

# **Where Dreams Become Reality**

Professionalism in Flight Training

In the Eastern Cape

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By

Martin Allison

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## Abstract

This study explores the construction of the identity of professional pilots through a case study of a flying school in South Africa. Here, a 15-20-month period of intensive study and training of students, fresh from school or college, leads in most cases to the attainment of a Commercial or Airline Transport Pilot's Licence. The construction of identity is a continuous process and a lifelong project and hence this study can only reflect upon the factors influencing the early stages of a pilot's career, until the point where the licenced Pilot leaves the Air School and enters full time employment with a commercial undertaking, but it is argued that this is a crucial step in the formation of professional identity, *habitus* in Bourdieu's terms. The culture of the air School reflects the military background of the founders of the school and the staff employed in senior positions. The school, which is residential, observes a strict regime of Ground School and Practical Flying Training and a high standard of performance and personal conduct is demanded, both during training and in off duty hours and excessive consumption of alcohol and smoking are discouraged, and drug use absolutely taboo. Progress with training at the school is closely monitored and a disciplined environment maintained by surveillance cameras, house monitors and security guards; in Foucauldian terms, a modern version of the Panopticon, but somewhat less than Goffman's Total Institution. It was found that the construction of a flying identity for most of the students entering the air school commenced in childhood or early adulthood, through the influence of friends and relatives and they enter the school with the firm intention of becoming Professional pilots. Full participation of the author in the Ground School revealed how professionalization is implemented through the discipline and rigor of the training methods employed. Through mastery of a complex body of theoretical knowledge in the Ground School and the practical skill of learning to fly in a one-on-one relationship with an instructor, the students gain confidence and efficacy which contributes to their self-respect and maturity. The international reputation of the school, confers prestige upon its graduates and they benefit from membership of a profession which commands respect and a high level of income. In large measure, the thesis shows, the success of the School is a function of the founders' 'invention of tradition'

focusing on the wartime training school that existed on the site and the many echoes of those times in the (re)construction of its buildings and facilities, continuing in the approach of the multinational that now owns the School.

When this life I'm in is done,  
And at the gates I stand,  
My hope is that I answer all  
His questions on command.

I doubt He'll ask me of my fame,  
Or all the things I knew, Instead,  
He'll ask of rainbows sent  
On rainy days I flew.

The hours logged, the status reached,  
The ratings will not matter.  
He'll ask me if I saw the rays  
And how He made them scatter.

Or what about the droplets clear,  
I spread across your screen?  
And did you see the twinkling eyes.  
If student pilots keen?

The way your heart jumped in your chest,  
That special solo day-  
Did you take time to thank the one  
Who fell along the way?

Remember how the runway lights  
Looked one night long ago  
When you were lost and found your way,  
And how-you still don't know?

How fast, how far, how much, how high?  
He'll ask me not these things  
But did I take the time to watch  
The Moonbeams wash my wings?

And did you see the patchwork fields  
And mountains I did mould;  
The mirrored lakes and velvet hills,  
Of these did I behold?

The wind he flung along my wings,  
On final almost stalled.  
And did I know it was His name,  
That I so fearfully called?

And when the goals are reached at last,  
When all the flyings done,  
I'll answer Him with no regret-  
Indeed, I had some fun.

So when these things are asked of me,  
And I can reach no higher,  
My prayer this day - His hand extends  
To welcome home a Flyer.

— [\*Patrick J. Phillips\*](#)

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- a) The Author
- b) Becker, D. (1989) *Yellow Wings*, SAAF Museum, Johannesburg, pp. 61
- e) John Evans
- s) The Air School
- d) The Class Instructor

## Preface

My interest in flying began at a very early age. I was born just prior to the outbreak of WW2 in the coastal town of Brighton in Sussex in the United Kingdom. I was thus very aware even at an early age of the military use of aviation and of the need when sirens sounded to climb with my mother and younger brother into the steel “Morrison” shelter which the government had erected in our lounge at home. Our house was situated on the outskirts of the town adjacent to a large area of open “Downs” which I would explore, sometimes finding aluminium debris from aircraft shot down after having crossed the channel. This early introduction left me with the recognition that aviation was a dangerous pursuit and with the ever-present risk of fire. The South Coast of England was home to many bases of fighter aircraft and factories where aircraft were constructed and consequently was heavily bombed during the war. My mother, brother and I were evacuated to mother’s home in Newport in South Wales where I spent the early years of my life and first went to school. South Wales was a very different experience for a child away from the immediate threat of conflict and destruction and an opportunity to get to know my grandparents. It was only much later after returning to Sussex after the end of the war that my interest in aviation was rekindled by the proximity of my school to the Shoreham Airfield, a former military base, and the site and sound of Biplanes flying overhead.

In 1966, having Joined an International firm of Chartered Accountants, I was persuaded to volunteer for secondment to their Kitwe, Zambia office for a period of six months to address a temporary staff shortage following the declaration of UDI in neighbouring Southern Rhodesia (now Zimbabwe) and the exodus of permanent staff. After taking leave in the United Kingdom I married and returned to Kitwe with my wife. In due course I was transferred to the Ndola office where our two children were born and, in 1973, I took up a position as a partner in the firm in their Lusaka office. In 1976, a couple of years prior to returning to the United Kingdom I presented myself to the Lusaka flying club for a trial lesson and was immediately hooked, commencing with a series of lessons which were to culminate in my gaining a private pilot’s Licence in March 1978. On returning to the UK I was able to convert my Zambian Licence to a UK licence and flew from a flying school based at the Southampton airport. After several years I purchased a share in an aircraft that was based at an army airfield in Middle Wallop. The share in that aircraft was sold on my returning to Africa in 1988 and joining a firm of accountants in Johannesburg. I missed the opportunity to fly and soon purchased an aircraft, having converted my licence to a South African one, a Piper 235 Aircraft which I kept at Rand airport, an airfield that reminded me in so many ways of Shoreham. The 235 was eventually sold on my being transferred to Swaziland (now eSwatini) where eventually in Manzini, I founded my own firm

of accountants. Once again, I felt the need to own an aircraft and I purchased a Piper pa28 180 from a dealer in Lanseria which I exported to eSwatini and still own today, having eventually reimported it into South Africa on my retirement to the Eastern Cape. I have thus enjoyed the privilege of flying and owning my own aircraft for some forty years. Having retired after pursuing a career as a chartered accountant in practice for fifty years I felt the need to have new interests and after considering various options I decided to apply to Rhodes University to study for a degree, an ambition I had cherished for many years since my son had attended that University. After acceptance I attended various faculty presentations finally deciding to read history and anthropology in pursuit of a BA degree. In 2010 I commenced to fashion a new identity for myself firstly as an undergraduate and honours student and next as a postgraduate and researcher in anthropology. Thus, in the past decade I have undertaken the process of constructing a new identity for myself as a student in an educational Institution, which perhaps assists me to understand the process of identity construction which takes place for the students striving to become professional pilots at the Straight and Level Air School (S&L AS).

Whilst I am very happy to have achieved modest success as an anthropology student, I am very reluctant to let go entirely of my former identity as a chartered accountant and I pay my annual subscription to the Institute every year without any real intention of practicing because in a historical sense it is an important part of my identity, my self-perception and the way I am perceived by others who look to me occasionally for advice concerning financial matters. Each construction of a new identity creates opportunities and challenges, as the graduates of S&L AS will discover as they, in their turn, become professional pilots.

## Introduction and Literature Review

The main theme of this thesis is *occupational identity*, specifically the occupational identity of a professional pilot and the strategies employed by an S&L AS, an air school established in the Eastern Cape, South Africa, to equip student pilots with the technical knowledge, operational and practical skills and experience to enable them to perform to the high standards expected by statute, the aviation industry and the general public of a professional airline pilot.

Literature of an anthropological/sociological nature concerning aviation in general and pilots in particular is sparse. What has been published concerning the profession and industry is generally of a technical nature or concerns accidents, security, terrorism, health issues and problems that concern the industry as a whole. An exception is the issue of gender in aviation, a profession where women form a conspicuous minority and accordingly have attracted a certain amount of attention. In addressing issues such as the construction of identity, professionalism, discipline, entrepreneurship and Institutions I refer to the writings of established authorities on those topics and consider their applicability to the field of aviation training and relevance in the peculiar circumstances of S&L and the approach to the training of professional pilots at that institution.

## Identity

Skorikov and Vondracek (2011) note that:

Occupational identity, also alluded to as vocational, work, professional or career identity, refers to the conscious awareness of oneself as a worker. Occupational identity represents a complex structure of meanings in which the individual links his or her motivation and competencies with acceptable career roles (p.693).

Vivian Vignoles (2011) suggests that “people are motivated to construct identities characterised by feelings of self-esteem, continuity, distinctiveness, meaning, efficacy and belonging” (p.404). Skorikov and Vondracek claim that “occupational identity strength and occupational identity achievement are positively correlated with self-esteem, proactivity, and goal directedness” (p.703). The career of a professional pilot, I would argue, affords opportunity to an individual to enhance all of the foregoing motives through entry into a prestigious profession. Continuity may be threatened at some stage by the vagaries of demand for pilots in the global industry or health issues that would not affect other professionals but may suspend or terminate the career of a professional pilot prematurely; but risk tends not to deter would-be pilots. Vignoles notes that:

Identity is an idea, or rather a set of ideas, that people construct and reconstruct actively throughout the life span. Many of the building blocks for constructing identity are present at birth – not just the genetic disposition of the individual, but the huge amount of social and cultural resources provided by friends, relatives and the wider social and historical context (p.404/5).

The importance of those factors was highlighted in my research at S&L AS in which responses were received from students regarding their motivation for learning to fly and the factors, family members and friends and role models that influenced their decision. Vignoles further notes that “the social processes of constructing an identity begins long before birth as parents, friends and relatives begin choosing names, imagining what the child will be like and so on” (p.405). Returning specifically to occupational identity Skorikov and Vondracek note that

Occupational identity formation represents a life-long process of constructing, shaping, and reshaping the self as a worker. At any given point in time occupational identity reflects the accumulated life experience of who one is and wishes to become (p.699).

Dan. P. McAdams (2011) describes a similar process under the heading of “narrative identity” however narrative identity is not exclusively concerned with occupation, but he suggests a similar process of the lifelong construction of identity

Narrative identity is the internalised and evolving story of the self that a person constructs to make sense and meaning out of his or her life. People begin to put their lives together into narrative identities in their late-adolescent and young adult years, but the process of narrative identity development continues through the life course. In constructing self-defining life stories, people draw heavily on prevailing cultural norms and the images, metaphors and themes that run through the many narratives they encounter in social life (p.99).

Students arrive at S&L AS generally in their late teens/young adult years with a strong commitment to becoming a professional pilot and the air school provides the environment for the development of that nascent identity to enable them to realise an ambition often stemming from their childhood days. Eventually, graduating from S&L AS, newly qualified airline transport pilots will aspire to become first officers with an airline and eventually captain. Their time spent at S&L AS provides the foundation for a perhaps lifelong experience as a professional pilot.

## Professions and Professionals

Pierre Bourdieu (1990) defined four concepts which are of significance in describing a profession and professionals, the members of that Profession. The first is *habitus* defined as

Systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organise practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aim at ends or an express mastery of the operations necessary to attain them (p.53)

Lewellen (2003) interprets this definition as “the largely unconscious internalisation of the objective norms and rules of society that suggest how we might act within any given situation” (187). Lewellen continues

Given any situation, habitus will provide a framework that will direct action within a very limited number of improvisations. It always derives from class-specific socialisation and emerges as a largely unconscious strategy that is directed towards one’s self-interest (ibid.).

This concept is applicable to the role of a professional pilot whose conduct in the main is directed by social norms, for example a concern to satisfy and fulfil the demands of an employer and priority concern for the safety and welfare of passengers, a concern that is not prescribed by any code of professional ethics or requirement of the law. Bourdieu’s concept of *cultural capital* is also of relevance since it describes a notion of a “feel for the game” Karl Maton (2008), a particular point of view on proceedings, based upon their positions and what they learn of the tempo, rhythms and unwritten rules of the game through time and experience, by virtue of their membership of a particular social class (p. 54). Bourdieu (1990) stated that “There is nothing that groups demand more insistently and reward more generously than this conspicuous reverence for what they claim to revere” (p.109). Membership of that class will confer upon its members as per Lewellen (2003) “a largely unconscious set of predispositions” (p.186), which will define their preferences and aspirations that would include undergoing training to become a professional pilot. In the feedback from some of the students interviewed there is reference to the middle-class background of the parents, both black and white families, who could afford to pay for training and encouraged their offspring to become pilots. Lewellen (2003) defined *social capital* as “kin relations, circles of friends and influential old boy networks” (p. 186). These relationships will have been developed from an early age in many, perhaps most, of the students at the air school, by virtue of their social class, the

friends and acquaintances of parents and close relatives who, acting in their best interests, have sought to provide them with a good education and later to send them to S&L AS. At the air school further social capital will be created by successfully completing the training course and perhaps gaining further experience as a flying instructor from which recommendations may emanate and contacts with fellow students which at some future time may create opportunities with future employers.

Lewellen (2003) noted that “habitus is manifested within fields of competitive struggle”, (p. 187) , I would therefore suggest that the habitus of the professional pilot emerges within the field of the profession. I will describe the characteristics of the profession and set out why I consider that the occupation of pilot should be regarded as a profession in chapter two of this thesis, however it is relevant to consider here why a profession can be categorised as a “field of competitive struggle”. Eliot Freidson (2001) writing in *Professionalism, the third logic* notes that “skill” (p.25) is the capacity to use knowledge in accomplishing a task, “everyday knowledge” (p.27) is shared by all adult members of a community, “working knowledge” (p.29) has a narrower scope than everyday knowledge because it is addressed solely to accomplish work; it is segmented into bodies of practical knowledge and skill and “formal knowledge” (p.33) which is composed of bodies of information and ideas organised by theories and abstract concepts. These qualities serve to identify a specialisation and in chapters three and chapter four I describe the training methods to impart the formal knowledge and skills required to enable a professional pilot to perform his duties in the workplace. Freidson (2001) defines specialisations as distinct occupations whose members have the exclusive right to perform the tasks connected with them. In the case of professional pilots their “exclusive jurisdiction” (p.127) is conferred by statute. Functionally related occupations, for example air traffic controller, cabin attendant, engineer, dispatcher negotiate with each other the boundaries or jurisdictions of the specialisations their members are allowed to offer and perform. Freidson notes that “the prime contingency of professionalism is the state and its policies” (p. 128) This is true of the professional pilot whose competence for the issue of his licence is assessed by the state or its agents and eligibility to execute the privileges of his licence are subject to his satisfying the state through its agents as to state of health and current experience. Freidson notes a trend towards the internationalisation of licencing requirements (p.128) for professionals. This trend, already established in aviation, has resulted in the standardisation of requirements for pilot licencing through, for example, the harmonisation of regulations governing the countries in the European Union. The competitive struggle in which habitus is manifested is thus the competition that exists between the various specialisations which operate in the industry, the competition between the differing regimes of licencing authority and the statutory provisions which exclude all those without

the necessary authorisation from operating as pilot in command of an aircraft and from carrying passengers and thus preserves the exclusive franchise of the professional pilot.

## Disciplinary Power

In chapters three, four and five I discuss the impact of discipline in the training procedures used by S&L AS for both ground school and practical flying training and the off duty lives of the students at the air school. Writing in *Discipline and Punish* Foucault (1977) traced the development of the imposition of discipline and punishment from the medieval practice of imposing public displays of torture and death on the populace to more subtle techniques where self-disciplinary techniques were deployed. Hopper and Macintosh (1998) note that

Foucault identified three general principles underlying the way the disciplinary society functions: the principle of enclosure; the principle of the efficient body; and the principle of disciplinary power. The principle of disciplinary power includes such concepts as Hierarchisation, Panopticons, normalising sanctions and examinations (p.129).

The enclosure principle involves special purpose enclosed spaces in which individuals can be confined in a disciplinary state. Examples of such an enclosed space would include schools, military barracks, hospitals and even universities and, I would suggest, S&L AS. However, Hopper and Macintosh further comment that “Enclosure in itself is not sufficient to achieve disciplinary spaces, they must be partitioned” (p.129). The principle of enclosure can be traced back to the Monastery of the classical era where each monk had his own cell. The “Rule of functional sites” (p.129), dictates that each site is defined in terms of the specific function performed there which is demonstrated at the air school where spaces are set aside for specific administrative, training, recreation and accommodation functions. So far as the occupants of the spaces are concerned, as noted by Hopper and Macintosh (1998), “everyone is defined by the rank he or she occupies in the hierarchy” (p.130). In chapters three and four I detail the hierarchy of flying and ground school Instructors, who, as mentioned above, occupy their own individual offices, the latter being somewhat more comfortably accommodated than the former perhaps because of past rank in the military. The “efficient body principle” (p.131) requires the creation of timetables to which the entire community is subject. In chapters three, four and five I report upon the emphasis that is given during both ground school and practical flying training to compliance with timetables and on attendance and punctuality and the penalties that are levied in instances of infringements of the disciplinary code. The exhaustive (efficient) use of time (p.132) is an important feature of the business model at the air school since

income is generated by the hours of instruction achieved and the number of hours the aircraft are in the air.

As noted by Hopper and Macintosh (1998), quoting Foucault

The timetable, the articulation of body and machine, the exhaustive use of time led to a metamorphosis of the treatment of the body. It became a target to be manipulated, to be exercised in correct movements, and to be available for the imposition of ever more knowledge. Thus subjugated, the individual functions as obedient, docile and obedient flesh (p.133).

Hopper and Macintosh further note that “The final link in Foucault’s chain of disciplinary power involves the use of “Hierarchical surveillance, normalising sanctions and the Panopticon” (P.135).

Jeremy Bentham invented a prison which consisted of a twelve-sided polygon with a central tower from which the superintendent could observe the conduct of the inmates; however, the inmates although conscious that they were under surveillance, were never aware when they were being observed. This constant threat of observation was sufficient to ensure their good conduct.

During my time as a student on the Rhodes University Campus I was aware of one of the few remaining examples of a panopticon. This is the “Provost”, formerly a military prison and currently a refreshment facility for students and visitors. For the small garrison Grahamstown (now Makhanda) was at the time the Provost was built, only a segment of the structure Bentham envisaged was required.



Fig. 1, 2. The Provost (Rhodes University Campus): External and Internal Views



Fig. 3, 4. The Provost: View of the Cells from the Guards Tower

Hierarchical surveillance today is implemented at the air school and to a certain extent the university, not so much by the manner in which the buildings have been constructed as by the system of CCTV cameras that have been installed strategically around the site which monitor arrivals and departures and behaviour in critical areas. In addition, there is monitoring of conduct in the dormitories and detailed recording of performance during ground school and practical training. Hopper and Macintosh further note that “Hierarchical surveillance requires a system of rewards and penalties” (p.136). The system in operation at the air school is described in detail in chapter five. An element of the principle of disciplinary control is the examination, of which extensive use is made at S&L AS. Students are constantly being tested both in the ground school and in practical flying training. Hopper and Macintosh quoting Foucault observe

Through [the examination’s] ceremony of power, it established the truth about each individual and became one of the most effective instruments of discipline and control in western society” (p.137).

The qualified pilot becomes an object for continuous examination since for the remainder of his career he will be scrutinised regularly for issues of health and competence which might affect his ability to perform his duties and his performance and safety as a pilot.

Mike Savage (1998) describes the manner in which the concept of a “career” was initiated in the late nineteenth century in the Great Western Railway in the United Kingdom as a strategy to motivate workers to provide exemplary service to their employer in the expectation of climbing a “career ladder” to attain greater status within the hierarchy of the organisation and the rewards associated with that uplifted status. The concept of a “career” is important in aviation and at S&L AS a career progression is offered to former students to become Instructors who by virtue of experience and additional training progress through three degrees of expertise, grades one to three (rank in military

terms) which, once attained, define the duties they are able to perform and the level of their remuneration and seniority. In the world of commercial aviation they will progress from first officer to captain with commensurate levels of seniority and remuneration. An essential feature of management control which enables a career progression to be achieved is surveillance and assessment of the performance of the individual in the organisation. Findlay and Newton (1998) note “issues such as job performance and its assessment are at the heart of the control of the labour process, critical to squeezing surplus value out of the workers” (p.218). Findlay and Newton also note “appraisal can be seen as epitomising a desire for observation and surveillance, to make the employee a knowable, calculable and administrable object” (p.214). The measures used at S&L AS, which involve frequent testing and examinations during the ground school stage and reporting to sponsors and others and the frequent testing and recording process in practical flying training provide a formidable apparatus for performance appraisal since the student is monitored every step of the way. According to Findlay and Newton, these measures provide management with “an unfettered gaze” (p.214) upon the performance of the students during training and enable management to identify any inabilities the students may have in meeting the expected standards. Findlay and Newton also suggest that

Appraisal can be seen as providing an illustration of Foucault’s argument that power is not simply repressive and negative but is positive and productive through the constitution of the self in discourse (p.216).

## Institutions

Institutions have also been a core interest of the path-breaking anthropologist, Erving Goffman and later work of Suzie Scott. Some of the characteristics of S&L AS, discussed under the heading of discipline, are also typical of a “total Institution” which Scott (2011), quoting Erving Goffman, defined as a

Place of residence and work where a large number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered, round of life (p.9).

Goffman’s later research was conducted in a mental institution, however he considered the principles involved to be applicable to a number of different institutions created for different purposes, for example army barracks, boarding schools, prisons, universities and monasteries. The characteristics which I have identified at the air school and describe above are typical of a total institution, including enclosure, partitioning, the panoptic surveillance system, timetabling,

examinations, the code of behaviour, and disciplinary procedures. There are additional characteristics of S&L AS that I consider typical of a total institution, which I detail in chapters two and five; however, there are also important areas where the air school differs from the total institution. The students at S&L AS attend entirely of their own free will and accord and they are able to leave the premises if they so desire, subject to certain constraints, and some choose to live off base. The students, if they so wish, can graduate to become a part of the administrative system at the school by remaining after completing their training to become flying instructors. As noted above and discussed in chapter one S&L AS has in place a disciplinary code and procedures designed to regulate the conduct of students at the school and there are punitive measures for those at the school who infringe that code; however, the procedures implemented at the school are not intended to be punitive or to isolate the students from society or for their own protection or that of society, but are aimed at their self-improvement and eligibility for an exacting profession.

Susie Scott (2011), defines a reinventive institution as

A material, discursive or symbolic structure in which voluntary members actively seek to cultivate a new social identity, role or status. This is interpreted positively as a process of reinvention, self-improvement or transformation. It is achieved not only through formal instruction in an institutional rhetoric, but also through the mechanisms of performative regulation in the context of an inmate culture (p.3).

The Activities at the S&L AS fall to a certain extent within the compass of this definition which I discuss in chapter five of this study.

## Gender

Gender is an issue in the world of aviation following the long, near-monopolisation of the airline transport industry, by white male pilots. This domination took place despite the outstanding feats of competence and endurance achieved and world records set by female pilots in the early days of aviation, some of which I describe in chapter one. The association of the development of flying with the first and second world wars and the relegation of women to support roles in wartime ensured the ongoing male domination of flying not only in wartime and but in the peace that followed. Whilst women relieved scarce male pilots in non-combat roles, such as the delivery of aircraft, this function reverted to men after the cessation of hostilities. Female penetration of the commercial flying profession post-war was slow to make an impact and airlines preferred to recruit male pilots who had been trained by the military. Bridges et al. (2014), note “Female pilots inhabit a profession steeped in patriarchal systems of dominance, involving organisational power and labour processes”

(p.191). In recent times, because of legislation promoting equal opportunities and the relaxing of the military ban on female combat flying and their growing numbers in the military, women have begun to make significant inroads into this once exclusively male domain. The numbers of female transport pilots, however, are still small in percentage terms as per Bridges et al. (2014): “currently woman pilots represent less than six percent of the worldwide pilot population” (p.2). The pressure on the airlines to find pilots in sufficient numbers to operate the aircraft in times of expansion and growth and on the flying schools and aviation authorities to supply the required number of new pilots have resulted in a considerable change in attitude towards gender and ethnicity in the profession, with the result that flying schools such as the one reviewed in this study have increasing numbers of female students. Some female students in time become flying instructors and this study included discussions with some of the female instructors at the school. In chapter four I detail some of the difficulties encountered at S&L AS by female instructors in teaching and dealing with some male students and the attitudes which those displayed.

### Race/Ethnicity

Reviewing the contents of *Absent Aviators*, by Bridges et al. (2012), it appears that with the exception of a reference to the discriminatory policy concerning recruitment of black aircrew and cabin staff adopted by the now defunct Pan American Airways (p.32), little or no mention is made of the possibility that amongst the ranks of the “Absent Aviators” there would be black pilots, both male and female. Evans & Feagin (2012) writing of *Middle Class African American Pilots* seek to remedy that omission and note that

The existing literature on the airline industry does have significant research on the gendered experience of flight crews, but the significance of black identity in an airline workplace atmosphere that remains dominated by whites has yet to be examined by any social scientist (p.653).

Evans and Feagin further comment that

Because of systemic racism, the commercial airline industry, specifically in terms of pilots, remains overwhelmingly white (and mainly white male). Currently (2012), the airline industry employs approximately 71000 pilots: the total number of African American pilots remains under 700, with fewer than 20 being African American females (ibid)

Evans and Feagin identify the areas of recruitment and training as creating problems for African Americans “One of the areas in which middle class African Americans still face much discrimination

in in the employment screening and training process, especially in employment sectors where whites have seldom encountered them” (p.654).

Zirulnik & Orbe (2018) writing of communication difficulties experienced by black female pilots note that

The reality for black women exists within a historical context where the definition of who is a pilot has been narrow and limited. The historical and intentional creation of what and who is a pilot remains a white, physically strong, and intelligent male who is confident, cool, calm and collected. (p.3).

The industry must work to change that perception if black pilots, especially female, are to gain the confidence of the travelling public. Unfortunately there do not appear to be statistics readily available relating to the numbers of black pilots, male and female in other jurisdictions and it would be interesting to see if the same ratio as is applicable to the United States between white and non-white pilots exists in other jurisdictions, particularly in Africa and Asia where airlines are known to favour their own nationals as pilots.

In the course of my research I obtained statistics relating to the demographic profile of the student population of S&L AS and discussed recruitment policies with the responsible members of staff concerned.

## Entrepreneurship

The founders of S&L AS aspired to establish their school as a successful independent flying training institution that would take advantage of the skills and experience they had acquired over the years and opportunities they perceived as being created by changes in the training of military pilots and growth of the civil aviation industry. These factors indicate that the founders were Entrepreneurs and as noted by Thomas and Mueller (2000):

The entrepreneur is characterised as someone who demonstrates initiative and creative thinking, is able to organise social and economic mechanisms to turn resource and situations to practical account and accepts risk and failure (p.291).

Max Weber (2002) writing in *The Protestant Ethic and the Spirit of Capitalism* attributed the rise of entrepreneurial activity to the influence of the nineteenth century Calvinist tradition and the devotion of its adherents to seek salvation through earthly diligence and the accumulation of wealth, but foregoing the pleasures that the accumulation of property would enable them to enjoy in favour of the anticipated bliss of the afterlife. One could argue that commercial activity and hence

entrepreneurship has taken place in many cultures and locations over perhaps the last two thousand years, wherever a monetary system has been in operation, which would include the Roman Empire. It is difficult to envisage the motivation attributed to Calvinist entrepreneurs inspiring the entrepreneurs of today, specifically the entrepreneurs responsible for the creation of S&L AS, though the idea that hard work is redemptive lingers on, and the hope of profit continues to motivate people.

In chapter one I describe the origins and revival of the air school, I trace the background of the founders, their earlier unsuccessful attempt to found an air school in George and the manner in which they were able to deploy their very limited resources and with the help of friends and the cooperation of local authorities to restore the old World War Two (WW2) air school site to enable a new school to commence operation in 1989. I also describe the specific circumstances in which the founders first perceived the opportunity presented by the derelict wartime training operation to found a new school. Thornton (1999) notes that “Entrepreneurship literature can be classified into two schools: one taking the supply side perspective and the other the demand – side perspective” (p.20). In chapter one I have endeavoured to discuss both the supply side perspective in describing the background, specific skills and experience of the founders, and the demand side that, besides the growth of the civil aviation industry which continues to this day, recognised the requirement in the airlines for pilots trained on the military model.

