

A Photograph album of civilian aircraft in South Africa



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Title page: 1971, Safair Lockheed L100-20 and taking off South African Airways Boeing 727-44 at Durban's Loius Botha Airport and airline aircraft at Johannesburg's O. R. Tambo International Airport on the 17th September 2009. From nearest the camera, Lufthansa, South African Airways, 1time and Comair British Airways franchise.

ABOUT THE AUTHOR

Michael Pierre de Villiers was born in Durban, South Africa. He was trained to World Meteorological Organization class one meteorologist and multi-discipline weather forecaster in the South African Weather Service where he reached the rank of Director. He served on a weather ship in the South Atlantic. He served on World Meteorological Organization expert teams and was World Meteorological Organization rapporteur for the Africa region. He was also a commercial pilot and flying instructor. More recently he was a weather forecaster in the United Arab Emirates, then in England. Now retired.

M. P. de Villiers
PhD MSc MDip (FRMetS CMet retired)
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INTRODUCTION

The photographs in the album are of civilian commercial or some business aircraft taken by the author during the period from 1966 to 1985 at Durban's Louis Botha Airport, later known as Durban International Airport and briefly around 1969 to 1970 at Johannesburg's Jan Smuts Airport, later known as Johannesburg International Airport. The author worked airside at these airports with opportunities to take photographs not possible by the general public. From 1985 to 2001 photography at Johannesburg International Airport was from the viewing platform near our office above the terminal building while visiting from the Pretoria head office. During this period, a few photographs exist from Lanseria International Airport at Randberg in 2001, also at a static air show held in the South African Airways maintenance area 1994, as well as three civilian aircraft photographed at the International Military Airshow at the Waterkloof air force base in 1995. Finally, more photographs were taken in 2009 at the international airports of Johannesburg, Durban and Cape Town during a visit from England.

The photographs are definitely not professional standard. Some of the photographs are of rather poor quality. This could be due to; poor atmospheric conditions, such as very hazy or during precipitation; taken at great haste, use it or lose it; or taken at maximum zoom. Scanning the photographs from age faded prints and different quality photograph paper also had an effect on the resultant image. While not remembering all the cameras possessed after a first early teenage Kodak Brownie Box Camera, cameras ranged from the popular automated Kodak Instamatic with its plastic 35mm film cartridge that included the spools and film feed with square photographs, to a more sophisticated Yashica Minister D with manual wind on 35mm film and manual adjustment of the lens rings for focal length, light exposure and shutter speed (it was stolen when our house was burgled after moving to Pretoria sometime after 1985), to a cheaper, but highly efficient and well liked 35mm wind on spool film Pentax ESPIO 738G with zoom lens, built in flash, red-eye reduction, autofocus and light sensor. The photographs during the 2009 visit were taken using an early Canon digital camera.

In days gone by the author did not always meticulously record aircraft details and photograph dates. Now, when discussing photographs, one has to rely on saved short (sometimes cryptic) notes, general knowledge and memory, corroborated, where possible, by life events, articles written and research papers. Also importantly, Internet searches cross referenced where possible. Some photographs have the aircraft type, registration and date written on the back. Another key regarding dating, is that around 1969 to 1972 the change was made from black and white film to colour film when colour film became much less expensive. The change from square to rectangular photographs was also useful for dating photographs. There was also a period in the 1970s when slide film became popular and was often used. Having to set up a projector to view them each time one wanted to look at them became tedious. The slides were stored in plastic containers in a cupboard in the sub-tropical Durban climate and neglected. Unbeknown, they developed a fungus and had to be discarded. Few survived.

It is tedious having to repeatedly write the names of the major aircraft manufacturers (these days referred to as airframers). Therefore, after establishing the manufacturers name they are

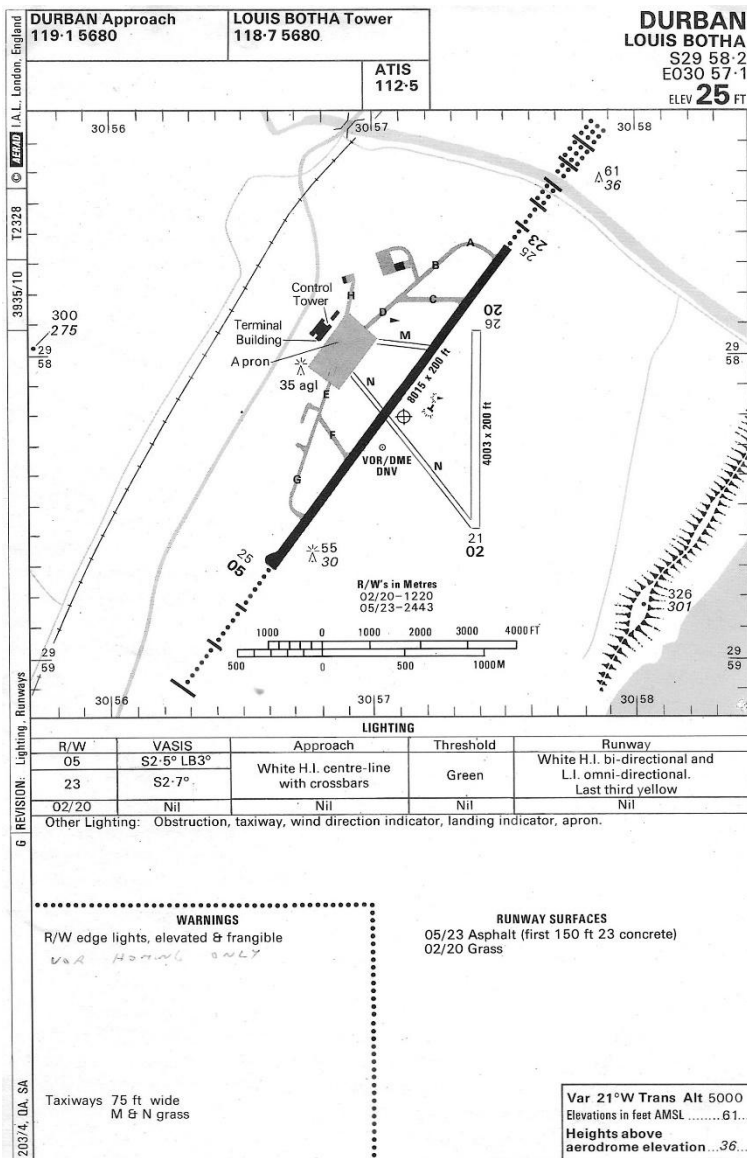
referred to in abbreviated form along with the model aircraft. For example, Boeing 727 becomes B727, Airbus A300 simply becomes A300. Not always. Unfortunately, the use of acronyms have proliferated. Unfortunate, because it means the reader has to remember each acronym when reading and it spoils the flow of comprehension if one does not remember, particularly if not used for some time. Therefore, an attempt is made to keep acronyms to a minimum while at times abandoning the acronym. If in doubt, write it in full.

A BRIEF HISTORY OF COMMERCIAL AIRLINE OPERATION

The 1960s to 1980s was a time when South African commercial airline operation was a closed shop dominated by the state South African Railways and Harbours that owned South African Airways (SAA). A strange partnership. International airline reciprocal agreements with SAA determined that all these flights operated to and from, the Johannesburg airport with SAA having a monopoly on all the main air routes in South Africa, thereby providing regional connecting flights to other major destinations in South Africa. Some independent South African airlines did manage to survive on crumbs from the table, such as Trek Airways (later operating as Luxair, the airline part of the created subsidiary Luxavia Tours) and Comair. Safair was a newcomer freight/cargo airline in 1970 initially owned by Safmarine (the shipping company South African Marine). Consequently, there were many more interesting and diverse aircraft to be seen at Johannesburg than at Durban with many more photographs taken there in a much shorter time span than in Durban and later at Johannesburg.

At the end of the 1970s, some deregulation enabled the formation of regional airlines such as SA Airlink (originally Link Airways) and Sun Air (originally Bop Air). Economic sanctions against Apartheid South Africa and the banning of SAA flights to some countries and reciprocal flights, such as to the United States of America (USA) and Australia, including the already banned flights over Africa from the early 70s, placed a severe financial burden on SAA that was not helped by inefficient top-heavy management. Further deregulation in 1987 and easing of sanctions in 1990 prior to the end of Apartheid at the general election of 1994, improved the local civil aviation airline situation, as well as international flights flying directly to Cape Town and Durban. Plus, the precarious increase in independent South African airlines such as Flitestar in 1991 that did not last long (until 1994) due to SAA bully tactics that still had total control of apron and luggage handling at airports and overcharging of Flitestar, as well as better SAAs ability to absorb undercutting fares and its control of the Saafari central reservation system. Phoenix Airways (1994-1995) and Nationwide Airlines (1995-2008) did not last long while Bop Air/Sun Air fared somewhat better from 1979 in 1999. Link Airways/SA Airlink, from 1978, ceased to exist in 1992 to be replaced by SA Express (formed by SAA) in 1994. Comair managed to survive and prosper. Low cost, no frills, budget, airlines appeared such as Comair with its British Airways franchise and no frills Kulula.com in 2001, CemAir's 1Time in 2004 to 2012 and SAA's Mango Airlines in 2006. Safair started FlySafair in 2014 (Mhlanga and Steyn). Mango Airlines ceased operations in July 2021 while Comair British Airways franchise and Kulula.com ceased trading in June 2022. Kulula is a Zulu and Xhosa word meaning it's easy.

DURBAN 1966 TO EARLY 1969



Magnetic variation 21°W (at the time) means magnetic runways 05 and 23 are, to the nearest 10°, 03° and 21° true north. Magnetic variation slowly changes with time. Magnetic variation west is added to the true direction, variation east is subtracted. Distances in feet. Altitudes are in feet above sea level and airport reference level. (Chart courtesy of AERAD I.A.L. 1976).

aides were a Non-Directional Beacon (NDB) and a Ground Control Approach (GCA) system whereby the air traffic controller tracked an approaching aircraft on a radar screen while providing appropriate headings and safe descent levels via very high frequency (VHF) by radio. By the late 1960s early 1970s the airport was equipped with and had published procedures for, Non-Directional Beacon (NDB), Very high frequency (VHF) Omni-directional Radio range (VOR) approaches and an Instrument Landing System (ILS CAT I) on runway (RWY) 23 only. Most of the time bad weather, in for aviation, low cloud and poor visibility arrived from the south-west. The CAT I ILS allowed approaches to be made to RWY 23 only to 200 feet (61 metres) decision height and 800 metres visibility. There was no Runway Visual Range (RVR)

Durban's main airport was originally Runion Airport south of Durban. By 1966 it was Louis Botha Airport. Later it was renamed Durban International Airport. The airport closed on the 30th April 2010 to be replaced the following day by the new King Shaka International Airport at La Mercy on the coast north of Durban.

The 1976 AERAD map shows the airport as it was 20th April 1976, after the runway had been extended to the south beyond where the taxiway joined the runway by 60m (200ft) to 2443 m (8015ft) with a turning basin to accommodate bigger jets such as the Boeing 747 in the early 1970s and the apron had been extended along its eastern and southern perimeters. Apart from the above changes the airport was pretty much the same during 1966 to 1969. The diagonal 02/20 grass runway toward the Isipingo River mouth was still maintained and used at times by South African Air Force (SAAF) 5 Squadron North American T6 Texan Harvard trainers. The squadron base was next to the northern taxiway.

By today's standards navigation facilities at Louis Botha Airport were primitive. Initial navigation

in those days, so no 550 metres RVR minimum. Alternatively, aircraft not equipped for the ILS could make a NDB approach to 750ft, or lower on a VOR approach also to runway 23.

In simple terms, the minimum values for an ILS CAT II are cloud base 100 ft (30 metres) visibility RVR 350 metres and ILS CAT III 0ft (0 metres) visibility RVR 200 metres. Much less in use are; ILS CAT IIIB 0ft 50m RVR and CAT IIIC 0 ft RVR 0 metres. Autopilot is approved for CAT II and III. CAT IIIC is a full auto land with after landing roll, but rare due to ground manoeuvring problems in such poor visibility. While at Abu Dhabi in the United Arab Emirates in the early 2000s, where our office was not too far from the runway, in early morning thick fog, I once watched a Cargolux B747-400 freighter appear and stop on the runway. It remained there until a follow me vehicle with flashing lights appeared to lead the pilots to the taxiway and the apron.

Terrain to the south-west of the airport did not allow the equipment to be approved for approaches to RWY 05. A steeper approach angle would be necessary and probably not considered worthwhile given the lower weather risk and not cost effective. In the event of low cloud and poor visibility from the north-east and a wind above minimum for landing with a tailwind, approach and descent was made to RWY 23, breaking off to port (the left) at 1000 feet then doing a seaward visual downwind righthand circuit to approach visually from the south-west to RWY 05. If the cloud base was below 1000 feet the pilot/s had to try again or divert to the nearest suitable airport, usually Johannesburg, rarely Bloemfontein or Port Elizabeth. Knowing the cloud base, I was well aware that this limit was sometimes flouted and lower altitude bad weather circuits made at about 800ft. Once visual there was VASI (Visual Slope Approach Indicator), a system of lights alongside the runway threshold to indicate whether one was too high, too low, or on the correct approach path to land. The modern version is PAPI (Precision Approach Path Indicator).

Another problem due to there being an ILS for runway 23 and not runway 05, was smoke haze. Durban's airport was bounded by industrial areas to the north and south. Smoke particles act as nuclei for moisture condensation creating smoke haze. Bear in mind that visibility tends to be worse when looking toward the Sun, better when it is behind (the opposite with the moon, visibility is better when facing the moon). Smoke haze trapped beneath a surface temperature inversion associated with a weak pressure gradient and a light or calm wind, usually in winter, while facing the Sun, means visibility can be drastically reduced. An approach from the south-west to runway 05 toward the rising Sun could reduce visibility to almost diversion levels. Fortunately, in such drastically reduced visibility, the wind was usually light enough that the

approach could be made from the north-east to runway 23 with the Sun behind.



This **Central African Airways Vickers 782D Viscount VP-WAS** went to Air Rhodesia when Central African Airlines was split into three airlines in 1968, namely Air Rhodesia, Air Malawi and Zambia Airways. More about this later.

The aircraft was photographed from the control tower building in the mid-afternoon looking toward the south-south-east in 1966 or 1967. The Indian Ocean is beyond the low ridge on the horizon and the higher ground part of Isipingo. The photograph shows the concrete apron before its extension to the left and a grass taxiway. The two light aircraft are parked on grass that, in due course, was also concreted. The light twin is registered CR-AJR. CR was a registration used for Portugal territories until 1975. In this instance Mozambique. If my aircraft recognition memory is correct the light twin is Piper Twin Comanche and the unknown registration single engined aircraft is a Piper Comanche.

The tail of a South African Airways (SAA) Vickers Viscount 813 series can be seen in the right of the photograph. The SAA Viscounts has rectangular doors while the Central African Airways and later Air Rhodesia aircraft has oval doors. The Air Rhodesia oval doors can be seen in the photograph of VP-WAR, shown later, at the then Jan Smuts Airport, Johannesburg.

The British **Invicta Air Cargo G-ASPM Douglas C-54B Skymaster** (military version of the



DC-4) was a very rare visitor. The photograph, circa 1966-1968, shows it parked at the south end of the apron with a Swazi Air aircraft in the background, probably a military C-47 version of the DC-3. Notice the pole at the rear of the Invicta aircraft to stop the aircraft tipping on to its tail, as well as the double door rear freight door with a panel below it for protection when loading and offloading equipment is placed against the aircraft. Access steps are in position near the front starboard side of the aircraft. The livery was hull metal silver, white top, red cheatline and stabiliser (vertical tailfin) with a white prancing horse on a black background and black airline lettering. In the background right is the single story passenger terminal.



The photograph is a **Swazi Air Douglas C-54A Skymaster** (civilian Douglas DC-4). After careful examination of the photograph with a magnifying glass and zoom, it is believed to be **VQ-ZJN**. The afternoon photograph dates from around 1967 to 1969. In the background is the southern end of the Bluff with the oil refinery to the left and storage tanks to the right. Scarring visible on the Bluff is where it has been cut back for oil refinery development. Notice the manual operation air stairs.

Swazi Air was in existence from 1965 to 1978 as a privately owned subsidiary of National Airways of South Africa. Originally

delivered to the United States of America Air Force (USAAF) in 1944, after numerous owners and registrations, the aircraft arrived in South Africa in 1967. It was leased by Swazi Air as VQ-ZJN becoming 3D-AAL in 1971 (Airhistory.net (1)).

The Boeing, photographed between 1967 or 1968 on the apron, is a series 100 **B727-44 ZS-SBE** named **Letaba**. The number 44 is the Boeing designation for SAA aircraft.



Although the photograph is in black and white, the aircraft is painted in the pre-1971 livery of orange stabiliser with a small blue flying Springbok (Springbuck in English). It has a blue window cheatline with a flying Springbok on the nose and Letaba further to the rear on another shorter blue band. South African Airways above the cheatline and windows is written in Afrikaans on the port side. The B727 fleet were named after South African rivers.

It is being prepared for departure. The front and rear hull luggage and freight doors are open with the rear wing fairing displaced to the rear. A loaded luggage carrier is being

wheeled to the forward hold while one is being wheeled away to reload. Passengers will board last of all. The galley service door is open with stairs in place. The rear stairs are lowered and the stairs to the front port (left) entrance door are just visible underneath the hull. A black mark at the centre of the wing near to the fuselage is the open vent for the Auxiliary Power Unit (APU) that is located in the lower hull between the main undercarriages. The B727 was among the first airliners to be fitted with an APU, certainly the first Boeing.

The lowered rear stairs helps to date the photograph. After the hijacking of a B727 in November 1971 in the United States of America (USA) when the hijacker bailed out of the lowered rear stairway, SAA deactivated the stairway on their nine B727s, probably by the early part of 1972. The port front entrance was then the only passenger door.

Letaba became well known when, on Wednesday 24th May 1972, it was hijacked by two disgruntled male passengers. I remember it well. The hijackers were involved in a dispute over diamonds with the mining company Anglo American. They were armed with dynamite and a hand gun. The flight from Salisbury (now Harare) to Johannesburg, was hijacked to Blantyre in Malawi. It was short lived. Shots were fired by the troops storming the aircraft which punctured the hull. Photographs showing the holes appeared in the press. No one was injured. The hijackers surrendered, were sentenced to two years in jail, released after one year (Aviation Safety Network (1)). They would never get off so lightly today.

The nine B727s were introduced into service in 1965, withdrawn in 1982. Three of the B727s were QC (quick change) models or Combis. They had a large upward hinging freight door on the port side of the fuselage rear of the passenger door, the same as on the B707. The B707, B727 and early B737 all had the same fuselage circumference and high number of common parts. The QC could be quickly changed from a passenger to all freight aircraft, or a combination of forward freight and rear passengers. I do not recall SAA aircraft ever used as a

freighter, nor in Combi mode, especially after the rear entrance and exit was deactivated. (Spring 1996, Wikipedia (1))

My first flight in an aircraft was in a SAA B727 while doing conscription air force training in Pretoria. I was booked to fly to Durban for the weekend in September 1966 leaving Friday evening. Prime Minister Dr Hendrik Frensch Verwoerd, was assassinated. A previous attempt was made in 1960. We were called to parade told that all passes were cancelled. This put me in a spot because of my already booked and paid trip. Anyway, I was allowed to go, but when I returned late Sunday night, I found that peeved fellow barrack inmates, who had their weekend passes cancelled, had apple-pied my bed.

