not to lose women in a lengthy recruitment process.

\textbf{2.11 Tri-Service selection and specialisation at recruitment}

At the point of selection into pilot training, DFR is in a position to encourage recruits to a Service and occupational area. For example, candidates who are selected for the Navy are considered to be training for helicopters. Some candidates are encouraged to ACO positions. Therefore, even at this earliest point of entry, there is a narrowing of the field that potentially reduces candidates for the fast jet stream. Female pilots told the Commission that this narrowing to a flying profession at the recruitment phase is counterproductive.

You choose at recruiting and then you go to flight screening and you put a preference for each Service...so that’s sort of where you really define that... You’ve got to imagine just because somebody gets a really [good] score and they want to be in the Air Force and somebody who gets the same score but they say they don’t want to be in Air Force they want to be in the Army, well they’re not going to get picked for Air Force over the guy who said he
wants to be in Air Force…so I guess you weigh your preferences and then they combine that with some probably algorithm and go right and then they send you a letter of offer for the Service that you’ve actually said that you want to be in... The thing is you pick early on so you’re picking fairly uneducated.\textsuperscript{114}

Many young women are not precisely aware of their career aspirations at recruitment. These develop as they are exposed to life experiences and as they develop competencies and skills. Narrowing or reducing options at a premature point, potentially cuts off ambition and opportunity.

There is potential for the Defence Force to take recruits into pilot training at BFTS on the understanding that their ultimate aviation occupation is fluid. During the training course, flight instructors will observe the capabilities of individuals before counselling the candidate towards a platform at later stages of 2FTS. While candidates are connected to a Service through ADFA and at Officer Training School, there should be potential to review this selection at the end of 2FTS.

As it currently stands, pilots selected for any Service other than Air Force are not necessarily excluded from the fast jet continuum, but the pathway is more arduous and convoluted. There are opportunities for ‘poaching’ pilots to different Service areas at points in the training continuum, but this process is ad hoc and based on numbers or identification of potential in individuals.

No candidate should be ruled in or out of an occupational area or flying platform at the point of recruitment, just because, for example, they have been selected to Navy. Trainees and their QFIs should be in a position to develop their competencies and aspirations over time and narrow the selection of platform or role as ACO or Air Traffic Controller as the trainee progresses through the training continuum.

The potential to qualify to a flying platform should be based on ability. This information should be clearly communicated to candidates at all stages of recruitment, selection and pilot training.

Expanding the flying platform options of candidates, potentially places greater control and potential ambition onto the trainee, rather than rendering them passive to a decision that was made at recruitment. While balance will be needed across the Services in terms of numbers of recruits, a process based on competencies of the trainees should ensure that the best candidates are matched to the Services where they are most effective.

\textbf{2.12 Stereotyping in the recruitment process}

Unconscious bias may be affecting the selection processes at DFR. For example, DFR looks to hobbies related to aviation as evidence of interest, but many young women may not have had access to these hobbies. In addition, the current Air Force media strategy aims to attract women to aviation, even if they haven’t shown an interest to date.

Hobbies related to aviation...are contradictory to our social media campaign...you might just decide, oh yeah I could do that.\textsuperscript{115}
There was a perception in ACG that DFR may be encouraging women into non-pilot streams, particularly to ACO positions rather than pilot positions.

I’ve got a lot of people upstairs that wanted to be a pilot, [I asked] well why are you a WSO? [And they said] well I went to recruiting and they said all we’ve got is WSOs so I took it.\textsuperscript{116}

She applied as an ACO and she wanted to be a pilot but she just thought oh well I’ll go ACO cause I’m more likely to pass.\textsuperscript{117}

What’s happening in the recruiting process, is they have a certain number of targets they need to fill for each speciality, and they maybe, discourage people that aren’t sure… That person may have all the skills and capability to go the other pathway, but they’re being actively pushed in a different pathway.\textsuperscript{118}

DFR reportedly had expectations that pilots require high marks in maths, physics and chemistry. In actuality, mathematics, chemistry and physics are pre-requisite subjects, but high marks are only required for mathematics.

...they need to have high passes in maths and for ADFA they need physics and chemistry [but not high passes] which is not consistent [with DFR’s expectations].\textsuperscript{119}

There’s a bit of work going on at the moment in the Services about working out the attributes for a candidate.\textsuperscript{120}

DFR and Air Force need to ensure that there is gender balance at each stage of recruitment and assessment. Male and female Service members need to be represented in equal numbers on panels and boards. A female trainee at BFTS commented on the lack of female senior military representation on the Paper Board. She argued that the process would have been improved by having a female Service member because the civilian female psychologist did not carry the same weight:

The Board itself when you do your interviews by yourself going back and I was that nervous I can’t hardly remember anything - the psych was female so that was good. I think it would have been nice though to have a senior officer being a female as well. We had three males and then a female – and she wasn’t military personnel.\textsuperscript{121}

In addition, Air Force and DFR should consider running gender training on unconscious bias for all personnel involved in recruitment and selection processes.

... And that’s what I mean, it’s unconscious as well, this gender bias. How do you change that... There’s got to be a degree of education and dare I say that sits out externally with a professional coming in, in terms of unconscious bias and confidence... \textsuperscript{122}

2.13 \textit{Flight screening}

Female trainees at BFTS had positive feedback about the inclusion of greater numbers of women in flight screening batches. Conducting flight screening with groups of women improved the confidence of potential recruits and gave them a sense that they weren’t unique or unusual in the cohort.
So flight screening group I think from memory we had about seven or eight of us. I think there was three other girls with me as well. So I think the aspect of it when they get a bunch of girls for recruitment they’ll try and put us all through the same flight screening programme group. For me it doesn’t really make too much difference but it was nice to know that there were other girls going through with you. It just eased the tension a little bit. But yeah I think that component of how they structure the flight screening by putting more women in one group is really good.123

DFR has consciously structured the course to ensure a critical mass of women.

So we’re doing a number of things at the flight screening end to make sure we get a critical mass [of women]. So we’ll request to the Air Force that we never have one single female on a flight screening course.124

[We are] priority panelling, females onto flight screening courses...irrespective of a female’s outcome on a paperboard process, they’ll be panelled onto a flight screening course.125

DFR should ensure equal numbers of women and men on panels and during the flight screening process. This means equal gender representation of male and female QFIs.

2.14 Medical

According to the Area Manager at DFR, one of the biggest challenges for women in successfully completing the recruitment process is passing the Physical Fitness Assessment and Medical Assessment.126

DFR is a civvie run organisation... They have no idea what it is like being in the military, really. Classic example – X raised her issue the last time she was in Sydney. She has some knee cap issues. She got sent to a specialist, she spent $230, the recruitment centre said look if you want to appeal this you need to have that specialist write a report about whether or not they think you can proceed and then we will have a look at you. So the recruitment centre sent her to some specialist, she went there, specialist took 10 minutes, looked at her knee, went tap tap tap, looked at her knee once, wrote a report, charged her $230 and said to her, ‘I really don’t know what kind of training you are going to undergo in the military but I suspect it will be along the lines of lots of obstacle courses as you have to be really fit in the military’... What ethical reason could they possible have to send some poor girl who is struggling to go to a specialist who actually doesn’t know what is involved in the process. Here is your ethical issue. I think it is unacceptable. However, we can’t just send to them to AVMED, cause AVMED, we talk about time money and resource, they have none. They have two doctors who have to go through all 700 officers – thousands of people have medical reviews – they do not have capacity.127

Girls think: ‘oh I have had a headache, it was, it’s a migraine’, tick. DFR is black and white. She had a migraine, she is now Med 4. Because at the top of the form they say if you don’t reveal this it will jeopardise your chances of becoming a pilot and if they actually want you to join the organisation they are going to put everything down there. They overshare.128

The data shows that medical and physical fitness are areas where many candidates are excluded. Fifteen percent of male and female candidates are classed as Medical 1, that is, fit for service, with 80 to 90 percent of candidates seeking a specialist exemption for medical.129 DFR has mentoring programs to bring candidates’ fitness up to required standards.
However, some Air Force members reported that recruitment candidates had been found unfit for aviation on spurious medical grounds. They argue that medical specialists are ill-informed about the requirements for flying and are making medical rulings on old injuries that are no longer relevant.

I’ve got a girl at the moment… She came on the last flight camp… This woman we need in the Air Force. She is driven. She wants to be there… Amazing. [A specialist recruiter] called up all the girls’ schools in Brisbane and said your Year 11 and 12 girls, your top performers who don’t know what they want to do when they finish school. How about you see if they want to come out to Amberley for a day. We’ll run them through the YOU testing, which is the initial testing and the pilot specific aptitude testing. They get to talk to 36 Squadron with pilots and see how they go. Of the Year 10 students, some of them did okay, all the Year 11, 12 students blitzed the test. That was 60 girls who said yes, I don’t know what I want to do. By the end of that day, I want to be an Air Force pilot. All of them applied, 75% [were] knocked out because of medical reasons…

Just over 12 percent of women withdraw from the recruitment process as a result of being classified as Medical 4. These percentages are comparable with the withdrawal rates for men. Air Force should review the DFR medical assessment policies and procedures to ensure that they do not present unnecessary barriers for pilot candidates.

DFR should also brief medical specialists on the physical and psychological requirements for Air Force aviation roles, prior to candidates presenting for assessment. This could take the form of a checklist of all relevant medical and physical barriers.
## Findings and recommendations: Recruitment

<table>
<thead>
<tr>
<th></th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Aspirational targets are not sufficiently driving recruitment of females into pilot training.</td>
<td>Set fixed quotas for the recruitment of females into pilot training. Provide financial incentives to DFR on meeting these quotas. Provide bonus payments to DFR on graduation of female pilots from 2FTS.</td>
</tr>
<tr>
<td>2.2</td>
<td>Female pilots are role models for girls and young women and have the potential to attract them to the Air Force and challenge gender stereotypes. The individual, face-to-face approach is most effective but it is labour and resource intensive.</td>
<td>Expand existing recruitment programs to schools in urban and regional areas where girls can meet female pilots for question and answer sessions and classroom exercises. Air Force to explore the use of current and former serving women pilots for this role.</td>
</tr>
<tr>
<td>2.3</td>
<td>Recruitment strategies focussed at the Year 10 to 12 levels are too late for girls who have already made their subject selection. STEM subjects are prerequisite for pilot training and girls need to tailor their studies prior to senior secondary school if they are to be eligible.</td>
<td>DFR and Air Force to work together to target recruitment to girls in primary schools and junior secondary schools. STEM prerequisites to be accurately explained.</td>
</tr>
<tr>
<td>2.4</td>
<td>Social media could be better used to attract young people to Air Force, especially to target school-aged girls.</td>
<td>Modernise the messaging on the Air Force Facebook page and other social media. Provide opportunities for serving Air Force women to add personal testimonials on Facebook. Provide opportunities for mediated online conversations between Air Force women and school children.</td>
</tr>
<tr>
<td>2.5</td>
<td>Existing attraction strategies such as aviation expos, career expos, school visits and flight camps are effective but are implemented sporadically and on a low scale.</td>
<td>Roll out greater numbers of flights camps for women pilot recruits (across Air Force, Navy and Army).</td>
</tr>
<tr>
<td>2.6</td>
<td>The Graduate Pilot Scheme is an initiative that can fast track females into pilot training.</td>
<td>Continue the Graduate Pilot Scheme and evaluate its effectiveness each year.</td>
</tr>
<tr>
<td>2.7</td>
<td>Unconscious bias may exclude female candidates in the flight screening process.</td>
<td>Mandate unconscious bias training for all DFR and Air Force staff involved in recruitment and selection.</td>
</tr>
<tr>
<td>2.8</td>
<td>A lack of female Service members in all stages of the recruitment processes including panel interviews and flight assessments, sends the wrong message to female candidates.</td>
<td>Ensure there is equal gender representation of Service members at each stage of recruitment and selection, including equal numbers of QFIs in the flight screening phase.</td>
</tr>
<tr>
<td>2.9</td>
<td>The pilot selection process takes too long and female recruits are lost during the many months or years that it takes to resolve selection processes. Mentoring and expedited selection processes have mitigated this problem where there are unnecessary barriers.</td>
<td>Continue and formalise the female recruit mentoring program and the expedited pilot selection process. Ensure adequate resources are assigned to this task.</td>
</tr>
<tr>
<td>2.10</td>
<td>There is evidence that some females are being excluded from selection on spurious medical grounds with conditions that have no relevance or impact on ability to fly. Females have been known to over-disclose conditions that have no relevance to their flying training or flying ability.</td>
<td>DFR medical assessment policies and processes for pilot selection need to be reviewed and improved in order to remove unnecessary barriers.</td>
</tr>
<tr>
<td>2.11</td>
<td>DFR sends recruits to medical specialists who don’t fully understand the physical and psychological requirements of flying. AVMED don’t have the resources to review candidates in a timely manner for the recruitment process.</td>
<td>In consultation with Air Force, DFR to provide a briefing package to medical specialists that explains the physical and psychological requirements for Air Force aviation prior to candidates presenting for assessment.</td>
</tr>
</tbody>
</table>

Recruits are being selected into flying specialisations at recruitment without having had an opportunity
<table>
<thead>
<tr>
<th>Section</th>
<th>Text</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.12</td>
<td>to test their competencies and narrow their interests in post-school training.</td>
<td>progress to fast jet training where they have the aptitude and desire to do so.</td>
</tr>
<tr>
<td>2.13</td>
<td>There is evidence that there are gender differences in spatial visualisation and therefore Defence needs to assess its pilot selection test battery for gender bias.</td>
<td>Review the pilot selection test battery for gender bias.</td>
</tr>
<tr>
<td>2.14</td>
<td>Less than 50 percent of surveyed Air Force members agree with strategies aimed to recruit women and girls into pilot schools and females experience backlash about these recruitment strategies.</td>
<td>Air Force leaders to directly communicate the capability benefits of increasing female recruits into flying schools and articulate zero-tolerance for backlash.</td>
</tr>
</tbody>
</table>
3: Pilot assessment and training
3  Pilot assessment and training

Training to reach graduation to D-Category fast jet pilot level requires at least four relocations and exposure to at least five aircraft. It takes four years on average after initial preparatory training at ADFA or Officer Training School. No female trainee has ever graduated to D-Category as a fast jet pilot in Australia.

The focus of this Section is on aspects of training and assessment where changes can be made to ensure that the learning environment is neutral and not predisposed to a particular learner or gender.

3.1  Pilot training process

Pilot training at the Air Force is competency based. Trainee pilots are trained and tested on a series of sequential learning modules that increase in complexity throughout each course at each training school. Trainees must complete modules within a prescribed timeframe before they move to the next. The sequence and time allowed for each module is set by each Air Force flying school. Pilot training includes a mix of flight training and ‘ground school’. The training program across the different flying schools combines a large number of skill development sequences; generally involving actual flying exercises, along with study requirements.

In general, students complete all training requirements during the same timeframe and they graduate as a group.

3.2  Assessment results at BFTS and 2FTS by gender

Female trainee pilots are less likely to pass the pilot courses at BFTS and 2FTS than their male counterparts. Given that fewer females commence at the Air Force pilot schools; this leads to significantly fewer female graduates overall.

Over a five-year period from 2010 to 2015, there were 578 commencements at BFTS. Women constituted less than 10 percent at only 50 commencements. This is compared with 528 males. Twenty-six percent of females at BFTS failed the course compared with 17 percent of males.

The higher failure rate of females at BFTS is shown at Chart 14.

Chart 14: BFTS pass and fail results of trainee pilots from 2010-2015 by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>FAIL Count (%)</th>
<th>Medical Suspension Count (%)</th>
<th>PASS Count (%)</th>
<th>SELF-SUSPENDED Count (%)</th>
<th>Total Count</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>13 26%</td>
<td>3 6%</td>
<td>33 66%</td>
<td>1 2%</td>
<td>50</td>
<td>100%</td>
</tr>
<tr>
<td>M</td>
<td>92 17%</td>
<td>10 2%</td>
<td>415 79%</td>
<td>11 2%</td>
<td>528</td>
<td>100%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>105 18%</td>
<td>13 2%</td>
<td>448 78%</td>
<td>12 2%</td>
<td>578</td>
<td>100%</td>
</tr>
</tbody>
</table>

At 2FTS there were far fewer females over the period from 2010 to 2015. Only 15 females commenced the course compared with 227 males. At 2FTS, the failure rates for females
were much higher than for males. Thirty-five percent of females failed compared with 19 percent of males over the six-year period.

**Chart 15: 2FTS pass and fail results of trainee pilots from 2010-2015 by gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Pass Count</th>
<th>Pass (%)</th>
<th>Fail/Suspended Count</th>
<th>Fail/Suspended (%)</th>
<th>Total Count</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>15</td>
<td>65%</td>
<td>8</td>
<td>35%</td>
<td>23</td>
<td>100%</td>
</tr>
<tr>
<td>M</td>
<td>227</td>
<td>81%</td>
<td>52</td>
<td>19%</td>
<td>279</td>
<td>100%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>242</td>
<td>80%</td>
<td>60</td>
<td>20%</td>
<td>302</td>
<td>100%</td>
</tr>
</tbody>
</table>

**3.3 Moderating and validating pilot test scores**

At the pilot training schools, trainees are assessed on their flying ability under three categories: preparation, technique and airmanship. The flying instructors assess students based on a Word Picture Assessment Matrix at Appendix B. Trainees are scored between 0 and 5 for each of the three categories.

The flying exercises are also assessed through three Level Codes. Instructors use the Level Codes as a way of assessing the complexity of each sortie. Once the level of complexity is established, the instructor is then able to apply the 0 to 5 score using a word picture to describe demonstration of the skill at each level. The process of assessment was described by a flying instructor at 2FTS.

> We try to be as objective as we can about assessment. So that word picture is really important. One of the conversations I have with the staff when they arrive, so they’ve got zero instructional hours, so I’ve had two thousand plus instructional hours, I say look at...the word picture. So when I’m not really sure about an assessment I’ll just look to the word picture and...that’s assessment.\(^{134}\)

A number of male and female pilots reported that the scoring process for pilot trainees is subjective by nature, and can therefore be skewed by unconscious gender and performance biases.

> I think the scoring is just so invalid it’s not even funny because it’s all based on one person looking at a word picture and making it as an assessment and a decision and people will make those decisions differently. So someone will fail a flight for missing a checklist and someone will get told you missed this checklist, don’t miss it next time. So there’s variation there and not only is there the unconscious gender bias but there’s an unconscious performance bias as well. So as an instructor as much as we’re all professionals and we want to do our job appropriately we’ll go and look at the previous write ups for that student, whatever they are, and we’ll look at their scores. So the first thing we get told to do is look at their general scores and so if that person is like sitting in the two-three range, so they’re scored zero to five, you’ll go so they’re a two student.\(^{135}\)

> I know there’s one instructor at Pearce at the moment who every time a girl flies with him he will undermine her... He’s still an instructor at Pearce, and one girl who has since failed, she’s not a pilot anymore, she would ring and say...I had form and I landed, and he’s like yeah, girls aren’t good at form. So he already has these biases before he even flies with the girls and then he reaffirms that negativity and then they perform to that negative standard.\(^{136}\)
Most training institutions employ assessment moderation and validation processes as part of their quality control measures. In vocational education and training for example, moderation processes are standardised and mandatory.

**Moderation** is the process of bringing assessment judgements and standards into alignment. It is a process that ensures the same standards are applied to all assessment results within the same Unit(s) of Competency. It is an active process in the sense that adjustments to assessor judgements are made to overcome differences in the difficulty of the tool and/or the severity of judgements.

**Validation** involves checking that the assessment tool produced is valid, reliable, sufficient, current and contained authentic evidence to enable reasonable judgements to be made as to whether the requirements of the relevant aspects of the Training Package had been met. It includes reviewing and making recommendations for future improvements to the assessment tool, process and/or outcomes.

Assessment moderation can be conducted in many ways. For pilot training schools, it may be necessary for qualified flying instructors (QFIs) to audio record their pre-brief, in-flight execution and de-brief sessions. There are various on-line calculators to determine how many trainee results need to be moderated in order to reach an appropriate sample size.

The University of Sydney describes a variety of methods for moderation and validation:

**Self-moderation:** Markers can be inconsistent within themselves, especially if there are many assessments. It is important to check back over scripts and exercises that have been marked to ensure that those marked earlier and later have been treated similarly.

**Expert moderation:** Sometimes an independent viewpoint is needed. This person could comment on samples of student assessments or on borderline or difficult cases, thus providing an independent perspective and overview.

**Peer moderation:** Markers meet to review their marking. This should occur early in the marking and preferably at other times during the marking to keep markers ‘on track’.

**Selecting exercises for review:** When numbers are small, all scripts or assessment exercises might be reviewed. When numbers are large, sampling is needed. Sampling can be random (possibly stratified within levels) or deliberate (e.g., mid-grade, borderline or problematic). The number of scripts sampled depends on many factors such as number of markers, variability of performance, tolerance of inconsistency, logistics, time and cost.

**Blind re-marking:** In this case, the moderator (expert or peer) is not informed of the previous marker’s judgment of a script or exercise. This means placing no marks or annotations that the second marker can see. Where any difference exceeds a threshold, especially across grade levels, discussion is needed to resolve the difference and reach common agreement.

**Confirmatory review:** This is often more realistic and more helpful than blind re-marking. The moderator (expert or peer) is completely informed of the previous marker’s judgment of. The reviewer’s task is to check whether they can agree with the previous marker. Discussion is needed where the reviewer cannot find the evidence to sustain the marker’s judgement.

**Resolving differences:** When a pair of markers cannot agree on a result, an arbitrator is needed. Recalcitrant markers may have to be replaced.
Follow through: Agreements about the standards applied to the assessable exercises need to be agreed at the beginning of each course. The message is ‘go and do likewise’.

In-situ marking: Some assessments are conducted in-situ (e.g. orals, presentations, field or lab work). Sometimes an audio-visual record is kept as backup, but the in-situ performance is marked, not the record. In those cases, it is desirable to have more than one marker and to reach consensus through discussion.

Moderation across courses: At a wider level, program coordinators need to monitor standards across courses and create linkages between staff in different courses to encourage greater consistency in assessment processes and application of common standards. Given the views of female pilots and QFIs about the variability of student pilot test scores, Air Force should consider moderating and validating its assessments using appropriate methods. Where possible, it may be useful to conduct gender-blind testing.

3.4 Scoring of sorties

The Air Force protocol for scoring sorties could be described as a deficit model. While trainee pilots receive a score for preparation, technique and airmanship; the overall score for the sortie will be the lowest score out of the three, not an aggregate or even an average of the three scores.

...there’s three things you’re assessed on, technique, airmanship and preparation, and then it’s broken down into what the sortie requirements are. So you can get a four for two of them, and then a two for one of them, and then that’ll automatically be a two as an overall... So it’s frustrating when you do really well in one part of it and then you stuff something up and then that has an overarching effect on the whole thing.

The continuous testing regime and the lowest score outcome for each sortie can lead to a high level of anxiety amongst trainees. Single mistakes affect the entire outcome regardless of how well other skills are demonstrated. This can be demoralising and affect confidence.

You have to be in a mental state if you do something [wrong] at the beginning of flight to go, ‘that’s alright, I can still maintain that’, as opposed to going ‘blow it’, and do really well in the rest of the flight, as opposed to just dropping the ball.

Being under so much stress, I think makes you perform better under certain conditions, but other times where like you’ve failed the third flight in your career, like if you don’t pass the re-fly you’re going to go an RV, you could probably get scrubbed, you’re not going to be a pilot, it’s, yeah that’s when it kind of all comes crashing down.

The scoring protocols for sorties are further narrowed by the requirement that extra weight is given to some sorties over others. Sorties at the end of a particular learning cycle or at transition points carry extra weight. These are sorties where advanced sequences are required and trainees have moved beyond the more general ‘aircraft handling’. It is likely that these sorties require advanced judgement and decision making. If trainees fail a weighted sortie, they receive an elevated warning and it may become the last opportunity to fail a flight. In some instances, failure of a weighted sortie means suspension.

Some sorties have less weight than others. So then when we get to a final assessment grade in order to determine their posting or their performance on course and therefore whether they’re suitable for fast jets or what they’re suitable for they all add up. So the early general
flying sorties which is their aircraft handling for want of a better term they’re probably point eight of the whole score whereas the more advanced sequences towards the end of the course are getting one point four times the weight of the datum score I guess.\textsuperscript{144}

Air Force pilot training schools should consider changing to an aggregate scoring model for the three assessment categories of each scored sortie. This could replace the lowest score outcome. An aggregate score may shift the psychological framing of the testing regime at pilot schools. It is more likely to encourage performance improvement rather than fear of making mistakes. Trainees are less likely to lose confidence mid-sortie if some of their decisions or techniques have been less than optimum.