## **Invented Traditions**

Hobsbawm (2010) defined an invented tradition as

A set of practices, normally governed by overtly or tacitly accepted rules and of a ritual or symbolic nature, which seek to inculcate certain values and norms of behaviour by repetition, which automatically implies continuity with the past. In fact, where possible, they normally attempt to establish continuity with a suitable historic past (p.1).

Invented traditions have been developed at the S&L AS to foster the concept of a seamless connection with a military air school which operated during WW2 from the same site in the Eastern Cape and the earlier days of the development of aviation. This invented tradition is written into the marketing literature and history of the present air school which describes itself as steeped in the history of aviation. The reconstructed buildings of the wartime air school, from which the present school operates, serves to create an impression of continuity of a tradition and this is enhanced by the use of aviation artefacts in a museum-like setting in “The Wright place”, the air school’s recreational centre (see chapter one). In addition to the marketing attractions of the reinvented

tradition the historical association is important in the construction of identity as discussed in chapter five. The uniform adopted by S&L AS for staff and students, which has seen some changes over the years, is also a reconstruction, derived from military precedent and civil aviation and performs an important role in fostering discipline amongst the students, as discussed in chapters three and four and in identity construction.

## Visual Anthropology

I believe the use of images has enabled me to convey information concerning S&L AS, its environs and training which would have been difficult to achieve using words alone. David MacDougall (1999) notes that there is a long history of the use of images in anthropological research and writing from the late nineteenth century, although the images used in those early days were line drawing as opposed to photographs. MacDougall also notes that “most anthropologists have never known quite what to do with the visual” (p.283), and continues by noting that

What remains unresolved is whether the visual can attain a more productive role in anthropology as a medium of enquiry and discourse. The epistemological and methodological implications of such a shift are substantial. They involve putting in temporary suspension anthropology’s dominant orientation as a discipline of words and rethinking certain categories of anthropological knowledge in the light of understandings that may be accessible only by non-verbal means. (p.292).

Technological development in the field of digital photography, the use of the internet and widespread use of mobile devices has made the availability and use of images widespread and a dominant feature of life in the twenty first century and accordingly, few now perhaps, will doubt the value of images in conveying information. There is room for doubt however regarding the integrity of images which can easily be manipulated digitally and consequently care should be taken in their use. Pink (2011) notes that “Using the camera in self-conscious ways, both research participants and researchers explore particular (and often affective) dimensions of experience in ways often not approached using conventional methods” (p.29).

## Methodology

In order to address the research problem and conceptual issues discussed above, I adopted four different methods.

1. **Participant observation.** This was conducted as a member of a class of students attending two ground school courses (to be discussed further below). In so doing I had to concentrate on both the technical material of the course, which involved preparation for and sitting the frequent classroom tests, and the behaviour of the other students and the mode of instruction. This experience of the course was a useful guide when later, I came to interview some of the students and ground school instructors, enabling me to confirm with my own observations the views of my interviewees. During ground school I made field notes on a daily basis recording my impressions and the comments of other students. Since the students with whom I attended the basic ground school course were engaged by then in their first practical flying training course, I attended commercial ground school with another group. The procedure was as before, lectures in the morning and a break late morning, to work through examples. As on the previous course, tests were set in the morning to be taken online for approximately the first hour at the conclusion and sometimes during the course of each subject. I think without the tests the pressure to try to assimilate the substantial amount of knowledge covered in the lectures would have been greater and the learning process much less effective. I continued to make a daily field note of the progress of the course and the reaction of the students. The commercial ground school course was in two parts and on completion of the first, and after a short break, I commenced upon the second part with another batch of students since the first group were sitting in house and civil aviation authority examinations. Students move through the training process basically in batches since there is a new intake of students every six weeks. Some fall by the wayside and have to re-do a part, or the whole of the ground school sessions, before proceeding on with the next session.
2. **Survey.** Having completed the basic ground school course and in the period prior to the start of the commercial ground school course, I drafted a questionnaire seeking information from the ground school students in connection with their educational background, reasons for wanting to fly, for choosing S&L AS to be their aviation training venue and reactions to the ground school course and the lecturers. I much appreciated the assistance and cooperation of Rita Malone in processing my questionnaire through “survey monkey” [www.surveymonkey.com](http://www.surveymonkey.com) (accessed 19<sup>th</sup> June 2017) and sending it out to ground school students. In due course Rita let me have a summary of the responses in the form of a spreadsheet. I was able to import the responses to the questionnaire into Nvivo [www.qsrinternational.com](http://www.qsrinternational.com) (accessed 16<sup>th</sup> February 2018) which summarised the responses

in a format which enabled me to incorporate the data in this thesis. A printout of a selection of the responses is attached as appendix 1 to this document.

3. **Interviewing.** After completing the second part of the ground school course I embarked upon a programme of semi- structured interviews of founders, students, instructors and members of the training and administrative staff completing sixteen in all. The profile for each interview was considered in advance and questions drafted which took account of the specific responsibilities within the organisation of the person concerned. I interviewed the director of training, the personnel director, the officer in charge of student recruitment, the two founders of the air school, two senior instructors involved in ground school and practical flying training, three flight instructors, five students and an outside consultant who provides language training and support to the school. The transcripts of these interviews are quoted where appropriate in the text. S&L AS provided me with a copy of their database of students as at May 2017 which enabled me to compile statistics of the gender of students at the school, their compass test scores, and country of origin and source of funding. This information was provided on a confidential basis and a summary of this data is attached as Appendix 2 to this document.
4. **Visuals.** I obtained photographs from the founders of S&L AS of the overgrown and dilapidated state of the air school site and buildings at the time of their acquisition in 1989 and I made photographs of some of the renovated buildings for the purposes of comparison and many different aspects of the air school to illustrate and give context to this document. Photographs of first solo celebrations and graduation ceremonies and candidates were provided by S&L AS.

Feeling overwhelmed initially by the volume of data that I had gathered I turned to a database management system named “Nvivo”, specifically designed to code and analyse qualitative data for assistance in categorising and summarising my data. I was able to import all my data into that system and code it. In addition to coding my interviews and the results of my questionnaire survey and my field notes I was able to import academic journal articles relevant to the topics identified and code relevant sections of those articles under the appropriate heading. Nvivo also permitted me to import images which I was able to insert where appropriate into this document. The summaries of each “node”, the headings to which data is coded, were printed out and used when writing this thesis.

## Fieldwork

The Straight and Level Air School (S&L AS) was an ideal venue for me to study since it is very accessible from my home and claims to be the leading training Institution for professional pilots in South Africa. Through contacts with some of the senior people at the air school I was offered the opportunity to attend the ground school and perform the research that has resulted in the preparation of this thesis. Gaining access involved a written request addressed to the managing director of the school and the support of one of the senior flying instructors. The course was in three stages and at the conclusion of each, the Civil Aviation Authority (CAA) examinations were sat on site under the supervision of CAA officials. The procedures for the CAA examinations, were strict in contrast to the class tests which were generally conducted without invigilation. After the first part of the ground school, sufficient for the purposes of a Private Pilot's Licence (PPL), students are permitted to commence practical flying Instruction until they reach the standard required for the PPL. If they intend continuing to the standard of a commercial licence, however, as is the case for the majority of students, they will not do the flying tests which would enable them to be issued with a PPL. The second and third parts of the course relate specifically to the requirements of the commercial and airline transport pilots licences, which although slightly different, are conducted concurrently. On completing the commercial ground school, I travelled to Port Elizabeth to sit some of the CAA examinations and would have been content to continue with that rather time consuming process had not my supervisor reminded me that my mission at S&L AS was not to obtain a commercial pilots licence, but to prepare this thesis which deserved my full attention. It is perhaps a tribute to the school and the Instructors that I was so motivated on completion of the course, that along with my classmates, I was intent in applying all my efforts to passing the examinations. The process of acquiring the identity of a professional pilot was clearly beginning to produce results in me, as with the other students.

Dwyer and Buckle (2009), quoting Adler and Adler, identified three membership roles of qualitative researchers engaged in observational methods:

- (a) Peripheral member researchers, who do not participate in the core activities of group
- (b) Active member researchers, who become involved with the central activities of the group without fully committing themselves to the members' values and goals; and
- (c) Complete member researchers, who are already members of the group or who become fully affiliated during the course of the research (p.52).

I became an active member researcher, but was in danger of becoming a complete member had I continued with my intention to write and pass all the examinations for the commercial ground

school course. On becoming a member of the class, initially I was treated rather warily by my class mates having been introduced to them as someone who was studying them for another purpose (to obtain a Masters' degree in Anthropology). I could not expect to be fully accepted as a bona fide aviation student solely intent upon upgrading my private pilots' licence in those circumstances, but might have been viewed by some as having been planted in their midst to serve some purpose of management. I think that was the reason why, at first I received a negative response to requests for interview with the students. Subsequently I was able to interview a number of students and training staff, instructors who were former students of the school as well as some of the administrative staff. From a cultural perspective I was of the same white, Christian, English-speaking background and generation as the ground school instructors. The students, for their part, were of diverse backgrounds and ethnicity. My commonality with the students was that I was seated in their midst and participating in the education process (although representing a rather daunting generation gap). The students probably had as much difficulty coming to terms with my presence and role in the first instance, as I did myself. As Narayan (1993) commented "Even if one can blend into a particular social group without the quest of fieldwork, the very nature of researching what to others is taken-for-granted reality, creates an uneasy distance" (p.682). I did not see my role however, as exclusively to study the students, the instructors were another "other" of interest because of their role in the training process and in the construction of identity. I do not think that I had a clearly defined role as an "insider" or as an "outsider" at the air school. Merriam et al. (2001) notes that

Positionality is thus determined by where one stands in relation to the other. The loci along which we are aligned with or set apart from those we study are multiple and in flux. Factors such as education, gender, sexual orientation, class, race, or sheer duration of contacts may at different times outweigh the cultural identity we associate with insider or outsider status (p.411).

## **Ethics**

When considering my approach to this study and the methods of acquiring data I envisaged employing I was guided by the principles outlined in the document "Ethical guidelines and Principles of Conduct for Anthropologists" (Anthropology, Southern Africa, 2005). Those principles are as follows.

### **Protecting respondents and anticipating harm.**

Anthropologists should anticipate potential harm, act to protect respondents and to secure their dignity. If a conflict of interests arises, the rights of research participants are paramount. Research participants should not be exploited. Fair return should be made for their help and services

I considered the harm that might be caused if I quoted comments by students and staff members of the school that were critical of management or the operation of the school, or by one staff member of another, or by staff members of the students and for this reason all the names of research participants, staff and students have been changed to conceal their identity. Because of the role that staff members play in the organisation they could be identified by the topic of conversation despite a name change and I have considered that issue carefully when selecting the passages from the interviews that I have chosen to quote. The founders of the school, who are no longer involved financially or with the management of the school, gave me their permission to quote their opinions some of which are critical of the school under its present management. The names of the founders are well known in the aviation community and will be identified despite my having given them a pseudonym. The name of the air school has been changed, however it is so well known in the world of civil aviation, particularly in Southern Africa, that its identity and location cannot realistically be concealed. I informed my research participants that I would endeavour to conceal their true identity by allocating pseudonyms and accordingly quotations from transcripts are referenced by pseudonym of interviewee, date of interview and transcript page number or identified by the role they play in the organisation. I was given permission to make reference to an unpublished thesis written by a senior flying instructor at the S&L AS and he is identified by name in the text and the bibliography. The transcripts of interviews are not attached to this document to respect the confidentiality of the participants. These measures were implemented as a precaution to protect the interests of my interviewees even though I have no reason to suppose that they would be exposed to any potential harm should their true identity be known. No financial inducements were offered to my research participants

### **Informed consent**

It is our responsibility to inform respondents of the purpose of the study, and, where possible and feasible, to include their concerns in the study design and accommodate them in the research method and products

The purpose of my study was explained to each of my research participants prior to their being interviewed and their permission sought to quote from the transcripts of the interviews in my thesis.

At the commencement of my research management of the school instructed me that I should not disclose any of the training procedures employed in training students which they regard as exclusive to the school. To the best of my knowledge and belief I have observed that condition.

### **Vulnerable persons/groups**

Research may reveal people's vulnerabilities or render them vulnerable. We have the responsibility to ensure that people are not made more vulnerable by our research or its products.

In reporting the opinions expressed by interviewees, I have considered whether, because of the position they occupy in the organisation and the relationships they have with other members of staff those opinions if quoted, might have a negative effect on their future within the organisations or relationship with other members of staff. To the best of my knowledge nothing is quoted in this document that potentially is damaging to any of my research participants, whether students or members of staff.

### **Information dissemination, intellectual property and returns from research**

As far as possible, research results should be disseminated to participants. We are responsible to ensure that the findings are properly understood. Findings, publications and, where feasible, raw data, should be made available to participants in national and local languages, after due consideration of the potential harm of disclosure of raw or processed data

When I was given permission to undertake this research by S&LAS I undertook to provide management with a copy of my completed work. I did not make any other undertaking to provide copies of my completed research. Whilst my interviewees were informed that the purpose of my research was to obtain data to compile a thesis to satisfy the requirements at Rhodes University for the degree Master of Arts, I did not make any undertaking, nor was I asked to provide transcripts or soft copies of interviews. The data I have obtained, copies of which were provided to my supervisor, will be kept in safe custody. Copies of my completed thesis will be retained by Rhodes University and will be available for access by interested parties in accordance with the policy of the university.

### **Responsibility to research assistants and students**

I would like to acknowledge the assistance I received from Rita Malone in drafting and formatting research questionnaires and making available to me details of the student complement at the air school. Further information concerning student performance was made available to me by the director of training and a senior flying instructor.

### **Responsibility to colleagues and the discipline**

As anthropologists, we bear the responsibility for our discipline's good reputation and its continuity over time.

Once my thesis has been approved and accepted by the University, I will consider how else I might I might make my colleagues in the discipline aware of the research I have undertaken and my conclusions.

### **Responsibility to the public and wider society**

Anthropologists are committed to the establishment of a just and humane society based on the principles of anti-racism and anti-sexism. We have a responsibility to call attention to inequities, injustices, violence and intrusions of freedoms that we may encounter in the course of professional activities.

Issues of racism and sexism are relevant in the aviation profession and in the experiences of some of the instructors at S&L AS and will be reported on and discussed in this thesis.

### **Responsibilities to and relations with sponsors**

This study was approved by the management of S&L AS permitting the writer to undertake research at the school premises in consideration of which an undertaking was made to provide a copy of the completed research document. No clandestine research was conducted.

### **Responsibility to own and host governments**

There are no matters which require to be disclosed to the government of South Africa or any government agency in connection with this research.

## **Contents of the chapters**

### **Chapter One**

This chapter considers the achievements of some of the early pioneers of aviation and traces the historical background of a WW2 Air School created as a joint venture by the British and South

African Governments to train wartime observers. The role of the observers in wartime, in the days before the development of sophisticated electronic systems of identification of targets, threats and situational awareness, was to perform those tasks and liaise with other members of the crew whilst the pilot concentrated upon flying the aircraft. The chapter describes the role of the founders in the redevelopment of the site after years of neglect, as a modern air school dedicated to training professional pilots. The chapter describes the layout of S&L AS and the airfield and aspects of the life of student pilots accommodated on site. The impact of surveillance and the disciplinary code on student's lives is considered, together with the accommodation provided and food and entertainment facilities available on site. The chapter considers some issues relating to the transition from a proprietorial owned and managed establishment to corporate ownership, through the eyes of the former proprietors.

## **Chapter Two**

Chapter two defines the profession and its characteristics, and considers entry requirements relating to education, health and aptitude. Also described are sources of funding for training, barriers to entry, the civil aviation authority and licencing requirements, and the recruitment and induction of new students by S&L AS

## **Chapter Three**

The chapter describes the facilities, programme, and role of instructors, student's responses to training, challenge of the millennials, disciplinary issues and methods of Instruction in the ground school.

## **Chapter Four**

This chapter concerns the practical flying training programme, the method of instruction, the hierarchy of instructors, the impact of gender and ethnicity in student/instructor relations, disciplinary issues in flying training and safety requirements including substance and alcohol abuse. Also described are the ceremonial aspects of the rites of passage, the first solo and graduation and fulfilment of the dream.

## **Chapter five**

This concluding chapter seeks to define the Institutional characteristics of S&L AS and considers how those characteristics, the invented traditions of the structure and artefacts and wearing of uniform, the reputation of the school, the membership of a profession, the acquisition of knowledge, skills and experience in the training programmes, the impact of discipline and familiarity with the

language and terminology/vocabulary of aviation enhance self-esteem, efficacy and a sense of belonging and contributes to the occupational identity of a professional pilot.

## **Language**

Finally, there is the issue of language when discussing an air school that challenges the patriarchal tradition in aviation and has a good proportion of female students and instructors. To avoid the tradition of having male pronouns include the female, I have tended to cast references to individuals in the plural, as readers still accustom themselves to the notion, increasingly accepted, of having a singular subject take a plural pronoun. The exception is the direct quotes: rather than sprinkle them with repetitive '*sic*'s I have left them in the original, sexist as some might appear to be.

## Chapter One: The Origins and Revival of the Air School

### Flight: The Early Years

The first flight of a heavier than air, powered flying machine took place December 17, 1903, piloted by Orville Wright. It was a relatively short flight of twelve seconds covering some one hundred and twenty feet. From that modest beginning the age of powered flight developed into the vast industry which we have today encompassing military and civil aviation, transporting millions of people to their destinations on a global basis, and in the last sixty-odd years venturing beyond the atmosphere of this planet into space. Aviation would not have developed at such a pace without the courage and sense of adventure of the early pioneers amongst whom were many women pilots who demonstrated remarkable feats of navigation, without subsequently earning for their gender the prominence in aviation, both civil and military, which was their due. Amongst those early pioneers I would mention Amy Johnson (Grey, 1966) who made solo trips from London to Darwin and to Cape Town in 1932 and 1936 respectively. Amy became a ferry pilot in WW2 and in 1941 disappeared whilst overflying the Thames Estuary. Jean Batten (Batten, 1938) was one of the great pioneers of the 1930's; born in New Zealand, she learned to fly in London and in 1933 she flew solo from London to Darwin breaking the records of both Amy Johnson and Bert Hinkler. In 1935 she became the first woman to fly from England to Australia and return. Again in 1935 she flew from England to South America and the following year she flew from England to Auckland, New Zealand. Jean Batten disappeared from public life for many years and died in obscurity in 1982. The history of Bessie Coleman (Rich, 1993) is unique because she was the first African American woman to obtain a pilots' licence in 1921. Bessie was a stunt pilot and delighted to entertain crowds at air shows but was unfortunately killed in an accident in 1926. Beryl Markham (Markham and Gellhorn, 2015) was born in the United Kingdom but when very young moved with her father to Kenya where he became a farmer. Beryl learned to fly in Kenya and, once she had obtained her licence, she purchased her own aircraft. In 1936 Beryl made a flight across the Atlantic landing in Nova Scotia after flying for 21 hours in constant fog, rain and sleet. Beryl wrote her memoirs in "*West with the Night*" which Ernest Hemingway described as a "bloody good book". Beryl resumed her career as a racehorse trainer in Kenya and died in 1986. Amelia Earhart (Earhart, 2010), most famous perhaps because of the mystery surrounding her ultimate fate, learned to fly in the United States and in 1921 purchased her first aircraft. In 1928 she crossed the Atlantic from Newfoundland to the United Kingdom, but as a passenger. In 1932 she departed Newfoundland once more and landed in Northern Ireland becoming the first woman to fly across the Atlantic solo. Amelia made a solo flight from Honolulu to

Oakland in California becoming the first women to fly across both the Atlantic and Pacific oceans. In 1937 Amelia and a navigator attempted to circumnavigate the planet but they went missing in the region of Howland Island in the Pacific. There have been many theories concerning their fate, but no definite evidence has emerged.

Bert Hinkler (Kieza, 2012), the pilot whose record breaking flight in 1928 from England to Australia in just over fifteen days which both Amy Johnson and Jean Batten sought to better, was born in Bundaberg, Queensland in 1892. As a young man he designed and built gliders, having learned to fly in 1911. Hinkler served as a gunner in the First World War. In 1931 he flew from Canada to New York and then via the West Indies to Venezuela, Guiana, Brazil and across the South Atlantic to Great Britain. In 1933 He attempted another flight from Britain to Australia but crashed in the Apennines in Italy, surviving the crash, but dying before he was located.

Despite the heroic achievements in the period from 1920 to the beginning of the Second World War in 1939, women did not secure a permanent position of prominence in the world of aviation and during the war were denied combat duty and were relegated to support roles, which included delivery of aircraft over very long distances. Men assumed prominence in aviation because of the war and male pilots flying in combat roles became heroes. After the end of the war in 1945, military pilots, demobbed from active service, were recruited by the airlines and dominated civil aviation.

### **The Joint Air Training Scheme**

The history of the Straight and Level Air School (S&L AS) could be regarded as having taken place in two phases, the first during the time of the second world war when it was established as part of the Joint Air Training Scheme (Capt. Dave Becker, 1989) , a joint venture between the South African Air force and the Royal Air force to train Observers<sup>1</sup> and the second when it was re-established as a private venture, a civilian flying school, which opened its doors in 1989 under the direction of John Evans assisted by his wife Patricia. The connection between the two training establishments is tenuous because apart from the venue and connection with aviation training they are quite separate and distinct although some attempt has been made by the latter organisation to incorporate features of the former military establishment in an effort to reconstruct and represent a common heritage.

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<sup>1</sup> The role of the observer was to enhance situational awareness for the aircrew and to identify targets and threats.

Quoting Dave Becker (1989)

“The British council had approved a scheme to locate flying training schools overseas on 23 October 1938 but it was not until much later that the scheme was actually implemented. During September 1939 discussions were held in Canada in which South Africa was invited to participate. (p.10) ... In December 1939 General Smuts offered facilities in South Africa for the establishment of flying training schools for the training of both RAF and SAAF pilots and aircrew (p.11) ... Organising the scheme was a monumental task for South Africa. Airfields had to be selected, plans drawn and approved, contracts awarded for buildings, earthworks completed, camps and technical areas constructed, drainage water and lighting provided and hard standings for aircraft constructed. In some cases, it was possible to use existing airfields such as Port Elizabeth and Port Alfred but in other cases it was necessary to construct entirely new airfields (p.12) ... For the British government there was also much to do, and aircraft were the prime requirement. In order to maintain each type, it was necessary to provide a large inventory of spares and tools for both the airframes and engines. There were also a large number of other items to be supplied, an endless variety of items for the proper functioning of an air school. Eventually a total of 41 air schools were formed, although some had a very short existence (p.14) ... Becker reports that by 1943 Rhodes, Wits, Cape Town, Stellenbosch and Natal Universities all had training squadrons and ran technical courses on airframes, engines and armament with assistance from nearby air schools. By 1944 the joint air training scheme had begun to contract as the war situation improved (p.25) ... The wartime air school closed in 1946 and the site taken over by the air defence detachment, however the air force station was abandoned in March 1956 and handed over to the public works department in July 1957 (p.60)”.

## **The Founders and Founding of the Air School**

In the period between the closing of the military base in July 1957 and the opening of the new air school in 1989 the airfield was operated by a flying club about which little record remains and in that period the airfield was neglected, the wartime hangers and administrative buildings vandalised, and the site overgrown; however, sufficient remained to be salvaged and restored by John and Patricia Evans (the founders) after the site was purchased from the Public works Department. Patricia Evans explained that John had been operating a flying school in George which had offered residential flying training package courses to students who would bring their families to George for a holiday, which included 40 hours flying, accommodation, books and equipment whilst attempting to obtain their

private pilot's licence, but that had not been a commercial success because of the vagaries of the climate. John had also encountered difficulties with the availability of the airfield for night flying training and had been instructing on a part time basis over weekends at the flying club. One afternoon whilst they were travelling by road John had suggested that they visit the flying club airfield just to have a look. Patricia reports that "It was actually quite eerie, and I thought it was so sad, because there were all these buildings that had been absolutely, totally vandalised" (Patricia Evans, interviewed 28/4/2018, p.3). The photographs below, supplied by John Evans, gives some indication of the condition of the buildings when first encountered by the Evans. Patricia further reports

"Anyway, so we went there, and we had a look around and all that sort of thing. I think that was when John started thinking about it. We might have had our disagreements, but he was really a man of vision" (Patricia Evans, interviewed 28/4/2018, p.3)

Patricia reports that John's interest was further awakened by an advertisement he had seen in a flight magazine and he had approached the Public Works Department with a view to purchasing the land upon which the former wartime air school had been constructed. Apparently, the department had undertaken a survey that had concluded that the site was unsuitable for agriculture or any other purposes and they accordingly agreed to sell to the founders. After disposing of their Investment in George, the founders commenced restoration work on the buildings of the former school. Some buildings were entirely dismantled, and the materials salvaged therefrom were used to restore other buildings that would be required for the new school. The restoration work was accomplished with very little capital using local labour and work proceeded on restoring the front office; a building called "the barracks" was subsequently used as accommodation for the founders and for students. The following photographs illustrate the buildings before and after restoration. Patricia notes that "We converted the garage into a lecture hall as well and as more people came so we would add another block, it was very, very stimulating, a lot of very hard work" (Patricia Evans, interviewed 28/4/2018, p.4).

The following photos demonstrate the appearance of the site when John and Patricia first acquired the S&L AS site, which would have discouraged most, except true visionaries and entrepreneurs with a mission in mind:



Fig. 5, 6. The Old Control Tower before/after Reconstruction



Fig. 7, 8. Derelict Structures Salvaged for Building Materials

By renovating the infrastructure of the former military establishment, the founders created a symbolic link between the new school and its wartime antecedent and thus fostered the impression of a continuity of the military tradition. The military tradition was to become an important aspect of the training methods employed, and the culture of the new school.

Patricia Evans describes how they went ahead at full speed to renovate and redevelop all the old buildings they had inherited and to make the site ready for the first students who arrived on the first Sunday of February 1989. It was only at 16.00 hours that afternoon that electrical works on the site were completed and electrical power made available, the entire project of renovation having taken a mere six months to complete. Patricia was responsible for providing the administration services at the new school and continued to be involved in that role even after she and her husband sold S&L AS in 2002. There was a deliberate attempt made to incorporate some of the artefacts of the former military establishment in the new school, Patricia reports:

We found a brass sign, it was called “The Flight”. In front of the main office we turned something into a café which we called “The Flight” to accommodate that sign. The renovated student accommodation we called the barracks to suggest the concept of military discipline. If you turn off the main road and you go past the existing entrance and enter where we used to there were two stone pillars and a dilapidated brick building that was the former jail and there was a little grave with a round plaque named Fritz.

(Patricia Evans, interviewed 28/4/2018, p.7, 8)

Fritz was the name of the wartime guard dog who used to guard the airfield and his grave has now been relocated in front of “The Wright Place”, as the current clubhouse and entertainment centre is named. Patricia notes that the former wartime airbase included an Olympic-sized swimming pool and a theatre where Noel Coward once performed to entertain the airmen. Dave Becker in his book *Yellow Wings* notes that two large batches of Ansons were sold for scrap when air force station was abandoned in March 1956. (What a tragedy it is for military historians and those generally interested in the history of Aviation that the Ansons and so many of the other types of aircraft in use in the war were destroyed after the end of hostilities.)

Initially John Evans was the flying instructor, but he was soon joined by Ed Barnes who had been running his own flying school. Patricia noted that the school had benefited from the wartime tradition associated with the school and sometimes parents would send undisciplined children to the school in the hope that the school would enable them to make something of their lives and she commented: `

It is amazing in a situation like that, the youngsters are their own policemen, and if you got out of line the youngsters would say hey that is not on. It was not often we had to really lay down the law. They were on their own, they had their own accommodation, they were fed and watered and as the company evolved so we got, I won't say duty managers, but there were instructors, specific flying instructors on duty over the weekend, so there was always somebody they could get hold of. (Patricia Evans, interviewed 28/4/2018, p.12).

