A Submission to the Senate Foreign Affairs, Defence and Trade, Inquiry into the Defence PSE (Physical Sciences and Engineering) Workforce.

My name is Donald Weaven, I am a Technical Officer and since September 1998 have been employed by the Defence Science and Technology Group (DTSG, formerly known as DSTO). I work in the Aerospace Division in a Branch called Aircraft Health and Sustainment (formerly known as the Propulsion Systems Branch). I am qualified with a Certificate of Technology-Metallurgy, am 54 years old with over 30 years of full time, hands on technical experience. I have worked for General Electric Plastics in Quality Control, then for 11 years with Comalco Research Centre, where I frequently performed trials at their 3 smelters and at their Rolling Mills and Extrusion Plants. After receiving a retrenchment package, I was head hunted by Rio Tinto Research, to work at their facility to assist them successfully build and operate a pilot plant that developed a new process to convert copper ore into pure metal.

Currently, my Division owns several serious Research Facilities, such as Spin Rigs to test jet engine components, the Helicopter Transmission Test Facility (HTTF), Jet Engine Test Houses and a large Combustion Test Facility (CTF). I have been deeply involved with operation and maintenance of all these during my employment.

When I started working for Defence in 1998, my branch had over 15 clearly identified Technical Officers. Our branch now has 4. This reduction has placed unreasonable work stress on myself and the remaining technical staff who generally feel overwhelmed, under valued, exploited and abandoned. This reduction did not happen overnight, but gradually over time. As the aging technical workforce retired, they were simply and deliberately replaced with university graduates and this direction was orchestrated by Defence management. Most of the retired technical staff at our site were originally employed by Defence as technical trainees or apprentices and the specialised skills they developed over the years can now never be replaced. A colleague was the last technical trainee to be placed on this old scheme and is a great credit to it because he was recognised and rewarded for his technical skills then encouraged to continue studying part time, eventually gaining his Ph.D. Most of our current Ph.D qualified staff do not have the benefit of this important technical background, instead coming to work with us directly from university.

Defence management has been strongly and repeatedly advised for at least the last 10 years of the impending crisis regarding our irreplaceable loss of senior technical staff and lack of trainees, yet they have chosen to do next to nothing. Instead, we are witnessing their reliance on outsourcing. Contracting technical specialists has merits for small short term projects, but the point is missed when we consider our facilities, that are very large and long term commitments.

Inside the first 10 years of my employment at Defence, my branch engaged 6 different Non Destructive Inspection (NDI) contractors. The amount of time I spent re-training each new contractor for our specific requirements was a considerable loss of investment, because each one invariably left as soon as more permanent opportunities were offered elsewhere and took with them the extra skills and knowledge they had gained. My manager's solution to this problem was to recommend basic NDI training to myself. Already burdened with very high technical workloads, this training improved my abilities regarding NDI, but did not resolve the fundamental issue of not having appropriately experienced and qualified NDI staff available when needed. NDI, to this day, is still one of the most critically understaffed disciplines on our site with one remaining technician in my Division trying to perform workloads previously covered by 2 or 3 technicians who retired recently and were not replaced.

One of the contracting companies DSTG uses was set up by an ex employee many years ago, specifically to supply specialist technical contractors. I am aware of at least one of these contractors who has worked here continuously for over 10 years and am confident there are others who are also close to that milestone. There is no argument that can justify this kind of wasteful expenditure. It is disturbing for many staff at my workplace when they become aware of the quantity of contracted technicians on site for any given day. Our local management explain that this is the only way to get the work done with the system imposed on them by Defence senior leadership, the APSC, the Department of Finance and ultimately, the Government.

Staff were recently asked by local management to individually list their skills. When I put mine on paper, I was surprised to see how many and varied they were. It is impossible to be master of all trades, yet this is the expectation placed on most of our few remaining technical staff. Technical colleagues lose confidence in their abilities when asked to perform specialist work outside their fields of expertise, yet we struggle and do our best because there is no-one left to do it.

The Defence software "PMKeys", is supposed to be a tool for recording our staff's personal details. A technical colleague and I have submitted complaints over the years, that this software is demeaning for us in that it does not allow proper recording of our technical qualifications. The response regarding our complaints has been typically: "Defence is looking into it, but has higher priorities". A recent disturbing example of one of their higher priorities is the name change made for our workplace, from DSTO to DSTG. The justification behind this hugely expensive exercise has never been made clear and I advise that the affect on our already low morale is significant.