...If you come back from a bad flight it’s quite demoralising and it’s hard to pick yourself back up after you’ve had that tough experience and get up the next day and do it again and try and do it better than you did previously.\textsuperscript{145}

\subsection*{3.5 Test stress and confidence}

Air Force pilot training schools impose an assessment gate at the end of every new learning skill or module. Trainee pilots must pass the assessment module before they move to the next. The training is set to a strict sequence and pace. It is not calibrated for different learning patterns or for difference in the pace of individual learners. Training cohorts move in a group. A lack of time to consolidate knowledge can be challenging for some students.

This point was made by a female trainee pilot at 2FTS.

I think the toughest part would be potentially always feeling under-prepped. So you have a timeframe and you have a curriculum that you have to stick to, and sometimes you’ll only have a certain amount of time and then it’s whatever you can prioritise within that time... Time-wise for I’d say three to four flights a week maybe would be probably good, because that would give you one or two days of consolidation in between.\textsuperscript{146}

Instructors spoke of the need to assess the trainee’s ability to pick up new skills within a timeframe and under certain conditions.

[What we are]...assessing [is] that individual’s ability to learn, their learning curve, because arguably anyone can be taught to fly a fast jet if you just invest enough time and resources... but that’s not going to set them up to succeed in the environment that we need to so they’ve got to demonstrate that learning curve.\textsuperscript{147}

Command at 2FTS explained that the designated timeframe for pilot training is based upon Australian historical precedent. Courses have been developed over decades of experience.\textsuperscript{148}

Our training system was built on World War II into Vietnam era, hard arse fighter pilots, cut no slack. My first operational tour was in Germany and we [were] still under the Cold War, it was full on. So it becomes self-perpetuating so that sense of I’m hard edged. And you could have conversations with some our senior leaders and yeah they really buy into this stuff. But there’s enough of us that now say, you know, maybe we could do it differently.\textsuperscript{149}

So we could graduate more people if we [are] willing to spend more time with them and willing to pump more resources into them but then historically it’s been proven that that’s the standard requirement, that’s what they need to possess to perform to a suitable standard out in the operational units.\textsuperscript{150}
There is considerable research into stress and the psychological impacts of failure. The research shows some benefit in a level of adversity that can lead to improved determination and performance. However, when the negative consequences are set too high, it can lead to the opposite. In learning situations, it is necessary to find the balance between motivating psychologies – both positive and negative.

Anxiety about testing characterises the testimony of almost all pilot trainees – both male and female. Trainees did not express fear about the complexity of flying challenges, rather, they expressed fear that would not be able to withstand the test stress and learn the flying sequences within the mandated timeframes.

But what the final test should do is it should highlight your ability to perform under pressure and it does do that but no-one does anything about that. You just either pass or fail and then they remediate you but they don’t say you have test-itis, like you really struggle with this test and no-one then gives you those strategies. You have to go and see the psychologist, they talk about what is happening in your life. Like there’s no performance coaching.

The trainee pilots endure learning stress over long periods. The stress has a number of components. One is the technical and focus requirements of performing at very high levels of concentration while learning and managing an aircraft. The other is the stress of keeping pace under constant test conditions.

The testing culture here is far more constant and chronically fatiguing than a three monthly check out in the unit. We fail to prepare them for the mental rigours of that testing nature, so our people are not mentally resilient at the age that they are, as a typical generalisation, and we lose a lot of people simply because of their fear of failure and their failure to cope with our testing regime.

[There is] training fatigue. People at the end of it just get tired of training, doing 2FTS for nine months and BFTS before that... Going to ACG is another two years... That’s pretty much what one girl on my course said, that she just didn’t want to do another two years of that, so that’s why she didn’t want to go through.

In an environment of constant testing, the test becomes a large focus of the learner’s frame of reference. This can detract from the development of flying technique or decision-making. For some learners, the test becomes inseparable from the contexts and activities from which it develops.

Flying’s a confidence game. You can really get inside your own head if you have a couple of bad days and you’ll start second guessing yourself and so it’s all the whole thing’s a confidence game.

Many of the female trainees described a gendered aspect to the testing and performance pressures.

A student will often develop the most when the pressure’s removed... Guys are happy to go out there and fall over themselves, pick up and keep going whereas girls are often, take time to make a decision which we can’t give them airborne because they’re looking for the right answer. Without a doubt, people in that category, males and females will perform better when the pressure’s removed so why don’t we do that here?

The CO said to me...rather than avoiding failure, dare to risk success. But they’re not going to risk success with the fear of failure in their heads. So take that away. And I’ll be the first
person to say that I successfully avoided failing. It will help everybody, but I think it will help
the girls disproportionately more.\textsuperscript{158}

Stress is recognised by Air Force Command as one of the factors preventing trainees from
optimising their resources and cognitive ability.

\ldots stress is part of our requirement. We try and manage that, but it is there. And you know,
typically in a stressed environment people start making mistakes. When they get really
stressed, the demand is greater than their resource, there’s a vicious circle there, and they
make silly mistakes and start doing stupid things.\textsuperscript{159}

According to U.S. Federal Aviation Administration, threat and stress do not promote
effective learning.\textsuperscript{160} Fear adversely affects perception by narrowing the perceptual field.
Confronted with threat, students tend to limit their attention to the threatening object or
condition. The field of vision is reduced, for example, when an individual is frightened and all
the perceptual faculties are focused on the thing that has generated fear.\textsuperscript{161}

The U.S. Federal Aviation Administration handbook provides advice for flying instructors on
this point:

Learning is a psychological process, not necessarily a logical one. Trying to frighten a student
through threats of unsatisfactory reports or reprisals may seem logical, but is not effective
psychologically. The effective instructor organizes teaching to fit the psychological needs of
the student. If a situation seems overwhelming, the student feels unable to handle all of the
factors involved; a threat exists. As long as the student feels capable of coping with a
situation, each new experience is viewed as a challenge.\textsuperscript{162}

Air Force pilot schools may be graduating a particular type of student who is highly resilient
to test stress while excluding talented pilots who do not operate well under test pressure.
This point was made by a senior combat pilot in an unpublished paper:

Remediation of performance issues and the mediation of stress are reactive, rather than
preventive, and often too late to address the underlying performance issues. The result is a
training system that passes trainees who have high cognitive resources and are resilient to
stress. The other outcome is a high failure rate of those personnel who are either unable to
demonstrate the required skills or to deal with the stress of the training.\textsuperscript{163}

Various learning theorists point out that adults try to avoid failure. Unlike children who are
more able to make mistakes and learn from these mistakes, adults have a dispositional
barrier and avoid mistakes at all costs.\textsuperscript{164} There may be a gender aspect to fear of failure.
Female pilots consistently pointed out that their male peers are more likely to take risks in
their learning and push themselves to develop skill. There is a large body of literature on
gender and learning preferences to support this view.\textsuperscript{165} Males tend to be more achievement
oriented, while females are more socially and performance oriented.\textsuperscript{166}

Boys will push it, they’ll go further and faster and they’ll go over and fall over the line, but
that’s where you really learn and develop as a pilot and the guys do that naturally a lot more
than girls do, so I think that’s why we’re all sitting in the middle and the guys are sitting at
the top bit there, so I think that part of the training is for me, a big plus to focus on.\textsuperscript{167}

QFIs, Command and trainees all reported the benefits of block training and performance
coaching rather than constant testing. There is a high degree of acceptance that this should
be the future of training at BFTS and 2FTS.
I think that the Air Force, there is...now a willingness to accept a culture of coaching rather than a culture of testing. I believe that sincerely.\textsuperscript{168}

I’m a firm believer in block training with an assessment made. It doesn’t have to be made by it’s not a test that you’ve achieved the minimum to progress to the next that you know you’ve got four or five missions in. Just like we do in remedial training remedial training is not assessed. So we actually see students perform pretty well... They do [improve in remedial] And it is a rarity for it to be unsuccessful.\textsuperscript{169}

Air Combat Group (ACG) Command expressed hesitation about changing the assessment framework at 78 Wing before the arrival of the new jets.

To change the whole curriculum for the next two years it’s probably not worth it. We’ve got the new jet coming.\textsuperscript{170}

There may be advantages to block training at 78 Wing in advance of the new aircraft. A new training and assessment regime in the short term may prepare instructors and trainees for the new platforms and give them improved systems for coaching trainees to reach the required competencies.

3.6 Testing for air combat skills earlier in the training continuum

At 2FTS, there was some discussion about testing for air combat skills earlier in the training continuum. These skills include air to air combat; a skill that can elude even the most talented pilot.

The way that you are skilling people is right at the end - they kind of get the pointy end of air to air combat for example - and then you’re scrubbing people right there, but they’re not actually getting opportunity all the way through to test some of the skills. And this is a cost thing for the Air Force because if it costs you $16 million to train somebody to the end point, and you’re scrubbing them weeks before they’re finished, because they can’t do air to air, [the question is]...why aren’t you giving people opportunity to do these different skills all the way through?\textsuperscript{171}

Assessing and screening for some of the more difficult skills of air combat earlier in the training continuum may reduce the risk of failure at the end of the training. The current sequence of fast jet training modules limits the scope for Air Force to enhance its predictive ability about which individuals will be able to perform the range of skills required to successfully enter ACG. There may be potential for more effective streaming of trainees if some of the skills are introduced earlier in the training sequences in a modified capacity.

This point was reiterated by a female pilot who suggested that female pilot trainees at 2FTS could spend a week at ACG and fly with an instructor in non-assessed flights. This may identify which female pilots have the potential and the desire to become fast jet pilots.

Three quarters of the way through pilots course [2FTS] have four or five ACG flights with the girls. It’s all non-assessed and you fly with an ACG pilot and it’s basically inconsequential to your actual flying training but go out and watch the girls, see who responds well in those environments and develop the tiger or whatever you want to call it and just push the girls. Spend the week flying with them and I think from that you’ll figure out which girls have the ability to go on to ACG.\textsuperscript{172}
3.7 Training of Qualified Flying Instructors

All QFIs in flying schools and squadrons are graduated pilots. Instructor courses are conducted over a 22-week period with the aim of graduating expert leaders and instructors capable of instruction and validation. The ongoing training of new instructors occurs through a form of informal mentoring by more experienced instructors.

You have to be here I think about a year and a half before you’re ready to be considered a highly proficient instructor so there’s a lot of mentoring that goes on with those new D-Cat instructors and a lot of that is actually staff meetings in this room. So before we’re about to go into the instructional phase it’s your wise old instructors that are standing up and saying here’s how to teach this well; here’s what to watch out for, so knowledge is passed on that way from the experienced down to the junior... 173

Given that the new instructors are trained pilots who undertake a relatively short 22-week course, there is good reason to assume much of their instructional practice is based on their own experiences as trainee pilots. The mentoring of new instructors by more experienced instructors means that the whole pilot training system and pilot instructional methodologies are highly iterative. This kind of system is unlikely to be innovative.

Instructors are pilots first and foremost; not trained educators. Experienced educators require a command of various teaching methods and knowledge about how and when to apply each method. 174 Most teacher training courses are significantly longer than 22 weeks. They vary from a year-long graduate diploma to four-year degree. In these courses, trainee teachers are exposed to various inputs, including information about the most effective teaching methodologies to match different learning styles.

A U.S. flight instructor points out that most publications available to instructors are high on technical detail and low on instructional technique in flying contexts.

I conducted a review of the standard publications available to trainee flying instructors to see if they had changed much in the last 30 years.... They haven’t. They are all very ‘thick’ with information on how to give a theory lesson on a white board, but very ‘thin’ on a useable airborne instructional technique. One book that I reviewed quite recently was a beautifully presented book of about 350 pages, utilizing the latest full colour computer graphics. It contained three and a half pages just explaining how to build up a vector diagram of the forces acting on an aeroplane in a climb, on a white board, but only two and a half pages addressing the subject of airborne instructional technique; that is, the technique an instructor uses to get his message across to a student in the confined and dynamic environment of an aeroplane cockpit in flight. The ‘standard’ CAA exams on the subject of ‘learning’ that a trainee flying instructor is required to pass before graduation, are also very ‘thin’ on airborne instructional technique. 175

QFIs report that the Flight Instructor’s Course is primarily focused on teaching future QFIs to instruct on the technical aspects of flying.

The Flight Instructor’s Course...briefly approaches the learning styles of students, but the instruction model that we use is a generic instruction model that’s used everywhere... We get taught how to instruct quite well I believe, but what we don’t get taught properly is how to understand why that student is not performing at their best. And that’s the difference between a junior instructor and a senior instructor. Even some of the senior guys don’t get it. 176
The area that FIC focuses on is the technical stuff... Flying Instructors Course is run by Central Flying School, that’s where instructors go to learn how to instruct. It’s very much focused on the technical; this is how you fly a loop, this is how you teach how to fly a loop, use this model... We weren’t even taught how to do a de-brief or a write-up at all. You don’t do a single write-up at Flying Instructors Course. I’m just gobsmacked by that, because it’s so incredibly important, that close-looped feedback... CFS need to change how they train their QFIs. Need to implement diversity training.

They need to be educated that women think differently not only in general but in the air.

Both trainee pilots and Command emphasised the importance of the QFI to the success of the trainee as well as the importance of a trusting one-on-one relationship with the trainee.

There are still QFIs saying to girls today: ‘you’re shit at that’... Today! The only way to change that is to capture the newbies and say you can’t say that. CFS desperately needs to change how they do business. How they train their QFIs.

We need female QFIs at CFS. No one wants to go there.

...we know that some instructors naturally click with some students and where we can we’ll pair them up, particularly if a student is having trouble. We’ll allocate to them the instructor that we can see will most benefit their particular learning style and personality because flying is very much a personality thing. People’s personalities really do come out in their flying so it’s a very subjective mix...but it has to be done because some people just don’t get on with others or don’t learn as well with certain styles, so we can become the best instructor in the world but there will be some people who I will have difficulty instructing and as long as we’re smart enough to recognise that then that’s what we do...

I would say that [instructors] are vital to how you go. There’ll be students that always will get through course regardless, I think there’s other students that will probably never pass course... Most people sit in that middle band that part of it depends on their experience and how they and a bit part of that is what instructors they get...and how well that instructor adapts to their learning style and is able to get the most out of them.

QFIs are assessed annually by Central Flying school. During these assessments, they are required to demonstrate the skills of flight instruction.

[Instructors] get annual reviews, annual checks [by] Central Flying School... So they fly out from East Sale, Tamworth and they will hop in the aircraft...and they’ll quiz them, they have to do a written test, and then they’ll say...teach me a sequence...teach me a barrel roll...and then they will do something else...they’ll say right I’m now a GF-16 student, and I’m going to do a PFL, and they’ll do a PFL and then you’ll have to de-brief them on what they’ve done wrong and tell them what you would assess them as, so mark them. And then you’ve got to take another student, a practice remedial student.

Members reported that these annual checks are focused on assessing ability to instruct pilot trainees on the technical aspects of flying.

When Central Flying School come and do their annual checks on the QFIs at Tamworth and Pearce, once again it’s very technical, they call them ‘your direction of attention points’...

Members also stressed the benefits of providing instructors with continuous training and development to further enrich their skillset.
There needs to be more regular training about all of these issues...how to get the most out of students, pushing them. Leadership stuff, refreshers on the instructional style...where they're continuing to develop their skills and just refocusing. You get very busy... A lot of the bigger picture stuff can get dropped off, so if you're having regular development things happening then I guess it just refocuses everyone to what they're trying to achieve and trying to get out of it.186

The Flight Instructor’s Course could be improved by a review of the curriculum for focus on skills such as assessing the learning styles of trainees and adapting instructional styles to meet these needs. Focus is also needed on explicit instructional techniques and teaching strategies while airborne. Where required, revise the curriculum to increase content about teaching methods including: visualisation strategies; performance coaching in the cockpit; skill modelling; and de-briefing techniques. QFIs need to be well acquainted with the different learning styles of the new digital generation.

One annual QFI check by the Central Flying School is reported to be insufficient to monitor the competencies of instructors over time. QFIs would benefit from professional development opportunities on at least two occasions annually. This could be in the form of facilitated sessions with qualified educationalists. Regular peer support sessions on teaching methods and strategies will also enhance teaching skill and confidence and is an important quality control technique. QFIs are in a good position to identify their training and professional development requirements.

3.8 Performance Enhancement Program

A form of performance coaching has been trialled in the fast jet program at Air Force Base Williamtown. The Fast Jet Performance Enhancement Program (PEP) operated in 2015 at the 78 Wing Initial Fighter Combat (IFC) course. It was launched in January 2015 and was expected to conclude in December 2015. As there are no female trainees on this course, the program has only been trialled with males. The objectives of the 78 Wing PEP are to:

- Educate fast jet aircrew on performance enhancement concepts and techniques in order to enable aircrew to optimise their personal performance during fast jet training;
- Train and employ instructors as performance coaches to assist trainees with maintaining optimum performance during fast jet courses; and
- Utilise performance psychologist support for fast jet training as a proactive measure to improve trainee and instructional performance.

Performance coaches are selected instructors who are trained in performance coaching techniques and assigned to IFC trainees in order to proactively assist trainees with optimising performance in fast jet training. Those participating in the program could see some benefit, especially in managing anxiety and being able to access coaches who could answer questions.

I think it probably will help people deal with their own problems and anxiety about [their own] performance.187

I guess if you formalise the process that everyone had a dedicated military instructor that was their go-to guy...that they know they can always go to talk to and ask questions, that’d be beneficial.188
Most trainees at 78 Wing explained that there would be greater value in offering the PEP to trainee pilots at earlier stages of the training continuum; during BFTS and 2FTS.

[By the time PEP is introduced] we’ve already developed our own study skills, our own mental prep, our own pictures... Implement this earlier and it will help.\(^{189}\)

The hardest part of pilot’s course [is] early on, you need to learn how to learn.\(^{190}\)

Others were less enthusiastic and had negative views about the effectiveness of the program.

Why do we need this, it’s a bit of rubbish... it’s not something that you’re going to develop from one lecture, five lectures.\(^{191}\)

We know there’s a path if we feel bad about things, we go talk to a chaplain, it would be akin to now going, you have to go to church every day to make the pilot’s course work.\(^{192}\)

One trainee believed the stigma of seeing a psychologist may explain the reluctance of trainees to support the PEP.

There is still a certain stigma around seeking psychological help and when it’s thrown at you, it’s kind of, people take it...insulting their pride or I don’t need this, I know how I learn... So [I think] it’s...a broader social issue that there’s that stigma around seeking that assistance and then that’s why the reaction is generally...pretty negative when it’s thrown at you.\(^{193}\)

In an unpublished paper, a senior Air Force leader considered the issue of stress, testing and performance coaching in some detail. He favours an approach to training based on performance psychology and coaching methodologies. He points to sports performance psychology as a potential mechanism to optimise performance in fighter aircrew and trainees.

Rather than maintaining a train and test culture, the understanding and use of performance psychology and performance coaching techniques should enable the Air Force to evolve its culture to a train, develop and achieve culture.\(^{194}\)

There may be benefit in extending PEP coaching throughout the pilot training continuum. Rather than using the psychologists at points of poor trainee performance, there may be benefit in using performance psychology throughout the course to enhance motivation, modify stress and optimise-performance.

**3.9 Visualisation in flight preparation**

Female pilots spoke of the importance of visualisation to flying. This is sometimes described as ‘chair flying’. Many said that they had not been taught the skill and it was not emphasised in their training as a preparation technique. According to research, there are gender differences in spatial, three dimensional visualisation. International studies have shown that males are more likely to have these skills than females.\(^{195}\)

Increasingly, visualisation is being used in sports psychology with the understanding that the brain can rehearse sequences of activity in order that they be replicated in actual scenarios. This form of rehearsal is particularly useful in aviation because the pilot needs to be in a relaxed but alert state while flying and visualisation is a rehearsal of this mental state as well as preparation for sequences of activity.
Visualisation in pilot training gives the trainee the opportunity to physiologically mimic a sensory experience without external stimuli. This is important in flying as many sequences of activity are necessary.

One female pilot reflected on her experience of spatial learning at ACG and concluded that her learning needs were quite different to those of the male trainees.

...when I got to doing the air to air component of the fast jet training, there was the first time that you had to rely solely on that spatial practice, so sitting there and imagining and doing it and while I’ve used it to a small extent through the rest of my training, I hadn’t relied on it heavily because I was able to use those other skills that come more naturally to me and looking back, I think that was one thing that really I did, whereas the guys, they just do it naturally, but no-one taught me how to do that or no-one recognised that because it just happened, guys have it, so they've never come up with someone that they have to sit down and teach...they just assume everyone can do it, but I think the girls don’t have that innate ability as naturally...\(^{196}\)

Female pilots reported that they respond best when they know exactly what is expected of them. They were adamant that the training system should not be adapted to accommodate them in any overt way because they fear recriminations about gender bias. Rather, they want the learning requirements to be transparent so they are not second guessing the measures for success.

One female pilot instructor reported that her male trainee pilots have more natural affinity to visualisation techniques than her female students. She reported that during the flight pre-brief, one trainee simulates the flight by rehearsing the moves with his eyes closed using a visualising technique. He explains the sequences of the flight as he moves his hands and feet to mimic the movements required for the actual flight. This student is performing well on the course.

It’s a massively important skill and I didn’t realise the importance of it until much later... My student at the moment that is quite exceptional...he comes and sits down in my office and we go through the pre-flight brief and I say ok, talk me through your initial PFL actions...and he’ll sit there with his eyes closed and go through the whole sequence as though he’s in the aeroplane...but not everyone does that. It’s not taught in the syllabus.\(^{197}\)

In order to optimise flight training for women, Air Force instructors should explain and teach visualisation techniques to all trainee pilots. Pre-flight briefings and post-flight briefings should include components of visualisation as a training and learning technique. It can be used as a way to remediate errors and to rehearse sequences of movement.

### 3.10 Explicit teaching and learning methods

While there are conflicting theories about which instructional modes are best suited to female and male learners, there is a solid body of evidence about the best instruction for adults. Adult learners develop confidence when the learning requirements are made explicit. Adults are more likely to take responsibility for their lives and decisions and perform best when they have a level of control over their learning.

Adults prefer to have an understanding of the learning requirements and the learning context in advance, as this provides the opportunity to self-regulate.\(^ {198}\) For these learners there can be a rapid acceleration point after particular inputs and time.
We’ve certainly seen the instance where there’s someone who’s just struggling, just struggling. We sink a bit of extra time and effort into them and then suddenly it clicks, the light bulb comes on and they’re back on the horse and they’re away and racing...and that doesn’t mean that we can always get the best result because we can’t give everyone as many resources as we would like to give some people who we think we can save. Now we dance around that but it’s not easy to suspend someone from a course.²⁰⁹

A learning environment that provides trainees with opportunities to identify their strengths and weaknesses is more likely to engender confidence and an ability to scaffold new skills and knowledge.²⁰⁰ The test scores of females at both BFTS and 2FTS give QFIs some important information about the areas where females need to focus their learning attention. Of the three areas of sortie assessment, females score lowest on flying technique at Chart 16.

**Chart 16: 2010-2015 scores of the last five sortie assessments flown by female trainees at BFTS and 2FTS**

<table>
<thead>
<tr>
<th></th>
<th>Average of Preparation</th>
<th>Average of Technical</th>
<th>Average of Airmanship</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>2.95</td>
<td>2.13</td>
<td>2.31</td>
</tr>
<tr>
<td>2FTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>2.91</td>
<td>1.99</td>
<td>2.24</td>
</tr>
</tbody>
</table>

Trainees need opportunities for self-assessment so that they can identify their learning needs. Once they have assessed their needs and their preferred leaning style, QFIs should adapt the teaching and learning methodologies to the needs of the trainee.²⁰¹

I think there needs to be that realisation that everyone learns differently and it’s not just one stock standard personality that you’re bringing through. They’re recruiting a broader, diverse range of people and especially with learning styles I think everyone is individual. A lot of people understand that, but I think there’s also the idea that there’s one set way that you should learn and there’s one set way of doing it, so you should follow that. If you don’t fit into that, that is sometimes challenging. So being open to the idea of that - they introduced it with us - by getting us to do a personality and learning style report as part of the performance coaching, and so the instructors initially took that on when we first went to them. But as soon as you change instructors it doesn’t go with the next instructors.²⁰²

A flight instructor from the Navy explained the need for different modes of instruction and questioned whether there is enough flexibility in the fast jet training environment.