The students wore uniforms, initially orange ones, and the Instructors white shirts with navy blue ties and trousers. The shirts had epaulettes which Patricia made, and she also made the windsock, curtains, duvets and reupholstered aircraft seats. Patricia notes that they had a pub on base where staff, instructors and students would congregate after work and that it was “a great levelling place”. They preferred to keep the students on base rather than “have them run riot in town”. With regard to the military tradition Patricia stated:

I don't know whether we had the intention to become a military establishment, but I think there was a basic understanding because it had been a wartime, WW2 air base that was the way to go. You have to be disciplined in aviation, because if you are ill-disciplined and have a wrong attitude you are going to kill yourself. (Patricia Evans, interviewed 28/4/2018, p.15).

After a few years, having established what was to become a very successful air school and business, John Evans decided to go to Rhodes University to study for a BA. Patricia Evans commented:

When John said he was going to varsity I knew that was the end of my marriage, he was just, he always had to have challenges, and he got bored with me, with Peter and Stefan (Patricia Evans, interviewed 28/4/2018, p.17).

Of interest perhaps is this observation of the character of John the entrepreneur, that after setting up the S&L AS and handling all the challenges that went with its reconstruction and creating a successful business, he lost interest in it and moved on to other things. Shortly after my meeting with Patricia, I had the opportunity of interviewing John who related to me the circumstances which lead to his deciding to leave George where his flying school was established.

We rented this little piece of ground, built a club house upon it, an office and what-not in George, on the new airfield at George. It had a garden where we had bulldozed the ground flat, so we planted grass, and we planted a tree and when it got to a certain height, two people, tall guys, came around from the control tower with a chainsaw to cut it down. The guy in the control tower said he could not see a small part of the taxiway and the tree was obscuring his view, what happens if there's an accident there? I thought I really can't take this, so I started looking around. I am not one for being messed around I suppose, but there were other restrictions, you could only do night flying on a particular night when the Boeing was coming in, otherwise they would not bother to switch the lights on for us. I wanted elbow room and I remembered that I had instructed at a little club in the Eastern Cape. (John Evans, interviewed 1/5/2018, p.3).

The seemingly inconsequential issue of the tree thus initiated a move that would lead to the creation of the S&L AS. John Evans had learned to fly with the Royal Air Force at Cranwell in the United Kingdom but comments "I hated the Air Force, the Poms and their weather" (John Evans, interviewed 1/5/2018, p.4).

Yet John admits that he is a "Colonial Pom" having been brought up in Kenya and went to the UK to learn to fly as soon as he left school. There he says: "I saw the connection between flight safety and discipline" (John Evans, interviewed 1/5/2018, p.4). In South Africa he was part of the commando

squadron, based in George and was a military flying Instructor and being a member of that squadron reinforced his belief in the importance of discipline in aviation.

John realised that the holiday vacation type of training package that he had initiated in George was not really working and the business became more about training students to become commercial pilots for entry into the airlines. The parental view of the suitability of the environment for flying training that John was seeking to accommodate was that

Daddy is paying for the son to learn to fly, and daddy does not want the son to be in Johannesburg, or some drug-ridden, whore-ridden environment with all the distraction, and he rather likes the son to be in this pretty well-contained environment (John Evans, interviewed 1/5/2018, p.10).

John notes:

It was huge fun developing a place like that, I think building up any business. I thought it would be nice to name each room after an aircraft that had been based there at the time of the original air school, so we went to a bit of trouble to name them Beaufort, Spitfire-- Spitfires had been there --, Harvards (John Evans, interviewed 1/5/2018, p.5).

The idea of incorporating elements of the history of the WW2 air school and perpetuating that tradition in the new school – the ‘reinvention of tradition’, to modify the thesis of Eric Hobsbawm and Terrence Ranger (Hobsbawm and Ranger, 2010b) -- was clearly in the minds of the founders at an early stage in the development of the new S&L AS.

## **Layout of the Airfield**

There are common features of developed airfields worldwide which pilots will recognise as representing their environment, a familiar place at which they feel at home. Primarily those features are the runways from which aircraft take off and land; the control tower from where instructions to arriving and departing aircraft are issued; the taxiways connecting the apron with the runway; the apron where aircraft park, take on and discharge passengers; The windsock usually at the threshold of the runway to indicate wind speed and direction; hangars, terminal building and buildings for administration, maintenance, and tenders for refuelling and dealing with emergencies. From the air the most noticeable feature of an airfield is the runway because of its symmetry and length which usually contrasts with the surrounding terrain and developments. Once identified the pilot is able to plan his landing procedure. The more complex International airports of course have additional

features, hotels, multi-story car parking facilities and multiple runways to cater for the large numbers of passengers using the facilities and the frequency and number of flights and sophisticated navigation aids to assist the pilot in locating the airfield and in taking off and landing in inclement conditions. The field where the students are trained has many of these features, except those associated with an international field, and during training serves to initiate *ab initio* pilots into the physical environment within which they will train and to introduce them to the *habitus* and *field* (Grenfell, 2008) of their profession. The following aerial photographs serve to show the airfield at the time of the wartime air school and as it is at present and it will be noted that the configuration of the taxiways and apron is unchanged. Some of the buildings remain, having been refurbished by John Evans during the construction of the present school, but many of the original hangers, the theatre and swimming pool were demolished.



Fig. 9, the Airfield and Site of the S&L AS from the Air in 2018



Fig.10, the Airfield and Site of the Military Base in 1942, during WW2

As noted by Patricia Evans, from her memory of encountering the remains of the Old Air School and prior to commencing upon the demolition and renovation of the old buildings:

Then as you came to that bend, just after you have gone through the gates, you could turn down the left and go all the way down and then around the back and down the bottom was this immense building and that used to be the theatre; they had a fully-fledged theatre, Noel Coward came out here once and put on a performance, they used to do theatrical things and there were a whole lot of like prefabs made out of these, like asbestos panels, those apparently were the accommodation for ratings and then you went right down to the end and they had a full-sized Olympic swimming pool. And when we went there it was just full of rubble and trash and everything. There was no water in it at all. The infirmary was down there as well, it was quite a big infirmary. (Patricia Evans, interviewed 28/4/2018, p.8)

At the rear of the site (the bottom of the picture), now overgrown with bush and trees, are numerous small buildings which may have been the ratings prefab, accommodation to which Patricia Evans refers and the large rectangular building, the theatre. There is no visible evidence of the Olympic sized swimming pool however. Also perhaps of significance is the absence, unlike in the

modern picture, of any aircraft parked on the taxiways or airfield or runway and taxiway markings on the field itself.

### **Forms of 'place'**

A sense of place is variously defined in different disciplines; however, I consider the following definitions, Cross (2001) in *what is a sense of place?* To be particularly appropriate to the aviation student studying at S&L AS

*Sense of Place:* the particular experience of a person in a particular setting (feeling stimulated, excited, joyous, expansive, and so forth.

*Spirit of Place:* the combination of characteristics that gives some locations a special 'feel' or personality (such as a spirit of mystery or of identity with a person or group).

*Setting:* a person's immediate surroundings, including both physical and social elements.  
(p.1)

The "Sense of Place" includes the personal experience of being initiated into the profession; becoming part of a group from diverse cultures brought together with a common purpose and experiencing the comradeship of the community; the pressures of training, passing examinations and tests; the emotional challenges in learning to fly and confront dangerous situations; the joy in the sense of achievement and frustration sometimes when expectations are not immediately realised. For some perhaps, and hopefully few, the sense of place includes ambiguous feelings of displacement and being in a foreign place but persevering to gain a desired objective or perhaps leaving for more familiar territory.

The "spirit of the Place" encompasses the history of aviation, the exploits of the pioneers, the experiences of other pilots in threatening and dangerous situations; the military culture represented by uniforms and disciplinary requirements; the anecdotes and personal experiences of the ground school instructors and the memorabilia of the wartime era of the flying school.

The "setting" of the S&L AS, with its grass runway and taxiways, renovated thatch-roofed brick buildings, tall trees and a park like setting borders on the idyllic. The 1960's-constructed fleet of training aircraft, continuing in use despite being obsolete technology, enhance the "retro" feel of the place – retained one suspects, partly for nostalgic reasons by the management. Whatever the reasons for the choice, this fleet contrasts with those of many flying training establishments which have updated their training fleet. Barracks-style accommodation, and traditional classroom- style training rooms and wooden desks reinforce the association with the military. The secluded setting,

although within a short distance from town, enables the management to achieve *enclosure*, Hopper and Macintosh (1998), to confine the students within the bounds of the establishment to a very large extent and dictate the conduct of their lives during training.

Some anthropologists have a differing view of place; Sally Ward (2003) notes that the intimate, powerful and complex relationship between place and identity has become a major theme in recent anthropological literature,

Far from being the mere backdrop to our existence, place has the power to direct and stabilise us, to memorialise and identify us, to tell us who and what we are in terms of where we are (p.83).

This is an important consideration for the topic of this thesis, the construction of the identity of a professional pilot that takes place at S&L AS, for many, the last stable place of his or her career. A key characteristic of the routine existence of pilots is their extreme mobility. The place where they conduct their business as pilots, the aircraft cockpit, is not confined to any specific geographical location. It is a place that they share with the other members of the crew, who may change for each flight, as they proceed around the world. Place for pilots, in addition to their mobile place of work, the cockpit, is the airfield and its environs at the point of departure or arrival. When not in the air they live from hotel room to hotel room with fellow members of the crew for company. Place, for pilots, is constantly changing and reflects a nomadic lifestyle in the globalised world where their services are performed. The enduring elements of their existence are continuous change of location and the stability and responsibilities of the pilot's role.

## **The Present School**

### **Accommodation on Campus**

Students are accommodated on site at the Campus of the air school in purpose-built residential units, which offer single accommodation in a separate room for each student but communal ablution facilities. The accommodation is inclusive of laundry and cleaning, lighting and heating and the monthly charge, in the region of R10,000 (2018), includes food on site from a standard menu, within which there are some options to cater for individual preferences. Most students will opt for accommodation on site and it is the option preferred in normal circumstances by the school. When demand exceeds supply for accommodation on site, the overflow of students will be placed in accommodation in town. Some students prefer, however, to be accommodated off site. As

mentioned, the accommodation units on site were mostly an inheritance from the earlier wartime military occupation of the site. The photographs below illustrate the accommodation unit known in wartime and currently as the Barracks before and after renovation.



Fig 11, 12. The Barracks before/after Reconstruction

At the far end of the accommodation units is the canteen where students take their meals. The school buildings were thatched after renovation for aesthetic reasons, although bearing in mind the renovation were carried out on the basis of minimum cost, thatching might have been the least expensive option at the time. The rules regarding conduct on site are fairly strict and students are expected to be in their own rooms and without creating any disturbance affecting other residents, after nine at night. Rita Malone explained:

We have a security guard who specifically patrols the premises at night, he does pick up if there is excessive noise and he will either phone me or the college registrar and we will go out and see what is going on with the students. I have come here at 3 o'clock in the morning to sort out a drunk student who broke windows and pushed doors out of their tracks, so we cannot depend upon the students to police themselves. That does not work. So, what we have done, we have an SMS system that goes out to all the students. We try and keep reminding them that if you do this, we are going to do this and this. And when it does not work, we simply start acting. I have just put out an SMS to say that if you are going to make noise after 9 o'clock, we are going to confiscate whatever sound equipment you are using. A student in Barratt has speakers this high (indicating waste high), so you can imagine the level of noise that is coming out of that, and the thing is, other students want to live. They simply just ignore us and now we are confiscating stuff. Obviously sleeping in your own room we try ... parents give us the children, students, and expect us to keep them safe, and we try our best, the only thing you can do is if you hear a girl's voice in a boys' residence then you will

know there is a girl there who should not be there, or vice versa (Rita Malone, interviewed 24/7/2017, p.2, 3).

Rita related the following

We had a little girl who was from a good home who was just not cutting it because she was drinking and smoking and sleeping around every boys' house. Of course, we phoned the parents and said please come and fetch your child. It was a huge problem for us because the father did not believe his daughter drank and the things that she was doing. But we said simply pack up and off you go. We have a warden who is the college registrar, who oversees all the residences – all 22, they fall under her – but each house has a house captain who is the person responsible for liaising between the school and the students, but they are not going to police themselves". (Rita Malone, interviewed 24/7/2017, p. 14)

The idea of self-policing students stated by Patricia Evans during her interview (see p. 35) seems only partially effective and is not necessarily supported by experience. Circumstances have obviously changed from the era of the founders to the present day and today's students appear to require considerably more in the nature of monitoring and disciplinary procedures to ensure that order is maintained in the residences. There is extensive surveillance in place at the S&L AS, and as Rita Malone reported,

We have cameras at the main gate, as a security, to see who comes in and goes at the main gate, we have cameras in The Wright place, the gym, of the side fence down, where we have had intruders, so we have cameras going down that way we have got cameras in the simulator room, we've got cameras at the fuel Bay, in the kitchen. (Rita Malone, interviewed 24/7/2017. p.5)

The concept of the Panopticon, conceived by Jeremy Bentham, has its counterpart in modern times by the CCTV camera ever watching the conduct of people within its field of view, but the observed have no idea at any moment of time whether they are actually being observed. Foucault observed (McKinlay and Starkey, 1998):

A real subjection is born from a fictitious relation. So, it is not necessary to use force to constrain the convict to good behaviour, the madman to calm, the patient to the observation of the regulations. Bentham was surprised that panoptic institutions could be light.....no more bars, no more chains, no more heavy locks.....He who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power; he makes them play spontaneously upon himself; he inscribes in himself the power relation in

which he simultaneously plays both roles, he becomes the principle of his own subjection”  
(p.2}

As discussed in the introduction, Foucault also observed that “Prisons resemble factories, schools, barracks, hospitals, which all resemble prisons” (p.2). The common features of those institutions, about which Irving Goffman and others have written in the context of total Institutions which will be further discussed in the following chapter.

### **Accommodation off Campus**

Students can be accommodated off base either of their own choice or simply because the air school has insufficient space to accommodate them. I understand that S&L AS has plans to build accommodation for a further one hundred and twenty students to be able to cope with the increasing demand for training at the school. During the commercial ground school course several of the students, in fact two groups of students, had arranged accommodation for themselves off base. They had rented a luxury Villa and split the monthly rental amongst themselves. They had their own transport and generally were the first to arrive in the morning for lectures. Sharing accommodation costs in this way will have resulted in a considerable saving of accommodation costs as well as conferring a greater degree of personal freedom than that enjoyed by their class-mates accommodated on base. A disadvantage of accommodation off base was pointed out to me by one of the students

Some of the students live in the Town. I had that experience for a week. I had just finished the PPL ground school, I went off with them, I actually had my own room, I had that experience and it is very relaxing, while at school you get all the tension everywhere, it's much more. And, of course, food is at your own discretion – people here complain about the food a lot. I find that it's all right, but the menu repeats itself over and over and over again. The problem with living off base was the time available to concentrate on study, over here you find that, all right, I'm writing general radio next week, you always find three or four people writing it as well and you see them studying, it will motivate you also make you feel why are you not studying” (Zach Moody, interviewed 6/7/2017, p.3).

Zach is a particularly committed student, having studied Aviation at University in Nairobi and he is of the view that students living off base, whilst there are some advantages perhaps in terms of cost, choice of food and personal freedom, miss out in terms of the time available for studying and the motivating influence of other students committed to studying.

Many of the Instructors live off base and Chloe Mvula stated:

This town is actually cheaper than anywhere else, we are better off here than for example working in Johannesburg and that would be too expensive for what they pay us. We get a basic and hourly rate, I mean the hours are great, but for a senior instructor you get the same amount". (Chloe Mvula, interviewed 20/7/2017, p.8)

Accommodation off base thus appears to offer good value for those so inclined with the disadvantage perhaps, in the case of the students, of being separated from the institutional learning environment outside of classroom hours.

### **Recreational facilities**

Recreational facilities at the school are limited to those available at The Wright Place and online. The school internet service is only available for study purposes and does not give access to sites offering entertainment. If students wish to use the internet for that purpose they may do so as subscribers to the service. The Wright Place, constructed in 2010, comprises a bar, a restaurant, a shop selling pilot accessories, a gymnasium and rooms where for example a movie could be shown. The restaurant is "a la carte" and open to staff, students and members of the public. The bar and restaurant area are furnished in a manner reminiscent of the Second World War. The tables are panels from aluminium aircraft wings, or seemingly so, and the supports are blades of metal propellers. From the ceiling are suspended thousands of neckties to commemorate the endeavours and achievement of past students in "going solo" (a ritual detailed below). The décor and items on display in The Wright Place serve to create a connection between the S&L AS and its wartime antecedent and serve to remind the students who enter The Wright Place that the air school is part of the heritage of aviation, a heritage with which they become invested on graduating from the school. The Pilot Shop sells the attire which students will wear whilst they are attending the school which also serves to clothe and identify them as a part of the aviation fraternity.



Fig. 12. Entrance Sign to The Wright Place adorned with a Radial Aircraft Engine



Fig.13. Interior of the Wright Place decorated with a WW2 Gun Turret and Propeller



Fig. 14. Interior of the Wright Place showing a Simulated Aircraft Fuselage and Vintage Ejector Seat



Fig. 15. Interior view with Tables Constructed from Aircraft Panels Supported by Alloy Propeller Blades



Fig. 16. Interior view showing some of the Ties cut from Students' Necks during "First Solo" Celebrations.



Fig. 17. Last Resting Place of Fritz, the Wartime Guard Dog, Suitably Commemorated in Granite.

The historical reconstruction represented by The Wright Place might be considered a bit tongue-in-cheek and to have been conceived with marketing objectives in mind; however, it performs an important role in creating the impression in the minds of students, potential sponsors and others of the S&L AS being steeped in the history of aviation and its culture. The Gym seems very popular with students and is equipped with a variety of exercise machines. As noted elsewhere the bar closes at 9pm which no doubt restricts its use for social purposes.

## **Food**

Food at a site, with a very diverse community and with representatives from European, African, Asian, the Americas, Indian Ocean Islands and other countries will inevitably be a compromise and some are more likely to be pleased than others. An American student of Egyptian origin, Mike, I noted would avoid the school food and head into town for a fast food outlet. Rita Malone, informed me

Initially we had three or four halal students and we made no special arrangements for them and then as the numbers started increasing, we looked at a halal kitchen, but there were not enough students at the time, so we would buy halal food from a Muslim woman in town at huge expense. We obviously passed the cost onto the student, but the food was not really very nice and when we reached fifty halal students we said we would make our own kitchen, and it is worth it now. We have probably reached sixty or seventy halal students now, but it is not just for Muslim students, anyone can eat the halal food (Rita Malone, interviewed 24/7/2017, p.15).

The Vietnamese students appear to be a particular problem according to Ysanne Sadler,

They want more soup and they want noodles and they want more fresh fish. You see, they eat vegetables and fresh fruit, they want more fresh stuff, they feel that we eat a lot of meat and a lot of potatoes and starch, it's not their diet and they say you cannot lose weight here, you put on weight. You see, they want their noodles and their fish and fresh vegetables (Ysanne Sadler, interviewed 28/2/2018, p.7).

The school has only limited facilities for accommodating the culinary preferences of the diverse cultures who come to its doors to learn to fly, and even for those who travel to town to seek variety, the town is too small to offer much range or accommodate many preferences.

## The Disciplinary Code

In the days of the founders the disciplinary process seems to have been discretionary and had not been reduced to the formal process that is now in operation at the school. When occasion demanded I have no doubt John Evans would not have hesitated to send a student home but otherwise, disciplinary sanctions were minor. From my discussion with John Evans I recorded the following:

M: Did you have a disciplinary process, a sort of formal disciplinary process then where you had reviews, and then you would be hauled up in front of the Chief Flying Instructor (CFI), and if it's really serious in some circumstances, you would have an attorney present?

J: Oh shit! no, I would never let it get to that stage; in fact, it is necessary to a certain extent, but I will do it more on feel, if the guys giving shit you say, come up to my office and bring your car keys.

M: So, you would deal with it personally

J: Normally, yes, and of course the best part is when you kick someone out, everyone else leaps to attention. It brings the whole base back on track. And even disciplining them by making them run around the windsock, you had to run from the ops and around the windsock. I don't know if they do that now, but it's very good, because everybody else sees it, it's public. (John Evans, interviewed 1/5/2017, p.11)

A similar principle was adopted in Medieval times in Europe, and is still practised in Saudi Arabia, where criminals were "tarred and feathered" or confined in the "stocks" or subject to crueller forms of punishment in public as described by Foucault (1977). In current times at the S&L AS there is a published "Student Disciplinary Code" a copy of which is issued to all students on enrolment at the air school. Level 1 offences per the disciplinary code are grounds, on conviction, for the immediate termination of training at the S&L AS and include the following:

1. Uses, possesses or is under the influence of Narcotics
2. Unlawful operation of aircraft
3. Theft or non-accidental destruction of school property
4. Physical or Sexual Assault of Students, or S&L AS staff or any person authorised to be on the grounds of the air school
5. Any Common Law or statutory crime of sexual impropriety
6. A contravention of the provisions of the firearms control Act 60 of 2000

7. Any contravention of the dangerous weapons Act 1968
8. Offences under the explosives Act 1956
9. Any common law offence in terms of the common law amendment Act 1988
10. Any common law offence in connection with a person's race, gender or sexual orientation or hate speech
11. Conduct likely to bring the air School into disrepute
12. Racial, sexual religious or any other form of harassment
13. Aiding or abetting another student to commit any of the above offences
14. Dishonesty during any examination
15. Any Act of bribery
16. Violent or disorderly behaviour
17. A person who is grossly insubordinate to any member of the S&L AS staff
18. Interfering with S&L AS emergency equipment
19. Smoking in the Accommodation
20. Smoking in areas that pose a fire risk

The offences are categorised as Level 1, 2 or 3 and I discussed these levels and the offences with Rita Malone who is primarily responsible for the implementation of the disciplinary process. This is an edited account of our discussion:

R: If it is a simple thing, a first offence would be a level 1, the second time does the same thing take it to the next step, so it is progressive sanctions. The first time would be a warning, smoking, being caught for the second time in your room would be a fine, and the third time it is an issue upon which we could terminate your training. We do have a hearing, at which the student has the opportunity presented his side of the story, but the outcome is normally fairly cut and dried (Rita Malone, interviewed 24/7/2017, p.5).

M: Tell me about the process of the hearings. How do you come to be referred to the board for a hearing? Do you, after a complaint has been levied, have the option applying to the board for a hearing?

R: I manage all the discipline for students and staff so what normally happens, and it's pretty much the same process for staff, I will issue a notice of disciplinary hearing, which gives your name, date, the charges specifically and exactly what it was. So, if you were tested for drugs and tested positive, I will attach a copy of the path lab report to show that you tested positive, and we will set a time and dates and the place where we will meet and then I will

set up the disciplinary hearing, chaired -- normally we only use a chairman, unless it's really serious.

M: Are students offered the opportunity of having the assistance of a suitably trained member of staff, to understand how to plead to the charges and present evidence to the board, bearing in mind legal systems differ around the world, some of them may not even understand the disciplinary code of the school?

R: I normally play a dual role in matters of discipline, because I am both the student and the air school. So, I explain the whole process; I explain what happens, and I explain what the options are and how to deal with it; so they are fairly well briefed and also at any time they can come and ask me questions during the period leading up to the hearing. Normally, if I know there is going to be an issue, I encourage students rather get a legal person to represent them and it does happen. Students bring in their lawyers and that's fine, we don't have an issue with that.

M: Is there is any room for negotiation at any point time, whether a fine could be substituted for dismissal or whether if I were a parent I could say, well on my recognizance he returns, and if you have any further trouble with him then kick him out – that's fine but please give him a second chance, I will pay for any damages?

R: it does happen that way: what happens is the student has the right to appeal, in writing; it goes up to the CEO (chief executive officer) and he will then ask what evidence was used, what the case is; then he normally will talk to the student, he will review all of our evidence, and what happened, and he will call up the student and call up all the witnesses before he makes a decision.

M: Do you offer counselling at all, for people? Maybe he has alcohol problem, or an anger problem or something of that sort; a sort of personality issue, where disciplinary procedures are obviously appropriate, but it could be addressed through some type of counselling approach?

R: We do; we don't offer it ourselves but we make sure that you go to Alcoholics Anonymous or to Beryl Forester to whom I have referred students for anger management and things like that and she must give us a report to say that you are ready to come back to work. (Rita Malone, interviewed 24/7/2017. p 11-13)

The foregoing narrative emphasises some of the difficulties encountered by the school in dealing with students who have infringed the disciplinary code and in trying to be fair to all concerned,

bearing in mind that dismissal from the school will to all intents and purposes signal the end of a student's career in aviation. Some of the offences, in addition to breaking the rules of the S&L AS, may be potential criminal offences in which the state will become involved and others where a compassionate approach may be more appropriate than a disciplinary one. The S&L AS has a complex task administering a disciplinary code of this nature in view of the circumstances and situations likely to be encountered at the air school. The imposition of discipline plays an important part not only in the training process and the construction of the identity of the professional pilot, but also in satisfying the expectations of the sponsors of the students for, as John Evans the founder of the S&L AS observed:

You know daddy is the customer, and he wants his kid to go to a secure environment, get good training and come out as a well-disciplined, respected pilot from a good flying school, and not go around whoring, and drugging and what not. He wants his kids to be disciplined (John Evans, interviewed 1/5/2018, p.10).

### **From Charisma to Routine**

The Aviation industry is expanding rapidly with the growth in the world economy and particularly now in China and Asia. As the world fleet of airliners increases so does the demand for airline pilots. The traditional source of airline pilots was the military and in South Africa military pilots had, after service with SAAF, the option to leave and join an airline as a commercial pilot. This was the preferred route of recruitment for the airlines. Consequently, drawing pilots from the air force, as it would have been prior to 1994, it was inevitable that the pilots would be male and white. Since 1994 many things have changed in South Africa and despite substantial expense being incurred in purchasing military aircraft overall expenditure on the military has reduced with the consequence that the number of pilots available from the military to enter commercial service is significantly reduced. The airlines then had to turn their attention to commercial training establishments for their supply of future pilots. The S&L AS was thus very well placed to take advantage of the requirement for pilots with a "military" background and whilst the air school is not a military establishment, the culture of the school, the ex-SAAF Instructors and the emphasis upon discipline, would seem to represent the "next best thing". As noted by John Evans

The airlines were attracted to us, because most of the airline pilots in those days were SAAF trained in any case, the airline was very much in favour of military trained pilots and then

the military was falling apart so there were no more of these guys, so they saw us and they thought this is the next best thing (John Evans, interviewed 1/5/2018, p.12).

A characteristic perhaps of the successful entrepreneur, is to envisage the demand for a service and then conceive of a way of addressing that demand. John Evans' assessment of the demand by the airline for military-style trained pilots, his identification of an ideal site to base this operation and his past experience of aviation training and contacts with former colleagues in the military and capacity for hard work made the venture a viable initiative and ultimately assured its success. A typically charismatic personality, though, he was bored when the excitement of creation turned into routine, and the running of the school was delegated to his equally hard-working wife, Patricia.

The final phase in the development of the air school was the sale by the founders to an established transportation business. Corporate Entrepreneurship, as discussed by Thornton (1999), includes entrepreneurial activities taking place within an organisation, using the existing resources and facilities of the organisation or alternatively through acquisition. The S&L AS is now owned by a South African aviation business which in turn is a member of an international Investment corporation with diverse interests. The family-owned business reflecting the management style of the founders has now become a corporate entity driven by corporate goals and the management strategies of an international investment corporation that places profit above personality.

## **Corporate Management**

John Evans made a number of points concerning the present and prior corporate management of the S&L AS, which I present below. The first concerned the attitude of the management at the time of the change of ownership to the existing staff of the air school

The staff were all living in fear of their jobs, which is a terrible situation. The new regime took over. They looked at each staff member as a financial unit, how much is he [or she] going to cost us and does he [or she] deserve a pension, and they would get rid of the guys that they thought were going to be a financial burden to them. And they got rid of some very, very good people, I disapproved very strongly of what they were doing (John Evans, interviewed 1/5/2018, p.15).

