

## Appendix 10A

# SAAF history<sup>1</sup>

Although military aviation was still in its infancy at the time that the Union Defence Force (UDF) was formed, the South African Defence Act (1912) made provision for the establishment of the South African Aviation Corps (SAAC) as part of the Active Citizen Force (ACF). In August 1912 the Commandant-General of the Citizen Force, Brig Gen Christiaan F Beyers, was sent to England and Europe by defence minister General Jan C Smuts to observe and report on the use of aircraft in military operations. BG Beyers was so impressed by what he saw, that when he returned to the Union, he strongly recommended setting up a school of aviation. The Government subsequently contracted Mr Cecil Compton Paterson to provide flying training to a select group of ten aviators at his flying school at Alexanderfontein near Kimberley.

### Training and War

In April 1914 six of the initial ten pupils were appointed as probationary lieutenants in the ACF and sent to England to undergo further training at the Central Flying School at Upavon where five of them eventually qualified. On the outbreak of war in August 1914, the South Africans were granted permission to join the newly formed Royal Flying Corps (RFC). They were to participate in the first aerial reconnaissance and artillery spotting missions over France during the closing months of 1914.

### The SAAC in South West Africa

In January 1915 the South African pilots were appointed in the Permanent Force and recalled to the Union to help man the SAAC established on 29 January 1915 for service in German South West Africa. By May six Henri Farman F-27 and two B.E.2C aircraft were able to take to the air in support of Prime Minister General Louis Botha's forces. Within a very short space of time the SAAC pilots had proven their worth, flying regular reconnaissance patrols to keep GEN Botha constantly informed of the enemy's movement and positions. The Farmans also carried out a number of bombing missions. The SAAF was later awarded a Battle Honour for the campaign.

### Volunteers in East Africa and Europe

After the German South West Africa campaign, the majority of the SAAC pilots volunteered for further service in England, where they were to form the nucleus of 26 (South African) Squadron (Sqn) of the RFC. This unit was dispatched to East Africa in December 1915 to carry out reconnaissance, bombing and communication missions in support of GEN Smuts' forces. The squadron was eventually recalled to England and

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<sup>1</sup> From [http://www.af.mil.za/about\\_us/history.html](http://www.af.mil.za/about_us/history.html)

disbanded in 1918. Apart from the South Africans who served with 26 Sqn, many others volunteered for service with other RFC squadrons in the course of the war. Among the most famous of these were Major Allister Miller, Captain Andrew W Beauchamp-Proctor VC, Captain HA (Pierre) van Ryneveld, Maj Arthur E Harris and Captain Sam Kinhead.

### The Eastern Front

A number of South African airmen saw active service in the Russian Civil War (1917 - 1920). The North Russian Expeditionary Force had an RAF and RNAS detachment and following its landing at Murmansk in June 1918, commenced operations. This was followed by a second Allied Expeditionary Force in 1919. Among the South Africans who served with distinction in Russia were Capt Sam Kinhead, commander of a Sopwith Camel equipped flight of 47 Sqn, Lt Col Kenneth Reid van der Spuy who commanded a RAF unit and Lt Col Pierre van Ryneveld. Van der Spuy was taken prisoner and was only released in 1920.

### Cape to Cairo

Early in 1920 the British Air Ministry declared the "Cape to Cairo" air route, which provided for 24 aerodrome and 19 emergency landing strips, fit for use. The London Times announced that it would finance the first flight to the Cape and its aircraft - a Vickers Vimy Commercial, G-EAAV- took to the air on 24 January 1920. General Smuts, by then Prime Minister, wanted South African aviators to be the first to complete the trip. He therefore authorised the purchase of a Vickers Vimy at a cost of UK4500. Christened the Silver Queen, and commanded by Lt Col Pierre van Ryneveld with Flight Lt Quinton Brand as co-pilot, the aircraft took off from Brooklands, England, in early February 1920. After an eventful night crossing of the Mediterranean, they arrived at Derna the following morning. Further night flying followed in an attempt to catch the Vickers Vimy sponsored by the London Times, but the Silver Queen was wrecked in a force landing at Korosko, Sudan.

Another Vimy F8615 was purchased from the RAF at Heliopolis into which the original engines were installed. The Silver Queen II, as the second aircraft was named, left Cairo on February 22. Five days later The Times contender was destroyed in a crash at Tabora, but on March 6 the same fate befell the Silver Queen II at Bulawayo. Fortunately, with some of the Imperial Gift aircraft already in Pretoria, a DH9 H5646 called Voortrekker was assembled and flown to Bulawayo. Thus Van Ryneveld and Brand were able to complete their flight to the Cape where they arrived on March 20, 1920, after a total flying time of 109 hours and 30 minutes.

### The SAAF is born

Despite the strict economies and retrenchments to which the UDF was subject in the immediate post-war years, 1920 saw the establishment of the South African Air Force (SAAF) as an independent service. Pierre van Ryneveld, now a colonel, was appointed

Director Air Services (DAS) with effect from February 1, 1920, with instructions to establish an air force for the Union. This date is acknowledged as marking the official birth of the SAAF, making it second only to the Royal Air Force (April 1, 1918). The Royal Australian Air Force was established about two month later on March 31, 1920. The establishment of the SAAF was greatly facilitated by the generous decision by the Imperial Government in 1919 to allocate to the Union some 100 aeroplanes from its war stocks, complete with spares and equipment. These were joined by a further 13 aircraft from other sources making for a fleet of 113 aircraft.