I was a struggling student and I had to work my butt off to get through and I think that makes me a good instructor because I can look at students and go I’ve been there; I know what it feels like. What can I do to help you? Or if they weren’t getting it, I’d go well what am I doing wrong? What aren’t I seeing? What should I need to change in the way I’m teaching you to fix it? Some guys respond better to being yelled at; some guys respond better to being guided; some guys respond better to being given lots of responsibility. It just depends. You sort of assess the character and have to change the way you do stuff for that, but I don’t know if from the fast jet guys I’ve met, they’re all one mould. I don’t think they get that if someone does learn slightly differently they need to have that flexibility within their structure, within their culture to actually adjust to do that.²⁰³
Adult learners prefer to be able to test a prediction or a skill before being tested. For people who thrive in contextual learning contexts, the ‘ah ha’ moment when theory and practice are integrated, may only occur when a certain threshold of experience and confidence is reached.

I struggled at the start of 2FTS with confidence and I got really bad. I just got so nervous. We (instructor and trainee) worked through a lot of personal growth, for want of a better term. So you know my grasp on course when I started was really low and then all of a sudden it clicked and I had the confidence and then I did really well. But that mentorship was much more important for me. The stuff we did wasn’t hard, I just I needed the confidence to be able to do it, if that makes sense.

A female pilot reported that pilot trainees can also benefit from modelling the actions and decisions made by their instructor. This is an important way to increase confidence and improve technique.

We’re asked to push ourselves, and we’re given the opportunity to push ourselves, but we choose to take the safer option. So I’m flying around on this arc and I’m coming around to land, I know I’ve got to be at a certain speed and I’m not... The likelihood of me getting on the ground is not so good... The captain who I was flying with took over and I thought, ‘there is no way on God’s earth we are going to do this’... Sure as hell we did. We did it. I wouldn’t have believed it if I hadn’t seen it.

In this instance, the female pilot was able to see what the plane could do at a certain speed, and was able to replicate the skill once she had seen it modelled. She described this moment as one where she developed confidence through having a technique and a skill modelled.

This modelling technique is at odds with the preferred instructional technique at 2FTS. Command explained that they encourage flight instructors to remain as silent as possible during flying sorties at 2FTS, so that the trainees take control of decision making. This has been described as a minimal instruction or ‘clean instruction’ model.

So for me [as the flying instructor] the decision airborne is I can pipe up now and give this guy some really sage advice or the other alternative is for that student to make that decision turn left or do whatever, let them deal with the consequences of that because they’ll learn more from that versus me giving them the interference or that advice at that particular time which I thought was appropriate.

While Command at 2FTS believe that the trainees learn more from mistakes, there is significant evidence that this is not effective for many adult learners. In addition, female pilots explained that they prefer more instruction rather than less. It may be useful for Air Force to evaluate the efficacy of ‘clean’ instruction.

I’d been requesting an instructor change, ‘cause the instructor I had, we just didn’t click, for a start he would not explain things...but he wasn’t interested in trying, and I flew with [another instructor]...and I flew alright... And I’m pretty confident if I didn’t get that instructor change I wouldn’t have passed the next couple of flights... When I flew with [a different instructor] I was like, wow, this is different, explained it the way I understood it, I’m actually not an idiot because I couldn’t understand something.

Girls are probably inherently a little bit more conservative, so you need to perhaps encourage that a little bit more directly with the female students, saying this is actually what we want you to do, this is what we want out of you, rather than... At the moment the system
is just designed for guys and that’s something that probably comes a little more naturally to those high performing guys... I think the girls probably just need a little bit more, sometimes a little bit more guidance...\textsuperscript{210}

Explicit instructional techniques may assist female pilots to understand what is required in terms of demonstrating ‘tiger’ or ‘controlled aggression’.\textsuperscript{211}

I’ve never been shown what tiger looks like, so through that whole training system, there was this expectation that I needed to be an aggressive pilot or show this tiger but no-one had ever given me an example of what that was until I got to the operational squadrons and I saw how those guys could go and fly and approach your tiger.\textsuperscript{212}

Female pilots spoke of the need to make the quality of ‘tiger’ explicit in the training curriculum.

and... I think it would be really worthwhile in terms of packaging the message potentially in the Air Force, to step behind the curriculum and look at the training management package because I’d be really interested to know what the learning outcome is for displaying the tiger.\textsuperscript{213}

As a student, you are often told you need to be more confident, and as an instructor I would hear other instructors saying to their female students, she just needs more confidence or you need to be more confident. The definition of confidence, what is that? We had to learn it the hard way and the long way. You've got to self-teach yourself. But it takes years... Professional coaching on that would be advised...\textsuperscript{214}

Given how important confidence is in how ACG candidates are assessed – are they confident, do they have tiger... If it’s that important, then it should be something that’s talked about during every de-brief.\textsuperscript{215}

‘Tiger’ may be a difficult quality for female pilots to demonstrate if they have absorbed the Defence Force culture that places value on conformity. Safety is also emphasised throughout the pilot training cycle. Many women struggle with the powerfully masculine messages of military culture. On the one hand, they have the desire to conform in their environment and not appear as the female tall poppy in a sea of men. On the other hand, if they want to succeed in air combat, they must find this very quality. Instead, many women trainees attempt to ‘fit-in’. They try variously to be one of the boys and become part of the middle ground, rather than to stand out.

I think in being a female you’re surrounded by a lot of alpha guys, and you change your personality for the situation. So you have to adapt to each situation.\textsuperscript{216}

The use of the term ‘greying out’ or ‘being grey’ is a common one amongst female military personnel. Being ‘grey’ is considered a survival technique to endure a hyper-masculine military culture.

I decided that the organisation wanted from me...was that grey person. The organisation never asked and in retrospect, I now know the organisation never asked for that, implicitly or explicitly - and when I got rid of that person, I did exponentially better, both in flying and in leadership.\textsuperscript{217}

Women pilots spoke of trying on different personas in order to adapt or succeed in the masculine military environment.
One female instructor argued that female trainees need to feel authentic in order to achieve their best performance as pilots.

If you start talking to people early about authenticity and they actually understand what it means, it’s very, very powerful, it’s just that normally, if you go through the normal pathways of learning stuff by error, you don’t really come upon authenticity until you’re like 30 or 35, 40 and some people never get it.

...I now speak to girls relatively often and when I do, I make sure I always end with authenticity because if I had staged my inauthentic self, that I was for a few years, I would never have been able to do what I have done. It’s that flipping the switch that’s allowed me to get where I am...

The achievement of ‘tiger’ requires trainee pilots to take a mental leap from the instruction they have received throughout military training, to a new level where they take risks, go beyond what is routine or predictable and explore a new level of autonomy within safe limits. After certain military conditioning, the expression of ‘tiger’ may be counter-intuitive for some, and this may explain the confusion that female trainees face in understanding or exhibiting ‘tiger’.

Female pilots discussed their tendency towards safety rather than risk-taking. They argued that female trainees need to be encouraged to take risks, and even to fail along the way, in order to develop the ‘tiger’ qualities.

...if we’re going to address this tiger and ability to develop people...we put so much time and effort to get towards that last ride and then you’re failing, and women, we know, we want to stay safe generally speaking, like we always go for the safe option, so I’m never going to push myself beyond it, it’s something I encourage in young women [now]...is really push that boundary because when you push yourself, you do fall and you know how you recover and what you learn from those lessons are invaluable and that ultimately develops you...

Female pilots report that ‘tiger’ is a difficult concept to teach and it is one which comes from experience, maturity and the ability to back oneself – to make decisions and to follow through with those decisions. Female pilots described benefit in being able to take risks and push themselves, to grow in confidence naturally within an environment that enables them to push boundaries.

I think girls need to be helped to push themselves a little bit more in perhaps a less assessed or less risky environment, so that they can naturally develop that ability to be able to push themselves, find their own boundaries, so it’s necessarily tiger but we have to develop that because...it doesn’t come naturally to girls and it comes naturally to guys.
...The guys will go in and smash it in a way, but it was interesting... [A] girl won’t apply for a job unless she thinks she’s 100 percent qualified to do it, whereas the guys will just give it a crack and see how they go...it’s a self-belief.223

...If I know that you know what, [it] doesn’t matter what I do, I can really screw up today, but you know what, I’ll learn from that and then I’ll get back and I’ll go hey, I had a great time, I pushed that aircraft, I learnt what I could do, the instructors at the end of the day then see that mettle come out, if you want to talk about tiger, that’s when I’ll show you what I can do, it’s a no brainer.224

But I’d go further and say it’s the ability, somebody needs to tell you - you have the ability to control this, just make a decision and back yourself and that’s a very difficult thing for women to grasp because we like to see what the outcome is ...225

A key question for ACG is whether pilots can be coached to achieve ‘tiger’ or whether they think it is an attribute born of ‘raw talent’ and an A-type personality. A female pilot described the need for experience and ‘no-score rides’ so that women can push their limits and explore their capacities.

I don’t want to fail, but you know I actually made a conscious effort in this conversion to push myself and push those boundaries, even on my final check ride I did just before I graduated, was push and I mean I busted through what I had decided was my limit and I pushed through that, yeah but I learned a lot about that, if we offer and we could do this across the board, offer like that you have in the syllabus Nav 1, Nav 2, Nav 3, Nav 4; and Nav 4 is going to be a no-scored ride, because the scores are everything to people on course, if you say a no-score ride, we’re going to give you a free ride and that free ride is just for you to push, I want you to see how far you can get this aircraft off track...226

Female pilots also reported that they would like more instruction on leadership, especially as they move from procedural and safety focussed flying to situations that require higher levels of autonomous decision making.

...leadership for the past 30 years has by default been taught to the male brain, so males typically have [it]...male leaders who are in the CEO positions in our and other middle management positions default when they look for the new leaders and new people to promote...but that’s not taught, so women aren’t taught it, so women get overlooked, not because they don’t have the skill, not because they don’t have the ability, they just haven’t been advised and mentored and taught it... In the piloting world, we’re not taught to what our weaknesses are, it’s not that we don’t have them, it’s just that nobody’s ever sat down and said where are men and women different and it’s okay and let’s focus on those strengths, let’s see if that makes a difference.227

In summary, female pilots report that Command and QFIs have a role to mentor, model and explicitly instruct female pilots and trainees about the requirements for flying success if they are to see women successfully graduate into squadrons at ACG.
<table>
<thead>
<tr>
<th>3 Training and assessment</th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female trainees are less likely than males to graduate from both BFTS and 2FTS. From 2010 to 2015, in the last five assessed sorties, female trainees at BFTS and 2FTS scored lowest on technical skill.</td>
<td>Provide more opportunities for female trainees to develop technical flying skill by modelling skills and flying techniques, with explicit instruction on technical requirements.</td>
<td></td>
</tr>
<tr>
<td>Female pilots and QFIs report subjectivity and variability in trainee assessment scores. Assessment moderation and validation processes are widely used in training institutions to ensure quality of assessment and harmonisation of standards.</td>
<td>Moderate and validate pilot school assessments using at least two types of review for each pilot course. Where possible, institute gender-blind testing.</td>
<td></td>
</tr>
<tr>
<td>The lowest score of the three assessed aspects of flying determines the overall result for the tested sortie. Many trainees describe this as a deficit model that adversely affects their confidence.</td>
<td>Provide aggregate scores for tested sorties rather than the lowest score of the three assessment areas.</td>
<td></td>
</tr>
<tr>
<td>Fear of failure and test stress is creating a significant confidence problem at Air Force pilot training schools. This stress is an impediment to skill development.</td>
<td>Revise the constant test cycle. Increase the number of non-assessed flights. Institute block training with randomised, ‘undeclared’ assessed and non-assessed flights.</td>
<td></td>
</tr>
<tr>
<td>Research into adult learning shows that adults prefer to take control of the learning process and understand their preferred learning styles.</td>
<td>Provide opportunities for trainees to determine their preferred learning styles, strengths and weaknesses at the beginning of each pilot school. Ensure that instructors are briefed and negotiate instructional preferences with individual trainees. Require that instructors explain the learning expectations and teaching and</td>
<td></td>
</tr>
<tr>
<td>Instructional methods at every stage of the training. Provide opportunities for trainees to provide feedback to their QFIs about the learning experience.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilot trainees and some QFIs report that they prefer a coaching rather than a test and assess environment. Command at 2FTS favour a ‘clean’ or minimal in-flight instruction style based on a theory that students are more likely to learn from mistakes. Female pilots explained that they do not respond well to this mode and prefer explicit instruction. Shift the teaching focus of the QFIs to performance coaching aimed at developing trainee competencies rather than the clean or minimal instruction style that is current practice at 2FTS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visualisation is an important skill for flying. Females explain that this skill comes naturally to males but that they need to be taught visualisation techniques to help them improve their flight preparation and technique. Increase training techniques on visualisation skills throughout the training continuum including modelling the skill and technique.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female trainees prefer changes to the overall training system that acknowledge diverse learning styles rather than programs specifically designed for women. Ensure that when changes are made to the training curriculum or to instructional approaches, they are gender neutral and emphasise different learning styles rather than assumed gender requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female pilots explain that they improve with time and experience. They would welcome coaching to assist them to exhibit controlled aggression (‘tiger’) in the cockpit. Provide coaching and assistance in the skills of controlled aggression (‘tiger’) in flying schools and squadrons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females at 2FTS with potential and desire to become fast jet pilots would benefit from an opportunity to spend a week at 78 Wing to fly with an instructor in non-assessed flights. Gauge the interest and ability of female trainees in fast jets by providing a week-long opportunity at ACG where they can fly with combat pilots and observe these skills in non-assessed flights.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue</td>
<td>Recommendation</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>There are no female flight instructors at Central Flying School. There is also limited or no instruction about gender diversity.</td>
<td>Ensure sufficient gender representation among QFIs at Central Flying School and provide gender diversity training for all.</td>
<td></td>
</tr>
<tr>
<td>QFIs report that the Flight Instructor’s Course is focused on teaching the technical aspects of flying and has insufficient focus on teaching methods relevant to different learning styles and needs.</td>
<td>Review the Central Flying School Flight Instructor’s Course for content on teaching methods that include explicit instructional techniques. Where required, revise the curriculum to increase content about teaching methods including: visualisation strategies; performance coaching in the cockpit; skill modelling; and de-briefing techniques.</td>
<td></td>
</tr>
<tr>
<td>Annual checks by Central Flying School are insufficient to meet the professional development needs of QFIs.</td>
<td>Provide professional development for QFIs in flying schools on at least two occasions annually that include facilitated sessions with qualified educationalists. Institute regular QFI peer support sessions on monitoring and improving teaching methods and techniques.</td>
<td></td>
</tr>
<tr>
<td>Air Force has not evaluated its training regime to assess whether the timelines for learning are achieving optimum results.</td>
<td>Evaluate the duration of all courses in the Air Force pilot training continuum with a focus on improving the overall graduation rate of pilots with high cognitive ability, resilience to flying stress and fatigue, and high level strategic thinking and capacity.</td>
<td></td>
</tr>
</tbody>
</table>
4: The culture at Air Force and impacts on women
4 The culture at Air Force and impacts on women

Women don’t need any more mental shift, don’t need any more courses, you don’t need to be told what’s wrong with you... Sure we need to identify...this and this and this...but we need to teach men to think about women as equal but different, we think differently, therefore please teach us differently and we’ll reach the standard that you want...228

The pilot training system at Air Force is predominantly populated by men and the numbers of women have only slowly increased in recent decades. Historically, the pilot training system and workforce was the exclusive domain of men. This didn’t change until the late 1980s. With a long male history and a large male population, the culture at Air Force has evolved to reflect a single gendered experience.

While female pilots report that Air Force makes efforts to treat them equally, they describe a culture that ‘diminishes’ women and judges them by a male standard.

These are girls that come in, and they are smart, they’re coordinated, they’re usually quite sporty, they usually have leadership skills in their life, whether it’s at school or in sports, you know, they’re high achievers to get onto pilots course. And somehow we shrink them... We shrink them down...229

A summary of their feedback about the culture is as follows:

- Being female has pejorative connotations at Air Force – both in the training environment and in the squadrons.

- Women experience significant backlash when any measures are designed for them, including the reduced Return of Service Obligation (ROSO).

- It is exhausting and stressful for women that they are continually identified by their gender – particularly when they make a mistake or when they do anything out of the ordinary.

- The forms of confidence and aggression that are rewarded at Air Force are masculine and this includes the kind of behaviours that are expected for successful flying in the cockpit.

A common view from male personnel at Air Force is that the culture adapts to women and does not contain impediments to their progress.

For me, I don’t necessarily think that [females learn differently to males]. I just think there’s a spectrum of people and as X said, we adapt our style to the individual because we get to know them and certainly I’ve instructed females in the past and I have adapted my style to suit their needs or their particular way of learning, particularly in a debrief because the debrief is where the true learning happens.230

I believe there is nothing to prevent a female trainee to get through fast jet training – culturally or gender equality wise.231

There’s certainly no barrier from my perception here on the squadron... Gender has no bearing on it at all.232
...We’re trying to bring everyone along and I don’t think that there is a wall in the Royal Australian Air Force that’s going to stop a woman who is qualified to become a fast jet fighter pilot. There’s not. 233

This Section of the Report will look at the culture at Air Force in both the pilot training schools and in squadrons.

4.1 Views about Defence Force culture

Despite the best intentions of Air Force, there is no getting around the fact that military environments, almost by definition, are hyper-masculine. All aspects of military bases reflect male images, male leadership, male achievements and male sensibilities. Any foyer of a military environment is likely to contain several portraits of senior male leaders. Images of women leaders are a rarity. Women make up only 3.3 percent of Air Force pilots and these numbers are reflected in training schools, squadrons and Command positions.

It was so easy to isolate me, ostracise me and pick on me because I was so different from everyone else. 234

So it made it really difficult. So if you could, I’d hate to see at the detriment of a girl getting on course at the right time because she wasn’t paired up with another female, but where possible I think we should be aiming to do that. 234

It’s 99 percent guys and you, and that’s going to be a tricky situation and it’s just another stress. 235

Women described the culture at Air Force as hostile in many cases and as a place where they face a continuous struggle for acceptance.

There were people when I was on pilots course who were instructors at 236

over my dead body will a woman ever fly fast jets in this Air Force’. And they’re still around... They’re still in the system somewhere, and those attitudes don’t change. Maybe the way they voice them, if they’ve got any sense about them, will have changed... 237

tell me at the bar, ‘So, what do you want to do?’ ‘Oh, fast jets all the way. I’ve always wanted to do it’. He’s like, ‘Yeah, we’ve done a good job so far of keeping females out of the fast jet system’. Ok, got it... As much as you believe in something, when the people around you who make those assessments or decisions, or whatever, are saying those things to the people that you’re on course with, and in general, at some point you’re going to start doubting your own ability. 238

Many women described the isolation of being an absolute minority.
I definitely found it was an issue, because I went through... And I went from being quite isolated, pretty lonely, to having the best social life in the world and being immensely happy with my job, and happy to turn up to work every morning.  

You certainly do feel isolated as a young woman I guess. I didn’t really have anybody to help me through those, I was 20-21, during that time and you’re obviously growing...relationships and all that sort of stuff and in that way it was very isolating in that you don’t have any exposure to the real world, to what a real female’s life is like...  

The gender isolation can mean that female members are not included in the social life of the training school or squadron.  

I find it quite lonely because men socialise in a particular way and they get their camaraderie and their sense of belonging from their banter and I’m included in that, I join in their banter and I’m welcomed by the vast majority but it doesn’t meet my need of socialising. So I can leave after a day’s work feeling, still feeling a level of isolation so I have needed to build a group of friends outside the unit because my socialisation needs are not met by this unit.  

...I think the way a female acts, behaves, all through pilots course is actually largely on her peer group there because you don’t get through without that peer group support... I was lucky I had a good experience, I think other girls have real problems fitting into the peer and tapping into the resource through pilots course and it’s so hard, we can’t do much about that until you get more girls in the mix and all of this stuff disappears, as soon as there’s female instructors and the group’s 30 percent girls, it just won’t be an issue...  

Overwhelmingly, female pilots and trainees described the necessity to adapt to the different gender environment. The dominant gender can be a powerful influence in setting the tone of the workplace or training environment.  

There’s a specific culture in every squadron and every community that you’re going to go to so your maritime guys, your airlift guys, like your Hercs and your C17s, there is even just aircrew, there’s going to be a culture... There certainly is a lot more arrogance in fast jets. I don’t think it’s prohibitive for females by any stretch. Hard to comment because I guess I hit Air Combat Group when I was... so it’s weird because I can sort of see it but I also am sort of okay with it, but I also see maybe it’s got problems...  

I was talking to my OC about it, he said ‘institutionalised masculinity’ and I went yes, there certainly is a little bit of that but again I kind of also have accepted it. I fit the mould though. I fit military quite well, I always have.  

When asked whether there were aspects of the environment that made it harder for a woman to succeed, 54 percent of female survey respondents reported that it was not more difficult for them. Twenty-three percent of female respondents agreed that it was harder to succeed and a further 23 percent were not sure. Males were more likely to think it was an equal environment. Seventy-five percent of males responded that it was not harder for a woman to succeed in the work or training environment.
Chart 17: Are there aspects of your work or training environment that make it harder for women to participate and succeed?

<table>
<thead>
<tr>
<th></th>
<th>All*</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0% 10% 20% 30% 40% 50% 60% 70% 80%

* This data includes a respondent identified as gender X

When asked to explain the difficulties in participating or succeeding, female pilots and trainees described their training and work environment as a place where they feel closely scrutinised. They explained that if a woman made an error in training, her gender was always identified. The incident would be described as: ‘a female did this or that’.

An instructor said to me: ‘there was a female on a course last year that has problems with orientation’. I thought: ‘ok cool, want me to show you a list of males that had issues with orientation’.

In a way, if you’re with another female and they do something bad, you’re probably more inclined to think, phew, that wasn’t me. Because every mistake that you make is remembered and amplified forever. And that’s just the nature of being the minority...which is not okay, but it’s how it is. As a result of those experiences, if I make an error, I unravel a little bit... I’ve made an error that anyone could make and I start thinking everyone thinks I’m a terrible operator, everyone thinks that I don’t know what I’m doing and I go into that mindset, and I have to rationally come back.

Women members of the Air Force would like to see gender taken out of the conversation. They would rather that conversations were gender neutral describing pilots or trainee pilots.

With the whole gender related learning. We need to be cautious about what we label. If we say that females have issues in these areas, then I feel people will potentially look for issues in those areas. There should be a focus on how decisions are made in our learning process rather than remediating issues we think females have because we do not have enough data in my opinion to justify that.

A surprising result came from 40 percent of female respondents who identified ‘perceived preferential treatment for women’ such as the reduced ROSO special measure, as an impediment to their success. The Commission heard that strategies aimed to assist women in Air Force were a cause of significant backlash. These strategies could be counter-productive because they created hostility amongst male and female Air Force members. See results at Chart 18.
Chart 18: Explain the aspects of your work environment that make it harder for women to participate and succeed

Note - respondents can provide multiple responses - percentages add up to more than 100 percent
* This data includes a respondent identified as gender X

There were multiple examples of peer hostility towards women in Air Force as a result of the introduction of special measures.

…if a female gets chosen, [it] doesn’t matter how good mates you are with someone, they’re still going to turn around and say it’s because you’re a female… You can’t get promoted or anything without someone saying it’s just because you’re female… You can be best mates with someone but the minute you get promoted before them they’ll be like, ‘yes, well everyone knows why’.

As soon as you start mentioning incentives for females and not for males, the wall goes up straightaway… As soon as the policies come out for incentives for women you’re going backwards.

…I actually met one of the girls who… and you know I just feel sorry for her actually because it doesn’t matter, it’s always going to come out and then it just creates another divide. You’re not the same as me. You haven’t had to do the same as me. You’re being given an advantage because of your gender, that’s reverse sexism and they got it right.

called all the girls in because we were all doing really well and said, ‘Oh there’s rumours going around the staff room that you’re all doing well just because you’re female’… and like, ‘I just want to make sure that nothing’s going on,’ and we were like, ‘Yeah nothing’s going on we’re just good’.

Examples of direct comments from male members include:

…Rather than open up these positions specifically for females and try and give them a leg up, why don’t we celebrate the people who really have earned it and use them as the sounding board to get more people to want to come and join up because it’s worth it and it’s a great feeling to achieve and be a… It becomes like a holiday camp for them instead of a career.

