



The Nautilus Institute *for Security and Sustainability*

# Australia's participation in the Pine Gap enterprise

---

Desmond Ball, Bill Robinson and Richard Tanter



Nautilus Institute for Security and Sustainability  
Special Report

June 9, 2016

## I. Summary

Australian participation in the operation of Pine Gap is effectively complete, with access to all areas of the base except the US National Cryptographic Room. The senior Australian Defence officials who negotiated the original implementing agreement with the CIA sought and obtained access to all ‘product’ from the facility. After initial discriminatory restrictions on Australians employed in the Operations Room, by the end of the 1970s Australians were employed in all of its sections. Compared with arrangements at Pine Gap’s companion station in the United Kingdom, RAF Menwith Hill, Australian officials believe they have achieved a much more genuinely ‘joint’ facility, with command and employment arrangements exemplifying this. However, the fundamental realities are that not only does the vast bulk of tasking of satellites come from the United States and reflect its strategic priorities, but Australian participation in the base’s greatly expanded range of operations brings with it a measure of responsibility for the consequences of those operations.

## Authors

Desmond Ball is Emeritus Professor at the Australian National University (ANU). He was a Special Professor at the ANU's Strategic and Defence Studies Centre from 1987 to 2013, and he served as Head of the Centre from 1984 to 1991.

Bill Robinson writes the blog *Lux Ex Umbra*, which focuses on Canadian signals intelligence activities. He has been an active student of signals intelligence matters since the mid-1980s, and from 1986 to 2001 was on the staff of the Canadian peace research organization Project Ploughshares.

Richard Tanter is Senior Research Associate at the Nautilus Institute and Honorary Professor in the School of Political and Social Sciences at the University of Melbourne, and Adjunct Professor at the Northern Institute, Charles Darwin University.

**Recommended Citation:** Desmond Ball, Bill Robinson, and Richard Tanter, ‘Australian participation in the Pine Gap enterprise’, NAPSNet Special Report, June 9, 2016, at: <http://nautilus.org/napsnet/napsnet-special-reports/australias-participation-in-the-pine-gap-enterprise>.

The views expressed in this report do not necessarily reflect the official policy or position of the Nautilus Institute. Readers should note that Nautilus seeks a diversity of views and opinions on significant topics in order to identify common ground.

## Contents

Acknowledgements .....	6
Glossary .....	7
1. Introduction: the transformation of the Australian role.....	9
2. The negotiations with the CIA, 1965-66.....	11
3. The beginning.....	18
4. Deputy Secretary (Intelligence and Security), Department of Defence.....	21
5. Australian Defence Representatives and Deputy Chiefs of Facility .....	29
6. Deputy Chief of Operations, Chief of Intelligence Operations, and Mission Directors (MDs) ...	30
7. Satellite control.....	31
8. The Australian Signals Directorate (ASD).....	32
9. The Australian Defence Imagery and Geospatial Organisation (DIGO).....	35
10. The Defence Science and Technology Organisation (DSTO), Salisbury .....	36
11. The Australian Security Intelligence Organisation (ASIO).....	38
12. Operations.....	39
13. Administration.....	42
14. Security .....	43
15. Australian Federal Police (AFP) .....	44
16. Australian contractors .....	46
17. Australian contractors and construction activities.....	49
18. National Cryptographic Rooms.....	50
19. Australia's contribution to Pine Gap's running costs .....	51
20. Conclusion .....	58
References.....	59

## Figures

Figure 1. Number of Australian and US personnel at Pine Gap, 1968-2015 .....	9
Figure 2. Robert H. ('Bob') Mathams, Head, Scientific Intelligence Group, Joint Intelligence Bureau .....	12
Figure 3. Gordon Blakers, Deputy Secretary B, Department of Defence, 1965 .....	14
Figure 4. John Law Farrands, Chief Defence Scientist, 1971-77 .....	21
Figure 5. Gordon Blakers, Deputy Secretary B, Department of Defence, 1968 .....	22
Figure 6. William ('Bill') Pritchett .....	23
Figure 7. Alan Wrigley .....	24
Figure 8. John Moten.....	24
Figure 9. Paul Dibb (1986).....	25
Figure 10. Allan Hawke .....	25
Figure 11. Richard C. ('Ric') Smith.....	26
Figure 12. Hugh White .....	26
Figure 13. Ron Bonighton .....	27
Figure 14. Shane Carmody.....	27
Figure 15. Stephen Merchant.....	28
Figure 16. Steve Meekin .....	28
Figure 17. Martin Brady.....	29
Figure 18. DSD Military SIGINT Operations Centre lapel pin .....	35
Figure 19. Ian Coat, DSTO officer at Pine Gap, 1994-96.....	40
Figure 20. Gareth Parker, DSTO officer at Pine Gap, 1995-1998.....	40
Figure 21. Anthony Marceddo, a Raytheon Manager at Pine Gap, July 2008-December 2010 .....	47
Figure 22. Australia's contribution to Pine Gap's running costs, 1970-2015.....	51
Figure 23. Composition of Australia's contribution to Pine Gap's running costs, circa 2012-13.....	53

## Tables

Table 1. Number of Australian employees and US personnel at Pine Gap, 1968-2015 .....	10
Table 2. Deputy Secretaries, Department of Defence, responsible for Pine Gap, 1966 – 2015 .....	22
Table 3. Australian Defence Representatives at Pine Gap.....	29
Table 4. Deputy Chiefs of Facility, 1999-2015.....	30
Table 5. Composition of Australia’s contribution to Pine Gap’s running costs, circa 2012-13.....	57

### **Acknowledgements**

We are very grateful to Dr Philip Dorling for providing access to copies of documents from the National Archives of Australia in his possession. Jeffrey Richelson once again generously provided us with important documents. We are also grateful to Andrew and Margaret Blakers for allowing us to reproduce photographs of their father, Gordon Blakers. Luke Hambly from the Coral Bell School of Asia Pacific Affairs at the Australian National University kindly prepared charts for this paper. We are grateful to Rebecca Pollack and Peter Hayes for making this publication possible.

**Cover photograph** by [Felicity Ruby](#) ([Attribution - NonCommercial CC BY-NC](#)). See *Felicity Ruby – The Fourth Eye*, at <http://FelicityRuby.com/>.

## Glossary

ADF	Australian Defence Force
ADR	Australian Defence Representative
ADSMO	Assistant Director – Support to Military Operations
AFP	Australian Federal Police
AIA	Air Intelligence Analyst
APS	Australian Protective Service
APS	Australian Public Service
ARPA	Advanced Research Projects Agency
ASD	Australian Signals Directorate
ASIO	Australian Security and Intelligence Organisation
ATOM	Australian Operations and Maintenance
CIA	Central Intelligence Agency
CIO	Chief of Intelligence Operations
COL	Collection Operations Lead
COMINT	communications intelligence
CPOLIN	Chief Petty Officer Linguist
CSG	Combined Support Group
CSOC	Cyber Security Operations Centre
DCF	Deputy Chief of Facility
DCP	Deputy Chief of Operations
DDS&T	Directorate of Science and Technology
DGSMO	Director General Support to Military Operations
DIE	Director of the Intelligence Estimates Branch
DIGO	Australian Defence Imagery and Geospatial Organisation
DRCS	Defence Research Centre Salisbury
DSA	Defence Security Authority
DSD	Defence Signals Directorate
DSRF	Defence Space Research Facility
DSTO	Defence Science and Technology Organisation
ELINT	Electronic Intelligence
FASFDA	First Assistant Secretary of the Force Development and Analysis Division
GEOINT	geospatial intelligence
IGIS	Inspector General of Intelligence and Security
IP(JF)	International Policy: Joint Defence Facilities
JDFPG	Joint Defence Facility Pine Gap

JIO	Joint Intelligence Organisation
MASINT	measurement and signatures intelligence
MSOC	Military SIGINT Operations Centre
N/W	Network
NAS	National Assessment Staff
NRO	National Reconnaissance Office
NSCA	National Safety Council of Australia
NT	Northern Territory
OD&E	Office of Development and Engineering
OEL	Office of ELINT
OSO	Office of SIGINT Operations
SAS	Signals Analysis Section
SIP	Strategic and International Policy
SMO	Support to Military Operations
SPNWAN	Second Party National Wide Area Network



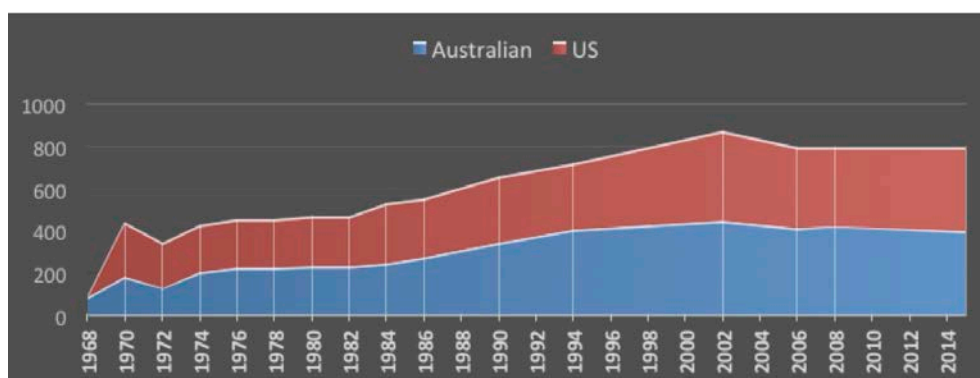
## II. Essay: Australia's participation in the Pine Gap enterprise

### 1. Introduction: the transformation of the Australian role

There can no longer be any question about the completeness of Australian access to or concurrence in the activities undertaken at Pine Gap. Australians are now completely enmeshed into the management structure at the station, including with respect to management of operations, as embodied in the positions of Deputy Chief of Facility, Deputy Chief of Operations and Chief of Intelligence Operations. Within the Operations Room itself, Australians serve as Mission Directors and Team Leaders or Collection Operations Leads (COLs), while every team of interest has an Australian member.

This transformation reflects both the achievements of Australian governments in their efforts over decades to increase the Australian presence at the base on the one hand, and on the other the changing military and intelligence nature of the relationship between Australia and United States. Indeed, the pervasive Australian participation in the activities of Pine Gap now epitomises the networked, but fundamentally asymmetric character of the ANZUS alliance today. Australians may participate in all aspects of the base's operations, including tasking satellite operations, but the fundamental realities are that not only does the vast bulk of tasking of satellites come from the United States and reflect its strategic priorities, but Australian participation in the base's greatly expanded range of operations brings with it a measure of responsibility for the consequences of those operations.

**Figure 1. Number of Australian and US personnel at Pine Gap, 1968-2015**



About 420 Australians were stationed at the Joint Defence Facility Pine Gap in June 2008, of whom about 100 were Australian Government personnel, comprising about 50 engaged

in Operations and 50 AFP Protective Services officers, and about 320 were employees of Australian contractors.<sup>1</sup>

**Table 1. Number of Australian employees and US personnel at Pine Gap, 1968-2015**

Year	Australian	United States	Total
1968	83	12	95
1970	184	256	440
1972	231	211	442
1974	206	226	432
1976	225	231	456
1978	226	228	454
1980	235	239	474
1982	234	235	469
1984	249	283	532
1986	273	284	557
1990	343	320	663
1994	405	320	725
2002	448	428	876
2006	416 (52%)	384 (48%)	c. 800
2008	424 (53%)	376 (47%)	c. 800
2013			c. 800
2015	400 (50%)	400 (50%)	c. 800

**Sources:**

1968-1986: Des Ball, *Pine Gap: Australia and the US geostationary signals intelligence satellite program*, (Allen & Unwin, Sydney, 1989), Table 13; citing 'Defence-related Facilities: Foreign Involvement', *Hansard (House of Representatives)*, 10 October 1978, p. 1661; and 'Pine Gap and Nurrungar: Personnel', *Hansard (Senate)*, 4 December 1984, p. 2988.

1990: 'Pine Gap: Joint Facility', *Hansard (Senate)*, *Commonwealth Parliamentary Debates*, 21 August 1990, p. 1877.

1994: 'Defence: Pine Gap Facility', *Hansard (Senate)*, *Commonwealth Parliamentary Debates*, 19 September 1994, p. 95.

2002: 'Defence: Pine Gap', *Hansard (House of Representatives)*, *Commonwealth Parliamentary Debates*, 28 May 2002, p. 2555.

2006: 'Pine Gap Defence Facility', *Hansard (House of Representatives)*, *Commonwealth Parliamentary Debates*, 5 September 2006, p. 139.

2008: 'Joint Defence Facility Pine Gap', *Hansard (House of Representatives)*, *Commonwealth Parliamentary Debates*, 16 June 2008.

2013: Philip Dorling, 'Desert Secrets', *The Sunday Age*, 21 July 2013.

2015: Information provided by the Australian Department of Defence, 18 June 2015.

## **2. The negotiations with the CIA, 1965-66**

The Pine Gap project was born in secrecy. In early 1965, at the same time as officers from the CIA's Directorate of Science and Technology (DDS&T) initiated discussions with TRW concerning the development of a geostationary SIGINT satellite system, the CIA Station Chief in Melbourne, William B. Caldwell, informed the then Secretary of the Department of Defence, Sir Edwin Hicks, of the CIA's desire to establish a ground control station for the satellites in Australia. A more detailed technical description of the project was given to Hicks in May 1965. In June 1965, the then Minister for Defence, Shane Paltridge, was briefed on the proposal. Gordon Blakers, Deputy Secretary B in the Department of Defence, coordinated the first round of responses.<sup>2</sup>

The First Assistant Secretary of the Defence Science Division of the Department of Defence, Dr E.L.D. ('Ted') White, was appointed to lead a special project team to determine the most suitable location for the proposed station. The team included Commander R.C. Swan, a Navy communications officer from the Joint Services Communication Staff of the Joint Staff in the Department of Defence; Commander Harry Adams, another Navy officer who had been involved with the establishment of the US Naval Communications Station at North West Cape; and Wallace F. Caplehorn, a former Army Lieutenant Colonel from the Defence Science and Technology Organisation's Policy and Planning Division, who became the Australian Defence Representative at the station in 1979.<sup>3</sup> R.H. ('Bob') Mathams, the head of the Scientific Intelligence Group in the Joint Intelligence Bureau (JIB), the forerunner of the Joint Intelligence Organisation (JIO), became the team leader in 1966 when White had to take leave because of medical problems.<sup>4</sup> Mathams, Wheelon, Duckett and Dirks celebrated at the site selected for the station in mid-1966.<sup>5</sup> Mathams became Director of Scientific and Technical Intelligence in the new JIO in 1970, where he remained until his retirement in 1979. With the first Rhyolite satellites having become operational, he effectively became the chief Australian interlocutor with the CIA concerning Pine Gap. He received the CIA's Distinguished Intelligence Medal in 1980 for 'high dedication, expertise and tireless effort on behalf of his own government in the field of scientific and technical intelligence, but which also greatly benefited the US'.<sup>6</sup>

**Figure 2. Robert H. ('Bob') Mathams,  
Head, Scientific Intelligence Group, Joint Intelligence Bureau**



Two official committees were established in Canberra to negotiate both a public treaty and a secret agreement governing the establishment of the Pine Gap station. One was a committee of Permanent Heads, chaired by Sir Edwin Hicks. It included Sir James Plimsoll from the Department of External Affairs, Sir Lennox Hewitt from Treasury, and Sir Edwin Hook from the Attorney General's Department.<sup>7</sup> In the case of External Affairs, Hicks wrote in March 1966 that, at that time, Plimsoll was 'the only officer of that Department aware of your proposed new project'.<sup>8</sup> By September, however, the new Deputy Secretary in External Affairs, Sir Laurence McIntyre, was attending meetings of the Permanent Heads instead of Plimsoll.<sup>9</sup>

The second committee was a lower level inter-departmental committee (IDC) which advised the Permanent Heads Committee, and which was chaired by Blakers. It included representatives from the Department of External Affairs, the Attorney General's Department, the Prime Minister's Department, the Department of the Treasury, the Department of Territories, the Postmaster-General's Department and the Department of Works.<sup>10</sup>

With respect to operational matters, the Australian officials were primarily concerned with two key issues: Australian access to the intelligence collected at Pine Gap, and Australian participation in operations at the facility. The CIA was quite willing to share the intelligence product, in both 'raw' and processed forms. However, it was somewhat non-committal regarding

the employment of Australians in actual operations at the facility; the situation was complicated by the fact that US contractors, rather than US Government staff, were in charge 'until the facility has been made to produce results on the site'.<sup>11</sup>

The first statement of 'Suggested Requirements' available in Australian archival files is dated 20 December 1965. It was probably written by Blakers. A copy was 'sent to Ted White'. It stated that 'Information obtained... concerning Australia's area of main strategic interest... should be made available as soon as possible to appropriate Australian Intelligence Agencies', and that 'suitably qualified Australian personnel will participate in the initial processing of data obtained [redacted]'.<sup>12</sup>

On 17 June 1966, Blakers wrote a two-page Minute to the Secretary which provided 'a brief outline of the stage reached in the discussions on the proposed new American project'. He stated with regard to 'Australian Participation' that:

The activity may be divided into two parts:

- (a) Hardware; and
- (b) The processing of the results.

The Americans saw no objection in principle to Australian participation at the professional level in either (a) or (b). However in regard to (a), there would be difficulties in accepting Australian participation in the early stages. These difficulties were felt by the Australian party to be genuine.

With regard to (b) above, the Americans saw no objection to some Australian participation starting very early in the project.

Australian access to the results of the exercise was implicit in much that was said by the Americans and was also made explicit.

