Individual Report

TEAM SELECTION IN ANTARCTICA

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1. Introduction

A number of memoirs about journeys to Antarctica commence with or recall "for as long as I can remember I dreamed of travelling to Antarctica". Antarctica, Terra Australis Incognita or Antarktikos have held humans captivated as the inhospitable white continent surrounded by deep, dark stormy seas for all of human history. So how do you get to visit Antarctica? And why would you visit? Who and how you want to experience Antarctica will determine how and why you visit.

As a tourist, you will part with large quantities of money and be in the hands of your guides and Antarctica.

As a modern day explorer or adventurer you will part with really large quantities of money and will be in the hands of sponsors, organisations, politics and Antarctica.

Or you can visit Antarctica as a participant of one of the National Antarctic Programmes, either in a paid capacity, as a volunteer or as a participant of an art/education/writers program. In this capacity you will be in the hands of the National Antarctic Program, a scientific base, organisation, politics and Antarctica.

Note that any way that you visit Antarctica; you will always be in Antarctica’s hand. Antarctica is the highest, driest, windiest and coldest continent and those that select to visit and work in Antarctica must exhibit certain characterisations, attitudes and the ability to adapt and survive.

This report will introduce the reasons why and who goes to Antarctica and the criteria an Antarcritic must fulfil to be selected to work and live in Antarctica. The selection process used by Scott, Shackleton and Mawson from the heroic period and today’s selection process for Antarctica New Zealand will be explained. The final section will be a general overview of how the selection process is important in regards to the “assembly effects” and well-being while on the ice.

2. Why go to Antarctica?

Why you want to go to the ice says more about you than Antarctica (Steel, 2004). Some of the reasons for aspiring to work in Antarctica include the wish for voluntary isolation (Rohrer 1961), the desire for prestige, to escape or to "prove oneself"- this is not an ideal reason as you will find out within the first few days and you can become stuck in Antarctica, to save money, intellectual curiosity or to challenge the “unknown”, this could be interopereated as adventure seeking. For scientist it is location, location, location while for support personal it is ‘common wisdom’.

A common saying amongst the Antarctic community is that the first visit is for the adventure – but sensation seekers don’t do well over the long haul and can actually become a danger to themselves and others. Second visit is for the money. And third or more visits are because it is a job and/or home.
This development of Antarctica into a home has resulted in a group known as the "Antarctica Homeless", the common question for them is not where do you live but where is your storage box? They live in the station for 12 or more months then travel around during periods away from the ice before re-applying. The station provides these people with their support and social groups.

A common occurrence for those that have been to Antarctica is place attachment that is they fall in love with Antarctica. With polar place attachment passion/compassionate progression seems valid. An Antarctic novice (< 6 months on the ice) shows higher excitement and intensity and lower caring, knowledge and commitment as opposed to an ‘old hand’ who has lower excitement and intensity but higher caring, knowledge and commitment. This is based on the triangular model of love (after Sternberg, 1988, figure 1) and was applied to Antarctica place attachment by Steel. In this way we learn to love the ice the same way we learn to love people and we may grieve if the relationship ends due to circumstances beyond our control.

3. Criteria for an Antarctic - Who goes to Antarctica?

Historically those that went to Antarctica were fit, mostly young, adventurers who were capable of working in the extreme environment. Today those that go to Antarctica as part of the winter crew in National Antarctic Programs have to demonstrate Gunderson’s 1973 triarchy of ability;

- **Task ability**: ultimately important that everyone does there job,
- **Sociability**: how well the individual functions socially
- **Emotional stability**: looking for stability, not a lot of highs and lows.

Thirty years ago the criteria to work in Antarctica was developed by Gunderson 1963; Gunderson and Nelson 1965; Owens 1968; Palinkas et al, 1989, 1995 and Wilkins 1967. This older theory was known as ‘the Manager’s wish list’ with applicants being;

- Older (more mature) individual’s (approximate age range of 35-36 compared to 25-45 year old applicant range today)
- Middle to upper-middle class
- Well-educated
- Few hobbies/narrow interests (not an issue today with the infrastructures in place at Antarctic Bases that includes gyms, bars and movie theatres)
- Single if unaccompanied to the ice—(if a stable couple were applying today, they would be pre-selected in over a single applicant due to already having an established support network but possible effects of a couple should be noted).

In 1960, Phillip Law of the Australian National Antarctic Research Expedition (ANARE) attempted to define the qualities of a good expeditor as someone who was good at their job, unselfish, tolerant, capable of self control, optimistic, possessing ‘stickability’ (dedication) and with a sense of adventure and curiosity. He considered that age and marital status was not relevant (Bowden, 1997). Colonel George Owens, the appointed Australian Army Psychological Service representative to the ANARE considered that the maintenance and support staff should be confident, energetic, motivated and conscientious. Owens was responsible for the development of Australia’s psychological assessment process after Law realised that ANARE could not afford to fly a private psychologist around Australia to assess applicants, if ANARE had developed its own psychological test (as was proposed in the early 1960s).

Who got to Antarctica in the past was subject to the expedition organizer or leaders judgement. Who go to Antarctica today is a ‘selecting out, selecting in process’, with screening out by ‘paper selection’ and a psychological assessment that can consist of a 400 page test for clinical psychology disorders. The psychological assessment does not determine levels of happiness or survival rather it can determines if the applicant has or has a predisposition to a clinical psychological disorder.

The role to be filled in Antarctica depends on the focus ability from Gunderson’s 1973 triarchy of ability. The military and domestic positions focus on ‘task ability’. Scientist focus on ‘sociability’ due to the field work component and top heavy structure. The top heavy structure originates from the principal investigator, PhD student, undergrad student, down to the research assistant. The task ability is not the focus as the students are ‘in training’ but living in close proximity in the field camp (often in polar tents) places emphasis on ‘sociability’. Emotional stability is a general prerequisite and influences the other two abilities.
Some form of personality assessment is current in most National Antarctic programs that have winter crews (Rivolier 1997). An attempt to develop a standard Antarctic selection battery, to be validated in a number of national programs (Grant et al 1998) is being pursued by some of the scientists that are working on a similar selection battery for the European Space Agency. The instruments chosen for the battery assess mood, depression, interpersonal confidence, optimism, anxiety-proneness, coping strategies, self-perceptions, and the Big Five personality dimensions.

Suedfeld and Steel (2000) indicates that research needs to be done on what combination of personality measures, performance tests, simulations, and other techniques would optimize the select-in process. Stuster (1996) notes that biodata, interviews, situational tests, and standardized psychometric instruments all have their proponents.

The important personality traits associated with living in the extreme and often confined areas of Antarctic winter bases has and continues to be a debated topic and is the focus of numerous studies listed by Suedfeld and Steel (2000) to include Gunderson 1973, Harrison & Connors 1984, Harrison et al 1989, Kubis 1972, Santy 1994, Suedfeld 1987, and Torrance 1954).

Personality factors relate to particular environments, such as Antarctica, are not fully identified and have only been tested in relatively gross ways but can be tentatively grouped in two dimensions;

- "Self-related" characteristics include emotional stability, feelings of competence, self-reliance and/or a high degree of autonomy, good motivation, goal orientation, and demographic characteristics (e.g. age, sex, cultural background).
- "Other-related" dimension includes social versatility, agreeableness or friendliness, and openness. A sense of humor is considered important with it being mentioned by the team and those who study them (Cravalho 1996). With the growing incidence of international crews the importance of cultural sensitivity and tolerance is also increasing (Burrough 1998).