In my long and extensive working career, the first full time job I held at GE Plastics was the only workplace where my supervisor/managers had worked up the ladder from successfully performing the same role as myself. The familiarity of my management with the challenges of my role, ensured my technical efforts were properly recognised and rewarded. At an early age, I was promoted to a Leading Hand, responsible for the Quality Control Laboratory and several technicians for my Shift. Although my technical skills have increased exponentially over the years, I have not been recognised or rewarded in the same way at my other workplaces. Over the last couple of years, Defence had approved a broadbanding process where applicants could be assessed and if successful, moved to a higher level. In my Division, every one of the 15 or so "professional," (university graduate) applicants were successful, yet not one of at least four technical staff were transitioned. It was only after union involvement that management corrected this situation for the following year by amongst other things, allowing senior technical staff to be present on interview panels for technical applicants.

My grandfather was a sergeant who fought in France during the First World War and although he returned home, did not live long afterwards. My father remembers him frequently bemoaning that the Non Commissioned Officers (NCOs) never received the recognition he thought they deserved. It seems to me that a similar situation still exists within Defence regarding their technical staff.

I do very much appreciate the opportunity to forward this submission and hope you might understand the seriousness I place on the following:

- Why are technical skills so poorly valued and rewarded compared to academic qualifications?
- Why have there been no proper technical trainee or apprentice programs employed by Defence for decades? (Apart from a small, short-term, in house effort developed and funded solely by the Maritime Division several years ago that ceased due to lack of Defence support).
- Why is there such a reliance on contractors to fulfil the technical requirements of Defence?

Finally, I have attached a report that was left in DRAFT FORMAT and never presented to a management group within DSTO for its recommendations to be considered. I persisted with my requests to obtain a copy, succeeding by late June 2014. The reason offered why it was never presented, was that very soon after its production, a new Chief Defence Scientist commenced with different priorities for the organisation to move forward. Also offered was the excuse that structural changes have occurred and financial constraints have reappeared, further distancing the environment in which the report was produced from our current day situation.

My comment here is that I was not invited to be a member of the Technical Effort Working Group, however, I sent a comprehensive response to them when they requested feedback. My opinion of their draft report is that it was a sad waste of effort because they were not prepared to officially submit it or at least follow it through presumably due to fear of reprisal.

Regards,
Don Weaven

DSTO Technical Effort Working Group

Report regarding DSTO's Technical Effort Issues

08 December 2010

Executive Summary

At its meeting in August 2008, CDSAC discussed the short supply of technical skills available within DSTO - and the ageing technical workforce - as a potential skills "hot spot" of concern.

The Director People Strategies established a Technical Effort Working Group to explore major issues affecting this skills supply and potential actions that could be taken to protect and maintain adequate technical capability to support DSTO's future program.

Limited consultation by the Working Group with Divisional Chiefs and technical employees preceded the acceptance by Government of the Defence White Paper 2009, which altered the landscape within which DSTO plans and deploys its workforce. The resultant developments addressed some areas of concern already identified by the Working Group, but not others.

There are remaining issues of concern about

- what defines a technical employee at DSTO, and who they are,
- the skill sets DSTO seeks to recruit and how they are sourced,
- the training and career development opportunities afforded to technical employees,
- the success with which DSTO manages its store of technical knowledge, and
- the degree to which technical expertise is recognised relative to research expertise.

The Working Group believes that the establishment of a continuing technical expertise group will best facilitate the exploration and facilitation of strategies to mitigate the loss of technical expertise that could otherwise be expected in the foreseeable future.

Summary Recommendation:

The Working Group therefore recommends the establishment of a Technical Community of Practice (TCoP), to be charged with the following responsibilities:

- Provide advice when requested, to Divisions wishing to plan their technical workforce needs,
- Advise Divisions on technical recruitment issues,
- Advise on, and develop on request, strategies to maintain, develop, store and share corporate technical knowledge,
- Provide advice on corporate technical training and development needs and opportunities,
- Develop a technical career development framework, and
- Develop a credible framework for reward and recognition of technical contribution in DSTO.

Activities of the Technical Effort Working Group

The members of the Working Group, activities undertaken, terms of reference of the Group and associated comments can be found at Annex A. The integrated summary of feedback obtained from Chiefs can be found at Annex B. An example of the email sent to identified technical employees, and a summary of the resulting feedback received from technical employees is at Annex C.