During November 1968, SAA began receiving 200 series Boeing 737s. These were a stretched version of the initial 100 series. Six **SAA B737-244** aircraft were received registered from ZS-SBL to ZS-SBR (omitting SBQ). All were disposed of by 1994. Between 1981 and 1982, SAA acquired 13 B737-200 Advanced aircraft registered ZS-SAI to ZS-SBM. All disposed of between 2003 and 2007. They were all named after South African rivers. Some of the names were repeated on the advanced B737s that were in service after disposal of the B727s. However, two freighter B737-300Fs were used from 2007 to 2021 (Spring 1996, Airfleets.net (1), Airliners.net (1)). Twenty-one B737-800s were later operated from 2000 to 2018.

The black and white photograph of **B737-244 ZS-SBM Gamtoos**, is from early 1969 before



my being transferred to Jan Smuts. When first introduced the few already delivered aircraft were used exclusively on the Johannesburg to Durban route. It is in the same livery as B727-44 ZS-SBE Letaba depicted above. Notice the similar fuselage shape ahead of the tail section with the hold doors in a similar position to the B727. It is being prepared for departure. Electrical power is being provided by the vehicle standing next to the nose of the aircraft. The auxiliary power unit in the tail is not in use, the exhaust of which can be seen at the end of the tail. The tractor is used to pull the luggage wagons seen at the hold luggage doors. One is in checkered markings for better visibility. I think they were red and white. In the hazy distance are the refinery

storage tanks and ridge at the coast.

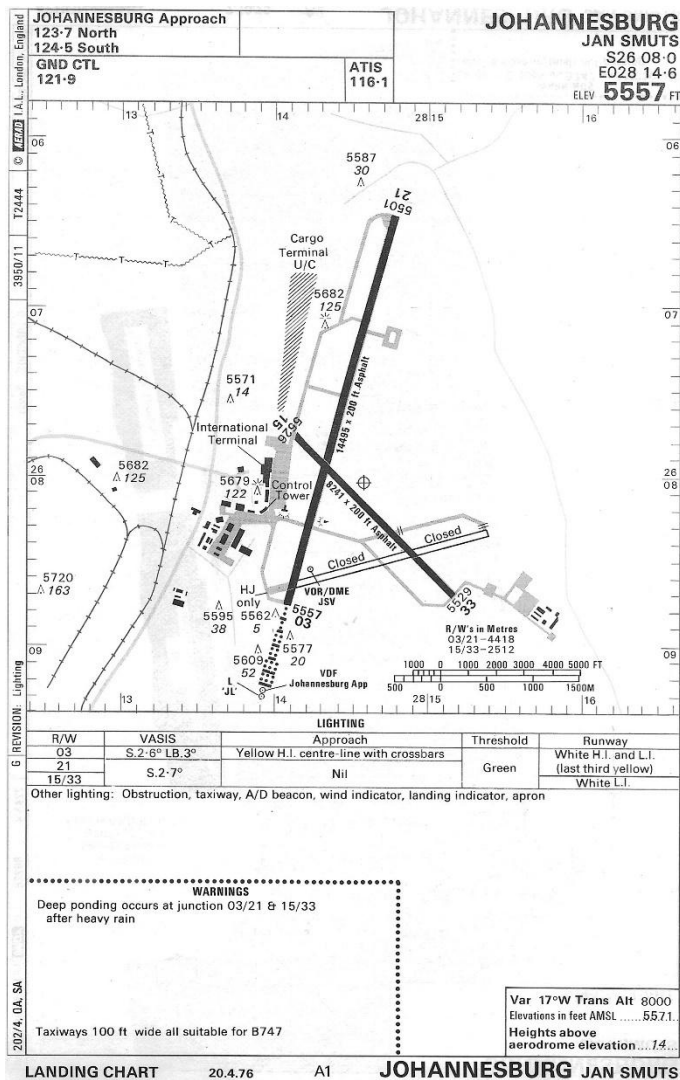
Similar to the B727, the B737 was the product of a requirement for a short-haul jet aircraft that could fly to smaller airports with less ground facilities and less maintenance while still having a lot in common with the B727. It had 60% fuselage and systems in common with the B727. A distinct feature of the B737 is the main undercarriage, which when retracted into the underneath of the fuselage fits flush with no covering doors, except for the legs. Rather the wheels have brush-like seals and hub caps that aerodynamically smooth the wheels with the fuselage. The engine nacelles were attached to the underneath of the wings without pylons. The resulting shorter undercarriage improved baggage and passenger access. It could also have its own steps

that extended from a compartment below the port front door. This was soon omitted, but always remained an option. Like the B727, the B737 also has an APU mounted in the tail.

Whereas the B727 and B707 had three flight crew (pilot, co-pilot and flight engineer), the B737 flight crew consisted of two pilots. The B737-200 Advanced first entered service in 1971. It was aerodynamically improved with more powerful Pratt & Whitney ducted turbofan jet engines and increased fuel capacity, providing a 15% increase in payload and range. It also had automatic wheel brakes (Airliners.net (1), Wikipedia 2 2024).

The shorter undercarriage design created a problem for future B737 models from the 300 onward. The larger diameter of the high by-pass turbofan engine meant the engine pods had to be attached forward of the wing using a pylon. Lengthening the aircraft also created a problem. A rear fuselage “bumper” was added to prevent tail strikes when rotating at take-off. It also meant changed trim of the aircraft. The culmination was a distinct nose up tendency at take-off power caused by the more powerful 800 Max 8 series engines being even further ahead of the wing and the less than perfect designed control system. Namely, the Manoeuvring Characteristics Augmentation System (MCAS). It is designed to move the nose down if an increased angle of attack is detected to avoid too much pitch up and a wing stall. Due to faulty angle of attack sensors, nose down commands from the system that could not be countermanded by the pilots, there were two fatal crashes (Aviation Safety Network (2) and (3). Simple Flying (1), Wikipedia (3)). The fact that not all pilots were even made aware of this design aspect of the system and correct counter action was also a contributing factor.

JOHANNESBURG CIRCA 1969-1970



The full name of the airport was Jan Smuts International Airport. It was later named Johannesburg International Airport, which is not in Johannesburg, but in Kempton Park. Since 2000 it is known as the O. R. Tambo International Airport and is in the City of Ekurhuleni Metropolitan Municipality.

At the time Jan Smuts International Airport had one main runway and a shorter diagonal runway that was already not in regular use, except for light aircraft under visual flight conditions and later not used at all. It had an ILS at each end of the runway (CAT I only, if I remember correctly), VOR and NDB. The plan view shows the airport as it was 6th April 1976 with a much smaller passenger terminal than later and the control tower building to its south. The cargo terminal is shown as being under construction.

Being a hub airport, plus the compulsory only destination for international passenger airlines at the time, there are many more diverse airline aircraft photographs than at

Durban. However, not all airlines are represented. A photograph taken from the control tower building gives an idea of the apron at the time with the single main runway disappearing into the distance and the shorter diagonal runway across the middle of the photograph. Aircraft would taxi into an angled position and taxi out under its own power from the position. No tugs used. Refuelling was also via tanker. Stairs, painted in red and white checks to enhance visibility, were towed close to the aircraft then manhandled into final position. In the foreground, lower right, is a Volkswagen Kombi while lower left is a Morris or Austin mini-minor estate.



Shadows indicate it is not long after midday with Cumulus cloud beginning to develop.

The photographs are during a short approximately two year period. Rather than chronologically sorted they have been grouped according to; local South African, regional or neighbouring countries, European countries, a few further afield and finally, some private/business aircraft, which were far from as numerous as present.

A significant number of the photographs have aircraft details written on the back with dates and some with a brief note. Colour film began to be used late in the period.

Local



SAA was in the process of disposing of their DC-3 aircraft, being replaced by the three HS-748. **SAA Douglas DC-3 ZS-DJB**, named Simonsberg, built in 1943, was one of the DC-3s.

Chocks are in position at the front wheels with a metal stepladder at the entrance door. Chocks are used to prevent an aircraft from

moving while parked. In the background is a SAA B707 and a SAA B727 and cranes, evidence of terminal building construction.

The **Hawker Siddeley HS-748** (below left) was a demonstration aircraft that was temporarily registered ZS-IGI while in South Africa. A note on the back of the photograph says it was from 14th to 19th December 1969.



SAA Hawker Siddeley HS-748 ZS-HSI (above right) was one of two aircraft leased by SAA and painted in SAA livery, until the airline received their three purchased aircraft. The aircraft's integrated steps are in use at the rear door, while steps have been placed at the front door. There are chocks at the main wheels. Two luggage wagons can be seen with handlers, one standing

next to the wagon on the left and one seated in the wagon next to the wing. Major changes were being made to the terminal building as evidenced by the cranes in the background.



SAA Viscounts were also in the process of being withdrawn. They were in SAA service from 1958 to 1971 when the seven aircraft were sold to British Midlands Airways. SAA also had one series 818 Viscount aircraft, purchased from Cubana, in Cuba, that crashed in the sea near East London in 1967 (Spring 1996). Photographed is **SAA Vickers 813 Viscount ZS-CDX**, named Wildebees, parked unattended. It was one of seven purchased new from Vickers (Spring 1996). The Rolls-Royce Dart turboprop engines had a very distinct whine. The only time I flew in a Viscount was in 1968 from Cape Town to Alexander Bay (at the Orange River mouth) and back after being there on relief duty for a few weeks.

SAA B727-44 ZS-SBA Tugela (below left), in pre 1971 livery, is taxiing to runway 03. Leading edge slats already extended as part of the pre-take-off checks with extended trailing edge flaps just visible underneath at the rear of the wing.



Whereas **SAA B737-244 ZS-SBM Gamtoos** (above right), was shown in a black and white photograph at Durban's airport, here it is shown in colour in its pre-1971 livery while taxiing past the control tower building to runway 03. In the left background is a Trek Airways Lockheed Starliner often mistakenly called a Super Constellation, or Connie.

Being prepared for departure, next page, is **SAA B707-344C ZS-SAG**, named Durban. Some sources say it was a 344B. However, it was definitely a 344C convertible passenger/freight model with the addition of a port freight door forward of the wing, as seen in other photographs. In the background right is a **UTA (Union de Transports Aériens) Douglas DC-8-62** brand



new in 1968. UTA was a private/independent French airline started in 1963, merging with Air France in 1992 (Simple Flying (2)).

Trek Airways started operation in 1953 as a charter holiday travel airline with a scheduled run three times a week between Johannesburg to Luxembourg. Occasionally the airline would fly to other destinations in Europe, the far east and places nearer to home such as the Seychelles. Considering the monopoly the government owned SAA had on commercial air travel in South Africa in the 1950's to the 1980's, it is surprising that any other airline managed to come into being, let alone survive. In the prevailing political situation, I believe there was some

of you scratch my back I will scratch yours between the two.

While I worked at Jan Smuts Airport, the airline operated three Lockheed L1649A Super Constellations, ZS-DTM, ZS-DVJ and ZS-FAB. Strictly speaking the L1649A was a Starliner, not a Super Constellation. The L1649A was the last Constellation variant (Simons 2021).



Due to political pressure, from 1963 Luxavia (with Trek Airways the holding company) was formed in Luxembourg as the tour operator for Luxair (the national airline of Luxembourg). Trek Airways registered their aircraft in Luxembourg in Luxair livery. The three connies (Starliners) were registered as LX-LGZ, LX-LGX and LX-LGY. The photograph shows **Trek Airways Lockheed L-1649A Starliner ZS-FAB** parked near the

south side of the control tower building with the SAA technical area and hangers in the background. By 1969 it had ceased operation for Luxair and reverted to its original Trek livery.

During 1969, Trek Airways began converting to B707s. The first was the SAA B707-344 ZS CKE (the original "Durban") which was registered as LX-LGW. During the 1970's five B707s were operated at different times in Luxair colours. One B707-344, two B707-344B and two B707-344Cs (all ex-SAA as indicated by the 44 code). Later, from the mid 1980s, they operated an Airbus A300B4 and B747-44SPs from SAA. In 1991, they started a subsidiary airline, Flitestar operating Airbus A 320's. In 1994, Luxavia/Trek Airways and Flitestar ceased operation (Spring, 1996, author's notes and Trek Airways).

From our office I watched with sadness while they scrapped the beautiful **Trek Airways Lockheed Super (Connie) Starliner ZS-FAB** between March and June 1970 next to the fire station. Engines and interior, wings removed, then breaking the fuselage apart. It had been sold to Germiston Scrap Iron. The two photographs show parts of the process. I well remember engine start up. Each engine in turn would belch a big puff of black smoke, then the propeller

slowly began to turn and after a few more splutters of smoke the propeller would settle into steady rotation. Sometimes it required more than one ignition before it started.



The black and white photograph of **Luxair B707-344 LX-LGW** (ex-SAA ZA-CKE) shows it taxiing to runway 03. Remember 44 is Boeing's designation for SAA purchased aircraft. As yet the taxi check list has not reached the extend leading edge Krueger slats/flaps and trailing edge Fowler flaps.

The aircraft is a 320 series model sometimes referred to as a 320A. Subsequent development of this

model were the 320B and the 320C, such as the SAA B707-344C ZS-SAG depicted earlier in this section. The 320 was easy to identify because it had a rear under fuselage fin and corrugated engine rear jet pipes, the B and C models did not have these features and the C model could be identified by the freight door.

Early 707s had poor yaw stability. The remedy was the addition of a rear under fuselage fin (ventral fin) and the stabiliser heightened. Later a hydraulically powered rudder and effective yaw damper made the under fin redundant. Also notice a feature common on nearly all 707 320s, 320Bs and 320Cs that immediately recognise the aircraft is a B707. Namely, the forward projecting HF (high frequency) antenna at the top of the stabiliser. See the above photograph. Not all 707s had one. The HF antenna was for long distance communication over sea, such as the Atlantic Ocean, when out of range of VHF communication. Some models, intended for use only over continental USA did not have a HF antenna (Airlinercafe).

The Luxair flight crew uniforms were initially the same colour as SAA. Later they were a grey colour. I remember one captain saying he had to be careful which uniform he put on, so I assume the Trek Airways/Luxair crew moonlighted, with approval, from SAA. It would not be the last time. Many years later when Air Mauritius started, SAA crews flew for them. However, this was different in that the Boeing 707's and B747SP's were wet leased from SAA. That is, aircraft are leased with crew, fuel, maintenance and operating conditions., etcetera.



Protea Lugdiens/Airways, formally Volkslugdiens (English: Peoples Airways) was a charter airline and associate of Trek Airways sometime between 1961 and 1977. Originally in the USAAF in 1944, **ZS-FCK Douglas C-54A Skymaster** (military DC-4) belonged to numerous North American operators before going to Icelandair, arriving in South Africa in 1967. It spent a short time in Botswana, then

returned to South Africa and Protea Airways in 1968. Its livery was silver and white with a blue

cheatline. In 1971 it was leased by Swazi Air (Airline History (1)). See the previous section Durban photograph of the Swazi Air liveried aircraft.

Notice the protuberance below the tail of the aircraft where a pole can be attached to prevent the aircraft from tipping on to its tail. In the background, next to a Volkswagen Kombi is a twin engined Beechcraft Baron. I have not been able to trace its registration. On the extreme right is the nose of a Fokker F27 Friendship. As always at the time, there is airport construction in the background.

Regional



Alphabetically, the first of the regional operators is this **Air Rhodesia VP-YNH Douglas C-47B** (or civilian DC-3).

The livery was metal silver and white with a blue cheatline, blue Air Rhodesia lettering and white registration. Blue is repeated on the bottom of the stabiliser and a narrow strip at the top with a symbolic Zimbabwe bird in red. The Zimbabwe bird is found carved in stone in the ruined stone walled city of Great Zimbabwe dating from the 11th century inhabited for around 300 years. An amazing place to visit.



In the same livery is **Air Rhodesia VP-WAR**, a four turboprop engined Vickers 754D Viscount (Airhistory.net (2)).

Notice the round doors as opposed to the rectangular doors on the SAA Viscount, as discussed in the previous Durban section. Passenger stairs are in place with less manageable stairs at the front for the crew.



Air Madagascar B737-200 5RMFA was delivered new to the airline in 1969 operating from the capital Antananarivo. Notice the registration format. This was later changed to 5R-MFA. The airline was a new operator to South Africa. The silver metal hull was topped by white with a maroon like cheatline and similar colour stabiliser emblem. Unfortunately, I cannot remember the colour of the airline title

letters. The symbolism of the emblem on the nose is unknown to me. In the background is the very old part of the single story passenger terminal with the airport name in Afrikaans and English.



The **Botswana Airways Corporation Britten-Norman BN-2 Islander A2-ZEV**, seen here new in 1969 with BAC emblem on the stabiliser, pretty much represented the current financial status of the airline. One person does all pilot in casual attire. Sadly, two or three years later the aircraft was written off with no fatalities.

At the time Botswana was a struggling country. Very much considered a poor neighbour. BAC came into existence in 1969, having replaced Botswana National Airways. In 1972, it in turn became Air Botswana. These days, with sound

management, the country is much improved in all aspects, particularly due to its diamond trading and wildlife tourism.

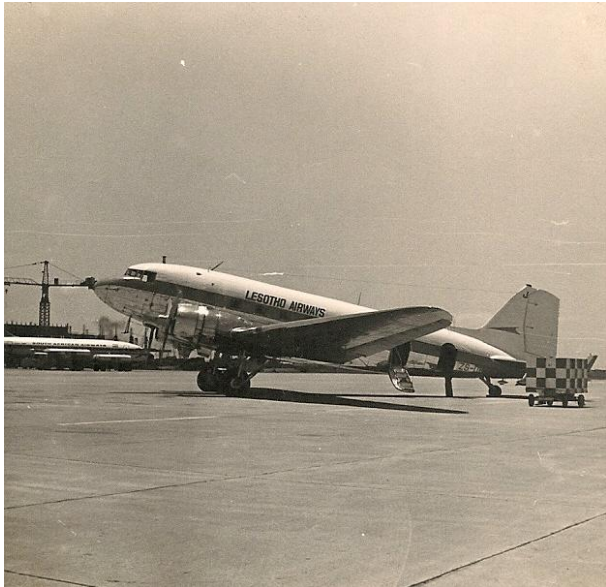
The following year, 1970, BAC was able to operate this **Fokker F27-600 Friendship A2-ZEW**, named Chobe shown below left. It being loaded from wagons with luggage and freight in the forward section of the aircraft. The cheatline is powder blue colour, the same as in the airline logo with black BAC and registration lettering. In the foreground is a BAC Volkswagen Kombi and the ever-present terminal building construction cranes in the background.



DETA CR-BAA B737-200, shown above right, was new to the airline in 1969. The livery changed within a few years to that seen 7 years later on the DETA B737 in the following Durban 1971 to 1984 section. Coincidentally, they were both photographed in wet weather. The luggage wagons have protective covering. On the left is a SAA 1960s Bedford service vehicle.

At the time, during Portuguese rule, the airline was known as the Directorate of Exploration of Air Transport (DETA). It ceased operation as such in 1980, five years after Mozambique gained its independence, becoming Linhas Aéreas de Moçambique (LAM).

This **Lesotho Airways Douglas C-47A ZS-DRJ**, with combined door and steps and open rear luggage door, was operated by Comair on behalf of government owned Lesotho Airways, flying from the capital Maseru. Assume the livery, with the Comair emblem on the stabiliser, was Comair pale green. It was delivered to the USAAF in 1943 (Airhistory.net (3)). Notice the South African registration, not Lesotho's. Also, the red and white checkered high visibility luggage wagon.



was held. The head delegate from Nigeria was elected Chairman (standard procedure). Our South African delegation caused a commotion when Lesotho was proposed as vice-chairman. Some country members objected on the ground that South Africa could not propose a province of South Africa, not realising that Lesotho is an independent state and not part of South Africa at all. Finally, Lesotho was accepted.