Particularly in the early stages the command setup will be complex in that the American contractor does not fulfil his contract until the facility has been made to produce results on the site. However in addition to the contractors, Government scientists and engineers will be present but cannot in the early stages override the contractor who is responsible for making the facility work. U.S. Government staff, possibly with Australian participation, will be responsible for and carry out the processing of the results.<sup>13</sup>

**Figure 3. Gordon Blakers,  
Deputy Secretary B, Department of Defence, 1965**



Source: Courtesy of the Blakers family.

On 13 September 1966, Sir Edwin Hicks chaired a joint meeting of Australian and visiting US officials. The Australians included Sir Laurence McIntyre from External Affairs, Mr Renfree from the Attorney General's Department, Gordon Blakers, and Commanders Swan and Adams. Richard Stallings attended the meeting as 'Project Chief'. Notes prepared for Hicks prior to the meeting, probably by Blakers, stated that Australia should have 'rights of access' to 'collated results', 'processed data from the Australian installation if required', and 'raw data from the Australian station if required for Australian studies'.<sup>14</sup>

At a meeting chaired by Blakers on 20 September, Richard Stallings spoke about the difficulties associated with the primary role of the contractors. He said that:

The problem appeared to hinge around the fact that in this project it was considered by the US authorities that the Contractor was responsible for the operation and performance of the equipment after construction and installation. It was not practicable for persons other than those engaged by the Contractor to operate the equipment.<sup>15</sup>

On 23 September, Commander Swan drafted a note on the role and responsibilities of the Senior Australian Officer to be posted to Pine Gap. It said that:

The Department of Defence shall provide a senior officer to be stationed at the facility. This officer, as the on site representative of the Commonwealth, will be the first point of contact at Alice Springs between Australian and United States authorities in all matters except as otherwise agreed or arranged.

His responsibilities will include general supervision of the Australian contribution, liaison with the N.T. administration, community matters, engagement of local staff and advice on local industrial relations, and general public relations.<sup>16</sup>

It was also agreed that, to support the Senior Australian Representative, the Australian Government would also provide a Deputy and a Secretary-Typist, the costs of which, including 'appropriate housing in Alice Springs', would be 'met by the Commonwealth'.<sup>17</sup>

On 29 September, Richard Stallings provided Commander Swan with his 'best estimate' of 'the numbers and types of Australian support personnel who would be required at the Defence Space Research Facility (DSRF) during the operational phase. He reckoned that 92 Australian support personnel would be required as of late 1968, as follows:

*Required beginning May 1968:*

Services & Maintenance Manager	1
Clerk/Typist	2
Warehouseman	4
Vehicle Dispatcher	1
Driver	8
Operating Engineer (Generators)	5
Maintenance Mechanics	6
Electricians	4
Plumber	1
Carpenter	1
Painter	1
Laborers	3
Vehicle Mechanic	1
Services Supervisor (mess & housing)	1
Cooks	4
Assistant Cooks	5
Mess Attendants	7
Stores Attendants	2
Recreation Stewards	5
Housekeepers	9
Janitors	5

Laundrymen	5
TOTAL	81
<i>Additional required beginning November 1968:</i>	
Cook	1
Assistant Cooks	2
Baker	1
Mess Attendants	3
Housekeepers	2
Drivers	2
TOTAL	11
<i>GRAND TOTAL: 92 Australian Support Personnel.<sup>18</sup></i>	

On 27 October, Blakers was sent a memorandum (probably prepared by White or Swan) dealing with Australian participation at Pine Gap. It stated that:

The question of Australian participation involves two separate issues:

- (a) On-site representative;
- (b) The degree and type of Australian participation in the project.

With regard to the first there is little contention. The Americans want a senior Australian official as on-site representative who can supervise the Australian staff, maintain liaison with Australian authorities and who has an understanding of the sometimes peculiar requirements of a high grade technical facility. This kind of officer would probably be most easily obtained from Department of Supply and would be seconded to Defence, but it is also for consideration whether a position of on-site representative should not be created in the Defence Science Division of the Department and filled by recruitment.

With regard to Australian participation in the operation of the system, it has been made clear by the Americans in previous discussions that there would be some resistance to this – at least in the initial stages when the system is still under development. This attitude is understandable but should not inhibit us from pressing for participation. We would, however, have a much better chance of obtaining American agreement if we could show that our contribution would be of mutual benefit to the joint operation; for this reason I consider that an intelligence officer (with electronic qualifications) would be a better choice of participant than a space scientist. My reasons are as follows:

- (a) A space scientist would contribute to (or benefit from) this project mainly by using or developing techniques involved in the orbiting and control of a [deleted] satellite. These techniques, however, are not unique to this project and could, I suggest, be more readily acquired by Australian participation in less sensitive projects such as NASA operations, communication satellite systems and so on.
- (b) The unique feature of the project is its information gathering potential; this can best be exploited by intelligence officers with appropriate electronic qualifications – people who know what kind of information to look for and how to interpret it. [Deleted] This is



already a major subject for intelligence research in Australia and an appropriate Australian participant – one who is knowledgeable in this subject [i.e., SIGINT] and has electronic qualifications – would not only be able to take part in the information gathering and interpretation function of the project but could also maintain liaison between the project and the Australian intelligence group studying this subject [i.e., DSD].

(c) I believe that the purely satellite component of the project will remain essentially constant but that the information component will undoubtedly expand in both scope and in technical complexity. This expansion will provide increased opportunity for Australian participation, and will ensure that we have full knowledge of all developments and get the best return for whatever investment we make.

I consider, therefore, that we should:

- (a) fill the on-site representative position with an administrator who has experience in technical projects;
- (b) press for Australian participation, after the initial period of system adjustment (which may take some months), in the information gathering and interpretation function of the project. Such a participant should be an experienced intelligence officer with adequate electronic qualifications.<sup>19</sup>

Three agreements had been drafted by September 1966. One was the Government Level Agreement intended for public release.<sup>20</sup>

The second was an 'Implementing Arrangement Between the Department of Defence of the Commonwealth of Australia and the Advanced Research Projects Agency of the Department of Defense of the United States of America Relating to the Establishment of a Joint Defence Space Research Facility', ARPA being the designated cover agency for the project.

The third was the 'Implementing Arrangement Between the United States Central Intelligence Agency and [the Department of Defence of the Commonwealth of Australia].' This agreement was essentially drafted by the CIA – and, more particularly, by two senior CIA officers: Victor Marchetti, Executive Assistant to the Deputy Director of the CIA, and Richard Lee Stallings, a senior officer in the CIA's Office of ELINT (OEL), who was to become the first US Chief of Facility at Pine Gap and who had arrived in Australia shortly before the meeting on 13 September 1966. He stayed in Canberra until final arrangements for the establishment of the station were completed, and moved to Alice Springs at the end of January 1967.<sup>21</sup>

In October 1966, a report on the proposed facility was prepared by an inter-departmental committee for consideration by Cabinet. It contained a section on 'Value to Australia', which stated that:

It is clear from discussions with American representatives, that the project will make a major contribution to Western defence. Results obtained from it will be available to Australia and would be of great value to Australia's defence. Although Australian participation in the initial stages will for technical reasons be limited to logistic support personnel, it is expected that Australia will, in due course, participate in the technical operation of the facility and obtain all the ensuing advantages of experience in these advanced techniques. The United States should be asked to confirm that this expectation accords with American intentions.<sup>22</sup>

In a cable to the Department of External Affairs on 17 October 1966, the US Embassy stated that:

The facility would be largely self-contained with United States personnel, most of them contractor personnel, responsible for the technical operations. Australian nationals would be employed for other functions. Information resulting from the research program conducted at the facility would be made available to both Governments in accordance with arrangements made between the cooperating agencies.<sup>23</sup>

The Implementing Agreement between the Australian Department of Defence and ARPA concerning the establishment of Pine Gap, finalised in October 1966, stated that 'The United States does not wish to prejudge the question of technical participation in the operation of the facility by Australian personnel', and that 'Australian technical participation in the operation of the facility shall be subject to separate arrangements between the cooperating agencies'.<sup>24</sup>

### **3. The beginning**

Leonce Kealy, who arrived at Pine Gap in November 1970, was one of the first group of four Australian computer operators who worked in the Signals Processing Station, one of the three sections in the Operations Building; the other sections were the Station-Keeping Section, which maintained the orbital position of the satellites and the azimuth of their parabolic listening antennas, and the Signals Analysis Section, which analysed the intercepted material, and from which the Australians were excluded.

In 1970, there were 440 personnel employed at Pine Gap, 184 Australians and 256 Americans. A 50:50 relationship was supposed to pertain to staff, but few of the Australians were allowed into the Top Secret Operations Building. As Kealy has recounted:

What the Americans did was to make a huge list of all personnel at the Base, including those in the unclassified outside perimeter, who included housemaids for the motel units, cooks, gardeners, laborers, bus drivers and clerical staff. This allowed the Americans to

satisfy the 50/50 relationship admirably, but leaving almost entirely all Americans in the Top Secret sector.<sup>25</sup>

He stated in May 1977 that: 'The Americans run that place.... It is not meant to be a place where Australians can feel comfortable'.<sup>26</sup> Another member of the first group of Australian computer operators, Jim Pidcock, wrote in January 1975 that:

There's no doubt... that they must have been forced, politically, to employ Australians and have spent every minute since trying to get rid of them. There is no other possible explanation, even for someone as inept as LTV [i.e., E-Systems] management.... I'll never forgive the bastards; every time I hear an American accent it still gives me pain.<sup>27</sup>

The first four Australian computer operators arrived at Pine Gap from the Department of Defence in Canberra in November 1970, five months after the launch of the first Rhyolite satellite. This enabled one Australian operator to be allocated to each of the four shifts per day (as then organised), hardly sufficient to allow them to be fully aware of all activities in the enormous computer room. A fifth Australian computer operator was recruited in April 1974, and by February 1975 there were 14 Australian computer operators employed at the station. None of these Australians were employed in supervisory positions and, indeed, these Australians believe that there was a deliberate policy to exclude Australians from these positions. (In late 1973, a new position of Lead Programmer Analyst to supervise in the computer room was advertised by E-Systems in a Dallas newspaper. The position was not advertised in Australian newspapers, and by the time the Australian operators found out about the new position it had already been given to a US operator).<sup>28</sup>

More importantly, former Australian computer operators at Pine Gap have stated that they were excluded from the critical Signals Analysis Section (SAS). According to these operators, the SAS was staffed only by CIA analysts; it included no US contractor personnel and no Australian citizens. Many of the personnel in this section were linguists who monitored voice intercepts. Former Australian employees at Pine Gap have claimed that much of the material analysed in this section was never passed on to the Australian officers.<sup>29</sup>

This situation was evidently addressed by Wallace ('Wally') Caplehorn in 1979-80, when he was the Australian Defence Representative at the station. He obtained Australian participation in all activities in the Operations Room, including in the Signals Analysis Section.<sup>30</sup>

Two of the original group of four Australian computer operators, Leonce Kealy and Jim Pidcock, became proficient programmers. Kealy, for example, wrote numerous FORTRAN programs for the facility, 22 of which were in daily use in the Computer Room.<sup>31</sup> These were

mainly concerned with more efficient processing of the collected data. One enabled operators to track a particular Soviet satellite which regularly passed over Pine Gap and to intercept its transmissions during the brief 'window' when it was in view of the facility.<sup>32</sup> On the early morning of 6 February 1975, Kealy, who was embroiled in a bitter dispute with E-Systems management about alleged discriminatory practices, removed his programs from Pine Gap's computers; he was accused of 'sabotaging' Pine Gap's computer complex, and was dismissed by E-Systems on 7 February.<sup>33</sup> Over the following year, Kealy sought remedy for unfair dismissal and discrimination through the Department of Defence, his professional association and the National Committee on Discrimination in Employment and Occupation, as well his member of parliament, to no avail. In February 1976, following a response to Kealy's claim by E-Systems to the Australian Defence Representative at Pine Gap, Wallace Caplehorn, writing on behalf of the Secretary of Defence, wrote that

the firm's argument about having a fixed ratio of Australians ... is one which we do not regard with any favour. The general question of ratios and selection for positions of responsibility is one which we are taking up as a matter of principle, not with the firm but with the senior United States Government representative who will direct the firm accordingly...The adjustment of a balanced proportion of Australian and American nationals and the progressive filling of more senior positions by Australians is a slow process.<sup>34</sup>

An important Australian figure when the first Rhyolite satellites became operational was Dr John Law Farrands, the Chief Defence Scientist from 1971 to 1977. Sir Arthur Tange, the Secretary of the Department of Defence from 1970 to 1979, relied on him as well as Deputy Secretary Blakers for advice on high policy issues concerning the joint facilities. As Tange later said: 'The Chief Defence Scientist, Dr John Farrands, and I were privy to the operations [at Pine Gap and Nurrungar]. In addition, each of us had paid visits to the sites at various times and had been given demonstrations of their capabilities and of the type of data collected'.<sup>35</sup> It has been alleged that in November 1975, just prior to the dismissal of the Whitlam government by the Governor-General, Sir John Kerr, Tange had arranged for Farrands to brief Kerr about the CIA's concerns that Whitlam was jeopardising the security of the Pine Gap facility. However, this has been denied by all three, Tange, Farrands and Kerr.<sup>36</sup>

**Figure 4. John Law Farrands, Chief Defence Scientist, 1971-77**



Source: Frank Cranston, “‘Eager beaver’ went on to become science head’, |  
*Canberra Times*, 6 October 1977, at  
<http://web.archive.org/web/20140312053808/http://trove.nla.gov.au/ndp/del/article/110870080>.

#### **4. Deputy Secretary (Intelligence and Security), Department of Defence**

The Deputy Secretary (Intelligence and Security) of the Department of Defence at Russell Hill in Canberra is responsible for the coordination of policy concerning Pine Gap, the oversight of Australia’s access to intelligence collected at Pine Gap and the participation of Australians in operations at the station. This position has a direct historical lineage to Deputy Secretary B, the post occupied by Gordon Blakers from 1959 until his retirement in 1978. Sir Arthur Tange has described Blakers as ‘talented and wise’, and said that he considered him ‘to be one of the wisest and most experienced contributors to strategic thinking’ in the Department.<sup>37</sup> Garry Woodard, the first head of the National Assessments Staff (NAS) in JIO, has described him as ‘a mild-mannered Clark Kent of absolute integrity’.<sup>38</sup> Blakers undoubtedly had most impact on Australia’s role at Pine Gap, both during the initial negotiations and its early operational years, including when the first four Rhyolite satellites were launched.

**Figure 5. Gordon Blakers**  
**Deputy Secretary B, Department of Defence, 1968**



Source: Photograph courtesy of the Blakers family.

**Table 2. Deputy Secretaries, Department of Defence,  
 responsible for Pine Gap, 1966 – 2015**

	<b>Name</b>	<b>Years</b>
<b>1</b>	Gordon Blakers	1966 – 1978
<b>2</b>	William Pritchett	1978 – 1979
<b>3</b>	George Cawsey	1979 – 1981
<b>4</b>	Alan K. Wrigley	1982 – 1985
<b>5</b>	John M. Moten	1985 – 1988
<b>6</b>	Paul Dibb	1988 – 1991
<b>7</b>	Allan Hawke	1991 – 1993
<b>8</b>	Richard C. Smith	1994 – 1995

9	Hugh White	1995 – ?
10	Shane Carmody	6.2001 – 2.2002
11	Frank Lewincamp (acting)	2.2002 – 4.2002
12	Ron Bonighton (acting)	4.2002 – 8.2002
13	Ron Bonighton	8.2002 – 5.2005
14	Shane Carmody	5.2005 – 9. 2006
15	Stephen Merchant	9.2006 – 2011
16	Steve Meekin	2012 – present

**Figure 6. William ('Bill') Pritchett**



Source: 'William Pritchett: From diplomat to head of Defence Department', *Sydney Morning Herald*, 8 February 2014, at <http://www.smh.com.au/comment/obituaries/william-pritchett-from-diplomat-to-head-of-defence-department-20140207-3274m.html>.

William ('Bill') Pritchett, who had been First Assistant Secretary, Strategic and International Policy (FASSIP) under Blakers since 1973, succeeded him as Deputy Secretary B in 1978; however, he held the position only briefly, being promoted to Secretary in 1979.

George F. Cawsey was Deputy Secretary B from 1979 to 1981. A physics graduate from Sydney University, Cawsey was described as 'a brilliant scientist and a clever organiser' who became Scientific Advisor to the Military Board in 1964. He had a strong influence on the makeup the Field Operational Section, Vietnam, and was himself Science Adviser to the Commander 1<sup>st</sup> Australian Task Force in Vietnam.<sup>39</sup> He was a Defence scientist who had previously been the first First Assistant Secretary of the Force Development and Analysis

Division (FASFDA), where he was responsible for ‘policy advice on the force structure as a whole, and on the capabilities required to meet national defence policies and objectives’.

**Figure 7. Alan Wrigley**



**Figure 8. John Moten**



Source: ‘From Roscrea to New Guinea’,  
*RoscreaOnline.com*, at  
<http://www.roscreaonline.ie/content.asp?section=1340>.

Alan K. Wrigley was Deputy Secretary B from 1982 to 1985, when he became Director-General of ASIO. He was an Air Force aeronautical engineer who had joined the Department of Defence in 1975, and was FASFDA in 1981-82.

John M. Moten, another aeronautical engineer, was Deputy Secretary B from 1985 to 1988, when he succeeded Wrigley as Director-General of ASIO. He had previously succeeded Wrigley as FASFDA (1982-85).<sup>40</sup>

Paul Dibb was Deputy Secretary (Strategy and Intelligence) from 1988 to 1991. Dibb had joined the National Assessment Staff (NAS) in JIO as an expert on Soviet economic geography in 1970, and had been ‘briefed into’ (or ‘indoctrinated into’) the joint facilities in November 1974, when he became Head of the NAS, a process directed by Mathams. Dibb was Deputy Director (Civilian) of JIO from 1978 to 1980, and Director of JIO from November 1986 until his appointment as Deputy Secretary in December 1988.