There are numerous personality approaches that can be utilised to assess applicants whom tend to winter in Antarctica. One established approach is the "Big Five" model (Costa & McCrae 1992). This model determines levels of personality in five categories being; Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness. Studies comparing Antarctic workers to the normative group indicate that Antarctic workers score higher on all factors except neuroticism (Steel et al 1997) (refer to figure 2). This is related to Gunderson's "emotional stability" dimension.
A high neuroticism score is a select out criterion while high scores in conscientious and agreeableness would be select in criteria. Conscientiousness is related to Gunderson's "task ability" (Gunderson 1973, Moes et al 1996, Rosnet et al 1999, Santy 1994, Steel & Suedfeld 1998) while agreeableness is related to Gunderson's "sociability", although it does include modesty, a problem in low-privacy environments (Galarza & Holland 1998). The other two dimensions have mixed indicators. Openness to experience subsumes enjoyment of inner life (Barabasz 1991) but also desire for novelty, activity, and excitement. Extraversion includes sincerity, sensitivity, and altruism, which are good. Its gregariousness component is not desirable: Somewhat reserved "sociable introverts", who enjoy, but do not need, social interaction seem optimally suited for living in conditions such as Antarctica (de Monchaux et al 1979, Moes et al 1996, Strange & Youngman 1971). Abraini et al (1998) considers that the ability to tolerate frustration and some degree of failure are probably good traits.

Another personality assessment used in environments such as Antarctica is the Personality Paradox Two. This assessment has two paradox that according to Suedfeld and Steel (2000) requires further study. The first paradox is that most volunteers for anything as challenging and unusual as polar work will score toward the upper end of any scale of thrill-seeking, novelty-seeking, competence/effectiveness motivation, and similar dimensions. Aside from other incentives (and there are many), they want adventure and challenges. Many discover only too soon that they have committed themselves to monotonous, routine, boring tasks in a monotonous, confining environment, cooped up with the same unvarying group, and they can not get out. The second paradox identified by Smith & Jones (1962) and Stuster (1996) is that volunteers also tend to be high on the need for personal control and autonomy. They find that life in environments like Antarctica is in fact controlled by environmental requirements and
organizational regulations and the crew has very circumscribed spheres of free choice of activities, companions, or behaviour settings.

Palinkas (2002) considerer’s personality assessment is a week predictor of success in Antarctica as intensity and unusual situations can override the outcomes of the assessment. This results in the need to consider additional criteria such as;

- Experience in isolated regions
- Group dynamics – “assembly effects” (identifying the odd profile (person) compared with other profiles)
- History – i.e. disorders such as alcoholism

This is why AntarcticaNewZealand use the psychometric assessments in combination with interviews, CVs that include past work experience, references and employment is subject to medical and dental checks.

According to the Personality Paradox Two the applicants exhibit personality types that are most likely to be unhappy on site at Antarctic winter bases. Understanding this has resulted in Stedfeld and Steel (2000) proposing that the National Antarctic Programs improve recruitment, orientation, training, and base conditions firstly, by potential recruits being familiarized with what the experience will really be like by thorough orientation and experience in analogue environments such as base simulators. Second, both the physical environment and procedural guidelines (work schedules, recreational opportunities, decision-making rules) should maximize variety, flexibility, and control by the crew rather than base staff.

Antarctica New Zealand’s selection process includes defining all positions and setting clear prerequisites. What follows are the requirements that all leadership positions must exhibit:

- Ability to encourage effective behaviour from others whilst maintaining friendly and productive relationships
- Committed to the vision, goals and objectives of Antarctica New Zealand
- Wish to be a part of “team” Antarctica New Zealand

In addition to these abilities, commitments and focus the station leaders and other personal in key leadership positions must have the following prerequisites:

➢ Base Manager

This role is undertaken by a permanent member of the Antarctica New Zealand team and usually shared between two roles. For example for the 2004/2005 season the Science Manager undertook the role from October to mid-December and the Operations Manager is currently undertaking it from mid-December to late February.
The Base Manager will possess strong written and verbal communication skills. Have demonstrated leadership and staff management skills. A knowledge of, and experience with interfacing with other National Antarctic programmes. Strengths in recording and reporting on management issues. Knowledge and experience of risk management practices and strong planning and organisational skills.

➢ Programme Support Manager

This post is currently a 3-year fixed-term role within the Antarctica New Zealand Team and as such the individual who undertakes this posting has previously undertaken an interview, psych assessment and reference checking. They also carry out annual medicals and receive on-going training and health & safety refreshers to enable them to successfully complete their tasks.

The Programme Support Manager will possess amongst many attributes the ability to plan and resource projects, and manage them to a successful conclusion. They will have extensive experience and skills in project and programme (event) management. Proven experience in search and rescue, mountain craft instruction and outdoor skills development (NZOIA 2). Good practical experience in risk assessment and management. Demonstrated experience in logistics and field communications and a sound understanding of Antarctica New Zealand’s operations and safety factors.

➢ Base Service Manager

This is currently a New Defence Force Posting. They provide administrative support for all Antarctica NZ personnel in the Antarctic and act as Senior National Officer (SNO) for all NZDF personnel seconded to Scott Base and attached to the USAP McMurdo.

They will possess the personal qualities required to fit in socially and professionally with a small group of people from different professional backgrounds in an isolated and harsh environment and demonstrate the ability to work efficiently under both personal and general pressure and without direct supervision.

They will be experienced in management or supervision of staff and be confident with strong communication skills and a commitment to the success of the organisation.

➢ Engineering Supervisor

This role is usually not appointed until the team is down on the ice. They have the full support of the Base Manager (BMgr) and Maintenance and Field Engineer (MFE). They will be experienced in management or supervision of staff and be confident with strong communication skills and a commitment to the success of the organisation. They are fully briefed in their duties and have access to regular coaching as and when required from the BMgr and or MFE.
➢ Winter Manager

This role is either appointed from the existing winter-over staff or a permanent staff member. They will be experienced in management or supervision of staff and be confident with strong communication skills and a commitment to the success of the organisation. Again they are fully briefed and have access to regular coaching/support from the Operations Manager. In addition arrangements can be made for access to external coaching/training if required.

The Base Manager, Programme Support Manager and Base Service Manager currently undertake a one-day workshop with an external provider aimed at discussing and defining 'Effective Leadership'.

The workshop is tailored to Antarctica New Zealand’s needs and covers the following:
➢ Introduction to the Four Quadrant Leadership (4QL) model and its impact on delegation, communication, and all forms of decision-making.
➢ All four leadership strategies and their appropriate application.
➢ Outlines the 4QL principles to building strong relationships / strong teams.
➢ Define the keys to a strong 'work ethic' and the resulting impact as a leader.
➢ Explain the fundamentals to handling problems, pressures, and crisis on-the-job.

After attendance at this workshop further individual coaching is available if required to meet specific needs.

4. Selection process

Who got to Antarctica in the past was subject to the expedition organizer or leaders judgement. Who goes to Antarctica today is a ‘selecting out, selecting in process’. What follows is the process that Captain Robert Scott, Sir Earnest Shackleton and Sir Douglass Mawson of the heroic age applied to selecting the team they lead in their Antarctic Expeditions. This is followed by Antarctica New Zealand’s selection process used to select applicants for the winter crew. It is important to note here that the summer crew for Antarctica New Zealand are put through the identical selection process minus the psychological assessment and requirement of a dental check, subject to employment. This is due to the transient nature of the summer crew, with short term stays.