Overview of Findings

Main Issues Concerning DSTO's Ongoing Technical Requirements

DSTO's client requirements have evolved over the past decade or so. The proportion of simulation and modelling in DSTO's research programs is increasing, and technical input has reflected the corresponding decrease. Hence the diminishing level of technical input is not due only to a constrained FTE environment, or to a change in the status afforded to technical contribution. It has been driven to a degree by a combination of client demand and new technologies available to provide better and more accurate modelling and simulation.

According to Chiefs, FTE restrictions prior to 2009 had a more significant impact on ongoing technical recruitment than on other categories of recruitment, largely because of this decrease in technical input into the program. Overwhelmingly approval to recruit saw greater attention paid to the contribution to be made by graduates or post graduates throughout most Divisions. Only essential vacancies had been approved for filling during the most recent couple of years, and in only a few cases in two Divisions had technical roles been considered the highest priority. Nine Divisions reported an on-going need for technical capability to support their research programs, although the lack of a consistent definition of technical capability across various areas of DSTO's program clouds the impact of this information, and prohibits a corporate approach to addressing it. At the time of consultation, seven Divisions reported facing a critical loss of technical capability in the next few years due to the age of their technical population. Those Divisions which consider this impending loss of sufficient importance are addressing this potential impact in their own way. The need for technical effort varies significantly between Divisions. For this reason, the Working group did not see value in exploring a prescribed ratio of technical staff numbers to non-technical.

In the three years prior to 2010, two Divisions reported attempts to recruit technical specialists. The only suitable candidates proved to be those already contracting in their own or other Division labs. Divisions in Edinburgh depend on SES to train staff to provide future capability. This is done through a mix of contracted apprentices (a small number of whom have been sponsored by individual Divisions) who are given experience in SES and Divisional labs, and junior staff directly recruited into S&T positions in SES. Some of these SES staff are picked up by Divisions recruiting into Divisional technical roles. Some other Divisions have engaged with TAFE Colleges to provide work experience and training to help provide a pool of future recruits.
Divisions each have their own workforce planning processes currently in place, generally done in isolation from other Divisions. Until the 2010 calendar year, no Divisions have had formal processes in place for information and knowledge management in the technical space. The closest was the

informal senior site technical mentor model instituted by MOD, but not closely maintained. LOD also has an informal mentoring program across technical areas, but their available mentors are described as senior / approaching retirement age and the knowledge transfer process is unmanaged and unrecorded.

Main Issues Concerning Current Technical Staff Needs

With an ageing workforce the ability to continue to train and skill new staff is becoming critical. Chiefs saw the expertise embedded in many of their technical staff to be unique and there is a risk that this capability will be lost if younger staff are not recruited to learn and further develop these skill sets before the current population retires.

Five Divisions saw a problem with disenfranchisement, as a result either of Awards and other recognition being provided for research and excluding the staff who provided the technical input (ie who actually built the model, for example), or of the technical work itself changing or being devalued over time (as the proportion of modelling and simulation increases). Four Divisions believe we could do more to recognise technical effort, or could spend more on it.

Concurrent Developments

Over the period of time that the Group was conducting its activities, changing circumstances introduced a range of opportunities and initiatives which had a significant impact on the Group's areas of interest. The release of the White Paper, implementation of the Defence Strategic Reform Program, workforce planning initiatives such as "contractor conversions", IR initiatives such as Broadbanding in the S&T stream and the introduction of a Technical Achievement Award have resulted in specific developments that have further supported the Group's main aim of raising awareness of the issues around technical input into the research program. These will be included in the following discussion of main issues.

Discussion of Main Issues and the Current Situation

Recruitment:
The White Paper release and implementation of the Strategic Reform Program during 2009 provided a catalyst for significant recruitment, and renewed consideration of technical input when jobs are filled. This happened at a time when the Technical Effort Working Group was concentrating on issues of ongoing technical capacity. Initial recruitment plans for the 2009/10 financial year included 19 technical positions. It was the first real opportunity (following lean recruitment periods) to apply greater consideration of technical input into both workforce and recruitment planning. At the end of the financial year, recruitment progress reports reflected a total of 50 technical-branded positions had been filled or were planned to be filled, indicating a significant shift towards technically-oriented positions as the priority requirement for maintaining essential capability. This technical component of workforce planning needs to continue in most Divisions to avoid a return to the position where DSTO stands to lose critical capability. The decision about what skills to recruit should be driven by a combination of client needs, research program objectives and workforce planning processes. The Working Group considered the need for

- support for strategic, directed recruitment campaigns such as the kind currently offered for graduates, and
- investigation of non-traditional sources of candidates.