I’ve heard a case last time we were in Tamworth training through…there was some favouritism towards female training. They’ll get more opportunities to do more things than some of the other guys.
All she’s got to do is just rock up, just pass the course. She doesn’t have to be in the top four to make it. She can finish tenth on the course.\textsuperscript{257}

A female pilot explained the problem with equality measures in the following terms:

ADFA started to give the female pilots a bit of mentoring when you get on course you’ve then got the guys that don’t have mentors...and the guys are already looking at the girls going oh they’re getting extra help or why can’t I have a mentor and why I can’t do this. So...maybe just bring the guys along with it. And then if the guys go to the meetings they realise that there’s nothing strange going on in the meetings it’s not like they’re getting the answers to the next test and they don’t feel that the female’s getting any sort of advantage over them.\textsuperscript{258}

Over 50 percent of surveyed female respondents reported that graduating female fast jet pilots will bring greater diversity to Air Force, compared with 24 percent of males. When asked about women becoming fast jet pilots over 50 percent of male respondents answered: ‘only if they meet the standards’. As this is a self-described answer and not a multiple choice option, it suggests that many think that women could be graduated because of a special measure rather than having achieved the standard at Chart 19.

\textbf{Chart 19: What is your view about women becoming fast jet pilots?}

\begin{center}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline
 & Only if they meet the standards & Gender is irrelevant & Brings greater diversity/equal opportunity & Only if they have the motivation & May impact family relationships \\
\hline
\% & 0 & 10 & 20 & 30 & 40 & 50 & 60 \\
\hline
All* & & & & & & & \\
Female & & & & & & & \\
Male & & & & & & & \\
\hline
\end{tabular}
\end{center}

\textit{Note - respondents can provide multiple responses - percentages add up to more than 100 percent}

\* This data includes a respondent identified as gender X

Air Force may need to do some myth-busting work with personnel to dispel the myth that a woman could graduate without meeting the required standard.

\textbf{4.2 Confidence}

Many female personnel spoke about the need for confidence in aviation. They explained that the system often worked against them and was constructed by male definitions of confidence. They also reported that male instructors have difficulty in coaching them for confidence.

There’s this expectation that to be a pilot...or go into the fast jet stream, you need to have an aggressive personality, to the extent that I got told that I wasn’t selecting switches aggressively enough. I mean, what does it matter?\textsuperscript{259}
So confidence, yeah my confidence at the end of 2FTS wasn’t great…. I did have an instructor that wasn’t particularly supportive. At the third formation flight at 2FTS is where we learn how to do the turning re-joins which are quite dynamic and we’ve never done them before so they’re quite challenging. And yeah, I was just trying to find out how I can improve, and he he’d given me what he had to help me, and yeah he’s like look you really need to work on these things or I don’t think you’re going to make it through form 8. So five flights later, not really encouraging me and my ability at all. Yeah and then when I got through my formation test he congratulated me and said: ‘good tenacity, I didn’t think you were going to make it’. And he was my primary instructor so I feel like as a perhaps that hit me pretty hard.

Command, instructors, trainees and pilots all spoke of the need for confidence in flying and in the training environment. Some explained that the preparation at Officer Training School played an important role in helping trainee pilots to develop confidence.

I guess because we went to Officer Training School, and you have to be confident there, that teaches you quite a lot. So by the time you get here [BFTS] you’ve got that confidence and it’s more equal. And like we’ve only had limited flying experience, but we seem to be developing at the same sort of rate.

Nevertheless, flying instructors at BFTS were aware that there was a gender divide in confidence amongst the trainees.

If [female trainees] start to lose confidence in themselves - unless it’s able to be turned around very quickly it is essentially the end…they don’t consciously decide, but it’s like something’s just got pulled from them. [On the other hand] the confidence in blokes seems to be able to blast through…thinking how good they are, even if they’re not, but they don’t lose their confidence.

I’d say that females probably find it a bit harder confidence-wise to come back, just because there’s so few of us and there’s such a focus on us… There is a focus so then that makes us doubt our ability as a pilot rather than as a female.

Opportunities for feedback are an important way that Air Force can evaluate its culture and find out whether there are blockers to the promotion of skills in trainees. Providing opportunities for feedback from existing and previous trainees can give Command and flight instructors some insight into the particular cultural impediments for women. Anonymous feedback at regular intervals should give Air Force a sense of the ways in which the culture at training schools is affecting the performance of trainees.

4.3 Views about male fast jet fighter pilots

As part of the Commission’s survey, Air Force personnel were asked to list the top three skills that are required for success as a fast jet pilot. The majority of respondents agreed that cognitive ability, competitiveness and dedication are required.

…the fast jet is the pinnacle of aviation, you know it’s the smartest, the most talented in that particular field and it’s a real pyramid scheme you know a lot of people apply and it skinnies up skinnies up and then you have your graduates. They’ve met the grade and meet all the attributes…

The survey responses to this question show some interesting gender differences. Female respondents were more likely to regard cognitive ability as important, while males were
more likely to consider discipline and dedication as important. As with a number of survey questions, Air Force personnel were able to provide more than one response to this question, so percentages add up to more than 100 percent. Responses are at Chart 20.

Chart 20: Describe the most important qualities of a good fast jet pilot

![Chart showing most important qualities of a good fast jet pilot]

Note - respondents can provide multiple responses - percentages add up to more than 100 percent
* This data includes a respondent identified as gender X

While Air Force personnel describe the skill requirements for fast jet pilots in positive terms, they do not express the same high opinion about the pilots themselves. This was evident in focus group discussions and in responses to the Commission’s survey of Air Force personnel.

Fast Jet pilots are...individually lovely people. Put them in a room together, they’re just like a bunch of footballers let loose in a pub and I’m old enough and ugly enough to know...it’s not fun. I get enough of it here [47/F] with the occasional dickhead. I don’t need it 24/7.\(^5\)

While 46 percent of survey respondents describe fast jet pilots as highly professional, the remainder of responses describe negative characteristics of arrogance and elitism. Seventy-five percent of female respondents and 40 percent of males described fast jet pilots as arrogant. The majority of terms used to describe fast jet pilots were negative at Chart 21.
Chart 21: How do people in Air Force view fast jet pilots?

Note - respondents can provide multiple responses - percentages add up to more than 100 percent
* This data includes a respondent identified as gender X

Given the poor perception of fast jet pilots, Air Force should consider ways to improve the views that the wider Air Force have of this cohort. Negative views about fast jet pilots may be a disincentive to female pilots who aspire to this role. It may be useful to encourage fast jet pilots to meet with other personnel in Air Force, particularly aspiring female pilots.

Fast jet culture is possibly the worst because they’ve never had any women to work with and men objectify women and if they are allowed to continue to do so and it’s cool, and they’re the only people you know like and they say well why should we have to change because there aren’t any women that work here anyway...  

4.4 Views about female pilots and fast jet pilots

Air Force personnel were asked to rate their experience with female pilots, including fast jet pilots. Some Air Force personnel had worked with female fast jet pilots in overseas locations. Other personnel had worked or trained with female pilots in Australia. The majority of Air Force responses were positive at over 70 percent.

Of this 70 percent; 30 percent said there was no difference between male and female pilots, 25 percent said their experiences were positive and nine percent described female pilots as highly professional. There were no negative responses and a high number of non-responses at just over 40 percent. Thirty-three percent of survey responses indicated that the respondent had no experience working with female pilots in Australia or overseas. Responses are at Chart 22.
Chart 22: How would you describe your experience working with female pilots and/or female fast jet pilots?

The majority of survey respondents would like to see Australian women graduating as fast jet pilots. Women respondents were significantly more inclined to consider a female fast jet pilot as a good outcome at 85 percent of responses, compared with 57 percent of responses from men. No respondents were opposed to women becoming fast jet pilots at Chart 23.

Chart 23: What is your view about women becoming fast jet pilots?

* This data includes a respondent identified as gender X

4.5 Views about culture bias

There were mixed views about whether the culture at Air Force provides an advantage to one gender over the other. When asked whether any aspects of the Air Force environment make it harder for a woman to succeed, 20 percent of females and 24 percent of males indicated that there was gender bias. Responses are at Chart 24.
Chart 24: Explain the aspects of your current work environment that make it harder for women to participate and succeed

Note - respondents can provide multiple responses - percentages add up to more than 100 percent
* This data includes a respondent identified as gender X

Male members who had spent significant time observing the progress of women in Air Force were more likely to see that there are barriers to women’s success. A senior member of Command had the following to say:

> I used to be of the view that if they [women] were good enough and they worked hard enough they’d get though. I’m now smart enough to know that no, there are unconscious biases, and there are barricades to women getting a fair go.\(^7\)

In order to expand on the issue of gender bias, Air Force personnel were asked why Australia had failed to graduate a female fast jet pilot when so many countries across the world have female fast jet pilots. Many male respondents argued that Australia’s relatively small population means less women coming through aviation courses at Air Force.

There were distinct gender differences in the responses to the survey question about Australia’s lack of female fast jet pilots. Male respondents were most likely to ascribe the lack of female fast jet pilots to a smaller Australian population, a lack of interest and a high training standard compared with overseas. Women reported Australian culture as the main reason followed by a male dominated culture at Air Force and a high training standard at ACG. See Chart 25.
Chart 25: Why do you think there are no female fast jet pilots in Australia while they exist in many other countries?

Note - respondents can provide multiple responses - percentages add up to more than 100 percent
* This data includes a respondent identified as gender X

In light of the findings of Chart 25, it may be useful for Air Force leadership to explain that many countries with much smaller populations than Australia have female fast jet pilots. Australia has a population of 24 million, and yet Norway, with a population of just over five million, graduated the first female fast jet pilot in 1992, almost 25 years ago. Sweden has a population less than half Australia's size and graduated a female fast jet pilot in the mid-1990s. With a population of eight million, Israel graduated its first female fast jet pilot nearly 20 years ago in 1998. The Netherlands has a population of 16 million and also graduated a female fast jet pilot in the mid-1990s.

It may be useful for members to reflect more critically on Air Force culture. Some myth-busting exercises about women and their capabilities overseas may assist Air Force members to actively create and promote a culture that is welcoming of women. This needs to happen at all stages of pilot training and in pilot squadrons.

Air Force personnel were asked whether there were benefits in training and graduating female fast jet pilots. While 31 percent of both male and female respondents argued that it will enhance Air Force capability, this is arguably a low response rate given the recent and strong messaging aligning gender diversity with capability in the Defence Force. There was also a relatively high non-response rate to this question at Chart 26.
Chart 26: Explain the benefits of training female fast jet pilots

Note - respondents can provide multiple responses - percentages add up to more than 100 percent
* This data includes a respondent identified as gender X

Air Force should consider increasing messages to members that demonstrate the links between gender diversity and enhanced capability.

4.6 Unacceptable behaviour

The vast majority of Air Force personnel are of the view that unacceptable behaviour is appropriately handled at the Air Force at Chart 27.

I haven’t seen it... but I’ve seen it on a crew, so like a family formed crew of 15 people where sexual misconduct happened and it was actually [female] that was the perpetrator. He was moved on within 24 hours.

Chart 27: Is unacceptable behaviour dealt with appropriately at your unit?

* This data includes a respondent identified as gender X

Air Force is diligent in responding to complaints of unacceptable behaviour. However, focus group discussions with female personnel indicate that unacceptable behaviour is more prevalent than is being reported. In order to be accepted into the military culture, a number of women explained that they overlook behaviours because they don’t want to be marked as trouble-makers and they don’t want any negative impacts on their career.

The amount of times I could have put in complaints of descriptions of various [unacceptable behaviours] and I haven’t because I didn’t want to be that person, because I wanted to get...
through, and not be seen as that person. It makes me look back and go I probably should have, but I didn’t because I wanted to be successful. 

In some cases, it takes a number of women experiencing the same unacceptable behaviour before they are able to report the problem.

But there were 47F on that course and it took the 47F to know that it was happening to each of you to do anything about it. 

Female pilots suggested a number of strategies aimed at reducing questionable behaviours that don’t necessarily meet the threshold for a complaint, but nevertheless make the environment unpleasant for women. These strategies include courses for men and women that identify appropriate behaviours and zero tolerance messaging about harassment, sexual harassment and bullying.

I’ve always been astounded that like a decorum course or something hasn’t been given to the guys at the start of course, going hey, this is how you behave, guys and girls. 

The other thing I wanted to mention was zero tolerance - and messaging that appropriately. As we’ve said, we’re trying to be the ‘grey’ people on course, so if something happens and I go to my boss and say he’s just done that to me, well now you’re just the person that’s removed someone from course.

In ground school and ground training there is no training on gender diversity. It is a policy is the Defence Force. We need to set ourselves up for success from the beginning. There needs to be follow through...

Women spoke about their fear of the consequences of reporting unacceptable behaviour. If people are removed from courses as a result of a complaint, this potentially causes a hostile environment for the complainant.

The fear of victimisation is real. I mean we see it regularly, exclusion as a result of standing up and just speaking out.

He’s not going to like...that you have to get rid of him, but if it is one of the core peer groups, then there would be massive backlash.

[The backlash for reporting] silences people.

Even in instances where the attention is simply unwanted, this can cause additional stress for trainee pilots.

To whatever extent it happens, whether it be just unwanted attention when you go out at night with guys on the course that decide they want to be with you and how you deal with that. Again, there are varying degrees of what you have to deal with, but it’s just something extra when you’re already in an intense, really hard environment. It’s a hard course where you’re just trying to survive and you’re trying to fit in, these things are stuff that I would think almost every single female that goes through to some level has to deal with. You’re young and you’re growing up and you’re discovering relationships and things like that as well, so it’s a lot of stuff to deal with, while you’re also having the pressure.

There may be benefit in conducting courses that explain the pressures of aviation training to all new trainees. As part of this training, it would be beneficial to describe rules for
fraternisation and thresholds for unacceptable behaviour. It is useful to continue to run these courses as a refresher throughout the training continuum.

4.7 Culture change through a critical mass of women

Female Air Force members favour culture-change initiatives that increase the numbers of women in squadrons and training environments.

I don’t think it was as well-known that we do want to stick the girls together... 278

In numbers, women become a protective factor for each other. Air Force members explained that more than one woman in the workplace created the potential to influence the cultural environment.

The more women there are, it changes the – I’m not going to say values – it doesn’t change the values, but it changes the behaviours and that is then influencing the next generation of people and so certainly the more women there are, the easier it is to be in a squadron because you know you’re always just on your own. You’re not just having to sit there and be told to stop being such a spoil sport because you don’t like the language – because they just don’t say it.279

Female pilots also reported that there is physical safety in numbers.

Having females collectively on course... reduces the ability for predators to target that one. It’s an awful thing to have to say, but it really does make those sort of people think twice.280

Up until about the 10-year mark, you don’t want to be known as one of the girls, you just want to be one of the boys... It’s very difficult to talk about, because you do know you’re different, and you don’t want to be different. So the only way I can see any of this happening is by having more girls on course and making it more balanced so at the moment, having one or two, you just are different. You have five girls on a course of 10, 15, not so different.281

We need safety in numbers, we need more women and as soon as you stop sticking out, that person that you feel you have to become erodes because you have a little bit of safety in the collectivism of your situation.282

One Air Force member suggested that Command should consider intervening to keep women together, especially when women are participating in pilot training.

Air Force should consider interventions to increase the critical mass of women in environments where their numbers are low.

4.8 Lack of female QFIs and Command members

At every stage of pilot training, there are insufficient female staff in positions of instruction and decision-making.
We need lots, lots more [female pilot instructors].

I have not seen many women in Command roles.

I only know of two [female pilot instructors]. They are very supportive but there should be more.

Not nearly enough [women in senior and Command roles in the RAAF].

Chart 28: BFTS staff profile by year, by service, by gender

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>RAAF</th>
<th>ARMY</th>
<th>NAVY</th>
<th>APS</th>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>Exec</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>QFI</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Support Staff</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td></td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2014</td>
<td>Exec</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>QFI</td>
<td>23</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td></td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Support Staff</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td></td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>2013</td>
<td>Exec</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>QFI</td>
<td>22</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Support Staff</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td></td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2012</td>
<td>Exec</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>QFI</td>
<td>21</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Support Staff</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

Female members reported that the lack of women in instructor and leadership positions has led to an underrepresentation of role models for female pilots and trainees.

...It’s not like the culture doesn’t allow women. It’s just that barrier. It’s just that glass ceiling of the pilot seat. Personally I think it’s just that exposure. There isn’t anyone there that as a young girl you can go oh wow, she’s flying.

As soon as we get one, I’m not sure the floodgates will be open but it will allow so many more just to think that it’s possible.

It’s about having a role model or someone to look at and stuff like that whereas there’s no one there at the moment and it’s hard being the first one to go through and not to have
anyone to look at to see how do I behave? How do I act? What do I do? You kind of just make it up.\textsuperscript{289}

Where possible, Air Force should aim to significantly increase the number of female QFIs in the pilot training continuum. As a minimum, the number of female QFIs should reflect the number of female trainees at each phase of training.

Air Force should consider lateral recruitments from overseas locations as one way to increase the number of female QFIs in Australia. This would be particularly useful at 79 and 76 squadrons, where there are no female QFIs. Female questionnaire respondents had positive responses to this initiative at Chart 29.

Chart 29: Do you see any benefit in arranging the lateral recruitment of overseas women fast jet pilot instructors to instruct in Australia?

\begin{figure}
\centering
\includegraphics[width=\textwidth]{chart29.png}
\caption{Chart 29: Do you see any benefit in arranging the lateral recruitment of overseas women fast jet pilot instructors to instruct in Australia?}
\end{figure}

4.9 \textit{Mentoring and networking}

Mentoring has been successful for women in Air Force and is widely shown to be influential in assisting women to achieve career success.

\ldots I was lucky I had a really good instructor in 2FTS and he was definitely more of a mentor than an instructor. I struggled at the start of 2FTS with confidence and I got really bad, like I just got so nervous and we worked through a lot of personal growth, for want of a better term, so you know my graft on course was like I started really low and then all of a sudden it clicked and I had the confidence and then I did really well, but sort of that mentorship was much more important for me. Like the stuff we did wasn’t hard, I just I needed the confidence to be able to do it, if that makes sense.\textsuperscript{290}

\ldots It was always trying to reassure [a female trainee] that I’m not here to fail you, I’m here to mentor you and that it was okay to make mistakes, we’re here to make mistakes in the air while I’m here, so that when I send you solo you can look after yourself. You definitely had to give very positive and very constructive criticism in that sense… [I] found they were very hesitant in their own abilities, but when you could demonstrate to them that they could actually carry out the task successfully they would get more confidence in themselves…\textsuperscript{291}

I’ve also found that it’s very hard to performance coach in the training environment but what I found for example a captain that I you know aspired to or you know I got along with, that person performance mentored me and that’s where I learnt those skills yeah.\textsuperscript{292}

While Air Force has implemented a number of mentoring initiatives, many are informal and difficult to access or facilitate due to training and operational demands. There is also a lack of women in pilot and instructor positions at Air Force.
We really struggle to get some time for the mentoring type roles, so we’ve got an informal thing where we try to meet up with the girls once of month...but to get all the girls together, get these guys a chance to actually get down there, it’s really difficult to get everybody there.293

[It’s] very challenging to get them to actually come because of the time constraints of the course, the course is very labour intensive...294

...I struggle finding a mentor. At the moment in my career I have no idea where I’m going to go next... Very different career paths, different choices, huge implications...295

...Having like mentors and role models is a big thing I think, I mean it’s going to be hard because there’s not many of us at the moment and even in the pilot world like there’s a lot of girls in transport world and they’ve started up, you know, mentoring systems and that sort of thing, women in the jet world...4

I would love a mentor and it’s really hard. I have to go find my own and I’ve thought about one and then...7/F. It’s quite an unknown...297

Air Force should consider implementing a formalised mentoring program for all members, with dedicated work hours assigned to staff and trainees. A formalised process would place mentoring at a priority level for staff and trainees. Matching senior male leaders with high potential women members, or facilitating reverse mentoring, may also aid in further engaging leaders and managers in mentoring processes.

To complement its existing mentoring and networking initiatives, Air Force could introduce leadership development training for staff members. This should be flexible in terms of timing and location and monitored to ensure the equitable participation of women members.

The RAAF should also continue to implement the Women’s Integrated Networking Group (WINGs) program. Members reported being particularly impressed with the WINGs program, stating that the program is useful in providing a space for female members to build friendships and gain support from one another.

One of the female instructors has started up the WINGs meeting though, which is great... I really enjoyed it... It’s very personal to be able to chat to them one on one and they were very open to you asking any questions, about any concerns you had and just nice chatting to some of the other girls as well.298

With regards to WINGs...that’s a supportive system for the women here at...the fact there’s no male equivalent I don’t think bothers anyone.299

In terms of the WINGs situation I think it’s a really cool initiative. I think it’s something that’s an enabling initiative, I think, and I think that’s important to have because we as a group have got a grip inherently, and I mean I think one day it may not be necessary. But at this stage I think it’s good, especially for people just to be able to have a quick chat and have a reality check at times, I mean because we’ve all got similar things, in amongst our other groups as well.300

I’ve been to one [WINGs event]... There’s a lot more females than I thought there was, so that’s good and they all come together. But yes, I think it’s just sort of good to know that there are other people that are interested in it and if you need someone to chat to about girlie stuff.301
Some members stated that the WINGs program enables younger, less experienced female members to ask for guidance from more senior members or instructors in a less formal setting. It also provides more senior members with a forum in which they can offer support and guidance.

When they do have [the WINGs programs], they are useful for getting to be a little bit more familiar with the female trainees as well. Because otherwise we don’t see them unless they come to our orderly room and they need help with something, a lot of the time, it’s admin stuff that goes straight over their head, they don’t know what they’re asking for so they might be too nervous, whereas at these little sessions, we can talk to them about stuff, common ground, we all know about so you can relate to them a little bit more and then they’re not quite so nervous when they come to see you.  

It’s not so much that I need the support [from WINGs]…as more of…I actually want to be there if somebody needs my thoughts.

I have been going to the WINGs meetings ‘cause I figured while I’m in this unit I may as well, as far as the girls who are on the course are aware I’m a senior girl on course, I can try and be there if they have any questions and it’s not so much been about like getting together and having a girly chat but it’s just been good to have non-judgemental company and ‘cause it can just get lonely...

Other women reported that the professional development aspect of the WINGs events, including hearing from external speakers, is particularly beneficial.

We have the WINGs session... They run them about once a month and I try to get to any ones I can. But I really like that it brings me out of my work environment, we talk about...effectively professional development sort of aspects, and I really enjoy that. It really refocuses me... I find that quite beneficial to me and my work...

### 4.10 Leadership

Female pilots explained that strong leadership plays a significant role in changing culture. They said they had seen changes since the Skype incident and the consequential reviews into the Defence Force, especially the Broderick Review. They said more could be done to strengthen the messages of zero tolerance for unacceptable behaviour.

Nevertheless, they had many examples of behaviours that were excluding. One pilot spoke of being invited to meet her fellow squadron members at 7:00pm to go to a dinner, only to find that they had privately organised to meet at 6:30pm and leave without her. This was intended to humiliate and it met its mark. Women find it hard to continue in these environments. It damages-working relationships.

There were also examples of more extreme behaviours. One female pilot was given the nickname ‘Token’ during her deployment in Afghanistan in 2009. A photo of her head was used during a range shoot on a target by the men in her squadron.

These are examples from serving women; women who are leaders of squadrons, women who are leaders of other women and men in Air Force. These behaviours continue to impact on their perception of their place in Air Force. They damage the women, and they damage the men.
Some focus group statements suggested the culture of Air Force is one that is resistant to change. Air Force has developed its culture based on its own precedent and has been resistant to new ways of doing things.

The military has a habit of repeating its errors... It sent a major team to Sweden years ago, in 1985... The reason they went to Sweden was because it’s a first-world Air Force, our cultures are not that different...[and Sweden] had an amazing pass rate and we went to find out what it did when [the other team] came back [from Sweden] and we tried to implement. We had cultural resistance that was amazing, resistant to change that rejected wholesale things that made perfect sense. We just weren’t prepared to talk nicely to the students, at that time you could probably physically hit the students still back then... I think there are some of the answers lying in the reports of that time.306

Women pilots recommended that senior Air Force leaders had an important role to change culture and there would be value in them making strong statements to members about the values of the organisation and the expectations for high standards of behaviour.