Captain Robert SCOTT:

In June 1899, Scott crossed Buckingham Place Road, London to listen to the president of the Geographical Society, Sir Clements Markham plans for a National Antarctic Expedition. Sir Markham was a larger than life Victorian’ who usually got what he wanted and in this situation he wanted to see another British naval expedition to Antarctica. The previous one had been lead by Sir James Ross in 1840. Lieutenant Scott applied to lead the expedition two days later and was successful. Funding for this expedition was derived from the combination of the Royal Geographical Society and the Royal Society. This lead to conflict as to who would lead the expedition as the Royal Society considered a scientist (that is Professor J.W. Gregory) would lead but Sir
Markham was determined that the expedition would be lead by a naval officer, and that naval officer was Scott. Sir Markham also selected three other naval officers and 20 men from the crew. There were additional crew, officers and scientists.

Between departure in August 1901 and selection, the members of the expedition had months of preparation and training, with additional and very valuable experience obtained during the voyage. During the voyage Scott learnt to question what he saw, especially in regards to mirages and proximity illusions caused by the icy atmosphere and light.

Scott originally set out to the pole with two officers, Michael Barne and Ernest Shackelton, but had to return due to frostbite and damage to a tent caused by a blizzard and −46°C temperatures. On the second attempt Barne, who was suffering from the previous year’s frostbite on his hand, was replaced by Boatswain Thomas Feather. At Depot A, the team to traverse to the South Pole commenced, this team included Scott, Edward Wilson and Ernest Shackelton. At the 79th parallel high optimism was felt, but with the deterioration of the dogs and the conditions this optimism did not last. Wilson and Shackelton envied Scott of his pipe as it dulled Scott’s appetite. All men were losing weight. Wilson noticed and mentioned to Scott that Shackelton was suffering symptoms of scurvy. Neither men told Shackelton this. The men turned back once reaching 82°16’ South. Shackelton was suffering with a feeling of grogginess, coughing and was spitting blood. Scott and Wilson carried Shackelton who towards the end of the journey began to rally as the other two were ‘nearly done’.

On returning to camp Scott decided to reduce the ships company from 45 to 37. This enabled him to remove ‘one or two undesirables’. Shackelton was dispatched home, despite his protests as his health precluded further Antarctic rigours. He was replaced by Sub Lieutenant George Mulock from the relief ship the Morning. Mulock was a trained surveyor, whose skills contributed to the sledging parties traverse plans.

As the Discovery was frozen into the ice another winter was spent in Antarctica. This enabled further exploration and Scott praised his “sturdy” comrades. Especially Lashly’s strength, he hung on to Scott, Evans and the sledge, when they plummeted down a crevasse.

Scott’s first expedition drew to a close when the Discovery was freed from the ice with the assistance of a 30kg charge, setting sail on 16 February 1904.

Between Scott and Shackelton there was ‘no love lost, circumstances and temperament made them uncharitable competitors’ so as Shackelton was preparing for the Nimrod expedition Scott declared his own expedition in 1909, this was to be his last expedition. He had two aims, firstly the polar quest and second, a scientific program. Expedition personal applied in their thousands. Those that were successful in their applications included men who traversed great distances to submit their applications and those that paid in the form of expedition sponsorship, such as Oates, how parted with £1000 and was prepared to part with £500 more to guaranteed him a position on the
expedition. There was one man above all others who Scott wanted by him, his companion and confidant from the Discovery, Edward Wilson.

The mid-winter trek to Cape Crozier was made by Wilson, Bowers and Cherry-Garrard. This journey became known as ‘the Worst Journey in the World’. Scott’s journal on the 27 June records the men’s departure with the words “This winter travel is a new and bold venture, but the right men have gone to attempt it. All good luck go with them!”. By reminding himself that all the men were right for the journey he was convincing himself that no miscalculations or gambling with the men’s lives had occurred. Wilson had prior Polar experience and had a desire to reach Cape Crozier to collect some Emperor Penguin eggs. The men rallied together and kept each others spirits high by prayers, hymns and drawing comfort from each others company. This comradeship saved there lives and enabled them to march back to camp even though they were suffering extreme exhaustion.

The Northern Party located at Cape Adare was lead by Campbell who selected his team carefully over the previous months. The sound judgement of the team resulted in Campbell being thankful as the team dealt with hunger, darkness, cold, smells and greasiness in addition to enteritis. The members of this part included Priestly – geologist and meteorologist (the only civilian who was given honorary officer status, as Campbell was a stickler for naval protocol), Levick – naval surgeon, photographer and microbiologist, and three seamen; Abbott – carpenter, Browning –assistant meteorologist and Dickason – most talented cook. Browning and Dickason were most effected by enteritis, with Brownings life saved by Levick’s constant attention and the men’s sacrifice of their biscuit rations.

The expedition to the South Pole started with sixteen men. With Scott’s anxiety at the slow progress recorded as “Evan’s party could not keep up. It is a very serious business if the men are going to crack up.” As the men separated into the Polar accent team and those returning to camp Scott selected to take an additional member so the team consisted of Scott, Wilson, Oates, Evans and Bowers. As the men turned back from the Pole that Amundsem had beaten them to Scott declared “Great God! This is an awful place” and recorded in his journal “Now for the run home and desperate stuggle. I wonder if we can do it.” Evans perished first in his sleep after a delirious attack on 17 Feb 1913, followed by Oates who walked out in a blizzard around the 16 March stating “I’m just going outside and maybe sometime.” The remaining three men all perished with Scott’s final journal entrance dated 29 March 1913.

Sir Ernest SHACKLETON

While selecting equipment for the 1907 - 09 British Antarctic expedition Shackleton turned his mind to the men who would accompany him. Shackleton was noted as saying “The loyalty of your men is a sacred trust you carry. It is something which can never be betrayed, something you must live up to” (McGonigal and Woodworth, 2001). 400 applied by letter to Shackleton’s first expedition and Shackleton pondered his requirements; the men must be fit, disciplined and well qualified in addition to having the
marked individuality common to explorers of the unknown and they would have to live in a cramped hut, completely isolated from the world. He acknowledged that finding such a team would not be easy. Shackleton had hired England and Evans as Captains of the ships for his first expedition based on skill alone. This did not suffice when events became challenging – both men did not share Shackleton’s vision or enthusiasm for exploration and resulted in England wasting fuel and Evans left Shackleton and his team stranded.

Shackleton’s emphasis on fitness was nothing like the intense medical checks that today’s Polar personal undertake. Shackleton would never have been able to participate in let alone lead any expedition if he had aloud a doctor near him. This was due to Shackleton’s ‘dodgy’ heart that resulted in his fatal heart attack on his final voyage in 1922 at the age of 47 (Smith, 2001).

Only two of the Nimrod shore party had previous polar experience. While four members of the Nimrod expedition joined the Imperial Trans-Antarctic Expedition and eight men from the Endurance joined Shackleton on his last expedition aboard the Quest.

Shackleton hired 50 year old TW Edgerworth David, a geologist for the Nimrod with the correct assumption that his age would be “a great influence for good amongst the younger men”. David also had the expertise to coordinate the scientific program, an expertise that Shackleton acknowledged he did not posses.

Shackleton’s proposition of the Imperial Trans-Antarctic Expedition of 1914-17 was greeted with 5000 applications from eager adventurers who applied not knowing that the expedition was to be a complete failure. From those 5000 Shackleton employed 30 men to fill the crew of the Endurance and the Aurora. The applicants were roused by what some marketers and business-school professors claim was the most successful want ad in history;

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Men wanted for Hazardous Journey.
Small wages, bitter cold,
long months of complete darkness,
constant danger.
Safe return doubtful.
Honour and recognition in case of success”.
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Morrell and Capparell (2001) consider that the optimistic Shackleton would not have created such an ad; rather it was invented by someone amused by the long lines of applicants applying for what was considered a horrific assignment.