One of the first matters concerning Pine Gap with which Dibb was involved was the preparation of draft advice for the Defence Minister, in 1975, regarding a US proposal to target a *Rhyolite* satellite on the Soviet naval base and communications centre at Berbera, in northwest Somalia, on the Gulf of Aden. On the US side, he dealt with Leslie Dirks, who succeeded



Duckett as DDS&T and head of Program B in 1976, and Richard Evans Hineman, who succeeded Dirks in 1982. He knew Milton Corley Wonus, the CIA Station Chief in Canberra in 1975-80, very well. Wonus, who had joined DDS&T in 1963, later served as Director of the Office of SIGINT Operations (OSO) in DDS&T, the office in charge of operating the Pine Gap ground station.<sup>41</sup>

In 1990-91, Dibb was recognised by the NRO for his ‘outstanding support of US-Australian space cooperation’, and in particular for his support of its Program B during his period as Deputy Secretary (Strategy and Intelligence) in 1988-91.<sup>42</sup> Dibb was succeeded by Allan Hawke, who was Deputy Secretary (Strategy and Intelligence) from 1991 to 1993. He had been Deputy Director of DSD in 1990-91, and later served as Secretary of the Department (1999-2002).

**Figure 9. Paul Dibb (1986)**



**Figure 10. Allan Hawke**



Richard C. (‘Ric’) Smith was seconded from the Department of Foreign Affairs and Trade to become Deputy Secretary of Defence for Strategy and Intelligence in 1994-95. Smith was subsequently appointed as ambassador to China from 1996 to 2000, and as ambassador to Indonesia from 2001 to 2002. On his return to Australia Smith became Secretary of the Defence Department from 2002 to 2006.<sup>43</sup>

Hugh White, son of Ted White, the Chief Defence Scientist at the time of the establishment of Pine Gap, was Deputy Secretary for Strategy and Intelligence from 1995 until 1998-9, when the position was reframed as Deputy Secretary Strategy (later Strategic Policy). In

July 2000 White shifted to the role of Deputy Secretary responsible for preparation of the Defence White Paper. Richard Brabin-Smith then took the post of Deputy Secretary Strategy, holding the position until July 2002. However this post did not include oversight of Pine Gap.<sup>44</sup>

**Figure 11. Richard C. ('Ric') Smith**



**Figure 12. Hugh White**



In June 2001 the new position of Deputy Secretary Intelligence and Security was filled by Shane Carmody – beginning the first of two separate periods in which he held that post. Carmody had been a career army officer in signals and the 1<sup>st</sup> Commando regiment before joining the Defence Signals Directorate in 1989 and becoming Deputy Director of DSD and Head of Intelligence Division between 1996 and 1999.<sup>45</sup> In February 2002 Carmody shifted to the position of Deputy Secretary Corporate Services, moving less than half a year later to succeed Brabin-Smith as Deputy Secretary Strategic Policy in July 2002.<sup>46</sup>

In a series of apparently temporary appointments Carmody was briefly succeeded as Deputy Secretary Intelligence and Security in mid-February 2002 by Frank Lewincamp, the Director of the Defence Intelligence Organisation (1999-2005), in an acting capacity for two months.<sup>47</sup>

In late April Lewincamp was succeeded by the then Director of the Defence Signals Directorate, Ron Bonighton, as another Acting Deputy Secretary Intelligence and Security.<sup>48</sup> Bonighton was confirmed as Deputy Director in August 2002, and remained in the position until

his retirement in November 2005.<sup>49</sup> Bonighton had joined DSD on graduating from Melbourne University in 1967, and

‘the next several years he occupied a range of intelligence production, management and liaison positions both in Australia and overseas. In 1988 he was appointed to the Senior Executive Service as Head of Defence Signals Directorate's Planning and Coordination Branch. Later that year he was posted to Washington as Australian Liaison Officer at the National Security Agency and on return was promoted to head DSD's Information Security Branch... In January, 1993 [he] was transferred to head DSD's Production Branch. In September 1994 Mr. Bonighton was promoted to Deputy Director DSD, and at the end of 1996 was appointed First Assistant Secretary, Defence Materiel Division. In July 1997, Ron was appointed Head Systems Acquisition (Electronic Systems) in line with the changes introduced from the Defence Reform Programme.’<sup>50</sup>

On Bonighton's retirement Shane Carmody, who had been Deputy Secretary Strategy since early 2002, once more became Deputy Secretary Intelligence and Security, until September 2006, when he was replaced by Stephen Merchant, as Deputy Secretary Intelligence, Security and International Policy.<sup>51</sup> Merchant came to the position after serving as head of DSD, where he was appointed as Acting Director in late 2002.<sup>52</sup>

Former Major General Steve Meekin has been Deputy Secretary (Intelligence and Security) since March 2012, after holding senior positions in the Defence Intelligence Organisation and the Defence Signals Directorate and serving as Director of the Defence Imagery and Geospatial Organisation (DIGO).<sup>53</sup>

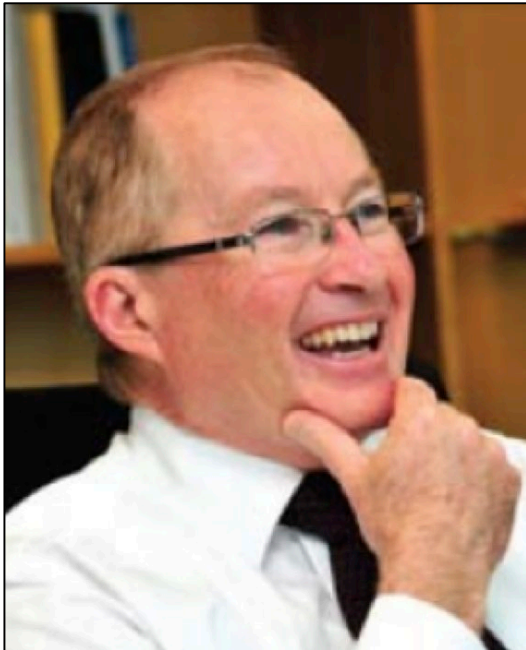
**Figure 13. Ron Bonighton**



**Figure 14. Shane Carmody**



**Figure 15. Stephen Merchant**



**Figure 16. Steve Meekin**



A section was formed in the ANZUS and UN Branch of the Strategic and International Policy (SIP) Division in the early 1980s to support Deputy Secretary B with respect to the joint facilities. Called the International Policy: Joint Defence Facilities (IP(JF)) Section, it was officially responsible for ‘development and implementation of policy concerning joint Australian/US defence facilities’, as well as Defence interests in nuclear arms control and disarmament activities.

It was headed in 1984 by Martin Brady. In 1986, Brady became Director of the Intelligence Estimates Branch (DIE) in JIO, the role of which was to ‘study and report on the strategic interests, perceptions, policies and doctrines of foreign countries and their implications for Australia’s strategic environment’. Brady had served as a civilian adviser to the Dibb review, and was subsequently Assistant Director of the Joint Intelligence Organisation and later First Assistant Secretary, Force Development and Analysis. Brady served as Director of DSD from 1994 to 1999, and retired as the Chairman of the Defence Intelligence Board in July 2001.<sup>54</sup>

In 1986, the IP(JF) Section was split into two, jointly responsible for ‘development and implementation of policy concerning joint Australia/US defence facilities’. The IP(JF1) Section was headed by Chris Sheppard and IP(JF2) by G. Hannaford, who had previously been Executive Officer in the IP(JF) Section under Brady.



**Figure 17. Martin Brady**



## **5. Australian Defence Representatives and Deputy Chiefs of Facility<sup>55</sup>**

Prior to 1999, the senior Australian officer at Pine Gap was known as the Australian Defence Representative, Joint Defence Space Research Facility, Alice Springs (ADRAS).<sup>56</sup> The last Australian Defence Representative, John McCarthy (1988-1992 and 1999-2002), was designated in March 2002 as the ‘Australian deputy chief of the facility’.<sup>57</sup> All subsequent incumbents have been formally designated as ‘Deputy Chief of Facility JDFPG’ (see ‘Tables 3 and 4’).<sup>58</sup>

**Table 3.  
Australian Defence Representatives at Pine Gap**

Lindsay Smooker	1969 – 1978
Wallace F. Caplehorn	1979 – 1980
Ivo H. Parker	1980 – 1984
W.A.L. (Bert) Forsyth	1984 – 1987
Michael K. Busch	1987 – 1988
John McCarthy	1988 – 1992
Janet Tyler	1992 – 1995
Brian Ely	1995 – 1999
John McCarthy	1999 – 2002

**Table 4.**  
**Deputy Chiefs of Facility, 1999-2015**

John McCarthy	1999 — ?2002
?	? - ?
Rachel Noble	? - ?
Michael Burgess	01.2006 – 01.2008
Cameron Ashe <sup>59</sup>	01.2008 – 2009
Margaret Larkin	2009 – 07.2012
Nicholas Post	25.01.2013 – 01.2015
Gary Thorpe	01.2015 – present

The current Deputy Chief of Facility, Gary Thorpe (1.2015 – present), was introduced to the mayor of Alice Springs by his predecessor in January 2015. Thorpe trained in computer science at university (1986-1993), and came to Pine Gap after a four-year Defence IT executive posting in Canberra (1.2008 – 2.2012), before entering the Senior Executive Service in February 2012.<sup>60</sup> Thorpe was listed in February 2016 as Assistant Secretary Technical Intelligence, Australian Signals Directorate, but still based at Pine Gap.<sup>61</sup>

The Deputy Chief of Facility is assisted by a Policy, Plans and Communications Officer. This position was advertised by the Australian Department of Defence in July 2010, which described it as ‘ongoing’ and at APS Level 6. It said that ‘the successful applicant will work directly to the Deputy Chief of Facility Pine Gap providing policy and planning advice concerning the Australia-US arrangements for Pine Gap’, and that

the successful applicant will also engage with senior staff and local and Territory government on a wide range of issues.<sup>62</sup>

## **6. Deputy Chief of Operations, Chief of Intelligence Operations, and Mission Directors (MDs)<sup>63</sup>**

The position of Deputy Chief of Operations is always held by an Australian, normally a civilian official from the Australian Signals Directorate (ASD). Former operators at Pine Gap have said that, as with the Chief of Facility and Deputy Chief of Facility, the positions of Chief of Operations and Deputy Chief of Operations ‘are on the equivalent Executive level with each respective position responsible for the tasking from their respective country and for dealing with matters concerning their country’s personnel at the Base’, although ‘the US submits much more

tasking as its military is much more diversely deployed than Australia's although both countries have similar interests in some tasking, such as weapons development'.<sup>64</sup>

Subordinate to the Chief and Deputy Chief of Operations is a Chief of Intelligence Operations, a position created by the Australian Department of Defence in 2010 and held by another Australian. In August 2010, the Department of Defence advertised this position, based in DSD's Technical Intelligence Section but posted to Pine Gap, at Australian Public Service (APS) Executive Level 1, with a closing date for applications of 23 September 2010. It said that the 'Department of Defence is looking for [an] experienced, highly focused Chief of Intelligence Operations at the Joint Defence Facility Pine Gap. The successful applicant will lead a large multi-national team, manage a complex array of technical operations, and provide operational support to senior leadership at Pine Gap.'<sup>65</sup> Patrick Winter served as Chief of Intelligence from February 2011 to February 2013.<sup>66</sup>

An Australian civilian, Cathy Day, a DSD IT specialist, served as a Mission Director at the station from January 1996 to January 1999. She has said that, 'as Mission Director, I had responsibility during the course of my shift for all operational activities of this significant intelligence facility'. She has also said that 'weekday business hours comprised only 25 per cent of the working hours of the facility, and outside of those times I acted as Chief of Facility, exercising responsibility for the entire facility'.<sup>67</sup> Day subsequently served as Director of the Military SIGINT Operations Centre (MSOC) in DSD (January 1999 to November 2000).

## **7. Satellite control**

Australia's concurrence is required for repositioning of the SIGINT satellites or realignment of their intercept antennas to different targets. In 1975, for example, Australian officials (including Blakers, Mathams and Dibb) were involved in deliberations regarding a US proposal to target one of the *Rhyolite* satellites on the Soviet naval base and communications centre at Berbera, in northwest Somalia, on the Gulf of Aden.<sup>68</sup>

At different times during 1999, the US agreed to the realignment of one of the SIGINT satellites controlled from Pine Gap to provide coverage of signals in East Timor, from the VHF up to the SHF band (i.e., from walkie-talkies to Satphones). Intercepts of the communications of Indonesian officers and their client militia leaders were transmitted directly to DSD HQ in the Russell complex in Canberra.<sup>69</sup> There were frequent visits to Pine Gap by DSD civilian and military personnel during the planning and preparation for the ADF commitment in September 1999.

## 8. The Australian Signals Directorate (ASD)

The Australian Signals Directorate (ASD), formerly (until May 2013) the Defence Signals Directorate (DSD), is the principal Defence intelligence agency directly involved with operational activities at Pine Gap. By early 1977, DSD reportedly had a 'liaison officer' at Pine Gap.<sup>70</sup> By 1980, when Wally Caplehorn was ADR at Pine Gap, DSD had two roles concerning Pine Gap. First, it was engaged in analysis of the SIGINT collected at Pine Gap, to which it had direct access.

By the mid-1980s, material intercepted at Pine Gap was being analysed at DSD HQ in Victoria Barracks in Melbourne, along with SIGINT collected at DSD's own intercept stations. Pine Gap material was routinely included in DSD's regular reports distributed to other intelligence agencies (including JIO and ONA).<sup>71</sup> When the HQ was moved to Building M in the Russell Hill complex in Canberra in 1991-92, a substantial section was devoted to analysis and reporting from 'the Desert'.

To expedite direct access to SIGINT material of Australian interest, two new satellite dishes/radomes were installed at Pine Gap in 1990-91. In August 1990, the Minister for Defence, Senator Robert Ray, announced that two radomes 'are to be constructed in the next 12-16 months'.<sup>72</sup> The contract was awarded by the Australian government to an Alice Springs company, TMC Constructions.<sup>73</sup> The radomes measure 9-metres and 30-metres in diameter.<sup>74</sup> The enclosed antennas were designed to communicate via the new DEFAUSSAT SATCOM system with HMAS Harman in Canberra, where DEFAUSSAT antennas were also installed around this time, and from which the SIGINT data is relayed by cable to Russell Hill. At the same time, the Australian government also awarded TMC Constructions a contract for the construction of 15 houses in Alice Springs, which the Australian Deputy Chief of Facility, John McCarthy, said 'would replace existing accommodation and cater for staff increases over several years'.<sup>75</sup>

Second, beginning around 1980, DSD personnel were increasingly integrated into all operational areas at Pine Gap, including the Signals Analysis Section. By August 1990, there were 343 Australians (and 320 Americans) at Pine Gap, all of them civilians, including about 40 from DSD. DSD and NSA personnel worked side by side in the Operations Room. David Rosenberg has recalled that, from his first day at work at Pine Gap as an NSA ELINT Analyst in the Operations Room, in October 1990, 'I worked alongside an Australian counterpart'. He says that 'two operators on position allowed one of us to take breaks and attend meetings and classes if



necessary while the other performed the work’, and that ‘both American and Australians manned similar positions across Operations’.<sup>76</sup>

The first Australian military personnel to work at Pine Gap – only about two of them – arrived around September 1990. They were part of a small contingent (about five) of US and Australian military personnel deployed to Pine Gap in preparation for Operation *Desert Storm*.<sup>77</sup>

On 6 February 1997, the Minister for Defence, Ian McLachlan, announced a substantial staff increase at Pine Gap. Whereas there were 725 personnel at the station in February 1997 (an increase of about 60 over the previous six years), it was anticipated that this number would grow to about 875 (420 Australians and 455 US personnel, an increase of 150 by 2000. The Minister stated that ‘the staff increases, to be phased in over a number of years, involve civilian and military personnel from both Australia and the United States’.<sup>78</sup> A handful of Australian military personnel from DSD were posted to Pine Gap in 1999-2000, at the same time as the large influx of US service cryptological personnel who constituted the Combined Support Group (CSG). By 2002, ‘all arms of the Australian Defence Force and US Armed Services [had] personnel integrated into the Joint Defence Facility Pine Gap workforce’.<sup>79</sup>

Most of the 50 Australian Government personnel who work in the Operations Room are civilian members of ASD’s Technical Intelligence Branch. The Assistant Secretary in charge of the Branch, a Level 1 position in the Senior Executive Service, effectively manages the intelligence relationship between Pine Gap and ASD HQ. Patrick Winter, who acted as Assistant Secretary of the Branch on occasions in 2010-11, has said that it was ‘a large branch... with staff in two countries’, which ‘managed the US-Australian relationship at Joint Defence Facility Pine Gap’. The role of the Assistant Secretary ‘included holding Ministerial Authority for monitoring and managing compliance with the Pine Gap Implementing Arrangement and Defence (Special Undertakings) Act’.<sup>80</sup>

ASD’s Support to Military Operations Branch is also directly involved in activities at Pine Gap, including both tasking and receipt of relevant intelligence. The Director General Support to Military Operations (DGSMO) is a civilian Level 1 position in the Senior Executive Service or a 1-star military officer. Tim Scully, a former Australian Army intelligence officer, was DGSMO in 2005, before becoming head of the Defence Security Authority (DSA) and then the inaugural head of the Cyber Security Operations Centre (CSOC) in DSD in 2008.<sup>81</sup> Brigadier S.D. Meekin was appointed DGSMO on 5 September 2005.<sup>82</sup> Joe Franz, who was appointed in April 2007, was the first civilian DGSMO. He says that he was responsible for ‘leading all ASD support to