I don’t think there’s resistance [to cultural reform]. I don’t think it’s a priority at the top level. My personal opinion from all of the talks I’ve had with the higher ranking people to try and push things...the talk is there, the policy is there but there’s no resourcing and essentially there’s no leadership from the top saying this is a priority, which is filtering down to the managers where we’re making them accountable for actually stepping up and providing that resource.307

They wanted to see strong statements about the links between gender and cultural diversity and enhanced capability and zero tolerance for backlash about measures designed to promote diversity in Air Force.

Air Force tends to roll out policy particularly badly, as in there’s very little communication... there’s no education, there’s no explanation of why it occurs, so what happens is if it’s a negatively perceived policy, like the female policy generally is, the brunt goes onto the girls and then they start rejecting it... The Chief needs to come out and say that gender diversity is a top priority, and that includes doing what we have to do to get females into areas that aren’t, i.e. the fast jet world.308

...That message [the link between diversity and capability] needs to be better put to people like not me, just my course, because...that’s why we cop this stuff, so that is probably my thing... It comes across they want a pretty poster girl, look at the Air Force, they have females, they’re good. That’s what’s coming across. It’s not as it’s going to help capability by diversity that way.309

Given that the culture at Air Force has evolved to reflect a single gendered experience, it provides a form of competitive advantage to men. Myth-busting sessions and communiques need to be prefaced with this information. Substantive equality measures give women an opportunity to participate and succeed on an equal basis with their male peers. They compensate for an environment that has been built for males and has evolved for their needs. Leadership is the key to culture change. The voices of senior Command need to communicate the need for culture change and these voices need to be heard right throughout Air Force leadership.

There’s so much data out there to suggest that if the CO doesn’t turn around and say gender balance, gender equality, for progressing females through is my top five priority, the rest of the organisation won’t follow.310
...We had a great who we entered that discussion with and he talked about how we need females for capability and talking to a class of sort of 25 definitely got that point across. He was very eloquent in what he said and yes, so that was really good... When we did enter a discussion it was a lot more level. They were more understanding, even if they did still disagree they understood why they were doing it and why they had this incentive...so I think it’s great when commanders at high levels have those talks, have those discussions with people because people listen.

While Air Force leadership has displayed a strong level of commitment to gender diversity and inclusion, there is a lack of awareness about the link between diversity and capability amongst personnel.

Air Force staff and trainees would benefit from clearer messaging about the reasons for the introduction of special measures for women, as well as the value of such initiatives for all members.

4.11 Successful diversity initiatives in other male-dominated industries

A number of male-dominated industries have taken action to increase the representation of women in their workforces. Their experiences provide valuable information about potential strategies to increase female representation in traditional male industries.

At the current time, there is a widely recognised skills shortage in many Australian sectors. In fact, 45 percent of Australian employers were recently reported to be facing difficulties in filling key positions within their organisations. Attracting and retaining under-utilised sources of talent, including women, is key to addressing a skills shortage. The 2012 Review into the Treatment of Women in the Australian Defence Force found that an increase in the representation of women within Defence’s male-dominated areas of Service would assist in addressing issues such as a shrinking talent pool, significant costs associated with unwanted departures, a lack of diversity at leadership levels, and in ultimately improving sustainability and capability.

Male-dominated industries in Australia and around the world are increasingly recognising the need to develop initiatives and strategies to create more inclusive, diverse workforce environments.

A number of similar gender diversity initiatives were recently agreed to by the Victoria Police. This was a result of the Victorian Equal Opportunity and Human Rights Commission’s 2015 Independent Review into Sex Discrimination and Sexual Harassment, Including Predatory Behaviour in Victoria Police. Some recommendations relevant to gender diversity included:

- building awareness of the rationale for diversity, including by redefining the notion of ‘merit’ and increasing understanding of the existence of structural barriers to recruitment, retention and advancement of women;
- reviewing and standardising policy and processes relating to flexible work arrangements and particularly the parental leave cycle, reflecting best practice in relation to preparing for leave, staying connected while on leave, reintegration into the workplace and career acceleration;
- championing senior men and women who access flexible work arrangements, including part time and parental leave;
- ensuring data collection and monitoring captures access to flexible employment options for both men and women and the reasons for not accessing any entitlements in this area;
- ensuring all supervisors are trained in dealing with flexible working requests and what it means to refuse someone on reasonable business grounds;
- designing and implementing employee career planning and support, including clear pathways and support for women to pursue professional development and training in leadership and non-traditional roles and formal sponsorship; and
- ensuring that within 18 months of implementation, women’s access to leadership training is at least proportional to their representation in the overall, relevant workforce.

### 4.12 Leadership commitment to gender diversity

Leadership in male-dominated industries has led to increased gender diversity. Leadership actions include:

- a clear vision and messaging for staff members from senior leadership levels about gender diversity, strategies to increase the representation of women, and the need for such strategies;
- highlighting successful senior women in non-traditional roles and publically recognising them as role models for junior staff members;
- promoting internal reward and recognition programs for those employees or teams who show leadership in promoting gender diversity; and
- sponsoring and participating in gender equality awards, or industry awards more broadly, through which organisations can highlight their gender equality strategy achievements.

### 4.13 Catering to the needs of all employees

Successful male-dominated industries are increasingly recognising the importance of providing employees with flexible working hours. Strategies to achieve this outcome include:

- conducting employee surveys to determine what employees value most within the workplace;
- catering to the physical requirements of both male and female staff members, including aspects such as uniforms, facilities and equipment;
- ensuring pay equity for male and female employees;
- implementing inclusive workplace policies such as carers’ strategies and paid parental leave;
- embedding flexible work arrangements which balance the needs of all employees against operational requirements and objectives; and
- valuing results over face-time, and engaging senior leaders to act as organisational role models for work-life balance.
4.14 Ongoing assistance for employees and their families

Ongoing support for employees and their families can assist in retaining staff, especially when the roles and responsibilities of the industries are onerous. This support can be provided via a number of avenues, including:

- the provision of on- and off-site support for employees, including access to an Employee Assistance program;
- the facilitation of support for families of employees, including but not limited to site visits, family days, inclusion in social events run by the organisation and access to online support; and
- the implementation of a ‘keep in touch’ program for employees who undertake leave for extended periods.

4.15 Leadership engagement

In order for an organisation to promote career advancement opportunities for women, it is essential that senior leaders are engaged in the process. Some examples of strategies include:

- involving senior leaders in public demonstrations of their support for the advancement of women in the organisation;
- providing mentoring programs for women employees, as well as reverse mentoring programs for senior male staff members to be mentored by junior female staff members;
- implementing a formal sponsorship program whereby senior male leaders within the organisation are matched with high performing or high potential female staff members;
- profiling senior leaders, particularly female leaders, within an organisation as role models for younger female staff members;
- offering both formal and informal networking opportunities for female staff members, which can also be accessed by male staff members;
- hosting and participating in networking groups;
- integrating women clients into network events to increase industry networks;
- providing leadership development training for staff members, which is flexible in terms of both timing and location;
- providing support to the partners of female staff members to assist in facilitating development training that is less accessible in terms of timing or location;
- offering retraining in non-traditional roles for female staff members to encourage them to consider less obvious career paths;
- training organisational leaders to recognise stereotypes and unconscious bias relating to women’s participation and success in male-dominated roles;
- monitoring and adjusting the composition of talent teams to ensure they are gender diverse;
- implementing processes that challenge decision-making in relation to organisational talent, to uncover any bias; and
- setting targets to ensure that female staff members are participating equally in on-the-job development opportunities.
Detailed information about the programs and strategies of other male-dominated industries can be accessed via the Commission website:


### 4.16 Findings and recommendations: Culture at Air Force

<table>
<thead>
<tr>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Most militaries had a masculine culture at their origin. Many of Air Force values and requirements are masculine, including definitions of flying confidence. This advantages men in aspects of pilot training. Female pilots report feeling diminished in confidence due to the culture at the Air Force; especially through pilot training.</td>
<td>Air force to acknowledge its masculine culture and the cultural advantages this bestows on male trainee pilots and male pilots in training and in squadrons.</td>
</tr>
<tr>
<td>4.2 Masculine language and masculine behaviours and traits are the default position for women to imitate if they want to be considered successful.</td>
<td>Air Force to review its use of gendered language. Particular focus should be placed on the pilot training curriculum and cockpit instruction.</td>
</tr>
<tr>
<td>4.3 While Air Force personnel describe the skill requirements of fast jet pilots in positive terms, the majority have a poor perception of fast jet pilots.</td>
<td>ACG to continue its work to improve its public relations profile.</td>
</tr>
<tr>
<td>4.4 Gender-specific special measures aimed at improving the culture for women at the Air Force have led to significant backlash against women.</td>
<td>Command to adopt a zero tolerance approach to backlash regarding measures that are designed to create substantive equality and workplace inclusion.</td>
</tr>
<tr>
<td></td>
<td>Female Air Force members favour initiatives that bring women together in numbers in their work and training environments. In other words, they favour strategies that create a critical mass of women in training environments, in squadrons and in workplaces.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>4.5</strong></td>
<td>Opportunities for feedback are an important way that Air Force can evaluate its culture and find out whether there are cultural impediments to skill development in females. Providing opportunities for anonymous feedback from current and past trainees can give Command and flight instructors insight into any cultural impediments for women.</td>
</tr>
<tr>
<td><strong>4.6</strong></td>
<td>Relatively low numbers of Air Force personnel understand the links between gender diversity and enhanced military capability.</td>
</tr>
<tr>
<td><strong>4.7</strong></td>
<td>Unacceptable behaviour is under-reported by women because of fear of backlash if perpetrators are removed from pilot training. Unwanted male attention causes stress for trainee female pilots in an already stressful training environment.</td>
</tr>
<tr>
<td><strong>4.8</strong></td>
<td>There are insufficient female staff in QFI positions and in Command positions at every stage of pilot training.</td>
</tr>
<tr>
<td><strong>4.9</strong></td>
<td>Female members report barriers to sourcing and accessing mentoring</td>
</tr>
</tbody>
</table>
opportunities. These barriers include time restraints due to pilot training and a lack of women pilot mentors or role models.

activities. Provide opportunities and resources for female pilots to source mentors through external channels if necessary.

Consider matching senior (male) leaders with high potential women members, or facilitating reverse mentoring techniques to further engage leaders and managers in mentoring processes.

| 4.11 | Attendance at Air Force networking events can be impeded by the time constraints of heavy workload, training obligations, or the remoteness of the posting location. |
| Command to actively support and resource networking opportunities for women, including the WINGs program. Use technology to bring women together when necessary. |

| 4.13 | There is a lack of messaging about substantive equality and the need to create a level playing field for women so they are not disadvantaged in the masculine culture at the Air Force. Senior leaders will be the key to the culture change in this regard. |
| Senior Command to communicate the advantage that a masculine culture provides to men at Air Force. This includes explaining that substantive equality measures are a means of achieving a level playing field for women. |
5: Physical requirements for flying fast jets
5 Physical requirements for flying fast jets

In order to comply with the design of the fast jet cockpit, pilots must weigh between 55 kilograms and 100 kilograms and be between 163 centimetres and 193 centimetres in height. The acceptable body mass index range is 18.5 to 29.9. These requirements are necessary for the effective functioning of aircraft ejection seats and parachutes.

According to Command at 78 Wing, fast jets have largely been designed to fit the typical male body size, weight and height proportions. This has served to limit the numbers of women, and, to a lesser extent, the numbers of men who do not conform to that shape.

The basic engineering philosophy of design of cockpit and design of escape systems in cockpit is to cater for 95 percent of the average male size, weight and height and other issues. So there’s a problem… You may only have a 70 percent of average females fitting within that demographic; you have to be aware of that... So they’re exclusive by design.

55 kilos is the minimum weight of body, so it affects females more than blokes.

You can’t have fighter pilots that are too big either. It’s quite small spaces and so there’s quite a variability in terms of body size even of the men around that.

Instructors at 2FTS reported that the G-suits worn by pilots as protection against accelerative forces are also gender exclusive by design.

The G-suits aren’t made for women. But I think they just deal with it.

Command at 78 Wing acknowledged the gender exclusivity of aircraft and G-suit designs. However, they reported that the new Joint Strike Fighter jets will cater for a broader pilot demographic. These jets are reported to have fully adjustable seats and adjustable cockpit and rudder controls. It is hoped that this design of fast jet aircraft will open up opportunities for women and men who don’t meet the height and weight requirements. Air Force should consider careful monitoring of the specifications of the new cockpits to ensure they are designed and fitted for a broad demographic.

5.1 Physical strength and tolerance of accelerative forces

Fast jet pilots must possess a level of physical strength in order to withstand the impact of accelerative forces. Command at Air Force Base Williamstown explained the impact of accelerative forces on fast jet pilots and trainees:

We’re not teaching them how to fly aeroplanes; we’re teaching them the tactical skills of fighting with aeroplanes, the physical skills of doing fighting at High G and staying conscious and getting through that. That’s a skill in itself...

And then there’s the other stuff that happens, so under a lot of G all your internal organs stretch by an inch or two.

ACG members also spoke of the difficulties in maintaining concentration and consciousness at high G-force.
...It’s not just necks, so you’ve got to physically strain to maintain consciousness... You only pull 5G or so but [it’s a] claustrophobic environment of wearing all the stuff and pulling G... It can be surprisingly a physical environment.  

Command at 78 Wing indicated that the design of the ejection seats in fast jet aircraft and the weight of the helmets contributes to the physically demanding nature of fast jet flying. 

Generally, it hits you in the neck and the back. We mentioned already sitting on an ejection seat. An ejection seat by nature has no padding... So you are...pain...after about 30 minutes and then it turns to your legs and your back, so it’s quite uncomfortable... Then we wear [a helmet] on your head. I actually don’t know what, it’s probably in the order of three kilos, but it has a TV projector... It actually doesn’t weigh that much... It fits very well, it’s comfortable, but it’s three kilos on your head.

Instructors at Air Force Base Williamtown reported that a difficult aspect of fast jet training is dog-fighting. Pilots are required to move their heads and look over their shoulders at G-force. This puts huge stress on the neck: 

When you start looking at defensive situations where you’re looking over your shoulder, someone is right behind you and they want to find you and you’re under a lot of G’s that’s probably the first crux point on the call on the current syllabus where we you know we probably lose the highest percentage of trainees ... So it’s not unusual for people to have trouble.

reinforced the difficulties in performing dog-fighting techniques while exposed to accelerative forces. 

I don’t know how heavy our heads are, say 10 kilos, under two G it’s going to weigh 20 kilos, three G’s 30 kilos, same with the rest of your body. But you’re sitting down in the aircraft and you’re sitting up against so as long as you’re not moving your head it’s okay but if you’re trying to look around while pulling G... Pulling G does hurt if you pull seven and a half G which we can here... Everything inside just compresses...and you do like a special breathing technique to like keep your lungs, you know, as full as you can to help keep the blood up in your brain and, you know, to help your organs not being crushed...

ACG Command reported a high level of emphasis on dog-fighting in the training environment. There were questions about its sustainability on ACG pilots. 

One of the other things that we’re sort of looking at through the group is the physical training requirements because frankly the demands are so heavy and we’re breaking people.

When we train we repeat these events over and over again sometimes for periods of three weeks almost every day because you have to, to get the skills, but realistically it’s not going to happen like that. It’s all going to be over in about 30 seconds so the strength you actually require for the training is probably much, much more than what you require for a real engagement.

ACG Command reported that they are losing pilots due to the physical requirements of intensive air-to-air combat training combined with high G-force. They reported that fast jet pilot trainees who excel in all other areas of the training program may fail due to their inability to manage repeated head-turning under G-force. Command expressed particular
concerns about future female trainees at ACG and questioned the extent to which the current training reflects the operational requirements of deployment.

...The really curly discussion that we would have to have with a female pilot starting here next week is how do we manage the physicality and I don’t think it’s as simple as saying well she’s just have to meet the same expectations that we all have.335

...What if you’ve got a female pilot who’s got a great attitude, cognitively is doing really well but she’s struggling in a few situations. She’s okay when she’s dog-fighting and winning, she’s just not good when she’s dog-fighting and got to look over her shoulder and losing. How we as an organisation would grapple with that, whether we say no, she’s got to meet exactly the same standard for a skill set that arguably in the future may become less important, so it’s still a skill we have to do but how much of our job does it represent. Is that what we do all day every day when we’re in combat? It’s not what we’re doing at the moment over Iraq.336

Discussions were held around the possibility of implementing new training techniques which might alleviate the need for fast jet pilots and trainees to possess such high levels of core strength, while still generating results.

...This is where I think is the discussion that we would have. Clearly they have to be able to perform these roles but in what way? What can we accept? For instance if they prop their head against the seat and look but don’t move their head under G that’s much easier than trying to swap the head around under G and stuff, so is there a technique we can teach that mitigates the lack of core neck strength but still gets a good enough result?337

A number of female pilots reported that the United States Air Force streams its pilots into specialities and not all fast jet pilots are required to be highly skilled in performing dog-fighting techniques.338 While the number of pilots in the U.S. Air Force is significantly larger than that of the Australian Air Force, this pyramid model may be worthy of further exploration by ACG.

ACG Command are still discussing the possibility of adapting the training to meet the physical capabilities of pilots.

We continue to argue amongst ourselves about no, there’s one standard and everyone must meet it. I find that a less compelling argument. It’s a balance of risk that we have to accept. But what amount of risk does pilots’ work require so that they are always effective in those conditions?339

Well, this is the problem, it’s not that simple. So we still will end up in a dog-fight even in our joint strike fighter and we still need to have those skills but how often? And therefore how much risk can we carry - that an individual just happens to get in that dog-fight but it is the one that doesn’t have the strong enough neck to handle that.340

There may be benefit in modifying the requirements for intensive air-to-air combat training for pilots who show high levels of competency in all other aspects of fast jet handling, but struggle with the physical requirements of repeated dog-fighting at high G-force.

5.2 Deployment challenges

Command at Air Force Base Williamtown spoke of particular physical challenges associated with deployment. Using the example of Operation Okra, they spoke of fatigue and discomfort resulting from the length of sorties, interrupted sleep patterns and heavy
equipment. These physical factors had to be managed while focusing on all aspects of the operation including maintaining sufficient fuel, managing airspace congestion and staying abreast of the relevant rules of engagement.

Sorties themselves are about eight to ten hours in duration, so for those of you who’ve seen the F-18 cockpit or any fast jet cockpit, straightaway there’s one of the challenges we have, the length of time we’re airborne. 14 hours is typically our crew day from start to finish, and that’s just flying...and timing can vary quite significantly.\(^\text{341}\)

You think about taking enough water with you to go eight, ten hours, food, you know, even things like going to the bathroom, you know, an eight to ten-hour sortie. Little things like that become a big issue. Our gear is a lot bigger than normal, we’re carrying maps, binoculars. The cockpit fills up with all sorts of stuff around you, so that’s a challenge. And fatigue, that then sets in, builds up over time, and circadian rhythm problems too. So you know, being able to get airborne at three or four in the morning, meet up with a tanker over the Arabian Gulf, do that in foreign airspace and still have enough concentration and brain power to do it all safely, that was a real challenge.\(^\text{342}\)

ACG members described the particular physical challenges faced by women during deployment; especially the discomfort of lengthy sorties.

One of the difficulties that came across was the fact that the guys have got the piddle packs, so when they go on long flights whip it out and off they go – good for them! Not so easy for the females, so there was a lot of stigma around the prospect of female diapers and things like that...\(^\text{343}\)

The Advanced Mission Extender Device (AMXD) has alleviated some concern for women who are required to fly on extended operations. I\(^\text{344}\) emphasised the benefits of the AMXD for women during periods of deployment:

I acquired the AMXD which is the Advanced Mission Extender Device... Thank goodness I got it because...we’re doing ten hour flights... [It] is a lifesaver because you can’t do ten hours flights without drinking water.\(^\text{344}\)

Air Force should ensure that the AMXD is available for all female ACOs on deployment and to female members at ACG as required.

5.3 Fitness

I\(^\text{47F}\) reported that the fitness requirements, while potentially daunting to some, are in fact manageable through training. She argued that pilots’ and weapon systems operators’ bodies generally build up resistance to the effects of accelerative forces.

A lot of girls were worried about the physical requirements and I mean I’m not the fittest person, it’s definitely a different sort of fitness that you need pulling G and that’s what you get trained in it and it’s not that hard. The hardest thing is neck [is] fitness with wearing a heavy helmet and looking, you know, moving your neck around under G.\(^\text{346}\)

Nevertheless, ACG Command expressed concern about the ability of women to withstand the highly physical nature of the fast jet pilot training.
I think if we had our first female pilot coming through in a few months’ time we would have to sit down and talk about how we manage that… So we pull a seven, $7\frac{1}{2}$ G, so at seven G your five-kilogram head ways 35 kilograms so that’s the same as having a 30-kilogram bag of potatoes on your head and looking back over your shoulder while you’re doing that. As blokes we find that hard. My neck is buggered. $^ {347}$

...It’s a tough environment for blokes. How do we manage female pilots with a 30 kilogram bag of potatoes on their head? $^ {348}$

Some questioned the attractiveness of the fast jet pilot role for women, due to the physical stresses associated with the role.

It’s a different environment and it can be pretty physically demanding and that can be quite daunting for a female as well on pilot’s course. One of the questions I don’t know is how many of them enjoy that physicality or are turned off by that physicality and say: ‘you know what? I find this a bit confronting and I’m quite happy to fly my straight little aeroplane because it’s not physically challenging to me. It doesn’t make me uncomfortable’. I don’t know how much that is a motivator of women not wanting to come to fighters. $^ {349}$

Others questioned the attractiveness of the role for women due to the physical dangers inherent in the role and its potential impact on having children.

As a perception this is a much more dangerous role rather than bigger aircraft, because more dangerous situations if you go to war and that stuff, and whether they’re just like well I’ll put that away because I want kids, I don’t want that. I don’t know if they’re thinking that or not. $^ {350}$

In one instance, a female pilot trainee had been warned against considering a career as a fast jet pilot due to the potential effect of accelerative forces on her ability to have a family.

47F told me that I probably couldn’t have kids if I became a fast jet pilot...
The G-force, I deal with it in this plane. I’m sure it’s so much worse, or not worse, but more in the Super Hornet, but the boys put up with it. Apparently females can handle it better because we have more body fat. I don’t know if that’s true, but they just tell me. $^ {351}$

ACG members raised concerns about the potential impact of accelerative forces and jet fuel inhalation on women’s fertility.

In terms of female technicians there is varying bits of data out there that could show that there’s problems with female technicians having babies… There’s no hard evidence. But a lot of that has to do with age group. The girls are waiting until older but there is some data. $^ {352}$

I imagine there’s probably some other impacts like G-forces on the female body that would need to be looked into as to how that would impact them as well. Yes, there’s a lot of requirements from the body itself to fly a fast jet. $^ {353}$

ACG personnel were also concerned about the impact of the menstrual cycle on flying and the comforts that women will forego to pursue the life of a fast jet pilot.

We’re not running around in the bush like SAS or whatever but it’s quite a physically demanding job. And how that plays on female inners and stuff like that…and I know from my experience some of the women in the U.S. Navy would control their cycle with medication so they could fly day to day no problems at all. So there’s little one percenters that probably if I was a female and I’m looking at career opportunities I’ve got all this, yeah I can travel and I
might go to the Middle East and I get to fly fast jet or I can do IT and work in the city and have Starbucks every day at lunchtime and earn more money with no sign on lock in.  

5.4 Injury, rehabilitation and reporting environment

Air Force members who had flown with overseas female pilots reported no differences in the level of injury experienced by male and female fast jet pilots.

It’s exactly the same for men and women. I can say the F-22 pull more G than any other fighter, and they’re fine. There’s no difference. In fact, they’re better than the majority of the male younger pilots that come through. So I would say there’s no difference.

ACG Command are aware that in the international arena, countries similar to Australia have been successful in recruiting and qualifying female fast jet pilots. Comparative research into the effects of accelerative forces on both men and women supports the view that women can withstand accelerative G-forces. The results of a recent study into the effects of accelerative forces on pilots fitted in customised G-suits showed no significant differences in effects on the sexes.

Furthermore, while flying and manoeuvring fast jet aircraft under G-forces requires a high level of muscle strength, studies suggest that the overall risk of injury is similar for both men and women. Research has shown that women have decreased neck strength when compared with men but also a greater range of movement, as well as a faster neck muscle reaction time.

Specific health issues for women who are exposed to high G-force environments have reportedly not yet been adequately studied.