A typical consequence of a change from proprietorial to corporate ownership and unfortunate for the affected parties, this was not the only change that Evans observed:

I guess I would still recommend people to send their kids there because of the discipline, but I don't think it's any fun there now. And look, there were far fewer people, and we had initially only three or four instructors, and a dozen pupils, and we would all gather in the pub afterwards and tell bullshit stories, and that atmosphere has certainly gone. I would come back every couple of years and a lot of the instructors were scared of losing their jobs, which is not the way to keep staff; it is short-sighted because word gets around, and nobody wants to go and work there. And they would do stupid things, they suddenly started charging visiting aircraft R150 or R200 Landing Fees. I didn't charge any landing fees -- anyway they started doing this ... We used to get a lot of visitors flying in from PE, and East London, and Queenstown, weekend people coming in. Now they have discouraged these people by putting up landing fees and the guys don't come any more (John Evans, interviewed 1/5/2018, p.16).

My own experience of the S&L AS has been quite different to that described by John Evans. I was made most welcome by the air school from the outset (in 2007). I used to bring my aircraft down from Swaziland for its annual service and check. And when I transferred the aircraft permanently to South Africa in 2009, S&L AS assisted with its re-registration and return to the South African register. I have never paid landing fees and of course the S&L AS provided free ground school tuition as well as access to students and staff to enable me to conduct my research.

An air school operates within tight economic constraints. Johan Bleeker, the author of a thesis on the topic of *Aptitude based ab-initio flying training* (Johan Bleeker, 2017), whom I interviewed concerning student training at the S&L AS and the current approach adopted by the school, has noted the cyclic operation of the air school, which entails taking a new intake of students approximately every four weeks and putting them through the ground school as quickly as possible so that they are able to commence flying training, which is where the school makes its money, selling flight hours of instruction. Hence it is not in the school's interests to have students lingering over the ground school, only paying accommodation charges whilst they struggle to get through the theory exams and prolong the ground school training process. Pushing them along through the process is in the best interests of the company, that is, 'the bottom line', but not necessarily in the best interests of all the students. Many of them, from the feedback I received, would prefer more time to get to grips with the ground school. The students are expected to conform to a demanding schedule which has been structured primarily to serve the needs of the air school. Bleeker commented:

We really need to be student centred, we have to allow our students to progress at their own pace, give them different types of tools to do that, maybe the lectures are not adequate, maybe they want to do more self-study, maybe they want to fly less, and study a bit more in between, maybe they need more time to relax, and take their time through this training process. We do need to be student centred ... but is it viable for companies to operate like that? Seemingly not.

(Johan Bleeker, interviewed 28/7/2017, p. 14)

Many students would agree with Johan, certainly some of the ground school students, with whom I discussed the relentless pace of ground school training and the difficulties some (including myself) were encountering in absorbing so much information in so short a space of time. In my case no doubt age played a part; however other, much younger students, were also encountering difficulties.

With regard to future developments at the S&L AS, I was informed by the managing director that plans are in place to increase the fleet of training aircraft, perhaps with more modern and up to date types, and build new aircraft hangers. As Dave Leahy noted: "What is happening in the profession is that there is a shortage, they need 70 pilots to be trained every day, but we are training 50" (Dave Leahy, interviewed 18/10/2017, p. 3)

All the time that this situation pertains, the air school seems assured of a steadily increasing intake of students. South Africa as noted by a director of the S&L AS, is one of the most attractive venues for aviation training in the world at present, not least because of the favourable exchange rate of the Rand to other currencies which makes it very competitive.

## Chapter Two: The Profession

### Introduction

What constitutes a profession and is the occupation of a pilot truly a profession? In the General Introduction I discussed pertinent theories, which suggested that the occupation is at least a *habitus* with high standards and considerable barriers to entry, and I have regarded pilots as professionals hitherto on that basis. This chapter explores the occupation and its characteristics and requirements more descriptively and in more detail.

### Commercial Piloting as a Profession

Alan Tapper and Stephen Millett (2015) consider a number of definitions of a profession and seek to identify the “frequently occurring elements which are common to the majority of definitions of a profession” (p.11), those elements are as follows:

- Possessing an ideal of service and responsibility to the public good;
- Based upon a body of specialised knowledge
- Operates as a community and is self-regulating
- Requires intensive training and formal qualification
- The knowledge is applied knowledge
- Requires a code of ethics or a shared ethic.

Applying these to the occupation of the commercial pilot:

**Ideal of service and responsibility to the public:** Commercial pilots fly aircraft to transport passengers or goods. Safety is the primary concern of the pilots on behalf of themselves, their valuable aircraft, their passengers, freight and the more general public should the aircraft crash into populated areas. The pilots’ employers and the general public place confidence in their skills and integrity in the discharge of his responsibilities. The duties of pilots are dictated by an ideal of service and responsibility to the public which is reinforced through their training and compliance with the regulations of the industry which determine their fitness to fly.

**Specialised knowledge:** The specialised knowledge of pilots is acquired through training, which includes studies of meteorology, navigation, flight planning, radio aids and communication, instruments and electronics, air law, human performance and limitations, aircraft technical and general. The knowledge is thus both specialised and broad-based and further includes a detailed operating knowledge of specific aircraft types and, for the airline transport pilot, the advanced

management and flight control systems in today's airliners, and the operating procedures of specific airlines.

**Operates as a self-regulating community:** Pilots are trained in flying schools run and staffed primarily by pilots. Whether trained in a school established for that purpose or a flying club, a strong sense of community is instilled in novice pilots. That sense of community will remain with them throughout their careers. There are a number of unions/associations representing pilots: The Airline Pilots Association (ALPA), The Coalition of Airline Pilots Association (CAPA), OBAP, The Organisation of Black Aerospace Professionals (OBAP) and The International Organisation of Women Pilots (The Ninety-Nines). The function of these associations is to promote the interests of their members. The responsibilities of pilots are too important to be left entirely to self-regulation; the industry is controlled by the civil aviation authorities established in the country responsible for issuing the licences of individual pilots. Pilots are only permitted to fly aircraft registered under the authority that issued their licences. The duties of civil aviation authorities in individual countries are controlled by legislation in that particular country. In South Africa for instance the duties and responsibilities of a pilot are set out in The Civil Aviation Act no 13 of 2009 and administered by the South African civil Aviation Authority, a government body. Internationally the profession is coordinated by the International Civil Aviation Authority (ICAO) which makes recommendations to member states. Responsibility for ensuring that pilots are fit for duty, their licences and ratings are current and valid are vested in the pilots themselves

**Intensive training and formal qualification:** The reader will already have a sense of how seriously training is taken in the Straight and Level Air School (S&L AS), and this chapter goes into further detail on this aspect. Practical training is intensive and initially may take place over a period of eighteen months or longer but will continue throughout a pilot's career as he is obliged to keep pace with changes in technology and procedures.

**Applied knowledge:** The knowledge is applied knowledge, that is to say a knowledge of meteorology, electronics, principles of flight, propagation of radio waves, atmospherics, internal combustion engines, the principles of the construction of maps, air pressure, density and humidity, weather patterns as applied to aircraft and the safety of flight is required of the pilots to enable them to discharge their duty to passengers and crew whilst conducting flying operations.

**Code of ethics or shared ethic:** There is no specific code of professional ethics issued to pilots. The duties of a pilot are set out in the respective Civil Aviation Act of licencing States. Employer Airlines will set standards of conduct required of employee pilots. The standards of conduct required of the

profession as a whole is to match the expectations of the public by providing a safe and reliable form of transport and are necessarily extremely high.

The conformity of particularly commercial piloting to the most frequently recurring characteristics of a profession are thus high, reinforcing the general impression of this as a profession with high standards. In common with all other professions, the role of the professional pilot also has its own characteristics which tend to reinforce its ideals.

The profession is hierarchical, particularly so far as airline pilots are concerned. The two pilots sitting in the cockpit of an airliner are on the left the captain and, occupying the right-hand seat, the first officer. The captain is in charge and ultimately responsible for the safety of the aircraft, passengers and crew. The captain is ideally an experienced pilot with many years of airline service, whereas the first officer may have relatively little experience since obtaining his licence and is in some respects an apprentice. There has been a trend in recent times, because of a worldwide shortage of pilots to lower the experience requirement, previously 1 500 hours of flying for pilots wishing to become first officers but, as noted by John Evans, "There is a big push back against that from people in the left hand seat, and the greybeards are not at all happy with it" (John Evans, interviewed 1/5/2018, p.11).

So far as flying instructors are concerned there is also a hierarchy based upon experience and instructors are graded and awarded different responsibilities according to their grade. The different categories of pilots licence also creates a hierarchy in the profession. The amateur or private pilots are not entitled to charge for their services. The holders of a commercial licence, obtained through additional training and experience, may charge for their services, and the highest grade of pilots, the airline transport pilots, may become captain of airliners. First officers may be licenced as commercial pilots but will be on the way to obtaining the necessary experience to validate their airline transport pilots licence. Within a training organisation pilots may have additional responsibilities based upon seniority and in an airline, some may be designated training captains, who are much in demand. The privileges and responsibilities of the different categories of pilots' licence are discussed in greater detail below under separate heading.

## **Entry Requirements**

### **Education**

The educational requirements for registration as a student pilot are relatively few, however a command of the English language is essential since this is the international language of aviation and fluency is required for communications purposes, not least at the S&L AS. Hansen et al., (1900) note that “Students need a solid grounding in mathematics and science to successfully pursue collegiate aviation programs” (p.10), this however is a recommendation rather than a requirement. The S&L AS recommends it but does not require it. According to Louise van Rensburg:

We don't reject someone because they don't have it. Obviously, your English needs to be at a certain level. We won't reject you if your English is not up to that level, but basically, what happens is that when you get here, you do a language test, if that is something that you don't pass, then a lot of the international students will go to an English language lab, where they learn English. (Louise van Rensburg, interviewed 12/7/2017, p.3)

The English language test is important because student pilots are required to obtain a radio licence which will permit them to operate the communications equipment in an aircraft. The English proficiency requirement is for a level IV certificate. Whilst many of the students at the S&L AS arrive with merely a matric certificate there are others who have received some degree of tertiary education, including in some instances a degree.

### **Health**

The health of student pilots is checked to ensure that they comply with the minimum standards required by the Civil Aviation Authority. The checks concern sight and hearing, lung function, blood pressure and cardio-vascular function, as well as tests of blood and urine. All pilots, whatever the category of licence, are required to comply with the same standards. Perfect eyesight is not a requirement, but colour blindness will exclude you and if spectacles are worn then the pilot is expected to carry a spare pair when on duty. If a doubt exists regarding fitness, then a pilot will be required to submit to further tests. The tests will include a review of the medical history of the pilot. The frequency of testing is dependent upon the age of the pilot and the category of licence. The civil aviation authority may ground a pilot if for any reason they suspect he may be unfit and demand additional tests. Obviously, if a prospective pilot fails the medical, he will not be granted a student pilot licence and that in all probability will be the end of his aviation career. Similarly, any active pilot who fails a medical is grounded until he can satisfy the examiner again that he is fit. Persons who

carry out flying medicals are authorised to do so by the CAA and receive special training in aviation medicine.

### **Aptitude Testing**

The compass test has been developed to test the aptitude of potential pilots for flying. It is used by airlines and flight training establishments to test the suitability of applicants for flight training. The test was developed by European Pilot Selection & Training (EPST) and consists of six tests which have been developed to test key aptitude areas for the pilot profession. The six key areas tested comprise hand-to-eye coordination, mental arithmetic, memory recall, multi-tasking, spatial awareness and orientation in space, verbal reasoning and understanding of physics (<https://pilotattitude.test.com/knowledgebase/compass/>, (accessed 4th January 2019))

The test is administered by the air school to all applicants wishing to train at the school, but as I was informed by the marketing department of the school, no one is excluded on the basis of their compass test results. As I noted during my attendance on the basic ground school course, “The whole class of students had sat an aptitude test which is called compass which was specifically developed to evaluate pilots and is used by some of the major airlines, including Emirates. The average score for a student at the air school sitting this test is 18 of a maximum of 36 (6\*6), which is a little lower than would be the case for their counterparts training in Europe (Appendix 2.a).

Johan Bleeker, who has undertaken research seeking to establish if there is a relationship between the results derived from aptitude testing and flight training performance, finds the test to be a good indicator:

The better the education, the higher the aptitude generally. Just thinking back to my intake when I did my instructor’s course -- I was a student here -- probably at least a third of the pilots who I was friends with have stopped flying, and they are pursuing other careers, just because flying was too difficult a career or they perceived it as being a difficult career. Some guys go to try the contracting, being away from home, and then try something else, and they think: ‘I will go and do farming’, if they have an option to do something else, work in the family business, or whatever the case may be. (Johan Bleeker, interviewed 28/7/2017, p.15).

He noted that:

Generally speaking, most cadet training programs will not accept a candidate who has score less than 24 on the ESPT compass test. Some of the larger airlines require a minimum score of 28 in the advanced compass tests. If we assume the international benchmark of expected

cadet pilot aptitude is 24, then 82.7 % of the student population at S&L AS is below the ideal standard. (p.19).

He concludes:

Clearly, there is a strong correlation between aptitude and student performance during the early stages of flight training. High aptitude students tend to achieve the first solo standard close to the training program while lower aptitude students require additional training to achieve the same standard. (p. 21).

And with regard to overall course success rate

The high aptitude students (20+) see a 100% training success rate with the 'average' student having a 91% success rate. Even with a bit of extra training most of the students are capable of achieving the required course standard. The lower aptitude students see a rapid decline to 66% and then a mere 18% for the students with an aptitude score below 10. (p.22).

Some opposition has however been expressed regarding the use of aptitude testing, for example Davey and Davidson (2000) noted:

We expressed concern about personality tests, which often portray women as more submissive and trusting and less self-assured, and about intelligence tests, which contain items and use a format which presents women/girls and Afro-Caribbeans as less intelligent. The fact that computer and paper and pencil tests designed by the military to measure hand-to-eye coordination, tracking smoothness and the ability to interpret instruments discriminate against women was also pointed out. The fact that psychometric tests are not 'objective', but that the items and format were chosen by psychologists in a particular context, was discussed with airline management. Also, the test results are open to interpretation and selectors. (p.221).

Whilst Bleeker's findings are supported by the data extracted from the S&L AS records, that a high compass score is an indication of likely success in training, there are obviously other factors involved in success, for example the willingness and ability to work hard during the training process and such factors as ethnicity, gender and language proficiency. High scoring students no doubt feel proud of their achievements, and the expectation of success contributes to their confidence and sense of well-being in their career choice. Where good performance in the test has secured sponsorship with an airline for flight training, which if successfully completed, should ensure employment, they feel all the more vindicated.

## **Funding for Flying Training**

The options for funding are: self-funding, implying family support; and sponsorship, implying the support of an airline or in the case of cadets the opportunity for students to “earn their passage” by performing services for the air school in exchange for training.

### **Self-funded**

Little appears to have been written on the topic of financial support for aviation training. Students aspiring to become airline pilots, apart from those fortunate to have been offered a scholarship by one of the airlines, must make their own arrangements to pay the fees or have sponsorship from a family member. My summary of the database of students at the air school in May 2017 (Appendix 2), indicates that of 253 students 195 were privately funded, primarily by family members and the remaining 58 by the Airlines. Training for an Airline Transport Pilot Licence (ATPL) will cost in excess of R1 million and is thus only within the reach of fairly prosperous upper and middle-class families. The opportunities for the majority of the “previously disadvantaged” to gain entry to this prestigious field are thus strictly limited and dependent upon finding external sponsorship.

The following are some accounts of the support which some students have received from family members and which others on their own initiative have been able to find, to pursue their ambition to become pilots, from discussions with fellow students during ground school training and interviews with some of the instructors.

An English student who grew up in Bath and whose elder brother is an airline pilot told me that he had nurtured the ambition to become an airline pilot since the age of 13, partly because of the experience of his elder brother in pursuing an aviation career. In order to finance his studies, he had worked in Australia for a year having first joined the Navy in the UK. Realising that he could save some money and pay for his tuition at a private flying school in South Africa, he chose to take that route and left the navy. He was able to pay for his training from the money he had saved, an amount donated by his father and a bank loan (Field Notes).

Talking to one of the female students from the Seychelles during the coffee break I learnt that 10 of the students in our class of 20 (eight male and two female) were sponsored by Air Seychelles which is associated with Etihad, an International airline. I learned that in consideration of sponsorship the students, upon gaining their ATPL, are required to work for the airline for a period of six years. For the first two or three years they will be flying short distances between the various islands making up the Seychelles.

Bianca, who is from Thailand, worked for 2 ½ years as an airline stewardess during which time she saved sufficient money to enable her to register for the suspended ATPL course at S&L AS. The ATPL licence is suspended until the pilot has completed 1500 hours of approved flying experience. She told me that on her return to Thailand the airline had made a commitment to offer her a position as first officer on scheduled flights and she will thus be able to build her flying hours to enable her in due course to complete her ATPL training and validate her suspended licence. She says that she misses the lifestyle she enjoyed as an air stewardess, in particular the travelling to interesting destinations and she is looking forward, once her training at the S&L AS is completed, to resuming that way of life as a pilot.

I had the opportunity to talk to the following students regarding the sponsorship they had received from their parents for flying training. Felix told me that he was sponsored by his father who is a businessman in Khartoum. "So, what did you do?" I asked Mike, "Did you ask your father then?" He replied:

My father already knew, he knew since I was in high school. He had given me approval since high school, since the first year of high school, because I discussed it with him so many times. (Mike Hamid, interviewed 1/12/2016, p.2).

Stephen explained the circumstances when his father consented to pay for his flying lessons

Warren (a friend) was kind of like "Tony (my dad), why is your son not flying?" later, in the evening, we had all had a few drinks and carried on, and my dad was like, well, why aren't you flying? And he said why haven't you ever asked me? So, I was like, are you going to pay for it. He asked: How much will it be? And I told him about 90,000 Rand for a PPL, and he was like, well, go and do it. So, I was like are you sure, and he said: Yes, go and do it!" (Stephen Matthews, interviewed 19/7/2017, p.4)

Alan informed me

My parents knew that is what I wanted to do, and I think they were more than happy to see me come here (S&L AS), because I was supposed to go to the US. They were glad I was going somewhere safer! (Alan Dukes, interviewed 5/6/2017, p.9)

Chloe, a black South African flying Instructor said

It was an opportunity that my mother offered to me early. I thought I had to go pretty much through school -- I did everything quite young, and I was done with my A-levels quite young

as well -- and my mum made a deal with me and she said if you get good enough grades, I will send you to flying school. (Chloe Mvula, interviewed 20/7/2017, p.2)

Mandy, a black flying instructor, in response to my query "Your father presumably sponsored you?" stated,

Yes, he sponsored me. Because of his financial position he was able to afford it. It is one of the most expensive schools in the country, a huge financial burden. (Mandy Malope, interviewed 22/6/2017, p.3)

The foregoing responses to my enquiry as to the source of students funding to pay for flying training demonstrate the support which parents, who have the necessary financial resources, are willing to provide to enable their children realise their dream to become pilots. It also demonstrates that the construction of the identity of a professional pilot can commence quite early in life, well before the prospective student comes to the S&L AS a desire communicated to and in some instances fostered by receptive parents.

### **Sponsored Students**

Louise van Rensburg informed me of the following concerning contract students:

We have a separate agent working with contract students; she deals with contract students because obviously a contract is a contract between the school and the airline. The terms might be different, for instance, a good example, are Vietnam airlines contract students for whom the training programme is slightly different as they obviously require something other than the rest of our students. They might require a few extra hours of flying before they feel the student is ready, so that gets worked into the contract, et cetera et cetera (Louise van Rensburg, interviewed 12/7/2017, p.7, 8).

Ysanne Sadler informed me in response to a question about special arrangements which the school were obliged to put in place to satisfy the requirements of the Vietnam airlines:

Vietnam airlines insisted that they wanted their students to do the Private Pilot Licence (PPL), write the exams and be issued with a PPL and then do the Commercial Pilot Licence (CPL), and of course they had all started on the integrated course and there was a lot of noise and insecurity amongst them, because Vietnam airlines require the PPL. However, the S&L AS were saying it is an integrated programme. The S&L AS went to Vietnam and thrashed it out and Vietnam airlines were adamant they wanted the PPL. Some of them have gone on ahead but they have had to return and write those exams.

(Ysanne Sadler, interviewed 28/2/2018, p. 11)

The integrated Airline Transport Pilot Licence (ATPL) course which the S&L AS provides is designed to enable students with approximately 210 hours of flying time to obtain a CPL and a suspended ATPL, suspended until such time as the pilot has satisfied the experience requirement in full. The experience requirement in South Africa is 1500 hours. Some pilots will obtain that additional experience working at the school as flying instructors and others doing Charter flying or the lucky ones, perhaps sitting in the right-hand seat as first officer in an airliner. But CPL students, although they have completed the syllabus for a PPL, do not actually sit the relevant examinations or undertake the practical flying tests to be issued with a PPL. The air school was thus obliged to modify its' training programme to accommodate the wishes of the Vietnamese airline so that their students should be holders of a PPL in addition to the CPL.

### **Cadets**

The air school had operated a cadet scheme for many years, in fact since its inception Patricia Evans, the wife of the founder John Evans told me that her son and daughter trained as pilots in terms of the cadet scheme. The cadet scheme provided that in exchange for service to the air school in various capacities, students would receive free tuition and subsidised accommodation and a token salary. The school had discontinued taking new recruits into this scheme, although there are some surviving cadets on the premises. South African Airways also had a cadet scheme and Leslie Walker, a flying Instructor told me

It took me two years to do my PPL part-time as I was doing a B.Com. with Unisa at the same time. My parents had said to me, you either go to full-time varsity or you do your PPL and then after that you're on your own and we subsidise on the side for a degree through Unisa. I have done just over two years of the three-year degree but what actually happened at the time was I then applied for the South African Airways cadet programme and they took me on. So it was quite a long process, about nine months. They paid for my entire course when I started at the S&L AS and until I obtained my commercial licence e. But I'm also glad that I am not tied to the airline. I went to see the director of training, about every week I went to his office, I said okay I am a cadet, I cannot afford to be here, but I am really interested in becoming an instructor here" (Leslie Walker, interviewed 7/12/2017, p.2, 3).

Leslie was fortunate perhaps that having paid for her flying training up to CPL, the airline had not placed any obligation upon her to work for the airline. She further commented about the cadets at the school:

These cadets have been here for a very long time, incredible pilots all of them, and because I was also a cadet, we came from very similar backgrounds, so those were actually the guys that I became friends with here more than the private students. Eventually when we finished, there were four of us who finished in about a month of each other... one of the girls just left, she left about a month ago, and then the other two, and Mohammed, they are still instructing here. They were sponsored by the S&L AS and now air school pays for them as instructors. (Leslie Walker, interviewed 7/12/2017, p.3)

These former cadets thus become very loyal to the school and over a considerable period of time are able to obtain their licences and through taking the instructor route to build their experience and hours.

### **Motivation and identity**

As noted by Barbarà-i-Molinero, et al., (2017):

Individuals develop their professional Identity during all their lives. This process is influenced by several factors that make individuals to self-define in terms of one or another profession, or the work they do, even long before they start working in a profession or occupation as part of the process of career development (p.189).

The factors, identified by the authors influencing the choice made by individuals of a profession are social experience, educational context, professional experience, self- engagement and demographic characteristics. Social experience relates to the influence of family, friends, media and other social actors. Educational context refers to all the previous experiences individuals have had during primary, secondary and perhaps university education which may have influenced their decision. Professional experience relates to any relevant prior exposure to, in the case of aviation, flying. This indeed influenced some students who had flown extensively during their school days. Self-engagement is a feeling of responsibility for and commitment to a performance domain so that performance matters to the individual. The authors note that:

Students' achievement of competencies related with a community of practice such as a profession, is a mark of their personal development, defined as the unfolding growth, evolution, expansion and maturation of the individual self (p.198).

The process of maturation in the students at S&L AS, as they gain competence, is a visible outcome of their training.

Alba Barbarà-i-Molinero, et al. also discuss demographic characteristics, notably gender: “Some professions have strong gender stereotypes and some people decide not to choose a profession because it is not conceived for a woman or for a man” (p.198). Certainly, a stronger male gender stereotype has existed for the professional pilot; however, there are indications now that this is beginning to change as more women join the ranks of professional pilots. And finally, the image of the profession: I would suggest that the image of the professional pilot is a strong one conveying authority and prestige and is well rewarded financially.

Wendy O’Brien and Paul Bates (2015), define communities of practice as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in the area by interacting on an ongoing basis”. I think the S&L AS falls within this definition and can be regarded as a Community of Practice (CoP) (p.822). The authors report on the results of a study of a CoP of aviation students at a university in Australia and note that

The CoP was an effective tool for fostering a sense of professional identity. This was facilitated through engaging in meaningful practice, providing the students with a platform from which to begin developing confidence with their novice professional identity and connecting with the broader aviation community. The CoP was also significant as it allowed the students to develop a range of skills that have been identified as contributing to their success as an aviator. These skills include; an ability to work in a team environment (important for non-technical skills/human factors), self-confidence, situational awareness, and the ability to lead or follow, communicate well with associates and apply critical thinking (p.821).

At the S&L AS there is greater immersion for the students in the culture of aviation than might have been the case at university, however the same principle applies in my view since as noted by O’Brien and Bates a community is

An intrinsic condition for the existence of knowledge and creates the social milieu for learning. Through mutual engagement, newcomers work together with both experienced members and peers to achieve the goals of the community. Learning occurs within the social relationships of the CoP and through experiencing, belonging and participating, the self and identity is developed. (p.822).

This very much describes the training process and community at the S&L AS where novice pilots grow in confidence and skill under the tutelage of experienced instructors and where they are encouraged to look and feel the part.

### **Barriers to entry**

The most significant barrier to entry into the Aviation Profession is the inability to raise the funding or obtain sponsorship to pay for training. This is a very serious difficulty since training is very expensive and at the S&L AS, the subject of this study, in August 2018, it cost just in excess of R1 million to obtain the suspended ATPL licence and if you require a jet rating as well then the cost will be in the region of R1 300 000. Other barriers to entry might be health issues of one sort or another, as discussed above.

A barrier for foreign students to training in South Africa is that they need to be eighteen years of age. As Louise van Rensburg explained:

Basically, you need to be 18 if you are international because when it comes to a study visa, they require you to be 18 years of age otherwise you need a legal guardian on the site. So, you can come when you're 17 but then you go through the whole process, you need a legal guardian et cetera, those are the visa requirements. (Louise van Rensburg, interviewed 12/7/2017, p.3).

South African Nationals or Permanent Residents may apply for a student pilots licence and commence training below the age of eighteen but they will not be issued with a Pilots' licence until they have attained that age.

There is a common perception that the Airline Pilot Profession is the exclusive domain of male members of the white race. Based upon my experience of the S&L AS and talking to officials of the school and both black and white students, including female students and instructors, there was no evidence that the school sought to exclude or make it difficult for female or male students of varying ethnicities to enter the school and commence training as pilots, or were likely to be treated in any discriminatory fashion during training. I specifically asked Louise: "Do you have any exclusions on the basis of performance in the Compass aptitude test or in respect of the country of origin, or the religion, or whether they are male or female? And she replied "no, anyone can come". I asked her further whether the S&L AS goes out of its way to recruit a specific category, and she replied: "no it's free for all" (Louise van Rensburg, interviewed 12/7/2017, p.8).

Some gender issues did however arise in practice, for female Instructors dealing with male students from certain countries where women would not normally perform an instructor role. These situations are discussed further in chapter four. The student complement in May 2017 for which I have statistics shows that there were 216 male students and 37 females (Appendix 2). The Nationalities of the students were: 100 South African citizens and permanent residents and 153 derived from 34 foreign countries, the largest number of whom were those from the United Kingdom, Mauritius, Kenya and the Seychelles.

So far as students recruited by the airlines and sent to the S&L AS for training are concerned, I understand they have to pass fairly strict requirements to be accepted, which may include their performance in an aptitude test. So far as gender is concerned, 30% of the sponsored students from the Seychelles in the commercial ground school class that I attended were female. The director of training informed me that airlines prefer to train and employ their own nationals since expatriate pilots often do not display loyalty and are likely to move and accept a better offer from another airline if the opportunity arises.