Australian Defence Force and Coalition Force operations – in particular Iraq, Afghanistan and East Timor’. He was appointed Assistant Secretary Cyber Security in March 2011, responsible ‘for the Cyber Security Operations Centre and all ASD Information Assurance activities’.<sup>83</sup> Air Commodore John McGarry was DGSMO in 2012.<sup>84</sup>

Patrick Winter was Assistant Director – Support to Military Operations (ADSMO) from December 2009 to February 2011, in which capacity he ‘led efforts to collect, analyse and report on intelligence in the ADF’s Middle East Area of Operations’. He moved to Pine Gap as Chief of Intelligence Operations in February 2011.<sup>85</sup>

Within the SMO Branch is the Military SIGINT Operations Centre (MSOC), which serves as a 24-hour per day Watch Office for monitoring SIGINT of military significance arriving from both ASD stations and partner agencies. Cathy Day served as Director of the MSOC from January 1999 to November 2000, after being a Mission Director at Pine Gap.<sup>86</sup>

In May 2013, officers from the Inspector General of Intelligence and Security (IGIS) ‘conducted an on-site inspection of DSD operations at the Joint Defence Facility Pine Gap (JDFPG)’. The IGIS staff ‘were briefed on several compliance aspects of activities and administrative arrangements, including the intelligence cycle, inter-agency coordination, physical and personnel security, and environmental and workplace health and safety’.<sup>87</sup>

The principal policy issue concerned compliance by DSD personnel at the facility with DSD’s rules and regulations regarding interception of the communications of Australian citizens. According to the report on the visit in the IGIS *Annual Report 2012-2013*:

The facility has well-developed systems and procedures in place for managing compliance. Discussions held in private with a number of staff demonstrated the importance of close coordination between agencies, including DIGO staff at the facility, and reflected a strong culture of compliance at all levels. One of the issues raised following the visit concerned the adequacy of mandatory compliance training and testing at the facility. It is important that compliance testing regimes target areas of high compliance risk at the facility, and are appropriately updated in line with changes to DSD’s compliance framework and the role and functions of DSD. DSD have agreed to develop mandatory compliance training specifically for use at the facility.<sup>88</sup>

**Figure 18. DSD Military SIGINT Operations Centre  
lapel pin**



Source: 'DSD pin / Defence Signals Directorate Australian NSA intelligence SIGINT agency', *eBay*, 15 February 2016, at [http://www.ebay.com/itm/DSD-pin-Defence-Signals-Directorate-Australian-NSA-intelligence-SIGINT-agency-/281931913509?hash=item41a4739925%3Ag%3AA9sAAOSwFNZWutQ9&nma=true&si=Mm%252FeMMI%252BPxuS96EOccXj2wmi3tM%253D&orig\\_cvip=true&rt=nc&\\_trksid=p2047675.12557](http://www.ebay.com/itm/DSD-pin-Defence-Signals-Directorate-Australian-NSA-intelligence-SIGINT-agency-/281931913509?hash=item41a4739925%3Ag%3AA9sAAOSwFNZWutQ9&nma=true&si=Mm%252FeMMI%252BPxuS96EOccXj2wmi3tM%253D&orig_cvip=true&rt=nc&_trksid=p2047675.12557).

## 9. The Australian Defence Imagery and Geospatial Organisation (DIGO)

The presence of personnel from the Australian Defence Imagery and Geospatial Organisation (DIGO) at Pine Gap is evidently fairly recent. It was apparently first reported in the IGIS *Annual Report 2012-2013*, which noted ‘DIGO staff at the facility’.<sup>89</sup> However, small numbers may have worked there since the late 1990s, when the first US imagery/geospatial analysts arrived. Their activities are apparently governed by a Memorandum of Understanding on ‘Quadripartite Imagery and Measurement and Signatures Intelligence (MASINT) Research and Development Program’, originally dated May 1999 but subsequently amended.<sup>90</sup>

The geosynchronous SIGINT satellites have an inherent geo-location capability, with the source of intercepted electronic emissions being confined to a relatively small area on the ground, readily triangulated by the station-keeping operators at Pine Gap. However, the overlay of imagery and geospatial data on the location of the emissions allows the scene of the emissions to be visualised and provides confirmatory intelligence (such as images of a particular cell phone user).

Both civilian and uniformed members of DIGO are posted to Pine Gap. An advertisement for a Geospatial Technician in May 2015 noted that ‘Geospatial Technicians are specialists supporting the Army’s unique requirements for accurate and timely geospatial

information in both domestic and international operations’, and that ‘the Geospatial Technician is a soldier in the Royal Australian Engineer Corps who collects, analyses, manipulates, portrays, reproduces and distributes spatially referenced earth data (spatially referenced data includes maps, digital geospatial information in vector, raster and matrix form, and geographical coordinates)’.<sup>91</sup>

In May 2015, the Department of Defence also advertised for an Air Intelligence Analyst (AIA)/Geospatial Intelligence (GEOINT) Analyst at Pine Gap. The advertisement described the job as ‘a unique and exciting opportunity to work in a highly classified environment’, and said that most of the work was carried out at ‘sophisticated Digital Imagery Work Stations’. The duties included ‘[maintaining] imagery libraries, which includes recording, storing and retrieving imagery details from a digital library’, and ‘[producing] tailored intelligence products in support of a broad range of ADF maritime, land and air operations’.<sup>92</sup>

## **10. The Defence Science and Technology Organisation (DSTO), Salisbury**

The Defence Science and Technology Organisation (DSTO) at Salisbury in Adelaide has been involved with Pine Gap since the early 1980s, when it was called the Defence Research Centre Salisbury (DRCS). In September 1984, for example, the Defence Research Centre Salisbury advertised for engineers to work in the Advanced Engineering Laboratory at Pine Gap, then managed by E-Systems. The duties were described as follows:

In close cooperation with USA contractors, USA Government and Australian Government personnel, and with guidance in terms of specific objectives and critical issues, perform professional engineering work in support of the programme of defence space research, viz:

- (a) operational engineering functions, including equipment installation, repair, maintenance, system performance evaluation and corresponding system improvement;
- (b) conduct engineering feasibility studies and systems analysis in the fields of analogue, digital and computing techniques, as applied to the research systems and determination of solutions to hardware problems; and
- (c) determine functions, performance and specifications for new equipment to provide added capability.<sup>93</sup>

The advertisement also said that ‘considerable experience in design, operation and maintenance of electronic signal processing and real time computer control of hardware [was] highly

desirable', and that 'specialised training, including a visit of approximately 5 weeks in the USA, will be provided'.<sup>94</sup>

In June 2011, the Department of Defence advertised for a Senior Processing Engineer, with the position in the Signals Intelligence Branch of DSTO's Command, Control, Communications and Intelligence Division but located at Pine Gap. It was a Science and Technology Level 5 or APS Executive Level 1 position. The job description stated that: 'Under limited guidance you will develop and apply advanced signal processing algorithms and techniques in support of the Joint Defence Facility Pine Gap Site Systems Engineering laboratory. Demonstrated specialist skills in areas relevant to communications and signal processing are required'.<sup>95</sup>

DSTO's Communications Division also posts a scientist to Pine Gap. For example, Barry Matson, a radio communications engineer who had joined the Defence Research Centre at Salisbury in 1978, spent 'three years in the early 1980s', from November 1980 to January 1984, on secondment at Pine Gap as 'a senior systems engineer'. Prior to his appointment at Pine Gap, he received 'training at various contractor and government facilities in the United States'. During his first year he was seconded to E-Systems, but was then transferred to 'the United States Government Engineering Division', i.e., the Office of Development and Engineering (OD&E) in CIA's Directorate of Science and Technology. He says that 'His role was twofold: to become intimately familiar with the operations and technology of the facility performing as a systems engineer; and, to report to the Australian Government on the compliance of the foreign government with the terms and conditions for the use of the facility'.<sup>96</sup>

Ian Coat, who had joined DSTO's Electronic Warfare Division in 1982, was posted to Pine Gap in 1994-96. On his return to Salisbury in 1996, he 'joined the Signals Intelligence Branch and was involved in strategic SIGINT systems and tactical Communications EW systems with an emphasis on post-detection analysis processes, databasing and information management aspects'.<sup>97</sup>

**Figure 19. Ian Coat, DSTO officer at Pine Gap, 1994-96**



Source: '2010 Awards, Australian Chapter of the AOC 2010 Awards, Ross Treharne Shield', *Australian Chapter of the Association of Old Crows, EW-IO-Cyber-EMS Operations*, at [http://www.oldcrows.org.au/index.php?option=com\\_content&view=article&id=86:2010-awards&catid=48:awards](http://www.oldcrows.org.au/index.php?option=com_content&view=article&id=86:2010-awards&catid=48:awards).

**Figure 20. Gareth Parker, DSTO officer at Pine Gap 1995-1998**



'Dr Gareth Parker, Our Leadership', Defence Science and Technology Group, at <http://www.dsto.defence.gov.au/staff/dr-gareth-parker>.

Gareth Parker, an electronics engineer who joined DSTO in 1987, spent three years working at Pine Gap between 1995 and 1998. In 2011, Parker was the contact for a June 2011 DSTO advertisement for a Signal Processing Engineer at Pine Gap in DSTO's Command, Control, Communications and Intelligence Division.<sup>98</sup> He is currently

DST's Research Leader for Cyber Sensing and Shaping, focusing on the physical and logical networks through which online communication occurs. In his previous role he led a research program in communications signal analysis and prior to that, specialised technologies for information access.<sup>99</sup>

Parker is also Australia's national representative in a key area of Five Eyes scientific cooperation in The Technical Cooperation Program's Cyber Strategic Challenge.<sup>100</sup>

## **11. The Australian Security Intelligence Organisation (ASIO)**

The Australian Security Intelligence Organisation (ASIO) has been involved with the Pine Gap project since the beginning. In June 1965, it advised the planners in the Defence Department 'that from their point of view Alice Springs is a "clear area". There is no organised Branch of the Communist Party in the area and local labour is not Communist infiltrated or

controlled'.<sup>101</sup> In April 1970, just as Pine Gap was becoming operational, the ASIO Director-General, Peter Barbour, suggested to Sir Arthur Tange that ASIO could provide an officer to support protective security at the facility. Tange rejected the offer; he thought that 'ASIO did not need to know more than rudimentary details about the joint facilities'.<sup>102</sup> Tange, however, later changed his mind. He wrote to Barbour in August 1975, admitting that Defence security officers were 'not in a position to adequately mount covert counter-intelligence activities in Alice Springs, where any threat against the installation might well be centred', and asked for ASIO support. ASIO agreed 'to undertake a preliminary examination of the position'.<sup>103</sup>

By 1978, ASIO had established an office at Pine Gap, officially called the Special Security Office Alice Springs.<sup>104</sup> It has two functions. First, it provides protective security advice concerning possible threats to the facility, as well as watching for 'suspicious strangers' in Alice Springs.<sup>105</sup> Second, it receives intelligence which might have implications for Australia's internal security. Through the 1980s and 1990s, it reported to ASIO's Branch B (Research and Analysis) rather than Branch C (Protective Security), suggesting that the intelligence function was more important than the protective security function.

## **12. Operations**

As already noted, the Australian Government now provides nearly 50 operators and analysts at Pine Gap, mostly from ASD. It provides Team Leaders or Collection Operations Leads (COLs) for several Teams, and a member of nearly all teams. The Team Leader/COL, an APS Level 6 position, also serves as Section Head during his/her shift.

In January 2010, for example, the Department of Defence advertised two COL positions at Level 6. It said that: 'Department of Defence is looking for two people to fill the role of the Collection Operations Lead (COL) at Joint Defence Facility Pine Gap. The COL is responsible for managing a multi-national, multi-agency shift-working team to successfully manage the complex tasking in support of the JDFPG Mission'. It also said that: 'Successful applicant/s for the JDFPG Collection Operations Lead position/s will initially be employed on Term Transfer in Alice Springs NT, for a period of 2 years, with a possible extension of 1-2 years, after which time the successful applicant would be required to permanently relocate to Canberra'.<sup>106</sup>

On 23 October 2012, Defence advertised for Senior Intelligence Collection and Discovery Analysts, Joint Defence Facility Pine Gap. The advertisement noted that 'several positions' were available, at APS Level 6, with a closing date for applications of 8 November 2012. It said that 'the Department of Defence is looking for several personnel to fill the roles of

senior intelligence collection and discovery analysts as well as highly technical intelligence analysts at the Joint Defence Facility Pine Gap'. It also said that: 'As a TOP SECRET (Positive Vet) clearance is required, applicants must be Australian citizens; be able to account for their personal background for the past 10 years; and be able to demonstrate suitability to work in a high security intelligence environment'.<sup>107</sup> One of these positions was filled in May 2013 by P. Circosta, who was promoted to Level 6 from his previous position of Level 5 in the Department of Defence.<sup>108</sup>

There have been many advertisements by the Department of Defence for Collection Operators and Intelligence Analysts at APS Levels 4 and 5. For example, the Department advertised several positions for Intelligence Analysts and Systems Operators in July 2006. It said that: 'The Joint Defence Facility Pine Gap (JDFPG) is an exciting and unique place to work. In cooperation with the United States we collect intelligence that contributes to Government objectives such as monitoring military developments and compliance with international arms control agreements'; that: 'We are looking for highly motivated people at the APS 4 & 5 Levels, to work both individually and as a member of a multinational, multidisciplinary team. This is an interesting, varied and challenging position'; and that: 'The successful applicant will be expected to operate various computerised intelligence collection systems and in some cases analyse the intelligence collected'. It also said that: 'Successful applicants will have: proven competence in the operation of electronic equipment and computerised analysis tools, good written and oral communications skills and the ability to work effectively in a multidisciplinary team. Please note that while the selection process will be rigorous, previous experience in the intelligence field is not required. Training will be provided. These positions will involve shift work'.<sup>109</sup>

In November 2008, the Department advertised for Collection Operators, also at APS Levels 4 and 5, with a closing date of 12 December 2008. It stated that:

The Joint Defence Facility Pine Gap (JDFPG) is an exciting and unique place to work. In cooperation with the United States we collect intelligence that contributes to Government objectives including monitoring military developments and compliance with international arms control agreements. We are looking for highly motivated people at the APS 5 and APS 4 levels, to work both individually and as a member of a multinational, multidisciplinary team. These are interesting, varied and challenging positions. The successful applicants will be expected to operate various computerised intelligence collection systems and in some cases analyse the intelligence collected. Comprehensive training will be provided to the successful applicants. These positions will involve shift work.



These are Term Transfer positions for a period of two (2) years with a further two year option, after which the successful application will return/proceed to Canberra.

Successful applicants will be assessed on their organisational suitability to work in a high security environment, and must obtain and maintain a Top Secret Positive Vet security clearance. To be eligible for assessment, applicants must be Australian citizens with at least 10 years checkable background.<sup>110</sup>

It also said that 'JDFPG is part of the Department of Defence and successful applicants will be engaged as members of the Australian Public Service'.<sup>111</sup>

In November 2011, Defence advertised for an Intelligence Collection and Analysis Operator, at APS Level 4, with a closing date of 1 December 2011. The advertisement noted that the Operator would work for DSD at Pine Gap. It said that: 'Dept of Defence is looking for personnel to fill roles in technical collection and intelligence analysis. Successful applicants will serve in a multi-national team at Joint Defence Facility Pine Gap, supporting Australian and allied intelligence requirements. This is a two year Term Transfer position with a possible one year extension'. It also noted that: 'Prior to commencement successful applicants will be required to undergo an extensive security clearance process. As a TOP SECRET (Positive Vet) clearance is required, applicants must be Australian citizens; be able to account for their personal background for the past 10 years; and be able to demonstrate suitability to work in a high security intelligence environment'.<sup>112</sup>

At the same time, Defence advertised several Intelligence Collection and Analysis Operation positions at APS Level 5, also with a closing date of 1 December 2011. It said that: 'Department of Defence is looking for personnel to fill roles in technical collection and intelligence analysis. Successful applicants will serve in a multi-national team at Joint Defence Facility Pine Gap, supporting Australian and allied intelligence requirements. This is a two year Term Transfer position with a possible one year extension'.<sup>113</sup>

ASD officers are present in most of the Teams in most of the functional Divisions. For example, David Rosenberg has reported that, early in the 2000s, when he was a Grade 13 ELINT Team Leader in charge of a small team of both US and Australian personnel in the Weapons-associated ELINT Division, 'one of my Aussie team members happened to find a new [deleted] signal'. Further data was collected by 'co-workers on an adjacent position', and the signal was soon identified as involving 'a significant modification to a known threat system'.<sup>114</sup>

ASD personnel are similarly employed throughout the COMINT Division, where they include technical collection operators, intelligence analysts and linguists (mainly skilled in Middle

Eastern and East Asian languages). DSD has also provided Indonesian linguists to Pine Gap as contingent circumstances have required. Monitoring Indonesian communications, including satellite communications, is normally undertaken at Shoal Bay near Darwin, but Indonesian linguists are sent to Pine Gap whenever its SIGINT satellites are focussed on Indonesian targets.<sup>115</sup> For example, CPOLIN [Chief Petty Officer Linguist] Robin Dix, an Indonesian linguist, served at Pine Gap in the early and mid-1990s. He had worked at the DSD stations at Kranji in Singapore and at Shoal Bay as a RAN officer in the 1970s, and had retired from the Navy and joined DSD as a civilian in 1984.<sup>116</sup> During 1999, when the US agreed to the realignment of one of the SIGINT satellites to provide coverage of signals in East Timor, Indonesian and Tetum linguists were sent to Pine Gap. In December 2007, at DSD's request, an Indonesian linguist was sent to Pine Gap 'to monitor and scan communications' of Indonesian security officials involved with security for a UN conference on climate change held in Bali on 3-14 December. According to an NSA report in January 2008, 'the goal of the [joint DSD-NSA] development effort was to gain a solid understanding of the network structure should collection be required in the event of an emergency'. It stated that 'highlights include the compromise of the mobile phone number for Bali's chief of police', and that 'site [i.e., Pine Gap] efforts revealed previously unknown Indonesian communications networks and postured us to increase collection in the event of a crisis'.<sup>117</sup>