In the first instance, because technical positions across DSTO are not homogenous – indeed there is considerable variety of definition of the skills required and appropriate educational and industry backgrounds desired for these positions – it was considered that a targeted recruitment campaign is not likely to achieve a decent return on investment.
Secondly, there has been no need to explore non-traditional sources of technical applicants. In recent times the slowing Australian economy and GFC have had their effect on local labour markets. Consequently Divisions have been relatively successful in attracting appropriate candidates for a significantly increased number of technical positions over the 2009/10 financial year. Divisions will approach non-traditional sources on an as-need basis.

Training:

The potential loss of corporate capability was recognised as critical in 7 Divisions. According to Chiefs when asked, 8 Divisions would prefer on balance to recruit juniors and train them to DSTO standards and requirements, rather than to recruit experienced technical specialists. A strategy to maintain technical capability is needed, but due to the range of technical specialisations is better addressed as required by Divisions according to their own needs. Such Divisional strategies could include

- engagement of young recruits before scheduled retirement of senior tech staff to facilitate "handing over",
- the assigning of recruits to senior staff under a mentor arrangement,
- cross-Division rotational arrangements where like skill sets exist, to broaden the skill base of technical recruits,
- increased use of formalised training programs under the auspices of TAFE work experience or apprenticeships, and
- the establishment of a group such as a technical community of practice, which manages and drives the sharing, maintenance and development of corporate, technical knowledge and expertise.

With the recruitment of technical employees being more extensive and successful than expected over the 2009/10 financial year, selection, induction and training of a variety of recruits and internally promoted employees has occurred without further consideration of these above strategies. Divisions may need to consider such options in future.

Concurrent to the Group's activities, the Continuing Education Initiative (CEI) was reviewed. Its expansion could contribute to improving employee skill sets in the technical space.

Recognition:

The need for technical input has diminished over recent times. While the shift of DSTO's program towards modelling and simulation has brought about this change, an underlying need remains in 9 Divisions to retain technical capability to undertake real experimentation, or to manage technical facilities. While feedback from Chiefs was divided as to whether DSTO sufficiently recognises its technical input, there is a strong sentiment from technical staff that more is needed. There is no doubt that the Working Group's activities have encouraged Divisions to focus on the technical contribution required by their research programs, and have re-raised awareness of the critical need to act to maintain technical capability. The Group obtained CDSAC approval to establish a DSTO Award for Technical Excellence to showcase our best technicians. This took effect from 2009. Occasional use has recently been made of the Building Defence Capability Payment (BDCP) to recognise the value of technical skill sets and to induce retiring technical employees to postpone retirement while they transfer skills to younger staff. Other retention strategies (such as transition-to-retirement, staged retirement and emeritus roles) are being brought to Divisions' attention as ways of managing the exit of critical technical employees so that they don't take their critical knowledge with them.

Further ideas considered by the group to raise the profile of technical effort included:

- Adopting technical job titles where appropriate, as a means to draw attention to the importance of technical work content, and
- Establishing a senior technical role at each of the two major sites to act as a point of contact for matters of technical importance, to lead site-based technical activities and to input into high level technical discussions between DSTO, clients and collaborators.

Feedback from technical employees did not identify either of these ideas as priorities to pursue. Attention to career structure and career development attained a higher priority. However, the primary recommendation of the Working Group (establishment of a Technical Community of Practice) will require the identification of suitable leaders who are likely to be those who would have been selected if the senior technical role idea had been adopted.

Career Development:

The issue of disenfranchisement is widely perceived, although not globally accepted as real. It is certainly felt by the existing technical population. Potential causes may be varied, but are widely thought to include the lack of specific career path resulting from the unified structure, and the need to move away from pure technical work to progress "up the ladder". This last issue exists for non-technical staff as well. Measures to address disenfranchisement could include

- Greater attention given to clear definition of technical roles and standardised application of work level standards to technical roles across DSTO Divisions,
- A more strategic approach to rotational training and mentoring programs which match recruits with senior technical employees where capability needs to be maintained,

- Skilling of senior technical personnel to better prepare them to identify and articulate technical competencies, and to train and mentor others, and
- An extension of DSTO's current externally contracted apprentice program to either increase its maximum qualification and work standard level, or expand the number of sites at which apprentices / technicians are trained, or both.