The incentive to remove the barriers to admission is a consequence of the growth of international air travel and the pilot shortage being experienced by many of the world airlines together with the impact of legislation in many countries prohibiting restrictive recruitment practices based upon gender and ethnicity.

### **Licences and requirements**

There are three categories of pilot's licences and various ratings which can be acquired to enhance the capabilities of the licence which a pilot may hold.

The Private Pilot Licence (PPL) is intended primarily for recreational pilots and as such the holder of that licence may not fly for reward. Additional ratings that may be acquired with the benefit of additional training and experience might be an Instrument rating or an Instructors rating. The Instrument rating would enable the pilot to fly in meteorological conditions unsuitable for visual flight and to take advantage of controlled flight in Instrument meteorological conditions, basically bad weather conditions where visibility is severely restricted. An Instructor rating would permit the holder to train student pilots but in South Africa in addition to having trained for the rating the pilot must have passed all the commercial pilot theoretical examinations. A multi-engine rating would enable the pilot to fly aircraft with two or more engines.

The Commercial Pilot Licence (CPL) is a professional licence and permits the pilot to fly for reward. The standards required in terms of theoretical and practical training are higher than those required

for the PPL and necessitate additional ground school training and passing written examinations. Ratings enhance the potential of the licence and most commercial pilots will strive for an instrument rating to enable them to perform their duties in adverse meteorological conditions.

Obtaining an Airline Transport Pilot Licence (ATPL) is perhaps the pinnacle of the licencing structure and is a necessity for a pilot wishing to serve as Captain of an Airliner. The licence is obtained after having additional instruction concerning the complex systems on board modern airliners and global navigation and safety requirements and additional experience to bring the total of flight hours to 1 500. The issue of an ATPL will be suspended until a pilot having first obtained a commercial licence, completed the additional training and passed the examinations for the ATPL has completed the practical flying requirements. Additional training is provided by the airlines and employer companies in the types of aircraft the pilots will be required to fly. Whatever the category of licence pilots may hold they are only permitted to fly an aircraft registered in the country of the licencing authority which issued their licences and only an aircraft for which they hold the appropriate type rating. To maintain and use their licences pilots must hold a valid medical certificate and satisfy the practical flying experience requirements and pass periodic tests of competence. The period of validity of a licence continues until a medical test or test of practical flying skills is due, whichever is the sooner. A rating may lapse and will not be renewed until a test of proficiency is passed.

The attainment of a licence is a very important milestone in the construction of the identity of pilots. Finally, they have a piece of paper that authorises them to carry out the duties for which they have trained and studied, and it represents the recognition by the authorities of their competence to carry out those duties. It will also enable them, as professional pilots, to earn their living in that capacity.

### **Civil Aviation Authority**

The South African Civil Aviation Authority (CAA) controls all aspects of the licencing of Pilots and engineers who work on the construction and maintenance of aircraft, the licencing of air traffic controllers, the certification of airfields and the navigational facilities in use and issues the certificates of airworthiness of aircraft without which they are not permitted to fly and the operator's licences of the companies providing air transport services. In other words, virtually every aspect of the civil aviation Industry in South Africa. The composition, structure, duties, powers, and procedures to be followed by the Civil Aviation Authority are set out in No 13 of 2009; Civil Aviation Act, 2009. The CAA control every aspect of licencing. Examinations are set, invigilated and marked by

the CAA. Pilot medicals are conducted by CAA approved medical practitioners. Practical flying tests are conducted by CAA approved flight instructors.

## **Recruitment**

The air school advertises in glossy aviation magazines to attract new student recruits and maintains a staff to process applications and induct new recruits. Applications are made online by persons seeking flying training. Louise Van Rensburg explained the process to me

We have three agents, in Port Elizabeth, and we have our website. Anyone who goes on to our website can request an estimate, so you will go on to our website, and you will say for example I want to do a PPL, you click on the button, then say who you are. It takes you through the various steps: Are you a pilot? Do you want advanced training? Are you a starter pilot? Do you require an estimate? Once that estimate is sent you are allocated to one of the sales agents. That sales agent will put you on her call list – and follow up with you; hopefully leading to a sale (Louise van Rensburg, interviewed 12/7/2017, p.2).

Yet the sale begins, I believe, long before the first contact is made with the S&L AS. The responses to the question “When did you first think of learning to fly?” in a questionnaire circulated to all thirty respondents indicated that the ambition to become a pilot formed during early childhood or in their early teens (Appendix 1, a). Twenty-two of them responded positively to the follow-up question “Were you influenced to become a pilot by the example of a family member?” (Appendix 1.b). It appears that in some families, becoming a pilot is a tradition, as with other professions such as doctor or lawyer.

From the students and Instructors whom I interviewed and enquired as to the reasons they had chosen aviation as a career, I received the following comments:

From Zach, who grew up in Kenya:

I used to take flights to school, so every break and at the beginning and end of the semester I would be flying to school. And because I was young, I was most excited. It was in a big aircraft on a scheduled flight. I was more excited about taking that flight than going to school itself. (Zach Moody, interviewed 6/7/2017, p.2)

Mike, who grew up in Egypt:

Yes, it was in my childhood. I was actually twelve I guess, and I was asking my father to bring me a plane, a small plane, one of those you actually fly by remote control. (Mike Hamid, interviewed 1/12/2016. p.1)

Stephen, from Johannesburg:

Basically I have always loved flying, since I was a child, when I was about six or so I used to take my Lego, an old magnet stick, an old motor from my cars, and I built these little aeroplanes, they never worked or anything, they always just crashed, but I always had this idea of wanting to fly, but I never really pictured myself actually doing it. (Stephen Matthews, interviewed 19/7/2017, P.1)

Alan, from Johannesburg:

My dad was into radio-controlled aircraft when I was small, and my uncle, it was just that phase in their lives and they were sharing that with me, two people ... Uncle Cedric, he taught me to launch rockets, big model rockets. (Alan Dukes, interviewed 5/6/2017, p.2)

Charles, who became interested in learning to fly after he had retired from business:

My school days I suppose, when I read about Biggles. I was always an avid reader, and I have always had an interest, and it was only when I had cancer 11 years ago, that I decided I had better start doing things that I was interested in. (Charles McKenna, interviewed 27/5/2017, P.6)

Chloe, from Johannesburg:

My uncle bought me the Microsoft flight simulator and the joystick, because I was rather boyish. The first thing he bought me was the flight sim, so I had the very old flight sim the 1998/2000 flight sim. I loved it so I grew up playing flight sim, a lot of the time; I was also travelling and flying from a young age, Yes travelling, my mum she did a lot of travelling to South Africa as well, and we did holidays and stuff. (Cloe Mvula, interviewed 20/7/2017, P.1)

Leslie:

I'm actually from a dairy farm, I first considered something like marine biology or veterinary. Then -- it must have been in about grade 10 -- we had family friends, or they became family friends, and he was a captain for South African Airways. In my grade 11 year I had to do a week of work experience, and I had set my mind on the fact that I would not do a desk job, that was out of the question ... So then for that week, I went up to Johannesburg, I was shown around the SA Airways Park, I got to go into the cockpit of the 747 and I did aerobatics for the first time (not in the 747!), and I watched top gun for the first time, I got to meet a number of SAA pilots at the time. (Leslie Walker, interviewed 7/12/2017, p.2)

Mandy, from Johannesburg:

I always wanted to be a captain when I was much younger, and I think it was when I was about three years old my mum said to me that, every time people ask you what you want to do you would say I want to be an astronaut. I wanted to go into space. (Mandy Malope, interviewed 22/6/2017, p.1)

The responses to the questionnaire and comments of interviewees represent persuasive evidence of the early genesis of the desire to learn to fly and the beginning of the construction of identity as a pilot at an early age, from experience of flight, a role model in the family and a perhaps a more or less spontaneous interest from early childhood and exposure to various stimuli concerning aviation during schooldays. But the realisation of that dream is, as noted, generally only the prerogative of the children of the affluent classes, or those who come to the notice of industry sponsors.

### **Induction of new students**

The process of recruitment, as noted, involves applying to the school (generally online) and accepting an estimate of costs, completing an application form and signing an agreement with the school regarding the payment of fees and other matters. During the initial stages of induction, the new student will be tested for a command of English and undergo a medical assessment leading to the issue of a student pilot licence. The student or sponsor will be required to pay a deposit to the school to cover the cost of various items necessary for the course. Those items include the following: iPad and cover, E6B computer (Whiz wheel), Casio FX-82MS scientific calculator, David Clarke headset, CX2 Navigation computer, Air School Cap, Jacket, Pants (2), Shirt (3), Logbook, Protractor, ruler, notepad. Newly equipped and attired, the student pilots will feel in possession of the “tools of the trade” and well on their way to begin training to become pilots. Enrolment is confirmed once the deposit, say R20, 000, is received, and the students have produced IDs or passports, copies of their medical aid certificates and certificates of school leaving qualifications. One of the terms and conditions to which the students must confirm their assent to the clause

Attention is specifically drawn to the company’s right, in the interest of flying safety, to carry out periodic spot checks for substance abuse by students. Should you be selected for testing your compliance will be appreciated (terms and conditions – Part 2).

The induction process and issue of the “tools of the trade” perform an important part in the construction of the identity of the *ab initio* pilot and by wearing the prescribed uniform, as they are expected to do, they self-identify with the student body and in due course bond with the group of students with whom they will work during training. The school has ten/eleven intakes of students during a twelve-month period and each group of, say, twenty students, will move through the programme as a group, save for any who fall by the wayside for one reason or another. The uniform is worn whilst undergoing training but is not a requirement when students are off duty. Students do retain their own personal items of clothing when they enter the school and are at liberty to wear what they please in their own time. On completion of the induction process, the prospective pilots will commence training.

Louise van Rensburg stated

The sales agents can't deal with the stuff that I deal with, because that would take up too much of their time. So, then they become my children, and then once they get here, I will go through all my processes with them so then their flying process starts. After that they are handed over to flight training and then become their charges (Louise van Rensburg, interviewed 12/7/2017, p.1).

At that point the student pilots commence their training, starting with ground school, classroom style training, to which I turn next.

## **Chapter Three: Training - the Ground School**

### **Introduction**

In this chapter I view the Straight and level Air School (S&L AS) through the prism of the Ground School (GS), a mode of instruction employing twentieth century training methods to teach the theory of flying and navigation and associated topics to students born around the time of the millennium, that has only partially adapted those methods to address the requirements of those growing up in the twenty first century. The chapter opens with a description and photographs of the ground school training centre and facilities and illustrates the classrooms, layout and use of components of aircraft for familiarity and training purposes. The reader will note the neat rows of desks and blackboards. The chapter continues with a description of the basic ground school course which I attended in December 2016, with attention to the diversity of the student intake, a typical feature of the air school. Included are comments from students, both favourable and unfavourable which were received in response to a questionnaire sent to the students and from students and instructors whom I interviewed. The chapter then discusses the Commercial Ground School (CGS) which students must attend if they wish to qualify for an advanced licence to fly commercially. I note the change in atmosphere of the commercial course where dress codes and discipline are enforced more rigorously and there is more evidence of students' inattention. The next section describes the equipment used by the students during ground school training and the ipads, (not illustrated) with which they were issued on joining the school. This equipment is used throughout the ground school training courses. The section relating to the ground school instructors describes their background as retirees from the South African Air force and their dependence upon traditional top down training methods with the minimum of class participation and strict discipline emphasizing attendance and punctuality. The topic of discipline in the ground school is covered in the next section and details the responses to infringements which I observed during my attendance. The section also comments on the competition which develops amongst the students as a consequence of the testing regime in place throughout the course and the strategies which students may adopt to subvert the system. The chapter continues with the topic of 'the challenge of the millennials' where the specific preferences of the millennial generation are identified from academic resources. Applying those principles will require major changes to the military culture of the school which prefers to emphasize rank, discipline and compliance and prefers a top down lecturing style of class room training. The chapter concludes by recommending the adoption of a more flexible style of ground school training

which would include group discussions and teamwork on projects and a less formal approach to training.

### **Facilities.**

Ground school training takes place in a fairly recently constructed facility, comprising four classrooms, offices for instructors and administrative staff and toilet and catering facilities. The building is of redbrick construction and is in harmony with the original buildings of the school. The classrooms are furnished in traditional style with a separate desk for each student set in rows. There are facilities for projection of videos and blackboards upon which the instructors may write. There is an overhead projector for those who still favour that form of presentation of material. There are various artefacts available for demonstration purposes. Aircraft Instruments, a propeller, a cut away jet engine and components of and internal combustion aircraft engine. The items are used for demonstration purposes during lectures.



Fig. 18, 19. The Ground School Complex and Classroom

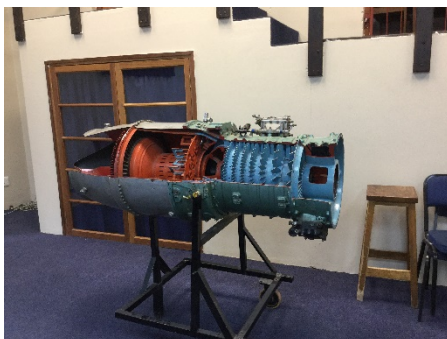


Fig. 20, 21. Gas Turbine Engine cut- away and Classrooms

Classes commence at 8.30 am and continue throughout the morning. The length of a period of instruction is approximately 45 minutes followed by a break of fifteen minutes during which the students may take refreshment provided by the school. The classes are from Monday to Friday, five days per week. Students are expected to be punctual, to be correctly attired in uniform and to be present. Late arrival and non-attendance are not acceptable unless for good reason. The instructors expect close attention from the class and chatting while a lecture is in progress is not permitted. The instructors have well-appointed individual offices, are connected to the school computer network and have full sets of the hard-copy Jeppesen training manuals which they kindly permitted me to use whilst I was attending the courses, but which are no longer in use apparently, in preference to the soft copy versions available online. Students are expected to purchase a licence for the soft copy Jeppesen manuals which they access via their iPads. The administrative staff at the ground school are responsible for maintaining the records of each students training, performance in examinations and for making arrangements with the Civil Aviation Authority (CAA) for students to sit CAA examinations. The examinations may be sat at the school, in the CAA centre in Port Elizabeth or online at the CAA headquarters in Midrand. The school prefers students to sit the examinations on the school premises, however some will choose to re-sit examination in Port Elizabeth or travel to Midrand where the programme is online, and the results are available immediately.

### **Basic Ground School Course**

I am able to write from first- hand experience of the ground school training since I joined an '*ab initio*' class of new recruits commencing the basic ground school course in December 2016. The photograph below depicts the class in the courtyard of the training block, the elderly fellow in the centre is me.



Fig. 22. Basic Ground School Course December 2016

The class reflects the diversity of the student population at the S&L AS which at the time of my participation included students from 34 different countries. The managing director of the school informed me that, because of the declining value of the rand against leading world countries, the air school had become one of the most cost-effective in the world to train as a professional pilot. As the photograph indicates, the students were drawn from a variety of racial backgrounds, but it does not necessarily show the national and ethnic backgrounds, which included South Africa, the United Kingdom, Australia, Singapore, Kenya, Sudan, Mauritius, Seychelles, Switzerland, Holland, United States, Zimbabwe, Uganda, Hong Kong and Zambia -- A United Nations of prospective pilots!

Despite the diversity in cultural backgrounds, the school appears to succeed in delivering a standard product, a qualified professional pilot in a relatively short space of time, a minimum of fifteen months. (The re-sitting of failed tests or examinations will extend the period of training) The “one size fits” all system of training seems to work despite the odds, even bearing in mind that the recruits, by and large, are drawn from the ranks of the Millennial generation who, we are informed

by Christy Price (2017), do not respond well to a style of tuition that is almost exclusively based upon lecturing, is non-participative, demands strict time keeping and attendance and requires that the participants and lecturers be dressed in a military style uniform. Topics covered on this course include: Principles of Flight; Aircraft Performance; Navigation and Flight Planning; Meteorology; Human Performance; AT&G (aircraft technical and general), and Air Law. The course takes place over a period of four weeks and is conducted by a team of instructors. In the main the instructors are retirees from the South African Air Force. My training questionnaire sent to students undertaking the basic ground school course posed the question: Did you enjoy the PPL ground school? If yes, what did you enjoy or appreciate the most? If No, what did you not enjoy?

Positive responses included the following:

- The Nav and flight planning instructor, the way he made things clear.
- Nav and flight planning, using more application not only learning books.
- I enjoyed the lessons of Flight planning.
- The teaching makes you understand more as it involves demonstrations. We were being shown the actual propeller actual engine for example. And videos to demonstrate as opposed to sticking with images in books.
- The quality and comprehensiveness of the course.
- There's just the odd question that isn't covered but not an issue, more than enough to pass. (Appendix 1, d).

Negative responses were few, but included:

- Method of studying, just reading and going through questions. Not enough application.
- A lot of information in a very short time (Appendix 1, e).

Fuller, more considered comments came from the students and Instructors whom I interviewed are as follows:

Zach:

There is one thing that is not being emphasised in ground school at the moment and that is, looking at the CAA syllabus for most subjects, we need more guidance on what you should study. The (ground school) syllabus definitely does not cover everything that you need to know, but they give you a guideline. For examination preparation don't read only what they are telling you to read, read a bit further up on that particular topic, but then don't go and read other topics that are not mentioned in the syllabus. In ground school there are some

courses that are not required in the syllabus, but are being taught, but they are important for, like, our understanding (Zach Moody, interviewed 6/7/2017, p.12).

Stephen:

I don't think that they give enough time, to be honest, I would rather have the class, and I would much rather have two subjects at a time. I'm sure people could handle that -- do one week of meteorology, and then the next week you give the students off to study; and then the week after that exam sitting; but the problem is, it would start to eat up time then and because they are all strapped for time here, and everyone is trying to rush, everyone is so aware of that 14 months and that is their big selling point for this whole thing. (Stephen Matthews, interviewed 19/7/2017, p.9)

Charles:

I think the standard at the air school is too high, for as you know, the level of the ground school is aimed at ATP and the commercial pilot. So, the kind of questions they ask in the examination are different from those asked in class. The question 'how many days you get to transfer from your manual to your electronic logbook' did not come up in class. Questions like that, at the S&L AS, they don't even take cognisance of electronic logbooks, because everything is done properly. (Charles Mc Kenna, interviewed 27/5/2017, p.1)

Mandy:

I also think it is very rushed. I asked one of my students who goes to the ground school, are you learning, are they teaching you anything? Or do you think it is a self-study? They will say that they think that they are learning on their own. And I think, maybe because it's just so fast they're not getting enough time to actually study on their own in ground school (Mandy Malope, interviewed 22/6/2017, p.5)

The responses in favour of the course and the manner in which it is presented appear to outweigh the views of those critical of it, however I sympathise with those who say the course proceeds at too rapid a pace and consequently there is insufficient time to absorb all that is being taught. The course is structured around the work schedule of the school which, since it is based upon a regular intake of students in batches throughout the year, must of necessity adhere to a strict timetable.

The best students will cope with the workload; however, they appear to be in a minority and the remainder will continue to struggle to pass the CAA examinations long after the formal training in the ground school has been completed and, in some instances, after they have completed their

practical flight training at the school. Some students would prefer self-study to classroom training and for them those facilities exist at other schools. At S&L AS most students will need to devote themselves to self-study, in addition to the classroom training to be able to pass the CAA examinations. I do not agree that the standard at the school is too high. Private pilots, for their part, may be regarded as being a bit of a nuisance at the school. Of necessity, since they are few, they are included in classes which contain all categories of student, and they will learn as do the CPL and ATPL candidates which is to their advantage. At the conclusion of the first part of the ground school course, during which the syllabus for the Private Pilot Licence will have been covered, those attending solely for the purpose of obtaining the PPL will attempt the CAA examinations relating to that licence. The remaining students intending to continue their studies until the CPL or ATPL stage will sit an in-house examination called "the gate" and if successful they will then be permitted to commence practical flying training. If unsuccessful they will be required to re-sit any failed subjects and if a bad fail, sit the entire course again. Those proceeding to flying training will be trained up to the standard for a Private Pilot licence; those intending only to obtain the PPL will take the CAA test of flying competence and if successful be issued with their licences.

### **Commercial Ground School Course**

Once the students have completed the first phase of the practical flying course and have reached the PPL level of competence, they return to the classroom to complete the ground school course which covers advanced navigation including polar navigation and the performance of aircraft in transonic and supersonic flight and the use of advanced control systems used in modern airliners. The course lasts eight weeks and commences with revision of the topics studied in the basic ground school course, but then goes into much more detail for all of the topics covered. The course is split into two parts of four weeks each and at the end of the course an in-house examination is sat, after which, if successful, the students will be permitted to sit the CAA examination for either the CPL or the ATPL. At the S&L AS the ground school course is structured in such a way that both CPL and ATPL students attend the same classes but the requirements for the CPL and ATPL are a little different, for example CPL students do not require to know about or understand Polar Navigation.

It is very noticeable that whilst students are attending the basic ground school course the atmosphere is fairly relaxed, students may arrive wearing variations of the uniform and there will inevitably be one or two dissidents in the class who will make their presence felt in some conspicuous way or another, until rebuked by the instructors. Gradually the class will settle down as it is realised that the tuition process is remorseless, and nobody is going to wait for anyone who lags

behind; and after one or two have been rebuked for unacceptable behaviour, skipping lectures for example and talking whilst the lectures are in progress. The lectures are punctuated by tests both during and at the conclusion of each topic. The tests, which involve answering multiple choice questions, are taken online on the iPads which the students are issued with as a part of their induction kit. The iPads have, preinstalled when issued to the students, a number of training routines including pilot exams ([www.pilotexams.co.za](http://www.pilotexams.co.za)) accessed 30 October 2017, which enables the students to test their knowledge by answering specimen questions drawn from a data bank of questions set by the CAA on the various topics of the syllabus. This is a very useful facility since it enables the student to prepare for a test, since there is a significant degree of commonality between the 'Pilot exams' questions and those set by the school for the class tests.

In contrast to what is required in the PPL ground school, in the Commercial ground school the students are expected to wear the regulation attire of white shirt, navy trousers, black shoes and navy tie and epaulettes with no stripe at this present time. The uniform at this stage now becomes mandatory. The second part of the ground school course I found particularly interesting, since it took one into the world of the professional pilot. Numerous videos were shown of incidents in the air where the crew had been confronted with situations which threatened the lives of all on board the aircraft and the steps they had taken to try to rescue the situation. The navigation course took one on imaginary trips around the world, flying into exotic destination and confronting the complexities of traversing different time zones. An important aspect of identity construction takes place in the ground school since students are encouraged, at an early stage, to think of themselves as airline pilots, and the consequences of the topic being discussed on their lives once they become airline pilots. This aspect of training is emphasised particularly when discussing human performance, and CRM (crew resource management) training. The tests continued early morning on the iPads, with which we had become quite familiar, comparing notes afterwards on how we had fared. I found the CX2 navigation computer indispensable in performing some of the calculations we were required to perform and even though I had been advised by the instructor that it was not necessary for me to go to the expense, I purchased one since I felt I ought not to be at a disadvantage. It is interesting how one identifies with the members of the group and the manner in which that identification creates the need to comply and to be competitive. The pressure upon students to perform in the tests and examinations is increased by the practice of the school to send progress reports to sponsors. A poor record of achievement might result in a sponsor withdrawing support from a student.

## The tools of the trade

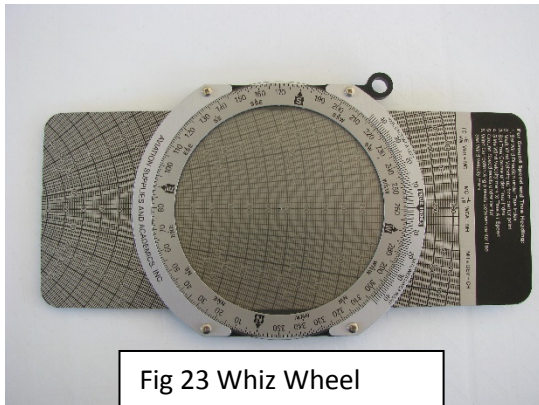


Fig 23 Whiz Wheel

A device the students are issued with at the outset of training and introduced to during the basic ground school is the E6-B flight computer, or Whiz Wheel, see photograph. The instrument is a circular slide rule which will perform a variety of calculations required for aviation purposes but since it is very old technology, is not readily accepted by the Millennial generation, who prefer a device that provides instant

solutions at the press of a button. It is however regarded with some reverence by the older generation of pilots because of its durability and to them, simplicity -- a familiar object to which they would turn even in the cockpit whilst flying to solve navigation problems. I suspect that the use of this device may eventually be phased out for training purposes since many of its functions are more easily accomplished on one of hand-held electronic devices such as the CX-2.



Fig. 24. CX2 Pathfinder Flight Computer

The CX-2 Pathfinder Flight computer is introduced during the commercial ground school course and is used to make conversion of measures from one unit to another; for example, US gallons to litres and nautical miles to Kilometres, and for resolving questions concerning altitude, airspeed, fuel burn, gliding distance and wind calculations. The students welcomed this device and I took little time to come to terms with it.

The third device in use on the course, in addition to the Whiz Wheel and CX-2, was a scientific calculator used in the main for solving geometric functions in the triangle of velocities. Proficiency in the use of these devices becomes essential for solving mathematical questions set in examination papers, and of course in practice.

The Jeppesen training manuals are linked to a test program called examination eleven which students say is very helpful in preparing for the CAA examinations. The examination is linked to the manual in such a way that if a student gets a wrong answer to the multiple-choice questions then

the system automatically directs the student to the appropriate place in the manual to read up on that particular question.

A second software tool issued to the students to assist them with their studies is a computer program called Pilot Exams, which is preloaded by the school on the iPads issued to students. This program operates in a fashion similar to examination 11 in the Jeppesen system but is not linked to the technical manuals. Pilot Exams covers all the subjects in the PPL, CPL and ATPL syllabus and the questions are drawn from a database of past examinations set by the CAA. This program enables student to drill themselves overnight in preparation for the early morning tests with which the ground school courses are frequently punctuated. Pilot exams is marketed by the S&L AS and is one of several similar systems that are available on the market. Students complain that some of the answers to questions are not correct and the program incorporates a facility so that a student can report an incorrect answer. One might ask how a typical student copes with the workload of attending lectures every morning five days per week, preparing for in house tests and reading the relevant manuals which are voluminous, in the available waking hours of the day. As I noted at the time:

I think the majority of the students have experienced some learning difficulties as a consequence of the sheer volume of information which has been communicated to them in a relatively short period of time. There has been little time for students to take a breath, because of the relentless pace of the course, and indeed, perhaps a break of a day before commencing a new topic might create an opportunity for students to better assimilate what has been learned. They are confronted with tests almost as soon as they have put the book down, which gives little time, if any, for reflection. (Field notes).

The S&L AS operates rather like a production line, with new batches of new students arriving every five or six weeks and remaining for approximately 15-20 months, but often for longer periods if they are studying for the frozen<sup>2</sup> ATPL. If any student should fail to make the grade, and a number do indeed fail, then they have to go back and restudy the topic with which they have had difficulties and may finish up with a commercial licence rather than an ATPL. It is a remorseless process; however, jobs in the airline industry are available only to the best candidates; consequently, the process is very competitive and is only tailored to a limited degree to picking up the candidates who fall by the wayside for one reason or another. The students are clearly worried because they are aware that students who fail to achieve the required standards fail – or are ‘washed’, in school slang.

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<sup>2</sup> An ATPL licence is “frozen” and only issued once a pilot has satisfied the experience requirement (1500 hours in South Africa) for the issue of the licence.