Swazi Air VQ-ZJB C-47A (another C-47!) in Swazi Air livery with the national flag on the stabiliser. This one does not have combined door and steps, for the simple reason it has a double door freight opening with the left door open. A trim tab with trailing flag has been inserted at the base of the rudder to stop the rudder flapping in the wind, although one has not been inserted to hold the elevators in place. Obviously, these had to be removed by the flight crew during the pre-flight check and stowed before flying. Ground handlers are relaxing from the heat of the day in the shade of the aircraft.



As mentioned before in the earlier Durban section, Swazi Air was in existence from 1965 to 1978 as a privately owned subsidiary of National Airways of South Africa. It operated a twice-weekly service from Matsapa Airport (at Manzini) to Jan Smuts Airport. Since 2018 the Kingdom of Swaziland is now known as the Kingdom of Eswatini.

Europe

Moving on to European airlines is this **Alitalia Douglas DC-8-43 I-DIWO Marco Polo** (below left), photographed being refuelled by a Shell BP tanker with a ground power vehicle (or GPU ground power unit) at the front of the aircraft providing electrical power while the engines are off. Alitalia operated a daily flight that arrived in the morning and departed in the evening, as did most of the scheduled airline flights between Europe and South Africa.



The airline was in the process of adopting a new livery, seen in this 29th November 1969 photograph above right, of **Alitalia Douglas DC-8-43 I-DIWI Giovanni da Verrazzano**, in white with a striking dark green cheatline to the stabiliser with a red triangle. The airline lettering is the same green with a red triangle within the initial letter A.

The same type of GPU vehicle can be seen at the front of both aircraft. Jet airliners such as the DC-8, B707, VC-10 and the Convair Coronado were of a pre-onboard APU generation. At the rear of I-DIWI is a Bedford lavatory service vehicle, also known as a honey sucker. They empty lavatory waste that has been stored in onboard waste tank/s. After a tank is a mixture of water and a disinfecting concentrate, commonly called 'blue juice' is added. Non-potable water is added to tanks for flushing lavatories.

My understanding is that the DC-8 series 10, 20, 30 were powered by Pratt & Whitney turbojets, while the series 40 had Rolls-Royce Conway turbofans with Pratt & Whitney turbofans in the series 50 and 60. A turbojet engine is a gas turbine engine that uses its exhaust to create thrust, while a turbofan engine has an additional fan at the front that forces and compresses more air to combustion chamber before exhausting as forward thrust. The result is that it is more efficient with more thrust for fuel burnt (Kermode 1976).

Balair was a Swiss charter airline that operated to South Africa in the freighter capacity. The two photographs in my possession are of a **Balair Convair 990-30A Coronado HB-ICH** photographed 13th January 1970 (It was the only Coronado in the Balair fleet) and a **Balair DC-6A(C) HB-IBS**, which has an enlarged freight door encompassing the two forward windows. Balair had a fleet of DC-6s.



The Coronado was probably on a rare passenger charter. In the photograph it is parked with dust covers on the jet inlets and all systems off, as evidenced by the extended slats due to loss of hydraulic pressure and the angled stabiliser rudder.

The DC-6 is being serviced prior to its next flight. Steps are positioned next to the number one engine. Steps are also in position at the front starboard door for access to the cockpit. Notice the characteristic Douglas protuberance below the tail of the aircraft where a pole can be attached to prevent the aircraft from tipping on to its tail.

The Balair DC-6 flight always departed during the early part of the night. I was told by a colleague, who had worked at the airport for some time, that the flights carried gold bullion to Switzerland. He had seen armed convoys arriving at the aircraft. I much later read about clandestine flights using DC-6s to a rough and remote widened road strip in eastern Biafra during the Nigerian Civil War (or Biafran War) from July 1967 to January 1970. More recently, I learned that Balair operated Red Cross chartered flights to this strip until aid flights to the region were banned by the Federal Military Government. Subsequent clandestine flights operated primarily from the nearby island of Sao Tome and two other nearby countries. As many as four single aircraft round trips were made per night. Furthermore, Balair used C-97 Stratofreighters until the ban. It is therefore impossible that Biafra was the destination of the Jan Smuts Balair flights (Airhistory.net 4), Wikipedia (4)).

BOAC Vickers Super VC-10 G-ASGW being prepared for departure on the 9th December 1969. In the background is a SAA Boeing B707 (left) and an Iberia Douglas DC-8 (right). The



daily flight always arrived in the early morning, departed in the evening. A routine followed by all the European airlines, including SAA. It meant plenty of time to prepare for departure, but a very busy evening. The aviation industry loves acronyms. BOAC means British Overseas Airways Corporation (now British Airways). BOAC was state owned.

The livery was light grey lower hull, white upper with royal blue markings and gold lettering. With its T-tail and four rear mounted Rolls-Royce Conway turbofan jet engines, it was a beautiful and sleek looking aircraft.

Although introduced into service in 1965 they were still experiencing problems. Incoming flights were delayed often enough, usually at Nairobi, that we jokingly referred to the airline as British Overdue Airways Corporation.

Caledonian Airways B707-399C G-AVTW, was photographed on the 6th December 1969.



Ground servicing was provided by SAA, as evidenced by the short wheel base Land Rover with the SAA flying Springbok on the side and rear. The HF antenna on the top of the stabiliser is barely visible.

It had a most attractive livery. Metal silver lower hull, upper white with blue cheatline, yellow lower cheatline and blue stabiliser with a gold rampant lion. Fuselage lettering was blue, but white on the stabiliser.

It was an independent and privately owned British charter airline, becoming British Caledonian Airways in 1970 and amalgamating with British Airways in the late 1980s. Being a charter airline, it was not often seen at the airport.

Donaldson International Airways Bristol 175 Britannia G-APNA, Juno, photographed 14th



December 1969. It is seen parked with stairs at the rear cabin door and apparently unattended on the apron furthest from the terminal building. Donaldson was a tour and charter airline for six years from 1968. In the background is a SAA B737-244 left and right the Hawker Siddeley HS-747 demonstrator. Mentioned earlier. Therefore, the slightly tilted horizon photograph is dated between 14th and 19th December 1969.

The livery was metal and white with a dark blue cheatline (with thin red line below) and lettering. The tailfin was the same blue colour with a thin red line below and red thistle shadow edged with white and white DIA.

On the next page, **Iberia DC-8-63 EC-BQS Claudio Coello**, new in 1969, is another photograph of an aircraft being prepared for departure. This time with a Shell BP tanker and trailer tanker alongside. At the front is a GPU vehicle and a Volkswagen Beetle.



Full title Iberia Líneas Aéreas de España and the flag carrier of Spain. Iberia was another daily scheduled visitor with the same routine of early arrival, late departure. It is written on the back of the photograph that the aircraft was named Claudio Coello (a Spanish Baroque artist).

The 63 was the longest and heaviest version, carrying the most passengers (290). The longer fuselage had to be strengthened. It already had the legs (enough ground clearance) so there was no need to lengthen the undercarriage (Airliners.net (2), Wikipedia (5)). A factor that limited the length of the B707 Like the B707, the basic flight crew was three. Two pilots and a flight

engineer.

The livery was silver metal lower hull, white upper with a red cheatline and Iberia lettering fore and aft. Between them, in smaller black was written Líneas Aéreas de España. On the stabiliser was grey globe with white graticules surrounded by a black circle superimposed with the red letters IB. The top of the fin had a yellow strip bounded by narrow red lines. Iberia had a novel place for the aircraft registration, it being positioned at the top of the stabiliser.



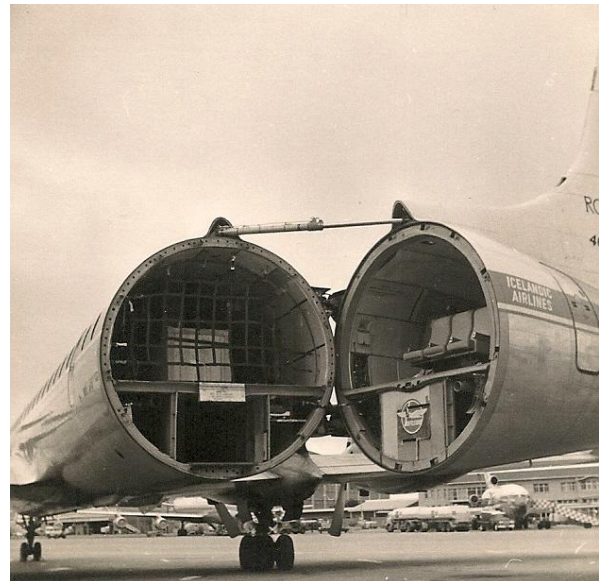
Netherlands flag carrier **KLM DC-8-55CF Jet Trader PH-DCW**. KLM = Koninklijke Luchtvaart Maatschappij or, in English, Royal Aviation Company. Although, written on the fuselage top, next to KLM, are the words Royal Dutch Airlines.

The photograph shows it being loaded with luggage trolleys positioned at the two front hold compartments. The freight door is closed. I do not recall ever seeing a KLM DC-8 being loaded with freight at the airport. Only passengers. To the right is SAA B707-344C ZS-SAG, named Durban. In the foreground is a dirt/sand access road to the meteorological instrument camp situated on the far side of the apron and taxiway.

KLM daily routine same as other airlines already mentioned. An attractive light and dark blue livery. The CF model was a combination passenger and freight aircraft with a strengthened floor and large port side upward hinged freight door. It could be used as all passenger, all freight, or combination with an adjustable dividing partition. Along with the 10 to 40 series DC-8s it was shorter standard length compared with the later longest series 60s.

Four engined turboprop **Loftleidir Canadair CL-44D4 TF-LLJ** was photographed 16th December 1969 either ready to be unloaded, or loaded, parked on the eastern apron. I cannot remember the livery other than it is metal silver and white hull. Photographs on the Internet show pale blue, or powder blue, cheatline and lettering. It was an unusual opportunity to photograph the aircraft type with the tail open. Notice the overwing engine exhausts.

In the second photograph, freight can be seen behind a net in the fuselage while three seats can be seen in the tail. Curious. At roof level is the hydraulic arm that opens and closes the tail section. Written on the side of the tail is Icelandic Airlines. Just visible on the tail are the letters RO and below 40. My notes on the back of the photograph say the full text is ROLLS-ROYCE and below 400 Jet Prop.



Lufthansa B707-330B D-ABUM, named Bremen, standing idle, ready to be loaded later for an evening departure was another daily scheduled visitor. In the background is BOAC Vickers Super VC-10 G-ASGC on the far apron with a GPU vehicle at the front. Dust covers are in place at the engine inlets.



The Germany flag carrier Lufthansa livery is the customary metal silver lower hull and white top with a blue cheatline, Lufthansa lettering and stabiliser with yellow logo and blue symbolic bird on the stabiliser. The registration is in white on the rear end of the cheatline with the last two letters of the registration at the top of the fin next to the German flag.

The airline's dispatcher was a friendly ex-Luftwaffe World War II pilot, probably in his fifties. Always willing to chat.



Martinair Holland is a Dutch freight and passenger airline, freight only since around 2010, now known simply as Martinair. The photograph shows **Martinair Holland Douglas DC-8-55F PH-MAU**, named Toronto.

Apart from the usual metal/white fuselage, the cheatline is dark blue with red stripes above and below, while the stabiliser has horizontal dark blue and red horizontal stripes separated by narrow white stripes. Martinair lettering is black and grey Holland. The black MAC on the stabiliser is an acronym for Martin Air Charter, its original airline name, while Martinair Holland was its more recent name.



Also photographed on a different day, was **Martinair DC-9-33RC PH-MAO**, named Desiderius Erasmus. RC stood for Rapid Change between passenger, passenger/freight combination, or all freight. Zooming the scanned photograph reveals the freight door encompassed the set of six windows forward of the port wing and rear of the set of three windows.

Unfortunately, another slightly titled horizon photograph. It sometimes happened when having to take a quick photograph to avoid the risk being in the way of other activities.



Notes on the back of the photograph indicate that **Olympic B707-384C SX-DBC City of Knossos**, was taken on the 14th December 1969. The cargo door is faintly visible to the rear of the flag and the two faintly visible latch squares. It is being refuelled from an Esso tanker. If my memory is correct, Olympic also had a daily schedule. Olympic Airways, the flag carrier airline of Greece, was owned by Greek shipping magnate Aristotle Onassis, who sold the airline to the Greek state in 1973 (Wikipedia (6)).

At the expense of being repetitive, the lower fuselage is metal silver with a white top. The cheatline, lettering, symbolic flag and

stabiliser are a bark blue with white, red, pale blue and yellow Olympic rings.



Parked at the southern end of the apron, in front of the control tower building is this **Sabena B707-329C OO-SJM**. The open freight door clearly indicates combi mode operation. Freight forward, passengers aft with the passenger door open and cockpit access door open at the front. On the apron, beyond the taxiway is Protea Airways ZS-FCK Douglas C-54A Skymaster. Cloud cover is typical of the warmer summer time of the year with high base Cumulus cloud. Given the level of Cumulus development and the shadow under the Protea aircraft it appears to be late morning. Above the Cumulus cloud is wispy high level Cirrus composed of ice crystals.

Usual hull colouring with not too pale blue cheatline, Sabena lettering and stabiliser with a white circle and same blue letter S. Sabena is an acronym of Société Anonyme Belge d'Exploitation de la Navigation Aérienne. It was the national airline of Belgium.



Another daily visitor. This time **SAS DC-8-55 LN-MOH Harald Viking**, being attended to after landing with a GPU truck in attendance after switch off of engine power. The photograph was taken from the edge of the eastern apron showing part of the tower building on the left, passenger terminal on the right.

Usual hull colours, metal finish below white paint above. Cheatline and lettering dark blue with a red strip above the blue cheatline. It has an interesting symbolic dragon head on the forward of the cheatline, as typified on the bow of a Viking boat.

SAS means Scandinavian Airlines System or, to give it its full title, Scandinavian Airlines System Denmark-Norway-Sweden. It is the flag carrier of the three countries. An unusual arrangement that works. Founded in 1946, it is pleasingly still in existence.

On the next page left, **Swissair DC-8-62 HB-IDG**, the long version of the DC-8 and daily visitor, was photographed on the apron furthest from the terminal. Surrounded by a hive of activity, it is being prepared for departure. High visibility checkered stairs are in position front and rear. At the rear a vehicle for supplying the galley is in attendance. Rear and fore of the wings are wagons laden with luggage. At the extreme left is an Esso fuel tanker. In the

background, behind the near most engine pod, is the tail of a BOAC VC-10, while at the other end of the aircraft is an Alitalia DC-8.

The hull colours same as always, cheatline and tail bright read, airline lettering black. The name of the aircraft was not noted.



Another swing tail CL-44 shown above right. This time **Trans Meridian Air Cargo Canadair CL-44D4 G-AXAA** photographed with the tail open and ground power connected, at the very south of the apron with the fire station behind to the left. At the time there was no dedicated freight handling section and freighters could be parked anywhere.

Trans Meridian was in existence from the early 60s to late 70s. The colour scheme is all metal silver with a red upper, blue lower, cheatline. Red tail and lettering.



This is a photograph of **Transportes Aéreos Portugueses (TAP) B707-382B CS-TBA Santa Cruz**, another daily scheduled airline. This time the aircraft is being refuelled by a Caltex tanker. The hose is attached to the underside of the wing to the left of the number one engine pod and to the right of the man standing in attendance.

To the right is a SAA B707 apparently taxiing past. The photograph view is from the apron furthest from the terminal building with earthworks in the foreground. Not extremely large molehills. They are the same size in Africa as in the rest of the world.

A **Union de Transports Aériens (UTA) DC-8-62 F-BOLG** with a different type of GPU vehicle next to the nose (next page). It is parked in wet and overcast weather at the southern end of the apron with part of the tower building visible at the right. The tower building was



demolished and replaced by the present passenger terminal. The control tower is now located in a tall water tower lookalike building east of the northern end of the newer second runway, along with another fire station.

Another daily schedule airline. The livery the usual hull metal and white. Dark blue cheatline, airline lettering and stabiliser with a green strip below the cheatline and a triangle on the rear of the stabiliser.

Like Olympic Airways, UTA was a private independent airline, not state owned as was usual at the time. UTA was second largest international French airline. Air France (the

national flag carrier) being the biggest. French Government policy dictated that the two airlines had separate route division, thereby avoiding competition between them with no network overlap. Africa was essentially UTA stomping ground. UTA was in existence from 1963 to 1992 when it merged with Air France (Simple Flying (3)).

Further afield



Arco Bermuda Douglas DC-7C VR-BCX was a rare visitor to Jan Smuts. The only time I saw it. Assume it was a chartered flight. Very little is known about the airline except it was in existence from 1963 to 1971. The aircraft was photographed at the outer apron with my Volkswagen Beetle transport in the foreground, Passenger terminal and construction in the background, which began in around 1970 and into the early 70s with new air side facilities.

The 7C had a longer range than the DC-7Bs used by SAA, due to two 1.5m wing root inserts for extra fuel. This had the benefit of reducing interference drag, plus the engines

were further outboard resulting in a quieter cabin for the up to around 100 passengers (Wikipedia (7)).

El Al Israel Airlines B707-458 4X-ATA, on the next page, was photographed at the outer apron east of the taxiway with a Shell BP tanker and a SAA ground power truck in attendance. This was still when all ground technical facilities were provided by SAA. The El Al minibus could be a Commer FC.

The 458 (or 420 series) was the same as the 320, except fitted with Rolls-Royce Conway turbofan jet engines and an additional HF antenna on the starboard wingtip. It also had a 100cm



(4)).

extension to the stabiliser and an under fin (making it look like a 320 also sometimes referred to as a 320A). The reason for the changes being that the British Air Registration Board refused the type a certificate of airworthiness, because there was insufficient rudder to control yaw (Airlinercafe, Wikipedia (8)).

It is believed the photograph was taken not too long after it was involved in a hijacking in July 1968. The flight was from London to Tel Aviv via Rome. After take-off from Rome, it was hijacked to Algeria where there was a negotiated release of all passengers, crew and aircraft (Aviation Safety Network

Pan American B707-321B N890PA photographed behind the tail of Trek Airways ZS-DVJ



Lockheed L-1649A Starliner with Super Star written above the registration. A vehicle with raised lift is stocking the B707 galley. An unusual parked position for a scheduled airline aircraft. It might have been moved due to an apron bay needed for an earlier departing aircraft. It is at the extreme southern end of the apron next to the fire station where the Trek Airways Lockheed aircraft were usually parked and maintained. A L-1649A Wright R-3350 turbo engine, minus propeller is visible in front of the B707 nose. In the background is a SAA Vickers Viscount in the SAA maintenance area. The Viscounts were withdrawn from service in 1971. The photograph is most likely 1970. The fire station is off to the right and the control tower building off to the left.



Livery was metal and white hull with a blue cheatline and globe on the stabiliser. Black Pan American lettering was changed to simply Pan Am neared the front in 1971. Another photograph in my possession, shows Pan American B707-321B N408PA in the same livery parked at the apron.

Qantas B707-338C VH-EBS, name Kalgoorlie, photographed parked at the control tower end of the apron with an arriving Lufthansa B707-330B D-ABOV in

the background. A marshaller is standing some distance in front of the aircraft. Meanwhile, a GPU truck is waiting to the rear.

Qantas VH-EBS is being prepared for departure. Luggage wagons have been pulled into place for offloading. A Shell BP tanker is at the front with one hose connected to the nearest wing and another passing under the aircraft to the other wing.

The livery is the usual metal and white hull with red trim, including red Qantas lettering. White tailfin lettering and symbolic kangaroo. And Qantas V-jet on the tailfin. Apparently, the V signifies the Latin word *vannus* meaning to blow. Therefore, V-jet means fan-jet. Somewhat abstruse. Qantas is the national carrier for Australia. The name harks back to the beginning of the airline in 1920. It is an acronym of Queensland And Northern Territory Aerial Services.