It is evident that during the 2009/10 financial year the majority of Divisions have reconsidered technical effort on their programs, and applied a greater focus to the filling of technical-branded positions. One Division (AVD) took steps to recruit new starters into technical roles to shadow senior technical employees during their final months before retirement, to enable a transfer of critical knowledge and skills. Another Division (MPD) has embarked on a program to rotate technical employees at S&T 1 and 2 levels around a variety of laboratories to develop a group of competent, versatile technicians who will maintain capability into the future. While the need for work at S&T 1 and 2 levels will continue, these employees may, with experience, generate a stronger field of applicants for technical positions at higher classification levels if and when they become available. Further recruitment of inexperienced people may occur depending on the success of this option. The Working Group was not resourced to research or recommend on up-skilling options for senior technical employees.

Workforce Planning

Chiefs were specifically asked about the contribution of contractors to technical capability in their Divisions. Overall, contractors were not the preferred option for maintaining specialised technical capability. They do provide an important workforce for maintaining short-term technical capacity in most generalist areas, as well as substantial input into projects involving specialised, high-volume, repetitive tasks that do not require DSTO corporate knowledge. The whole technical workforce (including employees and contractors) needs to be managed with the right balance between the two elements, and this balance should be primarily determined by the requirements of DSTO's program. Assigning technical work to new graduates helps the graduates' training and grounding, but is not an efficient way to maintain technical capability to support the research program. The two are entirely different skill sets.

MPD's program (outlined in the previous section on "Career Development") of recruiting entry level technicians at the S&T 1 and 2 levels to be trained and rotated around a range of labs was a workforce planning initiative. Divisional planning identified the elements of specialised technical input currently provided by ageing employees that need to be maintained. This guided the placement options for the new starters. AVD has invested time and resources during the last 3 financial years into providing work experience training for Advanced Diploma students from the Engineering school at RMIT TAFE College. The Division capitalised on the cumulative benefit of this partnership by attracting a quality field of applications when it recruited technical S&T 3 employees to shadow retiring technical staff prior to their retirement. The shadowing arrangement was used to facilitate the transfer of knowledge and skills as a means of maintaining ongoing technical capability.

Related Activities and Developments

The following related activities have not occurred as a result of the activities of the Working Group. These activities have been included with the previous discussion of main issues because each has impacted on the position DSTO finds itself in regarding its technical capability, following the acceptance of the White Paper and DSTO's subsequent responsibilities regarding Force 2030:

- Raised awareness: recognition of potential loss of critical skill sets and consideration of technical needs of the research program have arisen as a result of the White Paper, and have factored in Divisions' approaches to workforce planning and recruitment planning.
- Recruitment of inexperienced staff: 2010-11 saw an increase of technical-branded positions identified for filling from 19 at initial planning stage to 50 at FY-end.
- Broadbanding: DWR has agreed to support DSTO's submission to introduce broadband linking of S&T 1 and 2 levels, and 3 and 4 levels, thus allowing technical (as well as non-technical) employees a non-competitive approach to advancement if their skills allow and the ongoing work at higher level is required by the Division.
- S&T 1 SES review: in line with the increase in awareness of issues in the technical space, SES requested review of S&T 1 positions to explore the need for reclassification.

- BDCP / retention strategies: although not new strategies, consideration of BDCP and "transition to retirement" have become useful tools to postpone retirement of critical technical employees, while strategies are employed to transfer their skills and corporate knowledge.
- CEI being expanded to cover more S&T development: greater coverage by CEI may provide for further development of technical employees in S&T topics of relevance.

Recommended Action

While the establishment and activities of the Technical Effort Working Group seemed timely, developments stemming from the White Paper, SRP and other sources impacted on the Group's efforts. The Group's activities threw the spotlight on technical input into the research program, but workforce planning needs and capability management identified and drove increased recruitment of, and in some Divisions training for, technical employees.