Shackleton employed Frank wild, who had the most Antarctic experience and whom Shackleton had met aboard the Discovery. Shackleton saw in Wild potential to be a
leader and all the traits suitable for a second in charge; loyalty, cheerfulness, decency, strength and experience. Wild’s job was to assist in the selection of the men and then work with them and be liaison between them and Shackleton.

Wild tore through the mountain of letters of applications separating them into “mad”, “hopeless” and “possible”. The possible applicant letters were then shown to Shackleton and if he approved an interview was granted, after which Shackleton decided if the applicant would join the expedition.

The interviews were unconventional and this was to find the unique talents that Shackleton desired in his team. First encounters with applicants were face-to-face freewheeling exchanges that were brief but intense. Shackleton was listening for enthusiasm and indications of the applicants ability to be part of a team. Two questions that were commonly asked were if the applicant could sing? And if the applicant would know gold if he saw it? The reason behind the question about singing placed the emphasis on the importance of team activities in the isolated huts and ships.

Hussey was successful in his application for two reasons; firstly, he “looked funny” and had the ability to entertain the crew with his banjo and secondly, he was a qualified with expedition experience and had applied from Sudan, the heart of Africa. Shackleton hired men with optimism and those that really wanted the job. Marston, for example, was “promptly engaged” for the Nimrod and subsequently for the Endurance, when he arrived at the interview after departing Cornwell, where he was on a walking tour as soon as he received the telegram. Marston had to catch several trains and had arrived dishevelled and wet from the London rain.

Shackleton recruited those who had skills that he did not have. One example of this was Shackleton’s recruitment of Frank Hurley, an Australian photographer whose work included a popular cinematographic documentary from Mawson’s 1912 expedition. Hurley was employed sight unseen – a rare occasion for Shackleton – this was due to Wild being able to vouch for him. Hurley recalls his recruitment in “Shackleton’s Argonauts” and how he jumped and shouted for joy after reading the telegram that was delivered to him while in the shores of Carpentaria, north Australia. The telegram informed Hurley that he was appointed as the official photographer for Shackleton’s expedition.

Morrell and Capparell (2001) summarise Shackleton’s way of selecting and organizing a crew into ten points;

- Start with a solid core of workers you know from past jobs or who come recommended by trusted colleagues.
- Your No. 2 is your most important hire. Pick one who complements your management style, shows loyalty without being a yes-man, and has a talent for working with others.
- Hire those who share your vision. Someone who lashes with your personality or the corporate culture will hinder your work.


- Be a creative, unconventional interviewer if you seek creative, unconventional people. Go deeper than job experience and expertise. Ask questions that reveal a candidate’s personality, values, and perspective on work and life.
- Surround yourself with cheerful, optimistic people. They will reward you with the loyalty and camaraderie vital for success.
- Applicants hungriest for the job are apt to work hardest to keep it.
- To weed out potential slackers, choose workers who show a willingness to tackle any job, and will take turns at the unpopular tasks.
- Hire those with the talents and expertise you lack. Don’t feel threatened by them. They will help you stay on the cutting edge and bring distinction to your organisation.
- Spell out clearly too new employees the exact duties and requirements of their jobs, and how they will be compensated. Many failed work relationships start with lack of communication.
- To help your staff do top-notch work, give them the best equipment you can afford. Working with outdated, unreliable tools creates an unnecessary burden.

Sir Douglas MAWSON

Mawson was a member of Shackleton’s *Nimrod* expedition and had his tenacity tested and was considered equal to raising expedition funds and personal for the Australasian Antarctic Expedition of 1911-14.

Mawson hired two other polar expeditioners; Captain John King Davis and Frank Wild from the *Nimrod*. Davis was hired as Mawson’s friend from the *Nimrod*. Davis was in charge of purchasing and refitting the *Auroa*. Mawson notes that in those few anxious months in London where relieved by Davis’s cheerful co-operation and inexhaustible energy. Davis was also in charge of all arrangements regarding the ship’s complement. Mawson was pleased to that he was able to interest Wild as he was impressed by Wild’s unflappable nature during the 1901-04 Shackleton expedition (Hall, 2000) and appointed Wild as the charge of one of the Antarctic wintering stations.

The importance of selection was emphasised by Mawson in “The Home of the Blizzard” in which Mawson explains that, “in no department can a leader spend more time more profitably than in the selection of the men who are to accomplish the work. For a polar campaign the great desideratum is tempered youth. It is vigour, dash and the recuperative power of youth that is necessary to cope with he extreme discomforts and trials of such exploration, which approximate to the limit of human endurance and often exceed it.”

Mawson was guided by his instinct and by Shackleton’s unconventional wisdom when it came to selecting his men (Hall 2000). Hall (2000) states that Mawson need men that had the spirit to endure firstly the worst ocean conditions on Earth, followed by the most inhospitable climate on Earth, much of it to be spent in semi-darkness. The team members did not just have to be able to endure these conditions. Mawson wanted the men to conduct daily scientific work that required defined skills. These skills were considered worthless if Mawson perceived a quirk of character that might threaten the
applicant’s performance or threaten the performance of others. He also consider enthusiasm as an important contribution, with initiatives of applications to join the expedition being influential in the selection process. For example, Frank Hurley bribing a conductor to share Mawson’s railway carriage with him, just so Hurley could plead his case with Mawson resulted in instantaneous employment. Hurley proved that he was a valuable member on this and other expeditions.

The interview process was explained by Laseron in his memoirs “South with Mawson”, he reflects how he put in his application with vague hopes and implored all his scientific friends to state what a fine fellow he was. He was granted an interview, in which Mawson, in an abrupt manner did not question Laseron’s scientific skills but rather questioned his ability to cook. Laseron’s response about his ability to cook damper in a bush-like method impressed Mawson. Laseron did not receive a letter of acceptance rather he received a letter with instructions to collect stores and learn the art of taxidermy of birds.

Mawson drew his team from young graduates from Australian and New Zealand universities, with few exceptions; they were all representatives of Australasia. One of the exceptions was Frank Wild; as fore mentioned, a polar veteran who had served on both the Scott and the Shackleton expeditions. Three other personal were appointed in London due to their speciality roles; Ninnis, a Royal Fusilier, Mertz, an expert ski-runner and mountaineer and Bickerton, who was in charge of the air tractor.

Mawson’s reflection on the team selection as “ours proved to be a very happy selection” was proved in the winter of 1912 when the men depended on their own inventiveness to relieve the frustrations of the largely inactive months. Mawson’s relaxed and egalitarian style helped as did the mateyness of the predominately young university graduates in the party.

**Antarctica New Zealand**

The New Zealand Antarctic Program is organised through *Antarctica* New Zealand. *Antarctica* New Zealand is based in Christchurch and is one of the largest gateways to the southern continent, acting in conjunction with the Italian and American Antarctic Programs. The year round New Zealand Antarctic base is Scott Base, located on Ross Island. To work at Scott Base a structured selection process occurs that commences with a complete review of all job descriptions, roles, and remuneration followed by the recruitment campaign. Then the following selection process is embarked upon:

1. Interview panel selected.
2. Interview skills workshop facilitated.
3. Applications received, recorded. Copies given to all interview panel members.
4. Short list is prepared and approved by the Operations Manager.
5. Interviews & travel arranged.
7. Psychometric assessments arranged (currently for winter-over short-listed candidates & prior to the interviews).
8. Interviews held.
9. Reference Checking completed.
10. Team finalised (including stand-by roles) and approved by the Operations Manager.

This is then followed by formal employment agreement offers subject to medicals and a current first-aid certificate. The winter-over roles are also required to undertake dental examinations and psychometric tests. All candidates are provided with two information packs and attend a Pre-Antarctic Training Course (PATC) and on arrival at Scott Base attend further specific training.