Home for the fledgling air force from April the next year was a site at Zwartkop, 3km east of Roberts Heights (later Voortrekkerhoogte and now Thaba Tshwane) – now known as AFB Swartkop. The SAAF's No 1 Flight was established at Zwartkop on April 26, 1921. Together with a later flight, it formed the nucleus of 1 Squadron, which was established by early 1922. The SAAF was listed as a unit of the reconstituted Permanent Force on February 1, 1923. By that time the SAAF's Permanent Force establishment numbered 17 officers and 218 other ranks. A special Reserve of Flying Officers was established in the same year.

### The Rand Revolt

The SAAF was involved in its first action in 1922 when a miner's strike on the Rand led to the declaration of martial law following violent clashes between the South African Police and strikers affiliated to the Mynwerkersunie – who were calling on “workers to unite for a white South Africa.” 1 Sqn (SAAF) was called upon to fly reconnaissance missions and bombard the strikers' positions on Brixton Ridge and in Fordsburg. It flew intensive operations from March 10 to 15, clocking up 127 hours. Casualties suffered were two dead, two wounded and two aircraft lost. During the strike the SAAF also deployed a Whippet light tank, which had been brought to South Africa in 1919 for fund raising purposes. Air Corporal WJ Johns was killed in the tank when a bullet pierced the visor of the armoured vehicle.

### Experimental Air Mail Service

In 1925, the SAAF, using 11 de Havilland DH 9 aircraft, launched an Experimental Air Mail Service between Cape Town and Durban. Although the SAAF rendered an efficient service, it was a commercial failure.

### Military Aviation Industry

Difficult as the financial climate had been for the Union in the decade following the end of the First World War, the Great Depression placed even greater pressure on the defence budget. Despite the acute shortage of money, it was during this period that the foundations were laid for the South African military aviation industry. In the late twenties and early thirties certain modifications and major rebuilding were carried out at the

Aircraft and Artillery Depot at Robert Heights. A license was obtained to build Westland Wapitis and the first locally built aircraft took to the air on April 4, 1931.

### Organisational Changes

In September 1931 the Department of Civil Aviation was transferred to the Department of Defence and the post of Director of Civil Aviation abolished. The entire aviation organisation in South Africa thus fell under the DAS. The post of DAS was abolished on 30 April 1933 and on the following day Col Pierre van Ryneveld was promoted to Brigadier-General and appointed Chief of the General Staff. There was thus no chief of the SAAF and it remained under Van Ryneveld's direct control until June 30, 1939.

### Expansion

In the course of 1934 the Union's economy began what proved to be a sustained upward trend, and a significant increase in the Defence Budget was approved for the first time in many years. In 1935 the Minister of Defence Oswald Pirow announced that the UDF was to be expanded. This decision had a significant effect on the training facilities and efficiency of the SAAF. A new training scheme for pupil pilots was introduced which gave the development of the Air Force considerable impetus. The idea was to train a reserve of 1000 pilots and 1700 air mechanics. The overall size of the Air Force was also increased from four to seven squadrons, with new stations and bases being built at Waterkloof, Bloemfontein, Durban and Youngsfield. Central Flying School was also established with satellite air training schools in the Cape Province, Orange Free State and Natal.

### World War Two

The advent of war in 1939 caught the SAAF unprepared for large-scale operational deployment despite the attempts which had been made since 1934 to expand and modernise the organisation. At the outbreak of war the SAAF's "front-line" strength consisted of about 100 aircraft of miscellaneous types, the great bulk consisting of Hawker Hartbeest, complemented by Hawker Harts, Wapitis and trainers plus a sprinkling of more modern machines. In terms of personnel, the SAAF had a total full-time strength of 160 officers, 35 officer cadets and 1500 other ranks. The first priority was thus to train more personnel and acquire more aircraft. Within weeks of the outbreak of war, new flying schools were established at Pretoria, Germiston, Bloemfontein and Baragwanath, while a Training Command under Lt Col W.T.B. Tasker was established to oversee the SAAF's overall training programme. The training schools were amalgamated and by this time there were a total of ten training schools.

### JATS

The real breakthrough came in 1940, however, with the establishment of the Joint Air Training Scheme (JATS) under which the Royal Air Force (RAF), SAAF and other

Allied air and ground crews were to be trained at 38 South African-based air schools. Under this scheme the SAAF began to blossom and by September 1941 the total number of military aircraft in the Union had increased to 1709, while the personnel strength had leapt to 31,204 - 956 of whom were pilots. The JATS was ultimately to turn out a total of 33,347 air crew, including 12,221 SAAF personnel, during its five year existence.

### Coastal Reconnaissance

On the operational front, the SAAF provided a valuable protection service for Allied shipping along South Africa's coastline from the very outset of the war. By the end of the war in August 1945, a total of some 15,000 coastal reconnaissance sorties had been flown. SAAF Coastal Command was gradually expanded and by 1942 the coastal units had replaced their Avro Ansons with Lockheed Venturas. In April 1943, 26 Sqn moved to West Africa where it re-equipped with Vickers Wellingtons and operated from Takoradi (in Ghana) and other centres until its disbandment in June 1945 while 22, 25 and 27 Squadrons moved to the Middle East.