ACG Command reported on the physical injuries associated with fast jet flying, predominantly relating to back and neck soft tissue injury. They advised that five pilots were grounded at the time of the Commission consultation due to neck and back injuries. Because we’ve got this helmet with these electronics on it and stuff, centre of gravity is forward, so we have a chronic condition of afflicted fighter pilots with bad necks.

Command at Air Force Base Tamworth commented on the physical toll of flying fast jets on pilots:

The amount of injuries we’ve had of young men that look fit and healthy who’ve got massive neck injuries, I’ve got a massive neck injury and it affects every part of my life. There’s this dream of becoming a fighter pilot, but it takes a toll. So unless you are 100 percent committed to that world, I don’t think we should be forcing people into that world because it is hard.

Instructors at Air Force Base Williamtown spoke of the injuries that can be sustained during training. Some injuries are serious enough that they end the training of the ACG pilot.

There’s a lot of people we end up either having to ground or back course or send away because of neck and back injuries, doing those manoeuvres.

Many fast jet pilots spoke of the importance of having access to effective injury management programs and treatments.
While fast jet pilots said they’d been advised of physical conditioning exercises, some did not believe that the current injury support was sufficient.

...We have a physiotherapist on base that we can book into so they’re pretty good, but they are what I would call traditional physios. They’re not specialists... I’m convinced there’s things out there that we don’t have access to...

What we do is we go out to the aircraft and we stretch our neck a bit and we go flying and we come back and we just put a heat pack on when we go home that night. So we don’t have any of that sports medicine wrap up. We can’t even get chiropractic support because that’s considered witch doctor stuff by Defence.

One fast jet pilot reported that he had sought additional injury support through an external source.

You learn to manage it and you end up using physio or chiropractic, so I paid for chiropractic outside the Air Force once a month. But you know it works for me and it’s not long term damage which is important.

Female pilots reported that the stringent medical standards at Air Force have created a culture whereby some pilots are reluctant to report injuries.

There’s a large proportion of people in the Air Force who have very mild cases of asthma, it might be ten years between attacks. The Air Force just doesn’t know because they obviously function fine but if the Air Force knew they’d never be allowed to fly again.

...You also start a culture where we don’t fess up now about our medical or health

ACG Command understand the need to continuously improve injury prevention and management processes. They reported that some strength and conditioning work is currently being done within Air Force to better prepare fast jet pilots and fast jet pilot trainees.

...We had on the course had to cease training because their necks were injured and they couldn’t go on... That’s kind of been the impetus to do a lot of the strength and conditioning stuff that they are doing...trying to apply some more of that sports science and medicine to prepare people to come here.

ACG Command is also currently investigating the possibility of purchasing a newer helmet model to mitigate the injury rates.
They acknowledged that changes such as these will greatly improve the health and wellbeing of male pilots and also provide a stronger foundation to support future women fast jet pilots.

So we’ve got a long way to go before we’re even supporting ourselves with some of the physical aspects and I think far more to go to support females in the physical aspects.  

...Some of the stuff they’re doing to address our current problems will be well suited to helping females prepare to come here as well.  

...If we want to give a female the best chance of getting through you’d want to make sure that there wasn’t a bunch of strength and conditioning science healthy stuff that you left in the cupboard and then have someone who doesn’t get through because they can’t handle the physicality of it.

5.5 Findings and recommendations: Physical requirements

<table>
<thead>
<tr>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 While fast jets have been designed to fit a typical male body size, weight and height proportions, newer jet models, such as the Joint Strike Fighter are reported to fit a broader pilot demographic.</td>
<td>Continue to monitor the cockpit specifications of next-generation fast jets so that they meet the requirements of a wide pilot weight and height demographic.</td>
</tr>
<tr>
<td>5.2 Command at ACG report that they are losing pilots due to the physical requirements of intensive air-to-air combat training combined with high G-force. Pilots at 78 Wing can fail at the point of air-to-air combat when they are required to do repeated head turning exercises at G-force.</td>
<td>ACG to consider strategies to modify the requirements for intensive air-to-air combat training for pilots who show high levels of competency in all other aspects of fast jet handling, yet struggle with the physical requirements of repeated dog-fighting at high G-force. ACG to benchmark the training requirements at 78 Wing with comparable overseas training systems.</td>
</tr>
<tr>
<td>5.3 The physical challenges associated with accelerative forces result in back and neck soft tissue injury. Pilots and instructors report that the current injury prevention and support services at ACG are insufficient.</td>
<td>Improve injury prevention and management through a continued focus on strength and conditioning exercises at ACG. Purchase lighter helmets for ACG pilots.</td>
</tr>
<tr>
<td></td>
<td>Resource access to prevention and support specialists for ACG and other aircrew.</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td>5.4</td>
<td>The G-suits worn by fast jet pilots and trainees are gender exclusive by design, and do not conform to the female body shape. Review the design of G-suits with a view to accommodating the requirements of female fast jet pilots and trainees.</td>
</tr>
<tr>
<td>5.5</td>
<td>The Advanced Mission Extender Device (AMXD) is not readily available to female aircrew at ACG. Introduce into service the AMXD as a standard piece of equipment.</td>
</tr>
</tbody>
</table>
6: Family life and flexible work
6 Family life and flexible work

There has been strong messaging from the highest levels of the ADF about the need to increase military capability through sustained organisational commitment to gender equity and diversity. Air Force leadership has taken steps to retain and develop female pilots by implementing initiatives such as the reduced minimum Return of Service Obligation (ROSO) for female Air Force pilots. Air Force has also implemented flexible work policies. Flexible work gives both male and female Air Force members opportunities to balance work and family commitments.

Despite efforts to retain female pilots, there are some concerning signs that senior pilots are considering leaving Air Force.

Probably 75 percent of the senior women pilots are thinking of leaving… I think the junior women pilots will be looking at those senior women pilots and seeing if they can return to work through that phase of their life, because more than likely most of them are going to be looking at departing on maternity leave, and if they don’t have that precedent of being able to return to work and make it work then at that 10-15 year mark they’re probably already thinking it’s a high chance that they’re not going to be continuing their career in the Air Force.375

Female pilots reported that there is more work to be done to ensure that Air Force provides an environment where mothers of young children are able to manage their work obligations with their responsibilities at home. They reported that unless there are key changes to support them in the early years of motherhood, they are likely to leave Air Force for an environment that allows them greater flexibility.

If the military make it too hard or it just gets too stressful, you’re going to choose your family. You’re going to choose your own kids and your own health over career ambition every time... When faced with the choice, your kids have to naturally come first.376

I’m basically planning to succeed for the next four or five years but...if it comes down to it and the organisation doesn’t support me...to get through that next four or five years then I will leave. But if they can listen and adapt to what I require just for this period of my life then I’m more than happy to...continue my career.377

I do think a large part of the current culture and structure of the military is just not very suitable for females, particularly pilots... Managing that life/family balance with their careers. The structure and the way it’s set up just doesn’t provide the support them to get through that phase of life. Without that, they’re always going to choose family and they’re always going to leave.378

It’s all well and good if we get someone there, but keeping them there... Sustaining the rate of effort that we do have. If you’re talking about primary carers, even in my job I’m doing 50-60 hours a week, F children, I can’t sustain it to the point where I’m considering resigning because I can’t sustain it. If you want to get people in that’s all well and good but are you going to be able to keep them?... At the moment there are no non-traditional pathways to senior leadership and so I think unless that changes they’re going to leave.379

In order to prevent this attrition, Air Force should consider developing a centralised leave and flexible work case management system for female Air Force members. Family leave
negotiation and management needs to be moved away from the unit level and managed through a centralised Air Force unit.

Section 1 of this Report recommended a Female Pilot Workforce Development Unit to case-manage the training of female pilots; to increase the number of women in the pilot training continuum; to support cohorts of women progressing through the training pipeline; and to support the retention of female pilots in squadrons. This unit could also manage leave for female members and be staffed by experts in managing the flexible leave of women, including return to work strategies.

6.1 Air Force leadership support for women and men

Air Force members reported that the leadership support for women is good and there is equal treatment in support from unit leaders. Of the 117 Air Force personnel surveyed by the Commission, 96 percent reported that Air Force leaders encourage men and women equally as shown in Chart 30.

Chart 30: Do your leaders encourage men and women equally at your unit?

![Chart 30: Do your leaders encourage men and women equally at your unit?](image)

* This data includes a respondent identified as gender X

While both males and females acknowledge good support from Air Force leadership, they have strong views about equal treatment. The majority do not support targeted initiatives to assist women through the pilot training continuum. Only 41 percent of Air Force members surveyed support strategies to assist the progression of women through pilot training. All other respondents were either not sure, or they did not believe there should be any special measures for women. Female members were more likely to favour strategies to support them at 55 percent compared with male support at 36 percent. Responses are at Chart 31.
Chart 31: Do you think that there should be programs, incentives and strategies to assist women to progress through pilot training at the Air Force?

* This data includes a respondent identified as gender X

The findings from Chart 31 corroborate a prevailing view expressed by male members in focus groups: that there should be no different treatment for women. For the most part, male members were of the view that all opportunities at Air Force should be equal and women should compete with men on equal footing. Women spoke of the difficulty of being a minority in a male-dominated industry. They spoke of family pressures and the need for time away while raising small children. It is therefore interesting that the survey results (especially those from women) do not overwhelmingly support the idea that Air Force should accommodate the needs of women and make adjustments for motherhood.

Opportunities seem equal. Women can apply for anything. Although circumstances may not permit them to, e.g. family.\textsuperscript{380}

Women should not get any extra assistance.\textsuperscript{381}

Twenty percent of female respondents did not think that they should have any special treatment at Air Force and 22 percent were not sure. One reason for the lack of support for these programs and strategies is fear of backlash. A concerning feature of feedback from younger women, especially trainee pilots, was that initiatives aimed at supporting them have the opposite effect. They argue that the backlash from male trainee pilots is so virulent that it makes any initiatives counterproductive. A constant refrain from male members is that women do not get to Air Force on merit and that they are selected to fill quotas.

...If a female gets chosen, [it] doesn’t matter how good mates you are with someone, they’re still going to turn around and say it’s because you’re a female... You can’t get promoted or anything without someone saying it’s just because you’re female... You can be best mates with someone but the minute you get promoted before them they’ll be like, ‘yes, well everyone knows why!’\textsuperscript{382}

As soon as you start mentioning incentives for females and not for males, the wall goes up straightaway... As soon as the policies come out for incentives for women you’re going backwards.\textsuperscript{383}

\textsuperscript{47F}

\textsuperscript{384} actually because it doesn’t matter, it’s always going to come out and then it just creates another divide. You’re not the same as me. You haven’t had to do the same as me. You’re being given an advantage because of your gender, that’s reverse sexism and they got it right.
This Section shows that women favour the initiatives that assist them with work life balance but they have strong views about equality and equal treatment. This is a complex issue for Air Force and one which requires some careful communication by Air Force leadership at all levels.

6.2 Work life balance at Air Force

Work life balance becomes most evident at the time when people start having children. The Commission’s survey results show that both men and women at Air Force report some stress due to their work and home life responsibilities. In fact, the Commission’s survey results reveal that more men than women have difficulty managing the work life balance at Air Force.

When asked if they could manage their work with their personal or family responsibilities, 64 percent of female respondents and 42 percent of male respondents reported that their work environment allowed them to balance their home life responsibilities. It is notable however, that the survey was conducted in training schools where the majority of females were younger and did not have children. In contrast, a number of the men at the schools were instructors or ground staff with families. This age disparity explains the results showing higher levels of difficulty amongst males at Chart 32.

Chart 32: Does your work environment allow you to balance your career with family or personal responsibilities?

* This data includes a respondent identified as gender X

Senior female pilots reported that flexible work arrangements become extremely important at the time women start a family. They reported that prior to this, women do not have any more requirement for flexible leave than men without children.

When you’re young and single, you know, you’re 20 or 21, and you’re straight on pilots’ course, you don’t have those responsibilities.885

When children are of pre-school age, the ability to balance a work schedule with childcare becomes difficult.

Air Force at the moment... We haven’t been able to retain females once they’ve had kids. Most of them have left because the way flying squadrons are set up and the way your job is as a military pilot at the moment, is very incompatible with having young kids and being a mum... It’s hard for the dads too, but I think particularly that 0-5 of the kid’s age... It’s always
going to be a challenge but if you’ve got both people working...in those early years a lot of it does still fall biologically to the mum, whether it be the pregnancies, the initial year off for breastfeeding, all that sort of stuff. So I think that is a particular time in a female pilot’s career that has to be managed very carefully to provide a lot of flexibility.386

Male trainee pilots also reported difficulty in balancing their intensive pilot training regime with family commitments.

Yeah, it’s different, I really don’t get a break, I come home and then haven’t seen the kids, they come home from school, I haven’t seen my kids all day, so the more I spend time with them, which I really enjoy, and my wife, but it’s not relaxing, it’s not a break, it is full on, so as I’ve done that, dinner, baths, books, they’re in bed, I still haven’t had a break and I just start studying till nine or 10 o’clock at night... That happens every day, so it’s full on for me, it’s a lot harder and I can’t just drop everything and study whenever I want, there’s other things that go on, there’s the house and the kids and so yeah, it’s pretty hard.387

...When I went through, you couldn’t imagine having a day off in that three months or a break or I need to go home. Yeah you need to go home because there’s a problem, but if you go home on the weekend because you lived in or something, well I just don’t think that sort of thing is feasible when it’s intensive.388

It’s harder for a trainee, we can make accommodation for them having a child and trying to study and just be mentally at the top of your game the whole time, it’s much harder and we do see a higher failure I think... Some of the ones that have struggled before have had family issues, care of kids and stuff.389

There was a common perception amongst female pilots and trainees that they must make a choice between a career as a pilot and raising a family because of the rigid nature of the pilot training continuum.

I think for a lot of girls they see fast jets as giving your life away, but I think for our generation the women are split between do I pick a career or do I pick the family, and you can only have one...390

female student come through with children and I think that would be a consideration for any female wanting to be a pilot, the idea of being able to have children and work flexibly unless it’s presented to you as a possibility, then you probably wouldn’t think that you could do it and... It would be, I imagine, quite difficult...391

It’s not just my decision anymore to what we do I guess or I choose myself and not my relationship which I’m to a point where life is much more important for me than [my career]. I love my job and I want to do my job and I want to have a career, but if it was a choice, I’m pretty sure, 99.9 percent of the time, family would always be [the priority].392

Air Force pilots and trainees had particular concerns about managing the length and intensity of fast jet pilot training alongside family commitments. There was a common perception that balancing family commitments for fast jet pilots is significantly difficult.
kids, there’s no way I would be able to cope with an ACG training... Like you, you have requirements, you’re not going to be able to sleep, deprivation and all that sort of stuff.... Maybe when the kids are like be able to think about it but at the moment I would never be able to do it, and about it.393

I just don’t know if you can with the progress of the squadrons and other courses you do and rank progression I just don’t know if the avenues are the same in the military for a female to be able to you know remove herself for two or three years and then sort of slot back in to a flying role easily, maybe do another two or three years, move out again for a year or two, come back maybe work part time so it seems to work reasonably well you know outside with aviation but I don’t know if that would be quite as easy to achieve.394

The lack of flexibility and the intensity of training at ACG has dissuaded some male and female pilot trainees from considering this pathway.

One of the reasons that I don’t want to go for fast jets is because I know it’s very intense; it’s a complete commitment on your life to actually go that route, a lot of hard work. I kind of want to look at having more of a lifestyle job, also family and things like that.395

One trainee pilot commented that she was aware of other trainees who had intentionally selected Air Force platforms that could suit work and family and had stayed away from ACG due to the difficulties they foresaw in balancing family and work commitments.

we were spread over a big table... to fly C-17s. I’m like why? You know, it’s just cool. I would rather fly C-17s or Hercs or this charter this or that, just because it’s I guess easier to balance your life.396

A number of pilot trainees who aspired to the fast jet specialisation also spoke about the struggles they faced in wanting to have a family. One female trainee pilot commented:

Fast jets take a lot of commitment and it comes down to a personal thing before, when I was And I sort of came to the realisation that by choice I wouldn’t want to have kids and dedicate or feel I had to dedicate half myself to them and half myself to my career.397

Others were dissuaded from entering ACG training because of the travel requirements. A number of female pilots spoke of the difficulty in making a move to Western Australia to 79 Squadron for a period of three months and then having to move to Williamtown. These relocations are extremely difficult for families.

because it’s only a three-month course. Either do an abridged one or do their conversion at Williamtown. Likewise, if it’s a six-month course then maybe take eight, 12 months to do that course part time. It’s all doable and just has to be more flexible.398

ACG training requires an enormous commitment of time and personal dedication that can be challenging for members with parental responsibilities. ACG needs to consider ways in which women pilots can re-role to the ACG training continuum after they have had children. This
may mean tailoring a training regime that does not move people between Western Australia and New South Wales. Women should be able to do training on the Hawk in the same place that they do the conversion to fast jets. Air Force needs to make accommodation for the needs of the workforce if it is to retain diversity in its ranks.

For those women who enter ACG before they have a family, career breaks and intensive refresher sources should be possible so they can move in and out of ACG for periods as required. While they may not progress through the categories as quickly as their peers, there is potential for them to take various roles in ACG and space their career over intervals of training and child rearing.

### 6.3 Return of Service Obligations for female pilots

Air Force has set aside the Initial Minimum Period of Service for Direct Entry female pilots, and is trialling, as a replacement, a two-year Return of Service Obligation (ROSO) for these women members. Under this initiative, women members who are appointed as Direct Entry pilots will not be obligated to serve until such time as they graduate from the Operational Conversion Course following on from BFTS and 2FTS.\(^{399}\)

Under Air Force’s Graduate Pilot Scheme, the applicable ROSO which will become enforceable on graduation from 2FTS will be either:

- two years from completion of Conversion to Platform training, or
- three years from commencement of the posting that follows successful graduation from 2FTS, whichever is the greater ROSO.\(^{400}\)

This initiative has removed a lengthy commitment that may discourage women from a pilot career at Air Force. Notably, the number of female Direct Entry pilots who have been recruited to Air Force has also increased in recent years, with 10 female Direct Entry pilots recruited in 2014-2015,\(^{401}\) compared with six female Direct Entry pilots recruited in 2013-2014 and two female Direct Entry pilots recruited in the two preceding years.\(^{402}\)

This initiative also provides female Air Force members with greater flexibility and autonomy in relation to career and family planning.

However, Air Force members had mixed views about the shorter ROSO requirements for women pilots. These differences were generally along gender lines. The initiative was viewed positively by many women. One pilot trainee reported that the reduced ROSO provided her with greater flexibility in career management.

> I really wanted to give it a go, biggest hurdle was the\(^{47F}\), which I did sign up for and then a week before I was appointed to go to officer training, I got a new contract and it said the\(^{47F}\)... I was like...yes, that’s awesome, gives me opportunities you know if I wanted to leave if it just wasn’t working.\(^{403}\)

Other female pilot trainees stated that the reduced ROSO initiative provides a greater number of options for female members in relation to family planning.

> I think from the women’s side we understand that for us it’s more attractive if we’re wanting to have a family down the end ‘cause that is usually what it always come to so for us to think
that okay we’ve got six years, that’s time for me to do my job and then I can go on with what I want, whether or not I stay in the Air Force or not.\textsuperscript{404}

I wanted this job but it was definitely a bonus to have the six years because also in my head I sort of think well family as well. I can have finished my Return of Service by the time\textsuperscript{47F} and if I want to start a family I could or if that wasn’t the go, I could still sign on for a few more years, do another posting. It just gives me more options.\textsuperscript{405}

Some women members reported peer backlash as a result of this initiative.

There was [backlash] at my squadron, most certainly.\textsuperscript{406}

\textsuperscript{47F} women are terrified about when the guys are going to find out about the ROSO? Yeah.\textsuperscript{407}

Some male pilot trainees reported that the initiative provided an unfair advantage to women pilots.

It just feels like we all sign up 15 years of our life and then people can come along and have two years. It just, on the surface though it seems a lot like us versus them.\textsuperscript{408}

It is quite frustrating for people like us that have gone to ADFA to see students getting ROSOs about a quarter the length that ours is for the same job and same benefits that we’ve got. We have to give another 12 years of our life. That’s quite frustrating from that aspect.\textsuperscript{409}

I think the resentment hasn’t got so much to do with the WINGs and stuff like that, it’s [the] reduced Return of Service Obligations. Clear contractual differences between a female’s standard of employment and my standard of employment, the same job, that’s an example of something that can rub people the wrong way… I think that’s an example of something that I don’t think is that inclusive, I don’t really think that’s equal and whilst it may contribute to solving the problem I don’t think it’s fair on other people.\textsuperscript{410}

A number of female members reported that the initiative could have been better communicated. They described a lack of clear messaging about its purpose, especially during its initial implementation. They said this initial lack of communication had affected Air Force members’ perceptions and understanding of the ROSO policy.

I think the messaging has been really poor, we know what happened with the ROSO, so men are very circumspect when we try and talk to them.\textsuperscript{411}

When the ROSO was repackaged and reduced, I think it was handled poorly by Canberra. You don’t just send out an email or a DEF gram and say this is happening… And it happened the day we were\textsuperscript{47F} so of course they thought we had something to do with it, which we didn’t. But yes, there’s been a huge backlash about that and I think largely because it was so poorly communicated.\textsuperscript{412}

I feel a lot of that [backlash] has to do with communication… So it was like, ‘Hey everyone, here’s an email’, and everyone was like… You know it was just not communicated well at all throughout the Air Force and I think there’s been better communication since that time…obviously after the resistance to change people are becoming more accepting and then starting to see the positives of what we’re trying to achieve which is really good.\textsuperscript{413}
One way that Air Force leaders could communicate measures such as the reduced ROSO, is in terms that explain substantive equality. Women are disadvantaged unless there are special measures that give them time out of the workforce to have a family. Substantive equality allows a group that would otherwise be disadvantaged, to enjoy their human rights equally through a measure that assists them to participate equally. The Commission website contains information that explains why certain measures assist people to participate in society equally and enjoy their rights equally.

Equality does not always mean treating people the same. There are two types of equality: ‘formal’ equality and ‘substantive’ equality. Formal equality is treating everyone the same. Substantive equality allows different groups to be treated differently so that they can, in the end, enjoy their human rights equally. Special measures are designed to achieve substantive equality.414

Measures aimed at retaining women, such as the reduced ROSO, need to be communicated by Air Force leadership with explanations about substantive equality and an emphasis on the requirement to increase diversity to improve Air Force’s capability. The Commission website and other sources provide clear guidance on these matters.

6.4 Flexible Work Arrangements

In recent years, Air Force has implemented flexible work initiatives to assist members to balance work and family life. These initiatives include Variable Working Hours (VWH), compressed working weeks, job share arrangements, Temporary Home Located Work (THLW), Alternate Location Work, Part-Time Leave Without Pay (PTLWOP) and non-standard working weeks.415

In the 2014-2015 period, 504 females and 464 males were approved to work under formal flexible work arrangements.416 The most common flexible work arrangement at Air Force was Variable Work Hours, followed by THLW, Alternate Location Work and PTLWOP.417

Command noted that ACG offers a more structured and predictable working schedule than other Force Element Groups in Air Force. Advance notice is given when rostering, allowing for flexible arrangements.

...the reputation of ACG is that it’s long, hard hours and anecdotally a lot of women are not attracted to it because of that. Whereas the amazing irony here is I would argue we actually have the most suitable schedule because unlike at a transport squadron where you’re working weekend here, two days off, four days there, get called out on two days’ notice to go on a two-week trip, we’re more of a structured work time. If you’re working evenings you normally know it weeks in advance.418

During informal discussions at Air Force Base Williamtown, one member of ACG informed the Commission that he accessed flexible work arrangements, working one day at home each fortnight as his family was located in Brisbane.

I would say we probably have a little bit more control and a bit more stability than some of the other Force Element Groups than pilots do who are the whim of a broader range of jobs.419
Examples of flexible work show that these arrangements are still embryonic. Many Air Force members said that the success or otherwise of the initiative was dependent on the local unit leader.

is at that time and say, ‘This is what I want and what are you guys going to do to accommodate that?’ And depending on how that all goes, it will determine what I do. It’s all up to how is gets managed at a local level... It’s just about having an understanding of that bigger picture at the local level, which I think is really missing. That’s where they’re not getting it.420

We’ve introduced this policy where we are going to do everything we can to retain the girls post-maternity leave... 99 percent we are retaining... And now, what’s happening is the girls are back in the workforce and they’re like, ‘It’s too hard’. So now the exit point has just moved a couple of years, because there’s no support...there’s no real impetus within the squadron to investigate job sharing, even though the policy is saying we can do it. There’s still this sort of underground ‘girls get everything’, ‘they’re just going to leave anyway’ culture. There’s still managers who feel the girls are a pain in the arse, who want everything...421

Flexible work arrangements are not available during training. This puts some limitation on women in terms of their advancement as pilots.