In general, today’s Antarctica New Zealand selection process consists of two distinct steps: selecting out and selecting in. The first stage is selecting out, this is the stage when applicants are screened for inadequate preparation, overt psychopathology, and problematic life history. These are typically assessed by interviews, biographical data and objective and projective tests. It is at this stage that some applicants are “flagged” and removed from consideration. This selecting out process is considered important and often emphasised because the selectors consider the Antarctic environment to be psychologically dangerous and “pathogenic” (Antonovsky 1987). The pathogenic orientation is used due to multiple reasons that include the need to select for “hardiness” with the social profile and importance of the expedition being paramount, securing funding before and after needs an “adventurous” nature, reports from the field indicate its success and the extreme and unusual experiences are considered to be distressing (Steel 2005). This is exasperated with isolation, Santy (1994) explains that with restricted access to an external environment, that can be life-threatening is thought to be so stressful that only those with the "right stuff" could stand up to the challenge. It needs to be acknowledged that all emotions are felt, and it is not just because you are on the ice.

It has been argued that some of the overly demanding selecting out processes ensures successful expeditions by the mere fact that those selected in are of high standard. Palinkas et al. (1995) indicates that psychological breakdowns, such as cases of psychoses and other severe psychiatric disorders are rare in Antarctica with suicide attempts and gestures being exceedingly rare. Suedfeld and Steel (2000) note that it is uncertain if this low level of psychological breakdowns is a direct result of the rigorous, valid selection or to the exaggerated expectations of "experts" concerning the stressfulness of the capsule environment. As assessment agencies have become more realistic about potential problems, some selecting out criteria has loosened.

The second stage of the selection process is selecting in, this is the stage that the ‘best’ is selected from the remaining applicants. This is where the importance of the psychological assessments is emphasised. Limitations of desirable criteria can occur due to Gunderson’s (1973) Antarctic triarchy of task ability, sociability, and emotional stability, being outweighed or supplemented by considerations of desirable public image (Wolfe 1979) and, according to some observers, organizational politics and personal
biases. Another limitation is the limited number of applicants for crucial occupations, such as principal scientific investigators undertaking mid winter research and medical officers at polar stations. It is at this stage that the profiles that form part of the objective report that presents the results of the psychological assessment are compared to other applicants and winter-over personal profiles. This is to determine if there are any marked differences in personality in what would become a winter over team. Profiles that demonstrate a marked difference are not considered as it is assumed that they do not satisfy the sociability (in respect to the team) and the difference may be an indicator of emotional instability.

As part of Antarctica New Zealand's recruitment process for winter-over roles at Scott Base, all short-listed applicants are asked to complete a psychological test as part of the standard assessment process. Antarctica New Zealand utilise the services of Human Resource Consultants, Hudson for these assessments.

The assessment gives Antarctica New Zealand the opportunity to fairly and objectively assess each team member's preferred style along with some specific abilities that Antarctica New Zealand feels are relevant to the roles at Scott Base. This is information that cannot be accurately gained from other parts of the selection procedure, such as the interview or reference checks. Psychometric testing is only one part of the process and is used in conjunction with all of the other information Antarctica New Zealand has gathered to assist in making a decision. Not only is psychological assessment used to assist in selection purposes, it also aims to assist the candidate in clarifying their strengths and areas for development therefore enabling them to match their attributes to a suitable role and career. The information gained from psychological assessment can be invaluable when used in combination with other available information to assist with an individual's career development.

Suedfeld and Steel (2000) consider further research is required to determine which combination of personality measures, performance tests, simulations, and other techniques would optimize the select-in process. At present Antarctica New Zealand through Hudson uses three psychological assessments; the Wonderlic Personal Test, Personal Reaction Blank (PRB) and the Fifteen Factor Personality Questionnaire (15FQ).

- The Wonderlic Personnel Test (IQ – General Problem Solving): This test measures a person's ability to work through problems. It has been proven to be one of the most accurate indicators of successful performance in this workplace. It also looks at a person's ability to learn and train as well as this level of potential to progress within this organisation.

- The Personnel Reaction Blank (PRB): This is a brief 90-item inventory of interests and attitudes intended to assess what might be called the "dependability-conscientiousness" personality factor. The PRB yields relevant information about dependability; conscientiousness, diligence and restraint that are relevant to this quality of work.
• The Fifteen Factor Personality Questionnaire (15FQ): This is an extensive computer generated report that gives a full personality analysis covering work ethic, interpersonal and relationship skills and personal motivators and drivers.

Hypothetical application of Hudson psychological assessment to Antarctica New Zealand's cotton picker applicant Jo Bloggs.

For the hypothetical applicant, Jo Bloggs her application to be a cotton picker, a hypothetical position, in Antarctica was a life long dream that many people had told her was unrealistic but Antarctica New Zealand had advertised the position of a 'cotton-picker' in the Christchurch Press. The position required the successful applicant to winter over at Scott Base during 2005. Jo sent her application to Antarctica New Zealand.

Jo was contacted by Antarctica New Zealand and informed that her application had been shortlisted. Travel arrangements were made so she could attend the interview but first she had to do a psychometric assessment. The Human Resource Consultants, Hudsons organised and carried out the assessment. It took Jo about an hour to complete the three part assessment. Though there is no time limit to complete the assessment.

The first part of the assessment is a general problem solving exercise, 'The Wonderlic' followed by two personality questionnaires, looking at your preferences to a number of statements. 'The 15 Factor Questionnaire' and the 'Personal Reaction Blank', (PRB) which is an integrity test.

Jo was provided with full instructions and examples prior to starting the assessment. If she had any questions regarding the assessment she had the opportunity to discuss these with the Hudson administrator.

Hudson's provide an objective report (see Jo Bloggs hypothetical report in Appendix I) with the results of the assessment to both Antarctica New Zealand and the candidate, in this example, Jo. Antarctica New Zealand also is provided with interview prompts from the Ideal Profiles. The results are used in conjunction with the other information Antarctica New Zealand has gathered on the candidate from the interview, CV and previous work history etc. The results will be kept confidential and available only to those people directly involved in the recruitment process. The team is then finalised and includes stand-by roles and is approved by the operations manager.

Formal employment agreement offers are made subject to dental checks, medicals and a current first-aid certificate. The candidates all receive two information packs. The list of these information packs is included in Appendix II.
5. Impact selection has on group dynamics and survival

Suedfeld and Weiss (2000) studies of living in Antarctica have found that the lifestyle imposes some unusual restrictions as well as opportunities and it requires psychological adaptation to extreme environmental circumstances. Under conditions of prolonged remoteness from home and the removal from normal social support networks risks are placed on the crew’s mental and physical health (Ursin et al. 1991).

The selection process has to select in the “right” applicant that has the ability to adapt and survive to the risks associated with living in Antarctica. Much of the historic and today’s selection process considered the ability of the applicant to be part of a team (sociability) in addition to being qualified (task ability). Much of the time spent in an Antarctic Base over winter is spent in close confinement with the other base personal with activities on the ice including the monotony associated with ‘life as usual’, work and possible additional Antarctic Field Training as preparation for the field. Winter conditions reduce the opportunities to have recreational leave though modern bases are established with increased amenities.

A number of patterns were observed in readings from the Heroic Age expeditioner accounts, with emphasis on the importance of the establishment of daily routine, which included entertainment and the celebrations of special events. Meals were considered to be a central component to the team’s well-being and greatly influenced mood and morale levels. Modern winter over crews have been studied and alterations to mood and morale appear to occur at common points. It is still considered that the establishment of daily routines, celebrations and the importance of food can influence mood and morale.