### The SAAF Marine Craft Unit

In 1939 there was little that could be done to rescue the crews of aircraft which had been forced to ditch in the sea. Accordingly the SAAF Marine Craft Unit was established which operated a number of launches, scows and ferry boats. A total of 45 people were rescued by the unit's crash boats by the end of the Second World War.

### The Woman's Auxiliary Air Force

On the outbreak of war in 1939 the Women's Aviation Association offered their services to the South African Government. Plans were laid to train 1000 women for the SAAF and the South African Women's Auxiliary Air Force (SA WAAF) was established on May 10, 1940 – the day the Nazis invaded France, the Netherlands, Belgium and Luxembourg. Over 10,000 women – including woman's activist Helen Joseph – eventually served in the SA WAAF during the war and they were to be found at SAAF stations all over South Africa and in the Middle East. They worked in 75 different fields of which 35 were technical.

### East Africa

Equipped with a few squadrons of Gloster Gladiators, Hawker Hurricanes, Furies, Hartbeest and Junkers JU86s, the SAAF took on an Italian air component comprising nearly 300 modern aircraft over Italian East Africa. By the end of the campaign, the SAAF pilots had destroyed 71 Italian aircraft in the air and many more on the ground. In addition, they had struck at innumerable railways, convoys and supply dumps in interdiction sorties in support of the ground forces. SAAF losses during the East African campaign were 79 pilots and air crew killed and five missing. The first air attacks in the

East African campaign were carried out with Ju86 bombers of 12 Squadron, hence its motto "First in Action".

### The Shuttle Service

The East African Campaign led to the creation of the Shuttle Service operated by 50 (TS) Squadron under the control of 1 Bomber Transport Brigade. The latter unit became 5 Wing in February 1941 and was responsible for the ferrying of troops and supplies to the war front and bringing back the wounded. The service was extended to Cairo as the war progressed and eventually through the north of Africa to Bari and Rome by which time Douglas DC3 Dakotas were in use.

The Shuttle Service was greatly expanded at the war's end, the intention being the return of all South African troops by Christmas 1945. The Dakotas of 5 Wing were joined by Venturas withdrawn from coastal operations, modified as transports and put into service with 10 Wing at Pietersburg. These two units were assisted by 35 Sqn's Shorts Sunderlands which were also fitted out as transports. Additional Dakotas were provided by 28 Sqn when it returned home from the war zone. By 25 January 1946 some 101,676 passengers had been carried.

### North Africa

In North Africa, the SAAF fighter, bomber and reconnaissance squadrons played a major part in enabling the Allied "Desert Air Force" to attain total air superiority over the Axis air forces by the beginning of 1942. The SAAF's single most memorable feat in North Africa was probably the "Boston Shuttle Service", during which eighteen aircraft of 12 and 24 Squadrons showered hundreds of tons of bombs on the Afrika Korps as it relentlessly pushed the Eighth Army back towards Egypt during the "Gazala Gallop" in the first half of 1942. After the Battle of Alamein, too, the SAAF's North African squadrons played a vital role in harassing the German forces retreating towards the Tunisian border. A leading ace during this time was Maj Jack Frost, Officer Commanding of 3 Sqn, who shot down at least 15 enemy aircraft and destroyed many more on the ground before being killed in action. Between April 1941 and May 1943, the SAAF, with a maximum of eleven squadrons operational flew 33,991 sorties and destroyed 342 enemy aircraft.

### Madagascar

The SAAF also played a major role in Operation Ironclad, the Allied invasion of the Vichy French territory of Madagascar in 1942. Following the landings and the capture of the Arrachart airfield at Diego Suarez, Bristol Beauforts and Martin Marylands of 36 and 37 Flights plus a number of Lodestars were used in conjunction with RAF aircraft. The SAAF flew 401 sorties before an armistice was declared on November 4, 1942.

### Europe

By the time the Italian campaign had begun in earnest in early 1944, the SAAF had truly come of age. Indeed, it was the SAAF which played the dominant role in the Allied air operations over Italy as the Allies began to withdraw RAF air crews for deployment in support of Operation Overlord, the invasion of Normandy. By this stage the SAAF consisted of no fewer than 35 operational squadrons with 33 types of aircraft. By September 1944, the SAAF in Italy consisted of four wings, while a number of SAAF squadrons were attached to RAF Wings. Together with the maintenance and supply units, SAAF personnel in Italy consisted of 17,271 officers and men.

One of the SAAF's most noteworthy achievements in the air operation over Europe was that of 31 and 34 Sqn, which flew 181 sorties from Italy to supply the Warsaw resistance movement in August and September 1944. The cost of the SAAF abortive "Warsaw Concerto" was tragically high in men and machines, but the daring and skill of the pilots and crew involved nevertheless earned the SAAF the lasting respect and admiration of the Polish resistance fighters. In 1992, 67 ex-members of 31 and 34 Squadrons were awarded the Polish Warsaw Cross for their role in the operation.