Later during the commercial ground school I noted:

The pace of the course is such that there is insufficient time to study the training manuals in detail and the same time work through the mock examination questions. The mock questions thus function as something of a shortcut to enable the candidate to perform creditably in the tests. The danger in this manner of preparation is that answers to questions may be learnt to pass the tests but the subject matter may not be fully understood. There is very little time to attend the classes which take up an entire morning, read the manuals relating to the course which are voluminous and comprehensive and at the same time, spend the necessary time working through practical examples on the 'pilot exams' test questions. I have found it impossible in the last couple of weeks to spend much time reading the manuals which I regret, because all the information that one needs to pass the examinations is contained therein. As a class we seem to be surviving on caffeine, drinking numerous cups of instant coffee during the course of the morning which are available on a help yourself basis. Some of the students, particularly those who seem to be making the most effort, are beginning to show signs of strain, complaining of tiredness and being unable to sleep (Field notes)

## **Instructors**

The ground school instructors, six in all, are retirees from the ranks of the South African Air Force. The style of instruction and manner of presentation, I feel fairly certain, is a legacy of their days in the Air Force. The style varies considerably amongst the instructors however, from a rather paternal friendly style empathising with the difficulties faced by the students, to a fairly austere style with rapid delivery and a rather aggressive manner, picking on students in the class at random to respond to questions. I have no doubt that some foreign students with a poor command of English would have difficulties in understanding some of the instruction in fact, Ysanne who tutors the Vietnamese students commented that the students had complained to her,

It is so difficult for us because we don't understand; very often the lecturers are not clear in their speech. The Vietnamese students feel that the lecturers talk to the English-speaking students and forget that there are those who are not quite up to par as far as language is concerned. And they just carry on, they disregard the others. (Ysanne Sadler, interviewed 28/2/2018, p.5).

This may perhaps be an inevitable situation in a class of students drawn from diverse backgrounds, but it should demand that instructors be sensitive to the needs of students who may have limited

comprehension and be prepared to offer additional tuition to those with specific difficulties. Some instructors were very prepared to spend additional time in the afternoons with students who had experienced difficulty and the instructor teaching navigation in the basic ground school course was particularly helpful in that regard, and I attended some of those extra sessions. But not all make the effort.

Perhaps, because of their generation and lack of familiarity with the devices in use in a class of millennials, some of the instructors seem uncomfortable to see students using iPads in class, although of course they could be used quite legitimately for the purpose of taking notes whilst lectures were in progress. As noted by Johan Bleeker

There is, from what I have read, a perception among your millennial students, your modern student, that if the lecturer or the facilitator is not comfortable or familiar with their technology, they feel a “disconnect”; they do not feel they can connect with the lecturer, unless the lecturer truly understands their needs. So, it becomes incredibly important for the lecturers to be “tech savvy” so to speak, to keep up with the younger generation, to relate to them, and to work together as a team. (Johan Bleeker, interviewed 28/7/2017, p.11).

Some subjects appear more difficult to teach than others. Navigation is attractive because it involves considerable participation by the students, and because of the practical implications and activity by students in working examples, it becomes stimulating. Air Law however is a very dry but essential topic and a difficult one for the Instructor to engage with the students. James who taught us Air Law commented

Every time I have to give a presentation. I change the thing, like in the next one there is a lot of useful information I can introduce. When you do a presentation, you can see for yourself, Okay, this I should change a little bit and make it easier to understand. I think you most probably have seen the syllabus, what it looks like, basically what the syllabus entails, so I just make sure I cover each of the topics, then I also put in a little bit of meat around it, because otherwise, if you don't embroider a little bit around it, it's like somebody just learning it, memorising it, but in the exam you have to apply it in practice. When you are lecturing the important thing for the students is that they must realise what it is necessary for them to know and be able to apply it. There must be some sort of relevance and if you can relate it to something that happened to you, or somebody that you know about, it becomes more realistic (James Justice, interviewed 1/6/2017, p.3).

In a class of students with a variety of educational backgrounds, it is inevitable perhaps that some will cope better than others. The class I attended included students of matric standard, as well as those who had several years of tertiary education. One of the flying instructors, Chloe, with whom I discussed the reaction of students she had trained to the Ground School Course, commented in response to the question “Do you think that the level of academic attainment, coming straight from school would have a significant influence?”

Not necessarily, but you will find that the guys who have gone to university are a lot better at grounding themselves to study, and putting in the work, but the guys who come with the matric, they are not used having to study by themselves, or putting in the work to get to where they need to get to. You will struggle less with the guys who have gone to university, know what it’s like to get on by themselves, because instructors don’t, like a teacher will, check on you. The matric guys expect to be asked “did you study that?” Sometimes the matric guys are very, very good, or are very lazy, or you can have both and sometimes the university students are very good knowledge-wise, but then they struggle because they need to have everything just as the book said (Cloe Mvula, interviewed 20/7/2017, p.5).

Operating in this “one size fits all” way, some students will pass the ground school courses with ease and others struggle. There may be ways of addressing this issue which perhaps the school has yet to consider. One of the comments made to me by John Evans, one of the founders of the school, who later became a student at Rhodes University was:

What I did learn from Rhodes, and if I had remained at the S&L AS I would have implemented, is this business of tutorials. You learn more from a “tut” than you do in the lecture (John Evans, interviewed 1/5/2018, p.13).

James a senior ground school instructor considers that students should be more actively involved in working practical examples and learning to apply the principals learned in lectures and commented as follows:

One of the goals that we are setting here is that you need to develop assertiveness, leadership, communication, problem-solving ... that sort of stuff which is not part of ground school, and it is not part of flying, but is an integral aspect of the product that you need at the end of the day. And I suggested to them that like for instance when you have done meteorology, let them in the morning present the day’s synoptic chart, which I tried once or twice and they really start getting into the hang of it. (James Justice, interviewed 1/6/2017, p.11).

James has in mind the qualities that are required and are taught in the CRM (Crew Resource Management) course for which students receive a separate certificate issued by the school in addition to encouraging active participation in the lecture program by the students.

### **Disciplinary issues in the Ground School**

Discipline is enforced in various ways in the classroom, firstly by the instructors insisting upon having the attention of the students in the class, which necessitates objecting to any unnecessary interruption. On one occasion I noted: "One of the students was fairly severely rebuked by the lecturer for talking on a cell phone whilst a lecture was in progress and was invited by the lecturer to take over from him if he wished to do so" (Field notes).

A similar incident was noted by Christy Price (2017) "if you forget to turn off your cell phone and it rings, it's like you're the devil" (p.3).

Another source of friction was the issue of punctuality and there were several instances on both the basic Ground School course and the Commercial course when students arrived late for lectures which I noted as follows:

One student arrived five minutes late for the morning session but was not admitted and told to return after the coffee break since he was late. On another occasion three of the students failed to appear but arrived later in the morning. The instructor was clearly unhappy and later on in the morning, the three students who had been late were told to report to the Alex, the senior ground school instructor. I understand they were reprimanded and told that their conduct was unacceptable (Field notes).

On the commercial ground school course Alex introduced himself by saying that he had been a navigator for 25 years with the South African Air Force flying Boeing aircraft. Alex emphasised that punctuality was a strict requirement of his course and he said that he would be available every afternoon to assist any student who had a query regarding the course material. And on another occasion two students arrived late after Alex had closed the door to the lecture room and they were rebuked for being late. Alex announced to the class, that in future, if anyone arrived after the door was closed, they would not be admitted. As I noted at the time:

Our ground school instructor has clearly had enough of students arriving late in the morning and accordingly closed the lecture room door just after 8:30 am with about half the class missing and proceeded with the first lecture of the day (Field notes).

When eventually the missing students were admitted after the coffee break they were given a different kind of lecture of considerable length about the reasons why the S&L AS expected them to be punctual in attending class and the expectations that were likely to be placed upon them in future by their employers, who would demand punctuality in the discharge of their duties, since this was an essential requirement for persons employed in the airline industry.

Christy Price notes that (2017)

Millennials also identified instructors they perceived as "down-to-earth," "informal," "relaxed," and "flexible," as connected to the Millennial culture; while those described as "uptight," "strict," "intimidating," or "condescending" were perceived as not connected to Millennial culture. In general, Millennials seem to strongly resist an authoritarian power structure. (p.3)

I took note during lectures, particularly the commercial ground school lectures that many students would just sit, or sit and tinker with their iPads during lectures, but other students, perhaps fewer in number, would appear to be diligently taking notes. I was concerned at this apparent lack of attention by some of the students, always bearing in mind that the following day or a day thereafter, they would be required to sit a test on the knowledge they were supposed to have absorbed. This apparent lack of attention was irritating to some of the lecturers who would instruct students to put away the iPad (rather defeating the purpose of having one in the classroom) or otherwise query the fact that no note taking was taking place. On one occasion a lecturer, challenged the student sitting next to me concerning his failure to take notes whilst the lectures were in progress. The instructor first asked him if he was sitting the course for the first time and when the student confirmed that that was the case, he was asked how he could hope to learn if he failed to take notes during the lectures. In some instances, but on a minority of occasions, the lecturers would permit students to make a copy of the PowerPoint presentation, thus perhaps making note taking unnecessary, but rarely so on the commercial course. A possible explanation for the lack of interest in note taking might be that, to the millennial, information is available online and hence note taking is an unnecessary effort.

There was a sense of competition amongst the students. This was noticeable when the students sat a classroom test. When a student had completed the test, he or she was permitted to leave the room, so an early departure might be perceived as evidence of competency and I recall on one occasion a student loudly announcing for all to hear as he left the classroom "100%!" Outside, students would compare notes on their test scores and the answers to some questions where many had a difficulty. Competition also arose between groups of different ethnicities, and on one occasion we had a competition in the class, a quiz with a prize of R100. The students had formed themselves into two

groups, the Seychellois versus the rest. At the time I did not attach too much importance to this rather obvious subdivision, since the class was divided equally in numbers between the two groups. I should perhaps have realised however, that there was a strong sense of competition between those two groups. The two groups of students were evenly matched, at least in terms of numbers and the R100 was won by the non-Seychellois.

That competition between the two groups was more intense perhaps than one realised, which had interesting consequences for the S&L AS and some of the students. It was always a matter of curiosity to me that the students who left the classroom early after completing a test first, seemed to come from one particular group, and a possible explanation for this was to come to light during a conversation with two students over lunch one day in The Wright Place. But perhaps I should first explain how the test was organised. The class would assemble generally at 8.30 am and the instructor would tell the students to begin the test. The test is available online through 'Pilot Exams' an area of the program reserved for 'custom' exams. Pilot exams had been programmed specifically to present this test. On accessing the test in Pilot Exams using their iPads, the students would set about answering the multiple-choice questions. On completing the test, a screen will show the candidates answers to each question and whether the answer was correct or false and the percentage achieved for correct answers in the examination as a whole. What had not been appreciated at the time was that all students on campus were able to access that test, not only those particular students who were being tested. Once the students had logged on and seemed happy the instructor would depart, leaving the students on their own to complete the test, but not however insisting prior to the commencement of the test, that student's part with any reference material or their cell phones.

Sometime later two students explained to me how they thought that some students may have been able to achieve a consistently high percentage pass rate in the classroom tests. Since all students on site would have access to the test, some experienced students could quickly go through the questions, and on completing the test, the screen would be displayed reflecting the correct answers, assuming he or she was competent in the material. That screen could be copied on a cell phone and circulated to the candidates sitting the test, who would then merely have to copy the correct answers to the iPad. I have no direct evidence that this manner of "passing" was actually taking place, however it does point to a possible weakness in the system and I understand that the S&L AS has taken precautions now, to ensure that this is no longer possible. One might ask in what circumstances were the air school staff so permissive, as to have classes work tests without supervision and perhaps a clue exists in an aspects of military custom as noted by Susie Scott (2011)

Negotiation was further facilitated by an indulgency pattern of power, whereby senior officers would turn a blind eye to minor rule infractions by their charges, in the interests of practical efficiency and harmonious relations (p. 101).

Scott also notes that

Alongside the formal system of bureaucratic rules, there was an informal negotiated order of rule-bending and fudging into which new recruits were socialised and learned what it really means to be a member of this society. Sergeants never seemed actually to break the rules but rather to bend them to their needs, often to facilitate action which would be obstructed by formal requirements (p.100).

The CAA are very aware that cheating is a possibility in the examinations which they administer. They provide their own invigilators for the examinations sat at the S&L AS, who are present throughout the examination. Students are not permitted to take anything into the examination room in addition to the CX2 and Scientific calculators and a pencil. Briefcases, cell phones, iPads must be deposited at the front of the examination room and retrieved by the student when departing. But then, following Scott, the CAA is not part of the immediate community at the S&L AS.

### **The challenge of the Millennials**

The term Millennials is used to describe the generation born between 1981 and 1999 (Christy Price, 2017), or between 1982 and 2003 (Sandeen, 2008), which however defined, will most likely include most if not all of the students at the S&L AS. Certain characteristics are considered to apply to those defined as Millennials and which may determine how best they are to be treated in a learning and work environment.

Characteristics identified by Sandeen (2008) include the following:

They are a pressured and achieving generation. Millennials are team-oriented, confident, and optimistic. Millennials grew up with computers; they have also experienced the rapid adoption of the internet, cell phone, and other mobile devices. They are a highly networked, connected generation and tend to be completely immersed in technology. They tend to be very career oriented and expect rapid advancement and perks. They are very accustomed to being in the spotlight, receiving recognition for practically every achievement growing up, no matter how trivial. They expect to be treated as special and to be catered to. Millennials

also appreciate feedback, having been graded, evaluated, and ranked throughout their lives.  
(p. 18)

Whilst the S&L AS employs a team of highly experienced instructors, there is very little discussion during lecture sessions, although questions are permitted when a lecture is in progress; lectures take place in traditional “rows of desks” classroom style. This manner of instruction is out of kilter with the requirements of the ‘millennial’ generation who now comprise the bulk of the students at the School. Christy Price (2017) observes:

The most consistent theme present in the analysis of the millennial responses was that they preferred a variety of teaching methods as opposed to a "lecture only" format. It is important to note that these millennial students did not reject the lecture method altogether, but they had strongly negative perceptions of learning environments in which lecture was the only method used. According to one millennial respondent, ‘if you lecture all throughout the time then we get bored. If you are constantly changing from lecture, to discussion, to group work, that helps a lot. It helps keep us awake and we learn more. Stuff gets into our head better’ (p.5).

## **Chapter four: flying training**

### **Introduction**

As with the ground school, The Straight and Level Air School (S&L AS) approaches flying training with a strong sense of purpose and the students are expected to work hard and to devote all their energies to flying training. There are, however, brief respites when the pressure is relaxed, and celebration is in order, two of which I describe below under the subheadings of the First Solo and Graduation. Progress towards these objectives is arduous and requires commitment and hard work and the capacity to surmount physical and mental challenges. The accomplishment of the dream for most professional pilots will initially, be the award of a professional pilot's licence and later the achievement of a successful career in aviation. The dream will continue to be realised over many years, as experience is gained and further career objectives realised. The training provided by the S&L AS provides the foundation for that career.

The chapter commences with a description of the training programme, the aircraft in use and the role of aptitude in successful completion of the programme. The perennial issue of discipline is also covered here insofar as it affects aviation training, as indeed are challenges linked to gender and ethnicity. The latter section details the experiences of some of the flying instructors at the school in dealing with situations with individual students during training that may have arisen as a consequence of religious and socio-cultural norms in the students' home communities. Related to this are the consequences of the disciplinary processes followed by the air school where students do not comply with the standards of performance and behaviour during flying training which the S&L AS expects of its students.

The section on substance abuse deals with the hazards posed to safety in aviation by the use by aircrew of drugs. The section describes the procedures adopted by the school to minimise the likelihood that students or staff at the school are in possession of, or use of, prohibited substances and the penalties and procedures that are followed to achieve that objective. Alcohol consumption poses another severe hazard to aviation safety. The section discusses the reasons why aircrew are particularly vulnerable to opportunities for the consumption of alcohol and accordingly strict rules are in place at the school concerning the consumption of alcohol on the school premises and most importantly, prior to undertaking flying duties. A section on safety considers the concept of safety in aviation, including human performance issues that affect aviation safety and are dealt with in the human performance and CRM (crew resource management) training courses at the school. The chapter concludes with the moments of triumph in the career of a novice pilot. The first solo, a

momentous event in the training process, and finally graduation, marking the completion of the training process at the school and the award of professional pilots' licences.

## Training Programme

I do not have first-hand experience of the practical flying training offered by the Air School and accordingly my observations are based upon interview data and my own experience of learning to fly in another era, as covered in the Preface. However, the principles of flying an aircraft have not changed and the manner of practical flying Instruction at the S&L AS is still on a one to one (instructor: student) basis. Learning to fly is a very stimulating and exhilarating experience, much more so than for instance learning to drive a car. Being transported aloft, particularly in a very small aircraft, as most training aircraft are, one is to be able to see every detail at ground level from a hitherto scarcely appreciated perspective.



Fig.25, A Training Aircraft flies over a Coastal Town in the Eastern Cape

Flying is graceful, and at least on a calm day, smooth and seemingly unhurried, because there is little perception of speed in the air, but not without concern since a watchful eye must always be kept open

for other aircraft and even large birds which if encountered head on will do a lot of damage. Training aircraft are slow and relatively simple so that the students grasp the *essential* elements of control and management of the aircraft systems and instrumentation and problems of navigation and communication before moving on to the more complex and faster aircraft they will encounter in their professional careers.

The training procedures in use at the air school reflect the military background of the founders and the senior instructors employed over the years at the S&L AS. They have identified and documented the stages through which a student must pass, in order to achieve proficiency in all aspects of flying an aircraft, a series of lessons which must be successfully accomplished before moving on to the next step. If a student fails to achieve the required standard in a particular lesson, then they must complete a “remedial” which hopefully will resolve the problem and enable them to proceed to the next stage. I had the opportunity of interviewing some of the flying instructors and accordingly I am able to report on some of the difficulties they have encountered in practice with certain students.

The aircraft fleet used for training purposes comprise Piper Cherokee Pa 28 series, single engine, four-seater light aircraft of mid-1960’s vintage some of which have been updated to “glass cockpit” standard of instrumentation, but the majority are still fitted with vintage “analogue” instruments. Twin-engine training, is accomplished in Piper Seneca aircraft. The fleet, although old, is well maintained by the AMO (Air Maintenance Organisation) which is part of the S&L AS organisation. The AMO is able to deal with most aspects of the maintenance of the aircraft fleet including engine overhauls, but work on Instruments and radios is dealt with by separate contractors also based at the airfield. The photographs below show a single engine Piper Cherokee PA28 aircraft and a twin- engine Piper Seneca used for training.



Fig. 26, 27. Piper Cherokee and Piper Seneca. 1965 Vintage, but still going strong

## Discipline issues in flying training

Discipline is important in the training process and in the manner in which the work of a pilot is accomplished, and for the air school something that requires compliance, if the air school is to be a success as a training establishment. Punctuality is an important element, as is adherence to procedures, and students may be fined, suspended and even 'washed', for breaches of the disciplinary code. The circumstances where disciplinary procedures may be invoked during training are described below.

Chloe Mvula explained the process when students are passed from one instructor to the next and the disciplinary procedure when a student misses a training slot (appointment).

C: We have a training file for each student when they start and it follows them through each instructor, all the way through to their test Com, and we have de-briefs so that we can debrief the student after every flight and we also give homework as well. We grade their flying performance and we grade according to different aspects: aircraft control, flight management, knowledge, pilot knowledge, procedures, so we do have like a record of how each flight went, every flight.

M: What about their responsiveness to you as an instructor, whether they pay attention, whether they do as you have told them, and so on. Whether they are cooperative, or a bit obstructive, do you make notes about that?

C: Yes, that will go in the file as well, probably under critical faults, or even under unprofessional attributes, the fact that they are unresponsive, and they don't listen, or are inattentive. That will all go in their file, for other people to read as well. Everything is on the file for the next instructor

M: Do you discuss it with a senior instructor or with the student?

C: The student will sign it.

M: They have to accept the reports?

C: If they don't it becomes an issue, but a lot of the time you will find a student is fine and we don't have a lot of problems with them and it is important for everybody else to understand as well. If I get a student from somebody else then I read the file, so that I have a good idea of what I can expect from them as a person. The instructors talk as well, we talk to each other about different students as well.

M: So the student has to accept the critical remarks that you make?

C: Yes they do

M: I notice, from the disciplinary code, about “no-shows” -- four or five no-shows and you will be on the bus back home. So what is a no show? How are these categorised?

C: If we book a slot for you as a student and you don't show up for the slot, we give you a grace period usually, but we expect you to arrive within 15 minutes, unless you cannot be there for some reason sometimes; for example you might need to refuel, so if we agree that you are going to be late that's fine, but if you make no attempt to contact us, and then it's about 15 minutes into your slot we start looking for you. If we can't find you, then we wait 30 minutes and then we cancel, then we say it's a no show, but if you have a reason for it, a valid reason, then it is okay.

M :) Do they get a written warning on account of that?

C: First time you get a written warning, and second time you will be charged 50% of your slot and then the third time you'll get a disciplinary hearing. You would not do it with a boss, so why would you do it here?"

(Cloe Mvula, interview 20/7/2017, p.6, 7)

On the topic of washing (training cancellation) Leslie Walker explained the procedure where a student repeatedly fails to achieve a particular milestone in training and consequently comes to be considered for possible washing:

In our programme guide we have different scenarios where if a student does not pass a particular lesson, we can then repeat that lesson. If the student for the second time does not achieve that lesson, then they're in for what we call a review. It is called a Flight Manager Review, so the flight manager approves it and the students will go into this review process. The number of hours that have been assigned for this particular review will go on the recommendation from the instructor and the flight manager and then the student needs to come out of the review by achieving the objectives that were set. If the student cannot achieve those objectives, they go into an independent review which will then be with a more senior instructor and someone fresh, one who has not flown with the student before, so they can possibly identify issues that were not noticed before. If that does not work they go into another review which is usually done with one of the flight managers, more senior guys,

where they will then go and do a flight and the objective is to see where the student is to be washed or not.” (Leslie Walker, interviewed 7/12/2017, p. 9)

Evidently there is a hierarchy of Instructors at the school and before any students is washed the student is exposed to additional checks by other instructors and managers before any final decision is taken to send the student home. As John Evans the founder of the school commented on the subject of discipline:

J: I regarded it as a contract with fathers, daddy is paying, so daddy gives me this wretched little brat and a whole lot of money and says turn this thing into a pilot. That is the way I see it, but the students don't see it that way, they say my daddy is paying you, therefore you must jump around, and I say no, no, your daddy is paying me, so you must jump around, this is a different attitude. At Rhodes they consider the student to be the customer, they have to pamper him a little bit, and tiptoe. Initially you can't afford to lose a student, each student is a big chunk of money, but as soon as you start getting busy, you can afford to mess people around and chuck them out. I would very seldom wash anyone on slow learning, or lack of ability,

M: How about too many hours before going solo?

J: You assess the guy, most candidates are going solo in 15 hours, and if you can see this guy is going to take 20 or 25, but he will get there, then I would get hold of daddy and say are you prepared to put the extra money into it, this is what has happened. He might say no I can't afford it. I would seldom wash a student on ability, but I would certainly wash them on discipline or effort, if they don't bloody turn up, or they have a hangover or something.

M: If they don't show up for their training slot, and if that happens on more than one occasion, then there is a disciplinary hearing, and that presumably happened in your days.

J: Yes, and the discipline was fairly strict, I would say “you have crossed the line, I warned you about it, I want to see you tomorrow morning with your car keys”. I would say “do you want me to keep your car keys for a week or do you want me to phone daddy about your misbehaviour”. They would say you keep the car keys because they did not want me to phone daddy. Daddy was paying a bloody fortune.

(John Evans, interviewed 1/5/2018, p. 9)

Things may not have changed so much at the air school since the days of John Evans and strict disciplinary processes are still implemented at the S&L AS, especially for such issues as substance

abuse and the consumption of alcohol which present significant hazards to aviation safety, as will be discussed below.

### **Gender, and ethnicity challenges**

Whilst this thesis is primarily concerned with the experiences of persons attending the S&L AS and does not attempt to address issues of concern in the world of aviation in general, it is perhaps important to note that women are on record as having experienced considerable discrimination both in training and whilst operating as pilots in civil aviation and in the military (Bridges et al., 2014). As noted by Davey and Davidson (2000) "It was not until 1976 that British Airways sponsored a female pilot to attend its flying college" (p.196). Davey and Davidson report that female pilots have experienced instances of prejudice and discrimination in training and quote a situation of a female pilot undergoing a simulator test in the United States:

She was required to land in the simulator, whilst coping with a double engine failure, a failed trim and an obstructed runway. Although she landed safely and was awarded her licences, the test caused her legs and hips to lock and she could hardly stand up afterwards! (p. 198).

A female officer who worked for an American airline was 'accused by pilot colleagues of taking a man's job and told that she should get married and have children' (p.199).

Ashcraft (2012) noted

Airline pilots refashioned themselves as professionals against the aviatrix and stewardesses. The construction of professions entails not only aligning occupations with particular people but contrasting them with lowly others. Without encoding gender and race hierarchy into its very profile, an occupation tends not to become or remain a profession. Masculinity, whiteness, and the opposite others on which these are perched remain crucial to the accomplishment of professional identity (p. 471).

Quoting from *Absent Aviators* (Bridges et al., 2014)

Piloting is a gendered occupation. Currently women pilots represent less than six percent of the worldwide pilot population. Despite affirmative action and equal opportunities legislation in many countries, piloting remains a domain into which women rarely venture. Traditionally, airline pilots were recruited from the military, where a masculine culture dominates. Aircraft are technologically advanced and represent a high level of capital investment and it is widely understood that in industries where technology and investment are dominant masculine gender structures are prominent within occupation roles. However

rather than a glass ceiling, the aviation domain appears to have glass doors. Many women may look inside and turn away from what they see and hear. Those who do enter can be faced with a strong masculine often misogynistic culture. This can manifest itself in jokes and innuendo about women pilots (p.2).

It would be appropriate therefore to consider whether the S&L AS is creating an opportunity for women to enter the aviation profession by providing training and whether once enrolled at the school they are afforded the same opportunities as male students and are able to progress until the point that they attain their airline transport pilots licences; also, if employed as instructors by the S&L AS, whether they are exposed to any discriminatory behaviour by male colleagues or the students whom they train.

My discussions with staff responsible for recruitment of student pilots showed that the school has an open door policy towards students of all races and ethnicities, male and female. There are no restrictions on acceptance for training at the school based upon the gender or ethnicity of the candidate (Louise van Rensburg interviewed 12/7/2017). At the time of my conducting research at the school, of the 252 students, 216 were male and 36, female (Appendix 2). This reflects the gender of applicants as opposed to any gender discrimination in the acceptances. While the situation presents a picture some long way from equality, it does demonstrate that the barriers to female entry into the profession are being eroded. Of the 48 active flying instructors employed at the school 12 were female. The majority, of those instructors, having attained their suspended Airline Transport Licences were remaining with the school with a view to accumulating the required number of flying hours (1 500) to activate their licences and thus, in most instances, to seek employment in the airline industry. Dave Leahy, with whom I discussed the issue of female instructors at the school stated

I think it's just the misogynistic attitudes of the past, there is no reason why a female should not become an excellent pilot, none whatsoever, and it's an archaic approach. That is the first thing that I did when I got here, when I took over, there were one or two female pilots, as instructors, but now there is a fair complement (Dave Leahy, interviewed 18/10/2017, p.13).

I interviewed three of the female instructors, a white instructor from South Africa and two black instructors, one from South Africa and the other from Kenya and I quote from the transcripts of my interviews with two of them. These examples of unusual situations encountered by Instructors serve to demonstrate how female instructors gain experience of handling students in the air and are challenged to cope with students of a different gender and cultural background.

Leslie Walker:

L: Vietnamese in particular, I found the most challenging. I had a bit of a scary experience with one of the Vietnamese guys ... We were about to rotate, and he just locked his arms fully forward. I aborted the take off and we stopped not even 100 m from the end of the runway before we rotated. It wasn't his initial take off, but I said to him <sup>3</sup>rotate. The first thing to go sometime if they are under a lot of stress is language. He had done a couple of take offs before and he just did not rotate and when I attempted to rotate, I realised the control column was not moving so I had to abort and eventually when I looked across, he had just frozen in place, with his arms fully locked<sup>4</sup>. That was my most challenging case, but I have dealt with quite a few, and you develop very special bonds with some of your students. That does not necessarily mean that they are your best students, but with some of them, particularly the women, I find that I put so much time and effort with a particular student, that you develop a very nice bond with them.

M: So, the relationship is important to you as a sort of comfort is it?