### **13. Administration**

The Department of Defence provides an Administrative/Administration Assistant to support the Australian Department of Defence personnel at Pine Gap with respect to 'administration, finance, procurement and personnel policy issues'. For example, it advertised in July 2006 for an Administration Assistant at APS Level 4. It said that: 'The Joint Defence Facility Pine Gap (JDFPG) is an exciting and unique place to work. In cooperation with the United States we collect intelligence that contributes to Government objectives such as monitoring military developments and compliance with international arms control agreements'; and that: 'We are looking for an experienced person to provide administration support for Australian Department of Defence personnel at JDFPG. The successful applicant will have demonstrated experience in administration, finance, procurement and personnel policy issues in a complex and challenging environment. Practical experience in these fields is essential and an understanding of the Department of Defence policies and procedures is highly desirable'.<sup>118</sup>

In February 2012 it advertised for an Administrative Assistant at APS Level 5, with a closing date of 1 March 2012. It noted that the position was in DSD. It said that: ‘The Department of Defence is seeking a candidate to fill the role of Administrative Assistant. The successful applicant will work in a small team performing a wide range of tasks which include but is not limited to, administration of procurement, financial and personnel policies and procedures’.<sup>119</sup> This position was also advertised in *The Centralian Advocate* on 17 February 2012, where it was further stated that ‘the successful applicant will have demonstrated experience in office administration, finance, procurement and personnel policy issues’, and that ‘this position will be filled on a permanent basis’.<sup>120</sup>

## 14. Security

The Department of Defence also provides a Security Adviser at Pine Gap, who supports the Joint Security Section. The position was initially classified at APS Level 4, but since 2008 has been at Level 5. In June 2006, for example, the Defence Security Authority (DSA) advertised the position at APS Level 4. It said that: ‘JDFPG is an exciting and unique place to work. In cooperation with the United States JDFPG collects intelligence that contributes to Government objectives such as monitoring military developments and compliance with international arms control agreements’; that: ‘We are looking for a highly motivated person with excellent communication skills to work both individually and as a member of a multinational security team’; that: ‘This is an interesting, varied and challenging position. The successful applicant will be expected to operate various computerised security systems at JDFPG as well as providing day-to-day support for the security functions of the Joint Security Staff’; and that: ‘This includes the provision of security advice and briefings, investigative and project management tasks, maintaining various databases and providing security awareness education’.<sup>121</sup>

In July 2008, the Department of Defence advertised for a Security Advisor at Pine Gap, at APS Level 5, with a closing date for applications of 15 August 2008. It stated that: ‘The Joint Defence Facility Pine Gap (JDFPG) is an exciting and unique place to work. In cooperation with the United States, we collect intelligence that contributes to Government objectives such as monitoring military developments and compliance with international arms control agreements. If successful, you will join a fully integrated mission focussed team at JDFPG and play a key role in providing high level support to JDFPG personnel’. It also said that: ‘We are looking for a suitably experienced and energetic security professional to assist in the Joint Security Section at JDFPG. The successful applicant will have demonstrated experience in managing and administering protective security policy issues in a complex and challenging environment.

Practical experience in these fields is essential and an understanding of the Department of Defence policies and procedures is highly desirable'.<sup>122</sup>

An advertisement for a Security Advisor, with a closing date for applications of 29 April 2010, announced a vacancy for an APS Level 5 officer and stated that: 'The Security Advisor is part of the Government of Australia and Joint Security Section at the Joint Defence Facility Pine Gap. The position includes responsibility for site vetting requirements, security briefings and debriefings and matters to do with security policy'. It also noted that: 'Prior to commencement successful applicants will be required to undergo an extensive security clearance process. As a TOP SECRET (Positive Vet) clearance is required, applicants must be Australian citizens; be able to account for their personal background for the past 10 years; and be able to demonstrate suitability to work in a high security intelligence environment'.<sup>123</sup>

In November 2010, the Department of Defence readvertised the position, also at APS Level 5. It stated that: 'Defence is looking to employ a suitably experienced security professional at the Joint Defence Facility Pine Gap (JDFPG) near Alice Springs. If successful you will join a fully integrated security team and play a key role in the delivery of security advice and support to the facility including managing daily site access programs'.<sup>124</sup>

In 2015, an Arrente and Kaytej man, Niki Ross, who had previously worked for the Department of Prime Minister and Cabinet in indigenous community relations and governance, joined Defence at Pine Gap, where he 'provides security support to the intelligence mission and plays a lead role in Indigenous community engagement'.<sup>125</sup>

## **15. Australian Federal Police (AFP)**

It was agreed during the US-Australian negotiations in 1966 that Australia would 'provide Commonwealth Police guards' at the facility.<sup>126</sup> In October, it was decided that 12 police guards (one officer and 11 men) would be required, for whom 12 houses were needed in Alice Springs, to be available from early 1968.<sup>127</sup> This requirement was based on the need for two guards from each of three shifts to continuously man two posts (at the outer and inner perimeters of the facility).<sup>128</sup>

The Commonwealth Police was replaced by the Australian Federal Police (AFP) in 1979, the Protective Services component of which assumed responsibility for security at the facility. The head of Security at Pine Gap in 2006 was AFP Inspector Ken Napier, who had been in charge since February 1992, more than 24 years.<sup>129</sup> His title was changed to Station Manager of

Protection at Pine Gap in July 2004, when the Australian Protective Services was reorganised as the AFP Protection Service.<sup>130</sup> Mick Golledge worked at Pine Gap as a Protective Services Officer for the APS/AFP for several years from 1998 into the early 2000s.<sup>131</sup> In 2004, Michael Clarchtery was the AFP Association's delegate at Pine Gap.<sup>132</sup>

Inspector Napier said in 2006 that he was 'extremely proud of our achievements at Pine Gap, and we will soon see more advances in technology at Pine Gap which will further enhance security'. He said that: 'One such technological advancement currently in production is a high-tech screening bay for heavy vehicles such as transporters and tourist buses, which will complement some of Pine Gap's existing protection technologies including advanced bomb detection apparatus and an x-ray postal mail scanning facility'. He also said that: 'We have accelerated our recruitment campaign in a bid to have 50 personnel on the ground by the end of 2006'.<sup>133</sup> In July 2006, the AFP advertised for recruits to work at Pine Gap. It said that applicants 'must be a minimum of 18 years of age, be an Australian Citizen and hold a current manual driver's licence; that they would be 'required to undergo a police check and full security check'; and that 'the ability to hold an Australian Security Clearance is essential'.<sup>134</sup> As at 14 May 2008, there were 50 Protective Service Officers (PSOs) stationed at Pine Gap.<sup>135</sup>

The APS/AFP contingent at Pine Gap has had to be augmented on the several occasions when large-scale protests have been organised at the facility. For example, Operation Delta was assembled to deal with a large protest at Pine Gap in November 1983. It involved a joint task force commanded by Acting Chief Superintendent Chris Campbell-Thompson, from the AFP's Operations Response Division, which consisted of 50 AFP and 40 NT police personnel. Campbell-Thompson also had a National Safety Council of Australia (NSCA) helicopter and crew at his disposal for patrol and dispersal of protesters.<sup>136</sup>

The APS/AFP and NT Police conducted a joint operation, called Operation Zeal, during demonstrations at Pine Gap on 5-7 October 2002. According to a NT Government account:

Operation Zeal was initiated in response to planned protests by various issue-motivated groups at the Joint Defence Facility, Pine Gap near Alice Springs. The operation was planned over a six-month period. It was a multi-agency response that included personnel from Australian Protective Services, Australian Federal Police and agencies from both the Commonwealth and NT Governments. A total of 94 police personnel from all Regions participated in the operation.

The protest included 500-600 demonstrators who travelled from all states and territories to participate. The protests included a series of rallies at the gates to Joint Defence

Facility Pine Gap with attempts to breach police lines. As a result, 16 persons were arrested.<sup>137</sup>

In December 2005, Inspector Napier was in charge of the security operations when four Christian pacifists evaded police patrols and reached the Top Secret buildings, after widely publicising their intentions.<sup>138</sup>

The Defence Security Authority (DSA) in the Department of Defence reimburses the APS/AFP for its protective services at Pine Gap. In 2006-07, for example, Defence budgeted \$10 million for APS 'guarding services' at the Russell Offices in Canberra, North West Cape (Exmouth) and Pine Gap.<sup>139</sup> In July 2009, the Attorney General stated that during the period from 1 July 2008 to 31 May 2009, the AFP 'incurred expenditure of \$5,200,128 for the provision of security to the Joint Defence facilities at Pine Gap', which was recovered from the Defence Security Authority (DSA).<sup>140</sup>

## **16. Australian contractors**

About 320 employees of Australian contractors work at Pine Gap. They are involved in nearly all of the activities at the facility, including operations, management, maintenance, administration, the utilities and security.

The first Australian contractor personnel at Pine Gap were mainly computer engineers employed by IBM. For example, Chris Gamlin, from Adelaide, worked for IBM as 'a computer engineer' at Pine Gap 'for 5 years in the early 70s'.<sup>141</sup> A large computer maintenance contract was awarded to Digital Equipment Australia Pty Ltd in 1982 for support of the DEC VAX-11/780 computer system at Pine Gap.<sup>142</sup> Compaq Australia and Hewlett-Packard later became major contractors in this field. Compaq Australia, a wholly-owned subsidiary of Compaq Computer Corporation in the US, was responsible for provision of the first-generation desk-top personal computers (PCs) installed throughout the facility in the 1990s. By the late 1990s, Australian service engineers were maintaining Digital Equipment Corp (DEC), Compaq and Hewlett-Packard computers at the station.<sup>143</sup>

Compaq Computer Corporation was taken over by Hewlett-Packard in 2002, and HP evidently took over the primary contract for maintenance of the computer systems at the station. According to the HP Site Manager at Pine Gap from April 2004 to January 2009, an Australian named Chris Packham, the HP unit had several Service Delivery Teams: Hardware, Software,

Network (N/W), Management Information System (MIS), Administration and Operations Manager.<sup>144</sup>

Most of the Australian personnel currently working at Pine Gap are employed by Raytheon Australia, which was awarded the site management contract in 2005. Raytheon has established a distinct organisational structure for management of its Pine Gap operations, called ATOM [AusTralian Operations and Maintenance].<sup>145</sup> This involves the position of ATOM Deputy Program Manager, located at Pine Gap, who reports directly to the Director, Raytheon Australian Operations, in Canberra. The ATOM Deputy Program Manager must be a US citizen, but Australians are employed at Manager levels directly subordinate to him, as well as throughout lower levels of the Raytheon presence. An Australian, Anthony Marceddo, was a Raytheon Manager at Pine Gap from July 2008 to December 2010, in which capacity he was in charge of Raytheon personnel in several functional areas, categorised as ‘Facilities Management, Operations, Housing Services, Medical Services, [and] Supply Chain Management’.<sup>146</sup>

**Figure 21. Anthony Marceddo, a Raytheon Manager  
at Pine Gap, July 2008-December 2010**



Source: Anthony Marceddo, *LinkedIn*, at  
<https://au.linkedin.com/pub/anthony-marceddo/26/421/7a4>.

Each of these functional areas comprises a Team, also headed by a Manager (or Team Leader). The Facility Maintenance Team provides maintenance and logistics services at Pine Gap, which ‘consists of its own Power station, Water treatment Plant, Sewage treatment plant, Operations Building, Security Facilities, Dining Hall, 300 short-term accommodation rooms, Games rooms, Administration areas, Bar, Swimming Pool, Multiple Maintenance workshops, Mechanical workshop, Logistics warehouses and fully equipped Gym. This facility is serviced

24/7 as part of the Contract'.<sup>147</sup> The Housing Services Team manages 'the In Town Facility ATOM contract for Raytheon Australia under contract from the US Government'. It has a 'workforce of up to 40 Staff employed in the Maintenance, Logistics and Services areas of the Facility', which manages 510 premises in Alice Springs 'with a combined asset total of approximately 260 Million dollars'. Raytheon's Housing Services Manager from June 2005 to September 2009 was Gerry McIntyre, who had previously been the Housing Team Leader for Boeing at Pine Gap.<sup>148</sup>

Something of the breadth of Raytheon's activities at Pine Gap was illustrated in May 2006, nine months after the award of the contract, when the company advertised jobs in 13 fields. It said that 'opportunities based in Alice Springs at the Joint Defence Facility Pine Gap are available in the following areas: Electrician; Refrigeration Mechanic; Plumber; Operations System Technician; Utilities Maintenance Technician; Utilities Shift Operator; Transport Specialist; Project Manager; Service Person; Trade Assistant; Scheduler/Planner; Estimator; [and] Electrical Engineer'. Applicants had to be Australian citizens 'and be willing to undergo a personal security check'.<sup>149</sup>

Similarly, in May 2012 it advertised jobs in ten fields for which Australian citizens were applicable. These consisted of Housekeepers/Cleaners; Night Cleaner; Refrigeration Mechanics; Diesel Mechanics; Electricians; Procurement Officer; Storeperson/Logistics Specialist; Transport Specialist (Driver/Storeperson); Mechanical/Electrical Shift Operators; and Casual Site Escorts. The advertisement stated that successful applicants 'will be required to obtain and maintain the appropriate Australian Defence Security Clearance'.<sup>150</sup>

Raytheon's contract at Pine Gap even includes management of a large cafeteria, located outside the Top Secret perimeter. In October 2011, the company advertised for a Head Chef and several kitchen hands. The advertisement noted that successful applicants 'must be able to obtain and retain an Australian Defence Security Clearance'.<sup>151</sup> Adam Findlay, who stood as the ALP candidate in a by-election in Araluen in October 2010, was a chef employed at Pine Gap by Raytheon at that time.<sup>152</sup> He was still working as a chef there in August 2012, when he again stood for the seat.<sup>153</sup> The menu is reportedly tailored to 'American tastes', with 'burgers, hot dogs, doughnuts, pork ribs, French fries and milk shakes'. A Member of Parliament who visited the cafeteria said that 'you'd really have to watch your cholesterol levels'.<sup>154</sup>



Around 1998, an Australian 'Fire Alarm Technician' employed by Wormald Fire Systems installed fire suppression systems produced by American Fire Company and a VESDA [Very Early Smoke Detection Apparatus] System 'to American standards' at Pine Gap.<sup>155</sup>

AECOM Technology Corporation, headquartered in Los Angeles, employs the nurses who work in two medical clinics, one at Pine Gap and one 'in town', which 'provide medical services for the Joint Defence Facility Pine Gap (JDFPG) employees and their eligible dependents'. The incumbent Nurse Supervisor, Sulochana Middleton, an Australian, has held that position since December 2001, when she was employed by Boeing. She transferred to Raytheon in February 2005, and then to AECOM in April-May 2014.<sup>156</sup>

## **17. Australian contractors and construction activities**

Australian contractors have been involved in a range of construction activities at Pine Gap, beginning in 1967-68, and subsequently including several of the radomes, as well as provision of the utilities (such as power, water and sewage).

The first Australian contractor at Pine Gap was Norter Excavations, an Alice Springs civil engineering company, which was initially contracted 'to excavate the land for Pine Gap'. In January 1967, one of the owners of the company, Terry Lillis, 'stood in a paddock of grass and swung the sledgehammer that embedded the marker that served as the datum point around which all subsequent construction would take place'.<sup>157</sup> Several other Alice Springs companies were involved in the construction of infrastructure, including the Operations and administration buildings, the power house, and a septic tank system for the sewage, over the next 15 months. By June 1967, for example, 13 local companies had been 'contracted to supply goods, services and labor valued at over \$250,000'.<sup>158</sup> On 29 April 1968, following completion of the initial construction work, a 'walk-through' of the facility was held. The next day, 'the JDSRF's maintenance and operations personnel officially assumed responsibility for the new installation, and shortly afterwards the heavy technical equipment arrived that was necessary to perform the work at the new facility'.<sup>159</sup>

In 1990, TMC Constructions, an Alice Springs company, was awarded a contract for two radomes (the tenth and eleventh), constructed in 1990-91.<sup>160</sup> As noted above, these were evidently installed to provide direct satellite communications between Pine Gap and Canberra.