For many years Qantas and SAA had operated a reciprocal weekly Wallaby Route. One week Qantas, the next SAA. That is each airline operated fortnightly on the route. When B707s took over, Qantas were using Lockheed Electra aircraft and SAA DC-7Bs. The route was Johannesburg via Cocos Islands to Perth, Australia, while Qantas continued to Sydney and vice versa. In 1967 B707s took over the route. The Wallaby Route was then Sydney to Johannesburg via Perth and Mauritius and vice versa. I cannot remember the later weekly frequency of Qantas/SAA flights.

In the later 60s while working in Durban, I read an amusing anecdote, true or not, in an edition of SAAs inhouse pilot's magazine from among a pile in our storeroom. It was referred to a DC-7 flight over the Indian Ocean. The flight was so smooth and the sea looking so flat, a little old lady asked a steward why they had stopped. The steward replied the pilots were having their lunch. This apparently satisfied the passenger.

Private/business



Starting with a propeller driven aircraft is this mining company **Anglo American Corporation de Havilland DH.114 Heron ZS-DIG**, appropriately registered dig. The aircraft had four De Havilland Gipsy Queen six cylinder piston engines. Photographed on the apron at Jan Smuts with a high wing, twin propeller engined Aero Commander behind.

The Anglo American Corporation was started by Ernest Oppenheimer in Johannesburg in the later 1910s, becoming a very big and wealthy business under his son Harry Oppenheimer, later a global mining giant. Probably few people in South Africa did not know of Harry Oppenheimer. A horticulture friend was in charge of his garden at one of

his homes north of Durban when he retired in late 1980s and 1990s.



The Heron was already getting long in the tooth when Anglo American Corporation bought the **Grumman Gulfstream 1 ZA-AAC** with its twin Rolls-Royce turbo prop engines. Another appropriately registered aircraft.

A visiting Switzerland registered **HB-VCC Aero Commander 1121 Jet Commander** twin jet photographed in 1970 (below left). All black with what is believed to be white cheatline. After 1968 Aero Commander was bought by and became IAI Westwind (Airhistory.net (5)).

N111E (below right). Nothing is known about this aircraft other than it was built in 1968 and painted overall white.



British Aircraft Corporation BAC-111 (One eleven) N270E photographed 7th December 1969. The twin Rolls-Royce Spey turbojet engined aircraft, new in 1967, was registered to Englehard Industries. It had an unusual livery for the time. A metallic pale green lower hull, white upper and dark green trim (Fielding).

The only time I flew in a BAC-111 was from Lagos to Abuja in 1997 going to an ICAO (International Civil Aviation Organization) conference. It was with some trepidation in an old Oriental Airlines BAC 111-500, which I noticed had a distinct dent in the port wing

leading edge. We had to hold for about 20 minutes before landing, because the Libyan leader Ghaddafi was paying a visit. The USA government was not happy about this, because he was, at the time, supposed to be in siege in Libya, banned from other countries, because of the Lockerbie bombing.

The **Gates Learjet 24B ZS-LLG** was a two pilot, four or six passenger, jet aircraft aimed at the then niche business market or the wealthy elite. Owning a Learjet was a status symbol. The blue and white jet was owned by Louis Luyt. The letters LLG signifying Louis Luyt Group.

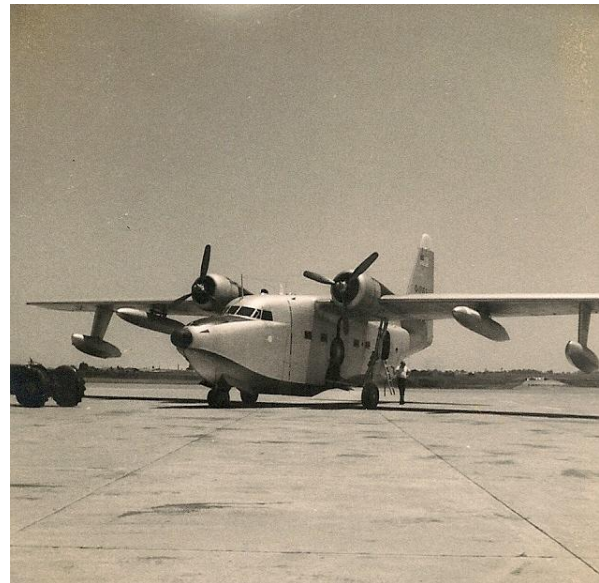


Louis Luyt was a highly successful, if controversial, businessman who among other business ventures founded Triomf Fertiliser (Afrikaans for triumph) that made his initial fortune and later Luyt Breweries, whom critics said was not particularly good. The joke was that he made a fortune putting shit in packets, now he believes he can make another fortune putting piss in bottles.

Around 1975 the aircraft was sold. As F-BSRL it crashed during descent while flying between Marseille and Le Bourget 10th June 1985 (Aviation Safety Network (5)).

Seen below left, is this **Grumman G-1159 Gulfstream II N500R**. Apparently, it was owned by Superior Oil, reregistered as N111UM in 1970; Black with a white upper and red lower cheatline and red registration on the engines (Airhistory.net (6)).

Below right, is an exotic visitor. The **Grumman HU-16B Albatross** amphibious flying boat. It was numbered 0.17153 on the stabiliser with the USA flag at the top and no military evidence. I could see no civilian registration. However, many of these surplus USAAF aircraft were bought for civilian operation. Note, it is a flying boat, not seaplane, because it has a hull. The type first flew in 1947, in production from 1949 to 1961 (Wikipedia (9)).



Hawker Siddeley HS-125 9J-RAN (below left) was operated by Mines Air Service. It was a subsidiary of Zambia Consolidated Copper Mines in what was then Northern Rhodesia and a forerunner of Zambian Airways. The aircraft was purchased new in 1966. Registered as ZS-MAN in 1972 (Airhistory.net (7), Airline History (2)).

Hawker Siddeley HS-125 VQ-ZIL. Shown below right being refuelled from a Shell BP tanker. All that is known about this aircraft, being refuelled from a Shell BP tanker, is that it was registered somewhere in the West Indies.



DURBAN 1971 TO 1984

A few changes were made to the airport during this period. The runway was extended to the south with the addition of a turning basin to accommodate bigger jets such as the Boeing 747. Until the extension they were weight restricted. The intention was that long distance international flights could operate from the airport. The airport briefly experimented with long haul British Airways Boeing 747 flights to London Heathrow, however, the flight was still temperature and weight restricted at take-off and had to refuel at Nairobi. The truth was that fuel was much cheaper at Durban than at Nairobi, so they took on board as much fuel as they could and less at Nairobi. Other than that enlargement of the terminal building was made and extension of the apron. In other words, as shown in the 1976 airport plan shown in the Durban 1966 to early 1969 section. The problem was lack of land for expansion due to higher ground inland and the seaward side bluff with industry and housing to the north and industrial development to the south.

Around 1970 it was realised that a bigger airport was needed. A relatively flat sugar cane farming area, about 35km north of Durban at La Mercy was selected and purchased. A South African Weather Bureau anemometer with a standard 10 metre mast was installed to compile wind data for the area in order to plan the runway direction. Approximately 1975, runway and taxiways were levelled and compacted and a storm drainage system installed. An economic recession halted development. When operating as a flying instructor from Virginia Airport at Durban North, we used the compacted La Mercy runway, which was in the general flying area, as a target for simulated forced landing training and overshoot without landing. Over the years we could see deterioration of the ground work. It was not until late in the 1990s that work started again when Louis Botha Airport was already too small to meet rising demand. By the time reconstruction began again most of the preparatory work had to be repeated from scratch. Construction of what was to become King Shaka International Airport began in September 2007. It was completed in 2010 and Durban International Airport closed.



The **Safair Lockheed L100-20 ZS-GSK**, named Boland, was the first of numerous L100s operated by Safair. It was delivered new to Safair in September 1970 (C-130.net) in the livery seen in the photograph, believed 1971 or 1972, on a wet and misty day.

The original Safair livery for the L100 aircraft, consisted of white upper fuselage, silver lower part with an orange cheatline with white registration lettering and name Boland, bounded by a narrow turquoise blue line above and below. The tail, dark turquoise blue top, white middle with black Safair and orange bottom. Lockheed-L100-20 appeared in block capitals above the name Boland.

The L100, first built in 1964, was a civilian version of the famous C-130 Hercules military transport aircraft of which over 2500 have been



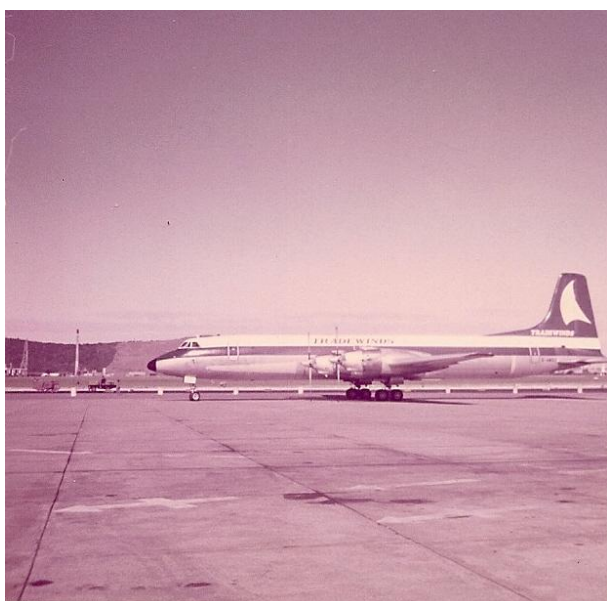
built and numerous variants. made by the Lockheed Corporation. First flown in 1968, the L100-20 was a 1.5m stretched variant with fuselage plus fore and aft of the wings, while the later L100-30 was a further 2.03m stretch (C-130.net). The oil painting by the author in 1988 is of a L100-30 in 1980s to 1990s livery using a poster photograph given to me by a friend who was a Safair pilot.

Safair was a newcomer freight airline in 1970 initially owned by Safmarine (South African Marine Corporation). It was, perhaps still is, among the largest operators of L100 aircraft. FlySafair, established in 2014 using B737 aircraft, is a low-cost scheduled airline subsidiary of Safair.



Another photograph of ZS-GSK taken from the lower roof of the control tower building, shows it parked next to a **SAA Hawker-Siddeley HS-748** aircraft. The Rolls-Royce Dart engines in the HS-748 were a newer development of the Darts in the Viscounts. The sound of them brought back memories of the Viscounts.

The parallel parking still in use helps to date the photograph and the one above as pre to early 1970s. Parallel and angled parking changed to nose first by the mid 1970s with the arrival of Airbus A300. Until then, even the occasional B747 was parallel parked.



Another visiting aircraft, probably photographed in the early 1970s given that the aged photograph colour tint is the same as some other photographs, is this **Tradewinds Canadair CL-44-D4** aircraft. They operated a large fleet of Canadair CL44-D4 freighters with the swing tail for loading. The position of the joint can be seen in the rear lower part of the hull.

In the background is equipment used in the preparation of the apron that has been extended to the opposite side of the taxiway to accommodate increased aircraft traffic and much larger aircraft.

This photograph and three others below, the following Comair and Cargolux aircraft, then the Margate Air Services aircraft, clearly came from the same film and printed at the same time. The three possibly the same day. Before digital cameras, film could remain in cameras for considerable time. One was frugal. Keeping shots to an absolute minimum. Film, developing and printing was not cheap and one paid for all the photographs, whether one wanted all of them or not. Later one could pay for only those that one wanted to keep.



The photograph of this **Comair Douglas DC-3**, with its Pratt & Whitney radial piston engines, probably dates from the earlier 1970s when on charter to Durban. A note on the back of the photograph merely states Comair DC-3. More than likely, it was a military C series 47, 48 or 49. So many of them were World War II military surplus versions of the civilian DC-3 that found their way into the civilian market. They were cheap, rugged and reliable. It is parked on the southern end of the apron.

Comair (Commercial Air Services) was South Africa's oldest private, mainly charter airline, started by three South African Air Force pilots in 1943 after they returned from

service in Egypt during World War II. Although, it did become known by the author for its scheduled DC-3 flights to Skukuza in the Kruger National Park. It grew to provide scheduled jet flights in competition with South African Airways using Boeing 737 aircraft and later operation as a British Airways franchise, as well as a low-cost airline Kulula.com in 2001. It ceased operation in 2022.



Cargolux, in existence since 1970, owes its success to its initial fleet of five **Canadair CL-44** freighters, three of which were an 18% stretched version with fuselage plugs fore and aft of the wings. The CL-44 freighter had a swing tail for loading. Cabin pressure was maintained by an inflatable seal around the join when the tail was closed with eight hydraulic-operated locks to keep it closed. The CL-44s were withdrawn from service toward the end of the 1970s.

This photograph of a stretched CL-44, possibly a CL-44D4, probably dates from the early 1970s. Could be registration TF-LLF, H or J. Most likely TF-LLH. The difficult to decipher registration written on the back of

the photograph is TF-LLX or H. This aircraft was owned by Cargolux from 1971 to 1978 (Cargolux, Cl44.com).



Another view (below) of a stretched Cargolux CL-44. This time silver livery and taxiing for take-off on Durban's runway 23. The tail hinge location is clearly visible.

On the right is the rear of a South African Airways Boeing 727-44 (series 100). Notice the rear entrance stairway lowered for passenger loading and disembarking. The photograph is probably 1970 to 1971, because Cargolux commenced operation in 1970 and after the hijacking of a B727 in November 1971 when the hijacker bailed out of the lowered rear stairway, SAA deactivated the stairway on their nine B727s, using the port (left) front entrance only.



Margate Air Services, based in Margate, operated a scheduled service between Durban and Margate on the coast south of Durban, as well as doing charter work. The fleet consisted of a Piper Cherokee six and a **Britan Norman Islander BN-2 Islander ZS-IJA** shown on the northern end of the apron.

The Umlazi Canal cutting through the Bluff is visible in the background. Above the passenger door. Before the airport was built, the Umlazi River flowed across the plain to the sea off to the right of the photograph. It was diverted to drain the plain between the Bluff and higher ground inland in preparation for building the airport.

The tail of a Cargolux CL-44 gives the impression of a strange Islander tail. The photograph is believed to be early 1970s when the Cargolux CL-44 TF-LLH(?), mentioned above, was believed to be at the airport.

First built in 1965, the nine passengers plus pilot (or two pilots and 8 passengers), Islander had twin six piston Lycoming engines. The Islander is still in production with appropriate modern features. Margate Air Services started operation around 1970, it later merged with a Richard's Bay/Empangeni service to Durban to form Emric Air Services. The author successfully applied to be a pilot with Emric in 1979. However, a day before due to join them, the author was informed to be surplus to requirement and given two weeks notice by Magnum Airlines that was in the process of taking over Emric. That was the end of that.

Next page is a four turboprop Rolls-Royce Dart engined **Air Malawi Vickers 754D Viscount 7Q-YDL** (Airhistory.net (8)) has electrical power provided by a GPU vehicle and is awaiting passengers. All the engines would be started before the ground power is disconnected. The



ground engineer would then signal all clear. The aircraft then would taxi from its angled parking under visual signalling guidance from a marshaller using a pair of paddles. In the background is an Argentina **Transporte Aereo Rioplatense Canadair CL-44** freighter version of the Bristol Britannia, taxiing to take off on runway 23. Beyond is the South African Petroleum Refiners (SAPREF) oil refinery left and storage tanks right. Further north into Durban, also landward of the Bluff, was the Mobil oil refinery.

The Air Malawi aircraft is probably operating on behalf of Air Rhodesia on a flight Salisbury (now Harare) to Durban, because

Air Malawi did not operate flights from its base in Blantyre. It was a once a week schedule on a Saturday. The 1950s Britannia was promoted as the whispering giant due its then innovative turboprop engines-powered Bristol Britannia resulting in a quiet interior and smooth flight compared with aircraft currently powered by piston engines (Simple Flying (4)).

With the dissolving of the Central African Federation, consisting of Northern Rhodesia, Southern Rhodesia and Nyasaland in 1964, becoming Zambia, Rhodesia and Malawi, respectively, Central African Airlines was also split into three airlines (Wikipedia, Our Rhodesian Heritage). Two Viscounts were obtained by Air Malawi in 1968 and sold to Air Rhodesia in 1979 and 1980. Air Malawi Viscount 7Q-YDL was sold to Air Rhodesia (Air Zimbabwe from 1979/1980) in 1980 becoming VP-WJI. The photograph probably dates around 1980 having not yet been painted in Air Rhodesia livery. Air Rhodesia had recently lost two Viscounts shot down by hand held surface to air missiles (SA-7s) by terrorists, or freedom fighters depending on one's viewpoint. The two aircraft were VP-WAS on the 3rd September 1978 after take-off from Kariba destination Salisbury (now Harare) and VP-YND on the 12th February 1979 also shot down after take-off from Kariba bound for Salisbury (Aviation Safety Network 6 and 7, Our Rhodesian Heritage, Wikipedia 10).



Another photograph of the same **Transporte Aereo Rioplatense CL-44** on the same day prior to departure. Work on the new apron can be seen in the background.

The aircraft registration written on the back of the photograph is LV-JZM and should have been JZN. The nearest of four CL-44 aircraft possessed by Transporte Aereo Rioplatense is a CL-44D4-6 registration LV-JZN. July 18th 1981,

This registered aircraft was determined to have accidentally been brought down by a Soviet Sukhoi Su-15 pilot when it strayed

into Soviet airspace. The Su-15 collided with the tail of the CL-44. Both aircraft crashed to the ground. The four CL-44 occupants were killed. The Soviet pilot safely ejected (Aviation Safety Network (8). This photograph and the Air Malawi 7Q-YDL photograph were most likely taken in 1980.



Photographed on the northern end of the apron from the ground floor roof of the control tower building, is a twin turboprop, Rolls-Royce Dart engined **DETA Fokker F-27-200 Friendship, C9-AIC**, named Quelimane seen written underneath the cockpit. Quelimane is a city situated on the on central part of the Mozambique coast. The long shadows show it is early morning. A train of SAA coloured luggage wagons are in attendance connected to a small tractor.

The photograph probably dates during the earlier 1970s when it operated between Lourenço Marques (now Maputo) and Durban.

In the background, to the right can be seen some of the storage tanks for the SAPREF oil refinery that is between the airport and the coastal bluff. Since 1970, very large oil tankers, being too big to enter the harbour, have discharged crude oil at the single buoy mooring (SBM) 2.5 kilometres off the coast. A seabed pipe then an underground pipe leads to storage tanks then to the refinery. Around 80% of South Africa's crude oil entered South Africa was via the SBM (SAPREF). The refinery is now closed, although for strategic reason, there are plans to reopen the refinery.

Circa 1975-1977, the F-27 was replaced on the run by a Boeing 737-200 Advanced. The B737-200 Advanced first entered service in 1971. It was aerodynamically improved with more powerful engines and increased fuel capacity, providing a payload and range increase. It also had automatic wheel brakes.



Pictured is a **DETA B737-200 Advanced C9-BAC**, named Timor, on a wet and misty day with a SAA ground power unit (GPU) vehicle in attendance and an abandoned luggage wagon on the grass.

In the foreground is a Meteorological Severson's Screen that housed dry and a wet bulb thermometer sensors electrically connected to a display instrument in the meteorological office.

An unusual visitor on a charter flight was this **Monarch Bristol 175 Britannia 310**, most



likely G-AOVG. The last letter of the registration is somewhat indistinct. Believed to be photographed between 1972 and 1974 on the apron facing north with the Indian Ocean behind the line of trees and bushes in the background. This is more or less where the Umlazi River originally flowed to the sea.

Friday the 28th December 1973, while at work an air traffic controller telephoned to say that an aircraft had force landed in the sea close inshore at Tiger Rocks beach, Isipingo, immediately south of the airport. After obtaining permission from the boss, I picked up my camera and within minutes I was at the site.