The final air assault in Italy, launched on April 9, 1945, was spearheaded by fighter-bombers of Nos 7 and 8 Wings, 5 Sqn, medium bombers of No 3 Wing and the Army co-operation squadron. Consolidated Liberators of No 2 wing and Martin Baltimores of No 15 Sqn operated by night. The surrender of the German force on May 2, 1945 brought an end to a relentless pursuit which had taken the SAAF squadrons without a break from El Alamein through Tunis and Sicily to the Alps.

### Mediterranean and Balkans

During the war SAAF squadrons also served in the Mediterranean where coastal reconnaissance and transport operations were carried out. In the Balkans a number of SAAF unit served with the "Balkan Air Force".

### SAAF Anti-Aircraft Regiments

By 1942 it was found that the SAAF was drawing more recruits than needed and it was decided that some could be diverted for anti-aircraft duties. Eventually the SAAF took over the entire anti-aircraft function - except for those units attached to the field divisions. Six SAAF anti-aircraft regiments (Nos 21 - 26, later changed to 50 - 55) as well as a number of mobile batteries and light anti-aircraft batteries were established.

### The SAAF Regiment

The SAAF's excellent recruiting campaign and failure of the Miles Master as a training aircraft led to a huge backlog of pupils. As a result many recruits were diverted to 30 Armoured Commando and 31 Armoured Car Commando SAAF for armoured car courses. Upon the disbandment of 31 Armoured Car Commando in May 1943, the remaining unit

became 30 Armoured Car Commando SAAF. The unit was renamed the SAAF Regiment on 1 August 1943, its task being the defence of airfields and the capture of enemy aerodromes. The SAAF Regiment moved north soon afterwards and, with the gradual loss of enemy air superiority in 1944, airfield defence became less of a priority. On January 25, 1944, the SAAF Regiment merged with the Natal Mounted Rifles at Helwan to become the NMR/SAAF, a liaison which lasted until the end of World War Two.

### Statistics

At the conclusion of the war, the SAAF had flown a total of 82,401 missions. During the same period 2227 members of the SAAF lost their lives, while 932 were wounded or injured. Members of the SAAF had set up a superb record during the war. Decorations awarded included one Victoria Cross, one Companion of the Bath, nine CBE's 35 DSO's, 26 OBE's, 63 MBE's, 429 DFC's, 88 AFC's, 5 MC's, two George Medals, five King's Medals for Bravery, two MM's, 23 DFM's, 13 AFM's and 36 BEM's.

### A New Era (1945-59) - Spitfires, Jets and Helicopters

After the war the SAAF's large volunteer force component returned to civilian life and the SAAF restored to peacetime operations. Much in the same way as after World War One, the British Government again made a generous offer of 220 aircraft and equipment to the SAAF. These included 80 Supermarine Spitfire Mk IXs, 80 Bristol Beaufighter Mk Xs, 48 Vickers Warwick Mk Vs and 12 Shorts Sunderland Mk Vs. After some deliberation it was decided to accept the 80 Spitfires as a gift and to buy an additional 56 Spitfires and retain 15 Sunderlands already in South Africa of which three were purchased.

By June 1946 the SAAF consisted of twelve air force stations which controlled four wings, a number of squadrons, training schools and depots.

In 1948 the first of the three Sikorsky 5-51 helicopters was purchased in the USA. Another new creation to arrive in South Africa at the time was the first jet aircraft in the Union, a Gloster Meteor III, one of a number sent to all Commonwealth countries for trials. Both the Meteor and the Sikorsky 5-51 caught the imagination of the public and were major draw-cards at every show at which they appeared. The Gloster Meteor III was operated by the SAAF for two years before being returned to the United Kingdom.

### The Berlin Airlift (1948-9)

In 1948, against the background of increasingly strained East/West relationships, the Soviets cut the overland communication between West Berlin and its food supplies in West Germany in an attempt to force the Western powers out of the city. As a result all supplies had to be airlifted into West Berlin - no mean feat as the daily requirements of the 2.5 million West Berliners were in the region of 1250 tons of food and 3500 tons of coal. In the event, the SAAF was called upon to contribute to the year-long Anglo-

American Airlift to West Berlin by way of supplying 20 air crews for the daily shuttle service. The SAAF crews, after intensive training at the RAF's base at Bassingbourne, flew no less than 1240 missions in the RAF Dakotas out of the German city of Lübeck during the airlift. By April 1949 when the blockade was lifted by the Soviets, the South Africans had airlifted 4133 tons of supplies into West Berlin.

### The Korean War (1950 - 1953)

Just a year after the SAAF's notable contribution towards beating the blockade of West Berlin, the SAAF's services were once again called upon. This time the scene of operations was Asia, where North Korean forces had invaded the Republic of South Korea in June 25, 1950. The United Nations acceded to the request of the United States to intervene militarily on the side of South Korea. The Union Government offered the services of the SAAF's 2 Sqn to the UN forces. The offer was quickly accepted, and on September 26, 49 officers and 157 other ranks of 2 Sqn, all volunteers, left for Johnson Base in Tokyo prior to their deployment in Korea. The first flight of four North American F-51D Mustangs departed for Korea on November 16 and the first operational sortie was flown three days later.