The main winter challenges are considered to be the social monotony with the main perceived challenge being interpersonal (Taylor, 1987). According to a psychologist a group is defined as two or more who have interactions, stable interdependence, a perception of being a group, and a common fate. Stable interdependence, a perception of being a group, and a common fate are considered to be the most important components of a group, though few have been rigoursly studied.

Impacts of stable interdependence are that the group is like a hothouse relationship and can be described like being “married, only worse.” The impacts when perception of being a group or the sense of cohesion is lost includes the development of factions, with occurrences of ostracism and hermits and some personal from Scott Base developing a routine that involves “going over the hill”, this is they live, eat and/or sleep at the nearby Mc Murdo Station referred to as Mac Town. Common fate influences levels of productivity and physical and psychological well-being.

Due to circumstances that are beyond the winter over crews’ immediate control the team goes through formation stages and “meltdown” to certain degrees. When stress levels increase and effects are seen cliques can form and individuals can breakaway from the group. Politics can have negative impacts on group stability and cohesion. If situations that are related to the instability of the group are not managed individuals may
breakaway in a voluntary or forced manner. The breakaway individual/s do not have the strength to face the extreme environment on their own (Grant http://www.tirian.com/writing/corporate/tip_of_the_iceberg.htm accessed 6/01/2005).

Phillip Law of ANARE never wintered in Antarctica but he was aware that one of the greatest dangers facing an isolated group was the formation of cliques and the need for a leader that could keep the situation in check without being involved with any factions (Bowden, 1997). Social networks at the South Pole station Amundsen-Scott were studied by Johnson, Boster and Palinkas, (in press). Their study found that over three years the group structure was as follows;

Year 1: core/periphery (C/P) structure  
Year 2: mixed C/P and clique structure  
Year 3: clique structure – social categorisation

Palinkas (2000) identified that groups that have cliques tend to show greater mood disturbance. The published analysis of the study carried out by Johnson, Boster and Palinkas (2003) found that “globally coherent networks in winter-over groups were associated with group consensus on the presence of critically important informal social roles where global coherence is the extent to which a network forms a single group composed of a unitary core and periphery as opposed to being factionalised into two or more subgroups. Conversely, the evolution of multiple subgroups was associated with the absence of consensus on critical informal social roles, above all the critically important role of instrumental leader.”

Wood et al (2000) found that in Antarctic winter stations there were more negative experiences but they occurred less frequently while there were less positive experiences but they occurred more frequently. Weiss, Suedfeld, Steel and Tanaka (2000) used Japanese polar team members to study four sets of measures (thought to reflect adjustment and well being) from the Polar Psychology Project Battery. The polar team members were found to generally have high stress resistance and an increase in the planning orientation score and a decrease in the Hardiness score appear at the end of the winter-over period. These modifications indicate that psychological changes are linked to the end of the winter-over period.

Patterns of mood across time are identified as Seasonal Attention Deficit (SAD) which is treatable and sub-Seasonal Attention Deficit (S-SAD) which results in the person being uncomfortable and unhappy.

Prevalence of SAD and s-SAD at an Antarctic base was studied in 1991(Palinkas, Houseal and Rosenthal, 1995). It was found that between February and March 10 per 100 persons indicated the occurrence of S-SAD. Between July and August S-SAD occurred in 30 per 100 persons and SAD occurred in 2 per 100 persons. The prevalence of S-SAD in a normal population in northern latitudes in winter is approximately 10%.
Law, according to Bowden (1997) charted the predictable graph of morale at a wintering station. His findings indicate that morale was down at the beginning, due to the uncertainties associated with the changeover period. It peaks as soon as the ship departs and dips about two months later as the winter months bring darkness and weather that results in an indoor existence. The graph rises as summer returns with preparations for summer field trips and another high point is reached in the final two months with the prospect of the return home.

Bhargava, Mukerji and Sachdeva, (2000) identified a pattern of change in an Indian winter over team. In March, increased smoking (stress related) and sleep difficulties in June. During September at the point of maximum isolation in temporal term, rapport was at a minimum and there was a decreased satisfaction with work and life situation over December and January.

The theory that negative mood and low morale tend to show up most strongly at a common point within a winter over crew and is linked to the relative time of stay was studied. From anecdotal reports and inspection of station logs Bechtel and Berning (1991) consider that the common low morale and negative mood occurs at the third-quarter of the winter over period. Steel’s 2001 study (figure 3) indicated mixed results for the ¾ effect. It was identified that if mood drops at all it is from positive to neutral and not necessarily to negative.

Figure 3. Common mood and morale levels over a winter season in Antarctica

Adaption to prolonged isolation and confinement in an extreme environment occurs in two or three stages according to Palinkas and Houseal (2000). Their studies at three bases
found that at the South Pole between March and August a decline occurred in tension/anxiety, depression, anger, confusion and fatigue. While an increase in tension/anxiety and fatigue and a decline in vigour occurred in August and October. At McMurdo Station a decline in tension/anxiety occurred in March to July and an increase in tension/anxiety occurred between July and August. No significant change in any mood subscale from May to October occurred at Palmer Station.

Psychological changes, such as the mood and morale alterations that have been studied are not the only effects wintering over has on the crew, physical effects occur and is what has become known as the ‘winter over syndrome’ (Strange and Klein, 1974) or ‘T3 syndrome’ (Reed et al, 2001). The patterns of symptoms during the winter are similar to pattern variations in serum thyrotropin or TSH (thyroid stimulating hormone) levels (Reed et al, 2001; Palinkas et al., 2001). The ‘winter over syndrome’ has been identified to be caused by low arousal levels. The winter over syndrome includes experiencing the following cognitive effects:

- **Long eye**: (Rohser, 1991)
  - mental blanking (Popkin et al. 1974)
  - transient (minutes); episodic and interruptible
  - may be accompanied by mood changes
  - possibly due to social ostracism

- **Drifting**: (Rohser, 1991)
  - detachment and apathy
  - trance like state, wondering without awareness
  - lowered cognitive ability (during winter) – poor memory and attention
  - not as transient as long eye

- **Increased hypnotisability**: (A. Barabasz, 1991)

- **Increased absorption**
  - capacity for deep imaginative involvement (M. Barabasz, 1991) like being absorbed in a book, movie etc.

To minimise, overcome or adapt to the psychological or physical effects of wintering over a number of process have been implemented. Firstly, the initial selection of the crew considers the sociability of the crew. Shackleton was conscious of the importance of comradeship and selected men who indicated they would be able to sing along to song sessions in the long hours of winter darkness. Mawson had a predominately young crew who had a mateyness attitude that encouraged sociability. *Antarctica* New Zealand compares all the personality graphs from the psychological assessment to identify sociability, the team then meets for a Pre- Antarctic Training Course (PATC) in Christchurch where the group meets, orientation occurs and training in Scott Base and Antarctic operations and responsibilities. This enables the development of the group and if situations arise, from a “clash of personalities” there is a network in place to deal with it and in the extreme case a stand-by applicant can be employed. At Scott Base the winter
crew attend regular weekly staff meetings and monthly operating reviews or individual monthly performance reviews are carried out to monitor the crews task ability, sociability and emotional stability.

6. Conclusion

Grant (http://www.tirian.com/writing/corporate/tip_of_the_iceberg.htm accessed 6/01/2005) used Stuster's study of the effects of Isolated Confined Environments (ICE) on individuals and teams. He identified that the success of the mission is subject to the individuals' ability to form a cohesive group. Grant claims that the importance of positive group interaction was overlooked in the past. That is the selection of teams of scientist placed too much emphasis on task ability resulting in the scientist levels of effectiveness as a team being significantly reduced. Grant identifies that Antarctic pioneers were selected to include men that were young, fit, and those who could follow orders and loved adventure.