In 1998-2000, Boeing sub-contracted to Bardavcol Pty Ltd, a major South Australian civil engineering and construction company, for engineering assistance with the construction of

four radomes at Pine Gap.<sup>161</sup> (These were the first two DSP/SBIRS antennas/radomes and two 22-metre dishes with 30.5-metre radomes believed to be used for FORNSAT/COMSAT interception.<sup>162</sup>) Alice Bolt Supplies, a branch of Normist Pty Ltd, a Northern Territory company which specialises in the manufacture of nuts, bolts and other metal fasteners, has supplied bolts for anchoring some of the radomes.<sup>163</sup>

Leighton Contractors, now part of the CIMIC Group majority owned by the German construction company Hochtief Aktiengesellschaft, now maintains a long-term presence at Pine Gap. In 2005, the company acquired Mayfield Engineering, an Adelaide-based mechanical and electrical engineering firm which had been involved at Pine Gap since around 1980.<sup>164</sup> In May 2011, Leighton advertised for a Regional Operations Manager at Pine Gap. It stated that: 'We are looking to appoint a Regional Manager to continue to develop and oversee our Alice Springs area operations, located within the Pine Gap Joint Defence Facility. The majority of works are in the Mechanical and Electrical areas'.<sup>165</sup> Leighton's current JDFPG Site Manager is Brian Harper, a civil engineer.<sup>166</sup>

Morton Bros Contracting, an Alice Springs construction company, is regularly engaged in minor construction activities at Pine Gap. According to an electrical tradesman who worked for Morton Bros Contracting at Pine Gap from April 2012 to September 2013, and had worked for Leighton at Pine Gap from 2007 until transferring to Morton Bros, 'they are still involved with new construction developments at the Pine Gap Facility'.<sup>167</sup>

## **18. National Cryptographic Rooms**

Both the US and Australian authorities have National Cryptographic Rooms, in which only their own nationals are allowed. As the Minister for Defence, Mr Killen, said on 2 June 1977 with respect to Australian access at Pine Gap:

Those [Australians and Americans] at the site whose responsibilities so require have equal right of access to all parts of the facility and to its activities and all results of the research. This right of access excludes only the 2 national communications rooms of the operating partners, to which, in accordance with standard practice at all joint installations, access is restricted to preserve national cipher security.<sup>168</sup>

Australian access to US communications systems and networks is governed by an agreement on the 'Status of Second Party Nationals as Second Party Integrees in the NRO (and NSA)', dated 3 January 2003. It provides limited access to NRO Automated Information

Systems, for which purpose there 'is limited connection to the Second Party National Wide Area Network (SPNWAN)'.<sup>169</sup>

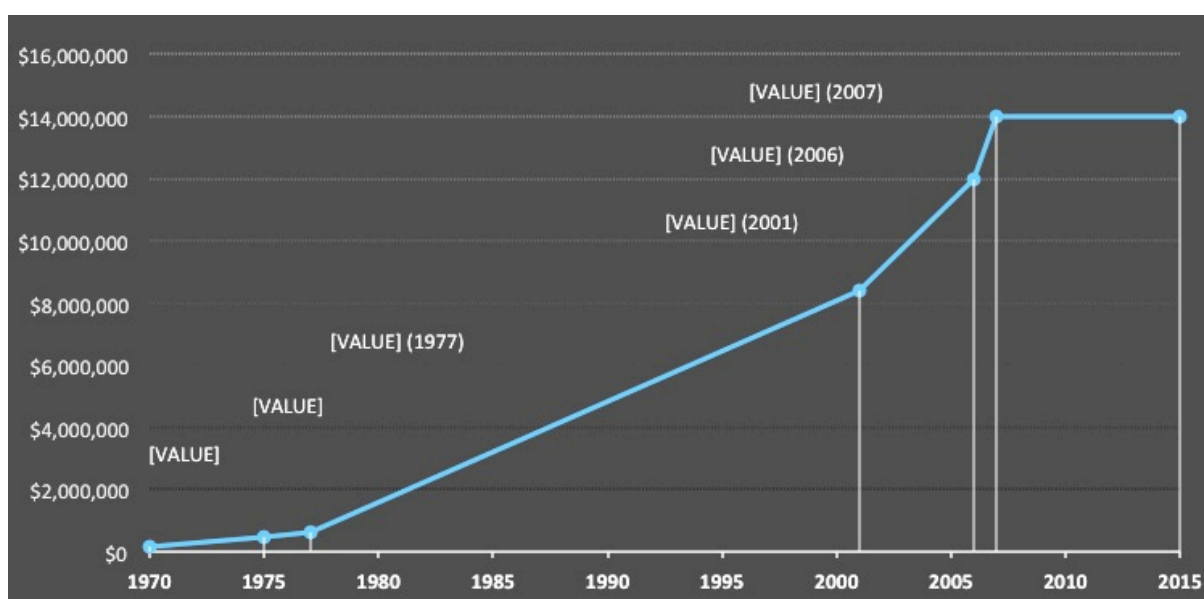
## 19. Australia's contribution to Pine Gap's running costs

Australia's contribution to Pine Gap's running costs is really quite miniscule. The annual cost is less than one per cent of the budget for the Australian intelligence community. In return, Paul Dibb has argued, Australia is given access to satellite-collected SIGINT which is 'priceless'; Pine Gap could not be replicated by Australia 'at any price'.<sup>170</sup>

In the financial year 1966-67, Australia spent \$18,000 on the Pine Gap project. This expenditure was incurred during the site selection and initial site preparation phases. In 1967-68, it spent \$69,000, mainly associated with construction of 16 houses in Alice Springs, including 12 for Commonwealth Police members, who were scheduled to begin arriving in early 1968. It spent \$127,000 in 1968-69, mainly involving the salaries of the Commonwealth Police members and construction of another seven houses in Alice Springs.<sup>171</sup>

In the financial year 1966-67, Australia spent \$18,000 on the Pine Gap project. This expenditure was incurred during the site selection and initial site preparation phases. In 1967-68, it spent \$69,000, mainly associated with construction of 16 houses in Alice Springs, including 12 for Commonwealth Police members, who were scheduled to begin arriving in early 1968. It spent \$127,000 in 1968-69, mainly involving the salaries of the Commonwealth Police members and construction of another seven houses in Alice Springs.<sup>172</sup>

**Figure 22. Australia's contribution to Pine Gap's running costs, 1970-2015**



In 1969-70 and 1970-71, when Pine Gap became operational, the Australian contribution had increased to \$149,000 and \$157,000 respectively.<sup>173</sup> This covered the salaries and associated expenses of the Senior Australian Representative, his Deputy and his secretary-typist, and the 12 Commonwealth Police.

In 1976-77 and 1977-78, with Pine Gap and the Rhyolite program having successfully demonstrated their extraordinary technical capabilities, Australia's financial contribution reached only \$533,000 and \$633,000.<sup>174</sup>

Australia's contribution grew steadily through the 1980s, as Australian operators and analysts, mainly from DSD, were employed in all functional Divisions and most of the Teams in the Operations Building, and the 1990s as the facility became increasingly involved in the provision of SIGINT support to ADF military operations. Australia contributed \$8,402,000 to Pine Gap's running costs in the Financial Year 2001-02.<sup>175</sup>

The figure then increased sharply, reflecting Australia's participation in the Global War on Terror and the wars in Afghanistan and Iraq, reaching approximately \$12 million in 2006-07 and approximately \$14 million in 2007-08.<sup>176</sup>

It has evidently levelled off at around \$14 million since 2007-08. Philip Dorling reported in 2013 that 'according to the Defence Department, Australia's contribution to Pine Gap's running costs in 2011-12 was a mere \$14 million'.<sup>177</sup>

**Table 5. Composition of Australia's contribution to Pine Gap's running costs, circa 2012-13**

Function/organisational category	A\$ mn.	%
Australian Senior Management (DCF, DCOP, CoI, and support)	1	7
Australia's National Communications	0.8	6
DSD Operators and Analysts	6	43
Other Australian Agencies (DSTO, DIGO, ASIO, DSA)	1	7
AFP Protective Security	5.2	37
<b>Total</b>	<b>14</b>	<b>100</b>

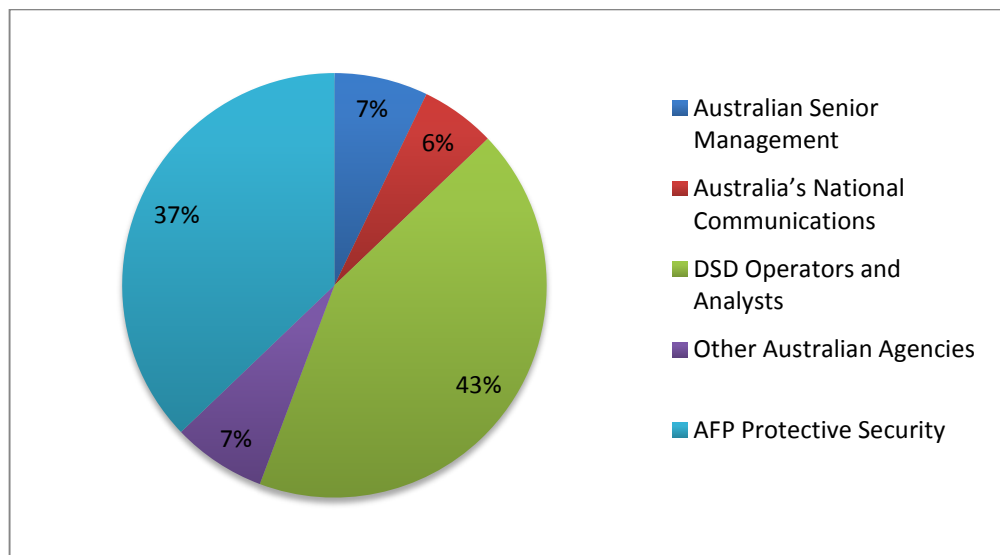
The Australian contribution covers several functional/organisational categories of expenditure, as shown in Figure 23. About 37 per cent (\$5.2 million in 2008-09) is allocated to the APS/AFP, which has paid for about 50 personnel stationed at the facility since 2006, fulfilling the protective services role.<sup>178</sup> About 43 per cent, or around \$6 million a year, covers the

cost of the 50 DSD operators and intelligence analysts at the facility – about the same number of personnel as the AFP, but whereas the AFP personnel are mainly APS Level 4 with a substantial number at Level 5, the DSD officers are mainly APS Level 5, with some Level 4 and a substantial number at Level 6, including the Australian Team Leaders or COLs.

About 7 per cent, or an estimated \$1m, covers the salaries and associated expenses of the senior Australian management at the facility, such as the Deputy Chief of Facility, usually appointed at the mid-band of the APS Senior Executive Service (SES), the Deputy Chief of Operations around SES Level 2, and the Chief of Intelligence at SES Level 1, as well as a Policy, Plans and Communications Officer at Level 6 and an Administrative Assistant at Level 5.

About 6 per cent, or around \$800,000 covers the costs of Australia's national communications activities, including personnel and equipment in the Australian Cryptographic Room and the connections with the two Australian satellite communications terminals (90-A and 90-B) installed in 1990-01. Finally, about 7 per cent, or around \$1 million, covers the cost of personnel stationed at Pine Gap from other Australian intelligence and security agencies, including DIGO, DSTO, ASIO, and DSA.

**Figure 23. Composition of Australia's contribution to Pine Gap's running costs, circa 2012-13**



## 20. Conclusion

Australian participation in the operation of Pine Gap is effectively complete, with access to all areas of the base except the US National Cryptographic Room. The senior Australian

Defence officials who negotiated the original implementing agreement with the CIA sought and obtained access to all ‘product’ from the facility. After initial discriminatory restrictions on Australians employed in the Operations Room, by the end of the 1970s, Australians were employed in all of its sections. This trend has deepened over time, to the point where Australians are involved in all aspects of the base’s operations.

Compared with arrangements at Pine Gap’s companion station in the United Kingdom, RAF Menwith Hill, Australian officials believe they have achieved a much more genuinely ‘joint’ facility, with command and employment arrangements exemplifying this. Questions remain, however, over both the character of this ‘jointness’ and its strategic and political implications for Australia.

Addressing the entire range of such questions in full is beyond the scope of this paper, but after acknowledging the level of Australian participation in the base’s operations, several elements of the ‘joint’ character of Pine Gap must be noted. Pine Gap remains a United States facility, which was both established and then greatly expanded to satisfy US intelligence and warfighting interests. High policy direction, command arrangements, priorities of operational tasking, and the globe-spanning socio-technical space-based systems of which Pine Gap is an integral part all confirm that Pine Gap is a US facility in the operation of which Australia participates closely. Those fundamental asymmetrical characteristics of the ‘joint facility’ are confirmed by the funding arrangements. Whether the ‘priceless’ benefits from this close participation come without costs unwarranted by the benefits is another matter.

### **III. Nautilus invites your response**

The Nautilus Peace and Security Network invites your responses to this report. Please send your response to: [nautilus@nautilus.org](mailto:nautilus@nautilus.org).

The views expressed in this report do not necessarily reflect the official policy or position of the Nautilus Institute. Readers should note that Nautilus seeks a diversity of views and opinions on significant topics in order to identify common ground.

---

### **IV. References**

---

<sup>1</sup> Mr Fitzgibbon, Minister for Defence, ‘Joint Defence Facility Pine Gap’, *Hansard (House of Representatives)*, 16 June 2008, p. 5030.

<sup>2</sup> Brian Toohey, ‘How We Grabbed the Bases: The Arms Control Myth’, *National Times*, 4-10 July 1986, p. 23; Des Ball, *Pine Gap: Australia and the US Geostationary Signals Intelligence Satellite Program*, (Allen & Unwin, Sydney, 1988), p. 55; and interviews with members of the 1965-66 Special Projects Team.

---

<sup>3</sup> On Caplehorn see Desmond Ball, Bill Robinson and Richard Tanter, *Managing Operations at Pine Gap*, Nautilus Institute, Special Reports, 24 November 2015, pp. 22-25, at <http://nautilus.org/wp-content/uploads/2015/11/PG-Managing-Operations-18-November-2015.v2.pdf>.

<sup>4</sup> Brian Toohey, 'How We Grabbed the Bases: The Arms Control Myth', p. 23; Des Ball, *Pine Gap: Australia and the US Geostationary Signals Intelligence Satellite Program*, p. 55; and interviews with members of the 1965-66 Special Projects Team.

<sup>5</sup> Jeffrey T. Richelson, *The Wizards of Langley: Inside the CIA's Directorate of Science and Technology*, (Westview Press, Boulder, Colorado, 2001), p. 109; and interviews with Bob Mathams.

<sup>6</sup> Bruce Juddery, 'Robert Harry Mathams: Hands-On Intelligence Analyst', *Canberra Times*, 28 July 2000.

<sup>7</sup> Brian Toohey, 'How We Grabbed the Bases: The Arms Control Myth', *National Times*, 4-10 July 1986, p. 23; Des Ball, *Pine Gap*, pp. 56-57.

<sup>8</sup> Letter from Sir Edwin Hicks, Secretary, Department of Defence, 4 March 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131. Note that all documents cited from this NAA Item are in the possession of Philip Dorling.

<sup>9</sup> 'Agenda for Meeting to be Held at 1.45 P.M. 13<sup>th</sup> September', National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>10</sup> Brian Toohey, 'How We Grabbed the Bases: The Arms Control Myth', *National Times*, 4-10 July 1986, p. 23.

<sup>11</sup> 'Minute to the Secretary from Deputy Secretary B', 17 June 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>12</sup> 'Suggested Requirements from an Intelligence Point of View', 20 December 1965, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>13</sup> 'Minute to the Secretary from Deputy Secretary B', 17 June 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>14</sup> 'Notes for the Chairman', 13 September 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>15</sup> 'Minutes of Meeting Held at 15.30 Hours Tuesday 20<sup>th</sup> September 1966 Room 2-20 Department of Defence Canberra', National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>16</sup> Commander R.C. Swan, 'Note for Record Concerning Senior Australian Officer at Proposed Space Research Facility', 23 September 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>17</sup> 'Interdepartmental Committee Report on Proposed Joint United States /Australian Defence Space Research Facility', National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>18</sup> Memorandum from R. L. Stallings to Commander Swan, 'Australian Support Personnel Requirements/DSRF', 29 September 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>19</sup> Minute for Deputy Secretary B, 'Australian Participation', 27 October 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>20</sup> Minutes of Informal Meeting at Department of Defence at 1414 Hours Thursday 22<sup>nd</sup> September 1966, 'Proposed Defence Space Research Facility', National Archives of Australia (NAA), Series A1945, Item 227/1/131.

<sup>21</sup> Des Ball, *Pine Gap*, p. 57; and interview with Victor Marchetti, 2 September 1977.

<sup>22</sup> 'Interdepartmental Committee Report on Proposed Joint United States/Australian Defence Space Research Facility', 20 October 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>23</sup> 'No. 75', 17 October 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131. This cable formally presented the United States drafts of the unclassified and implementing agreements which had been made available informally at a meeting on 13<sup>th</sup> September. See 'Agenda for Meeting to be held at 1.45 p.m. 13<sup>th</sup> September', 13 September 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>24</sup> 'Implementing Arrangement Between the Department of Defence of the Commonwealth of Australia and the Advanced Research Projects Agency of the Department of Defense of the United States of America Relating to the Establishment of a Joint Defence Space Research Facility', National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.

<sup>25</sup> Leonce Kealy, *Leonce Kealy, The Pine Gap Saga: Personal Experience Working with the American CIA in Australia*, (2008; available through <https://thepinegapsaga.wordpress.com/book/>), p. 10.

<sup>26</sup> 'Former Pine Gap Man "Victimised"', *Canberra Times*, 11 May 1977, p. 13.

<sup>27</sup> Letter from Jim Pidcock to Leonce Kealy, January 1975.

<sup>28</sup> Des Ball, *Pine Gap*, p. 80.