The first operational sortie was flown at a stage when the United Nations forces were retreating in front of the advancing enemy. In freezing cold and poor weather, the aircraft had to continue operating and by maintained and armed in the open, moving from K-24 to K-13, K-10 and finally K-55 air base at Osan in January 1953. Here the squadron immediately started to convert to the North American F-86F Sabre jet fighter. During the Korean conflict the squadron flew a grand total of 12,067 sorties for a loss of 34 pilots and two other ranks. Aircraft losses amounted to 74 out of 97 Mustangs and four out of 22 Sabres. The South African squadron was awarded both US and Korean Presidential Unit Citations. Some of its members were also awarded both US and South African decorations for extreme bravery. The F-86F Sabres were the first supersonic aircraft used by the SAAF in operations and were well liked. Accordingly an order was placed for 34 of the latest version, the Canadair CL13 Sabre Mk6, which were delivered from 1956.

### More New Aircraft

The fifties saw the delivery and retirement of various aircraft types. The Spitfires were phased out in 1954 and the Sunderland's in 1957. Eight Avro Shackleton Mk IIIs were delivered in 1957 for maritime patrol duties with 35 Sqn. The remaining Venturas from the maritime units were transferred to 35 Sqn before being finally retired in 1959/60. The new Sabres (ground attack version) for 1 and 2 Sqn arrived during 1956 and by 1957 each squadron had 16 Sabres, 12 Vampires and 12 Harvard's on strength.

### The Air Defence System

After the Second World War the SAAF became responsible for air defence radars and new equipment was purchased. A Control and Reporting School was established to train

fighter controllers and in 1957 a revised system was initiated which culminated in the inaugurations of the Transvaal Air Defence System at Devon on 15 November 1965, later known as the Northern Air Defence System. This was followed by the establishment of 1, 2 and 3 Satellite Radar Stations at Mariepskop, Ellisras and Mafikeng together with 70 Mobile Radar Group.

### The Sixties

In the early sixties South Africa's deteriorating security position - caused by the then government's racist policies - moved the country to take steps towards rearmament. As part of a development programme, the SAAF's arsenal was strengthened. The first Mirage III fighter aircraft arrived in South Africa in April 1963 and was displayed to the public in July that year. English Electric Canberra light bombers, Hawker Buccaneer S Mk 50 strike aircraft, Lockheed C-130B Hercules and Transall C-160Z medium transport aircraft also joined the SAAF's squadrons. New types of helicopters were also introduced, including the Aerospatiale Alouette II and III light helicopters, the Aerospatiale SA 330C Puma and Aerospatiale SA 321L Super Frelon medium transport helicopter as well as the Westland Wasp light anti-submarine helicopter.

Arms embargoes grew increasingly imminent by the mid-1960s and it was obvious that South Africa would soon not be able to buy aircraft on the open market. As a result, in 1965, the Atlas Aircraft Corporation was established and in October 1966 the first Aermacchi MB-326, built under licence, and renamed the Impala, rolled off the assembly line.

### Military Operations

South Africa's refusal to relinquish Namibia led to an insurgency there by the late sixties, causing the recall of the SAAF to active service - flying mainly patrols and supply runs.

During Operation Savannah (1975-6) the SAAF deployed helicopters, light aircraft and transports in support of the South African task force in Angola. Operating from frigates, Westland Wasp helicopters evacuated South African troops north of Luanda. Hercules and Transall transport aircraft flew many supply runs while jets flew photo reconnaissance missions. During the withdrawal phase a Puma operating from the SAS President Steyn airlifted troops out of Ambrizeto.

### The Eighties

From the late seventies onwards the SAAF participated in all subsequent military operations, and played a key role in major operations such as Reindeer (1978), Rekstok (1979), Safraan (1979), Sceptic (1980), Protea (1981), Daisy (1981), Meebos (1982), Phoenix (1983), Askari (1983-1984) and Egret (1985).

*The jet squadrons saw their first action since Korea in May 1978 when Canberras of 12 Squadron and Buccaneers of 24 Squadron “softened up” targets prior to a parachute assault at Cassinga in southern Angola. When reinforcements threatened the Reindeer forces, 2 Squadron Mirage IIIs stopped about two dozen armoured cars before the Buccaneers destroyed some T-34 tanks threatening a helicopter landing area used to evacuate a 44 Parachute Brigade contingent.*

*Impalas were permanently deployed to provide a tactical recce and ground attack capability. Whenever there was major operation, Mirage F1 AZs were brought in for ground attack and F1 CZ's and Mirage III CZ's for air superiority. Mirage III RZs and Canberras were used for reconnaissance. Buccaneers were only used for special roles, such using laser guided weapons.*

*In September 1985, Impalas based at Rundu engaged Mi-25 and Mi-17 helicopters on two separate days, destroying six helicopters in all. Maj. Johan Rankin, flying 3 Squadron Mirage F1 CZ's, holds the unique distinction of shooting down the only two MiG -21's that were downed in the Bush War, on 6 November 1981 and 5 October 1982. The large transport crews showed exceptional skill and bravery by landing in impossibly small strips, hacked out of the bush, in the pitch black of an African night. The aircraft would land, off-load their cargo and take-off, all before the first rays of light appeared.*

#### *SAAF Mirage F1CZ and Angolan MiG-21 meet at AFB Swartkop*

*From the late 1970's the SAAF participated in almost all military operations across SA borders into Angola, Zambia, Zimbabwe, Botswana and Mozambique. It was inevitable that South Africa would become involved in the conflict between Unita and MPLA forces assisted by Cuba, which by 1987 were equipped with the latest Soviet air defence weapons.*