This lack of consideration of team cohesion proposed by Grant in regards to the Antarctic Pioneers was not identified by the author of this report. This report found that the selected leaders of the Heroic Age Expeditions did consider the importance of cohesion amongst the crew.

However successful applicants today are not those simply seeking adventure rather the successful applicants are those who are accepting of others and who are capable of making a rich “perceptual environment”. The relevance of the psychological assessment is considered to be as important as the physical exam. The extent of the importance of the psychological assessment is emphasised by the use of the objective reports in the selecting out and selecting in process.

Applicants who are selected in and end up working, living and playing in Antarctica over the long dark months of winter are those that demonstrate task ability, sociability and emotional stability. The success of the psychological assessments used by Antarctic Programs to determine the compatibility of winter crews has been noted and adapted by NASA who acknowledges the importance of compatibility in crews where there is no escape from their immediate surroundings and fellow crew member’s constant company.

Grants article concludes by stating “Prevention is better than cure. Just as scientist are researching and monitoring the icebergs, systems need to be put in place to monitor and manage teams...Because teams are the foundations of organisations, they must be supported ... We all walk on thin ice, but it is possible to survive together by supporting each other.”

In Mawson’s final words to his Australian home crowd on the departure of the Aurora he reflected on the success of the team;

“Most of the speakers have referred to myself, and I appear to be the chief spirit in this expedition. To some extent that is so. Everything depends on the personnel of the
expedition. But I am only one of the 31 of the land party... You will know in 18 months’ time who have been successful members of the expedition and who have not. I personally feel that all the men chosen will be successful.”

7. Authors comments

This report was completed as an assessable component of the Graduate Certificate in Antarctica Studies (GCAS), offered through Gateway Antarctica, University of Canterbury, Christchurch, New Zealand. It was an opportunity for the author to research a subject “outside her comfort zone” of birds, zooplankton and Environmental Management and Ecology.

The criteria of an Antarctic, the selection process focussing on the psychological assessment and the ‘group assembly’ effect was of interest to the author and she has learnt a lot about these components. This report offers what could be considered as a “brief overview” of the three components. It is to be noted that these components require further detailed studies and are exceptionally important to team survival in Antarctica as no one goes to Antarctica alone.

The author would like to acknowledge the contributions made by her supervisor, Gary Steel and the Human Resource Advisor from Antarctica New Zealand, Melanie Lindroos.
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APPENDIX I  Jo Blogg’s hypothetical Objective Report

CANDIDATE EVALUATION

Jo Bloggs – HYPOTHETICAL EXAMPLE ONLY

This report on Jo was prepared for Antarctica NZ as part of this selection process for this Cotton Picker role. Comments centre on a number of competencies or abilities that were perceived as being relevant, or critical, to success in this Cotton Picker role.

This appraisal should be viewed as a professional opinion, based on impressions gained from this following process

- Administration of this Wonderlic Personnel Test (IQ – General Problem Solving). This test measures a person’s ability to work through problems. It has been proven to be one of this most accurate indicators of successful performance in this workplace. It also looks at a person’s ability to learn and train as well as this level of potential to progress within this organisation.

- Administration of this Personnel Reaction Blank (PRB). This is a brief 90-item inventory of interests and attitudes intended to assess what might be called this “dependability-conscientiousness” personality factor. This PRB yields relevant information was dependability; conscientiousness, diligence and restraint are relevant to this quality of work.

- Administration of this Fifteen Factor Personality Questionnaire (15FQ). This is an extensive computer generated report that gives a full personality analysis covering work ethic, interpersonal and relationship skills and personal motivators and drivers.

Test Results and Interpretations

1. Intellectual Problem Solving

Measures capacity for effective learning, efficient and accurate problem solving and clear communications. This following ability assessment results are reported in percentiles. Percentiles are a ranking system that standardises a person’s score against a population of others who have taken this assessment. This ranking is out of a hundred and this percentile reports where this person would fall if ranked against 100 others. As such if these fall at this 40th percentile they are as good as 40 out of 100; if they fall at this 60th percentile they are better than 60 out of 100.

Jo scored as follows:

<table>
<thead>
<tr>
<th>Result</th>
<th>General Population</th>
<th>95th percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Non-Managerial Population</td>
<td>73rd percentile</td>
<td></td>
</tr>
<tr>
<td>Raw IQ Result</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Questions answered: 25 /50</td>
<td>Correct: 25</td>
<td>Incorrect: 0</td>
</tr>
</tbody>
</table>

Interpretation: A score at this level indicates that Jo will be very quick to learn and will easily be able to infer conclusions from on-this-job situations. She will be able to gather
information from a number of sources and synthesise ideas, and will be able to cope
with this problem solving requirements of a senior role.

2. Personnel Reaction Blank

Jo's integrity result is as follows:

| Result | Raw Score: 40 (Above Average) |

**Interpretation:** This Personnel Reaction Blank (PRB) measures such things as dependability and commitment to work. This is an above average integrity test score indicating that Jo will display sound levels of conscientiousness, reliability and consideration. Jo is unlikely to display counter productive behaviours.

**Personality Assessment**

**Validity Scales**

This 15FQ contains measures of this extent to which this respondent is attempting to present Herself in a favourable manner. Jo Blogg’s responses indicate that she has answered most of these questions realistically. The social desirability score is below average. **This number of middle (uncertain) responses in the questionnaire is very high. She may have either attempted to reveal very little about herself or she genuinely lacks definitive views about a range of issues. As a consequence, this profile may not provide a very discriminating picture.** In all instances, a full understanding of this analysis should take into account other factors pertaining to this respondent. Motivation, interests, aptitudes, skills and actual experience, are all areas that warrant particular inspection.

**Interpersonal Style**

Jo's interpersonal orientation is on this borderline of introversion and extraversion. People falling within this band tend to communicate without having a requirement for continual interpersonal contact. She is likely to be as happy occupied with tasks as with dealing with people, but she is unlikely to be reticent about coming forward in social situations, even if this places her at this centre of attention. In spite of having average levels of extraversion, Jo Blogg is likely to come across as being somewhat quiet and detached, possibly due to her introspective nature. As a consequence, her manner may be interpreted as a lack of warmth and empathy. In personal exchanges Jo maintains a balance by being neither overbearing nor too easily dominated. She is likely to assert herself or give way, as this situation demands. She seems no more or less assertive than most people. If placed in this centre of attention of a group, although she is unlikely to perform to this gallery, she should not have too much trouble with "stage-fright". Once in a group situation, she has a sufficient level of social boldness to relate fairly comfortably with most people. As adaptable and accommodating as this norm, Jo Blogg’s initial approach is to give people this benefit of this doubt. However, if she feels that her trust is being abused, her tolerance may turn to scepticism. Social demands do not appear to play a significant part in influencing her behaviour and, not being particularly concerned about how others view her, she will generally prefer to relate casually to others and this than be constantly alert for this need to observe social etiquette. She may not relate particularly well to group undertakings that discourage individualism. Somewhat unpretentious, genuine and rather outspoken, when asked for an opinion, Jo Blogg may have a tendency (unintentionally or otherwise) to express herself in a direct and uncalculated manner.

**Thinking Style**

Jo's profile is typical of those who strike a balance between controlling and being controlled by this environment. As such, she is likely to exercise as much initiative as most people and, given these right circumstances, she should be capable of making a personal impact in her work setting. As receptive as most to new ideas, she will not reject established, conventional methods out of hand. Neither constantly seeking innovation nor resistant to change, she
tends to take this middle ground between established and radical methods in problem solving. Capable of making decisions and taking action without group support or approval, she should nonetheless enjoy this benefits of consultation afforded by group membership. As attentive as most people to practical realities, she will be equally responsive to inner-directed interests and ideas.