When I arrived, the chartered passenger **Douglas C-49, registration ZS-DAK** was close inshore in shallow water caught on rocks. The 3 crew and 21 of the 22 passengers had already made it to shore and been taken away. One passenger, a woman was never found, believed to have drowned and washed out to sea. When turning onto final approach runway 05, number 1, port, engine stopped. Then number 2, starboard failed. Fuel tank selectors were changed. Engines remained starved of fuel. The undercarriage was raised to improve gliding. Unable to



glide to the airport, the aircraft was turned to starboard toward the sea and ditched. The verdict is that the aircraft ran out of fuel. I took some photographs and left.

This photograph was scanned from a slide photograph taken at the time. Notice the absence of the passenger door that probably broke loose after opening for passengers to escape. Sadly, with hindsight, everyone could have been saved because the aircraft floated to become high and dry on the rocks. The C-49 was one of the US military's designations for a Douglas DC-3, also known as a Dakota in the Royal Air Force and the SAAF.



SAA B727-44 ZS-SBC Vaal is being prepared for departure. This photograph shows the reverse side of the black and white photograph of B727-44 ZS-SBE in the earlier Durban 1966 to 1968 section. Stairs are positioned at the front door with rear stairs lowered. Looking underneath the aircraft equipment can be seen on the far side at the two luggage/freight doors. In the foreground, at the end of the wing, is a small tractor used for towing the luggage wagons.

The photograph is most likely dated 1971, or early 1972, because the rear stairs are still being used and because the livery was changed from 1971. Comparing this photograph with the 1966-1968 mentioned photograph shows the same colour scheme, however, the flying Springbok on the stabiliser is in a different position. The nose to across the windows cheatline has been simplified with the flying Springbok removed. The tail end of the cheatline is different and at the nose the white roof colour extends downward around the nose. Above the windows, the South African flag is displaced to the rear with smaller English South African Airways lettering nearer the front of the aircraft is now on the port side preceded by a flying Springbok.

The structure just beyond the taxiway is the anemometer building with its anemometer mast and its mechanical equipment inside the building. The changes in wind velocity were electrically transmitted to a large display cabinet in the meteorological office where it was recorded on a cylinder that rotated at one revolution in 24 hours while two ink pens, one for direction and one for speed continually moved recording the changes on a graph. The graph had to be changed once a day at 08:00 SAST (06:00 UTC) and the cylinder clock wound once a week. A slave unit at different control desks in the control tower provided continuous wind velocity (speed and direction) on two dials.

In the hazy background can be seen the Umlazi River canal cutting through the Bluff and refinery storage tanks with three chimneys. Smoke from these chimneys, usually one of the two on the right, was always a good indicator of the wind velocity aloft. Smoke going vertically or almost vertically indicated calm or very light wind with increased strength until the smoke came horizontally off the top of the chimney. Smoke from left to right indicated a north-easterly wind, right to left a south-westerly wind. This was useful when determining whether an aircraft on approach to land or after take-off would have a headwind (good) or tailwind (bad). At times the wind at the surface would be calm or very light, but the smoke would indicate this was not the situation at the chimney top.

During the earlier 1980s (after the runway had been extended in 1976 to accommodate B747 aircraft) there was a weekly Sunday B747-SP flight from Johannesburg to Mauritius via Durban in the morning returning in the late afternoon/evening. I saw the aircraft approach from the north-east to land on runway 23. The surface wind was very light at 30 metres according to the anemometer, as it can be in the morning still with a surface temperature inversion. However, the smoke from the chimney above the inversion, indicated a fair north-easterly wind. Judging by the angle about 10 or 15 knots. I thought this is going to be interesting. While the airspeed over the wing had be at the correct air speed to maintain flight, the aircraft was in effect travelling faster than usual due to the tailwind and the ground speed would be higher than normal. When the aircraft flared at the correct height above the runway and engine power cut, due to inertia, higher than normal air speed due tailwind compensation, took a while to decay after the wind lowered to near zero above the runway and delayed aircraft loss of lift. Added to this, when an aircraft flies within half the length its wingspan above the surface there is increased air pressure on the lower wing that improves the lift to drag ratio. Known as mirror effect this was not wanted at this stage. Consequently, the aircraft floated for a considerable distance. Increasing the jet power to climb power and overshoot for another approach was not possible, because the spool up time of about 6 to 8 seconds would have been too late. The pilots essentially became passengers. I watched it float until past the halfway point. At the touchdown point spoilers deployed, there was automatic wheel braking and maximum reverse thrust applied. The aircraft finally stopped just short of the turning basin at the south-west end of the runway.



This photograph is of a **SAA B727-44**, of unknown registration due to glare, probably early 1970s, shows the opposite side of the previous aircraft with Afrikaans lettering. The aircraft is almost ready for departure. All ground servicing equipment has been removed, except the front stairs, which look as if they are being removed. A person to the far left is walking away to the left with what appears to be a portable fire extinguisher that was always kept handy. The ground engineer is standing at the nose in contact with the flight crew via a headphone attached to the aircraft.

In those days the aircraft were parked at an angle to the apron having taxied into the position upon arrival. Once all clear the engines would be started. When the flight crew and ground engineer were satisfied all was OK, he would disconnect, signal thumbs up all clear, show all the red tagged ground locks were in his possession then walk away. The aircraft would accelerate and turn away from the apron then taxi to the departure runway. Tugs, although available, were not used to push back until the direct nose in approach was adopted.

In the background is another view of SAPREF storage tanks to the left with the tree/bush line, where the Umlazi River used to reach the sea, extending to the right to Isipingo higher ground at the base of which is Tiger Rocks where the Isipingo River reached the sea.

The photograph shows a **B727-44 on short final approach** to runway 23 with triple slotted



Fowler flaps extended (the first airliner to use them), as well as leading edge slats and undercarriage extended. Notice the smoky jet exhaust. Far different from modern fuel efficient and clear jet wake these days. Landing flare path light poles are visible at the bottom of the photograph with the SAAF and SAA hangers in the background and the backdrop of higher ground inland of the airport.



The large Fowler flap area was essential to operation from necessary smaller airports. They increased the wing area by 25% giving more lift and a slower approach speed, meaning less runway required for landing. Another first was the APU to provide ground power and built in rear steps. (Aviator Insider).

Left, another view of a **B727-44 looking toward the hills at Isipingo**. This time about



to touch down on runway 05, flaps and undercarriage extended with a clear view of the extended leading edge Krueger flaps/slats.

Left, a **SAA B737-244 on short final** to runway 23 with trailing landing setting flaps extended, as well as leading edge slats and undercarriage extended. Notice the twin smoky jet exhaust. Most likely photographed in 1971. The registration unknown and the name at the front not legible.



SAA B737-244 Advanced ZS-SIE Letaba has just arrived. The ground engineer has just plugged in his headphone while a ground crew member is approaching to place chocks in front of and behind front wheels. A photograph a few seconds later (not shown) shows him standing close to the wheels with the chocks.

To the right of the light pole, the ground marshaller in high visibility vest and carried two paddles in walking away from the aircraft having guided the aircraft into the now adopted straight in approach to the parking bay.

Also next to the light pole, is a South African Army Hippo personnel carrier specially designed to be mine resistant. Airport security was very tight in those days due to increased resistance to Apartheid and the associated border bush war at the Namibia/Angola border. The ubiquitous storage tanks are visible in the distance. In the left background smoke from one of the oil refinery chimneys can be seen dispersing southward in a north-easterly wind.

The photograph above dates from 1982. The aircraft was new to SAA in December 1981. I used the photograph for an oil painting in 1982. The aircraft is in the new all white livery with blue and orange cheatlines, small lettering Suid Afrikaanse Lugdiens below the orange line and Letaba written at the nose end. Above the windows is the SAL acronym. The same is repeated on the port side in English. The stabiliser is now all Orange with a larger flying Springbok than previously on the stabiliser.



The B737 was known as the fluffy by flight crews more used to flying the bigger and more powerful B727. Apparently, it meant something along the lines of Funny Little Ugly Fat Fellow. I was fortunate to briefly fly a B737-200 Advanced. In military parlance; no names, no pack drill. Its response to control changes was sprightly with less inertia compared with the

lumbering and smaller piston engined Dakota DC-3. The Dakota had a lot of inertia and seemed to take ages to respond to control changes. I had the opportunity to do some ILS (Instrument Landing System) approaches in a DC-3/C47 Dakota that belonged to the Department for Transport Civil Aviation Authority, because I knew one of the pilots doing routine test calibration of the system at Durban. He was the inspector and flight examiner who approved my initial instrument and night rated commercial pilot's licence. I had a different examiner for my instructor licence.

Mention of the ILS reminds me of a magical time when I returned to Durban with an empty aircraft after delivering passengers elsewhere. I was inbound on long final to runway 23 above 7/8ths of cloud in smooth air. The sun was getting lower in the west on my right. Looking below to my left at the cloud top, I could see the shadow of the aircraft surrounded by a rainbow coloured halo. The halo phenomenon can be seen from the ground as well. If the halo has rainbow colouring the cloud is composed of water droplets, if the halo is colourless the cloud is composed of ice crystals. Through gaps in the cloud below I could see congested traffic on the roads. The contrast between the peace above the cloud and the bustle below was marked. I could have stayed up there forever. Believe me, there is no life after flying.

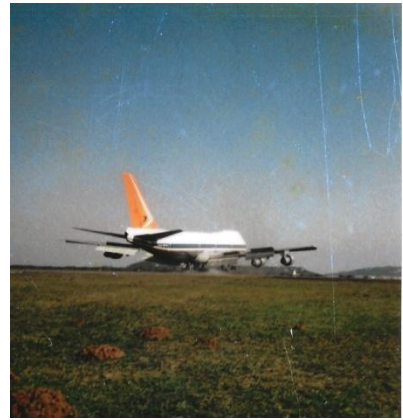
Delivery of five **SAA B747-244B** aircraft began in October 1971. The last one in service in 2004. Two **B747-220Ms** were also bought in 1980. These were combi aircraft. The aircraft could be used as all passenger, or rear section freight where there was a large side door with passengers forward. An installed partition separated the two sections. One in combi mode SAA B747, west of Mauritius in 1987, crashed on fire in the sea due to an uncontained fire in the freight section. The other one was then never used in combi mode again and retired in 1994. Six B747-200SPs were in service from 1976 to 2003 (Airfleets.net (2), Aviation Safety Network (9), Spring 1996)).

The SP (special performance) had a shorter fuselage with sections removed fore and aft of the wings and a tapered rear end. Due to the shorter fuselage, it had a higher stabiliser to give sufficient directional control. Reduced weight and increased fuel capacity gave it the longer range necessary to fly non-stop from South Africa to Europe around the western bulge of Africa. During the 1960's, political relations between South Africa and Africa deteriorated due to the South African Apartheid policy. South African aircraft were refused overflight rights over African countries to Europe from 1963. SAA had to fly their B747-200Bs around the western bulge of Africa with refuelling stop at Ile do Sol (a Portuguese possession), which made an already long timewise trip even longer. My wife and I travelled on one of these flights. Hence the purchase of non-stop SPs. Later additions were B747-344s and B747-444s. The last B747 in service was a B747-444 in 2010 (Airfleets.net 2, Spring 1996, Wikipedia 1 2024).

The arrival of the B747s meant that new hangers capable of containing the 747 with technical facilities had to be built at the SAA maintenance area at the then Jan Smuts Airport south of their existing area next to the fire station.

The sequence of three photographs, below on the next page, most likely dates from around 1971 to 1972 when the aircraft was occasionally flown from Johannesburg to Durban on proving and training flights. Flight simulators were not anywhere near as good enough for all training and considerable flying time was still required to be certified to fly them. I obtained special permission from air traffic control to position myself crouched a safe distance from runway 23 just past where I expected the aircraft to touch down. The first far from perfect image is of the B747 already over the end of the runway about to touch down with everything

hanging out. Fully extended trailing triple slotted Fowler flaps, undercarriage and leading-edge Krueger flaps/slats extended (Kermode 1976). The second image shows the four, four wheel, main undercarriages still settling on the runway with smoke from the tyres having to suddenly speed from still to the landing speed of the aircraft. In the third image smoke from the tyres is dispersing while it looks as if the nose wheels about to touch the runway. The upper wing speed spoilers have deployed to dump lift and keep the aircraft firmly on the runway. These deploy when pressure sensors on the main undercarriages register increased pressure. In flight they can also act as speed brakes and in conjunction with the ailerons, control roll.



A better image of a **SAA B747-244B** on very short final passing over the flare path light poles, shows the undercarriage, trailing flaps and leading edge slats extended. The combination of flaps and slats enabling a higher angle of attack without stalling and increase lift by up to 120% resulting in much lower air speed and ground speed that considerably reduces the runway length required.

The photograph right, shows a **SAA B747-244B** being prepared for departure.

A catering lorry at the rear has its container raised at a galley door to transfer prepared meals, etcetera via trolleys. A fuel tanker is underneath the port wing with an attendant standing on top of the tanker to connect the hose to the wing. In the foreground is a tug (left) and a ground power vehicle (right). In the background one can see that the apron extension is still work in progress.



SAA B747-244B ZS-SAN Lebombo, below left, is shown doing a slow flypast from the south-west in landing configuration for the benefit of airport staff and anyone else there at the time. Flaps, slats and undercarriage extended. Apron extension is still work in progress. Judging by the aircraft shadow, this was a morning photograph. Probably 1971 or 1972 when the aircraft was still new to South Africa. The seven initial B models and six initial SP models were named after South African mountains.



SAA B747-244B ZS-SAM Drakensberg (above right) has paused at the edge of the apron between doing landing and take-off training. When they paused, probably to change pilots, ground staff who were able to be spared from duty, were sometimes invited aboard for a number of circuits.

On one occasion I was able to take advantage of the offer. One had to enter the aircraft by clambering up a vertical ladder in the nosewheel compartment and through a trapdoor in the passenger cabin floor. The photograph is also believed to be during the early 1970s. Notice apron works equipment in the background. This time the long air traffic control building shadow indicates this was an afternoon visit.

SAA operated nine widebody twin-engined **Airbus A300s** from 1976 to 2001. Four A300B2K-3Cs, Four A300B4-203s and one A300C4-203 convertible freight model with a strengthened floor and large forward door. SAA later modified it to an all-freight aircraft. (Spring 1996). The four K models were specially modified with Krueger leading edge slats for South Africa's hot and high airports. The ninth A300B4-203 was leased from Luxavia until 1987 (Spring 1996).

They were used on the high passenger capacity routes between Johannesburg and Durban and Johannesburg to Cape Town. This meant frequently seeing the same pilots, often flying two return trips to Durban in a day. Knowing the pilots meant that when I did day trips to Pretoria I rarely sat with the passengers, rather I sat in the so-called jump seat in the cockpit with the crew.

The photograph on the next page shows a **SAA A300B2 or A300B4** at the airport circa 1976 to 1982. Most likely nearer to 1976 because the public viewing deck on the passenger terminal is empty. By the 1980s it was closed for security. In which case the A300 is an A300B2, because



SAA received B2s in 1976 and B4s in 1981 (Spring 1996, Wikipedia (1)). There is a large yellow tug in position to push back the aircraft.

A tug to push the aircraft back from the bay is in place. A conveyor belt loader is in position at a rear luggage door.

Notice the pallet hold freight system in use. A set of three containers can be seen on a

conveyor in the right foreground that would fit in the hold. Positioned in the foreground clear of the aircraft are two flat looking vehicles. The one on the left is a loader, that has two platforms which rise and descend independently. The other one is a carrier container platform equipped with rollers. The carrier would take the aforementioned containers to the loader and roll the containers on to the loader platform. This would then be raised to the loaders other platform already positioned at the hold entrance and the containers rolled into the hold.

In the foreground left, attached to a small tractor, is a luggage wagon train that would still be in used for aircraft such as the B737. Also in the foreground right is a Ford ground power vehicle. The white prefabricated building was an office for the use of ground engineers.



An **Airlift International** four turbojet Douglas DC8-63 freighter (registration unknown) converted from a civilian airliner with the addition of a large loading door, sealed windows and strengthened floor. Looks like it is beginning to be unloaded.

The photograph is circa 1976-1982. The aircraft is parked on the apron extended to the opposite side of the taxiway from the existing apron and terminal building. A still new apron addition because the concrete is still a lighter colour than the already long existent original apron.

CargOman A40-PA DC-8-55F, at the photograph below left, circa 1977-1982, at

the top of the next page, shows A40-PA taxiing from the SAA hanger in the early morning with the Sun rising in the east behind cloud. Smoke in the distance indicates a light south-westerly wind. In the foreground is the meteorological instrument camp.

In response to Rhodesia (previously Southern Rhodesia) declaring their Unilateral Declaration of Independence (UDI) from Britain, December 1966, the United Nations Security Council adopted Resolution 232 which stated that all member states will prevent the sale or shipment

of arms, ammunition of all types, military aircraft, military vehicles and equipment and materials for the manufacture and maintenance of arms and ammunition to Rhodesia.



It was an open secret that the freighter airline CargOman, registered in the Sultanate of Oman, was formed to counter the sanctions. The DC-8-55F, initially registered in Gabon with Air Gabon Cargo, was obtained in 1975 before being transferred to CargOman operations from 1977 to 1982. Registering the aircraft in Oman was a flag of convenience registration. It was more than a rumour that it was owned and operated by the late Jack Malloch (a Durban born Rhodesian air freight

operator). Registering the aircraft in Oman allowed him to operate legitimate freighter flights, while also operating clandestine sanctions-busting flights to and from Rhodesia (Russell 2021(1) and (2)).

The author believes that supplies, such as arms and ammunition were also being flown from Durban to Rhodesia. The flight would usually arrive late in the afternoon or evening and depart early the next morning, presumably, after loading supplies that were shipped to Durban.



Court Helicopters (Pty.), Ltd. South Africa, provided support to the oil industry, including resupply flights to oil tankers passing off the coast. **Sikorsky S-61N, ZS-HDK**, shown on the next page, was acquired new in 1971. Based mostly in Cape Town, the helicopter was photographed circa later 1970s to 1981. Presumably, it was on relief duty while the locally based helicopter was unserviceable. Apparently, it is still flying in the United States of America.

The author was fortunate to be invited to go on one of their trips to rendezvous with a passing tanker some distance offshore. This was inside a very noisy and draughty Westland Wessex with the door open. The

helicopter descended alongside the tanker and edged sideways until over the helipad and slowly settled on the deck while the ship sailed on. Freight was quickly offloaded. I noticed a ship's crew member at the ready with a thick and powerful hose. Any mishap and we were going to get blasted. Then it was lift off, manoeuvred to seaward of the ship then climb away and back to the airport.

The **Zambia Airways Boeing 707-321C registration 9J-AEQ** was photographed early 1980s taxing toward the SAA hanger and cargo area, past the meteorological observation camp on a rare visit to Durban. The only time that the author is aware of visiting. The C model could be



quickly converted to freighter mode. For use as such it has a large upward hinging door on the port side forward of the wing. The photograph is not that clear, however, door edges are just visible below the letter I in Zambia and between the y and s in Airways. Notice the absence of passenger windows. The aircraft was operated by Zambia Airways between 1979 and 1986 exclusively in freighter mode (Aerobertie, Utopia Airport).