*With the UN arms embargo preventing the Air Force from acquiring more modern combat aircraft, Angolan airspace was becoming an increasingly dangerous place to be and the use of the SAAF was restricted to operations which posed the least risk of losses. Following operations Modular and Hooper in 1987/88, negotiations finally paved the way for peace in SWA/Namibia. The final withdrawal of SA troops from Cuito Cuanavale was completed on 30 August 1988 and in 1989 the SAAF withdrew from Namibia.*

In May 1983 several passers-by and three SAAF members were killed in a bomb attack by uMkhonto we Sizwe, the ANC's armed wing, outside the SAAF's headquarters in Pretoria.

Following Operations Modular and Hooper (1987-8), negotiations finally moved toward a peace settlement. With the withdrawal of the SAAF from Namibia at the end of 1989, yet another phase in the operational history of the SAAF drew to a close.

## Aircraft Development

During the eighties much attention was given to new aircraft development projects. The SAAF's regenerated supersonic fighter aircraft, the Cheetah, was unveiled at the Atlas Aircraft Corporation in July 1986. The two versions - Cheetah D2 and Cheetah E – were said to compare favourably with the Russian MiG-23. In the previous year South Africa's first locally manufactured attack helicopter, the prototype Alpha XH1, took its first flight. The experimental Alpha XH1 was later followed by a second design, the Beta XTP-1, which was unveiled to the public in April 1987. This was basically an armed version of the standard Puma helicopter.

## A Decade of Change (1990 - 1995)

The SAAF celebrated its 70th year of existence in grand style in 1990. Among the events to mark the 70th anniversary, were several concert evenings, air shows and parades in various centres countrywide. The 70th anniversary of the SAAF's oldest unit, 1 Air Depot (established on 1 February 1920 as the Aircraft and Artillery Depot), was also celebrated in 1990. In the 1990 the 50th year service of the Harvard training Aircraft was also commemorated. Despite its upgrading in terms of avionics, navigation and communication equipment, time was running out for the Harvard, however. As early as December 1990 the Chief of the Air Force indicated that it would be replaced before the turn of the century.

## Rationalisation

1990 was, however, not only a festive year for the SAAF. The year was also marked by the start of a comprehensive process of rationalisation and restructuring. Already in January 1990 the Chief of the Air Force announced that the Air Force had entered into a new year and environment that would make new demands and create new opportunities.

The first short term steps in the rationalisation of the SAAF entailed the withdrawal of several obsolete aircraft types from service, such as the Canberra B(1)12, the Super Felon and Westland Wasp helicopters, the Aermacchi Kudu light aircraft and the Piaggio P-166s Albatross coastal patrol aircraft. Other short term measures included the closure of Air Force Base Port Elizabeth and the disbanding of five squadrons – 12 Sqn (Canberra), 16 Sqn (Alouette III), 24 Sqn (Buccaneer), 25 Sqn (Dakota) and 27 Sqn (Albatross).

Personnel and equipment were to be transferred to other bases. Two Commando squadrons - 107 Sqn at AFB Bloemfontein and 114 Sqn at AFB Swartkop - were also disbanded. The rationalisation programme also made provision for the scaling down of activities in the Southern and Western Air Commands. Southern Air Command was scaled down to a Command Post.

Additional steps in the rationalisation programme soon followed. Further squadrons had to be disbanded, namely 3 Sqn (Mirage F1-CZ), 4 Sqn (Impala Mk II), 5 Sqn (Cheetah E),

10 Sqn (unmanned aerial vehicles), 30 Sqn (Pumas), 31 Sqn (Alouette III and Puma helicopters), and 42 Sqn (Bosbok). The well known "Cheetahs" (2 Sqn) were deactivated and their Mirage III BZ and Mirage III CZ aircraft withdrawn. The squadron was reactivated with Cheetah aircraft at AFB Louis Trichardt in 1993, however.

A number of units were also closed, including Air Force Bases Potchefstroom and Pietersburg, AFS Snake Valley, 81 and 84 Light Aircraft Schools, 89 Combat Flying School, SAAF Road Transport Depot, 402 Aerodrome Maintenance Unit, and the Klippan Control and Reporting Post. Following the transfer of Walvis Bay to Namibia, the Rooikop Air Base was finally evacuated in February 1994.

The rationalisation also necessitated the relocation of the squadrons and units. The Central Flying School at Dunnottar was moved to AFB Langebaanweg in 1993. The 83 Jet Flying School (Langebaanweg) and 85 Combat Flying School (AFB Pietersburg) were merged under the latter's name and relocated at AFB Hoedspruit. The Silver Falcons aerobatics team were also moved to AFB Hoedspruit, remaining under the control of 85 Combat Flying School.

The early nineties also witnessed the final withdrawal from service of the Aermacchi AM-3CM Bosbok light aircraft and the old stalwart, the Douglas DC-4 Skymaster.