The Working Group believes that there are effective gains still to be achieved in the technical space. Technical content is essential to DSTO's research program. However, the degree of required input varies greatly across Divisions. Further development of solutions in the technical space will assist in achieving a robust, ongoing technical capability in any S&T areas identified by CDSAC as essential to DSTO's future, provided any such attempt to develop solutions is supported with resources and management commitment.

Divisions who recognised the need for renewed focus on maintaining technical capability during the 2009/10 financial year have taken their own steps to initiate strategies that suit their needs. These have been identified and outlined in this paper. Divisions will presumably continue to address technical recruitment and development needs as they arise. However if Divisions are to bear the responsibility of maintaining technical capability, they do so in an environment of competition for limited resources at Divisional level. Any such attempts will be enhanced if they are supported by an established group within DSTO whose terms of reference address the continuing concerns of

- the definition of technical work in DSTO.
- what technical skills DSTO should recruit, maintain and develop into the future,
- how DSTO manages its corporate technical knowledge and
- how DSTO rewards and recognises it technical population.

The Working Group therefore recommends that CDSAC establishes a DSTO Technical Community of Practice (TCoP), tasked with oversight of DSTO-wide and / or high priority technical issues including technical skill development and the sharing, maintenance and development of corporate technical knowledge and expertise. This will require the following:

- The establishment of a senior technical role at each of the two major sites as a minimum, to lead the TCoP, to act as points of contact for matters of technical importance (including high-level technical discussions between DSTO, clients and collaborators) and to drive TCoP activities, and
- Allocation of sufficient time and resources to enable a program of activities to be devised, planned and undertaken by the TCoP to address some of the responsibilities outlined below.

Proposed TCoP Responsibilities:

The Technical Effort Working Group has identified areas where investment of resources may provide value-add solutions to long-standing issues in the technical space. The following responsibilities would drive the initial terms of reference for the recommended TCoP:

- Development of a robust technical career structure.

The need for this is in part due to lack of a common definition of technical work and clearly described levels of technical contribution. The PFADS tool allows jobs to be described by the percentage of technical content, but such decisions are arbitrary and are governed by the key expected results of the job occupant as much as by the specifications of the job itself. Divisions were not readily able to provide lists of technical staff, nor did they identify their lists in a uniform way. Clearer definitions of technical roles and more rigorous application of work level standards to technical roles across DSTO should provide a more robust technical job framework and will potentially feed into career development and skill development strategies for the occupants of those positions.

- Development of training and mentoring programs to manage corporate technical knowledge.

DSTO has been facing a critical loss of technical capability for some years. Acceptance of the White Paper signalled a need in some Divisions to plan approaches to manage the transfer of this technical knowledge to maintain corporate IP. Such attempts within Divisions may benefit from corporate support to explore training and mentoring program options.

- Evaluate DSTO's apprentice training needs.

Many aged technical employees joined DSTO as apprentices. Given DSTO's preference to recruit junior staff and train them, the expansion of DSTO's apprentice training program may provide a stronger base from which to build technical expertise.

- Evaluate the TAFE IEP model for wider application across DSTO.

Work experience for RMIT Advanced Diploma students, currently in place at Fishermans Bend, has generated a higher standard and number of applicants for technical positions when advertised. Expert resources are required to explore the benefits to be gained by extending these arrangements.

- Evaluate the benefits of implementing recommendations from the national study on The Role of Tradespersons and Technicians in Australian R & D Sites.

DSTO participated in this study during 2009. The consequent Report included a range of recommendations that address deficiencies in classification of work, supply of tradespeople and technicians, management and transfer of knowledge and training tools.

Annex A

Membership of the Technical Effort Working Group:

Max Coxhead (MPD Melbourne)
Neville Curtis (LOD Edinburgh)
Jan Drobik (AVD Melbourne)
Peter Formby (MOD Sydney)
Teena Lindley (COOD, Canberra)
Graeme Pitts (COOD Melbourne)
Ken Schebella (WSD Edinburgh)
Rob Weimann (SES Edinburgh)
(Gordon Frazer, ISRD, replaced by Neville Curtis in April 2009).