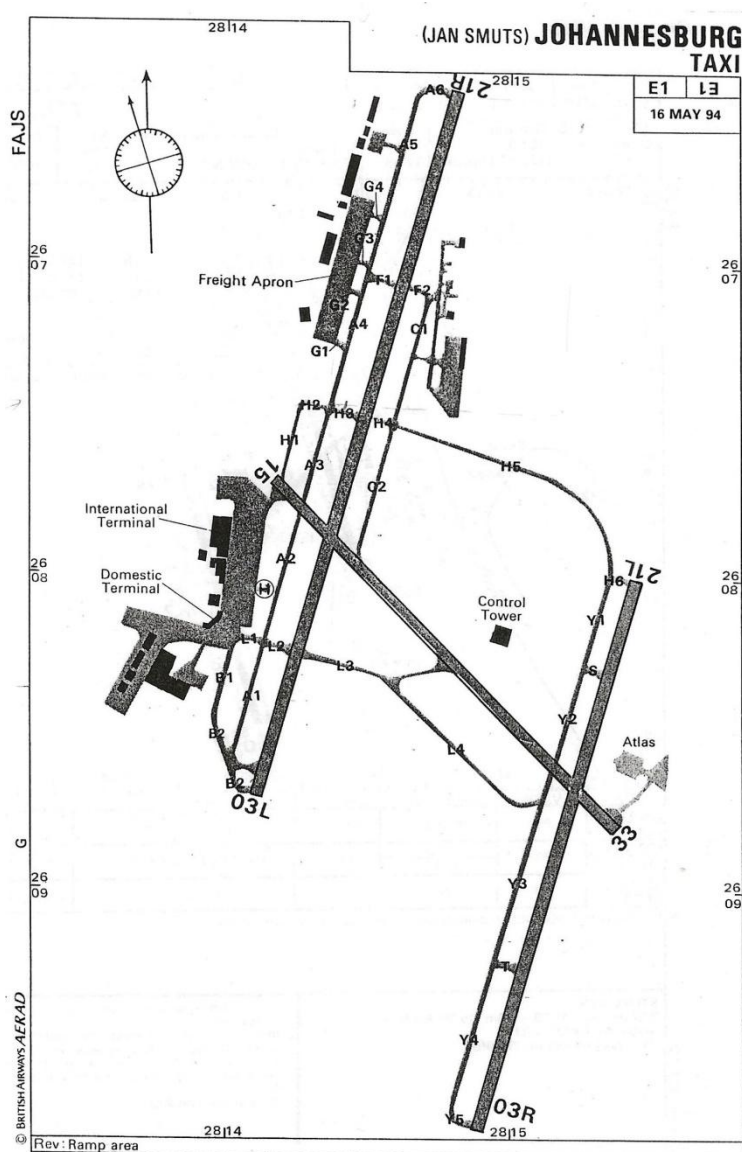
Not at Durban airport and not in the time frame 1971-1984, but nowhere else to place it, is this Transnet National Ports Authority (previously South African Railways and Harbours) Portnet **Agusta A109K2 helicopter, registration ZS-RPN**. It was used to ferry Portnet ship pilots to ships awaiting entry to Durban Harbour. Built in 1998, it was photographed in 2000 during a visit to Durban from Pretoria, en here on the

helipad on the harbour Ocean Terminal building next to the high rise Portnet building. Chocks are in place fore and aft of the port rear undercarriage. The superstructure of a ship is visible in the background with the Bluff as a backdrop. At the time another Agusta A109K2, ZS-RRB was in use at Richard's Bay further north-east along the KwaZulu-Natal coast.

JOHANNESBURG 1985 TO 2000

Some of the airline photographs compare earlier liveries during the period with newer designs adopted later in the period, not only of the same model aircraft type but also with a later different model. This becomes complicated if they are arranged chronologically during the fifteen years from 1985 to 2000. There is a similar problem with a collection of photographs taken on the same day. Consequently, the airlines have been arranged mostly alphabetically. Mostly alphabetically, because some photographs feature more than one airline. On one occasion when a number of photographs were taken on the same day, each photograph in the group is given sequentially.

During the 1980s, numerous international airlines suspended flying to the South Africa, because countries ceased trading with South Africa due to United Nations sanctions against South Africa's apartheid policy. The advent of the new South Africa at the end of Apartheid in



Magnetic runways to the nearest 10° were 03 and 21 or true direction 015 and 195. 15 and 33 were 135 and 315. Courtesy of AERAD.

1994 and easing of restrictions from 1991 in the build up to 1994, resulted in increased countries willing to do business with South Africa. This also meant increased diversity of airlines flying to the renamed Johannesburg International Airport in 1994 by the newly elected African National Congress, who decided not to have South African airports named after politicians. This policy lasted until 2006 when there was a return to naming them after people, such as anti-apartheid politician Oliver Tambo for the Johannesburg airport and Durban's new airport after King Shaka (circa 1787 to 1828) who, while king from 1816 to 1828, built the Zulus into a powerful nation.

Major improvements to the airport were made by 1993. The differences between the airport in 1976 and by 1994 can be seen by comparing this taxi and runways plan view dated 16th May 1994, with the 1976 map shown at the beginning of the Johannesburg circa 1969-1970 section. By the mid to late 1980s it now had two main runways while the diagonal runway, although marked as

such, was used as a taxiway only, as well as used to park aircraft when overcrowded. It now had CAT II ILS at each end of the runways (100 feet (30 metres) decision height and RVR 350 metres). It also has six automatic weather stations, three situated alongside each runway. One at each end of the runway and one at the middle. They provided continuous wind velocity, air temperature, dew point temperature, pressure, visibility and precipitation detection.

Improvements to the Johannesburg International Airport resulted in a second runway being built during the later 1970s. It was probably around this time that aircraft handling facilities with the necessary buildings were installed alongside the apron furthest from the passenger terminal. They were not there during 1969 to 1971 and appear in all the photographs in my possession after 1985. The airside bus system was also introduced to bus passengers to bays at different bays, particularly to those furthest from the passenger terminal.

Later improvements by 1994 included a passenger terminal with a raised airside corridor with movable passenger bridges so that passengers could embark directly from a departure area to an aircraft and disembark directly to an arrival area. The passenger terminal building and facilities were also improved while the cargo terminal with apron aircraft bays was also built. Aircraft arriving in the early morning departing in the evening where usually towed to this area in the interim to free bays at the passenger terminal.



The brown grass and cloudless blue sky is clear evidence that this is a winter photograph. Judging by the shadow of the taxiing **Air Afrique Airbus A310**, it is still during the earlier part of the morning. It is about to turn into bay A5. Notice the air bridge below right. In the distant background is the water tower like air traffic control building with the newer second runway on the horizon.



In the second photograph the **Air Afrique Airbus A310** passengers have disembarked, luggage and freight removed. The airbridge has been moved away from the entrance door and all doors and holds closed. It is now awaiting loading prior to departure. In the left lower corner are clear examples of a container loader and a carrier. Air Afrique was an airline jointly owned by a number of West African countries from 1961 to 2002. Behind the A310 is a Taiwanese **Mandarin Airlines B747SP** probably being towed to a

holding parking bay after disgorging passengers at a docking bay. If it was being pushed back while the engines are being started prior to taxiing there would be a ground engineer in evidence connected to the aircraft, or nearby having disconnected. Its registration is either B-1860 or B-1862. One can just identify the B- of the registration. Apparently, Mandarin had only four SPs two of which had B registrations and in use from 1992-1999 (Airfleets.net (3)). Unusually, the registration is on the lower nose of the aircraft. A taxiing SAA B737 can be seen at the left.

Notice the large engine intake, bigger than one would see on a B747 and still bigger on later B777s, the A380 and late B787s and A350s. This is typical of a high bypass ratio jet engine, which is really a ducted fan engine. In modern versions, around 90% of the air passes around the jet turbine. The turbine is really there to drive the big fans that propel the air backward that provides the thrust and to power numerous necessary ancillary equipment, such as electronics and hydraulics. The bypass ratio part in the engine title is the ratio between the mass flow rate of the bypassing air to the mass flow rate air going through the core of the engine.

Both photographs are 1994 or 1995. Neither Air Afrique nor Mandarin Airlines flew to South Africa during the Apartheid era. The clincher is that the photographs were on the same negative film as a photograph of a short-lived Phoenix Airways aircraft, that is shown and discussed much later. The airline existed briefly 1994 to 1995. In the distant background is the water tower like air traffic control building and a taxiway to the newer second runway not in the photograph.



Another photograph shows a white tail **Air Afrique A310**. White tail aircraft are usually aircraft that have been manufactured but have not as yet been allocated to an owner. In this instance it was either a leased aircraft and or, it has been pressed into service before the livery could be added. Next to the wing is refueller with fuel tubes. Underground pipes with inlaid taps meant that the refueler pumped fuel from the tap to the aircraft. In the background from left to right is an **Egypt Air B767**, either a B767-200ER or 300ER.

Then a Phoenix Airways B727-100 aircraft that dates the photograph as 1994-1995. Next is a SAA A320 and a SAA B737. Finally distant right, an unusual visitor, an **AOM (Air Outre Mer French airlines) McDonnell Douglas DC-10-30**. The airline was in existence from 1990-2001 (Airline History (3)).

Following is group of photographs in the order in which they were taken on the same day. The reason for breaking from an alphabetical sequence is that the photographs show the changes on the apron area during the day as recorded on the strip of negative film.



The first photograph, with a centre blurred window reflection, shows a **Singapore Airlines B747-312** Big Top at bay A7 having arrived on a sunny morning. Doors are open, otherwise, there is not activity around the aircraft. The green ground shows that it was not winter. Alongside, at A6, is a SAA A300, apparently being unloaded. The other 747s are at the outer apron are Brazilian **Varig Airways** and **Israel El Al B747-200s**, left and right respectively. Varig is an acronym for Viação Aérea Rio-Grandense, Rio Grandean.

On the far right is SAA A320. SAA Airbus A320s (A319s and A300s) had the cheatline below the passenger windows while B737 (and



all other SAA Boeings) had the cheatline across the windows. In the foreground is the air bridge corridor.

The next photograph shows the arrival of an **Air France B747-200**. Still in the background are the Varig and El Al B747-200s. There is still no activity at the Singapore aircraft. The container loader and container have not moved nor has the conveyor belt loader.



Sometime later the Air France B747-200 has been unloaded and stands unattended. There is still no activity at the Singapore aircraft, nor the two distant Varig and El Al B747-200s. However, in the left of the photograph the SAA A320 has left and another SAA 320 in its place in a nearer bay. Beyond it, a **Luxair B747SP** has arrived. Luxair briefly operated a SP in 1980, but had SP LX-LGX in Luxair livery from 1988 to 1993. Until 1992, UTA had a French monopoly on flights to South Africa (and Africa) when it merged with Air France. Hence the sequence of photographs date from 1992 or 1993.



Next on the scene is an **Air Zimbabwe B767-200** taxiing at the northern end of the apron. After having landed from the south, it is now on its way to a parking bay at the southern end of the apron. Two B767-200s entered service with the newly formed airline, one in 1989 and one in 1990. Although newly formed in 1989 it was a descendent from Central African Airways and Air Rhodesia. The other aircraft in the photograph are two SAA A300s and a SAA B737. SAA A300s were withdrawn by 2001. The SAA A300 in the foreground right is being loaded preparatory to departing.



In this photograph, the SAA A300 has departed. In its place a **SAA A320** is turning into bay A7. The Singapore B747-300 is still in bay A6. Taxiing from the opposite direction is a Flitestar A320. In the background is the now parked Air Zimbabwe aircraft in the

space also vacated by a SAA A300. Behind the tail of the Singapore aircraft is the still present



Varig B747-200. Immediately above and behind the tail of the Singapore aircraft is a SAA B737 having taken off to the south.

The **Flitestar Airbus A320** has now taxied northward to between A5 and B2 bays. In the background is a SAA A300 and a SAA A320, both either loading or unloading. Newer and more modern stairs are in position with no evidence of passengers. These have either been bussed to the terminal or will arrive soon. A set of older stairs can be seen to the right of the A320 that hark back to the days when SAA provided all ground operations. A tractor with pallet trailers is in the foreground.



The next two photographs were taken circa 1990-1995 when a short trip was made to the northern part of the airfield near to the cargo area. First, is an **Air Botswana British Aerospace 146-100**, Air Botswana's only 146, was photographed taken through the security fence parked to the north toward the new cargo area. In the background is another **Transkei Airways BAE 146-100** recognised by the Transkei Airways logo on the stabiliser. Transkei Airways was in existence from 1975 to 1995. Air Botswana received their first 146 around 1990. These days British Aerospace is referred to as BAE.



Next is a **Comair Fokker F28-4000 Fellowship**, probably **ZS-NGB**. The registration, on the stabiliser forward extension, is obscured by fencing wire. To the

best of my knowledge Comair had only the one F28. It is parked at the northern end of the airport south of the cargo terminal, an area reserved for smaller domestic feeder, or regional, aircraft.



Not too many days long afterward (the negatives are on the same film strip), is this early misty morning photograph of a **SAA Airbus A300**. It is at bay A6 next to a Singapore Airlines B747-312. A container lifter is in place at the partially open hold door of the A300. However, there is no other activity. In the background is another SAA A300. Initially SAA A300s were used only on the Johannesburg to Durban and



Johannesburg to Cape Town routes. By now SAA were using their A300s to further afield. I travelled in one to Abidjan, Republic of Côte d'Ivoire, in 1997 on my way to an ICAO (International Civil Aviation Organization) conference in Abuja, Nigeria.

Next to it, again in bay A7, was **Singapore Airlines B747-312 9V-SKA** (yes, the registration is legible) in the still misty morning. The passengers have disembarked, doors are open, now standing unattended.

Behind the aircraft is a SAA A320. In the background is a SAA B747-300 taxiing south. Already parked is the blue tail El Al B767 and to the left another SAA A300. A good view of an air bridge and the corridor in the foreground.



Returning to the alphabetical airline order is this photograph of an **Air Portugal Lockheed L-1011 Tristar** at a passenger terminal bay. An attractive looking, clean design aircraft. The use of ground manoeuvred stairs suggests the photograph is before circa 1993 when air bridges came into use, but after 1983 when Air Portugal, also known as TAP (Transportes Aéreos Portugueses) introduced the L-1011, using them until 1997. In the background is an

Alitalia B747-200 (left) in the livery still in use in the 2020s and a **Lufthansa B747-200** (right).

An **Alitalia McDonnell Douglas MD-11** is being serviced at the passenger terminal with an air bridge positioned at the front of the aircraft.



That it is a MD-11 and not an earlier DC-10 can be identified by the winglets, which are absent on the DC-10. Furthermore, the MD-11 was longer. Although, in the absence of a DC-10 this is not helpful for comparison. That it is a MD-11 and not a Lockheed L-1011 Tristar can be determined by the position of the middle engine part way up the tailfin, whereas the L-1011s middle engine is attached to the top of the fuselage.

See the earlier Air Portugal photograph for comparison. McDonnell Douglas merged into Boeing in 1997. In the background, from left to right, is a Comair B737, a SAA A320, a Comair B737 and a SAA 737.

The photograph dates from circa 1995 or 1996, because it was taken on the same day as one of a Sun Air aircraft (discussed later), an airline that was in existence during these years. Also the same negative film strip is a SAA B747-300 in "Ndizani" livery (more about these two later) and photographs I took after a thunderstorm micro-downburst. I inspected the extensive

damage that it caused with lots of hail in southern Johannesburg Wednesday night 23rd October 1996 and determined that was a micro-downburst, not a tornado.



around the northern end of the passenger terminal. The nose of an Iberia B747-200M in the extreme lower right of the photograph can be seen below in another photograph. The photograph was taken before the dedicated cargo area was made on the open ground to the north behind the two aircraft. So pre-1993, definitely after 1985.



1985 to pre-1993.

A hazy late morning on the Highveld, accentuated by looking toward the Sun. Remember, visibility is always less looking toward the Sun, better when it is behind one. The opposite with the Moon, visibility is better when looking toward the Moon. Worse when behind. Nearest the camera is a **British Airways B747-200**, next to it a **Lufthansa B747-200**. Both still being attended to after an earlier morning arrival. Both parked at the corner of the extended apron that was made around the northern end of the passenger terminal. The nose of an Iberia B747-200M in the extreme lower right of the photograph can be seen below in another photograph. The photograph was taken before the dedicated cargo area was made on the open ground to the north behind the two aircraft. So pre-1993, definitely after 1985.

The **Iberia B747-200M**, not to be confused with the 200C with a forward freight door, was photographed at the same time and day as the one of the British Airways and Lufthansa B747-200s shown above. As seen in the photograph with the open rear freight door, the rear deck was for freight, passengers in the forward section, separated by a partition. Iberia obtained two 200Ms during 1981. As with the other photograph taken at the same time it is believed to be



nosewheel and lift it off the ground making it easier manoeuvre, particularly when pushing. British Airways obtained the first 400 around 1990. In the background left is a taxiing HS-748, on the far right is the control tower. The photograph was taken at the same time as the Air Afrique image and a Phoenix Airways aircraft. Therefore, 1994 or 1995.



The Hong Kong based **Cathay Pacific B747-400** (notice the winglets) was being pushed back from bay B1 and towed forward to bay A4 opposite with an air bridge to load preparatory to departure. High in the sky above and beyond the aircraft, just visible is an aircraft that has taken off from runway 03R. The Cathay Pacific B747-400 wears the 1971-1994 livery. Forward of the airline name Cathay Pacific, is the parent company Swire Group's logo. In the distant background left at the Bonero Park Safair

hanger area is what appears to be a Nationwide airline B727.

A part of the Cathay Pacific aircraft can be seen parked at A4 in a later photograph of a Malaysia B747-400. A third photograph, also from the same day, showing a LAM aircraft, shows the air bridge corridor. The photographs are obviously from 1993, at the latest 1994 (see discussion of the Malaysia aircraft). Judging by the summer green grass the photograph is most likely very late 1993 to early part of 1994.



The Cuban **Cubana Ilyushin Il-62M**, with four tail-mounted low bypass turbojet engines was Soviet Russia's answer to the Vickers VC-10. The Il-62 is a rugged aircraft. The aircraft has paused while being towed to a parking area. Notice two people underneath the foreword part of the fuselage. Also, the doors, although closed, are not sealed. Therefore, it is not departing for take-off. An interesting feature of the aircraft is that it has a fuel tank in the stabiliser. This, combined with the rear mounted engines, can make it

tail heavy when empty. To counter it tipping onto its tail when not loaded, it has a lightweight strut with two wheels at the rear of the fuselage. It is extended when parked or, in this instance, when being towed. Other T-tail aircraft prone to tipping are known to have a suitable device, such as an extendable pole. Part of the bay A4 air bridge can be seen in the far lower left of the photograph. The photograph is thought to be dated 1991 to 1993, taken at the same time as the Malaysia DC-10 shown later.



Judging by the engine pod shape and the year being 1993 or 1994, the aircraft in the foreground is a **LAM (Linha Aérea de Moçambique) B737-300**. An airbridge is connected and a rear hold door is open. Therefore, either just finished off loading, or waiting to load for departure. The aircraft seen there with the LAM aircraft, are two SAA B737s and an A300 at the domestic end of the passenger terminal. Parked on the

opposite apron is a SAA Airbus A320. LAM, prior to 1980, was DETA - Direcção de Exploração de Transportes Aéreos,



Another smoke hazy winter's morning with reduced visibility into the Sun. In winter the visibility in smoke haze trapped below a temperature inversion could be marked. One could see a distinct line at the inversion top between the smoke and blue sky above. Central to this winter photograph showing a line of B747s, is the **Luxair B747SP LX-LGX** ex-SAA SZ-SPB. It was leased from SAA from 1988 to 1994, but reverted to Trek colours in 1993. Luxair previously leased another B747SP LX-LTM ex SAA ZS-SPA

briefly in 1980.

Next in line is a **KLM (Koninklijke Luchtvaart Maatschapp) B747-300 SUD** (Stretched Upper Deck). Then a **UTA (Union de Transports Aériens) B747-300 SUD**. Apparently, UTA operated two from 1981 to 1992. Apart from minor aerodynamic improvements and the option of improved engines and stretched upper deck, hence more passengers, the 300 was the same as the 200. The only significance of SUD in the model's name was that it drew attention to the fact that had a stretched upper deck. The upper deck conversion was offered as a retrofit to existing B747-200s. A small number were converted.