In simple terms there is no flexible work arrangement possible during training and that training is almost near continuous through [to graduation]. I think it’s a whole different ball-game once they’ve graduated fighter pilots and in an operational squadron, it’s easier to manage that but it’s not at all possible to manage it during training.422

Training is ongoing for fast jet pilot trainees, with an emphasis on continuous improvement, involving ongoing supervision and de-briefing. Maintaining currency is extremely important and this may put some limits on women who aspire to a career in ACG and a family life.

Training systems are so finely tuned to be so efficient with the time that we have that we struggle from day to day when we lose a mission due to weather or...maybe the student is just sick for three or four days, that alone is a huge challenge... On our course, to be quite honest, if someone came in with an unavailable leave that was greater than two weeks we certainly wouldn’t want them graduating on that course.423

A number of trainees emphasised that the pilot training program hinders opportunities for flexible work.

I think there might be a limit though like you know, if you let them know you’ve got something important with the kids, they’d more than happy but if it’s like an ongoing thing like every week...424

If you genuinely have a need to slow down and you had some issues, there’d be no problems with that, the staff here are great in terms of that stuff... I have no doubts you’d get time, but at some point they’re going to expect you to get back on the game unless you’ve got something medically wrong or there’s an issue...425

Despite good intentions to create a flexible environment, members reported that extended periods of flexible work have the potential to have an adverse impact on career progression.

You take either a lot of time off through flexible working arrangements you’re going to slowly fall behind or you may just miss out and accept that I’m not going to get that extra category,
which later on in life, in your career, may affect your suitability as a flight commander or an executive because you need to have that skill.\textsuperscript{426}

I basically side-stepped\textsuperscript{427} I’m not in this stove pipe with any of my peers anymore and therefore I think my options for career progression are really limited. So, unless I can find a flatter pathway to still keep feeling fulfilled in the Air Force, then I don’t feel like I have career direction.\textsuperscript{427}

Women pilots reported that post-maternity leave ‘plus one’ flexible roles tend to be administrative rather than flying roles. This has implications for work and development opportunities and can ultimately impact on career progression.

[The ‘plus one’ role is] a great initiative by Canberra, by DP, but in practice, the squadrons don’t know quite what to do with it... They’ve seen that as, ‘great, I’ve got an extra squadron leader, so I’m going to give you all this admin work that you would give to a squadron leader’, rather than understand that no, that girl is actually back to develop her flying because she’s had four or five years out of flying, leave her alone from an admin point of view so she can either spend time with her family or be developing her flying or be going away... Which is difficult because at the local level they just see this extra resource... And likewise you’re seen as too senior so you get bumped off...captaincy upgrades and things like that.\textsuperscript{428}

Some members reported training burdens for staff upon return from extended leave.

You can’t go away for an extended period of time without then having another training burden on the back end – which is expensive. So you’ll come back in and you’ll take up instructor and jet time to get your competencies back up. So taking six months off does have a training burden at the back end.\textsuperscript{429}

Air Force has produced some useful resources on flexible work, including the Commander’s Guide to Flexible Employment and the Air Force Diversity Handbook: Flying through parenthood - A parental planning guide for women aircrew.

The Commission’s consultations revealed that some members lack an awareness and understanding of Air Force’s flexible work arrangement policies and practices.

As shown in Chart 33, women Air Force members had a greater awareness of Air Force’s flexible working arrangement policies at 94 percent than male members at 63 percent.

\textbf{Chart 33: Are you aware of the Air Force policies on flexible work arrangements?}

* This data includes a respondent identified as gender X
Some members reported that the lack of understanding about Air Force’s flexible fork arrangement policies has contributed to its low uptake.

I think that if it is messaged appropriately and it is made available... I know so many dudes who are dying to spend more time with their kids. It will get taken up. But it needs to be messaged appropriately. The way it’s messaged at the moment is women get two years flex work after babies...

Female Air Force members described difficulties in accessing flexible work arrangements. Many of the difficulties in accessing flexible work purportedly stem from resourcing constraints in Air Force and an inability to backfill roles.

Eventually all of these girls will have children, and want to have some level of part time, because that’s what we’re spruiking, and that’s how you reintegrate back into the workforce, but financially we haven’t actually factored that in... Our workforce structure hasn’t been updated in many, many years because we don’t run as a business and we don’t have a bottom line we’ve never had to. But now we’re putting in all this policy where we’re promising girls this flexibility and ability to work part time and come and go, it’s at odds with our workforce structure. And that’s something that probably only DG Pers. and the Chief can fix... It’s putting together an actual business plan for the feminisation of the female workforce, to allow them to step out of the workforce and have children, for five years and step back in part time during that period... There’s no funding for the positions that we need to allow the girls to do that.

Improved education about flexible work policies and practices may assist in overcoming negative views about this provision. It will have to be accompanied by careful workforce management so that squadrons and units are not understaffed.

Female pilots reported that the ADF should consider providing priority flexible leave to their partners when women return from maternity leave. In instances where the partner is a serving ADF member, joint flexible work arrangements assist in the management of young families.

I’ll still accept that I have to do time away but it needs to be scheduled and de-conflicted with both family and then my husband. So between my husband’s boss, whoever that will be at the time, and my boss, there needs to be that coordination where, okay, you’re identified for this exercise, in this month, we’ll make sure that my husband’s boss understands that during that period he may drop down to three days a week or something, and likewise when I come back from that exercise, that my husband might have to go away somewhere so then there’ll be weeks when I’m only working two or three days...

The policy is there but capability is always used an excuse not to allow proper flexibility so the majority of us have pilots who are partners and if we’re going back to full time flying they need flexibility but the system doesn’t allow for it, so it actually hampers our career but that’s not identified.

Female pilots also recommended that Air Force offer female pilots non-traditional pathways into leadership positions.

If you want to talk long-term sustainment of keeping women in the workforce, I think we need to look at how we manage their careers. We need to have non-traditional pathways to leadership, which we don’t have at the moment.
A number of women stated that their career progression is seriously limited due to the career steps required to be taken in order to be considered for more senior roles. These women noted that undertaking flexible work now or in the future will impede their ability to become competitive for such positions.

...For me, before I can be potentially considered competitive for a commanding officer position, and by then I look at that and I go, which is the time I want to be home the most as a parent. I don't want to be working 14 hour days, seven days a week. So I feel like my progression opportunities in the Air Force have capped out basically, because of the jobs I have to do, and the steps I have to achieve… And I feel like I’m at a position where I probably need to make a break early to be able to forge a career in another industry... 435

Air Force should consider reviewing its current requirements for female members’ career progression into leadership roles. The career disadvantages faced by women as a result of the need to balance work and family reinforce the importance of such substantive equality measures.

If properly managed, flexible work opportunities should lead to increased workforce retention, especially the retention of women. Ultimately, a healthy workforce is one where jobs are shared, and where there is flexibility so that people can move in and out of the workforce in part-time positions or on leave as required.

Enabling a greater number of members at higher ranking levels to access flexible working arrangements would also assist in countering the ongoing belief amongst some members that flexible work will impact on career progression.

It would be valuable for Air Force to provide education on flexible work arrangements, including education for Air Force managers on how to effectively manage teams that are working under flexible arrangements.

Consideration could be given to a keep-in-touch program for Air Force employees who undertake extended leave, including parental leave. The program could take the form of an interactive online portal with toolkits and guides for employees and their managers about working during pregnancy and returning from leave. This online resource could be complemented with personalised coaching sessions for members on extended leave.

Air Force could also consider additional avenues to better support women members returning from leave. A number of good practice initiatives are identified in the Commission’s 2014 Supporting Working Parents: Pregnancy and Return to Work Review.

Women pilots reported that members would benefit from direct messaging about Air Force’s long-term commitment to flexible work arrangements, and the need for local unit managers to make this initiative a high priority. These messages are best delivered at the highest levels of Air Force Command.

I think the Chief of the Air Force needs to publically and vocally say that this is a top five priority and the workforce, i.e. my FEC commanders and OCs and COs will support this, and we will develop training for the managers to learn how to manage females, so that the girls aren’t having to do the pushing from the other end... The cultural expectation, the negative perception around flexible work or having children or, ‘oh, you’re a girl so you get everything’...those types of perceptions that...we’ve been dealing with for ages but it’s at the
point now that, why should we?... There’s very little application of the direction because...it’s not being owned at the grassroots level, and the only way that that can happen is if Command says this is a priority and do it regardless of what you think.  

6.5 Pregnancy

Pregnancy poses a particular set of challenges for female Air Force pilots and pilot trainees. One member reported that becoming pregnant is logistically complex in an operational setting.

Yet the guys can just go okay well we’re trying to get pregnant. They can stop flying for a bit if it’s flying that’s stopping them from getting pregnant but they don’t have that nine months then that 12 months. They can then move on to the next posting, no worries.

There was a general perception amongst members that being grounded while pregnant negatively impacts on career progression. A female pilot instructor commented that once a female pilot becomes pregnant she is grounded from flying and this can create promotional disadvantage.

At the moment, if I became pregnant, I’m grounded. That’s twelve months out straight away... That’s right, you end up scheduling. You end up scheduling or teaching ground school, neither of which have any glory attached to them.

Pregnancy is difficult to manage during training, and can adversely impact on progress through the training continuum to graduation.

I guess it is hard for women to take time off, have children, and come back and still expect to be the same rank as someone who joined at the same time... I think that deters a lot of women. Like ‘X’, she’s sort of like, yes, I really wanted to go jets, if you go jets you’re going way off, and if you fly anything really you’re going away often, you’re spending time away from your family and you’ve got a hard job.

If we had a female fighter pilot, we would need them to... [be] committed to that three or so years of getting their BCAT qualification. That core foundation building block.

ACG Command reported that, on average, fast jet pilot trainees reach B-Category level at around the age of 28 years. Once trainees have achieved the B-Category qualification, pregnancy and maternity leave are reportedly more easily accommodated. For this reason, the careers of female fast jet pilots will need to be carefully managed.

You probably don’t want to start having babies until you’re 28 and that’s if all the planets line up and you get through all the training, no delay, etc.

ACG Command acknowledged the challenges this presented for women and that ‘you can’t really create a timetable for [pregnancy]’. If a trainee became pregnant during this ‘core building’ period, alternative positions to the fast jet role may be available to them.

If we’ve got a female fighter pilot and she’s one year in the squadron and then falls pregnant I mean, it’s not like she’s no good to anyone... In that instance they can still have a very
fruitful and great career. For instance, being an instructor, teaching on Hawks or teaching at 2FTS. They’ve still got enough of the fighter pilot basics that they can be a great instructor and role model.\textsuperscript{444}

ACG Command also noted that ground jobs are always available to fast jet pilots seeking a flexible work arrangement.

There are a lot of ground jobs on the wings – that is Canberra jobs. Fighter pilots are always in demand...so there are plenty of opportunities.\textsuperscript{445}

The fact of being grounded due to pregnancy has dissuaded some females from attempting fast jet pilot training. When asked what the major barriers were for women becoming fast jet pilots, one female pilot trainee at 2FTS stated:

\begin{quote}
Probably the family issue. For me definitely. I mean if I was to go fast jets and then you know you want to do the job for a couple of years but at the same time, if you’re going to start a family that’s sort of that. So then do you go well do you waste all that training and do all that sort of stuff only to then to have a family and then what do you do after that? Or do you just get straight into flying transport or whatever it may be, and you can do that for a good solid few years? It certainly crosses my mind.\textsuperscript{446}
\end{quote}

Similarly, a female officer suggested that the impact of being grounded due to pregnancy weighed heavily on female junior pilots when considering their specialisations.

\begin{quote}
I think it can also be difficult because they work so hard for that career too, and by the time they get to a fast jet they’re already qualified on a multitude of different aircraft. They’re not just a trainee, they’re a qualified pilot... For the females to then look at having families and take time off, that’s going to have an impact for them in their career progression.\textsuperscript{447}
\end{quote}

Some women pilot trainees also raised concerns about the challenges they would face in returning to their flying careers and maintaining their flying currency if they were to become pregnant.

\begin{quote}
So the way I think about it is if I did want to start a family and I got pregnant that would take me out of flying for maybe a year, a year and a half, and I just don’t see how you could stay recent in flying if you weren’t flying for that long period of time.\textsuperscript{448}

I don’t really see how you would be a fast jet pilot and then have a family and then continue to be a fast jet pilot, I just don’t.\textsuperscript{449}
\end{quote}

To assist women members in navigating the challenges associated with pregnancy and extended leave, Air Force should consider undertaking career management planning and consultation with all female pilots. Personnel need to become involved in negotiations with unit managers to assist women to manage their leave and their return to work. Women who are planning families should be able to negotiate arrangements through a centralised Female Pilot Workforce Development Unit. This unit should be expert in managing the flexible leave of women and return to work strategies. Females requiring leave should not have to individually negotiate leave at the unit level.

\begin{quote}
I think DP need to come in at these initial stages and very much communicate to the chain of command – your boss and your supervisors – the bigger picture of, ‘ok, yes this will be a little
bit harder for you guys to manage at a local level, yes it will hurt capability a little bit, and it's not the norm, but the bigger strategic picture is that we're wanting to retain women long term, so from a local side of things we need you to support them through this time and make it achievable so they can come out the other end and still be here and still have enough energy to want a career in the Air Force.\textsuperscript{450}

In addition, Air Force should review the practice of backfilling positions left vacant due to pregnancy. Air Force members reported that it is widespread organisational practice not to backfill due to resource constraints.

\textsuperscript{47F}, she just went on maternity leave okay. The Air Force's policy is that they will not fill that position while she is away on maternity leave.\textsuperscript{451}

In some instances, pregnancy is viewed as a burden on other Air Force members.

There's probably a lot in admin working flexible hours but I don't think it works... Last year we had someone that was on three days a week. She was a corporal; I still did her job when she wasn't there... I still did her workload nor did I get paid for it cause you can't get HDO if someone's already there.\textsuperscript{452}

The level of work burden and lack of backfilling of roles has reportedly created negative perceptions of parental leave and, to a lesser degree, of flexible work practices. Members reported that they feel some resentment towards women taking maternity leave, due to personnel shortages.\textsuperscript{453}

Some female Air Force members reported that flexible work arrangements need to be properly resourced for this initiative to succeed. It was suggested that Air Force should increase its level of training and invest in a larger pool of personnel to plan for a potential increase in take up of flexible work by both women and men in the future.\textsuperscript{454} It is only when maternity leave and flexible leave are adequately managed, that pregnancy and child rearing will be possible for pilots in ACG.

\textbf{6.6 Findings and recommendations: Family life and flexible work}

<table>
<thead>
<tr>
<th>6</th>
<th>FINDING:</th>
<th>RECOMMENDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Female pilots have positive views about the reduced ROSO.</td>
<td>Continue to implement the reduced ROSO for all female pilots.</td>
</tr>
<tr>
<td>6.2</td>
<td>Many women members experience backlash from male peers as a result of the reduced ROSO.</td>
<td>Command to lead cultural reform with an emphasis on how inclusion of women enhances Air Force capability.</td>
</tr>
<tr>
<td></td>
<td>Some action has reportedly been taken by Air Force leadership to counter this backlash by encouraging more male member involvement in the WINGS program.</td>
<td>Leadership to encourage males to become advocates for gender inclusivity and maintain zero tolerance for backlash against women.</td>
</tr>
</tbody>
</table>
| 6.3 | Female pilots and trainees report that they must choose between a career as a pilot and a family. | Ensure the Air Force personnel system provides career pathways and advancement for pilots returning from parental leave. 
Case manage the leave of pilots who are having children and provide them with support from Personnel HQ. |
| 6.4 | Female pilots and trainees report that working flexible work arrangements can have a negative impact upon women’s flying training and career progression. They have particular concerns about returning from maternity leave. Women pilots report that post-maternity leave ‘plus one’ flexible roles tend to be administrative rather than flying roles. | Commit to a Female Pilot Workforce Development Unit to case-manage flexible work arrangements, leave and return to work strategies. 
Create toolkits, guides and training for unit executives and supervisors about parental leave and returning to work. |
| 6.5 | Female pilots report that in instances where both parents are serving ADF members, joint flexible work arrangements greatly assist in the management of young families. | Air Force to negotiate with the other Services and Defence People Group regarding shared flexible work arrangements for ADF personnel who are the partners of Air Force pilots returning from maternity leave. |
| 6.6 | Backfilling rarely occurs when Air Force members are on leave, including maternity leave. This places a greater work burden on other squadron/unit members and, in some circumstances, creates resentment within the team. | Air Force to backfill all positions left vacant by maternity leave. This is more likely to be achievable if a workforce margin is established for this purpose. |
Appendices
### APPENDIX A: AHRC QUESTIONNAIRE

**DEFENCE COLLABORATION PROJECT**

**AUSTRALIAN HUMAN RIGHTS COMMISSION**

---

INITIALS OF FOCUS GROUP CONVENOR:  
(ahrc use only)

---

<table>
<thead>
<tr>
<th>DATE:</th>
<th>____ / ____ / 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME OF UNIT:</td>
<td></td>
</tr>
<tr>
<td>RANK:</td>
<td></td>
</tr>
<tr>
<td>NUMBER OF YEARS IN DEFENCE FORCE:</td>
<td></td>
</tr>
<tr>
<td>GENDER IDENTITY:</td>
<td>MALE</td>
</tr>
<tr>
<td>LIVING ARRANGEMENTS [please tick]:</td>
<td>ON BASE:</td>
</tr>
</tbody>
</table>

**CONSENT:** We will use information from this questionnaire to support the focus group discussions. Responses to the questionnaire will be used to produce a report about the experience of Defence Force personnel. We will not use your name in the report or any personal information that may reveal who you are.

Do you consent to complete the questionnaire on these terms? 

PLEASE TICK HERE: 

---

**The Chief of Air Force has asked the Australian Human Rights Commission to find out why there are no female fast jet pilots in the Royal Australian Air Force. This questionnaire is designed to elicit your views about the RAAF, and in particular female fast jet pilots.**

**Why did you join the RAAF?**

EXPLAIN: ________________________________________________

---

**Has your experience in the RAAF been mostly positive?**

Tick relevant

YES | NO | NOT SURE

EXPLAIN: ________________________________________________

---

**What is your career goal in the RAAF?**

Tick relevant

CAREER GOAL: ________________________________________________

---

**Do you think you will be able to achieve your career goal?**

Tick relevant

YES | NO | NOT SURE

EXPLAIN: ________________________________________________

---

**In your view, how do people in the wider RAAF view fast jet pilots?**

EXPLAIN: ________________________________________________

---

**What qualities make a successful fast jet pilot? [List up to three qualities in order of importance]**

Tick relevant

YES | NO | NOT SURE

EXPLAIN: ________________________________________________

---

FOR OFFICIAL USE ONLY
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you had any exposure to working with female pilots and/or female fast jet pilots?</td>
<td>YES, NO</td>
</tr>
<tr>
<td>If yes, how would you describe that experience?</td>
<td>EXPLAIN</td>
</tr>
<tr>
<td>What do you think are the reasons that most trainees (male and female) fail to qualify for the fast jet pilot training program?</td>
<td>1.</td>
</tr>
<tr>
<td>(List up to three reasons)</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>What is your view about women becoming fast jet pilots?</td>
<td>GOOD, BAD, NEITHER, GOOD OR BAD, NOT SURE</td>
</tr>
<tr>
<td>Explain</td>
<td></td>
</tr>
<tr>
<td>Are there benefits to RAAF in training female fast jet pilots?</td>
<td>YES, NO, NOT SURE</td>
</tr>
<tr>
<td>Explain</td>
<td></td>
</tr>
<tr>
<td>Do you think there should be incentives/programs to actively recruit female pilots into the RAAF?</td>
<td>YES, NO, NOT SURE</td>
</tr>
<tr>
<td>If yes, what do you think would be the most effective strategies to increase the numbers of female pilots recruited to the RAAF?</td>
<td>1.</td>
</tr>
<tr>
<td>(List up to three in order of importance)</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>There are no female fast jet pilots in Australia while there are female fast jet pilots in many other countries. Why do you think this is the case?</td>
<td>1.</td>
</tr>
<tr>
<td>(List up to three reasons)</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>What is your view on recruiting female fast jet pilot trainees from overseas air forces to train in Australia?</td>
<td>GOOD, BAD, NEITHER, GOOD OR BAD, NOT SURE</td>
</tr>
<tr>
<td>What is your view on sending Australian female fast jet pilot recruits to train overseas with forces where they are already qualified female fast jet pilots?</td>
<td>GOOD, BAD, NEITHER, GOOD OR BAD, NOT SURE</td>
</tr>
<tr>
<td>Do you see any benefit in arranging for a female fast jet pilot from an overseas military to instruct at your unit?</td>
<td>YES, NO, NOT SURE</td>
</tr>
<tr>
<td>Are there any aspects of your current work environment which might make it harder for a woman to participate and succeed?</td>
<td>YES, NO, NOT SURE</td>
</tr>
<tr>
<td>Explain</td>
<td></td>
</tr>
<tr>
<td>Is unacceptable behaviour dealt with appropriately at your unit?</td>
<td>YES, NO, NOT SURE</td>
</tr>
<tr>
<td>Explain</td>
<td></td>
</tr>
<tr>
<td>Are you aware of RAAF’s policy on flexible working arrangements?</td>
<td>YES, NO, NOT SURE</td>
</tr>
<tr>
<td>Explain</td>
<td></td>
</tr>
<tr>
<td>Does your work environment allow you to balance your career with family/personal responsibilities?</td>
<td>YES, NO, SOME TIMES, NOT SURE</td>
</tr>
<tr>
<td>Explain</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix A: AHRC Questionnaire

**Are there enough female pilot instructors in the RAAF?**

**Tick relevant**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
</table>

**Explain: ________________________________**

**Are there enough women in senior and command roles in the RAAF?**

**Tick relevant**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
</table>

**Explain: ________________________________**

**Do your leaders encourage men and women equally at this unit?**

**Tick relevant**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
</table>

**Explain: ________________________________**

**Have you experienced any injuries while at this unit?**

**Tick relevant**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

**Would you find comfortable reporting an injury during training or exercises at this base?**

**Tick relevant**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
</table>

**Explain: ________________________________**

**Do you think there should be incentives/programs/strategies to assist women to progress through pilot training programs in the RAAF?**

**Tick relevant**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>NOT SURE</th>
</tr>
</thead>
</table>

**Explain: ________________________________**

**If yes, what do you think would be the most effective strategies to support female pilots through the training continuum in the RAAF? (List up to three strategies in order of importance)**

1. 
2. 
3. 

**Do you know any women who have exited the pilot stream of the RAAF?**

**Tick relevant**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

**If yes, do you know the reasons why they left?**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

**Explain: ________________________________**

**Lastly, do you have any ideas or feedback for Command? (Optional)**

---

*Thank you for your time.*
### Word Picture Assessment Matrix

<table>
<thead>
<tr>
<th>Full</th>
<th>Marginal</th>
<th>Low Set</th>
<th>Set</th>
<th>High Set</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fast jet pilot project: Methodology

The findings and recommendations of the Commission’s Reacrt are based on an independent assessment of the views and experiences of RAAF members. This assessment includes the examination and analysis of both qualitative and quantitative research.

The project has also been informed by data and documentation provided by the RAAF.

1.1 Qualitative data

The Commission collected extensive qualitative data to inform the Report. This data was sourced via the following:

- focus groups and individual interviews with RAAF members;
- confidential individual discussions with RAAF members; and
- meetings with key RAAF personnel.

(i) Focus groups and individual interviews

Focus groups and individual interviews were held with RAAF Command members, staff and trainees at each of the RAAF pilot training bases as well as at each of the training bases at Air Combat Group.

In order to gain a thorough understanding of the particular experiences of women pilot trainees progressing through the RAAF training system, the Commission gave preference RAAF pilot training bases as opposed to operational environments.