Timeframe:

Established by CDSAC August 08
First meeting 05 December 2008
Consultation with Chiefs and other senior management February – April 2009
Initial Consultation with technical workforce December 2009 – February 2010

Activities:

- Reviewed, finalised and circulated terms of reference as listed below.
- Considered relevant issues raised at CDSAC meeting 7/08 and at the Strategic HR Forum held 5 Feb 2009 in EDN
- Considered range of suggestions being brought to DeCA negotiations that may be relevant to this Group's work, such as BDCP and Broadbanding
- Invited informal input and discussion from colleagues / interested parties
- Met with each of 11 Chiefs of Division (excluding COOD, PRD) – some Chief meetings included RL's, EO's and / or HR staff.
- Integrated feedback from Chiefs
- Incorporated feedback from Manager, SES
- Formulated proposals
- Interim informal discussion with DCDS(PHS) regarding recommendations for consideration
- Sought feedback from population of ~ 200 technical employees

Terms of Reference:

TOR a)

Ascertain Division requirements in terms of technical effort required and the preferred method of delivery *(including* having *dedicated Technical staff versus Professional who undertake technical work)*

TOR b)

Assess priority given to technical effort in DSTO Divisions now and in maintaining it into the future *(including determining recruitment priorities)*

TOR c)

Assess Divisional systems used for workforce planning and knowledge retention of their technical workforces.

TOR d)

Investigate methods of attracting new technical based staff and assess fit with DSTO requirements

TOR e)

Investigate methods of developing current technical based staff and/or recognising the value of technical effort and provide a development strategy/framework

Comments on Terms of Reference:

The TOR were intended to cover two major areas – the first was the need for technical support and how that can be staffed while the second area was the motivation and further development of current Technical staff. Each Chief was approached to ascertain the level of the problem. It was found that most Divisions had broadly the same issues (although 3 Divisions foresee minimal or no technical input into their programs in the future), and that it is now critical that issues around the ageing technical workforce are addressed.

These terms of reference proved, however, to be too broad to be adequately addressed with the resources available to the Working Group. We didn't ask for enough detail from Chiefs during initial discussions. There was no resourcing available to further survey management reactions to the Group's questions, or to process or analyse the resultant data collected. Consequent feedback from Chiefs consisted of responses ranging in quality and in relevance to the TOR. The primary reasons for this range in quality were:

- lack of a commonly understood definition of "technical staff",
- lack of familiarity of some Chiefs with technical content in their research programs, or
- limited scope of discussions with Chiefs.

TOR's c), d) and e) were not addressed adequately or at all by the Working Group prior to circulating a briefing paper for technical staff to comment on in December 2009. Feedback received from that briefing paper was minimal and focused largely on the unified S&T structure as a cause of devaluing technical input and the employees who provide it. There was minimal comment on, or suggestions for, new forward-focused ideas that might enhance the value placed on technical input into the S&T program or the development of a framework to better support technical capability.

No follow up has occurred with technical staff who contributed feedback, since no actions have as yet been agreed to specifically address their ideas.

Annex B

Feedback from Chief meetings

Ascertain Division requirements in terms of technical effort required and the preferred method of delivery *(including having dedicated Technical staff versus Professional who undertake technical work)*

- Does the Division have an ongoing need for technical capability?

Yes – AVD, EWRD, ISRD, JOD, LOD, MOD, MPD, SES, WSD.
Minimal – AOD, C3ID, HPPD.
(note different kinds of tech specialist support in C3ID, JOD from other Divisions).
Not specifically discussed -

- Does the Division face loss of critical tech capability due to impending retirement of the tech workforce?

Yes – AVD, EWRD, LOD, MOD, MPD, SES, WSD
No – C3ID, HPPD, JOD
Not specifically discussed – AOD, ISRD

- Can contractors provide the Division's technical capability needs?

Yes – AVD (some), HPPD, JOD
No – C3ID, EWRD, LOD, MPD, SES, WSD
Not specifically discussed – AOD, ISRD, MOD

Assess priority given to technical effort in DSTO Divisions now and in maintaining it into the future *(including determining recruitment priorities)*

- Is the current FTE cap a barrier to recruiting tech staff?

Yes – AOD, AVD, EWRD, HPPD, JOD, LOD, MOD, MPD, SES, WSD
No –
Not specifically discussed – C3ID, ISRD

- With more FTE, would tech staff be a high priority for recruitment?

Yes – ISRD, LOD, MOD, MPD, SES.
Depends on program needs – AVD, JOD, WSD.
Only if a senior techo leaves – AOD, C3ID, EWRD.
No – HPPD
Not specifically discussed –

- Would you recruit experienced tech staff or train up juniors?