The tail of an **Alitalia B747** is visible in the far distance. In the foreground is the **SAA B747SP ZS-SPE Hantam**. The name is legible to the left of the stairs. Notice the absence of air bridges, or any construction and the SAA coloured motorised stairs. Considering all the date evidence, the photograph dates from 1988 to about 1990.

A conveyor belt loader vehicle is positioned between the Luxair and SAA aircraft. No use for the B747. Rather it is there for use to get luggage out of aircraft such as the B737. A person would climb inside and place each item of luggage on the conveyor belt to be collected below by a person on the ground and placed in a luggage wagon. More relevant, nearest in the line of vehicles are two container carriers used to take containers to a loader at the hold entrance of a B747. Easily identified among the line of vehicles and one on its own, are two Volkswagen Kombis and two Toyota Hiace mini-buses, which were very popular in the 80s and 90s. Particularly the Hiaces that were used as taxis.



A winter photograph of a **Malaysia McDonnell Douglas DC-10** believed to be at bay A6. Identified as such and not a MD-11 due to the absence of winglets. Beyond the DC-10, are four SAA aircraft. An A320, A300, B737 and an A300. Partially obscured by the stabiliser of the DC-10 is a Flitestar A320 that has just landed on runway 03L. Thereby dating the photograph as circa 1991 to 1994, the years that Flitestar operated.



This is a more recent photograph of a Malaysia aircraft. This **Malaysia B747-400** (with winglets) is taxiing southward to an air bridge passenger terminal bay having landed on runway 03L. It is passing bay A4 where one can see part of the previously mentioned Cathay Pacific aircraft with the vacant B1 bay opposite that it vacated. The B747-200 parked on the right in bay B2 is believed to be a Sabena aircraft. Written on the side of the Malaysia aircraft is "Visit Malaysia Year 94." Therefore, this is a 1993/1994 photograph. Also visible in the very distant left is what appears to be the previously mentioned Nationwide B727 at the Safair hanger.



Photographed (left) on the same day as the Malaysia B747-400 is this Taiwanese Mandarin Airlines B747SP possibly being towed to a docking bay. Its registration is either B-1860 or B-1862. The apron area is in cloud shadow making it difficult to determine the time of day. Distant sunshine is too far away to be of assistance. In the front right corner is **SAA B737-244 Adv ZS-SIJ**.



A winter and early morning photograph judging by the brown grass and length of the shadow cast by the **Phoenix Airways B727-100** taxiing past bays A5 and B2 opposite. Behind the B727 looks like a SAA A320. Another Phoenix Airways B727-100 is parked to the right. Phoenix Airways has four B727-100s. As already mentioned, the airline did not last long. 1994 to 1995.



background is a SAA A300 in the normal livery of the time. Beyond is an **El Al B767**. Beyond

it, is an **El Al B747-200**. On the far side, at the B apron, are two SAA B737s and the tail of another SAA A300.

Given the total absence of construction of the air bridge system and the conversion of the A300, the photograph is believed to be around 1987. The photograph gives a good idea of the paraphernalia used at the airport at the time. Two passenger transit buses, still in SAA colours, can be seen. One is stationary awaiting passengers to transport while another is moving away in the distance. The speed limit sign reads 30 KPH.



SAA B747-300 SUD (stretched upper deck) ZS-SAJ, taxiing southward, past the A5 and opposite B2 bays, is in the very colourful livery named Ndizani. It was painted in 1996 as part of the Olympic promotional bid for the 2004 summer Olympics to be held in Cape Town. Instead, it went to Athens. A van and passenger transit bus are waiting to cross to the far apron where two SAA B747-200s are parked. SAA operated six B747-300 SUDs from 1983 to

2004 (Kruger 2019).



This time the photograph of a SAA B747 aircraft is from a slightly different position. **SAA B747-400** is being towed passed bay A7 and B4 opposite, either to a bay further along on the A side, or to SAA maintenance. Unfortunately, the name of the aircraft on the nose is not legible, neither is the registration on the rear fuselage. SAA operated 8 B747-400s from 1991 to around 2010 to 2012. The photograph probably dates from the earlier 1990s. In the foreground, commonly seen, are two Volkswagen Kombis and one Toyota

Hiace. The Hiace was later lengthened specifically for the taxi mini-bus market.



The **SAA B767-200**, above left, is being prepared for departure at A6. A catering lorry is at the galley rear door while a loader is about to lift a container to the hold. SAA did not use the B767 for long, between 1993 and 2004. Some reports say three were used. I was aware of only one dry leased from LAM, namely **B767-200ER ZS-SRA**. The photograph is circa 1996. Other

SAA aircraft are from left to right at the B apron are an A300 and two B737s with an A320 on the right. A **Uganda Airlines B737-200** is being pushed back prior to taxiing to a runway. The symbolic flying crane logo is just visible on the tail on the original printed photograph. In the next photograph (previous page above right), the SAA B767 is also being pushed back with engines being started ready to taxi to a runway. While not clear in the photograph, the original print shows a ground engineer walking with the aircraft roughly in line with the nosewheel partly in the shadow of the aircraft. The photograph dates from 1993-1994 taken on the same day as the Phoenix Airways B727-100.



A **Sun Air B727-200** is taxiing southward between bays A5 and A6, B2 and B3 on the opposite side with a SAA B747-200 is in the background at bay B2. As already mentioned elsewhere, the airline existed from 1994 to 1999. The photograph dates from around 1996. Previously it was Bop Air belonging to Bophuthatswana, the so-called independent state, or Bantustan, within Apartheid South Africa. Prior to this it was Mmabatho Air Service and before this, Mafeking Air Services. Things could be quite convoluted in South Africa.



A not so good photograph from the same day as the British Airways, Lufthansa and Iberia photographs of 1985-1989. The **Swissair McDonnell Douglas DC-10** appears to be in the last stages of being unloaded. Most likely unloaded, because my visits from Pretoria were usually in the morning and flights from Europe usually arrived not long after sunrise. Beyond it, is a SAA A300. It could be either loading or unloading. SAA A300 flights were frequently in and out of the airport during the day. At the distant apron is a row of SAA

B737s with one taxiing toward them. A passenger transit bus, in SAA colours can be seen heading away from the camera. On the road in the foreground is painted 20 KPU. That is, 20 kph or U for uur in Afrikaans. As yet no passenger terminal improvements, such as air bridges.

JOHANNESBURG INTERNATIONAL AIRPORT AVIATION AFRICA 1994 SHOW

This was a static air show held in the South African Airways maintenance area. I do know it was in 1994 and in the summer, because I attended the event, but cannot remember the date. I remember driving back to Pretoria late in the afternoon and seeing a Cumulonimbus thunder cloud of to my west that had a swirling pattern at its base that looked ominously as if it could form a tornado. However, I was on a motorway and could not stop.

Photographs have been arranged in the order of my walking among the displayed aircraft. Not all of the aircraft were photographed, only those I had not photographed before and those that attracted my interest. It also excluded military aircraft, which are in a separate photograph album.



The photographs begin at the area devoted to Soviet Union aircraft. The first one is of this Ukrainian built **Antonov An-32**. First built in 1977, initially a military combat support aircraft many have found their way into civilian use. A rugged aircraft able to absorb considerable punishment, it was designed to operate from unprepared airstrips. Hence the overwing twin turboprop engines and high air intakes to avoid debris (Rendall 1999).



A Polish civilian **PZL-Świdnik W-3 Sokół** (Falcon) temporarily registered ZU-AGU displayed between the Antonov An-32 and an Aeroflot a Russian flag carrier Aeroflot Tupolev Tu-204 with a Mil Mi-8 helicopter on the left. The Sokół light helicopter first flew in 1978 entering production in 1985 (Rendall 1999).



The Russian Airlines **Аэрофлот (Aeroflot) Tupolev Tu-204** is very similar in appearance to the B757. Notice the large winglets and turbofan engine with a dust cover. The model first flew in 1989 (Rendall 1999).

Seen on the next page is this Russian medium lift **Mil Mi-8MTB-1**, registration RA-27131, medium lift helicopter was operated by Eagle Helicopters of Cape Town. There is a Cape Town telephone number written on the side below Eagle Helicopters. The model version Mi-8MTB-1 is clearly visible below the cockpit window. However, all online



references say it is a Mi-8MTV-1. Mi-8 first flew in 1961. More than 12 000 Mi-8s and the very similar Mi-17 were built, many entering civilian use (Rendall 1999).

The **Canadair CL-601-3A Challenger ZS-NKD**, with General Electric turbofan jet engines, was a medium range executive jet that could seat 19 passengers plus two pilots. The 3A introduced a glass cockpit and digital flight management system (FMS). A glass cockpit means that the aircraft has electronic displays instead of traditional analog instruments (Rendall 1999). A digital FMS is a computer system that automatically manages the flight of the aircraft from take-off to landing, greatly reducing the flight crew workload and removes the need for a navigator and flight engineer. In a few words it is in-flight management of the flight plan



The Cessna Caravan (left), powered by a single Pratt & Whitney turboprop engine with fixed undercarriage, was designed as a mail and small parcel carrier to smaller communities. It first flew in 1984. The **Cessna 208B Grand Caravan N404GE** passenger version, shown here, has an undercarriage cargo pannier (Endres and Gething 2007).



SAA Douglas DC-3 ZS-BXF, with twin piston Pratt & Whitney fourteen-cylinder radial engines, started its existence as a C-47A Dakota with the SAAF during World War II. At the end of the war a number of SAAF C-47s went to SAA. After refitting, including soundproofing and an airline cabin seating 21, they were designated civilian DC-3s and served the airline for many years. Upon withdrawal, this aircraft was not returned to the SAAF along with other Dakotas, but went to the SAA Historic Flight where it was overhauled and restored to its original SAA livery by SAA technical staff. It was used (maybe still is used) for special flights and occasional charter flights (Spring 1996).



Also powered by piston radial Pratt & Whitney engines, although by four more powerful engines, this DC-4 served with SAA before going to the SAAF along with 4 other civilianised DC-4's in 1967 where it received the number 6904. Upon retirement of the aircraft from the SAAF in 1992, **DC-4 Skymaster ZS-BMH (Lebombo)**, was returned delivered to the SAA Historic Flight where SAA technical staff restored it to its original 1950s livery. It was also used (maybe still is used) for special flights and occasional charter flights (Spring 1996).

Saturday afternoon the 30th June 1962, when, as a teenager, the family lived at Lloyd Avenue on the Bluff (Durban), I saw the collision between a SAAF North American Harvard (or Texan AT6) and a SAA DC-4 overhead. The DC-4 was on a scheduled flight from Johannesburg with 51 passengers and 5 crew. It was **DC-4 Skymaster ZS-BMH Lebombo**, above left. The Harvard with a crew of two, was engaged in training. Seen above right flying over Durban Airport. A wing of the Harvard hit the tail fin (stabiliser) of the DC-4. I saw bits come down after the crash. The Harvard seemed to spin and dive out of sight. The DC-4 carried on flying. My Kodak Brownie box camera was just inside the kitchen door on the fridge, but it all happened too quickly. I shouted to the rest of the family, called my brother and the two of us ran down Bluff Road then off a side road to where I thought the Harvard came down. We found it in pieces in an open field close to houses. We then went down to the intersection of Bluff Road and Edwin Swales V. C. Drive, where we found one of the parachutes dangling from a light pole at the corner. We did not see the crew of the Harvard, but we heard from the nearby Fire Station crew that they were both OK.



In the later 1970s, while working at Durban airport, I obtained the transcript of the radio communication between the pilots and the air traffic controllers (ATC) on the 30th June 1962. There was no Instrument Landing System. The controllers were using Ground Control Approach (GCA). To refresh one's memory, a ground controller tracked an approaching aircraft on a radar screen providing appropriate headings and safe descent levels via radio. The verbatim communication is given below. Note, there was more than one air traffic controller involved.

Tower: Durban's reading you loud and clear now.

DC 4: Reading you load and clear. We are at flight level 75 approaching New Hanover...about four minutes from there. Are we clear to descend further?

(Douglas DC-4 Skymaster, a four piston and propeller engine driven commercial airliner of the SAA. Author).

Tower: Roger...if you Victor Mike Charlie you are clear to carry on descending and our weather here, we have a bit of cloud north of us and the base appears to be 2000ft, but at the moment there is not more than two eights of it, and a higher layer above that. Over.

(Victor Mike Charlie means visual meteorological conditions. Author)

DC 4: Roger. Thank you. What's your surface wind?

Tower: Surface wind is 150 degrees, 8 knots. We got Harvards in the circuit at the moment. They are using runway 05, but shortly will be altered to grass runway 20. Over.

DC 4: Roger, thank you.

Tower: These Harvards are operating VMC, so if you just keep a watch for them as you approach Durban and call me again at Pinetown, or five minutes out.

(Later the DC-4 crew must have asked for the latest weather, but it was not recorded, or garbled. Author)

Tower: I'd say there's about five eights with base apparently just on 2000 ft.

DC 4: Roger, if you have radar going Jimmy, if you can give us descent to bring us down.

(The SAA pilots who often fly into Durban are familiar with the ATCs voices and names. Jimmy is the same Jimmy Lang who was in charge of the ATCs at the Durban airport when I started to work there in the Meteorological Office in 1966).

Tower 1: Roger, we've just switched it on er we'll try and pick you up shortly. Over.

DC 4: Roger.

(Some time passes. Author).

Tower 2: Maintaining 4000 ft?

DC 4: Roger, descending to 4000 ft.

Tower 2: Roger

DC 4: How far out are we Mac?

(Note, tower 2 must be Mac and the DC-4 pilot has recognised his voice. Author).

Tower 2: Well I estimate 11 nautical miles, but I am not quite sure at the present...but as soon as I get a better picture of you I'll turn you for identification.

DC 4: Roger.

A Harvard pilot calls the Tower and says that he is at 4500ft.

DC 4: We have passed over the field now

Tower 2: Roger. Turning left onto 050 and cleared to 3000ft.

DC 4: Roger. Descending to 3000 ft.

Harvard: (tells Tower he is approaching 4000 ft.)

Tower 1: Say again.

Harvard: Chaka 2 just now at 4000 ft.

(Chaka 2 was the SAAF Harvard call sign. Author).

Tower 1: Roger 02. Would you just maintain 4000 ft and do a 360 in your position over.

(Asked to do a 360 means fly in a complete circle and is used as a quick way to hold an aircraft. Author).

DC 4: 4000 ft.

Tower 2: Descend to 35 now.

DC 4: Descending to 35 now.

(Period of radio silence. Author).

The Harvard pilot again confirms he is at 4000 ft.

Tower 2 asks Skymaster for an altitude check.

DC 4: We are now 4000 ft descending.

Tower 2: Roger, you're still at 4000 ft? over.

DC 4: Ja, we are just getting our speed down.

(Ja = yes. Author).

Tower 2: Roger. Please reduce to 35 now. We have other traffic above you.
 DC 4: Hang on. We have hit something. Boy! Something has hit us...hang on...something in the air...do you know what it was?
 Tower 2: Well there is traffic above at 4000. That is why we asked you down to 35.
 DC 4: Well we have hit something now.
 Tower 2: Hit something, what is it?
 DC 4: I don't know. Just hang on a sec, Mac, we're going to come down as soon as we can.
 DC 4: Please keep us in radar contact all the time
 Tower 2: Right. That's fine. We're watching you. You're doing fine
 DC 4: How are we getting on, from now onwards.
 Tower 2: You are doing fine. You are now eight miles and well seaward of centre line...closing in nicely...Range seven miles. Well to the starboard of the centre line...suggest revised heading of 270 now.
 DC 4: Roger.
 Tower 2: Range now four and a half miles, closing nicely. Surface wind 170\05 knots. Clear straight in... Four miles to go on radar...closing nicely to centre line.
 DC 4: You have got an aircraft in your circuit now. I hope the bastard keeps out of the way.
 Tower 2: Roger. Three miles. Coming on to centre nicely and clear to land on the centre. Very nice.
 (Note, there is no further conversation with the Harvard pilots, author).

While on the subject of SAA Historic Flight, it is worth mentioning and showing, the **SAA Junkers Ju-52/3m ZS-AFA** aircraft. It was on display at the show. Part of it can be seen in a photograph of a Let L-140 below. The photograph if it here is one that I took when it was on display at a one of the SAAF Swartkops Air Shows between 1988 and late 1990s.



During World War II, SAA was conscripted to the SAAF. This included its eleven seat passenger transport Ju-52s. The SAAF used them primarily to ferry troops and supplies to North East Africa and bring wounded soldiers home, eventually going as far north as Cairo.



The photograph is of a Spanish built Ju-52/3m acquired by SAA in 1980 for its Historic Flight. Re-registered as ZS-AFA it was refurbished and re-engined with Pratt & Whitney Wasp engines. These are the same engines used by the SAAF's numerous Harvards, so spare parts are readily available. The aircraft is used for charter and special flights (Spring 1996, Bekker 1995)

Next during the walkabout is this **SA Express de Havilland Canada DHC-8 Dash 8 ZS-NLW**, with two Pratt & Whitney turboprop engines, rearward retracting undercarriage

and front and rear passenger doors, is a short haul commuter aircraft. The Dash-8 is very popular, serving with airlines around the World. The de Havilland Canada (DHC) company is now part of Bombardier (Rendall 1999, Endres and Gething 2007). SA Express, full name South African Express, was a state owned regional airline that began operating in 1994, the year of this Aviation Africa show. Although not part of SAA, its flights dove-tailed with SAA. That is operating regional routes too thin for SAA. It ceased operation in 2020.

This **Metavia Airlines Let L-410 Turbolet ZS-NIK** is a Czech Republic manufactured high wing, short haul commuter aircraft with twin turboprop engines. It is a rugged aircraft, able to operate from paved and unpaved runways in extreme temperatures (Rendall 1999). Metavia was a small South African lowveld Nelspruit based airline with scheduled services in South Africa and nearby Mozambique and Swaziland (now Eswatini). Formed in 1985, it was bought by SA Airlink in 1998 (Airline History (4)).



WATERKLOOF AIRPORT THE INTERNATIONAL MILITARY AIRSHOW 1995

Three civilian aircraft have been included at the end that were photographed at the International Military Airshow: Air Force Base Waterkloof, Pretoria, South Africa. 4 - 7 October 1995 to celebrate 75 years of the SAAF.



The **Antonov AN-124 Ruslan** is a heavy strategic transport. The type first flew in 1982. It is the biggest military transport aircraft in service (Rendall 1999). It is seen here in its civilian role with Russian Airlines Аэрофлот (Aeroflot). More recently operated by Volga-Dnepr Airlines, a Russian all freight heavy lift operator. By 2013, 26 aircraft were in commercial service. Like the Boeing 747 freighter the nosecone lifts upward to permit loading. The nose undercarriage can kneel to facilitate loading.

It also has a rear opening door that can be opened inflight to eject parachute supply pallets.



This **Israel Aerospace Industries (IAI) Arava 201 3D-DAC** is light STOL (short take-off or landing) utility transport aircraft (Rendall 1999). Although civilian registered, it is a Kingdom of Swaziland (now Eswatini) Air Force aircraft. It was written off in 2004. The aircraft landed on an agricultural airstrip due to worsening weather. Apparently, the control locks were not removed prior to take-off. The take-off failed and it overran into a sugar cane field. There were no casualties (Aviation Safety Network (10)).



The **XPS Piaggio P.166S ZS-NJR** shown in the photograph was operated by the SAAF. Known in the SAAF as the Albatross, the gull winged, twin engine and pusher propeller aircraft were used for inshore coastal maritime patrol. The aircraft was specially modified for the SAAF (Potgieter and Vosloo). When the aircraft was withdrawn from service the remaining 19 were sold to private companies.