<sup>29</sup> *Ibid.*



- <sup>30</sup> *Ibid.*, p. 82; and information provided by Wallace Caplehorn. See also Desmond Ball, Bill Robinson and Richard Tanter, *Managing Operations at Pine Gap*, pp. 22-25.
- <sup>31</sup> Letter from Leonce Kealy to the Chief Defence Scientist, Department of Defence, Canberra, 27 October 1975.
- <sup>32</sup> Correspondence from Leonce Kealy, 22 July 2011.
- <sup>33</sup> Letter from Leonce Kealy to K.J. Belton, Executive Officer, South Australian Committee on Discrimination in Employment and Occupation, 9 October 1975; and letter from Leonce Kealy to the Chief Defence Scientist, Department of Defence, Canberra, 27 October 1975.
- <sup>34</sup> Letter from W.F. Caplehorn for Secretary, Department of Defence, to the Principal Executive Officer, National Committee on Discrimination in Employment and Occupation, 25 February 1976.
- <sup>35</sup> Arthur Tange and Peter Edwards, *Defence Policy-Making: A Close-Up View, 1950-1980*, (Canberra Papers on Strategy and Defence No. 169, ANU Press, Canberra, 2008), p. 71.
- <sup>36</sup> *Ibid.*, p. 129.
- <sup>37</sup> *Ibid.*, pp. 10, 37.
- <sup>38</sup> Garry Woodard, *Asian Alternatives: Australia's Vietnam Decision and Lessons on Going to War*, (Melbourne University Press, Melbourne, 2004), p. 84.
- <sup>39</sup> 'List of passes in Sydney University Exams', *Sydney Morning Herald*, 11 January 1950, p. 5, at <http://trove.nla.gov.au/newspaper/page/1032679?>; Peter Kimberley, 'Operational Research in South Vietnam', *Australia's Vietnam War: Exploring the combat actions of the 1st Australian Task Force*, 4 July 2015, at <https://vietnam.unsw.adfa.edu.au/operational-research-in-south-vietnam-1965-1972/>; Andrew Ross, Bob Hall, Amy Griffin, *The Search for Tactical Success in Vietnam: An Analysis of Australian Task Force Operations*, (Melbourne: Cambridge U.P., 2015), p. 283.
- <sup>40</sup> 'John Moten' *Wikipedia*, [accessed 9 March 2016], at [https://en.wikipedia.org/wiki/John\\_Moten](https://en.wikipedia.org/wiki/John_Moten).
- <sup>41</sup> Jeffrey T. Richelson, *The Wizards of Langley: Inside the CIA's Directorate of Science and Technology*, (Westview, Boulder, Colorado, 2001), pp. 295-297.
- <sup>42</sup> Desmond Ball, 'Getting to Know Paul Dibb: An Overview of an Extraordinary Career', in Desmond Ball and Sheryn Lee (eds), *Geography, Power, Strategy and Defence Policy: Essays in Honour of Paul Dibb*, (ANU Press, Canberra, 2016).
- <sup>43</sup> Ric Smith, 'Thirty-eight years toiling in the vineyard of public service', in John Wanna, Sam Vincent, Andrew Podger (eds.), *With the benefit of hindsight: Valedictory reflections from departmental secretaries, 2004-11*, (Canberra: ANU Press, 2012), at <http://web.archive.org/web/20140205115442/http://press.anu.edu.au/wp-content/uploads/2012/04/ch041.pdf>.
- <sup>44</sup> *Annual Report 2000-01*, Department of Defence, p. 43, at <http://www.defence.gov.au/AnnualReports/00-01/full.pdf>; and *Annual Report 2001-02*, Department of Defence, p. 41, at <http://www.defence.gov.au/AnnualReports/01-02/full.pdf>.
- <sup>45</sup> Nassrine De Rham-Azimi and Li Lin Chang (eds.), *The Reform Process of United Nations Peace Operations: Debriefing and Lessons*, (The Hague: Kluwer Law International, 2001), p. xi.
- <sup>46</sup> *Annual Report 2001-02*, Department of Defence, p. 41, at <http://www.defence.gov.au/AnnualReports/01-02/full.pdf>.
- <sup>47</sup> *Annual Report 2001-02*, Department of Defence, p. 43, at <http://www.defence.gov.au/AnnualReports/01-02/full.pdf>; and 'Mr Frank Lewincamp, Visiting Fellow', National Security College, Australian National University, at <http://nsc.anu.edu.au/staff-and-academics/frank-lewincamp.php>.
- <sup>48</sup> *Annual Report 2001-02*, Department of Defence, p. 43, at <http://www.defence.gov.au/AnnualReports/01-02/full.pdf>.
- <sup>49</sup> *Annual Report 2005-06*, Department of Defence, p.32, at [http://www.defence.gov.au/AnnualReports/05-06/downloads/2005-2006\\_Defence\\_DAR\\_19\\_v1full.pdf](http://www.defence.gov.au/AnnualReports/05-06/downloads/2005-2006_Defence_DAR_19_v1full.pdf).
- <sup>50</sup> 'Melbourne 2000. A Very Special Event', CB: *Central Bureau Intelligence Corps Association Inc.*, June 2000, pp. 7-8, at [http://www.ozatwar.com/sigint/2000\\_jun\\_cbic.pdf](http://www.ozatwar.com/sigint/2000_jun_cbic.pdf).
- <sup>51</sup> *Annual Report 2006-07*, Department of Defence, p. 31, at [http://www.defence.gov.au/AnnualReports/06-07/2006-2007\\_Defence\\_DAR\\_13\\_v1\\_full.pdf](http://www.defence.gov.au/AnnualReports/06-07/2006-2007_Defence_DAR_13_v1_full.pdf).
- <sup>52</sup> 'In Brief', CB: *Central Bureau Intelligence Corps Association Inc.*, December 2002, p. 6, at [http://www.ozatwar.com/sigint/2002\\_dec\\_cbic.pdf](http://www.ozatwar.com/sigint/2002_dec_cbic.pdf). A newsletter dated 15 September 2002 compiled by the DSD staff association reported that DSD itself had had four deputy directors, including Merchant, in the preceding four months. The report also alleged dissatisfaction with DSD management amongst SIGINT staff.
- <sup>53</sup> 'Steve Meekin new Deputy Secretary', *Defence*, Issue 2, 2012, p. 15, at [http://www.defence.gov.au/defencemagazine/editions/2012\\_02/defence%20mag%20issue%202.pdf](http://www.defence.gov.au/defencemagazine/editions/2012_02/defence%20mag%20issue%202.pdf).
- <sup>54</sup> *Annual Report 2000-01*, Department of Defence, p.43, at <http://www.defence.gov.au/AnnualReports/00-01/full.pdf>; and 'A SIGINT Update from the Director, D.S.D.', CB: *Central Bureau Intelligence Corps Association Inc.*, December 1995, pp. 2-3, at [http://www.ozatwar.com/sigint/1995\\_dec\\_cbic.pdf](http://www.ozatwar.com/sigint/1995_dec_cbic.pdf).



<sup>55</sup> The Australian Defence Representatives and Deputy Chiefs are discussed in greater detail in Desmond Ball, Bill Robinson and Richard Tanter, *Managing Operations at Pine Gap*, Nautilus Institute, Special Reports, 24 November 2015, pp. 20-40, at <http://nautilus.org/wp-content/uploads/2015/11/PG-Managing-Operations-18-November-2015.v2.pdf>.

<sup>56</sup> Department of Defence, *Functional Directory*, October 1976, p.51; and Question upon Notice Defence: Pine Gap, 21 March 2002, Ms Plibersek to the Minister representing the Minister for Defence, Ms Vale, House of Representatives, Notice Paper Question No 286, 28 May 2002, Hansard: Pages 2555-8, at <http://www.defence.gov.au/ips/parliament/qons/40th/house/0001-0500/H0286.htm>. Note however that in 1989, John McCarthy identified himself as 'Deputy Chief, Department of Defence, Joint Defence Facility, Pine Gap'. Anthony Hoy, 'The Business-Card Spy', *Weekend Australian*, 27-28 May 1989.

<sup>57</sup> Question upon Notice Defence: Pine Gap, 21 March 2002.

<sup>58</sup> For details of the Australian Defence Representatives and Deputy Chiefs see Desmond Ball, Bill Robinson and Richard Tanter, *Managing Operations at Pine Gap*, Nautilus Institute, Special Reports, 24 November 2015, pp. 20-40, at <http://nautilus.org/wp-content/uploads/2015/11/PG-Managing-Operations-18-November-2015.v2.pdf>.

<sup>59</sup> Note that in Table 4 and P. 36 of *Managing Operations at Pine Gap* Ashe's starting date is incorrectly given as 2006.

<sup>60</sup> Mayor's Report to Council, Alice Springs Town Council, Report No. 4/15 cncl, 27 January 2015; and 'Gary Thorpe', *LinkedIn*, at <https://www.linkedin.com/pub/gary-thorpe/96/21a/1a3>.

<sup>61</sup> 'John-Peter Kanis\_Curriculum Vitae, 3 February 2016', *In SlideShare*, at <http://www.slideshare.net/JohnPeterKanis/johnpeter-kaniscurriculum-vitae20160203>.

<sup>62</sup> 'Policy Plans and Communications Officer', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchNoticesView.aspx?Notices=10487912%3A1&mn=JobSearch>.

<sup>63</sup> This section draws on material discussed at greater length in Desmond Ball, Bill Robinson and Richard Tanter, *Managing Operations at Pine Gap*, Nautilus Institute, Special Reports, 24 November 2015, pp. 20-40, at <http://nautilus.org/wp-content/uploads/2015/11/PG-Managing-Operations-18-November-2015.v2.pdf>.

<sup>64</sup> Private correspondence, 13 October 2015.

<sup>65</sup> 'Chief Intelligence Operations', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchNoticesView.aspx?Notices=10494400:1&mn=JobSearch>.

<sup>66</sup> Patrick Winter, *LinkedIn*, at <https://www.linkedin.com/pub/patrick-winter/67/4b9/9b4>. This information is drawn from Winter's *LinkedIn* page as it was when accessed on 3 February 2014. A large amount of detail on Winter's career was subsequently removed. In the February 2014 version of the page Winter said 'as Chief of Intelligence at Joint Defence Facility Pine Gap I managed and led a large group of intelligence and operations staff, with teams responsible for analysis, policy development, training and engineering development'; that 'I implemented major operational and organisational reforms for the US and Australian Governments, and provided policy advice to senior figures from both', and that 'I was also responsible for the establishment of an indigenous Australian collection capability for a developing target of strategic significance'. He listed his 'major accomplishments' as Chief of Intelligence as follows:

- Project Manager for a major suite of reforms for the US Government.
- Developed policies and procedures for intelligence collection, contingency operations, reporting and engineering management.
- Negotiated and implemented major changes to an 80 million dollar US Government contract.
- Achieved savings of 52 staff in one overseas operational location, a reduction of 60%.
- As Acting Assistant Secretary – Technical Intelligence (ASTI) I led a large branch of the Department of Defence with staff in two countries, and managed the US-Australian relationship at Joint Defence Facility Pine Gap. My role included holding Ministerial Authority for monitoring and managing compliance with the Pine Gap Implementing Arrangement and Defence (Special Undertakings) Act.
- Provided project reporting to US agency heads, Australian ministers and the Secretary of the Department of Defence.
- Increased operational efficiency by 400% through the development of new innovative [sic] operational methods based on statistical analysis.
- Contributed to five US Presidential Daily Briefs, and produced eight operational briefings for the head of a major US intelligence agency.
- Became the first Australian selected to work in a leadership role in a specialist element of the US Intelligence Community.
- Commended by a leading US intelligence agency for the quality of my project management and policy development work.

<sup>67</sup> Cathy Day, *LinkedIn*, at <https://www.linkedin.com/pub/cathy-day/67/830/7a7>; and 'Dr Cathy Day: Career History', at

<http://www.significanceinternational.com/Portals/0/Documents/Dr%20Cathy%20Day%20%E2%80%93%20Career%20History.pdf>.

<sup>68</sup> Desmond Ball, 'Getting to Know Paul Dibb: An Overview of an Extraordinary Career', in Desmond Ball and Sheryn Lee (eds.), *Geography, Power, Strategy and Defence Policy: Essays in Honour of Paul Dibb*, (ANU Press, Canberra, 2016).

<sup>69</sup> Desmond Ball, 'Silent Witness: Australian Intelligence and East Timor', in Richard Tanter, Desmond Ball and Gerry Van Klinken (eds.), *Masters of Terror: Indonesia's Military and Violence in East Timor in 1999*, (Lanham, MD: Rowman and Littlefield, second edition, 2006), p. 181; and Desmond Ball, 'The Strategic Essence', *Australian Journal of International Affairs*, (Vol. 55, No. 2), 2001, p. 240.

<sup>70</sup> Adele Horin, Anne Summers and Evan Whitton, 'The CIA in Australia', *The National Times*, 2-7 May 1977, p. 9.

<sup>71</sup> Cameron Stewart, 'Spies Like Me', *The Australian*, 9 June 2008, p. 10; and information from former DSD personnel.

<sup>72</sup> Senator Robert Ray, 'Pine Gap: Joint Facility', *Hansard (Senate)*, 21 August 1990, p. 1877, at <http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;db=CHAMBER;id=chamber%2Fhansards%2F1990-08-21%2F0113;query=Id%3A%22chamber%2Fhansards%2F1990-08-21%2F0010%22>.

<sup>73</sup> Greg Thomson, '\$2.7 m Base Home Boost: Radomes Will be Built by Alice Firm', *Centralian Advocate*, 5 September 1990, p. 2.

<sup>74</sup> Designated Antennas 90-A and 90-B in Desmond Ball, Bill Robinson and Richard Tanter, *The Antennas of Pine Gap*, Nautilus Institute, Special Reports, 22 February 2016, Table 1 and pp. 48-49, at <http://nautilus.org/?p=46956>.

<sup>75</sup> *Ibid.*

<sup>76</sup> David Rosenberg, *Inside Pine Gap: The Spy Who Came in From the Desert*, (Hardie Grant Books, Melbourne, 2011), p. 54.

<sup>77</sup> David Rosenberg, *Inside Pine Gap*, pp. 65-67.

<sup>78</sup> Ian McLachlan (Minister for Defence), 'Staff Increases at Joint Defence Facility Pine Gap', Media Release MIN 34/97, 6 February 1997, at <http://www.defence.gov.au/media/1997/03497.html>.

<sup>79</sup> Mrs Vale, 'Defence: Pine Gap', *Hansard (House of Representatives)*, 28 May 2002, p. 2555 and Desmond Ball, Bill Robinson and Richard Tanter, *The militarisation of Pine Gap: Organisations and Personnel*, Nautilus Institute, Special Report, 14 August 2015, at <http://nautilus.org/wp-content/uploads/2015/08/The-militarisation-of-Pine-Gap.pdf>.

<sup>80</sup> Patrick Winter, *LinkedIn*, at <https://www.linkedin.com/pub/patrick-winter/67/4b9/9b4>.

<sup>81</sup> Tim Scully, *LinkedIn*, at <https://www.linkedin.com/in/tscully>.

<sup>82</sup> 'Senior Australian Defence Force Officer Appointments', June 2005, at <http://www.ocsportsea.com/political%20pics/defapptsjun05.htm>.

<sup>83</sup> Australian Information Security Association (AISA), '2014 Incident Response', Melbourne, 16-17 October 2014, at <https://www.aisa.org.au/aisa-conferences/previous-conferences/national-conference-2014/speakers/>.

<sup>84</sup> Alisha Welch, 'Executive Excellence', *Defence Magazine*, Issue No. 5. 2012, at <http://www.defence.gov.au/defencemagazine/issue/5/articles/20.html>.

<sup>85</sup> 'Patrick Winter', *LinkedIn*, at <https://www.linkedin.com/pub/patrick-winter/67/4b9/9b4>. Information on Winter in this paper is drawn from Winter's *LinkedIn* page as it was when accessed on 3 February 2014. All references on the *LinkedIn* entry to Winter's Pine Gap and government experience were subsequently removed.

<sup>86</sup> On Day's role see Desmond Ball, Bill Robinson and Richard Tanter, *Managing Operations at Pine Gap*, pp. 48-49.

<sup>87</sup> Inspector General of Intelligence and Security (IGIS), *Annual Report 2012-2013*, p. 23, at [http://www.igis.gov.au/annual\\_report/12-13/pdfs/IGIS\\_annual\\_report\\_12-13.pdf](http://www.igis.gov.au/annual_report/12-13/pdfs/IGIS_annual_report_12-13.pdf).

<sup>88</sup> *Ibid.*

<sup>89</sup> Inspector General of Intelligence and Security (IGIS), *Annual Report 2012-2013*, p. 23, at [http://www.igis.gov.au/annual\\_report/12-13/pdfs/IGIS\\_annual\\_report\\_12-13.pdf](http://www.igis.gov.au/annual_report/12-13/pdfs/IGIS_annual_report_12-13.pdf).

<sup>90</sup> National Reconnaissance Office Directive. Subject: National Reconnaissance Office Policy on Second Party Foreign National Integrees, 3 January 2003, NROD 50-2a, p.2. Document provided by Jeffrey Richelson.

<sup>91</sup> 'Geospatial Technician: Defence Jobs, Alice Springs, NT', *Digital Jobs in Darwin Region*, at <http://www.adzuna.com.au/darwin-region/digital>.

<sup>92</sup> 'AIA Geospatial Intelligence: Defence Jobs, Alice Springs, NT', *Digital Jobs in Darwin Region*, at [http://www.defencejobs.gov.au/airforce/jobs/AirIntelligenceAnalystGeospatialIntelligence/?entryTypeId=10&utm\\_source=Adzuna&utm\\_medium=SponsoredJob&utm\\_campaign=JobAggregatorsPriorities](http://www.defencejobs.gov.au/airforce/jobs/AirIntelligenceAnalystGeospatialIntelligence/?entryTypeId=10&utm_source=Adzuna&utm_medium=SponsoredJob&utm_campaign=JobAggregatorsPriorities).

<sup>93</sup> Des Ball, *Pine Gap*, p. 81.

<sup>94</sup> *Ibid.*

<sup>95</sup> 'Senior Processing Engineer', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchingNoticesView.aspx?Notices=10530171%3A1&mn=JobSearch>.