Replace experienced techos only – C3ID.
Depends on who has left – EWRD, HPPD.
Prefer to train juniors – AOD, AVD, JOD, LOD, MOD, MPD, SES, WSD.
Not specifically discussed - ISRD

- Would a "pool" of tech support and / or a global tech training scheme at site level be useful?

Yes (but need specialised Div employees as well) – AOD, ISRD, LOD, MOD (but has no resources to contribute), MPD. SES does something like this now
No – C3ID, HPPD, JOD
Not specifically discussed – AVD, EWRD, WSD

- Do you train juniors now?

Uses apprenticeship scheme – EWRD, SES
Uses TAFE IEP program – AVD, MPD
Other method(s) – MOD (site senior technical practitioner training juniors), SES (TAFE and degree studies)
Not specifically discussed – AOD, C3ID, HPPD, ISRD, JOD, LOD, WSD

Assess Divisional systems used for workforce planning and knowledge retention of their technical workforces.

Investigate methods of attracting new technical based staff and assess fit with DSTO requirements

- Can we supplement technical capacity by training up newer graduates for their rounding out and development, and assigning them some of the technical work?

Yes – C3ID, HPPD, JOD
No, this isn't the most efficient way – AOD, AVD, EWRD, ISRD, LOD, MOD, MPD, SES, WSD
Not specifically discussed –

Investigate methods of developing current technical based staff and/or recognising the value of technical effort and provide a development strategy/framework

- Is disenfranchisement a problem?

Yes – EWRD, JOD, MPD, SES, WSD.
No – AOD, AVD, C3ID, HPPD, ISRD, LOD.
Not specifically discussed – MOD

- Do we sufficiently recognise our technical employees' contributions now?

Yes – AOD, AVD, C3ID, ISRD, LOD, MOD,
No – EWRD?, MPD? (these 2 do what they can under current $ constraints), SES, WSD
Not specifically discussed – HPPD, JOD

Annex C

Example of email seeking feedback from Technical Employees:

Good afternoon, everyone.

I'm getting in touch on behalf of DSTO's Technical Effort Working Group. The Working Group has been in operation on and off for most of 2009, considering some of the strategic human resource issues that relate to technical input into DSTO's work program.
Attached to this email is a briefing paper that outlines the membership of the Working Group, some of the steps that we have taken, the issues we have been considering and the consequent actions we are thinking of recommending to date.
It is now time for us to consult further with our technical population, so we can obtain responses from you - the group of people with the largest interest in the matter - to what we are doing and where we propose to head.

You have received this email because you have been identified by your Division as a person whose job role contains a significant proportion of technical work.
You're also welcome to send this email on to anyone else in your Division who might be interested in providing feedback, but who is not on the addressee list.

We would like you to take the time to read the attached briefing paper, and think about your responses to it.
Specifically, we'd like to know:

- *Has the Working Party identified what you believe are the major issues that impact on quality technical input into DSTO's work program into the future?*
- *What are your thoughts on any of the ideas we have raised?*
- *What is it that DSTO could do for you to enhance your technical career in DSTO?*
- *What could DSTO do to improve the recognition of the value of technical effort?*
- *Do you have any other ideas that we could reasonably incorporate into our thinking?*

Any of the members of the Working Party will be happy to answer questions if you have them - our names are in the briefing paper. Please don't hesitate to contact us if you wish, and please think about giving us your ideas on the subject.
Your feedback by the 5 February 2010 would be greatly appreciated.
Regards,

Graeme Pitts
People Strategies Fishermans Bend
on behalf of the DSTO Techncial Effort Working Group

Feedback Received from Technical Employees:

Limited feedback was received from the request emails forwarded in December 2009.
The main points of note were as follows:

- Appreciation of the value provided to DSTO by technical employees has been diminishing for years and continues to do so.
- Employees who contribute technical expertise are treated with less respect than employees contributing professional and academic expertise.
- Career progression and career structure are not made available to technical employees to anywhere near the degree that they are made available to scientific and engineering employees.
- Technical employees should be supervised by people who have the technical understanding to appropriately assess and reward technical achievement, and to devise and facilitate access to constructive skill development and career development opportunities.
- Awards for technical efforts on tasks may improve recognition of the value of technical effort.
- Peer review is the fairest way of assessing the value of technical contribution.
- The effort to address these issues should continue, since the long-term nature of the situation indicates the need for longer term remedial activities to bring about change.