### Aircraft of the Nineties

In 1992 it was announced that the Swiss Pilatus Astra PC-7 Mk II trainer aircraft would replace the Harvard as the SAAF's new trainer aircraft. The first 60 Pilatus Astras (as they were christened by the SAAF) were delivered to the SAAF in October 1994. It was expected that 32 aircraft will be in service at CFS Langebaanweg by the end of 1995

Meanwhile the SAAF was going ahead with the upgrading of certain aircraft types, including the Cheetah C, the C-47TP Dakota (and a maritime version), the Denel Oryx helicopter (which has replaced the Puma) as well as an upgrade programme for the Cessna 185, Impala and C-130B Hercules. The Oryx helicopter project was completed in 1994. The development of an engine upgrade package in the form of the SMR-95 engine for the Mirage F1-AZ Mirage fighter as well as the Cheetah D was announced in 1994. The Cessna 208 Caravan was also by this time in service with 41 Sqn, as were a batch of Boeing 707 tanker and electronic warfare aircraft with 60 Sqn.

### The Transformation Process

The sweeping constitutional changes in South Africa from about 1993 called for the extensive integration of various military forces into a single defence structure. Within the Joint Military Co-ordination Council (JMCC), which met in January 1994 for the first time, a joint Air Force Work Group was set up to plan and implement an integrated Air Force for the South African National Defence Force (SANDF).

In respect of military aviation, an integration and restructuring programme involving the SAAF, the air wings of the former TBVC (Transkei, Bophuthatswana, Venda and Ciskei) states and uMkhonto we Sizwe (MK) was instituted in 1994. This programme provided for the interim control of TBVC air wings and bases as satellite bases by the SAAF, the transfer of selected personnel and aircraft to SAAF squadrons and training of new members. The former TBVC air bases were closed at the end of 1994.

In July 1994 the SAAF Gymnasium became the first SANDF unit where non-statutory members (formerly of the ANC's armed wing, MK) of the SANDF were retrained. The first visible results of this process was the graduation of 47 former MK members as officers. The SAAF graduated its first black Cheetah pilot in July 2001. "Awesome and amazing" was how then-Captain Musa Mbhokota, call sign "Midnite", described his going solo in the supersonic jet. The then-26-year-old set his sights on flying jet fighters early in life after seeing them burn up the skies above his childhood home. He joined the SAAF in 1994 after completing his studies at Northview High School in Johannesburg. "After basics, the officer's course and a parachute course, it was off to Langebaan where I was fortunate enough to be one of the first group of pupil pilots to qualify on the Pilatus Astra aircraft in 1997," he told the Pretoria News at the time. With the first hurdle successfully cleared, it was off to 8 Squadron at Bloemspruit for the Mark I and II Impala conversion. Next stop was Hoedspruit for operational training, including aerial combat, weapons and tactical, then back to 8 Squadron as a wingman on Impalas. A squadron move again saw him at Hoedspruit where he successfully completed his lead formation course. Nominated and accepted for an air accident investigation course in New Mexico, the rangy jet jock in the making grabbed the opportunity with both hands. "Both I and the other SAAF officer on the course qualified with distinctions." With another qualification under his belt, Mbhokota found himself back at Hoedspruit, where the realisation of a lifelong dream was coming closer. But it meant "starting at the bottom", and this saw him and two close colleagues move to 2 Squadron - "The Flying Cheetahs". Technical and classroom work were followed by intensive training on a simulator and then a magic moment - at the end of last month his first sortie in the supersonic Cheetah, albeit with an instructor aboard, the paper said. This was followed with what every jet jock remembers well, no matter the hardship to get there - the first solo<sup>2</sup>.

### Serving the Community

Despite its scaling-down and drastic budget cuts of the 1990s, the "learner" SAAF has not neglected its traditional role in search-and-rescue missions and other relief operations. In the last fifteen years the SAAF has been called upon to render aid and assistance on numerous occasions, and each time it responded in a most professional and efficient manner. The role played by the SAAF squadrons and personnel during a dramatic rescue operation following the Oceanos ship disaster off the Transkei coast in August 1991, is a case in point. During the operation Puma helicopters airlifted 225 passengers to safety in

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<sup>2</sup> Mbhokota spent most of 2004 and 2005 in Linköping, Sweden, as a test pilot on the Gripen programme.

foul weather and extremely difficult circumstances. In 1992 the newly instituted Air Force Cross was awarded to 27 SAAF members for their role in the rescue operation.

The SAAF also had a hand in the successful elections of April 1994. Operation Jambu, which turned out to be the biggest peacetime operation ever carried out by the SAAF, saw IEC personnel and ballot material transported to polling stations throughout the country. In the course of the operation the SAAF flew more than 175 special missions totalling close to 550 flying hours.

*The rationalisation had its victims, however. In 2001, the SAAF had to withdraw from the country's Antarctic research programme – ending 22 years of involvement. An SAAF spokesman at the time said the only non-military functions the air force could continue to perform were transporting VIP's, fire-fighting and humanitarian aid. The National Antarctic Programme, run by the Department of Environmental Affairs and Tourism (DEAT), has since contracted a private company to perform the SAAF's former tasks. Initially two Aerospatiale SA330J Pumas, owned by the DEAT, were used, but when the Puma was withdrawn from the SAAF, two Denel Oryx were converted for Antarctic use. The SAAF helicopters, taken to the Antarctic on board the SA Agulhas, ferried geologists and other researchers to study sites in the Antarctic, took staff from the ship to the research base about 180km inland, and offloaded equipment from the ship onto the ice.*

#### The SAAF into Africa

Unlike the SADF, the SANDF has been welcome in the African neighbourhood, as has been seen during SAAF humanitarian assistance missions. Most famous of these was the SAAF's assistance to Mozambique during the devastating 2001 floods. But prior to that the SAAF carried relief supplies to Somalian refugees in Kenya (1992) and to Rwandan refugees in Tanzania during Operation Mercy (1994). Search and rescue and flood relief flights were also conducted to destinations in Angola, Namibia, Reunion and Zimbabwe.