The Commission conducted five visits to RAAF bases in total. The locations and units visited are:

- RAAF Base Williamtown, New South Wales (78 Wing (76 Squadron and 81 Wing (3 Squadron, 77 Squadron and 20CU))
- RAAF Base Amberley, Queensland (82 Wing (1 Squadron and 6 Squadron))
- RAAF Base Pearce, Western Australia (No. 2 Flying Training School (2FTS), 79 Squadron and 453 Squadron)
- RAAF Base Tamworth, New South Wales (Basic Flying Training School (BFTS)).

These visits were coordinated in such a way as to enable the Commission to work backwards through the fast jet pilot training continuum, commencing consultations at RAAF Base Williamtown, and finishing with consultations at RAAF Base Tamworth, where pilot trainees attend Basic Flying Training School. This enabled the Commission to gain a thorough understanding of the requirements and aspirations of Air Combat Group and the role of the fast jet pilot, prior to examining each of the phases of the training continuum.

The team consulted with a range of RAAF members from various ranks at each of these bases, including:
• Command team members
• Qualified flying instructors
• Fast jet pilots
• Fast jet pilot trainees
• RAAF pilots
• RAAF pilot trainees
• Support staff from Air Combat Group and the broader RAAF, including Weapon Systems Operators, engineers and ground crew.

At the outset of each of the site visits, the Commission provided an in-brief to Command. During this session, the Commission briefed Command on the purpose of its visit, and gathered information from Command in relation to any particular strategies currently being implemented to address the project aims, and any concerns or areas which Command wished the Commission to explore within the scope of the project. At the conclusion of each of the site visits, the Commission provided an out-brief to Command to report on each of the key issues raised.

(ii) Focus groups with women pilots

In consultation with the Defence Organisational Unit, the Commission facilitated six focus group and interview sessions with women pilots throughout the broader RAAF.

The Commission also conducted a series of focus groups and interviews with female helicopter pilots, Command team members and qualified flying instructors located at the Royal Australian Navy Base Albatross, New South Wales. The objective of this visit was to understand whether there are any correlations between operating helicopters and fast jets, as well as the reasons that female helicopter pilots chose this particular career pathway.

(iii) Focus group methods

Focus group and interview facilitators were guided by a series of questions which were designed to explore particular themes relevant to the aims of the project. However, the structure of the focus groups and interviews was designed so as to also allow for any new issues of particular interest to the parties being consulted to be examined.

Focus group and interview discussion questions addressed the following topics:

• the culture of the bases or units visited, exploring issues such as inclusion and equality, flexible work practices, reporting and communication and leadership support;
• systemic issues, such as the pilot training continuum and requirements, the timing of training, and return of service obligations; and
• members’ attitudes and views in relation to fast jet pilots, women as fast jet pilots, reasons for the lack of female fast jet pilots in Australia, existing cultural or systemic barriers to women succeeding within the fast jet environment, as well as potential strategies to recruit and promote female pilots.

All focus groups and interviews were attended on a voluntary basis. All participating members were assured of the confidential nature of the discussions, and only de-identified
information is provided within the Report. Consultations were recorded and transcribed upon the consent of participants, so as to ensure an accurate record of each of the discussions. Support information was also made available to all participants.

(iv) Meetings with key ADF personnel

The Commission held a number of meetings and briefings with key ADF personnel to discuss the aims of the project.

As part of the background scoping for the Report, the Commission met with the Adaptive Culture Team, Personnel Branch of the RAAF. The Commission also met with Squadron Leader Lisa Trotter, Organisational Clinical Psychologist, who has previously undertaken research into the RAAF pilot continuum and the ways in which it can either limit or enhance the success of women pilots.

In July 2015, the Commission met with the Chief of Air Force (CAF), Air Marshal Leo Davies, to provide a briefing on the aims and progress of the project.

Throughout the course of the project, the Commission also attended the following meetings to better inform the findings and recommendations of the Report:

- Meetings with Defence Force Recruiting (DFR) personnel and candidates, undertaken at the DFR Sydney office
- Meeting with Paul Wilmott, Office of the Director General Personnel Air Force
- Meeting with Wing Commander Llani Kenneally, Gender Adviser to CAF, Deputy Director – Air Force Gender Programs.

1.2 Quantitative data

(i) Questionnaire

The Commission collected information about the views and experiences of RAAF members in relation to the project via a questionnaire. The questionnaire was submitted to the Organisational Development Unit for approval in July 2015.

This questionnaire was distributed to members during the Commission’s site visits to RAAF Base Amberley, RAAF Base Pearce (2FTS), RAAF Base Tamworth (BFTS), as well as during separate focus group sessions with women pilots, and the Commission’s visit to the Royal Australian Navy Base Albatross.

All RAAF members who participated in focus groups and interviews conducted by the Commission were provided with the opportunity to complete a questionnaire. In total, the Commission received 117 completed questionnaires.

The survey questions closely reflect the issues explored in focus groups. The central purpose of the questionnaire was to provide an additional avenue for participants to raise any issues or insights which they may not have felt comfortable disclosing during face-to-face or group discussions.
The information obtained from the questionnaires was analysed and graphed to provide a comprehensive overview of the views and experiences of RAAF members. These graphs feature prominently throughout the Report.

(b) RAAF data and documentation

Throughout the course of the project, the Commission requested information and documentation from the RAAF in relation to RAAF policies, strategies and various other data relating to the project. All information requests were facilitated by the Defence Organisational Unit.

In early 2015, the Commission requested some general data and information from the RAAF to assist in scoping the report. This request for information comprised:

- RAAF pilot data, including:
  - the number of pilots in the RAAF, the roles they occupy, and the areas they are attached to, broken down by gender
  - the number and proportion of people who have applied for direct entry into the RAAF as pilot since 2010, broken down by gender
  - the number and proportion of people who have applied for the fast jet pilot stream since 2010, broken down by gender
  - the number and proportion of people who have entered pilot training and fast jet pilot training since 2010, broken down by gender
  - the number and proportion of people who have completed each stage of pilot training and fast jet pilot training since 2010, broken down by gender
  - the number and proportion of pilots generally, and fast jet pilots specifically, who have successfully complete training since 2010, broken down by gender

- data on women who work in direct support roles for fast jets, including numbers and roles
- policies and procedures regarding the targeted recruitment and retention of pilots, including fast jet pilots, in the RAAF
- policies and procedures regarding training programs and promotion paths for pilots, including fast jet pilots, in the RAAF
- policies around maintenance of a pilot’s or fast jet pilot’s licence and/or any other requirements and/or ongoing training requirements for these roles
- policies concerning flexible work arrangements for RAAF pilots, including fast jet pilots, and any information on rostering and scheduling of work shifts
- RAAF training data, including:
  - A description of the pilot training continuum, requirements and expected timeframes
  - Any changes that have occurred to training since fast jet pilot training became open to women
  - All reviews conducted into pilot training programs, including the fast jet pilot training program, since 2010
• Defence Force Recruiting (DFR) data, including the number of pilots recruited, targets for recruitment, any documents relating to the recruitment of pilots into the RAAF by DFR, data detailing the number of successful and unsuccessful entry of pilots into the RAAF since 2010, broken down by gender
• data on the financial costs involved in:
  o recruiting a pilot into the RAAF, through DFR, from 2010 onwards
  o training a pilot (up to 2FTS)
  o training a fast jet pilot
  o maintaining a pilot’s or fast jet pilot’s professional qualifications and licence
  o the turnover of pilots, per annum
  o the turnover of fast jet pilots, per annum.

The Commission also requested information from each of the RAAF bases visited as part of the project, prior to each visit. Each request for information was base-specific, and included the following:

• background information relating to the organisational structure of the base, staffing, flexible work arrangements, separation rates and injury rates;
• de-identified incident and complaints data, including the following:
  o data sourced from the ADF Unacceptable Behaviour Surveys, the Sexual Misconduct and Prevention Response Office (SeMPRO), and the Australian Defence Force Investigative Service (ADFIS)
  o audit reports from the Inspector General of the ADF (IGADF)
  o data on incidents dealt with under the Defence Force Discipline Act (DFDA)
  o drug and alcohol testing data;

• relevant ADF, RAAF and base-specific instructions, policies and practices;
• information on any education programs or training implemented on-base
• information on diversity programs or initiatives being implemented to increase women’s representation.

The Commission sought additional information from the RAAF on the pilot score data of both BFTS and 2FTS, (2010 to 2015) to inform to pilot training and assessment findings.

The Commission liaised with the Defence Organisational Unit on a regular basis for the duration of the project.
Appendix D: Terms of Reference

ADF Cultural Reform: Project Proposal for Women Fast Jet Pilots Project

Australian Human Rights Commission

January 2015

Background

As part of the collaborative work between the Australian Human Rights Commission (the Commission) with the Australian Defence Force around cultural reform, RAAF has identified the current lack of women fast jet pilots as a priority for further work.

As at January 2014, of the 700 pilots in the RAAF, only 20 were women (2.8%).\(^1\) Although fast jets have been open to women since 1995, there are not yet any female fast jet pilots.

Women have been successful in qualifying as fast jet aircrew, with the first F-111 Navigators (Air Combat Officers - ACOs) graduating in 2000.\(^2\)

As at January 2014, there are more than 110 female aircrew in Air Force, including Air Combat Officers, Airborne Electronic Analysts, Crew Attendants and Loadmasters. Recently, four female ACOs qualified for fast jets.\(^1\) While none of these roles will lead to a career as a fast jet pilot, this is significant, given that they will have faced some of the challenges and operate in the same cultural context which thus far have impeded women in qualifying as fast jet pilots.

Within RAAF, entry for pilot and engineer training was opened to women at the same time. It is understood that there are a number of female engineers, including a one-star Officer in the engineering division, but there are still no fast jet pilots.

The Women Fast Jet Pilots Project – a description

This project will identify whether or not there are systemic and/or cultural barriers impeding women from becoming fast jet pilots.

In order to identify these barriers, the team will consider recruitment, training and operational contexts, relevant special initiatives (eg Graduate Pilot Scheme, Experiential Air Force Camos, mentoring and networking opportunities) and speak to RAAF personnel and key stakeholders to gain their views. The team will also seek information from international Air Forces, as relevant.

The team will develop targeted strategies to provide practical advice on how RAAF can support and encourage women in their career pathways towards qualifying as a fast jet pilot.

Project Objectives

For this component of the ADF Cultural Reform Project being undertaken by the Australian Human Rights Commission, the team aims to:

- Investigate any cultural and/or systemic barriers women face in trying to succeed as fast jet pilots in RAAF
  - Cultural issues will include those relevant to the cultural reform agendas of the ADF and RAAF as described in Pathway to Change and New Horizon and will include:
    - Inclusion and equality – including unacceptable behaviours
    - Flexible work
- Reporting and communication
- Leadership
  - Systemic issues may include: the training continuum, duration and requirements; timing of training in a career path; and return of service obligations.
- Identify strategies that may assist in overcoming barriers identified.

To inform these aims, further inquiry will include:

- What is the training pathway to qualify as a fast jet pilot?
- Are there barriers that women face in this training pathway?
- At what point do women who want to become pilots fail? What can we learn about these courses/standards/bases/instructors?
- Have training courses changed since fast jet pilot training became open to women? How?
- What are the attitudes held about fast jet pilots in the RAAF? How does this impact on women who want to become and/or succeed as fast jet pilots?
- What programs and supports are currently available to assist women to become fast jet pilots?
- Are there lessons to be learned from international experience?
- Are there lessons to be learned from other services? (e.g., Helicopter pilots in Army and Navy, if applicable)
- Are there lessons to be learned from the experience of women in related areas (e.g., fast jet air crew?)
- Are there lessons to be learned from women pilots who have not successfully completed training in the past four years?
- Are there lessons to be learned from private sector aviation.

Methodology

The team will use a range of methodologies to inform its research for the project:

- Meetings and briefings:
  - Meeting with Chief of Air Force (CAF) prior to visit of any RAAF bases associated with fast jet pilots and their training schools
  - Meeting with Ms Lisa Trotter – Organisational Clinical Psychologist – who RAAF have advised is a key person researching work in this area.
  - Meeting with Group Captain Phillip Gordon – CO Wing 81 – who is instituting some special initiatives to encourage women to become fast jet pilots
  - Briefing to the Cultural Review Team at Williamtown by RAAF on fast jet pilot training pathway and issues.

- Focus groups and individual interviews:
  - The team will visit Williamtown and Pearce Bases (2FTS), and BFTS training school (Tamworth) to speak with:
    - fast jet pilots
    - officers undertaking pilot training that can lead to a role as a fast jet pilot
    - instructors
    - women pilots - including the one female Air Combat Officer at RAAF Base Amberley - (by teleconference)
    - support staff - fast jet air crew and navigators
    - Major Meg Hurley - Liaison role at Williamtown Base (Hercules trained level)
    - Other personnel, as identified.

- Analysis of de-identified incident and complaints data e.g., UB Survey, SeMPRO, IGADF, relating to the bases visited.
APPENDIX D: TERMS OF REFERENCE

- Analysis of relevant ADF, RAAF and base specific instructions, policies and practices
- Analysis of quantitative and qualitative data available at times of decision to leave, eg exit interviews, HR data
- Analysis of international data and any research on fast jet programs for women in other countries.

**Site Visit Process**

- Prior to visits, through the Organisation Development Unit:
  - the team will request information from RAAF on relevant data from incident reports, complaints and surveys including: YourSay, Pathway to Change Metrics, Organisation Climate Reports, Unacceptable Behaviour Survey, Sempo, ADFIS, IGADF.
  - Liaise with the site on the most appropriate schedule and composition of focus groups.
- At the outset of the site visits, the team will provide an in-brief to Command. During this session, the team will brief Command on the purpose of its visit, and the process to be used. The session will provide Command with an opportunity to raise any concerns on which they may want the team to focus, within the scope of the project. Command may also wish to brief the team on any relevant strategies that are relevant to the project.
- The team will then conduct focus groups and interviews with personnel, as above. Focus groups and interviews will be attended on a voluntary basis. These sessions will be confidential and unless consent is provided by personnel involved, any identifying information will not be released. Ideally, focus groups should include no more than 15 participants at any one time. Support information will be made available for all participants. With their consent, all sessions will be recorded to ensure the team has an accurate record of the discussions. No names will be recorded in the focus groups or interviews.
- At the conclusion of a visit, the team will also provide an out-brief to Command and report on key and emerging issues raised. Unless consent is provided by the personnel involved, any identifying information will remain confidential.
- Four weeks after the visit, the team and the ODU will provide Command with a report that identifies the key issues and includes suggested strategies to address the implementation of cultural reform. The team may brief Command on its findings prior to submitting the report.
ENDNOTES

1 Consultation with female pilots 2015-2016
2 Consultation with female pilots 2015-2016
3 Consultation with female pilots 2015-2016
4 Consultation with female pilots 2015-2016
5 Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
6 Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
9 Royal Australian Air Force, Response to Request for Information, Email, 26 August 2015.
10 Royal Australian Air Force, Response to Request for Information, Email, 31 March 2016.
11 Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
20 Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
21 Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
22 Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
24 Consultation with Female Pilots/Trainees 2015-2016.
25 Consultation with Female Pilots/Trainees 2015-2016.
26 Consultation with Female Pilots/Trainees 2015-2016.
27 Male Trainee Pilots, Focus Group, Air Force Base Pearce, 2015.
29 Consultation with Female Pilots/Trainees 2015-2016.
30 Consultation with Female Pilots/Trainees 2015-2016.
31 Consultation with Female Pilots/Trainees 2015-2016.
32 Consultation with Female Pilots/Trainees 2015-2016.
33 Consultation with Female Pilots/Trainees 2015-2016.
34 Consultation with Female Pilots/Trainees 2015-2016.
35 Royal Australian Navy Command and Instructors, Consultation, HMAS Albatross, 2016.
36 Royal Australian Air Force, Response to Request for Information, Email, 31 March 2016.
37 Royal Australian Air Force, Response to Request for Information, Email, 31 March 2016.
38 Royal Australian Air Force, Response to Request for Information, Email, 31 March 2016.
39 Consultation with Female Pilots/Trainees 2015-2016.
40 Consultation with Female Pilots/Trainees 2015-2016.
41 Consultation with Female Pilots/Trainees 2015-2016.
42 Consultation with Female Pilots/Trainees 2015-2016.
43 Consultation with Female Pilots/Trainees 2015-2016.
44 Royal Australian Air Force, Response to Request for Information, Email, 24 March 2016.
47 Male Pilot Trainee, Interview, Air Force Base Pearce, 2015.
49 Consultation with Female Pilots/Trainees 2015-2016.
50 Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Senior Air Force Member, Consultation, Canberra, Australian Capital Territory, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Webcache.googleusercontent.com/search?q=cache:Qbnr4inf5sIJ:https://www.utwente.nl/cw/theorieenoverzicht/Levels%2520of%2520theories/meso/Attraction-Selection-Atr
Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
M. Orlitzky, Oxford Handbook of Human Resource Management, The University of Auckland
University of Twente, Attraction-Selection-Atrition Framework; Understanding organizational
 behaviour. At
M. Orlitzky, Oxford Handbook of Human Resource Management, The University of Auckland
Business School, Dept. of Management & Employment Relations
New Zealand. At
Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
Royal Australian Air Force, Response to Request for Information, Email, 2 June 2015.
M. Orlitzky, Oxford Handbook of Human Resource Management, The University of Auckland
Business School, Dept. of Management & Employment Relations
New Zealand. At
Defence Force Recruiting, Meeting, New South Wales, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Male Qualified Flying Instructor, Focus Group, RAAF Base Tamworth, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Defence Force Recruiting, Meeting, New South Wales, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Defence Force Recruiting, Meeting, New South Wales, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Defence Force Recruiting, Meeting, New South Wales, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Defence Force Recruiting, Request for Information, Email, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
University of Notre Dame, Guideline: VET Validation and Moderation of Assessment. At
Australian Skills Quality Authority, Fact Sheet – Conducting Validation,
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Consultation with Female Pilots/Trainees 2015-2016.
Male Pilot Trainees, Focus Group, Air Force Base Pearce, 2015.
Consultation with Female Pilots/Trainees 2015-2016.
Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.

Consultation with Female Pilots/Trainees 2015-2016.
Air Force Command, In-Brief 78 Wing, Air Force Base Williamtown, 2015
Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.
156 Mixed Pilot Trainees, Focus Group, Air Force Base Pearce, 2015.
157 Consultation with Female Pilots/Trainees 2015-2016.
158 Consultation with Female Pilots/Trainees 2015-2016.
167 Consultation with Female Pilots/Trainees 2015-2016.
172 Consultation with Female Pilots/Trainees 2015-2016.
176 Consultation with Female Pilots/Trainees 2015-2016.
177 Consultation with Female Pilots/Trainees 2015-2016.
178 Consultation with Female Pilots/Trainees 2015-2016.
179 Consultation with Female Pilots/Trainees 2015-2016.
180 Consultation with Female Pilots/Trainees 2015-2016.
181 Consultation with Female Pilots/Trainees 2015-2016.
183 Consultation with Female Pilots/Trainees 2015-2016.
184 Consultation with Female Pilots/Trainees 2015-2016.
185 Consultation with Female Pilots/Trainees 2015-2016.
186 Consultation with Female Pilots/Trainees 2015-2016.
187 Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.
188 Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.
190 Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.
191 Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.
192 Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.
193 Male Pilot Trainees and Air Combat Officers, Focus Group, Air Force Base Williamtown, 2015.
196 Consultation with Female Pilots/Trainees 2015-2016.
197 Consultation with Female Pilots/Trainees 2015-2016.
202 Consultation with Female Pilots/Trainees 2015-2016.
203 Consultation with Female Pilots/Trainees 2015-2016.
204 H. Yam, What is contextual learning and teaching in physics? Department of Physics, The Chinese University of Hong Kong. At http://www.hk-phy.org/contextual/approach/tem/brief_e.html (viewed 10 December 2012).
205 Consultation with Female Pilots/Trainees 2015-2016.
206 Consultation with Female Pilots/Trainees 2015-2016.
209 Consultation with Female Pilots/Trainees 2015-2016.
210 Consultation with Female Pilots/Trainees 2015-2016.
212 Consultation with Female Pilots/Trainees 2015-2016.
213 Consultation with Female Pilots/Trainees 2015-2016.
214 Consultation with Female Pilots/Trainees 2015-2016.
215 Consultation with Female Pilots/Trainees 2015-2016.
216 Consultation with Female Pilots/Trainees 2015-2016.
217 Consultation with Female Pilots/Trainees 2015-2016.
218 Consultation with Female Pilots/Trainees 2015-2016.
219 Consultation with Female Pilots/Trainees 2015-2016.
220 Consultation with Female Pilots/Trainees 2015-2016.
221 Consultation with Female Pilots/Trainees 2015-2016.
222 Consultation with Female Pilots/Trainees 2015-2016.
223 Consultation with Female Pilots/Trainees 2015-2016.
224 Consultation with Female Pilots/Trainees 2015-2016.
225 Consultation with Female Pilots/Trainees 2015-2016.
226 Consultation with Female Pilots/Trainees 2015-2016.
227 Consultation with Female Pilots/Trainees 2015-2016.
228 Consultation with Female Pilots/Trainees 2015-2016.
229 Consultation with Female Pilots/Trainees 2015-2016.
230 Command, Out-Brief, ACG Williamtown, 2015.
232 Command, Focus Group, ACG Williamtown, 2015.
233 Command, Interview, Amberley, 2015.
234 Consultation with female pilots 2015-2016.
235 Consultation with female pilots 2015-2016.
236 Consultation with female pilots 2015-2016.
237 Consultation with female pilots 2015-2016.
238 Consultation with female pilots 2015-2016. 167
Absent Aviators

fighters

April 2014. At


https://www.humanrights.gov.au


At


Defence Force Recruiting, Pilot - Additional Requirements,


Defence Force Recruiting, Pilot - Additional Requirements,


Male Qualified Flying Instructors, Focus Group, Air Force Base Pearce, 2015.


T. Smart, ‘Fast Women in the Twenty-First Century’ in D Bridges, J Neal-Smith & A J Mills (eds),


Mixed 2OCU Instructors, Focus Group, Air Force Base Williamtown, 2015.


Consultation with Female Pilots/Trainees 2015-2016.


Mixed Junior Officers and Senior Non-Commissioned Officers, Focus Group, Air Force Base Williamtown, 2015.

Consultation with Female Pilots/Trainees 2015-2016.

Consultation with Female Pilots/Trainees 2015-2016.
403 Consultation with Female Pilots/Trainees 2015-2016.
404 Consultation with Female Pilots/Trainees 2015-2016.
405 Consultation with Female Pilots/Trainees 2015-2016.
406 Consultation with Female Pilots/Trainees 2015-2016.
408 Male Pilot Trainees, Focus Group, Air Force Base Tamworth, 2015.
411 Consultation with Female Pilots/Trainees 2015-2016.
412 Consultation with Female Pilots/Trainees 2015-2016.
413 Consultation with Female Pilots/Trainees 2015-2016.
Increasing Flexibility without Compromising Capability, 2012.
420 Consultation with Female Pilots/Trainees 2015-2016.
421 Consultation with Female Pilots/Trainees 2015-2016.
424 Male Pilot Trainees, Focus Group, Air Force Base Pearce, 2015.
425 Male Pilot Trainees, Focus Group, Air Force Base Pearce, 2015.
426 Consultation with Female Pilots/Trainees 2015-2016.
427 Consultation with Female Pilots/Trainees 2015-2016.
428 Consultation with Female Pilots/Trainees 2015-2016.
429 Male Pilot Staff, Focus Group, Air Force Base Pearce, 2015.
430 Consultation with Female Pilots/Trainees 2015-2016.
431 Consultation with Female Pilots/Trainees 2015-2016.
432 Consultation with Female Pilots/Trainees 2015-2016.
433 Consultation with Female Pilots/Trainees 2015-2016.
434 Consultation with Female Pilots/Trainees 2015-2016.
435 Consultation with Female Pilots/Trainees 2015-2016.
436 Consultation with Female Pilots/Trainees 2015-2016.
437 Consultation with Female Pilots/Trainees 2015-2016.
438 Consultation with Female Pilots/Trainees 2015-2016.
439 Consultation with Female Pilots/Trainees 2015-2016.
446 Consultation with Female Pilots/Trainees 2015-2016.
448 Consultation with Female Pilots/Trainees 2015-2016.
449 Consultation with Female Pilots/Trainees 2015-2016.
450 Consultation with Female Pilots/Trainees 2015-2016.
452 Mixed Ground Staff, Focus Group, Air Force Base Pearce, 2015.
453 Consultation with Female Pilots/Trainees 2015-2016.
454 Consultation with Female Pilots/Trainees 2015-2016.