L: it is, there needs to be trust, both ways, some of the students often forget that when we initially got our instructors rating, we had no more hours that they do when they test Com. Now we're going into a structure where we are teaching people and we are training them up to that, but we don't have a lot of our own experience, necessarily. Sometimes there are situations where in the aircraft where we get a bit of a wake-up call, again because we have not necessarily experienced something like that before. We went through a wind shear a couple of weeks ago when we went on a trip to Cape Town. I already had carb icing, a partial power loss, and when we landed we found that the entire carb heat duct had disappeared, so that's over 50 cm of ducting that had fallen out of the aircraft and then we went over Sani Pass and encountered wind shear, air speed went up past 165 mph which is 15 miles from VNE (never exceed speed) on our aircraft, and I got the fright of my life. I have never experienced something like that. The student was very trusting, I throttled back, but that does not necessarily fix the airspeed, you have just to keep going for a while, and fly as you would. That's all you can do. There definitely needs to be trust between the student and

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<sup>3</sup> Rotate is the term used to describe the change in attitude of the aircraft during take-off when the pilot applies backward pressure to the control column, causing the aircraft to become airborne.

<sup>4</sup> Frozen in place with his arms fully extended means that the student pilot had resisted operating the controls to initiate rotation and thus prevented the aircraft from taking off, a potentially dangerous situation.

instructor but sometimes we come to the realisation we are also learning along the way and we are developing our experience by training them.

The aborted take - off and over speed flying over the Sani Pass are not connected, taking place on separate occasions, but on both these “wake up call” occasions the instructor was able to recover from a potentially dangerous situation. Although not specifically related to the gender of the student and instructor, they demonstrate the importance of establishing a good relationship between student and instructor, particularly in an emergency, and for the instructor, the requirement for immediate and decisive action, when necessary to avoid an accident.

Leslie walker (continued)

Another time, I had one of the Air Mauritius cadets and he did not want to fly with me because I was a woman, and he made it obvious, but I had already heard about that through the grapevine. We did one flight together and I said to him, okay, I am going to land, and I landed. He looked at me, and he said, ‘Leslie that was such a brilliant landing’. He didn’t use precisely that language, but he was very explicit because that was his personality. From that day on he would not fly with anyone else. But I did feel that I had to prove myself to him as a male student.

M: You are very frank about it I appreciate that

L: This is something that we have to deal with on a daily basis. I briefed one guy for over 10 hours because he had been really struggling, and he had been given to me, he just sat opposite me, and he would not look at me, and I eventually went to Richard Goody, I said to him, Richard I am very new at this, he is unresponsive, I briefed, we took down the times so everyone knew how long we have been briefing for, and that was the first time I had ever dealt with a guy that hadn’t wanted to fly with me. Eventually I sat down with him and I said, Okay would you prefer to be instructed by a male? I don’t think I ever spoke to him again, he literally was just so relieved to not have to deal with a woman. (Leslie Walker, interviewed 7/12/2017, P. 5, 6, 11)

Chloe Mvula, a Black Kenyan Instructor, had the following to say in response to the question “Did you have any problems with any specific category of student?”

C: I have once or twice had an issue with students, but not often as I usually get on very well with the students. I have had one or two issues, but it was mainly because all the Mauritius guys, male guys, they have a bit of an issue about taking criticism from females. They have a problem with a younger female telling them they are wrong. That happened on only two

occasions, I think because they were older, and we just didn't get on. I know that does happen sometimes, I know a lot of other instructors have issues with the older male guys. I have rarely had an issue with them, which is weird because I would have thought, being a black female, they would have an issue with that, but I get on perfectly fine with them.

M: So gender/ethnicity issues have not really caused you difficulty with students. You have not had students refuse to work with you?

C: No, sometimes you have cheeky students, but that is just attitude.

M: You mentioned you had a problem with one particular student. How did the school handle it? Did they leave it to you to sort out with the other instructors, or did the school intervene to resolve the issue for you?

C: I basically go to my flight manager, when I told him I am having this issue. After I had an argument with this guy, my friend in the office next door said she had never had a student talk to her like that before, absolutely gross, she said, I can't believe he said that to you. She said you have to take this quite seriously and go and talk to the supervisor. I said, you know what I'm going to do, I will go and talk to the student and I will give it another try and see how he comes across. I told my supervisor I am struggling with the student and he is not receptive, generally he thinks he knows better, talks over me, yells at me, and is very disrespectful. My supervisor said, "I want you to debrief him, and I am going to stand right around the corner". I was getting very frustrated because a lot of the time you get very personal with students because you want them to succeed so badly.

M: And you were angry, because of the way this guy was treating you?

C: Wild, because I was putting so much work in and to be treated that way ... I suppose I have got to get used to it. The students are very ungrateful for how much work their instructors put in. My flight manager, he was sitting around the corner whilst I was debriefing the student, and he could hear how mad I was getting and how the guy was talking to me. He intervened, "Enough, he said, that is not how you speak to her, this is not how you speak to your instructor". They had a chat and he said, "For both of your sakes, I am going to give you another instructor". He gave him a very senior male instructor, he was quite happy going to a male instructor, because that's what he wanted. He did not take me very seriously, he did not think that I knew what I was talking about (Chloe Mvula, interviewed 20/7/2017, p.11, 12, and 13).

With a young woman instructor, it appears some male students will want to assert their masculinity, and this will tend to interfere with the instruction process. The female Instructors emphasise the importance of the relationship they have with their students, however they do experience hostility, even rejection, by some male students at the school in the role they play in flying instruction. The S&L AS, for its part, appears to appreciate that sometimes the student /instructor relationship is not going to work out for various reasons, and Leslie Walker commented:

It's a difficult process, however, because we are a very close community in the school and we are in a very small town, so for a student to request an instructor change is quite a big deal because you still have to deal with each other on a daily basis, so the trick is for neither side to take it personally. You are forced into a partnership and sometimes it does not work because there are personality factors, there are religions that differ, there are cultures that differ, and sometimes it just does not work. It is just something that has to be accepted on both sides (Leslie Walker, interviewed 7/12/2017, p.13).

The construction of identity is at times a fraught process for both instructor and student in flying training as problems of culture, religion, personality and gender intervene in the relationship between Instructor and student. Such differences may hinder, but on occasion, contribute to the process of gaining experience. In learning to deal with a diverse a group of students the Instructors gain a very broad cross-cultural experience of human interaction and behaviour.

### **Substance Abuse**

Substance abuse is a very serious issue in aviation, because it affects safety and any sure evidence that drugs, other than prescribed approved medication, are being taken by a pilot may result in immediate dismissal from the school and the loss of a pilot's licence. Despite the dangers, it is not unknown for pilots to endanger themselves and others by using prohibited substances and according to Muntingh (2007)

A study performed in 1994 by the Federal Aviation Authority revealed that an estimated 14,000 US pilots flew while using prohibited medications or illegal substances, or flew with significant unreported medical conditions (p. 44).

As previously noted, the 'Terms and Conditions – Part 2' of enrolment of a new student at the S&L AS include the following clause:

2. Attention is specifically drawn to the company's right in the interest of flying safety, to carry out periodic spot checks of substance abuse by students. Should you be selected for testing your compliance will be appreciated.

The managing director of the school, described the policy of the school to me regarding drug use:

Drug testing is performed on both students and staff members of the school, selected primarily on a random basis, but also to take into consideration the known conduct of the students and perhaps member of staff concerned. Bearing in mind the diversity of students at the school, care is taken to ensure that the sample includes representatives across a broad spectrum of ethnicities and gender, so that the school cannot be accused of discrimination. If a student is found to have taken drugs, they are sent home, and that in all probability would be the end of their career in aviation. Testing positively for drug use would result in the civil aviation authority cancelling their student licences and a positive test for drug use would appear on the record which would be available for future employers (Field notes).

Rita Malone, stated that students will try various strategies to defeat the testing process:

They try all sorts of things. I have actually witnessed one. I went with this female student, and, with Dr Forensic, we actually stood watching the girl supposedly produce a urine sample. She had a very big dress on and she had her hand underneath her dress and she still fooled us when she presented the sample. But the doctor said: This is not a sample because it is ice cold. She actually had it in a plastic bag which she threw in the dustbin there, in the bathroom, which was stupid, because it still had urine in it. Obviously, she was terminated (Rita Malone, interviewed 24/7/2017, p.2).

Rita confirmed that the random tests of drugs are applied to members for staff as well as to the students. Testing members of staff however may have some negative consequences as far as staff morale is concerned, and as noted in *Drug testing in the work place* (Lu and Kleiner, 2004)

Drug testing programmes often have negative impacts on employees' morale. When employers ask for drug testing, many employees may find that they are very humiliated to be required to urinate into a bottle. They may think that employers do not trust them, so ask them to take drug testing. Moreover, since drug test can only show the presence of drugs, employees may perceive that employers use drug testing is to know their off-duty conduct and intrude into their private lives. They will feel it none of the employer's business about their off-duty conduct. (p.48).

Perhaps, in the context of aviation, since many of the employees are directly involved in the business of flying training, they will share the concern that management have regarding substance abuse, and personal concerns of management intrusion will not be of such significance. John Evans related the following incident concerning a student who had been taking drugs and had an accident in one of the school's aircraft

We actually had a very interesting episode, there was a Pom, one of your tribe, who was obviously a spoilt little boy with very, very rich parents. They had sent him out to South Africa to get some military discipline into him, and he was trouble from day one. We rather suspected that he was on drugs, anyway, he eventually crashed one of my aeroplanes into the bloody river at Kenton. He was bugging around, he must have been full of drugs, and sailed into the river, without really hurting himself. He was floating in the river, and he got out on the wing of the aeroplane. There was a guy in a fishing boat, just up there, who saw all this, and this bloke goes back into the cockpit, and he comes up with a microphone and says "Mayday, Mayday". We raided his room, there was devil worship stuff, and drugs, and all sorts of crap. I had had enough of this bugger in any case, so I got hold of the cops and they took him away. Daddy was furious; daddy phoned me from England: How dare you, my son! -- I am paying you. We have had a couple of occasions where daddy has actually threatened legal action through our discipline. Well if you don't like it, take him away! You can only do that if you have a good financial base (John Evans, interviewed 1/5/2018, p.14).

Fortunately, the incidents at the school involving substance abuse appear to have been few, perhaps as a consequence of the vigorous testing regime in place and threat of instant dismissal that hangs over the heads of students should they be caught in possession or having taken prohibited substances. An important aspect of the construction of identity of the professional pilot is that they should be aware of the risks and abstain from any form of substance abuse.

## **Alcohol**

Drinking is a problem in aviation, because of the effects it has upon judgement and concentration and is thus a major risk factor and potential contributor to accidents. Cook (1997) notes that

Alcohol will impair the performance of any pilot, albeit, subject to individual variation in innate (perhaps genetic) vulnerability, or acquired tolerance. The problems that arise when aircrew drink before flying are thus not the domain of only a few pilots who drink frequently or excessively or in a dependent fashion. They are rather a function, specifically, of the

number of times that aircrew drink so as to impair their performance while responsible for the safety of their aircraft (p.552).

The regulatory time that must elapse between taking a drink and resuming flying duties is eight hours, however if a considerable quantity of alcohol was consumed, eight hours may not be sufficient to ensure that aircrew are fit for duty. The responsibility for ensuring that he or she is fit for duty rests with the pilot. However as further noted by Cook (1997)

Many aircrew remain ignorant of basic facts concerning the metabolism of alcohol, and the consequent duration of its degradation of their performance, and a small number of heavy drinking pilots, apparently consider it safe to fly after drinking quantities of alcohol which make it unsafe (and even illegal) for them to do so (p. 552).

Contributing factors to the drinking problem that some aircrew display, is the life style that many must endure, long hours away from home and family, living from hotel room to hotel room and the pressures of the job, and as noted by Gauvain (1977)

The opportunities for the use of alcohol and for a dependence on it as an emotional prop, are in all probability far higher amongst flying crew than other members of staff, because of their work pattern and the length of time that they may spend away from home. Excessive drinking in most instances, develops from the customary social habit of a drink on a night stop when alcohol may be available duty free. (p.117)

The S&L AS has a bar in The Wright Place. The bar is open in the evenings until 9pm when students are expected to return to their rooms. Students are not permitted to bring alcohol onto the school premises and are liable to being searched at the gate to prevent their doing so. This practice is not always appreciated by the students, as commented upon by Stephen Matthews:

It is just like the way that, some of their little rules around the school, especially with, like, the one thing that does my head in is the alcohol thing. Driving in and out, getting searched, does my head in (Stephen Matthews, interviewed 19/7/2017, p.19)

The school has put fairly robust security and monitoring procedures and equipment in place and In addition to the CCTV cameras there are guards at the gate to the airfield, manned 24/7. The guards operate a system of random checks on cars entering and leaving the premises. There is a system of pass cards in operation at the gate, which serves to identify the students and record their times of arrival and departure from the airfield.

## Safety

The S&L AS has been relatively free of accidents over the years, but it is perhaps worth mentioning two incidents which took place during the era of John Evans, in addition to the incident already mentioned, where the use of prohibited substances may have played a part. The first concerns an incident where a young female student and her instructor were killed when their aircraft crashed into the sea off the coast of the Eastern Cape:

J. Daddy had brought her out from Italy to come and learn to fly with us, and he said to my chief flying instructor, the last thing he said before he went "Please look after my little girl". And a week or two weeks later, we had to phone him and say she is dead. They spun into the sea.

M: I think I read about it, isn't there a memorial on the coast

J: Absolutely there is, a horrible business, and then there was another fatal accident in Johannesburg ...

M: They filled up with fuel, there were four on-board, it was an Arrow or something, and they did not calculate the take-off distance.

J) Otherwise, we had an extremely good safety record, I don't know what it's like now, and I have not stuck my nose in it for a long time (John Evans, interviewed 1/5/2018, p.6).

I witnessed the immediate aftermath of an accident which occurred during my attendance on the ground school course and noted as follows:

Some discussion took place about accidents and in particular the accident that happened to the Piper Seneca aircraft earlier in the week, when the undercarriage had collapsed whilst the aircraft was taking off, with consequent considerable damage to both propellers and engines of the aircraft. The collapse of the undercarriage was attributed to an unreported hard landing which had taken place previously in that aircraft. (Pilots have a responsibility to note any defects they observe in an aircraft after they have concluded a flight and a hard landing ought to have been reported by the pilot). Reference was also made to the earlier accident, which I recall reading about in the local press, where a student at the S&L AS had a forced landing with a Cherokee in the Kowie River. (Basic Ground School field notes)

The school operates in an area where conflicting air traffic is relatively infrequent and has an extensive training area along the Coast between the Fish River Estuary and the Bushman's River at

Kenton on Sea and extends North as far as Grahamstown. In addition to location, factors contributing to safety in my opinion include the highly qualified and experienced instructors employed by the school, the rigor of the training methods and procedures and a well-maintained fleet of training aircraft.

The S&L AS, in its ground school, tends to focus upon the aeromedical, psychosocial and cognitive aspects of aviation safety in its course on human performance and CRM (crew resource management) training and describes in considerable detail, the problems associated with the consumption of alcohol and smoking and use of non-prescription medication and drugs when exposed to the atmosphere at altitude and at night, and the unreliability of sensual stimulus where visual references to environmental conditions are reduced.

Daniel Aurino (2000) writes that “Ultimately, safety is a state of mind. Safety partly rests in formal structures and protocols, but fundamentally in attitudes. Safety intertwines with risk and human life” (p. 953).

Aurino further notes that

Accidents will also continue to happen because error-free human performance will simply never happen. It is impossible to anticipate and deal with unexpected and random issues such as forgetfulness, tiredness, inattention and so forth. Accidents will continue to happen simply because it is not viable financially-speaking to deploy the huge amount of resources necessary to completely prevent them (p. 957).

The Air School pays considerable attention to identifying what they perceive to be attitudes of mind in a pilot likely to contribute to causing accidents and counsel the students accordingly, but their resources are not limitless. Perfect safety in flying can never be guaranteed.

## **Rites of Passage: First Solo and Graduation**

### **The first Solo**

A highlight of the basic practical flying training course is the first solo. This point arrives when the Instructor considers that the student has attained sufficient skill, competence and confidence to be able to complete a full circuit of the airfield, that is to say, take off, fly around the airfield and land the aircraft on his or her own. It marks a shift and, as we shall see, is marked by a ritual, a rite of passage.



Fig.28, Overflying the Air Field and the Threshold of Runway 07 in the Late Afternoon.

This picture reflects the view of airfield over which the novice pilot will fly during his first solo flight and the complex pattern of runways and taxiways connecting to the apron. The stages of a circuit, which in fact is rectangular, are termed cross-wind, down-wind, base and finals. The assumption is that the aircraft always takes off into wind and hence the names to describe the elements of the “circuit”. Before commencing a first solo the air traffic controllers, who operate from the control tower would ensure that there is no conflicting traffic which might create a problem for a nervous and relatively inexperienced pilot. The following images show the control tower and a controller at work.

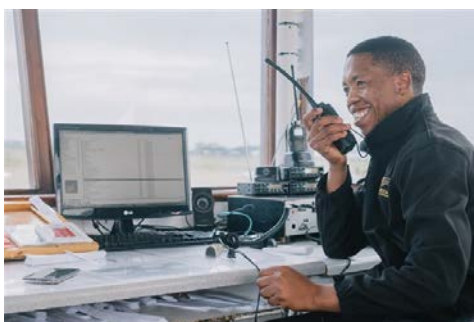


Fig.29, Air Traffic Controller



Fig.30, the Control Tower

Usually the instructor, having first satisfied himself or herself that the student is prepared to undertake their first solo, will fold his safety harness neatly on his seat, the right hand seat in the cockpit, and instruct the student to taxi out to the holding point of the runway in use and inform the tower of their intention to complete one circuit, having checked to see that there is no conflicting traffic, for example another aircraft on final approach. The student pilot will take off and complete one circuit and land. After landing the student will be greeted by a number of classmates and fellow students who will carry them bodily from the aircraft, taking care to ensure that the feet do not touch the ground, to be transported to the swimming pool and heaved into the water.



Fig.31, Happy, but Heading for a Ducking!



Fig. 32, Preparing for take-off



Fig. 33, Ditching!



Fig. 34, Fun over, let's go



Fig. 35, Congratulations!

Once every couple of months a solo party is held when the usual strict rules about alcohol consumption on campus are relaxed and flying is suspended for the weekend. Everyone at the school is invited to attend and the event is to honour those students who completed their first solo in the preceding period. The students are called up one by one to receive a certificate commemorating their achievement, and also their tie is cut below the knot and later the tie is hung from the ceiling rafters in The Wright Place. The ties that adorn the ceiling are many thousand in number, the practice having commenced in the early days of the operation of the school. The instructors of the students concerned usually relates some embarrassing anecdotes concerning the student's progress during training to the amusement of all concerned. The first solo and the recognition of the achievement are an important milestone in the development of self-efficacy and self-esteem (Davis et al., 2000) in the trainee pilot .



Fig. 36, Tie Cutting Ceremony!

In anthropological terms, this is a typical “rite of passage”, marking the first time a flyer becomes a flyer by leaving the ground (and returning to it without mishap) on their own.

## Graduation

Graduation takes place once the student has completed training and has been issued with a Commercial Pilot’s Licence or suspended Airline Transport Pilot’s Licence. As noted, the holder of a suspended ATPL must gain additional experience before the suspension is removed, and In South Africa that additional experience is approximately 1 500 hours. Many students remain at the air school to undertake the duties of a flying instructor until they have achieved the additional hours. Others will be recruited by an airline to gain experience as first officers, taking the First Officers’ seat on scheduled flights. A third category might be to work for a charter company or even become a crop sprayer to gain the additional hours. Graduation for the majority will be the attainment of the dream, although most will have set their sights ahead, to achieve further career milestones in the future. For many the Captain’s seat is the ultimate objective and the most financially rewarding position to occupy. Training captains are especially favoured by the airlines. The S&L AS has a ceremony of giving awards to successful students on graduation which are illustrated in the following photographs taken at a recent graduation ceremony, marking with a rite, another stage in the passage to Captain.



Fig. 37, Students being congratulated on Graduation



Fig. 39, the Dream Becomes Reality

## **Chapter Five: The Nature of the Air school as an Institution and the Construction of Identity**

### **Introduction**

This chapter returns to issues of the nature of institutions and the construction of identity in the light of the data presented in the substantive chapters. The scope is integrative, as it re-addresses topics raised in the General Introduction, including total institutions, invented traditions, uniforms, reputation, professionalization, discipline, maturity and even the mastery of an arcane terminology.

### **The nature of the Institution**

#### **Total Institution?**

Erving Goffman recognised that there were different categories of Total Institutions and as noted by (Ritzer, 2005) those categories included “Institutions established to pursue a work like task—army barracks, ships, boarding schools, and work camps” (p.2). The Air school would seem to fall somewhere between the Army Barracks and the Boarding School. Goffman’s work is not without its critics and Howard Becker (2003) criticised Goffman for his grouping together of institutions created to fulfil diverse purposes on the basis of the totality of their “enclosedness”, his choice of language in describing their characteristics and practices, and for failing to describe the methods he had used in undertaking his research.

However Christie Davies (1989) noted

Goffman's concept of total institution remains a distinctive, useful, and creative contribution to sociology. It should, however, be employed with a greater degree of care and precision than has been the case in the past. In particular, those using it should specify how total a particular total institution is, using the dimensions of ‘degree of bureaucratization’ and ‘openness versus closedness’ that I have put forward. Furthermore, account should be taken of the avowed official purposes of each institution and the modes of eliciting compliance that are employed (p, 94).

I do not think there is any doubt that the Straight and Level Air School (S&L AS) is highly bureaucratized. Management prescribe the rules, monitors compliance and impose significant sanctions on those who fail to comply with their requirements. Those sanctions include fines and in

extreme cases, handing over to the authorities, and expulsion. The performance of students is monitored and regularly reported to sponsors who may apply sanctions to the students whom they sponsor, should they fail to perform. So far as the degree of openness and closedness are concerned, I think management, whilst they have put security procedures in place at the gate and partially around the perimeter of the site and monitor and control arrivals and departures, have not sought to seal the S&L AS entirely from the remainder of the community in town. In practice they could not do so, since they require use of some of the facilities that are only available in town, for example the fire, medical and other emergency services, and rental accommodation for students who are free to live off-site. Students may leave and return to the site whenever they wish, so long as their absence does not conflict with the training schedule and providing of course, they do not return to the site drunk or attempt to bring alcohol or drugs onto the air school premises. Another factor to be considered is whether the 'inmates' have been stigmatised by society, as would be the case perhaps for those confined against their will, as for example, criminals or the insane, or perhaps merely elderly and unable to take care of themselves. Nicos Mouzelis (1971) noted

Goffman's theory, instead of being a general theory of total institutions, is only relevant to one type of Total Institution: that which is characterized by compulsory recruitment and whose inmates are in one way or another 'stigmatized' by the wider society" (p. 118).

No stigmatisation is applicable, so far as the youthful students of the S&L AS are concerned, who attend and submit themselves of their own free will in accord with the requirements of the institution, in order to obtain a new identity as a professional pilot. We may therefore conclude that the air school does not fall within Goffman's definition of a total institution, despite displaying some of the designated characteristics, for example the bureaucratic attitude of the management, disciplinary code, surveillance and punishment regime in force.

### **Intermediate Total Institution?**

As Christie Davies (1989) noted "It is useful to create an intermediate category between the 'open' and 'closed' Institution" (p.86). In the open institution people will probably be treated in a less 'batch-like' way than those that are closed. A classic case of an "intermediate" total institution is the traditional British Public (i.e. private) Boarding School. The pupils at these schools can, in theory, enter and leave the institution freely, but in practice their status as minors makes this difficult. The S&L AS, an educational establishment, has many features in common with the boarding school where disciplinary rules and procedures are in place and the purpose of the Institution is as noted by Davies (1989) 'to transform people, to educate the immature into useful or at any rate conforming adults' (p. 88). But the students are adults, as at all institutions of tertiary education, and they are highly

motivated to join a prestigious and lucrative profession, whatever the restrictions on their freedom during the relatively brief period of their on-site training.

### **Reinventive institution?**

In her book *Total Institutions and Reinvented Identities* Susie Scott (2011), discusses the concept of the reinventive Institution which she defines as follows:

A material, discursive, or symbolic structure in which voluntary members actively seek to cultivate a new social identity, role or status. This is interpreted positively as a process of reinvention, self-improvement or transformation. It is achieved not only through formal instruction in an instructional rhetoric, but also through the mechanisms of performative regulation in the interaction context of an inmate culture (p. 3).

Scott's concept of the 'Reinventive Institution' (RI) is not entirely applicable to the S&L AS since she notes that

"In contrast to the Total Institutions' rigid hierarchical role structure that allow the 'authoritative imposition of consequential identities' by staff upon inmates, RI's pride themselves on democratic rule by the members themselves, who monitor each other's conduct through peer-to peer surveillance" (p.3).

While the S&L AS has from the outset striven to create a "reinvented identity" for the students who enter its domain, this is achieved more by *neither* the 'authoritative imposition by staff upon inmates' *nor* 'by peer to peer surveillance' but through frequent reminders and of a presumed-to-be heroic past. The S&L AS, beginning with the ideas of John Evans that are continued by the corporate owners, has invented its own subtle form of reinvention, which draws clients from all over the world to its remote Eastern Cape campus.

### **Invented Traditions – Military Influences**

The tradition which the founders and their successors have sought to incorporate in the present air school, inherited from the wartime air school operating from the same site during WW2, has been reinvented in ways including, but not limited to the restoration of the original buildings. Through the use of imported artefacts, renovated former military structures, the preservation of wartime gun sighting patterns on some of the walls of buildings, the use of uniforms for students and instructors and the disciplinary code, the founders and their successors have recreated a wartime military heritage for the school and the notional perception of continuity with the wartime operation on that site. The invented tradition also entails the quasi-military training methods and disciplinary

structure of the school. Those practices were introduced by the founder of the school, John Evans, whose background and training was with the Royal Air Force in the United Kingdom and later the South African Air force and has been perpetuated by the current management of the school through the continued employment of ex South African Air force personnel as instructors.

This traditional approach to training works for the S&L AS, because it continues to attract clients. For private sponsors – the parents or other relatives -- the “no nonsense” style of military training is an attractant. The airlines, ultimate consumers of the product of the school, who historically have recruited Pilots from the military, also perceive the school’s approach as the “next best thing” to military training. Some of the students who initiate their training at the S&L AS themselves, will recognise that the disciplined culture of the School will better enable them to carry out their duties as airline pilots. An air school that is constantly endeavouring to instruct them in the habitus of the profession of which the past history forms an important element, is best suited to delivering a successful product.

### **Invented Tradition – Uniforms**

I had the opportunity of discussing the importance of uniforms and their link with discipline and the construction of identity with James Justice who had retired from a senior position in the South African Air Force, and his comments are as follows:

Aviation is a highly disciplined sort of profession, so by putting people in uniform you have already given them some sort of identity towards what they intend to be at the end of the day. But you also have this group cohesion and all the sort of stuff that goes with that. At the end of the day you have some sort of standard, whereas if you don’t have anything like that you may get all sorts of standards. It is not the same sort of discipline as you have in the military, but you need a lot of discipline to be able to apply all the rules and regulations, not to deviate from things just because you want to or because you can, so what we try to produce is a professional pilot who is in uniform, like an air force officer in some ways (James Justice, interviewed 1/6/2017, p.8).

Uniform plays an important part in the construction of the identity of the pilot and indeed others employed in the airline industry. As noted by O’Brien and Bates (2015) “Wearing the uniform added significantly to student’s sense of identity and competence” (p.831). There are no statutory requirements for professional pilots to wear a uniform or any other visible sign to indicate their stature or rank in the profession, however it has become a convention that they do so, perhaps for reasons similar to those adopted by the medical profession to indicate their profession and status to

the general public and to communicate their authority and competence. Minjeong Kang et al., (2011) note that

When a young professional is entering a new profession, he is in the process of establishing or revising a work identity and feels insecure in his new position during this identity development process. He may feel deficient in this new role for a variety of reasons (Lack of Knowledge, self-confidence). As a consequence of feeling incomplete, he may adopt the dress and other symbols associated with the new role to enhance feelings of completeness (p.414/5).