South Africa led the world's reaction to the 2001 floods that according to contemporary reports had affected 400,000 Mozambicans, displacing 77,000 and leaving 41 people dead. The SAAF, assisted by its sister services, deployed 83 personnel as well as, *inter alia*, four Oryx helicopters, two BK117 helicopters, two C130 transport aircraft and one C212 light transport in a mission that eventually cost R14.02-million – excluding landing, parking, navigational, ground support equipment and lighting surcharge fees from March 1 to 15 of that year. Some of the funds were recouped from international donations – the Dutch government, for example, having contributed about US\$611,000 towards South Africa's efforts in helping those affected by the previous year's deluge in the Limpopo and Zambezi valleys. During one of the early flights during the February 2001 disaster, 156,000 pounds (about 78 metric tons) of food and other relief aid was transported from Maputo to Quelimane in the north of Mozambique. During this time, AFB Hoedspruit played host to a US contingent, also assisting with disaster relief.

Aircraft type	Support hours	Mission hours	Freight (mt)	Pax
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	flown	flown		
Denel Oryx	18.9	64.3	75.195	249
Eurocopter BK117	29	36.5	3.734	48
Casa 212 Aviocar	14.1	69.1	75.298	256
Cessna C208 Caravan	11.7	20.4	-	39
Cessna 185 Skywagon	9.9	37.5	-	8
Lockheed Martin C130BZ Hercules	13.5	-	-	-
Total	97.1	227.8	154.219	600

Table 10A.1: Statistics for Operation Micron, the 2001 assistance, during which 177 adults and 180 children (total: 357) were rescued. 324.9 hours were flown. (Source: CAF media presentation, May 9, 2001.)

The year before the SAAF had chalked up even more impressive figures, rescuing 8150 adults and 6241 children from almost certain death by drowning (or 14,391 people in total). The SAAF also airlifted 2717mt of cargo during Operation Litchi, as the effort was called. While deployed, the SAAF consumed 247,800 litres of fuel, deployed 270 personnel from various Services and flew 2155 hours, with the Oryx fleet chalking up 1047, the BK117s 323, the Caravans 244, the Cessna 185s 160 and the Aviocars 378.

Even before 1994 the SAAF had become involved in United Nations (UN) missions. These started low key in the early 1990s when the SAAF provided facilities for the UNAVEM, the UN Angola Verification Mission, at Waterkloof AFB in Pretoria. The SAAF also assisted the UNAVEM II mission with voter registration. Other elections supported include those on the Comoros and in Mozambique.

In the immediate aftermath of the advent of non-racial democracy, the country was loathe to accede to the numerous requests to support peace operations, President Nelson Mandela and his defence minister, Joe Modise, rightly arguing the country needed to get its house in order first. For the SANDF and SAAF this meant integration and reorganisation while assisting the civil powers fight a violent crime spree and general lawlessness that took several years to bring under control. This included considerable political violence in KwaZulu-Natal and Gauteng that at times threatened to become a civil war.

By the start of the new Millennium, the SAAF was better positioned to promote the peace building aspects of the New Partnership for Africa's Development – an African Union (AU) programme government is committed to. Some 700 SANDF troops were deployed to Burundi from October 28, 2001; just two days after the South African and Burundian governments signed a Memorandum of Understanding in Pretoria. The troops were drawn from 44 Parachute Regiment, the SA Military Health Services, VIP protection units from the SAAF and headquarters personnel from 43 SA Brigade. Two Oryx helicopters were also deployed and remain there at the time of writing. The SAAF has since 2002 also supported SANDF peacekeepers in the Democratic Republic of Congo

and since 2005 in Darfur, a strife-torn province in western Sudan. Airfields frequented are Kinshasa, Kindu and Goma in the Democratic Republic of Congo, Bujumbura in Burundi and Khartoum in Sudan.

The main challenge that faces the SAAF and the SANDF as a whole is to maintain the capability to carry out their constitutional tasks in a way that will best satisfy the demands of national strategy. For the SAAF this means:

- Fulfilling a primary role in providing air power in a future balanced, modern and technologically advanced National Defence Force;
- Retaining the necessary operational capability to deter potential aggressors in general and potentially aggressive air forces in particular;
- Utilising available Air Force resources to provide humanitarian and support services internally and in the region;
- Providing the State with professional and cost effective operational air capabilities to support interest groups in accordance with the constitution;
- Enjoying high esteem in defence, state, national and international circles as a result of its professionalism, preparedness and operational efficiency;
- Being a source of pride and loyalty for all its members and the people of South Africa; and,
- Contributing to world peace and security through air operations in support of international bodies, as sanctioned by the government.