In her approach to task completion, Jo balances an ability to get things done effectively and efficiently, with an awareness of the subtleties involved. She can act without allowing emotions to submerge her intellect. In comparison to those who approach problems dispassionately and those who emphasise this relationships involved, she takes this middle ground. On this tough-tender continuum, she is neither excessively hardheaded and unmoved nor too softhearted and sensitive. Her reaction to situations will generally be cautious and deliberate, preferring to be given time to mull things over than be immediately decisive, possibly tending to rely on inner values to guide her. Given these right circumstances, however, at times she might be seen to act in a more spontaneous fashion. Not wishing to spend too much time on these detailed aspects of a task, she may be just as happy working at a global level, where she can exercise a degree of flexibility. As far as rules and regulated procedures are concerned, whilst she may acknowledge their contribution, she may not wish to be personally bound by this at all times.

Patterns of Coping With Stress

Jo has average levels of anxiety. As composed as most people, she generally approaches life in a fairly well adjusted manner. She should be able to cope with pressure, so long as it does not become too stressful. Her anxiety rating falls within average ranges. She is no more easily hurt or upset than most people, and is not unduly prone to mood swings or feelings of insecurity. Being secure and fairly self-assured, she will not normally be unduly burdened by low self-esteem or irrational guilt. Fairly relaxed, Jo is not usually troubled by feelings of anxiety and tension. Like most people, of course, she may become a little restless when pressured by others. This should not cause much of a problem, however, and she should be able to relax without too much difficulty.

TEAM ROLES

This Team Roles describe how Jo is likely to interact with Her colleagues in a team situation. This specific ways in which she will express Her preferred team style may, however, vary according to this situation. In addition, this behavioural style takes no account of Her intellectual approach to problems and this quality of Her decisions. These scores below indicate Jo's general propensity for a particular team role orientation. It must be noted that different styles may be adopted according to this demands of this situation and consequently a description of Jo's predominant and secondary team styles is provided.

<table>
<thead>
<tr>
<th>Score</th>
<th>Team Roles</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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<tbody>
<tr>
<td>4.2</td>
<td>Co-Ordinator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6</td>
<td>Shaper-Driver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.0</td>
<td>Evaluator-Critic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Implementer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>Team Builder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Resource Investigator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.4</td>
<td>Inspector-Completer</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8.4</td>
<td>Innovator</td>
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TEAM ROLE COMBINATION - EVALUATOR-CRITIC/INNOVATOR
Jo is likely to have a shrewd and penetrating mind, together with this capacity to evaluate Her own ideas and those of others and come up with an integrative statement about what should be done. Although she is likely to have this capacity to be creative Herself, Her tendency may be to sit back and think while others do this talking. Her keen critical abilities may help Her to sort through ideas with this effect that Her contributions will be planned carefully. However, Her somewhat sceptical style and capacity to identify these flaws in arguments may cause Her to censor Herself and thus inhibit Her own ability to be innovative. She may need encouragement to recognise Her own creativity and promote Her ideas. Perhaps she could make a more creative contribution in a group if she was encouraged to reveal Her own thoughts more regularly instead of coming in only to evaluate these ideas of others. However, This may not be an easy stance for Her to take because she gets caught up in Her own thoughts and plans and does not necessarily share this with others. Hence, she may work best when she is encouraged to positively state a position that incorporates expertise into a group plan of action. Given these right circumstances, she could be an excellent strategist.

**LEADERSHIP STYLES**

Based on this work of this American Organisational Psychologist Bass, this Leadership Styles describe which of a range of styles Jo is most likely to adopt. This may be of relevance to in a variety of situations where this is a requirement to manage others. As with most personality characteristics, this profile only describes Jo's most likely styles and not performance. Effective performance will depend on many factors including this organisational culture in which this individual is operating.

<table>
<thead>
<tr>
<th>Sten</th>
<th>Leadership Styles</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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<tbody>
<tr>
<td>4.6</td>
<td>Directive Leader</td>
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<td>5.0</td>
<td>Delegative Leader</td>
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<td>4.9</td>
<td>Participative Leader</td>
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<td>Consultative Leader</td>
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<tr>
<td>5.8</td>
<td>Negotiative Leader</td>
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**PRIMARY LEADERSHIP STYLE: NEGOTIATIVE LEADER**

Negotiative Leaders motivate subordinates by encouraging this, through incentives etc., to work towards common objectives. Hence, through a process of negotiation attempts will be made to arrive at some mutually equitable arrangement with this other members of this team so as to motivate them to work in a particular way. Negotiative Leaders tend to rely on their skills of persuasion to achieve their stated goals. Many Negotiative Leaders have well-developed image management skills and they typically utilise these to moderate their approach according to this circumstances in which they find themselves. This capability, coupled with a desire to achieve, can mean that sometimes they adopt unconventional methods to achieve their desired objectives.

**SECONDARY LEADERSHIP STYLE: CONSULTATIVE LEADER**

This Consultative Leadership Style combines elements of both democratic and directive leadership orientations. They value group discussion and tend to encourage contributions from these separate members of this team. However, although group discussions will be largely democratic in nature, Consultative Leaders typically make this final decision as to which of this varying proposals should be accepted. Hence, this effectiveness of This leadership style will be dependent upon this individual's ability to weigh this advantages and disadvantages of each of this varying ideas produced by this members of this group and their capacity to encourage them to accept a final decision that may not necessarily be that favoured by this majority.
**Additional Comments**

This following section lists a number of points that can be inferred from Jo's assessment report. This interviewer may wish to use these as this basis for further probing during this interview or counselling discussions.

**Potential Strengths**

- Will prefer to avoid making hasty decisions.
- Will generally appear to be self-assured and confident.
- Will tend to feel unrestricted by protocol and established values.
- Is in touch with her emotions and will tend to express her feelings openly without being concerned about always making a good impression.

**Potential Development Needs**

- May tend to deliberate a little too much at times, and avoid making some decisions.
- At times her self-confidence may be interpreted as complacency.
- May show insufficient concern for protocol and established values.
- May experience difficulty when working under conditions of continual or acute pressure.

*Under the Privacy Act the information contained in this report can only be used for the purpose it has been collected, which is for recruitment. Using the information for any other purpose requires prior consent from the individual assessed.*
APPENDIX II  Antarctica New Zealand Candidate Information Packs

List of Contents for Pack One
- Covering letter
- Employment Agreement (HR Advisor to provide)
- Bank Account Details form
- IR 330
- Personal details
- Computer skills questionnaire
- Clothing sheet
- Scott Base (Tips for Beginners) plus extra sheet for women
- Guidelines for Examining Doctors
- Medical Examination form
- Immunisation Information (engineers, electrician, carpenters, FSO)
- Dear Dentist letter – winter staff only
- Dentist examination form - winter staff only

List of Contents of Pack Two
- Handbook
- Field/First Aid Manual
- Environmental Code of Conduct
- Home & Away booklet x 2 (Psychology of being away from home, family, friends). This is for both the candidate and the candidate significant others.
- Employee Assistance Programme, available to all staff and their significant others from the date of employment until 6 months after employment.
- Public Service Code of Conduct
- draft Timetable for 10-day Pre-Antarctic Training Course (PATC)*
- information re expenses
- a signed copy of relevant employment agreement

* PATC is attended by all successful candidates before departing to the ice. In addition to PATC there is specific training once staff reach Scott Base for example: Antarctic Field Training, Fire Drills, Vehicle Training and so on.