Bazin and Aubert-Tarby (2013) suggest that “For younger aspiring professionals, adopting a dress code constitutes a way of stating their will to join the Profession” (p. 258). For the established professionals, the aircrew of an airliner

Dress codes render visible the profession as well as they render visible certain aspects of the activity it wants to show and promote. Specific attire can establish an immediate recognition and therefore strengthen the identity of actors as Professionals (p.258).

We are aware of the uniform that pilots in the airline industry wear, the formal attire, peaked cap and gold braid on the cap, the epaulettes, also perhaps the heavy leather case they carry, a little unnecessarily so now, since the bulky manuals of landing charts and procedures once carried are now reduced to “soft” copies accessible on an iPad. Cabin staff also generally wear a uniform, often a very smart uniform designed by a leading fashion house, for two reasons: the first to identify them to the public, and the second to distinguish them from the cockpit crew, because they have an entirely different function to perform aboard the aircraft. When, as a passenger you approach a charter aircraft or scheduled flight, you expect the pilots to be readily identifiable in this manner because it demonstrates their competence to conduct the flight, even when worn by a very youthful pilots as is sometimes the case. In addition to marking the identity of aviation professionals, by making them readily identifiable to others, uniform vests the wearer with the responsibilities, powers and authority of their profession and accordingly contributes to the identity of the professional, as further noted by Bazin and Aubert-Tarby (2013)

Aside from its visibility, a dress code shows two strong dynamics. The first relates to what is communicated by the ways people dress. Through their clothes professionals are able to send a message, not only within the community (organisation, profession) but also to stakeholders (p.265).

## **Gender and Ethnicity**

As noted in chapter two, the profession of airline transport pilot has for many years been dominated by white male pilots, however that situation, at least in southern Africa, appears to be changing and the student complement at the S&L AS is an interesting example of diversity in aviation training. The majority of students are not white and female students represent approximately 15% of the total student population. The S&L AS is unusual in employing a number of female instructors, which, as noted in chapter four, may at times create problems for those instructors in endeavouring to train male students emanating from various parts of the world. The S&L AS appears content to live with such difficulties and is able to provide support to instructors should the need arise and to make alternative arrangements, if necessary, in the best interests of the student and instructor. In a sense, young men finding themselves (for the first time) under the command of women not much older than themselves is also part of their training, as the future of Aviation is likely to become less gendered and they need to get used to it.

Relations between the various nationalities and ethnicities present at the school, from my experience as a ground school student, appear harmonious. There are no distinctions on the basis of gender or ethnicity in training and students should not be surprised if an instructor to whom they have been allocated is of a different gender and/or ethnicity. All are trained to the same standard and students consequently come to respect the abilities and competencies of instructors and fellow student pilots of differing ethnic, gender and cultural backgrounds. I believe that gaining respect for fellow pilots of differing backgrounds as well as and gender is an important preparation for the role that students will be expected to perform in their future professional careers and thus contributes to their identity as individuals well adapted to diversity in the working environment of the cockpit.

## **Reputation of the School**

An issue of particular interest to those responsible for marketing and recruitment at this air school, is why this particular air school is chosen for aviation training rather than one of the many others established on the continent of Africa or elsewhere in the world.

I summarise below the responses to the question “Why did you choose this Air school?” included in my questionnaire sent to ground school participants:

I was told this is the best school in Africa; Only choice in SA, Best School at an affordable price, Cheaper than the UK; Cost and duration Because it was recommended by some of my

pilot friends; Clear structured training programme, good training skills good reputation and the school is cheaper as compared to training at home (Appendix 1.c ).

Clearly pricing is an important factor in the choice of some students, but overwhelmingly it is the reputation of the school which is its strongest selling point. Extracts from interviews with some students and flying instructors concerning their reasons for choosing this particular school follow:

Zach, from Kenya:

I told my dad flying is not so good here (at University in Kenya), so he told me to look for a flying school. I looked at quite a few flying schools, I looked at one in Australia, one in India, one in Dubai, and the programme at the S&L AS, the integrated programme, looked actually something that, once you have done all your exams, you concentrate on your flying, and that looked quite appealing. South Africa is close to Kenya compared to Australia. So my initial plan was to come to South Africa and do up to the PPL and then go back home. That did not really work out, I just realised that by going home you don't progress in the school (Zach Moody, interviewed 6/7/2017, p.2).

Mike, from Egypt:

I think everyone knows, the S&L AS is so well known, and I started to know why when I got into the course and I saw how the training goes. I love the fact that they teach us how to be safe, how to do this, how to avoid this and they show you real situations (Mike Hamid, interviewed 1/12/2016, p.4).

Stephen, from Johannesburg:

Basically what happened was I spent about two weeks going through all the air schools I could find finding out where to go, what to do, I spent that time and I phoned my dad one day and I said to him this is what I would like to do (Stephen Matthews, interviewed 19/7/2017, p.7)

Chloe:

It is going to sound strange but by mum felt that I would want to fly in Africa and she looked in the directory of flight schools in Africa and the S&L AS popped up and she did a search on it, and she narrowed it down to SAFTA in Johannesburg and the S&L AS, and she said you are going to the S&L AS (Chloe Mvula, interviewed 20/7/2017, p.3).

The air school has established a good reputation in the industry, so that it is recommended by word of mouth amongst pilots, and this is an important influence in persuading prospective students to join this air school rather than one of the many others in the hemisphere. The fact that it is able to attract students from Europe, the United States, the Middle East, Australasia and the Indian Ocean islands is testimony to the excellence of the training, and its cost competitiveness. Currently the numbers of students training at the air school exceeds 400 which is an indicator of its success (and profitability), but placing something of a strain on the available accommodation and other facilities.

### **Membership of a Profession**

I have discussed aviation as a profession earlier, but it is worth returning to aspects of the issue now that more information has been presented on the training of pilots. Tapper and Millett (2015) note that:

Professional relationships have a special fiduciary character because we must trust our physicians, lawyers or pastors in situations where we are exposed to harms (*caveat emptor* should not apply). This fiduciary character is accentuated because 'the professional invites our trust' (p.9).

Although professional pilots are licenced and governed by the state and its agency, the Civil Aviation Authority, they are not self-governing as are many other professions, and they do not have a prescribed code of ethics, yet like doctors and even more than lawyers, society has high expectations of the expertise and responsibility of the pilot in whose hands they place their safety and their lives. Bearing in mind that the professional pilot will generally be operating as an employee rather than as an independent consultant, the degree of independence they are able to display will be limited by the requirements dictated by their employer; however, society and their employer can with good reason expect them to be honest, reliable, and display personal responsibility and integrity.

Membership of a profession is part of the identity of the Professional. The Professional will usually subscribe to the objectives and standards of the profession and benefit from the reputation which the Profession enjoys with the general public and authorities. Membership of the Profession gives access to employment and the opportunity to practice the skills acquired during training and places an obligation upon the professional to maintain a current level of expertise which in the case of the professional pilot means being aware of and conversant with changes in technology and legal requirements and maintaining personal fitness and competence which is frequently tested.

## Acquisition of Skills

The training programmes in operation at the S&L AS in its ground school and practical flying training described in Chapters three and four, should ensure that the Pilot has a “mastery of a complex body of knowledge and skills” (Tapper and Millett, 2015) (p.5) which will enable them to satisfy the exacting requirements of the Civil Aviation Authorities and a future employer and to perform the technical requirements of their role in society. During training, the school will expect them to observe the disciplinary code, the dress code, to be punctual, to be reliable in attendance, to show commitment, to respect other students, to focus upon their studies and to achieve the required standards of the programme. Those disciplinary procedures and requirements should have the effect of reinforcing qualities such as integrity, morality and personal responsibility, which for professional pilots are not reduced to a code of professional ethics, yet are necessary to satisfy the requirements of the law and are expected in the conduct of professional pilots. Of particular importance to my mind in the acquisition of the skills and the construction of the identity of a professional pilot, is the influence of role models amongst the staff of the school who, because of their experience and seniority as former members of the South African Air Force, set an example of what a pilot should be, in terms of attitude and approach to issues of discipline and training. Another way in which professionalism and skills are transferred, is in the one-on-one in-cockpit mode of practical training where the student learns on a “hands-on” basis from the instructor to develop skills and confidence. The actions required to change the attitude of an aircraft in the air require small movements and pressures on controls and are learned by “following through”, feeling the movements and pressures, when carried out by an instructor in a dual control aircraft and then copying the manoeuvre. Thus, even in an institutional environment, the personalities of the individuals directly involved with the training of a student will have an influence upon the outcome. Davis, et al (2000) discuss the development of self-efficacy during aviation training noting, “a person’s belief that he or she can execute a task at a certain level of performance, is one of the most important factors affecting personal activity towards goal attainment” (p.857), also “Self-esteem is the extent to which an individual sees himself as a competent, need satisfying individual” (p.860).

Vivian Vignoles (2011) identified self-esteem and self-efficacy as important motives in the construction of identity (p.404) and hence the contribution of the skills acquired by the students at the S&L AS towards the growth of their self-esteem and self-efficacy and construction of identity as professional pilots. Self-esteem I believe is developed at the air school through successfully passing theoretical examinations, achieving the milestones associated with practical flying, including the achievement of solo navigation exercises and the acceptance by and recognition of common

achievements with peers in the school. For those that stay on at the S&L AS to become flying instructors, the experience gained in teaching students to fly and coping with the problems that may arise as a consequence of the attitudes and varying abilities of students, contributes to their maturity and competence.

## **Discipline -- Building the Institution**

In considering the role of discipline in building the institution one should remember that the site from which the S&L AS now operates was first a military institution and that the founders, at least John Evans, who was trained in the military, clearly sought to reconstruct the current air school embodying as many of the features of the wartime air school as could be identified and reconstructed. The principle of enclosure (McKinlay and Starkey, 1998b) is very evident in the structure of the school: the layout of the accommodation, with individual rooms for students and instructors; the self-containment of the school, with all necessary services for the students available on site, thus there is very little need for them to leave the school premises. The S&L AS is quintessentially a gated community enclosed within a perimeter fence, monitored by CCTV cameras and guards who man the entrance gates, and who admit students and visitors on production of a pass. CCTV camera are also used internally to provide a Panopticon gaze on staff and residents. The structure of management at the school operates in such a way that everyone is defined by the rank that he or she occupies in the hierarchy. The organisation also operates around a system of timetables which are applicable to the operations of the ground school and practical flying training. Attendance and punctuality are demanded of staff and students, and a system of sanctions and penalties operate to enforce compliance. The system of examinations and tests is applied throughout training, and students are tested frequently in ground school and practical training and failure to achieve the desired results, can in some instances, result in dismissal from the school.

## **Identity construction**

The weight of the disciplinary procedures in place at the S&L AS, the monitoring of performance in training and personal conduct, the surveillance via CCTV and reporting to sponsors and regime of tests both theoretical and practical, follow the principles of the disciplinary society identified by Foucault (McKinlay and Starkey, 1998b) and serve to create an atmosphere in the school where students feel an ever present threat, should they fail to perform. No doubt the degree of discipline in force at the school serves an important purpose to maintain order, ensure attendance at classes and training sessions and generally to promote an atmosphere where success in training, the

primary goal of all concerned, is achievable. However, I think that the dedication to “excellence” in flight training and the regime in place to achieve a very high level of performance by trainers and students, has robbed aviation of some of its charm and appeal. John Evans the founder of the school, no longer involved with the management, noted

I have to say they probably have a pretty good business and it’s probably a good flying school, but it’s not fun to be there. It is not the fun that it used to be; it’s a bit glass and chrome -- although we had military discipline, after hours the guys could get pissed on base and we would have great solo parties (John Evans, interviewed 1/5/2018, p.15)

Well they still have solo parties, but they do seem rather controlled affairs.

### **Knowledge of the language and terminology/vocabulary of Aviation**

An important function of the ground school is to teach the students the language used by aviation professionals and the terminology in use. Each topic discussed in the ground school had its own terminology and principles with which the student pilot is expected to be familiar and to understand. A pilot is not expected to have the detailed technical knowledge of an engineer but is expected to know what a component of an aircraft is for, what it is called, and how it works (and the acronym that identifies it). Aircraft are complex mechanisms, and the pilot is expected to have a working knowledge of the principles of flight and how the various components enable it to fly. Likewise, the student is expected to understand the Instruments on board an aircraft, their function and steps that may be taken in the event of a malfunction. The pilot is not expected to know how to dismantle and reassemble an aircraft engine, but he must know how it works and what to do in an emergency if there is a malfunction. The pilot must understand and be familiar with the terms used to describe atmospheric conditions and weather systems and to understand how changes in atmospheric conditions may influence flight safety. Pilots must understand air law sufficiently to ensure that when operating as pilots in command of an aircraft they comply with the Law which is applicable on a local and on an International basis. Pilots must be familiar with the principles upon which maps are constructed and the distortions inherent in their construction which will affect navigational accuracy. The language used by aviators includes hundreds, perhaps thousands of acronyms. Acronyms are used to describe weather conditions, components of aircraft, airfield designations, radio aids and beacons, aircraft types and call signs, and aviation maps would be incomprehensible without a familiarity with the acronyms in use. Mastering the *habitus* of the world of aviation (Lewellen, 2003) involves familiarity with the terms used by pilots and other aviation professionals on a daily basis, to communicate with one another. Communication and comprehension is

particularly important in the air (Howard, 2008) where there is little room for misunderstanding and the terminology used for radio telephone communications, conducted universally in the English Language, is standardised so as to limit the opportunities for misinterpretation. O'Brien and Bates (2015) note that

Acquiring the aviation language and "talking like a professional" is an important staging post towards a students' sense of themselves as novice professionals ... learning to talk like a professional is not simply dependent upon the acquisition of knowledge from formal sources, but also occurs through social interaction with more knowledgeable peers. (p.826)

The interaction that students experience at the S&L AS on a daily basis with tutors and instructors provides the necessary exposure to the vocabulary of aviation to enable them to communicate effectively and carry out their duties, whilst simultaneously acquiring a significant part of the self-identity of the commercial pilot.

### **Maturity and connection to identity formation**

During training, which can take fifteen to twenty months or more depending upon individual progress until the professional licence is attained, a significant process of maturing appears to take place in the students. Matt Reynolds, one of my fellow students in the ground school course, remarked after commencement of the second part of the commercial ground school, how changed our fellow students were in their approach to studying compared with the first part of the course that we had attended. I observed a considerable difference in the conduct of the students on the three courses that I attended. The first course, the introductory course, was a little undisciplined and sometimes the instructors had difficulty keeping order and gaining the attention of the students. The second course, the first part of the commercial ground school, was much more disciplined but the instructors, still appeared to have some difficulty in maintaining discipline and encouraging a work ethic in all of the students. Having arrived at the second part of the commercial ground school, the surviving students were those who had taken their studies the most seriously and applied themselves sufficiently to have made good progress. This application was evident in their demeanour and the manner in which they conducted themselves in class. I would attribute some of this gain in maturity to confidence (self-esteem and self-efficacy)(Davis et al., 2000), gained during the practical training which takes place between the stages and on completion of the ground school and also a developing a sense of what is required to be successful in the examinations. It is perhaps inevitable that some will progress at a higher rate than others, however I have observed that most of the students with whom I started the

basic ground school class in December 2016, have now completed their studies and obtained their licences. Maturity is most noticeable in the instructors who having graduated and obtained their licences and have remained at the school to acquire the 1500 hours to complete their suspended ATPL licences. Interviewing the instructors was a pleasure, since they displayed well-formed opinions in answer to questions, and were very willing to discuss their experiences encountered whilst training students. Maturity, I consider to be a product of identity construction, which is achieved in the student through experience, not only of learning to fly and gaining a professional licence, but also through interaction with other students and instructors at the school and coping with the situations that present themselves in the S&L AS community.

### **Characterising the Air School**

Returning to the earlier discussion of what kind of institution the S&L AS might be, in which Scott's concept of the 'Reinventive Institution' was not considered entirely applicable to the S&L AS. It is not characterised entirely by either the 'authoritative imposition by staff upon inmates' or by 'peer to peer surveillance' but rather through frequent reminders of a presumed-to-be heroic past in a quasi-militaristic culture. The S&L AS is an "Intermediate" Institution in Scott's terms, its purpose to reinvent students who enter of their own free will and emerge 18 months later as qualified airline pilots, transformed along the lines just discussed. They submit themselves to the routines, rules and regulations observed by the school and the requirements of the civil aviation authorities locally and abroad with a view to an ultimate benefit. However, in doing so they place themselves entirely in the hands of the management of the air school so far as their safety and well-being are concerned, and in the conduct of their training. They are not, however, confined entirely to base, and if they so wish may leave and return as appropriate to their training and studying commitments. Air school management thus emerge as masters of balance in a demanding field that continues to attract students and their sponsors. Whether that balance is sustainable, is an issue that has exercised me since becoming more closely acquainted with the S&L AS, notably in the classroom. Reinvention should not be seen as only the prerogative of the students, but also of the administration if the wants, becoming needs, of the "Millennial" generation are to be met. As discussed in the last section of Chapter 3, this generation requires a more technologically sophisticated and interactive approach to learning, or they tend to 'switch off'. This is likely to continue as Generation Y comes to the fore. The current formula works for the time being, but it could quickly become as obsolete as the training aircraft currently utilised by the air school for flying training.

## CONCLUSION

In this thesis I have endeavoured to identify and explain the process whereby dreams become reality for the majority of students committing themselves to pursue the intensive period of training and study involved in attaining a professional pilots' licence. From the responses to a questionnaire sent to students, as to the history and causes of their interest in becoming professional pilots, identity construction appears to commence in many during their childhood years, as a result of exposure to aviation in their schooldays and sometimes, the example of a role model in family or a family friend, leading to enrolment at the S&L AS in their late teens as trainee pilots. The passage from dream to reality is fostered in a singular way here. The careful reconstruction of the wartime air school was designed to foster a sense of continuity with the past and for the students to perceive themselves as training in an institution "steeped in the history of aviation". The students are thus encouraged to consider themselves as part of that tradition and as heirs to the qualities for which the aviators of the past were renowned. Wearing a uniform also serves to brand the students as pilots-in-embryo until they have passed all the examinations and tests and gained their licences. Various rites of passage and graduation ceremonies mark their progress to the final achievement of the dream.

The reputation of the school of course, is not solely dependent upon a connection with the past, but is securely established by the performance of its students over the years which has been recognised in the industry, well beyond the shores of Southern Africa. Eventual membership of an established profession confers benefits on the professional but also imposes obligations. The benefits are an exclusive franchise to perform a specialist function. The franchise is protected by law and upheld by the professional provided that the obligations associated with it are complied with. The privileges of a Professional Pilot's Licence are very specifically defined by statute and compliance requires training, experience and testing. Pilots are constantly subject to testing to measure their competence. There is no formal professional body by which pilots govern themselves, and compliance is left to state entities and employer airlines to enforce. Nor is there a written code of ethics with reliance on the habitus of the profession and training to ensure good conduct. Continuing professional education, as with other professions, is mandatory and compliance is regularly tested.

The acquisition of skills, the primary function of the air school, is the backbone of the professional expertise of the professional pilot. The pilot will continue to gain experience throughout his career, but the fundamental skills will be learned at the air school. The acquisition of skills contributes to the

self-efficacy of the pilots, their perception of themselves as competent to perform their role in society. When the newly licenced pilots leave the S&L AS, they still have a great deal to learn about flying before being able to fly a modern airliner. They will be required to undergo further training on the specific type of aircraft being flown and to sit in the right-hand seat as First Officer for a number of years before being promoted to Captain.

The importance of discipline in aviation cannot be underestimated, which is why so much emphasis is placed upon compliance and procedures, punctuality and performance from the commencement of a student's training at the air school. As noted in chapter five, strict timetables must be complied with and surveillance and monitoring procedures are in operation governing both training, and to a certain extent personal conduct. Abstinence from substance abuse and excessive consumption of alcohol are mandated and strict penalties in place for the purposes of enforcement. This may appear draconian, but the students soon learn that they must comply, and for the few that do not wish to do so, there is an uncertain and probably very limited future at the air school. Compliance with such a regimen certainly has an impact upon the students. Some students have been sent to the school by their parents specifically to "sort them out" and instil some discipline. The discipline at the school has a significant impact upon the students, eventually creating the "reinvented identity" of the student as a professional pilot.

The acquired identity, as in many fields, requires arcane knowledge, in this case the language of aviation, reduced to a bewildering array of acronyms and terms coined by engineers to simplify their discourse with one another. In addition, the student pilot must learn the language of radio telephony. This no longer consists of the Morse code, although familiarity with that is required, but mainly plain language with certain words chosen for reasons of clarity over the airwaves. Proficiency in communication is also tested and if successful the student is awarded a radio licence.

One of the remarkable features of the training offered at the S&L AS, and I imagine others of its ilk, is the speed at which the transformation from teenage recruit to qualified pilot is achieved. It only takes around 18 months to transform the majority into professional pilots, ready to enter a profession that demands the highest standards of competence and discipline. I think that is a remarkable achievement. Maturity has been acquired at an accelerated rate with growth in self-esteem, confidence and assurance that was quite visible to me in the time I spent among the students. They were motivated by the expectation of a rewarding career, rewarding not only in the financial sense, but satisfying a craving for adventure and unique experience.

## RECOMMENDATIONS

The S&L AS has a very diverse body of students, for many of whom English is a second language. The precise use of the English Language in radio-telephony is of critical importance for reasons of safety and for an understanding of the technical literature which must be understood to pass the theoretical examinations to obtain a pilots' licence. Students arriving at the S&L AS without fluency in the English Language struggle to pass the English proficiency requirement to obtain a student pilots licence and for this reason the school has made available an English tutor. However the English tutor is not a flying instructor or necessarily versed in the terminology of the topics the students will be expected to study to obtain their licences and hence there remains a language barrier for some students in passing technical examinations. In order to overcome this difficulty I recommend that the Air School give consideration to implementing a tutorial system. Many students require and welcome additional help from the lecturers in solving technical issues and answering test questions. A tutorial system, for example, along the lines of that operating at Rhodes University could be implemented where a lecturer or tutors take a group of students on a regular basis outside of the normal lecture times which would enable topics covered by the formal lecture program to be discussed and any difficult issues resolved. Such a system could be applied at the S&L AS, perhaps using senior students as tutors and when necessary, tutoring a group of students from the same cultural background, so that if language is an issue, the tutor would be able to translate and thus resolve the difficulties.

In chapter four I have commented upon the lack of discussion and debate in the formal lecture programme. The boredom and lack of interest that I observed in some of my classmates in the commercial ground school, who were obviously turned off by the lecturing format, so much so that they could not be bothered to take notes, was perhaps a symptom of the lack of variety in the training methods employed. To address this issue the ground school must consider methods of creating a more stimulating training environment which captures the attention of all the students and invites their active participation. Soon, if not already, the intake will consist of a post-Millennial generation – even more “digitally native”. The School must adapt or die. The technical nature of the topics of study does not necessarily lend itself to animated group discussion, however many case studies are set during the duration of the ground school course, at present tackled by students individually, some of which might be adapted to become group study questions. Addressing topics on a group basis would encourage students to apply the knowledge they have gained during the formal lecture programme and to work as a group.

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## **APPENDICES**

### **Appendix 1(a)**

#### **Responses to Ground School Questionnaire (May 2017)**

##### **Q. When did you first think of learning to fly?**

When I started my Advanced Level Studies

As a very young child

When I was young

16 yrs old in 11th grade

At the age of 8.

7years old

10th grade

After my first flight at 15

At the age of 7 years

12

After High school.

Since my father first started telling me stories and pilot related jokes.

During school

High School

Ever since I can remember.

Childhood

Primary school

As a kid

Since I was 8 years old

Towards the end of Primary school

14 Years old

Grade 8

5

When I started high school

As a kid

As a child

15 years old

When I was 14

When I was 8 years old

Since I was 9

In high school form 4

As a child

## Appendix 1(b)

### Responses to Ground School questionnaire (May 2017)

#### Q. Do you have family/friends who are pilots or otherwise in aviation?

Yes my uncle is a captain on the Airbus at Air Seychelles

Yes

No

No

No

Brother

No

Yes. Father: captain, uncle: captain, stepbrother: captain, cousin: FO, brother: student pilot

No

Yes

Yes.

Yes

Yes

Yes

No.

No

Yes

Yes

No

Yes

No

Yes

No

Yes

Friends

Yes

Yes

No

Yes

Yes

Yes

Yes

No

**No 12 35%**

**Yes 22 65%**

## Appendix 1(c)

### Responses to Ground School Questionnaire (May 2017)

#### Q. Why did you choose Straight and Level Air School?

My Sponsors only offer was for S&L AS

I did not

Recommended by friends

Most cost effective school in Africa and was recommended by previous student

Top Rated Air School

Brother came here

Word of mouth

One of the biggest Air School in the world

It's one of the best flying schools

Cheaper than most European Schools

I had friends here and from the way you guys market it really looks good. Good job!

It's encouraging reputation and safety records as well as its pricing

Good structure of training - like a varsity

My previous instructor was a student here

Coming from the UK, it was the most economically viable option.

Word of mouth

Google

Family friends' recommendation

It was suggested by a friend

It's the best School in Southern Hemisphere

Referred by a friend

To be honest the S&L AS wasn't my first choice simply because I didn't know about it at the time I was choosing a school. Due to financial issues overseas I searched for a school closer to home and found about S&L Air School. Also I had numerous pilots from SAA, Comair limited and Mango tell me about the school.

Looked like the best in the country. Well done marketing!

Best statistic in SA

Best flight school in southern hemisphere

It was recommended by people in the field

I was told that this is the best school in Africa

Only choice in SA

Best school with affordable price

Cheaper than UK

Cost and duration

Because it was recommended by some of my pilot friends

Clear structured training program. High standards, good training skills, good reputation and the school is cheaper as compared to training at home

Excellent reputation in SA and Internationally

## Appendix 1(d)

### Responses to Ground School questionnaire (May 2017)

#### Q. What did you enjoy or appreciate most about the ground school course?

How they make flying seem like the best thing in the world.

Friendly lecturers ready to help

The lectures

Motivation gained from a good intake of students

HP

The lecturers themselves

ATG lectures till now, haven't completed it yet

ATG

The exams and studying in general

The Human performance videos.

The environment and tuition.

The structure it had and motivation to complete it so you could fly!

Easy to learn.

Williams' classes

Navigation class

Learning new things

Instructors were willing to go out of their way to help

It's builds a basic knowledge for many people who come to the school and don't know much of what being a pilot entails

Met was à very interestingly subject

To fully understand the mechanics of the aircraft

William Reed the way he made things clear

ATG

Nav and flight planning, using more application not only learning books

I enjoyed the lessons of Flight planning

The teaching makes you understand more as it involves demonstrations. We were being shown the actual propeller, actual engine for example. And often videos to demonstrate as opposed to sticking with images in books.

The quality and comprehensiveness of the course

## Appendix 1(e)

### Responses to Ground School questionnaire (May 2017)

#### Q. What did you not enjoy about the ground school course?

Schedule and general course progression disorganised

None

Some subject are too long and exactly the same in the com GS. e.g.: Human performance

Not enough time to learn majority of material i.e. POF and MET

I did my PPL elsewhere, therefore N/A

Slides too fast with little explanation

The way classes were given, not professional teaching

Too much information in a short time span

The theory was a lot and in a short time

Method of studying, just reading and going through questions. Not enough application

A lot of information in a very short time

## Appendix 2

### Summary of statistics

#### Student Population of the School May 2017

Average Compass Score	19, 24
Average age of students	22, 8 years
Number of male students	216
Number of female students	36
Number of SA citizens	97
Number of SA permanent residents	3
Number of foreign nationals	152
Number of privately sponsored students	195
Number of students sponsored by industry	58

#### Foreign Nationals

Nigeria	8
UK	10
Yemeni	1
Ghanaian	5
Libyan	8
Mauritian	18
Tanzanian	7
Kenya	25
Zambia	4
Zimbabwe	4
Belgium	1
Ireland	1
Namibia	2
Italy	2
Korea	2

**Appendix 2 (continued)****Foreign Nationals (continued)**

Switzerland	1
Djibouti	2
DRC	1
Sudan	5
Angola	1
Canada	1
Vietnam	8
Rwanda	1
India	2
Iran	1
Botswana	3
Malawi	1
China	2
UAE	1
Madagascar	2
Australia	1
Qatar	1
Seychelles	20
Total	<b>152</b>