ZS-NJR was one of a few that went to the XPS parcel and courier delivery company. In the background is a XPS Boeing 727-23F registration ZS-NPX, an ex-American Airlines aircraft.

LANSERIA 2001

Lanseria airport is at the northern end of Randberg, which is north of Johannesburg and southwest of Pretoria.

During 1999 to 2001 I presented aviation meteorology to trainee commercial pilots at the Aeronav Academy. It was next to a maintenance hangar for Nationwide aircraft where **Nationwide Airlines B737-230 Adv ZS-OMG** and **Nationwide Airlines B727-116F ZS_NYX** were photographed early in 2001. Nationwide Airlines, founded in 1991 as Nationwide Air Charter, ceased operations in 2008. It was a charter and schedule airline.

B737-230 Adv ZS-OMG is suspended on jacks while undergoing maintenance and spray painted in places. The fibreglass nose cone is open revealing the weather radar scanner and the engine cowls have been removed to access the engines. The wing photograph shows the leading edge slats and trailing flaps extended due to the release of hydraulic pressure with a better view of an engine albeit with a dust cover over the intake and the port undercarriage. ZS-OMG arrived at Nationwide in 1999. It was previously with Lufthansa and Croatia Airlines.

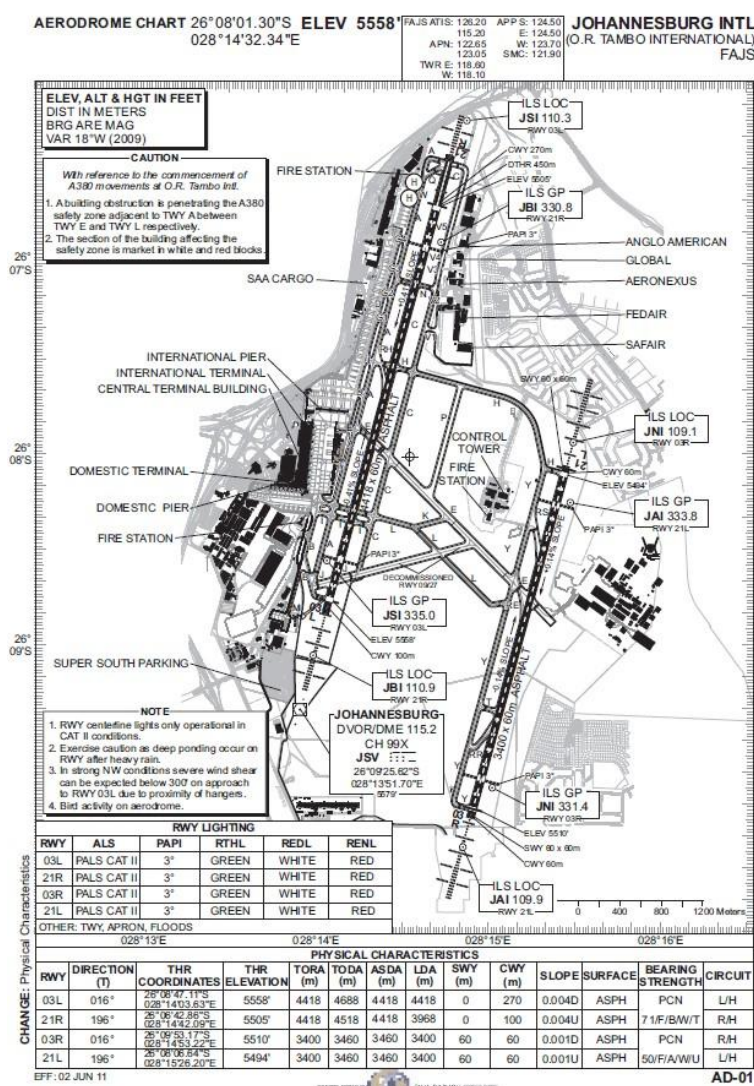


Nationwide Airlines **ZS-NYX B727-116F** first flew in 1966 or 1968 as a passenger aircraft. It arrived at Nationwide in 1996 where apparently it was later converted to a freighter. The photograph shows the aircraft minus windows. The freight door is difficult to see in the photograph. It was positioned between the letter t and i and the right part of the letter n. The hinge at the top of the roof is just visible. I believe it was withdrawn from use not long afterward.



JOHANNESBURG, DURBAN AND CAPE TOWN 2009

My wife and I left home in the UK Friday 28th August 2009 to visit South Africa. Travelled Emirates EK040 B777-300ER departure 14:15 British Summer Time, Birmingham Airport to Dubai. Then Emirates EK761 B777-300ER to Johannesburg arrival 10:50 South Africa Standard Time the next day.



Magnetic runways to the nearest 10° were 03 and 21 or true direction 016 and 196. Courtesy of the South African Civil Aviation Authority.

Cape Town to Durban, finally Durban to Johannesburg. All flights using 1time, full name 1time Airline (Pty) Ltd.

The meaning of 1 time, or one time, is difficult to translate from South African colloquial language, or slang. Various synonyms have been used, all expressed as an exclamation. Such as, for sure! for real! It's true! (usually expressed as strue!) and certainly! A modern UK English exclamation would be the over used absolutely! More cynical people have said it means one flies with them once only. The aircraft appeared to be well maintained, the service was good

By 2009 there had been further improvements to Johannesburg's O. R. Tambo International Airport as shown in this 2nd January 2011 plan view. There is an international jetty north of the main terminal building and the domestic terminal extended at the south. There are many more parking bays to the north and the freight area increased. Changes also had to be made to accommodate the Airbus A380. Bonero Park at the north-east is larger, as is the Atlas, now Denal Aviation area east of the eastern runway.

Meanwhile in Durban, apart from passenger terminal and control tower improvements, runway, taxiways and apron remained basically the same. While runways and taxiways at Cape Town remained the same there was considerable increase in the number of aprons and expansion of the passenger terminal and freight terminals.

The Photographs are presented in chronological order starting with the departure from Johannesburg to Durban, then Durban to Cape Town, returning

and on time. Although, I was a bit alarmed by the visual approach over the Hottentots Holland Mountains prior to a starboard turn to finals for runway 01 at Cape Town. Although, two photographs show we were high enough relative to the horizon and above a nearby mountain peak with shallow cumulus cloud at peak level. Good photographs.

It was a South African low-cost, or budget, airline operating scheduled domestic and regional routes between 2004 and 2012 when it filed for liquidation. It operated a fleet of 11 aging McDonnell Douglas MD-82, 83 (stretched version) and 87 (short version) aircraft.

The photographs are not of the best quality, often having to be captured through passenger terminal glass windows and through windows of a moving aircraft.

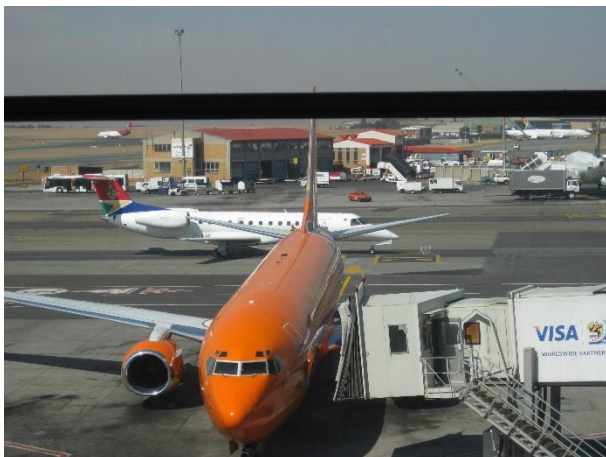


While waiting in the Johannesburg's O. R. Tambo International Airport domestic terminal lounge for our 1 hour 10 minutes block time flight to Durban 1st October 2009 at 11:20 SAST, I took five photographs. The view options were not the best.

SAA B747-444 ZA-SAZ Imonti was photographed in the latest livery in front of two 747 hangers. In the foreground is a SAA B737. The first four B747-400s were received between 1991 and 1993, the last four in 1998, ZS-SAZ being the second to last one in November (Airfleets.net (2)).



The next photograph is of **SAA B737-844 NG MAX ZS-SIS** being uncoupled from the tug after being towed from its bay. Aircraft towbars were first uncoupled from the tug then the aircraft. Then the tug is turned around and the towbar attached to the rear of it, then it goes to its parking spot. The aircraft engines have been started with final checks before taxiing. The photograph gives a better view of the hangers and aircraft seen in the previous photograph. A passenger transit bus is visible and another SAA B737 in the distant background. The stabiliser of ZS-SIS is visible in the previous photograph.



The southern part of the domestic terminal was extended to where the control tower building was situated. This photograph shows the view south to the still used fire station building that can be seen in a photograph of the scrapping of a Lockheed Starline (or Super Constellation) in the Johannesburg 1969 to 1970 section. In the

foreground is a **Mango Airlines B737** with a **SA Airlink Embraer E135LR ZS-SJW** taxiing to an apron bay to offload passengers. In the top left of the photograph is an Air Madagascar B737 ready to enter runway 03 for take-off. Top right is a SAA B737 parked at C22 with another two in the far distance. The nearest is a freighter B737-300SF with South African Cargo written on the windowless fuselage. SAA operated three of this type. The longer aircraft behind is more than likely an 800 series model.

Three months after this photograph was taken, SA Airlink Embraer E135LR ZS-SJW overran runway end at George (on the Cape south coast) and was written off. Of the total persons on board, three crew members and seven passengers received minor injuries. The probable cause



of the accident was that the flight crew “were unable to decelerate the aircraft to a safe stop due to ineffective braking of the aircraft on a wet runway surface, resulting in an overrun” (Aviation Safety Network (11)).

Comair British Airways franchise B737-236 Adv ZS-NNG was photographed, prior to push back, from the window of the 1time MD-83 that flew us to Durban. Notice the long and thin jet engine tube shape with Pratt & Whitney JT8D low-bypass turbofan engines. So different from the next version, the 300, with its engine pod and more fuel-efficient CFM56 high-bypass turbofans.



While still waiting to push back at 09:00 SAST, **Mango Airlines B737-800 (8BG) ZS-SJL** in its distinctive livery, taxied past. It is the same Mango aircraft seen in the photograph of the SA Airlink ZS-SJW. Mango Airlines was a low-cost subsidiary of SAA. SAA simply transferred aircraft from its fleet to Mango. A truck is waiting to cross the taxiway, while the tail of British Airways ZS-NNG is prominent.



A hazy early morning looking toward the east 5th October 2009 at Durban International Airport prior to a 2 hour block time flight to Cape Town. Colourful **1time McDonnell Douglas MD-82 ZS-OBK** has arrived and parked next to a Mango B737-800. The 1time livery advertises direct flights to Zanzibar. Passengers are disembarking from the front stairs, while having already disembarked from the lowered rear stairs. The rear stairs are always lowered to prevent any possibility of the aircraft tipping onto its tail while parked. Nearly all 1time aircraft have a

different livery that is a flying advertisement. A novel and amusing idea as well as a source of revenue for the airline. The first that I know of for airlines. They certainly attract attention.

Parked at the far apron is a **Airlink Bae Jetstream 41**. Airlink was SA Airlink until 2006 (Airline History (5)). The Jetstream was used on thin routes, such as Durban to Johannesburg via Pietermaritzburg's Orabi Airport. Obscured behind the MD-82 is a **SA Express de Havilland Canada DHC-8-315 Dash 8**.

Walking to the 1time MD-82 we passed this **Comair Kulula.com B737-400 ZS-OAG** with disembarking passengers. On the left is a BP refueller with fuel tubes. Underground pipes with inlaid taps meant that the refueler pumped fuel from the tap to the aircraft.



Another low-cost no frills airline and a subsidiary of Comair. The unusual livery of the aircraft having clothing removed and the words taking off, also suggests the business taking off. It is a variation, albeit subdued, of 1time's examples.

This aircraft and the MD-82, in the previous photograph have the radar nose cone in the design of a football and the words Kulula loves soccer. Although, the 1time MD-82 says 1time loves soccer. In the sky above the Kulula.com aircraft is a climbing **SA Express Bombardier CRJ-200ER** in the process of retracting its undercarriage.



Beyond the **Kulula.com B737-400 ZS-OAG** aircraft are two SAA A320 aircraft. In the distance, two passengers are walking past a member of the ground staff toward the nearest of the two Airbus aircraft with another ground staff member on the right waiting to guide more passengers. Meanwhile in front of a set of stairs a passenger with wheeled luggage is walking toward the Kulula.com aircraft.



On the descent to Cape town just past the Hottentots Holland Mountains proir to turning from a right hand base leg to long finals to PAPI equiped CAT II ILS runway 01. Magnetic variation 25°W (in 2008) so the true runway direction is 345°. At the opposite end PAPI equiped CAT II ILS runway 19 true direction is 165°. The airport has another shorter runway 16/34 or 135°/315° true with no ILS but does have PAPI (Precision Approach Path Indicator).

At Cape Town International Airport on the 9th October 2009 while walking to our 1time aircraft back to Durban, there was time for a quick photograph into the Sun of **SAA A340-212 ZS-SLF**, seen at left on the next page. Luggage and freight pallets are being loaded and an Air Chefs vehicle stands at a forward door.



Taxing to the runway at 14:30 SAST, we passed this **Air Namibia B737-500 V5-NDI**. Photograph above right. It appears to be ready to depart. More than likely waiting for our aircraft to pass before being pushed back. The National Airline of Namibia aircraft has doors closed with no obstructions around it. The aircraft is attached to the tug with a ground engineer in attendance. Notice Cape Town's airport, like Johannesburg's, has air bridges while Durban's airport does not.



Further on we passed this **South African Air Force Boeing 737-700 BBJ ZS-RSA**, named Inkwazi or Fish Eagle (above left)). BBJ = Boeing Business Jet.

The south African government owned aircraft is primarily used to transport the South African President and his entourage, although operated by the SAAF.

The aircraft arrived new at its home base at Air Force Base Waterkloof in 2002. The interior was designed and outfitted by Jet Aviation of Basel, Switzerland. It seats 18 with 6 crew. The cabin consists of a lounge with a convertible bed, an adjoining master office, a senior executive office, executive space, a crew rest area, storage area, galley and lavatory (SAAF).



Our approach to Durban's airport was from the north-east past the harbour entrance and over the harbour to runway 23 with the usual cloudy to overcast weather associated with a south-westerly wind. A marked change from the sunny weather left behind in Cape Town.

After landing and taxiing to the apron bay there was an opportunity to take this photograph (above left) of **1time McDonnell Douglas MD-87 ZS-TRH**, the short version of the MD-80s, before turning into the bay next to it. This time the livery advertisement is for Avis car hire and depicts a moving motor car. An amusing, clever and original idea.



When we stopped on the apron, there was time to photograph this **SAA A319-131 ZS-SFH** (above right) being prepared for departure. Luggage is being loaded using a conveyor belt loader fore and aft. There is the usual cloudy to overcast weather associated with a south-westerly wind (hence the landing on runway 23).



While walking to the passenger terminal there was time to stop and photograph our aircraft from Cape Town (above right). The **1time McDonnell Douglas MD-83 ZS-OPZ** sporting the same livery as 1time's McDonnell Douglas MD-82 ZS-OBK shown previously. In the background is the Avis advertisement.



17th October 2009 it was back to Durban airport for the flight to Johannesburg and return to England. This photograph taken after stepping out of the terminal building shows **1time McDonnell Douglas MD-83 ZS-TRI**, my aircraft for the trip at 11:20 ready to be loaded with luggage and passengers (below left).

This time the livery consisted of happy cartoon faces with the words "more nice" on the fuselage above the wing.

Particularly noticeable on this MD-83 aircraft (less obvious on other MD-80s shown in this article), is the orange colour strake near the nose. The colour is not

important. The strake is there to improve directional stability (Shah and Granda 2007).

A nostalgic final hazy photograph of the Durban International Airport passenger terminal while waiting for the towbar to be disconnected then taxi to the runway. Very different from when I first worked at the airport in 1966. The **SAA B737-844 ZS-SJS** in the photograph now operates with FlySafair.



Climbing away from runway 23, there was a final view below before climbing through cloud while turning to starboard toward Johannesburg. The photograph on the left shows the higher ground that is Isipingo with the Isipingo River flowing to the sea. Left of the river is Tiger Rocks where Douglas C-49 ZS-DAK ditched in the sea close inshore on Friday the 28th December 1973.



Taxing into a bay at the domestic terminal at Johannesburg's O. R. Tambo International Airport around our expected time of 14:30 SAST, I took this photograph of **1time McDonnell Douglas MD-83 ZS-OPX** with rear stairs lowered, in silver livery with "more nice, less price" written on the fuselage above the wing and Comair's **Kulula.com B737-436 ZS-OTH** in a green and silver cow hide design with three cows painted on the engine pod and a green and white cow with "We are moving money for CHOC" on the forward fuselage. CHOC is the Childhood Cancer Foundation of South Africa. In the background are two SAA B747 hangers while on the extreme left is the wing of a B747 taxiing behind the 1time aircraft.



Parked on the other side at the B apron, also with rear stairs lowered, was this **1time McDonnell Douglas MB-82 ZS-TRD** advertising Count Pushkin five times distilled pure vodka. Taxiing behind is a **SAA A340-200**. SAA had fleets of 200 and 600 models. Judging by the four side doors, it is a

200 series model. The 600 has five side doors.



Also on the B apron was **Zambezi Airlines B737-5YO 9J-ZJB** with a Giraffe pattern on the stabiliser. In the background parked on the left is what appears to be an A340 and a HS-748 while taxiing toward the apron is a Bae 146. Further in the distance left is Denel Aviation, previously Atlas Aircraft Corporation.

Atlas was formed in 1968 to manufacture military aircraft and avionics systems for the SAAF under control of Armaments Corporation of South Africa (Armcor),

becoming Denel Aviation in 1992. Major achievements were the manufacture of the Rooivalk Combat Support Helicopter, the design and manufacture of the Oryx helicopter from the Aérospatiale Puma and the Cheetah multirole fighter aircraft from the Dassault Mirage III.



A group photograph of aircraft at holding bays preparatory to being moved to gates with air bridges and loading prior to being towed to docking bays before returning to Europe. They are a Swiss A340, two British Airways B747-400s and a Virgin Atlantic A340. In the foreground, at the new international terminal pier is my aircraft to Dubai, **Emirates B777-300ER A6-ECI**.

It is also seen also seen in the next photograph. After Dubai home to Birmingham International Airport, England.

The white spots are not UFOs (unidentified Flying Objects). They are reflections of lights in the lounge on the windows. Finally, a photograph of **Qatar Airways A330-302 A7-AEM** with the extensive Bonero Park in the background and Safair hanger on the right. The many assorted aircraft are B727s, B737s, MD-80s and an ATR 42 or 72.



I arrived back in England on the 18th September then back to work on the 22nd. All flights on time. Excellent Emirates service. It was quite a trip back. After getting up at 8 am on the 17th the 1time flight from Durban to Johannesburg was in the early afternoon. Then an evening

flight to Dubai on Emirates EK764 B777-300ER, getting there in the early hours and then a morning flight to Birmingham on EK039 B777-300ER, arriving at 12:30.



As usual two good Emirates flights home via Dubai. Got good inflight daylight photographs leaving Dubai and en route, including our aircraft on a temporary similar track to another Emirates B777 north-west of Bucharest. Plus, the approach to Birmingham runway 15 flaps extended and landing with flaps and spoilers extended. Nearing home we passed over the airports at Liège, Brussels and the Thames Estuary.



After getting home about 2:30 pm it was out shopping to stock food. All this time with little, or no, sleep apart from a few short catnaps. So 9pm I was out for the count. My wife followed the same schedule on Tuesday and Wednesday the 29th and 30th. I met her at Birmingham Airport.

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