<sup>96</sup> 'Barry Matson, Broadcasting and Radiocommunications Consultant', at [http://spectrumwise.net/Site/About\\_Us\\_files/Matson%20CV.pdf](http://spectrumwise.net/Site/About_Us_files/Matson%20CV.pdf); 'Barry Matson, Senior Consultant', September 2010, at [http://www.spectrumwise.net/Spectrumwise.net/About\\_Us\\_files/Barry%20Matson%20brief%20CV%20%20Nov](http://www.spectrumwise.net/Spectrumwise.net/About_Us_files/Barry%20Matson%20brief%20CV%20%20Nov)

- %202011.pdf; and Barry Matson, 'Vk-1-Reflect Digest', Vol. 85, Issue 15, 17 October 2010, at <http://www.crarc.ampr.org/pipermail/vk1-reflect/2010-October/003105.html>.
- <sup>97</sup> Australian Chapter of the Association of Old Crows, '2010 Awards', at [http://www.oldcrows.org.au/index.php?option=com\\_content&view=article&id=86:2010-awards&catid=48:awards](http://www.oldcrows.org.au/index.php?option=com_content&view=article&id=86:2010-awards&catid=48:awards).
- <sup>98</sup> 'Senior Processing Engineer', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchedNoticesView.aspx?Notices=10530171%3A1&mn=JobSearch>.
- <sup>99</sup> 'Our Leadership: Dr Gareth Parker', Defence Science and Technology Group, at <http://www.dsto.defence.gov.au/staff/dr-gareth-parker>.
- <sup>100</sup> 'Welcome to The Technical Cooperation Program', Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, at <http://www.acq.osd.mil/ttcp/index.html>.
- <sup>101</sup> 'Alice Springs', 15 June 1965, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.
- <sup>102</sup> John Blaxland, *The Official History of ASIO. Volume II: The Protest Years, 1963-1975*, (Allen & Unwin, Sydney, 2015), p. 257.
- <sup>103</sup> *Ibid.*
- <sup>104</sup> Jeffrey T. Richelson and Desmond Ball, *The Ties That Bind: Intelligence Cooperation Between the UKUSA Countries – the United Kingdom, the United States of America, Canada, Australia and New Zealand*, (Allen & Unwin, Boston, 1985), pp. 49-50.
- <sup>105</sup> Robert Macklin, *Warrior Elite*, (Hachette, Sydney, 2015), p. 181.
- <sup>106</sup> 'JDFPG Collection Operations Lead, Vacancy N.N. 10467003', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchedNoticesView.aspx?Notices=10467003%3A1&mn=JobSearch>.
- <sup>107</sup> 'Senior Intelligence Collection and Discovery Analysts, Employment Opportunity N.N. 10587214', *Australian Public Service Gazette*, No. PS43-Tue - 23 Oct 2012, p. 5, at <https://www.apsjobs.gov.au/Controls/ViewDocument.aspx?id=475&vdt=GazetteUpload&fn=PS43+23.10.2012.pdf>.
- <sup>108</sup> 'Department of Defence. Promotion N.N. 10605447. P Circosta. 795-08877', *Australian Public Service Gazette*, No. PS19 - 16 May 2013, pp. 217-218, <https://www.apsjobs.gov.au/NoBot/gazettedownloads.aspx>.
- <sup>109</sup> 'Joint Defence Facility Pine Gap', *Centralian Advocate*, 14 July 2006, p.46
- <sup>110</sup> 'Collection Operators', Position Nos. 530213 and 530215, *APS Jobs*, at <https://www.apsjobs.gov.au/SearchedNoticesView.aspx?Notices=10422177%3A1&mn=JobSearch>.
- <sup>111</sup> *Ibid.*
- <sup>112</sup> 'Intelligence Collection and Analysis Operator (expected vacancy)', Vacancy N.N. 10552375, Position Number IS/05457/11, *APS Jobs*, at <https://www.apsjobs.gov.au/SearchedNoticesView.aspx?Notices=10552375%3A1&mn=JobSearch>.
- <sup>113</sup> 'Intelligence Collection and Analysis Operator (expected vacancy)', Employment Opportunity N.N. 10552340, Position No. IS/05471/11, *Australian Public Service Gazette*, No. PS46 - 17 Nov 2011, p. 111, at <https://www.apsjobs.gov.au/NoBot/gazettedownloads.aspx>.
- <sup>114</sup> David Rosenberg, *Inside Pine Gap*, pp. 104-105.
- <sup>115</sup> On Shoal Bay Receiving Station and Indonesia see Desmond Ball, *Australia's Secret Space Programs*, (Canberra Paper on Strategy and Defence No. 43, Australian National University, 1988), pp. 18-35; Desmond Ball, 'Silent Witness: Australian Intelligence and East Timor'; and Richard Tanter, 'Shoal Bay Receiving Station', *Australian Defence Facilities*, Nautilus Institute, at <http://nautilus.org/publications/books/australian-forces-abroad/defence-facilities/shoal-bay-receiving-station/>.
- <sup>116</sup> 'CPOLIN Rob Dix R62737', *The Scribbler [Royal Australian Navy Writers Association]*, Issue 31, July 2011, pp. 14-15, at <http://www.ranwriters.com/Scribbler/Issue%2031.pdf>.
- <sup>117</sup> Ewen MacAskill and Lenore Taylor, 'NSA: Australia and US Used Climate Change Conference to Spy on Indonesia', *The Guardian*, 3 November 2013, at <http://www.theguardian.com/world/2013/nov/02/nsa-australia-bali-conference-spy-indonesia>.
- <sup>118</sup> 'Joint Defence Facility Pine Gap: Administration Assistant', *Centralian Advocate*, 28 July 2006, p. 47.
- <sup>119</sup> 'Administrative Assistant', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchedNoticesView.aspx?Notices=10563953%3A1&mn=JobSearch>.
- <sup>120</sup> 'Administrative Assistant', *Centralian Advocate*, 17 February 2012, p. 47.
- <sup>121</sup> 'Security Adviser', *Centralian Advocate*, 16 June 2006, p. 50.
- <sup>122</sup> 'Security Adviser', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchedNoticesView.aspx?Notices=10406296:1&mn=JobSearch?JScript=1>.
- <sup>123</sup> 'Security Advisor', *APS Jobs*, at <https://www.apsjobs.gov.au/SearchedNoticesView.aspx?Notices=10476880%3A1&mn=JobSearch>.
- <sup>124</sup> 'Security Adviser', *Centralian Advocate*, 9 November 2010, p. 24.

- <sup>125</sup> 'Profile: Niki Ross', *Annual Report 2014–15*, Department of Defence, p. 56, at [http://www.defence.gov.au/annualreports/14-15/downloads/DAR\\_2014-15\\_Vol\\_1.pdf](http://www.defence.gov.au/annualreports/14-15/downloads/DAR_2014-15_Vol_1.pdf).
- <sup>126</sup> 'Alice Springs', 13 December 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.
- <sup>127</sup> E. White, 'Proposed Joint Defence Space Research Facility', 6 October 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131; 'Record of Meeting Held in Department of Defence on Monday 17<sup>th</sup> October, to Consider Joint Defence Space Research Facility at Alice Springs', National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.
- <sup>128</sup> R.L. Stallings, 'Memorandum for Commander Swan: Australian Support Personnel Requirements/DSRF', 29 September 1966, National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.
- <sup>129</sup> Ken Napier, *LinkedIn*, at <https://www.linkedin.com/pub/ken-napier/5b/860/102>.
- <sup>130</sup> Rob Crispe, 'Policing the Northern Territory', *Platypus Magazine*, September 2006, p. 46, at <http://www.afp.gov.au/~media/afp/pdf/1/16.pdf>.
- <sup>131</sup> Mick Gollledge, *LinkedIn*, at <https://www.linkedin.com/pub/mick-gollledge/b7/44a/314>.
- <sup>132</sup> 'Delegate Contact List', *AUSPOL: The Official Publication of the Australian Federal Police Association*, Issue 1, 2004, p. 53, at <https://www.afpa.org.au/sites/default/files/publications/451.pdf>.
- <sup>133</sup> Rob Crispe, 'Policing the Northern Territory', *Platypus Magazine*, September 2006, p. 46, at <http://www.afp.gov.au/~media/afp/pdf/1/16.pdf>.
- <sup>134</sup> 'Protective Service Officer', *Centralian Advocate*, 14 July 2006, p. 47.
- <sup>135</sup> Mr Debus, Minister for Home Affairs, 'Joint Defence Facility Pine Gap', *Hansard (House of Representatives)*, 3 June 2008, p. 4382.
- <sup>136</sup> Raymond Dousset, *Rotor in the Green: An Autobiography*, (Xulon Press, 2007), p. 249.
- <sup>137</sup> *Northern Territory Police, Fire and Emergency Services Annual Report, 2003*, at [http://www.territorystories.nt.gov.au/bitstream/10070/219505/3/Styles-160210-Labor\\_should\\_commit\\_to\\_school\\_based\\_policing\\_attachment2.pdf](http://www.territorystories.nt.gov.au/bitstream/10070/219505/3/Styles-160210-Labor_should_commit_to_school_based_policing_attachment2.pdf). See also 'Australian Federal Police Submission: Australian Protective Service Amendment Bill 2003', 21 July 2003, at [http://www.aph.gov.au/binaries/senate/committee/legcon\\_ctte/aps03/submissions/sub04.doc](http://www.aph.gov.au/binaries/senate/committee/legcon_ctte/aps03/submissions/sub04.doc).
- <sup>138</sup> 'Crown Witness Agrees Citizens Inspection "Miraculous"', *Catholica Forum*, 5-6 June 2007, at <http://www.catholica.com.au/forum/index.php?mode=printpost&post=5072>; and Russell Goldflam, 'Satellites, Citizens And Secrets: R v Law & Others', Nautilus Institute, *APSNet Policy Forum*, 1 September 2008, at <http://nautilus.org/apsnet/satellites-citizens-and-secrets-r-v-law-others/>.
- <sup>139</sup> 'Guarding Services 2006/07 – Russell Offices, Exmouth and JDFPG', *Contract Dashboard*, at <http://contracts.disclosurelo.gs/displaySupplier.php?supplier=-Pro-System+Training+Services+Pty>.
- <sup>140</sup> 'AFP Expenses at ANSTO and Pine Gap', 20 July 2009, at <http://scott-ludlam.greensmps.org.au/content/estimates/afp-expenses-ansto-and-pine-gap>.
- <sup>141</sup> Chris Gamlin, at <http://www.wreaths.com.au/gamlin.htm>.
- <sup>142</sup> 'Changes at Pine Gap Joint Facility', *Defence News Release No. 98/82*, 5 July 1982.
- <sup>143</sup> Gary Boland, *LinkedIn*, at <https://au.linkedin.com/pub/gary-boland/5b/aaa/943>.
- <sup>144</sup> Chris Packham, *LinkedIn*, at <https://au.linkedin.com/pub/chris-packham/3/769/482>.
- <sup>145</sup> Desmond Ball, Bill Robinson, Richard Tanter and Philip Dorling, *The corporatisation of Pine Gap*, Nautilus Institute, Special Reports, 24 June 2015, pp. 15-23, at <http://nautilus.org/wp-content/uploads/2015/06/The-corporatisation-of-Pine-Gap.pdf>.
- <sup>146</sup> Anthony Marceddo, *LinkedIn*, at <https://au.linkedin.com/pub/anthony-marceddo/26/421/7a4>.
- <sup>147</sup> Gerry McIntyre, *LinkedIn*, at <https://www.linkedin.com/in/gerry-mcintyre-30066078>.
- <sup>148</sup> *Ibid.*
- <sup>149</sup> Raytheon, 'Our People: Vital for Mission Assurance', *Centralian Advocate*, 12 May 2006, p. 48.
- <sup>150</sup> Raytheon Australia, 'Join Our Mission. Make An Impact', *Centralian Advocate*, 25 May 2012, p. 48.
- <sup>151</sup> Raytheon Australia, 'Leaders in Innovation', *Centralian Advocate*, 14 October 2011, p. 58.
- <sup>152</sup> Erwin Chlanda, 'Findlay: Listen First, Talk Later', *Alice Springs News*, 23 September 2010, at <http://www.alicespringsnews.com.au/1734.html>.
- <sup>153</sup> 'Northern Territory Votes', *ABC News*, 31 August 2012, at <http://www.abc.net.au/elections/nt/2012/guide/aral.htm>.
- <sup>154</sup> Philip Dorling, 'Desert Secrets', *Sydney Morning Herald*, 21 July 2013, at <http://www.smh.com.au/technology/technology-news/desert-secrets-20130720-2qb5c.html>.
- <sup>155</sup> Eoin McStay, *LinkedIn*, at <https://au.linkedin.com/pub/eoin-mcstay/76/835/978>.
- <sup>156</sup> Sulochana Middleton, 'Sulochana Middleton's Experience', *Bayt.com*, at <http://people.bayt.com/sulochana-middleton-22214734/>.

- 
- <sup>157</sup> David Rosenberg, *Inside Pine Gap: The Spy Who Came in From the Desert*, (Hardie Grant Books, Melbourne, 2011), p. 37.
- <sup>158</sup> 'Pine Gap, Australia's Area 51: The History of Pine Gap', *The Living Moon*, at [http://www.thelivingmoon.com/45jack\\_files/03files/Pine\\_Gap\\_The\\_History.html](http://www.thelivingmoon.com/45jack_files/03files/Pine_Gap_The_History.html).
- <sup>159</sup> David Rosenberg, *Inside Pine Gap*, p. 40.
- <sup>160</sup> Greg Thomson, '\$2.7 m Base Home Boost: Radomes Will be Built by Alice Firm', *Centralian Advocate*, 5 September 1990, p. 2.
- <sup>161</sup> James Crisera, *LinkedIn*, at <https://au.linkedin.com/pub/james-crisera/a8/472/a32>.
- <sup>162</sup> Antennas 98-A, 98-B, 99-C, and 99-D respectively in Table 1 of Desmond Ball, Bill Robinson and Richard Tanter, *The Antennas of Pine Gap*.
- <sup>163</sup> Normist Pty Ltd, 'Client Projects: Alice Bolt Supplies', at [http://www.normist.com.au/client\\_projects.htm](http://www.normist.com.au/client_projects.htm).
- <sup>164</sup> 'Acquisition of AMEC's Australian Operations', *Leighton News*, July 2005, p. 24, at [http://www.cimic.com.au/\\_\\_data/assets/pdf\\_file/0015/10671/N\\_LeightonNewsJuly05.pdf](http://www.cimic.com.au/__data/assets/pdf_file/0015/10671/N_LeightonNewsJuly05.pdf).
- <sup>165</sup> 'Regional Operations Manager: Alice Springs Job at Leighton Contractors', at <http://jobcentralonline.blogspot.com.au/2011/05/regional-operations-manager-alice.html>.
- <sup>166</sup> Brian Harper, *LinkedIn*, at <https://www.linkedin.com/in/brian-harper-64701036>.
- <sup>167</sup> Bradley Maynard, *LinkedIn*, at <https://www.linkedin.com/in/bradley-maynard-b7505685>.
- <sup>168</sup> Mr D.J. Killen, 'Joint Defence Space Research Facility at Pine Gap: Ministerial Statement', *Hansard (House of Representatives)*, 2 June 1977, pp. 2411-2412.
- <sup>169</sup> Peter B. Teets, Director NRO, 'National Reconnaissance Office Policy on Second Party Foreign National Integrees', (National Reconnaissance Office, NROD 50-2a, 3 January 2003). Document provided by Jeffrey Richelson.
- <sup>170</sup> Paul Dibb, 'Australia-United States', in Brendan Taylor (ed.), *Australia as an Asia-Pacific Regional Power: Friendships in Flux?*, (Routledge, London, 2007), p. 36; and Paul Dibb, 'Australia's Defence Relations with the United States', Testimony to the Defence Sub-Committee of the Joint Standing Committee on Foreign Affairs, Defence and Trade, Canberra, 2 April 2004.
- <sup>171</sup> D.J. Killen, Minister for Defence, 'Defence-related Facilities: Foreign Involvement', *Hansard (House of Representatives)*, 10 October 1978; and 'Proposed Joint Defence Space Research Facility: Possible Commonwealth Financial Commitments', National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.
- <sup>172</sup> D.J. Killen, Minister for Defence, 'Defence-related Facilities: Foreign Involvement', *Hansard (House of Representatives)*, 10 October 1978; and 'Proposed Joint Defence Space Research Facility: Possible Commonwealth Financial Commitments', National Archives of Australia (NAA), 'Joint Defence Space Research Facility: Policy 1965-1984', Series A1945, Item 227/1/131.
- <sup>173</sup> D.J. Killen, Minister for Defence, 'Defence-related Facilities: Foreign Involvement', *Hansard (House of Representatives)*, 10 October 1978.
- <sup>174</sup> D.J. Killen, Minister for Defence, 'Defence-related Facilities: Foreign Involvement', *Hansard (House of Representatives)*, 10 October 1978.
- <sup>175</sup> Mrs Vale, 'Defence: Pine Gap', *Hansard (House of Representatives)*, 28 May 2002, p. 2555.
- <sup>176</sup> Mr Fitzgibbon, Minister for Defence, 'Joint Defence Facility Pine Gap', *Hansard (House of Representatives)*, 16 June 2008, p. 5030.
- <sup>177</sup> Philip Dorling, 'Desert Secrets', *Sydney Morning Herald*, 21 July 2013, at <http://www.smh.com.au/technology/technology-news/desert-secrets-20130720-2qb5c.html>.
- <sup>178</sup> 'AFP Expenses at ANSTO and Pine Gap', 20 July 2009, at <http://scott-ludlam.greensmps.org.au/content/estimates/afp-expenses-ansto-and-pine-gap>.